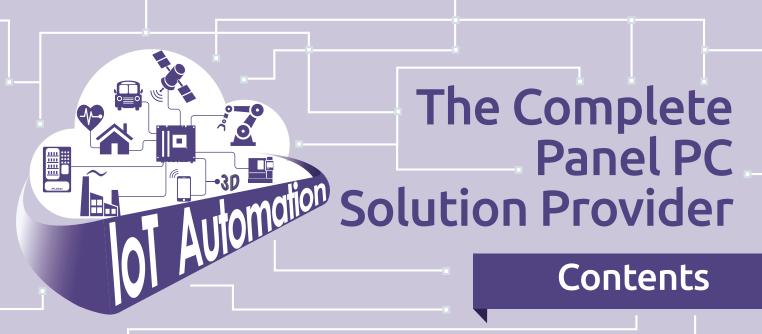




# PANEL PC Product Selection Guide



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# About NEXCOM

# Reliable Partner for the Intelligent Solutions

Founded in 1992 and headquartered in Taipei, Taiwan, NEXCOM is committed to being your trustworthy partner in building the intelligent solutions. To surpass customers' expectations, NEXCOM makes the difference by utilizing its decades of industrial computing experience, a highly talented R&D team, and by providing exceptional levels of customer service. With these core strengths, NEXCOM has enabled its customers to win key projects in a diverse range of industries.

With its focus on delivering these core values to better serve customers, NEXCOM integrates its capabilities and operates six global businesses, which are IoT Automation Solutions (IAS), Intelligent Digital Security (IDS), Internet of Things (IoT), Intelligent Platform & Services (IPS), Mobile Computing Solutions (MCS), and Network and Communication Solutions (NCS). This strategic deployment enables NEXCOM to offer time-to-market, time-to-solution products and service without compromising cost.

In addition, the service-to-market business model gives NEXCOM core competence to build a strong world-class service network by providing customized service, global logistics, local access, and real-time support. Operating six subsidiaries, from China, Italy, Japan, Taiwan, the United States, to the United Kingdom, NEXCOM is able to better facilitate customers' requirements

as well as closely work with global partners in different regions.

Partners should also be assured that NEXCOM's Taiwan based Headquarters and subsidiary offices in China, UK and USA have obtained ISO 9001:2008 Certification.



IAS	iAutomation: Industry 4.0 Solution, industrial robot & motion, industrial network, DMS 4.0
IDS	Intelligent Digital Security: IP Cam, NVR, mobile server platform
ΙοΤ	Internet of Things: total solutions for vertical IoT applications Healthcare and Medical Informatics: total solutions with a variety of medical IT systems
IPS	Intelligent Platform & Services: smart retail, digital signage, interactive kiosk, customization services
MCS	Mobile Computing Solutions: rugged computer devices, rugged mobile computer Vehicle Telematics Computer: Car PC, heavy duty vehicle, train PC
NCS	Network and Communication Solutions : network security, HPC, telecommunication, storage, SDN/NFV, industrial security

# **Corporate Vision**

To become the industrial leader in providing intelligent solutions, NEXCOM utilizes its industry leading technology, localized customer support and worldwide logistics services. This will be achieved by:

- Great team work
- Cooperation with trusted partners
- Growth through innovation

# **Corporate Mission**

- An innovative supplier in vertical application markets
- A quality partner in engineering, manufacturing and services

# **Business Strategy**

Aim to better support the activities of all its partners, NEXCOM divides its sales force into six dedicated business units to target rapidly expanding vertical markets. This enhances each business unit concentrating on strategic channel accounts and on repeat order business. Moreover, NEXCOM's business units have been set up to serve the requirements of key project accounts, where product ODM and project support are frequently required.

NEXCOM is working with embedded computing solution providers to envision new opportunities for growth. We'll help you deliver reliable vertical solutions, optimized for the next wave of IoT and Industry 4.0 solutions.

# NEXCOM's Specialties in Panel PC Solutions

NEXCOM's Panel PC product portfolio covers Industrial Panel PC/Monitor (IPPC/IPPD), Applied Panel PC/Monitor (APPC/ APPD), Human Machine Interface (HMI), Kiosk Panel PC (KPPC), Point-of-Sales (POS), Open Frame Panel PC (OPPC), Transport Infotainment Panel PC (TPPC) and Marine Panel PC (MPPC). They are designed to comply with the particular requirements of different operating environments.

- The IPPC series is a heavy-duty, vibration-resistant, rugged, aluminum chassis industrial computer for harsh environments.
- The APPC series are all-in-one compact industrial-grade machinery computers suitable for industrial automation applications.
- The HMI series is the ideal choice for demanding HMI applications including factory floor machines, process control and building automation.
- The KPPC series is designed for digital signage, self-service and kiosk applications.
- The POS solution features high performance, green technology and OEM/ODM reliability that ensure the success of customer's investment.
- The OPPC series are slim open frame Panel PCs aimed at vertical market segments including kiosks, ATMs and vending machines.
- The TPPC series enhances efficiency and the passenger travel experience and allows our customers to use solution ready platforms for passenger entertainment and infotainment in public transport systems.
- The MPPC series delivers reliable performance even when challenged by environmental conditions at sea and are ideal for fishing vessels, leisure craft, merchant marine, workboats, and sailing yachts.

# Industrial Panel PC & Display (IPPC/IPPD)

NEXCOM heavy Industrial Panel PCs (IPPC) are equipped with powerful Intel® Processors, TFT LCD Panels with LED backlights, and user-friendly touch design. NEXCOM Industrial Panel PCs provide expansion slots for add-on boards in a NEMA4/ IP66 heavy-duty aluminum front bezel. Its rugged aluminum chassis is vibration resistant and suitable for any harsh industrial environment. NEXCOM heavy Industrial Touch Monitors (IPPD) share an identical appearance to the IPPC series for the same harsh industrial environment applications.

# Applied Panel PC & Display (APPC/APPD)

NEXCOM fanless Panel PCs adopt an all-in-one concept that integrates a single board computer, TFT LCD Panel with LED backlight, and user-friendly touch screen within a sleek and compact NEMA4 / IP65 chassis. Designed to serve as a flexible and reliable industrial computing platform, each Panel PC and Monitor is a compact, highly integrated, network-ready computer with exceptional I/O connectivity. The industrialgrade machinery computer from NEXCOM is designed for use in any light industrial environment.

# Human Machine Interface (HMI)

NEXCOM offers a full line of IP66 certified Human Machine Interface (HMI) LCD front panels in sizes from 4.3" to 15". They are the ideal choice for demanding HMI applications including factory, marine and building/home automation. The JMobile software has more than 200 communication drivers, allowing you to connect them to a wide variety of control devices to support PLC applications and improve the efficiency of machine manufacturing.



# Kiosk Panel PC (KPPC)

NEXCOM Kiosk Panel PCs (KPPC) are a multi-function powerful solution for various self-service markets from signage, kiosk to gaming applications, featuring modularized, user-friendly design and OEM/ODM reliability. The KPPCs feature high integration of kits and peripherals ranging from MSR finger printer, thermal printer, and NFC reader.

# Point-of-Sales (POS)

NexPOS, (NEXCOM Point-of-Sales (POS)), features high performance, green technology and OEM/ODM reliability that ensure the success of the customer's investment. It also offers reliable and flexible touch monitors that can integrate into other peripherals. The features of the NexPOS POS terminals include IP65 front panel projection, PCT touch, removable HDDs, second display deployment, bezel free, and fanless design to meet a diverse range of demands. Furthermore, some NexPOS POS terminals also provide VESA or wall mounting for a wide range of installation options.

# Open Frame Panel PC (OPPC)

NEXCOM Open Frame Panel PCs (OPPC) with bezel-less display provide limitless design flexibility. For flexible mounting options, customers are provided with various innovative mounting options, such as open frame mount from both rear and front sides. The Open Frame Panel PC has an ultra slim appearance and can be easily integrated into a custom enclosure. Ideal for space-critical environments, Open Frame Panel PCs are targeted



at vertical market segments, such as ATMs, price checkers, selfservice-check-in, ticket vending machines, healthcare kiosks, and more.

# Transport Infotainment Panel PC & Display (TPPC / TPPD)

NEXCOM all-in-one Transport infotainment panel PCs are useful to enrich passengers' transportation experience. Catering to a fast growing demand for reliable, market-proven digital signage solutions for transport infotainment applications including train stations, airports, bus terminals and vehicles, NEXCOM runs dedicated teams of engineers from mechanical designers, software programming to technical support to seamlessly serve the industry. They also have a rugged fanless design supporting wide power input and video over Ethernet extender of up to 8 displays.

# Marine Panel PC (MPPC)

NEXCOM provides robust and reliable marine panel PCs (MPPC) for customers and partners, including high performance fanless computers, various sizes of applied panel PCs and displays with low power consumption and deliver a reliable, durable, high-performance platform of wide versatility for use in maritime and offshore environments. Certified marine panel PCs are ideal for severe environments, and can be used in fishing and container vessels, leisure craft, workboats, sailing yachts, etc. All marine solutions are built and tested according to critical IEC-60945 industrial standard to ensure compliance.

	Product Features
	<ul> <li>16:9 / 4:3, 15"~21" fanless panel computer</li> <li>Metal housing with robust aluminum front bezel for harsh environments</li> <li>IP65 compliant front panel</li> <li>Supports: fieldbus module, JMobile HMI and CODESYS SoftLogic (optional)</li> </ul>
	<ul> <li>4:3 8"~15" SVGA fanless LED panel computer/display</li> <li>Flush Panel by 5-wire Touch Screen Flexible mounting, Panel/ VESA/ Wall/Stand/100x100mm</li> <li>IP65 compliant front panel</li> <li>Supports: fieldbus module, JMobile HMI and CODESYS SoftLogic(optional)</li> </ul>
	<ul> <li>4:3 3"~15" LED backlight color display</li> <li>Resistive touchscreen</li> <li>1 x RS232/422/485 communication port</li> <li>IP66 compliant front panel</li> </ul>
	<ul> <li>Wide range of processor options and display dimensions</li> <li>Accurate 10 point projective capacitive touch displays</li> <li>Ease-of-Service design</li> <li>Part-and-full customization</li> <li>High-integration of kits and peripherals</li> </ul>
	<ul> <li>Supports 3rd Gen Intel® Core™ processor family</li> <li>Dust filter for ease of maintenance</li> <li>IP65 compliant front panel</li> <li>Removable HDD</li> <li>Integrated stand/power transformer</li> <li>MSR/fingerprint/VFD kit (option)</li> </ul>
	<ul> <li>Wide range of display dimensions</li> <li>Fanless/ low noise design</li> <li>Part- and full-customization flexible mounting, Panel/ VESA/ 100x100/ Wall/ Stand</li> <li>Wide power input of 12~30VDC</li> </ul>
Display	<ul> <li>16:9 front bezel compliant with IP54</li> <li>Wide power input of 12~36VDC</li> <li>Video over Ethernet extender (HDBaseT)</li> <li>Supports W-Fi, GPS, and 3G</li> </ul>
	<ul> <li>8"~24" 16:9 ratio full HD marine panel computer</li> <li>PCAP touch screen with AR coating</li> <li>IP65 compliant front panel</li> <li>Built in 24VDC power input</li> <li>Mounting support : flush/ VESA</li> <li>IEC-60945 maritime standards compliance</li> </ul>

# Industrial Panel PCs Meet Your **Specific Operation Needs**

NEXCOM's industrial-grade control panel products are a specialized all-in-one (AIO) panel computer, ideal for a wide range of automation applications in different vertical markets that require reliable efficient operation. NEXCOM offers Industrial Panel PCs (IPPC) for harsh environments, Applied Panel PCs (APPC) for light industries, ARM-based HMIs (eTOP, eSMART and eLITE) for industrial as well as building/home automation, and industrial-grade interactive touch monitors (IPPD and APPD) for demanding touch applications. NEXCOM also provides panel PCs with C1D2 certification (IPPC 1560TE) for oil and gas industries, and panel PCs with sunlight-readable displays, multi-touch input, 7H hardness anti-scratch P-Cap touch screens, 16:9 widescreens, and optical bonding to meet the needs of different industries.

Control Panel PC solutions include pluggable industrial master fieldbus interfaces of widely-used protocols communicate with programmable logic controllers (PLC) and remote I/Os. Softwarebundled PPC solutions are also available to offer total solutions that deliver robust integration and performance.

# Industrial Panel PC (IPPC)

IPPCs are designed with 15" ~ 21.5" displays, 4:3 or 16:9 ratios, with 5 wire resistive touch or Multi-Point Projected capacitive touch, Intel Core i high performance, robustness, multiple expansion slots for add-on boards in a NEMA4/ IP66 heavy-duty aluminum front bezel, and vibration-resistance.

- 4:3 Intel<sup>®</sup> Core<sup>™</sup> i resistive touch: IPPC A1570T/IPPC A1770T/ IPPC A1970T
- 16:9 Intel<sup>®</sup> Core<sup>™</sup> i P-Cap touch: IPPC 1670P/IPPC 2170P
- 16:9 Intel<sup>®</sup> Atom<sup>™</sup> P-Cap touch: IPPC 1640P/IPPC 2140P

# Applied Panel PCs (APPC)

NEXCOM fanless Panel PC adopts an all-in-one concept that integrates a single board computer, TFT LCD Panel with LED backlight, and user-friendly touch screen within a sleek and compact NEMA 4 / IP65 chassis. Designed to serve as a flexible and reliable industrial computing platform, each Panel PC and Monitor is a compact, highly integrated, network-ready computer with exceptional I/O connectivity. The industrial-grade machinery computer from NEXCOM is designed for use in any light industrial environments.

APPCs are designed with 8" ~ 19" displays, a 4:3 ratio, 5 wire resistive touch, cost-effectiveness, Intel Atom PC based low power consuming CPU, compact, high level of integration, network-readiness, and exceptional I/O connectivity. APPC 0840T/APPC 1240T/APPC 1540T/APPC 1740T/APPC 1940T

## Applied Touch Monitor (APPD) & Industrial Touch Monitor (IPPD)

APPDs and IPPDs are display monitors with an APPC and IPPC's front touch LCD Panel design, and shock and vibration resistance for their specific vertical markets.

- 4:3 resistive touch: APPD 1200T/APPD 1500T/APPD 1700T/APPD 1900T
- 16:9 P-Cap touch: IPPD 1600P/IPPD 1800P/ IPPD 2100P

# Human Machine Interface (HMI)

NEXCOM offers a full line of HMIs (Human Machine Interface) with IP66 certified LCD front panels in sizes from 4.3" to 15" with an HMI/ SCADA software (JMobile) bundle to be controlled and monitored remotely by mobile devices. The JMobile software has more than 200 communication drivers, allowing you to connect to a wide variety of control devices to support PLC applications and improve the efficiency of machine manufacturing.

- Intel<sup>®</sup> Atom<sup>™</sup> cost-effective Plastic case eLITE610
- ARM Based cost-effective Plastic case eSMART04N/eSMART07N/ eSMART10N
- ARM Based heavy environment aluminum case eTOP504~eTOP515



# Application

Oil and Gas Key Feature: C1D2 ISA 12.12.01, CSA22.2 No.213 certification



CNC Machine Key Feature: x86 High Performance HMI



## NEXCOM brings one-stop shopping choices

As the value of the IoT is derived from a wide range of applications, NEXCOM brings a wide range of panel PC products to fulfill different applications covering Industrial panel computers and Industrial Displays. Fanless Panel Computers, available in either Capacitive Multi-Touch mode or Single-Touch Resistive mode, are supported in the IPPC 4:3 series. This brings more flexibility. For smart city applications, the APPCs (Fanless Panel Computer) with IEC60950 EMC compliance are recommended. For applications which require greater noise reduction such as Machine or Factory Automation, EN 61000-4-2 & EN 61000-4-4 compliant IPPCs (Fanless Panel Computer) are recommended. Thus, NEXCOM panel PCs are tailored to meet your requirements.



**Applied Panel Monitor** (APPD)



HMI



el ITE610N eSMART10N eSMART07N eSMART04N

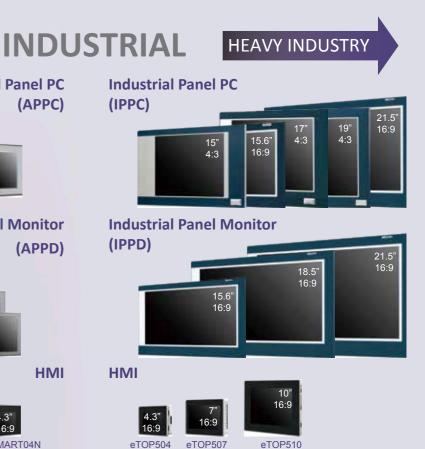
#### Robotic Key Feature: EtherCAT master



#### HMI

Key Feature: Cost-effective ARM-based HMI





# Retail Panel PC Solution Optimizes Store Efficiency

Connected devices aren't just changing the way consumers live, work and play—they're dramatically reshaping entire industries. Adding more intelligence and more connectivity to the objects that surround us will produce enormous amounts of data that companies can leverage to improve their operations, serve customers better, and create entirely new ways of doing business. The Internet of Things presents an opportunity for retailers to develop a vastly improved ecosystem that connects physical and digital worlds, allowing bidirectional, real-time interaction with consumers both inside and outside the store.

Many people prefer self-service to waiting in line or traveling out of their way—especially when they're in a hurry or on the go. According to a global research report, the global market for selfservice technologies will grow with a compound annual growth rate (CAGR) of 8.9% for the period of 2016-2021. NEXCOM interactive kiosk solutions and smart shelf displays (KPPC & OPPC series) can help you deliver services more efficiently, increase customer interaction and motivate visitors to take action without sacrificing security or reliability. These intelligent Panel PCs can help you create greater customer interaction by sharing compelling messages and providing easy access to your products and services. Placing Interactive kiosks in high-traffic areas gives you more flexibility to create better business results.

The internet-enabled kiosk can provide customers copious information and self-services. By scanning a product barcode, the kiosk can tell customers about product details including sizes,

NexDepartment

colors, prices, promotions, and stocks. If an item of a specific size or color is out of stock, customers can use the kiosk's touchscreen to make a purchase online with a credit card, earn reward points for the purchase with a membership card, opt for either in-store pickup or home delivery, and obtain a confirmation receipt as a proof of payment. The kiosk also gives customers access to the full product range as offered on the retailer's online store, expanding the product coverage to hundreds of thousands of brands within existing floor space. The in-store interactive kiosk helps the department store chain increase customer engagement, reduce out-of-stock complains, broaden product offerings, and more importantly, drive sales.

## Successful Factors

Kiosks and Interactive Panel PCs enable organizations to provide better services and shorten waiting times, especially in customerservice oriented retail industries. NEXCOM OPPCs come with display sizes of 12.1" to 19", and feature an ultra slim mechanism and multiple mounting options which minimize space and enable installation in almost any location, including retail outlets, supermarkets, train stations and airports. The touch screen enhances user interaction to offer improved customer service. The user experience is further enhanced by the KPPC/OPPC series ability to stream dynamic interactive content.

Whilst many products in the market only adhere to the VESA mounting standard, NEXCOM OPPCs can also be mounted on a wall and panel, providing users with another mounting option, especially for space critical applications. Moreover, since they're equipped with a touch screen Panel PC, it enhances and streamlines the interactions with users, such as check-in kiosks in train stations, airports and entertainment venues. NEXCOM Kiosk Panel PCs (KPPC) are a multi-function powerful

NexDepartment

solution for various self-service markets from signage, kiosk to gaming applications, featuring modularized, user-friendly design and OEM/ODM reliability. The KPPCs feature high integration of kits and peripherals ranging from MSR finger printer, thermal printer, and NFC reader. The KPPC series enable the simultaneous running of rich multimedia content.

IP Camera for heat map and customer tracks for quickly identifying store hot spots, dead areas and bottlenecks



Interactive Kiosks for copious product

information and self-ordering services

Equipped with an abundance of I/O interfaces that meet the requirements of the current retail application market, NEXCOM OPPCs and KPPCs provide expansion flexibility for controlling subsystems. In addition, an easy access storage drive bay is specifically designed for quick installation.

Interactive Signage for obtaining online customer assistance and special in-store promotions

## **Main Features**

#### Kiosk Panel PC (KPPC)

- Wide range of processor options with fanless design
- 4:3/16:9 screen ratio as infotainment terminal
- P-CAP multi-touch screen
- Stylish and slim enclosure design
- Front IP65 compliant design to prevent water and dust
- Dual GbE LAN for better network management
- Embedded 2MB front camera (optional)

#### Open Frame Panel PC (OPPC)

- 4:3 fanless LED panel computer
- Wide range of processor options with fanless design
- High brightness option for outdoor/semi-outdoor applications
- Rich I/O for various peripheral devices
- Remote power switch
- Mounting support: panel/wall stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

# NEXCOM Outdoor Open Frame Panel PCs Offer Flexible Reliability to Customized Applications

NEXCOM's outdoor Open Frame Panel PC (OPPC) series offer unprecedented flexibility and allow the configuration of many applications and integration into any custom product design. The NEXCOM OPPC series help build customized branding and bring industrial grade reliability into various outdoor retailing and hospitality applications, especially in self-service kiosks, vending machines, ATMs, and electric car charging stations.

The outdoor OPPC series feature a slim open frame design, long MTBF, up to 1,000nits brightness, and low power consumption. Built for space-critical environments, long operation & lighting conditions, and low maintenance, the OPPC series unique flexible design satisfies the needs of harsh semi-outdoor and outdoor environments.

### Successful Factors

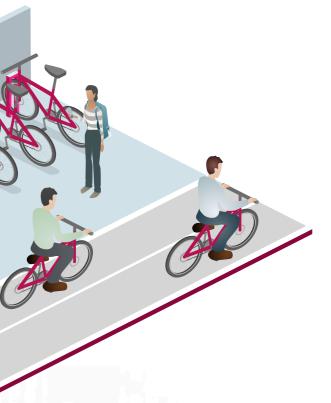
NEXCOM outdoor Open Frame Panel PC (OPPC) series' bezelfree touch display design provides flexibility for customers to design the front bezel according to their application requirements. The slim open frame design enables the OPPC series to be easily fitted with an enclosure or an end system that is highly customizable for branding. The seamless bezel design also reduces space, making the OPPC series ideal for ATMs and kiosk type vending machines in transportation stations and entertainment venues.

The OPPC series has Full HD multimedia capability and up to SXGA resolution (1280x1024). The OPPC series supports a second display and is ideal for multifunctional kiosks providing, for example, self-service and advertising or other dual display applications.

NEXCOM outdoor Open Frame Panel PC (OPPC) series' bezel-free touch display design provides flexibility for customers to design the front bezel according to their application requirements.

With up to 1000nits brightness, NEXCOMs Open Frame Panel PC (OPPC) series enhances the brightness of LCD so they are sunlight readable. Unlike other regular panel PCs, the OPPC series antiglare coating provides flawless imaging in any lighting conditions, including being viewed from any angle under direct sunlight.

To ensure a high level of reliability and an increased lifespan, the OPPC series incorporate an industrial motherboard and an industrial LED touch panel, both of which have low power consumption and an above-average mean time between failures (MTBF) of 50,000 hours. To increase overall system reliability and prevent dust ingress, the OPPC series feature a fanless design. The OPPC series also provides optional isolation protection on COM ports to prevent dust accumulation and transient voltage surge. In short, the OPPC series delivers enhanced reliability and has a long lifespan.



Powered by Intel<sup>®</sup> Celeron<sup>™</sup> J1900 processor, the OPPC series has five times the 3D graphics power and 80 percent higher decoding performance than previous generation processors. Improved graphics and media performance enable faster media conversions, stereoscopic 3D, immersive browsing, and enhanced HD video transcoding. Outdoor high brightness panel PC SKUs, with 15" and 19" displays, feature the same size cutout, which facilitate seamless migration from their predecessors yet offer enhanced performance.

To maximize compatibility and simplify maintenance, the OPPC series has an improved I/O connector layout including COM, Ethernet, power, and audio, making custom integration easy. Better yet, the OPPC series feature a fast USB 3.0 interface, providing 10 times faster data transfer than former USB 2.0, thus helping boost operational efficiency and customer satisfaction.

## Main Features

- Slim, compact and front panel open frame design
- High brightness 1000 nits sku for semi outdoor applications
   Full HD multimedia capability of 4:3 SXGA/XGA fanless LED panel computer
- Wide range of processor options with fanless design
- Rich I/O for various peripheral devices
- Open frame/Panel/VESA/Wall mounting options make assembly and installation far easier
- Wide range power input 12~30VDC

# Transport Infotainment Panel PC & Display Maximizes **Passenger Convenience**

In recent years, transport infotainment solutions are becoming more prevalent and are considered an effective tool to manage passengers' traffic flow. Not only can crucial information be delivered to passengers in real time, it also generates substantial advertising revenue for transport operators and advertising agencies.

At airports, train stations, bus stops, and in buses and trains, transport infotainment solutions improve the travel experience by serving a variety of functions including displaying arrival/ departure timetables, service status, public announcements, and route-finding. To operators, centralized digital screens via a web interface effortlessly enable them to manage traffic within terminals and dynamically guide passengers to their destination. Moreover, with aid of the cutting-edge technology from graphics and Full HD, eye-catching displays help to attract audiences and boost advertising revenue.

Not limited to indoor uses, the transport infotainment solution also increases its presence in semi-outdoor locations. At bus stops, passenger information display systems (PIDS) not only display real-time information such as the bus schedule, but also serve as public bulletin boards to deliver public announcements and much more.

### Successful Factors

In mission critical applications such as FIDS and PIDS, system reliability is the key to maintaining service consistency and reducing maintenance. NEXCOMs Transport Infotainment Panel PC & Display (TPPC/TPPD) series is a ruggedly designed master Panel PC which can be extended to up to eight displays. It is a fully flexible modular system with solutions for different system environments and space requirements.

NEXCOM TPPC 2210T is a 21.5" 16:9 LCD with resolutions up to 1920 x 1080 (Full HD) and an industrial motherboard making it the perfect transport infotainment panel PC solution. The optional VESA mount Kit is designed for easy installation in almost any location. It is compliant with the E/e-Mark, in-vehicle industry standard.

By supporting Daisy Chain HDMI over Ethernet of HDBaseT technology, it allows multimedia signals using Cat5e/Cat6 cable to extend the TV display distance for a maximum run length of 60M and for a maximum of eight displays (TPPD 2200), making the whole system more flexible.

All variations use the same elegant aluminum frame, so mounting and installation are particularly easy. The low weight and low maintenance approach make sure the environmental impact and operating costs are kept to a minimum. Via a web interface over Wi-Fi, GPS, or 3G, the NEXCOM TPPC 2210T can display any information such as decided by the transport operator and media agencies when or where their message is to be displayed in an easy flexible way to ensure passengers have a safe and smooth journey. This includes next-stop information, detailed route information, a network map as well as operator information such as service interruptions. The TPPC 2210T can display all kinds of advertisements and can therefore be integrated into a business plan as an additional source of income.

Passenger information display systems (PIDS) present not only real-time information such as arrival schedule for passengers, but also serves as public bulletin boards to deliver public announcements.

# Main Features



**TPPC 2210** 



- Powered by Intel<sup>®</sup> Celeron<sup>®</sup> N2807 processor with fanless and low noise design
- Video over Ethernet extender (HDBaseT) supporting long-distance and daisy-chained multi-screen transmission (HDBaseT receiver from TPPD 2200)
- Power ignition on/off delay protection design
- Supports Wi-Fi, GPS and 3G for remote diagnostic or management
- Front bezel with IP54 compliance and vandal proof desian
- Wide range input from 12~36VDC

PANEL PC Product Selection Guide

# Marine

To counter tough challenges on the rough sea, NEXCOM designed the essential system ruggedized and reliable. NEXCOM Marine Series feature durability and aesthetics, for using on the dock, in the control room, or on bridge.

# Transformation

NEXCOM's high performance marine panel PC solutions are built with the powerful Intel® Core™ i5 / Intel® Atom™ E3845 CPUs with fanless system architecture. The certified marine computers featuring durability and aesthetics are ideal for severe environments, and can be applied to fishing and container vessels, recreational craft, workboats, sailing yachts for using on a dock, an open deck, in a control room, or on the bridge.

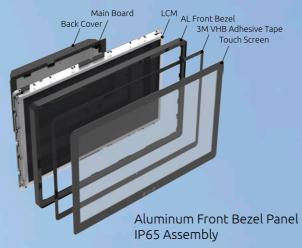


# **Key Features**

- Wide range of low power consumption processors
- 8" to 24" 16:9 display dimensions
- Fanless and rugged design delivering a reliable, durable, high-performance platform
- Rich integrated I/O interface functions
- Wide (-25°C to 70°C) operating temperature range
- Part-and full-customization is offered
- Adheres to Det Norske Veritas (DNV), IACES-E10, and IEC specifications, ideal for the severe environments

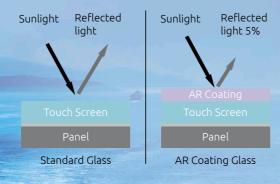
# IP65 Protection for Front Panels

The front panel adopts an IP65 certified flush panel design and offers a projected-capacitive, glove-friendly multi-touch screen for outdoor applications.



# Anti-Reflective (AR) Coatings for Touch Screen

Anti-Reflective (AR) coating treatment is added to reduce surface reflections designing to work in rugged, outdoor and marine use.



# Dock's Control Room

The control room serves as a central space where a large physical facility or physically dispersed service can be monitored and controlled. Multiple electronic displays and control panels are usually present, and there may also be a large wall-sized display area visible from all locations within the space. NEXCOM Marine panel PCs can be installed in the dock's control room where it's used to display all the technical functions. Operators work at marine panel PCs to plot the loading and unloading of shipments and NEXCOM Marine panel PCs also can connect video surveillance and recording, for security and personnel accountability purposes.

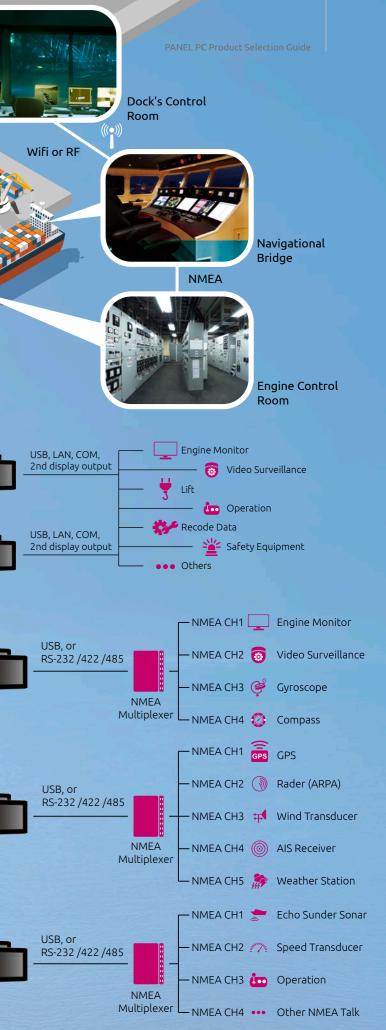
# Engine Control Room

The engine control room is usually located on the main deck level of the ship. It has panel PCs installed in the engine control room for operations, and for work, planning, and safety meetings to monitor and control the ship's machinery throughout the vessel. NEXCOM Marine panel PCs have a multitude of I/O options including USB, LAN, COM, 2nd display output and 24VDC power input.

# Navigational Bridge

A ship's bridge, or Navigation Bridge, holds a fantastic array of equipment. It is used for navigation, and is also the command center of the ship. NEXCOM Marine series computers can connect to various internal and external systems on the bridge, such as ECDIS, GPS, AIS, Gyro, Radar and Rudder Angle Indicator. NEXCOM Marine panel PCs are designed with a wide (-25°C to 70°C) temperature range, support 24VDC power input and come with a minimalistic and fanless enclosure designed, all being compliant with IEC 60945, IACS E10 and DNV maritime standards.





# Industrial Panel PC

Model	IPPC 1640P	IPPC 1670P-DC	IPPC 2140P	IPPC 2170P-DC	IPPC 1560TE	IPPC A1570T-DC
LCD Size	15.6" 16:9	15.6" 16:9	21.5" 16:9	21.5" 16:9	15" 4:3	15" 4:3
Max. Resolution			Full HD,	Full HD,		
Luminance (cd/m2)	WXGA, 1366 x 768	300	1920 x 1080 300	1920 x 1080 300	XGA, 1024 x 768 400	XGA,1024 x 768 450
× / / /						
Contrast Ratio Viewing Angle (H-V)	500 80(U), 80(D),	500 80(U), 80(D),	5000 89(U), 89(D),	5000 89(U), 89(D),	700 60(U), 80(D),	800 70 (U), 80 (D),
	85(L), 85(R)	85(L), 85(R)	89(L), 89(R)	89(L), 89(R)	80(L), 80(R)	80 (L), 80 (R)
Backlight	LED	LED	LED	LED	LED	LED
LCD Color	16.7M	16.7M	16.7M	16.7M	16.2M	16.2M
Touch Screen	Ten Point P-Cap	Ten Point P-Cap	Ten Point P-Cap	Ten Point P-Cap	Resistive 5-wire	Resistive 5-wire
Touch Light Transmission	87%	87%	87%	87%	81%	81%
CPU	Intel® Celeron® J1900 Quad Core 2.0 GHz	4th Gen. Intel® Core™ i5/i3 LGA socket	Intel® Celeron® J1900 Quad Core 2.0 GHz	4th Gen. Intel® Core™ i5/i3 LGA socket	3rd Gen. Intel® Core™ i5 (i5-3610ME) 2 x 2.7GHz	4th Gen. Intel® Core™ i5/i3 LGA socket
Chipset	-	Intel® QM87	-	Intel® QM87	Intel® HM76	Intel® QM87
Memory	4GB DDR3L SO-DIMM module	Max. 8GB DDR3/DDR3L	4GB DDR3L SO-DIMM module	Max. 8GB DDR3/DDR3L	4GB DDR3 SO-DIMM module	Max. 8GB DDR3/DDR3L
CFast Socket	1	1	1	1	1	1
2nd Display Output	VGA	DVI-I + DP	VGA	DVI-I + DP	VGA	DVI-I + DP
PS2 KB/MS	1	1	1	1	2	1
Ethernet(10/100/1000)	2	2	2	2	2	2
Line-out	1	1	1	1	-	1
Line-in Mic in	-	1	-	1	-	1
Mic-in USB2.0/3.0	2/1	ı 1(In front)/4	2/1	ı 1(In front)/4	- 4(Hidden)/-	ı 1(In front)/4
COM port	Isolation 2 x RS232,422,485		Isolation 2 x RS232,422,485	,	Isolation 2 x RS232,422,485/ 1 x RS232	
Power Switch	1	1	1	1	1	1
Remote Power Switch	1	1	1	1	-	1
Reset Button	1	1	1	1	1	1
Power Jack	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector
GPIO	-	-	-	-	-	-
Digital I/O	-	-	-	-	-	-
Expansion	2 x mini-PCle	2 x mini-PCIe/ 2 x PCI or PCIe slots	2 x mini-PCIe	2 x mini-PCIe/ 2 x PCI or PCIe slots	2 x mini-PCIe/ 2 x PCI or PCIe slots	2 x mini-PCIe/ 2 x PCI or PCIe slots
Construction Front Panel	Aluminum Front Zero Bezel	Aluminum Front Bezel	Aluminum Front Zero Bezel	Aluminum Front Bezel	Aluminum Front Bezel	Aluminum Front Bezel
Mounting	Panel/Wall/ Stand/VESA 100 x 100mm	Panel/Wall/ Stand/VESA 100 x 100mm	Panel/Wall/ Stand/VESA 100 x 100mm	Panel/Wall/ Stand/VESA 100 x 100mm	Panel/Wall/ Stand/VESA 100 x 100mm	Panel/Wall/ Stand/VESA 100 x 100mm
PowerInput	+12 ~ 30VDC	+12V ~ 30VDC	+12 ~ 30VDC	+12V ~ 30VDC	+24VDC ±20%; Fuse: 250V/10	+12V ~ 30VDC
Power Supply Adapter	Optional	Optional	Optional	Optional	Optional	Optional
Operating Temp.	-10°C to 60°C	-10°C to 50°C	-10°C to 60°C	-10°C to 50°C	-10°C to 50°C	-20°C to 50°C
Storage Temp.	-20°C to 75°C 10% ~ 90%,	-20°C to 75°C 10%~90%	-20°C to 75°C 10% ~ 90%,	-20°C to 75°C 10%~90%	-20°C to 75°C 10% ~ 90%,	-20°C to 75°C 10%~90%
Operating Humidity	Non-condensing Front Frame IP66	relative humidity, Non-condensing Front Frame IP66	Non-condensing Front Frame IP66	relative humidity, Non-condensing Front Frame IP66	Non-condensing Front Frame IP65	relative humidity, Non-condensing Front Frame IP66
Cut Out Size						
(WxH)(mm)	401 x 296	398 x 293	547 x 367	544x364	455 x 295	382 x 312
Dimension (WxHxD)(mm)	417.4 x 312.4 x 63.75	417.4 x 312.4 x 105.95	562.4 x 382.4 x 62.85	562.4x382.4x 105.05	477.64 x 310 x 95.72	400 x 330 x 104.9
Net Weight (kg)	6.4	8.8	9.26	11.7	9.51	8.3
Gross Weight(kg)	10	11.8	13.2	15.5	13.5	11.6

# Industrial Panel PC

# Industrial Touch Monitor

Model	IPPC A1770T-DC	IPPC A1970T-DC
LCD Size	17" 4:3	19" 4:3
Max. Resolution	SXGA, 1280 x 1024	SXGA 1280 x 1024
Luminance (cd/m2)	350	350
Contrast Ratio	1000	1000
Viewing Angle (H-V)	80(U), 80(D), 85(L), 85( R)	80 (U), 80 (D), 85 (L), 85 (R)
Backlight	LED	LED
LCD Color	16.7M	16.7M
Touch Screen	Resistive 5-wire	Resistive 5-wire
Touch Light Transmission	81%	80%
CPU	4th Gen. Intel® Core™ i5/i3 LGA socket	4th Gen. Intel® Core™ i5/i3 LGA socket
Chipset	Intel® QM87	Intel® QM87
Memory	Max. 8GB DDR3/DDR3L	Max. 8GB DDR3/DDR3L
CFast Socket	1	1
2nd Display Output	DVI-I + DP	DVI-I + DP
PS2 KB/MS	2	1
Ethernet(10/100/1000) Line-out	2	2
Line-in	1	1
Mic-in	1	1
USB2.0/3.0	1(In front)/4	1(In front)/4
COM port	2 x RS232,422,485	2 x RS232,422,485
Power Switch	1	1
Remote Power Switch	1	1
Reset Button	1	1
Power Jack	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector
GPIO	-	-
Digital I/O	-	-
Expansion	2 x mini-PCIe/ 2 x PCI or PCIe slots	2 x mini-PCIe/ 2 x PCI or PCIe slots
Construction Front Panel	Aluminum Front Bezel	Aluminum Front Bezel
Mounting	Panel/Wall/Stand/ VESA 100 x 100mm	Panel/Wall/Stand/ VESA 100 x 100mm
Power Input	+12 ~ 30VDC	+12V ~ 30VDC
Power Supply Adapter	Optional -10°C to 50°C	Optional -10°C to 50°C
Operating Temp.	-10 C to 50 C	-20°C to 75°C
Storage Temp.		-20 C to 75 C
Operating Humidity	10% ~ 90%, Non-condensing	relative humidity, Non-condensing
IP Level	Front Frame IP66	Front Frame IP66
Cut Out Size (WxH)(mm)	436 x 360.5	452 x 382
Dimension (WxHxD)(mm)	451 x 375.5 x 105	470 x 400 x 104.9
Net Weight (kg)	10.2	10.3
Gross Weight(kg)	14.1	14.6

Model			
	IPPD 1600P	IPPD 1800P	IPPD 2100P
LCD Size	15.6" 16:9	18.5" 16:9	21.5" 16:9
Max. Resolu- tion	WXGA, 1366 x 768	WXGA, 1366 x 768	Full HD, 1920 x 1080
Luminance (cd/m2)	300	400	300
Contrast Ratio	500	1000	5000
Viewing Angle (H-V)	80(U), 80(D), 85(L), 85( R)	80(U), 80(D), 85(L), 85( R)	89(U), 89(D), 89(L), 89(R)
Backlight	LED	LED	LED
LCD Color	16.7M	16.7M	16.7M
Touch Screen	10 Point P-Cap	10 Point P-Cap	10 Point P-Cap
Touch Light Transmission	87%	87%	87%
Touch Screen I/F	USB	USB	USB
OSD function	OSD Keypad	OSD Keypad	OSD Keypad
Video input	VGA; DVI-D; DP	VGA; DVI-D; DP	VGA; DVI-D; DP
Power Jack	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector
Construction Front Panel	Aluminum Front Zero Bezel	Aluminum Front Zero Bezel	Aluminum Front Zero Bezel
Mounting	Panel/Wall/ Stand/VESA 100 x 100mm	Panel/Wall/ Stand/VESA 100 x 100mm	Panel/Wall/ Stand/VESA 100 x 100mm
Power Input	+12 ~ 30VDC	+12 ~ 30VDC	+12 ~ 30VDC
Power Supply Adapter	Optional	Optional	Optional
Operating Temp.	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10% ~ 90%, Non-condensing	10% ~ 90%, Non-condensing	10% ~ 90%, Non-condens- ing
IP Level	Front Frame IP66	Front Frame IP66	Front Frame IP66
Certifications	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B
Cut Out Size (WxH)(mm)	401 x 296	475.4 x 305.2	547 x 367
Dimension (WxHxD)(mm)	417.4 x 312.4 x 51.75	490.8 x 320.6 x 50.65	562.4 x 382.4 x 50.85
Net Weight (kg)	5.3	5.86	7.87
Gross Weight(kg)	8.5	9	12

# Applied Panel PC

Model			
LCD Size	APPC 0840T 8.0" 4:3	APPC1240T 12.1" 4:3	APPC1245T 12.1" 4:3
Max Resolution	SVGA, 800 x 600	SVGA, 800 x 600	XGA, 1024 x 768
Luminance(cd/m2)	400	450	500
Contrast Ratio	500	700	700
Viewing Angle(H-V)	500 50(U), 70(D), 70(L), 70(R)	65(U), 75(D), 80(L), 80(R)	80(U), 80(D), 80(L), 80(R)
Backlight	LED	LED	LED
LCD Color	262K	16.2M	16.2M
Touch Screen	Resistive 5-wire(Flush panel type)	Resistive 5-wire(Flush panel type)	Resistive 5-wire(Flush panel type)
Touch Light Transmission	82%	80%	80%
	82% Intel® Atom™ E3826 Dual Core	80% Intel® Celeron® J1900 Quad Core up	Intel® Celeron® J1900 Quad Core up
CPU	1.46GHz	to 2.42GHz	to 2.42GHz
Memory	2GB DDR3L SO-DIMM module	4GB DDR3L SO-DIMM module	4GB DDR3L SO-DIMM module
CFast socket	1	1	1
2nd display output	VGA	VGA	VGA
PS2 KB/MS	-	1	1
Ethernet(10/100/1000)	2	2	2
Line out	Line out	Line out	Line out
USB 2.0/3.0	3/1	2/1	2/1
COM port	2xRS232/422/485	Isolation 2xRS232/422/485	Isolation 2xRS232/422/485
Power Switch	1	1	1
Remote power switch	1	1	1
Reset Button	1	1	1
Power Jack	DC 4 pin DIN Power Jack with shield, 90°	3 pin phoneix connector	3 pin phoneix connector
Expansion	1xMini PCIe	2xMini PCIe	2xMini PCIe
Construction Front Panel	ABS+PC Plastic front bezel	ABS+PC Plastic front bezel	ABS+PC Plastic front bezel
Mounting	Panel/Wall/Stand/VESA 100x100mm	Panel/Wall/Stand/VESA 100x100mm	Panel/Wall/Stand/VESA 100x100mm
PowerInput	+12 to 30V DC	+12 to 30V DC	+12 to 30V DC
Power Supply Adapter	Optional	Optional	Optional
Operating Temp.	-5°C to 50°C	-5°C to 60°C	-5°C to 60°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10%~90%, Non-condensing	10%~90%, Non-condensing	10%~90%, Non-condensing
IP Level	Front Frame IP65	Front Frame IP65	Front Frame IP65
Cut Out Size (WxH) (mm)	209.6x167.1	304.5x230	304.5x230
Dimension (WxHxD) (mm)	217.4x176.4x68.9	317x243x65.89	317x243x65.89
Net Weight (kg)	2.3	4	4
Gross Weight (kg)	4	6	6

# Applied Panel PC

Model			
	APPC1540T	APPC1740T	APPC1940T
LCD Size	15" 4:3	17" 4:3	19" 4:3
Max Resolution	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024
Luminance(cd/m2)	450	350	350
Contrast Ratio	700	1000	1000
Viewing Angle(H-V)	70(U), 80(D), 80(L), 80(R)	80(U), 80(D), 85(L), 85(R)	80(U), 80(D), 85(L), 85(R)
Backlight	LED	LED	LED
LCD Color	16.2M	16.7M	16.7M
Touch Screen	Resistive 5-wire (Flush panel type)	Resistive 5-wire (Flush panel type)	Resistive 5-wire (Flush panel type)
Touch Light Transmission	80%	81%	81%
CPU	Intel® Celeron® J1900 Quad Core up to 2.42GHz	Intel® Celeron® J1900 Quad Core up to 2.42GHz	Intel® Celeron® J1900 Quad Core up to 2.42GHz
Memory	4GB DDR3L SO-DIMM module	4GB DDR3L SO-DIMM module	4GB DDR3L SO-DIMM module
CFast socket	1	1	1
2nd display output	VGA	VGA	VGA
PS2 KB/MS	1	1	1
Ethernet (10/100/1000)	2	2	2
Line out	Line out	Line out	Line out
USB 2.0/3.0	2/1	2/1	2/1
COM port	Isolation 2xRS232/422/485	Isolation 2xRS232/422/485	Isolation 2xRS232/422/485
Power Switch	1	1	1
Remote power switch	1	1	1
Reset Button	1	1	1
Power Jack	3 pin phoneix connector	3 pin phoneix connector	3 pin phoneix connector
Expansion	2xMini PCIe	2xMini PCIe	2xMini PCIe
Construction Front Panel	ABS+PC Plastic front bezel	ABS+PC Plastic front bezel	ABS+PC Plastic front bezel
Mounting	Panel/Wall/Stand/VESA 100x100mm	Panel/Wall/Stand/VESA 100x100mm	Panel/Wall/Stand/VESA 100x100mm
PowerInput	+12 to 30V DC	+12 to 30V DC	+12 to 30V DC
Power Supply Adapter	Optional	Optional	Optional
Operating Temp.	-5°C to 60°C	-5°C to 60°C	-5°C to 50°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10%~90%, Non-condensing	10%~90%, Non-condensing	10%~90%, Non-condensing
IP Level	Front Frame IP65	Front Frame IP65	Front Frame IP65
Cut Out Size (WxH) (mm)	371x297	399x329	436x366
Dimension (WxHxD) (mm)	384.37 x 309.95 x 63.2	410.4x340.4x65.9	457.64x379.24x61.25
Net Weight (kg)	5.1	6.7	6.7
Gross Weight (kg)	9	8	9

# HMI

Model	Ш			
	eTOP504	eSMART04N	eTOP507/507N	eSMART07N
LCD Size	4.3" 16:9	4.3" 16:9	7" 16:9	7" 16:9
Max. Resolution	WQVGA, 480 x 272	WQVGA, 480 x 272	WVGA, 800 x 480	WVGA, 800 x 480
Luminance(cd/m2)	150 typ.	200 typ.	300 typ.	200 typ.
Backlight	LED	LED	LED	LED
LCD Color	64K	64K	64K	64K
Touch Screen	Resistive	Resistive	Resistive	Resistive
OS	Microsoft Windows CE 6.0	Linux 3.12	Microsoft Windows CE 6.0	Linux 3.12
Memory	256MB DDR	256MB DDR	256MB DDR	256MB DDR
User Memory	128MB	2GB	128MB	2GB
Ethernet	2 (10/100 Mbit)	1 (10/100 Mbit)	2 (10/100 Mbit)	1 (10/100 Mbit)
USB	2 x USB2.0	1 x USB2.0	2 x USB2.0	1 x USB 2.0
COM port	1 x RS232, 422, 485 software configuration			
Power Jack	3-pin terminal block	3-pin terminal block	3-pin terminal block	3-pin terminal block
SD Socket	Yes	-	Yes	-
Expansion	1 Optional plug-in	-	2 Optional plug-in	-
Construction	Aluminum	Plastic	Aluminum	Plastic
Mounting	Panel Mounting	Panel Mounting	Panel Mounting	Panel Mounting
Power Input	24Vdc (10 to 32 Vdc)	24Vdc (18 to 32 Vdc)	24Vdc (10 to 32 Vdc)	24Vdc (18 to 32 Vdc)
Current Consumption	0.55A at 24Vdc (max.)	0.25A at 24Vdc (max.)	0.65A at 24Vdc (max.)	0.3A at 24Vdc (max.)
Power Supply Adapter	Optional	Optional	Optional	Optional
Operating Temp.	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
Storage Temp.	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
Operating Humidity	5% ~ 85%, Non-condensing	5% ~ 85%, Non-condensing	5% ~ 85%, Non-condensing	5% ~ 85%, Non-condensing
IP Level	IP66 (front), IP20 (rear)			
Cut Out Size (WxH)(mm)	136 x 96	136 x 96	176 x 136	176 x 136
Dimension (WxHxD)(mm)	147 x 107 x 60	147 x 107 x 34	187 x 147 x 51	187 x 147 x 34
Net Weight (kg)	Арргох. 1	Арргох. 0.4	Арргох. 1	Approx. 0.6
Gross Weight(kg)	1.3	0.7	1.4	0.9

# HMI

Model			x86 CPU
	eTOP510	eSMART10N	eLITE610
LCD Size	10.4" 4:3	10.1" 16:9	10.1" 16:9
Max. Resolution	WVGA, 800 x 480	WSVGA, 1024 x 600	WSVGA, 1024 x 600
Luminance(cd/m2)	300 typ.	200 typ.	240 typ.
Backlight	LED	LED	LED
LCD Color	64K	64K	16.7M
Touch Screen	Resistive	Resistive	Resistive
OS	Microsoft Windows CE 6.0	Linux 3.12	Windows 10
Memory	256MB DDR	512MB DDR	4GB DDR
User Memory	256MB	4GB	32GB
Ethernet	2 (10/100 Mbit)	1 (10/100 Mbit)	2 (10/100/1000 Mbit)
USB	2 x USB 2.0	1 x USB 2.0	2 × USB 3.0
COM port	1 x RS232, 422, 485 software configuration	1 x RS232, 422, 485 software configuration	1 x RS232, 422, 485 BIOS configuration
Power Jack	3-pin terminal block	3-pin terminal block	3-pin terminal block
SD Socket	Yes	-	-
Expansion	2 Optional plug-in	-	-
Construction	Aluminum	Plastic	Plastic
Mounting	Panel Mounting	Panel Mounting	Panel Mounting
Power Input	24Vdc (10 to 32 Vdc)	24Vdc (18 to 32 Vdc)	24Vdc (19.2 to 28.8 Vdc)
Current Consumption	0.95A at 24Vdc (max.)	0.38A at 24Vdc (max.)	1.64A at 24Vdc (max.)
Power Supply Adapter	Optional	Optional	Optional
Operating Temp.	0°C to 50°C	0°C to 50°C	-5°C to 50°C
Storage Temp.	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
Operating Humidity	5% ~ 85%, Non-condensing	5% ~ 85%, Non-condensing	5% ~ 90%, Non-condensing
IP Level	IP66 (front), IP20 (rear)	IP66 (front), IP20 (rear)	IP66 (front), IP20 (rear)
Cut Out Size (WxH)(mm)	276 x 221	271 x 186	271 x 186
Dimension (WxHxD)(mm)	287 x 232 x 60	282x 197 x 35	282 x 197 x 35
Net Weight (kg)	Арргох. 2.1	Арргох. 1	Арргох. 1.37
Gross Weight(kg)	2.8	1.6	2.3

# Teach Pendant

Model			
	TP-100	TP-100-VGA	
LCD Size	10.1" 16:10	10.1" 16:10	
Max. Resolution	WXCA, 1280 x 800	WXCA, 1280 × 800	
Luminance(cd/m2)	500	500	
Backlight	LED	LED	
LCD Color	16.7M	16.7M	
Touch Screen	10 points P-Cap	10 points P-Cap	
Emergency Stop Button	2 channels (2 NC)	2 channels (2 NC)	
3-position Deadman Switch	3 channels (2 NO&1NC)	3 channels (2 NO&1NC)	
2-position Key Switch	2 channels (auto/manual)	2 channels (auto/manual)	
CPU	Intel® Atom™ E3826 Dual Core 1.46GHz	-	
Memory	4GB DDR3L	-	
User Memory	32GB	-	
Ethernet	1 (10/100/1000Mbit)	-	
Display Input	-	VGA	
USB	2 USB 3.0	2 USB 3.0	
Cable Connector and Signal	HDB-44 (including power, E-stop buttons, deadman switch, key switch and Giga LAN signals)	HDB-44 (including power, E-stop buttons, deadman switch, key switch USB 3.0 and VGA signals)	
Construction	Front: aluminum magnesium alloy Back: ABS+PC plastic	Front: aluminum magnesium alloy Back: ABS+PC plastic	
Power Input	24Vdc (19.2 to 28.8 Vdc)	24Vdc (19.2 to 28.8 Vdc)	
Current Consumption	0.76A at 24Vdc (max.)	0.625A at 24Vdc (max.)	
Power Supply Adapter	Optional	Optional	
Operating Temp.	0°C to 45°C	0°C to 50°C	
Storage Temp.	-20°C to 70°C	-20°C to 75°C	
Operating Humidity	5% ~90%, non-condensing	5% ~90%, non-condensing	
IP Level	Full IP65	Full IP65	
Dimension (WxHxD)(mm)	297.3 x 257.2 x 57.2 (78.5mm including emergency button)	297.3 x 257.2 x 57.2 (78.5mm including emergency button)	
Weight (kg)	1.45	1.5	
Gross Weight(kg)	2	2.3	

# Kiosk Panel PC

Model			
LCD Size	KPPC-1011 10.1" 16:9	KPPC-1057 10.1" 16:9	KPPC-1514 15.6" 16:9
Max. Resolution	WXGA, 1280 x 800	WXGA, 1280 x 800	1366 x 768
Luminance (cd/m2)	350	350	300
Contrast Ratio	800	1000	500
Viewing Angle (H-V)	85(U), 85(D), 85(L), 85(R)	85(U), 85(D), 85(L), 85(R)	80(U), 80(D), 80(L), 80(R)
Backlight	LED	LED	LED
LCD Color	16.2M	16.2M	16.7M
Touch Screen	10.1" Projected Capacitive Touch Panel	10.1" Projected Capacitive Touch Panel	15.6" Projected Capacitive Touch Panel
СРИ	Intel® Core i™ KabyLake-U Dual Core Processor	Intel® Atom™ E3930/3950 Dual/Quad CoreProcessor, 1.3/1.6GHz 2M L2 Cache;	Intel® Celeron® N3060 (Braswell) Dual Core Processor, 1.6GHz 2M L2 Cache;
Memory	4GB DDR4 SO-DIMM Module	4GB DDR3L SO-DIMM Module	4GB DDR3L SO-DIMM Module
Storage Device	1 x 2.5" SATA HDD Internal mSATA (optional)	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD
2nd Display Output	HDMI / DP	VGA / HDMI	VGA/DVI
Ethernet (10/100/1000)	2	2	2
Line-out / MIC	Line-OUT	Line-OUT / MIC	Line-OUT/MIC
USB 2.0 / USB 3.0	2 / 4	4 x USB3.0	4 x USB3.0
Cash Drawer Port	Х	Х	Х
Parallel Port	Х	Х	Х
COM Port	1xRS232 1xRS232,422, 485 selectable	1xRS232,422,485 selectable	4xRS232 1xRS232,422,485 selectable
+12VDC-OUT Jack	Х	Х	Х
DC-IN Jack	DC-9~24V IN	DC-12V IN	DC-12V IN
Power Switch	1	1	1
Internal Speaker	Optional	Optional	Optional
Expansion	2 x Mini-PCle (1 share with mSATA)	Mini-PCIe / NGFF B Key	Mini PCIe/M.2 M Key (2242/2280)
Power Supply Adapter	External AC DC 12V/ 4.16A 50W Power Brick	External AC DC 12V/ 4.16A 50W Power Brick	External AC DC 12V/ 7A 84W Power Brick
Operating Temp.	0°C to 50°C	0°C to 50°C	0°C to 50°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
Operating Humidity	20%~80%, Non-condensing	20%~80%, Non-condensing	20%~80%, Non-condensing
IP Level	Front Bezel IP65	Front Bezel IP65	Front Bezel IP65
Dimension (WxHxD) (mm)	308 x 223 x 61.2	308 x 223 x 61.2	417.8 x 312.8 x 63.55
Weight (kg)	3.0	3.0	4.5

# Kiosk Panel PC

Model			
	KPPC-1557	KPPC-1812	KPPC-1857
LCD Size	15.6" 16:9	18.5" 16:9	18.5" 16:9
Max. Resolution	1366 x 768	WXGA, 1366 x 768	1366 x 768
Luminance (cd/m2)	300	250	250
Contrast Ratio	500	1000	1000
Viewing Angle (H-V)	80(U), 80(D), 80(L), 80(R)	80(U), 80(D), 85(L), 85(R)	85(U), 85(D), 80(L), 80(R)
Backlight	LED	LED	LED
LCD Color	16.7M	16.7M	16.7M
Touch Screen	15.6" Projected Capacitive Touch Panel	18.5" Projected Capacitive Touch Panel	18.5" Projected Capacitive Touch Panel
СРИ	Intel® Atom™ E3930/3950 Dual/Quad Core Processor, 1.3/1.6GHz 2M L2 Cache;	Intel® Atom™ J1900 Quad Core Processor, 2.0GHz 2M L2 Cache;	Intel® Atom™ E3930/3950 Dual/Quad Core Processor, 1.3/1.6GHz 2M L2 Cache;
Memory	4GB DDR3L SO-DIMM Module	4GB DDR3L SO-DIMM Module	4GB DDR3L SO-DIMM Module
Storage Device	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD
2nd Display Output	VGA / HDMI	VGA	VGA / HDMI
Ethernet (10/100/1000)	2	1	2
Line-out/MIC	Line-OUT / MIC	Line-OUT / MIC	Line-OUT / MIC
USB 2.0 / USB 3.0	4 x USB3.0	2 / 2	4 x USB3.0
Cash Drawer Port	Х	1	Х
Parallel Port	Х	1	Х
COM Port	1xRS232,422,485 selectable	4x RJ-45 Powered RS-232	1xRS232,422,485 selectable
+12VDC-OUT Jack	Х	1	Х
DC-IN Jack	DC-12V IN	DC-24V IN	DC-12V IN
Power Switch	1	1	1
Internal Speaker	Optional	Optional	Optional
Expansion	Mini-PCIe / NGFF B Key	2 x Mini-PCle	Mini-PCIe / NGFF B Key
Power Supply Adapter	External AC DC 12V/ 7A 84W Power Brick	External AC DC 24V/ 5.0A 120W Power Brick	External AC DC 12V/ 7A 84W Power Brick
Operating Temp.	0°C to 50°C	0°C to 40°C	0°C to 50°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
Operating Humidity	20%~80%, Non-condensing	20%~80%, Non-condensing	20%~80%, Non-condensing
IP Level	Front Bezel IP65	Front Bezel IP65	Front Bezel IP65
Dimension (WxHxD) (mm)	417.8 x 312.8 x 63.55	461.6x309.8x64.5	490.8 x 320.6 x 59.45
Weight (kg)	4.5	6.2	6.0

# Kiosk Panel PC

Model			
	KPPC-1814	KPPC-2157	KPPC-2114
LCD Size	18.5" 16:9	21.5" 16:9	21.5" 16:9
Max. Resolution	1366 x 768	1920 x 1080	1920 x 1080
Luminance (cd/m2)	250	250	250
Contrast Ratio	1000	3000	3000
Viewing Angle (H-V)	85(U), 85(D), 80(L), 80(R)	89(U), 89(D), 89(L), 89(R)	89(U), 89(D), 89(L), 89(R)
Backlight	LED	LED	LED
LCD Color	16.7M	16.7M	16.7M
Touch Screen	18.5" Projected Capacitive Touch Panel	21.5" Projected Capacitive Touch Panel	21.5" Projected Capacitive Touch Panel
CPU	Intel® Celeron® N3060 (Braswell) Dual Core Processor, 1.6GHz 2M L2 Cache;	Intel® Atom™ E3930/3950 Dual/Quad Core Processor, 1.3/1.6GHz 2M L2 Cache;	Intel® Celeron® N3060 (Braswell) Dual Core Processor, 1.6GHz 2M L2 Cache;
Memory	4GB DDR3L SO-DIMM Module	4GB DDR3L SO-DIMM Module	4GB DDR3L SO-DIMM Module
Storage Device	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD
2nd Display Output	VGA/DVI	VGA / HDMI	VGA/DVI
Ethernet (10/100/1000)	2	2	2
Line-out / MIC	Line-OUT/MIC	Line-OUT / MIC	Line-OUT/MIC
USB 2.0 / USB 3.0	4 x USB3.0	4 x USB3.0	4 x USB3.0
Cash Drawer Port	Х	Х	Х
Parallel Port	Х	Х	Х
COM Port	4xRS232 1xRS232,422,485 selectable	1xRS232,422,485 selectable	4xRS232 1xRS232,422,485 selectable
+12VDC-OUT Jack	Х	х	Х
DC-IN Jack	DC-12V IN	DC-12V IN	DC-12V IN
Power Switch	1	1	1
Internal Speaker	Optional	Optional	Optional
Expansion	Mini PCIe/M.2 M Key (2242/2280)	Mini-PCIe / NGFF B Key	Mini PCIe/M.2 M Key (2242/2280)
Power Supply Adapter	External AC DC 12V/ 7A 84W Power Brick	External AC DC 12V/ 7A 84W Power Brick	External AC DC 12V/ 7A 84W Power Brick
Operating Temp.	0°C to 50°C	0°C to 50°C	0°C to 50°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
Operating Humidity	20%~80%, Non-condensing	20%~80%, Non-condensing	20%~80%, Non-condensing
IP Level	Front Bezel IP65	Front Bezel IP65	Front Bezel IP65
Dimension (WxHxD) (mm)	490.8 x 320.6 x 59.45	562.4 x 382.4 x 59.65	562.4 x 382.4 x 59.65
Weight (kg)	6.0	8.0	8.0

# Point-of-Sales (POS)

Model	NPT 1560	NPT 1562	NPT 5850	NPT 5852	Model	NPD 1050
LCD Size	15" 4:3	15" 4:3	15" 4:3	15" 4:3	LCD Size	15" 4:3
Max. Resolution	XGA, 1024 x 768	XGA, 1024 x 768	XGA, 1024 x 768	XGA, 1024 x 768	LCD SIZE	15 4.3
Luminance (cd/m2)	250	250	250	250	Max. Resolu- tion	XGA, 1024 x 768
Contrast Ratio	700	700	700	700	Luminance	
Viewing Angle (H-V)	80(U), 80(D), 85(L), 85(R)	80(U), 80(D), 85(L), 85(R)	80(U), 80(D), 85(L), 85(R)	80(U), 80(D), 85(L), 85(R)	(cd/m2)	250
Backlight	LED	LED	LED	LED	Contrast	700
LCD Color	262,144	262,144	262,144	262,144	Ratio	700
Touch Screen	15" 5-wire Resistive Touch Panel	15" Zero Bezel Pro- jected Capacitive Touch Panel	15" 5-wire Resistive Touch Panel	15" Zero Bezel Pro- jected Capacitive Touch Panel	Viewing Angle (H-V)	80(U), 80(D), 85(L), 85(R)
CPU	Intel® Atom™ J1900 Quad Core Processor,	Intel® Atom™ J1900 Quad Core Processor,	2nd Generation Intel® Core™ Processor,	2nd Generation Intel® Core™ Processor,	Backlight	CCFL / LED
	2.0GHz 2M L2 Cache;	2.0GHz 2M L2 Cache;	FCBGA 989 Intel® BD82HM65	FCBGA 989 Intel® BD82HM65	LCD Color	16.2M
Chipset	N/A	N/A	Platform Controller Hub, BD82HM65	Platform Controller Hub, BD82HM65	Touch Screen	15" 5-wire Resistive Touch Panel
Memory	4GB DDR3L SO-DIMM Module	4GB DDR3L SO-DIMM Module	2GB DDR3 SO-DIMM Module	2GB DDR3 SO-DIMM Module	VGA	1
Storage Device	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD	1 x 2.5" SATA HDD	DVI-D	1
2nd Display Output Ethernet	VGA	VGA	VGA	VGA	Display Port	1
(10/100/1000)	1	1	1	1		
Line-out / MIC	Line-OUT / MIC	Line-OUT / MIC	Line-OUT	Line-OUT	OSD Function	1x AUTO button for Auto Adjust
USB 2.0 / USB 3.0	2 / 2	2 / 2	4 / 0	4 / 0	Touch Screen	USB / RS-232
Cash Drawer Port	1	1	1	1	I/F	0307103232
Parallel Port	(1)	(1)	1	1	Construction	ABS + PC Plastic
COM Port	4x RJ-45 Powered RS-232	4x RJ-45 Powered RS-232	4x DB-9 Powered RS-232	4x DB-9 Powered RS-232	Front Panel	Front Bezel
+12VDC-OUT Jack	1	1	1	1	Mounting	Panel/ Wall/ Stand/ VESA 100 x 100 mm
DC-IN Jack	DC-24V IN	DC-24V IN	DC-19V IN	DC-19V IN		
Power Switch	1	1	1	1	Power Supply	External AC DC 12V/ 5.0A 60W
Internal Speaker	N/A	N/A	1	1		Power Brick
Expansion	2 x Mini-PCIe	2 x Mini-PCle	1x Mini-PCIe	1x Mini-PCle	Operating	0°C to 40°C
Power Supply Adapter	External AC DC 24V/ 5.0A 120W Power Brick	External AC DC 24V/ 5.0A 120W Power Brick	External AC DC 19V/ 6.31A 120W Power Brick	External AC DC 19V/ 6.31A 120W Power Brick	Temp. Storage	
Operating Temp.	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	Temp.	-20°C to 60°C
Storage Temp.	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	Operating	20%~80%,
Operating Humidity	20%~80%, Non-condensing	20%~80%, Non-condensing	20%~80%, Non-condensing	20%~80%, Non-condensing	Humidity	Non-condensing
IP Level	Front Bezel IP65	Front Bezel IP65	Front Bezel IP65	Front Bezel IP65	IP Level	Front Bezel IP65
Dimension (WxHxD) (mm)	368x331x210 (No MSR) 410x331x210 (w/ MSR)	368x331x210 (No MSR) 410x331x210 (w/ MSR)	368x331x210 (No MSR) 410(W)x331(H)x210 (w/ MSR)	368(W) x 331(H) x 210(D) mm (No MSR) 210(D) mm (No MSR)/ 410(W) x 331(H) x 210(D) mm(w/ MSR)	Dimension	368(W) x 331(H) x 210(D) mm (No MSR)/ 410(W) x 331(H) x 210(D) mm (w/ MSR)
Weight (kg)	8.0	8.0	8.0	8.0	Weight	7.0kg (15.43lbs)

# Open Frame Panel PC

LCD Size11.2.1.4.311.5.4.311.5.4.3Max, ResolutionSVGA, 800 x 600XGA, 1024 x 768XGA, 1024 x 768Luminance (dym)459GA 20GA 20Contrast (dym)GA 500GA 600, 800, 800, 800, 800, 800, 800, 800,	Model	OPPC 1240T	OPPC 1540T	OPPC 1540T-J1900
Luminance (cd/m2)14501420Contrast Ratio700800800Contrast Ratio700800800Viewing Angle (H V)65(U), 75(D), 80(L), 80(R)66(U), 80(D), 80(L), 80(R)66(U), 80(D), 80(L), 80(R)BacklightLEDLEDLEDLD Color11.5.2M16.7.M76.7.MTouch ScreenResistive 5-wireResistive 5-wireResistive 5-wireTouch Light Trans80%80%80%CPUIntel® Atom® 5836 DualiIntel® Acon® 5836 DualiIntel® Ceinera, 1460H2CPu11.52M Atom® 5836 Duali408 DDR3L SO-DIMM module408 DDR3L SO-DIMM moduleCF or CFast Socket1 CFast1 CFast1 CFast2nd biogo OutputVGAVGAVGA72 K B/MS1111111111112 x RES32(A22/48S2 x RES32(A22/48SPower Switch111Power Switch111Power Jack3 Pin Phoneix Connector3 Pin Phoneix Connector2.5 'Hard Driver BayYesYesYesPower Jack3 Pin Phoneix Connector1 CFa Stard Viel Xistard VESA 75X75Power Jack3 Pin Phoneix Connector3 Pin Phoneix Connector2.5 'Hard Driver BayYesYesYesExpansion2 x mini-PCle1 CFa Stard Viel Xistard YESA 75X75Power Jackat3 Pin Phoneix Connector1 CFa Stard Viel Xistard YESA 75X75Po	LCD Size	12.1" 4:3	15" 4:3	15" 4:3
Chronic Residue700800Viewing Angle (H-V)65(0), 75(0), 80(1), 80(R)66(0), 80(D), 80(D), 80(R), 80(R)60(0), 80(R), 80(R)BacklightLEDLEDLEDLCD Color16.2M16.7M16.7MTouch Light Trans- Insison80%80%80%CFUIntel® Atom® 5325 Dual Core 1.46 CHzIntel® Atom® 5325 Dual Core 1.46 CHzIntel® Celoron® 11900 Quad Core 2.0 CHzCFUIntel® Atom® 5325 Dual Core 1.46 CHzIntel® Atom® 5325 Dual Core 2.0 CHzIntel® Celoron® 11900 Quad Core 2.0 CHzCFUIntel® Atom® 5325 Dual Core 1.46 CHzSo.DiMM moduleSo.DiMM moduleCFUS.D.DIMM moduleSo.DiMM moduleCGB DDR3L So.DiMM moduleCFUS.D.DIMM moduleCGB DDR3L So.DiMM moduleSo.DiMM moduleCFUVGAVGAVGASto.DiMM moduleCGB DDR3L So.DiMM moduleCGB DDR3L So.DiMM moduleCFUVGAVGAVGASto.DiMM moduleCGB DDR3L So.DiMM moduleSo.DiMM moduleCFUVGAVGAVGASto.DiMM moduleCGB DDR3L So.DiMM moduleCGB DDR3L So.DiMM moduleCFUVGAVGAVGASto.DiMM moduleCGB DDR3L So.DiMM moduleCGB DDR3L So.DiMM moduleCFUVGAVGAVGASto.DiM moduleCGB DDR3L So.DiMM moduleCGB DDR3L So.DiMM moduleSto.Diff moduleCCCSto.Diff moduleCCSto.Diff moduleC </th <th>Max. Resolution</th> <th>SVGA, 800 x 600</th> <th>XGA, 1024 x 768</th> <th>XGA, 1024 x 768</th>	Max. Resolution	SVGA, 800 x 600	XGA, 1024 x 768	XGA, 1024 x 768
New mage with the second sec	Luminance (cd/m2)	450	420	420
Resklight LEDLEDLEDLEDLCD color16.2M16.7M16.7MTouch ScreenResistive S-wireResistive S-wireResistive S-wireTouch Light Trans- mission80%80%80%CPUIntel*Acom*E326 Dual Core 1.46CH2Intel*Acom*E322 Dual Core 1.46CH2Intel*Acom*E322 Dual Core 2.0CH2MemorySo-DIMM moduleSo-DIMM moduleSo-DIMM moduleCF or CF Sock11 CFast11 CFastCGB DDP31 So-DIMM moduleZnd Display DutputVCGAVCGAVCGAPS2 KB/MS11 CFast11 111Cher or Core 2.0CH221121121Znd Display DutputCGB DDP31 So-DIMM module11 11PS2 KB/MS11 11221Cher or Core 2.0CH221121121Cher or Core 2.0CH2222222Cher or Core 2.0CH2Core 2.0CH2Core 2.0CH2Znd Display DutputVCGAVCGAVCGAPS2 KB/MS11 CFast1010US2.0 (DS2.02112121Cher or Core 2.0CH22112121Core 1.46CH2211111PS2 KB/MS1111Power Switch1111Power Switch1111Power Switch22 x min-PCle22 x min-PCleZo Hard Driver BayYesYes100x100m2Power Switch1+12-30VDC21100x100m2Power I	Contrast Ratio	700	800	800
Liber Liber Liber16.2M16.7M16.7MTauch ScreenResistive S-wireResistive S-wireResistive S-wireTauch Light Trans- Mission80%80%80%CPUIntel®Atom® E3828 Dual Core 1.46GHzIntel®Atom® E3828 Dual Core 1.46GHzIntel®Atom® E3828 Dual Core 1.46GHzMemory4GB DDR3L SO-DIMM module34GB DDR3L SO-DIMM module4GB DDR3L SO-DIMM moduleCF or CFast Socket11 CFast11 CFast11 CFastZnd Display OutputVCAVCAVCAPS2 KB/MS111Ethernow211111Cf or Cfast Socket2/12/12Line-outLine-outLine-outLine-outUSB2.0/ USB3.02/12/12/1Com port2 X R5232/422/4852 X R5232/422/485Power Switch111Reset Button1 SPin Phoneix Connector3 Pin Phoneix ConnectorZ ST Hard Driver BayYesYesYesRower Jack1412 - 30VDC4122 - 30VDCPower Jack-4122 - 30VDC-51C to S0°CStorage Temp5°C to S0°C-5°C to S0°CStorage Temp.10% - 90%, Non-condensingNon-condensingDimension10% - 90%, Non-condensingNon-condensing	Viewing Angle (H-V)	65(U), 75(D), 80(L), 80(R)	60(U), 80(D), 80(L), 80(R)	60(U), 80(D), 80(L), 80(R)
Curr Dur ScreenResistive S-wireResistive S-wireTouch Light Trans80%80%80%B0%80%80%80%CPUIntel® Atom™ E3826 Dual Core 1.46012Intel® Core 0.0012Memory46B DDR31 SO-DIMM module1ntel® Core 0.0012CF or CFast Socket1 CFast4CB DDR31 SO-DIMM moduleCF or CFast Socket1 CFast1 1CF or CFast Socket1 CFast2 2CH or CFast2 12 2CF or CFast Socket2 12 2CF or CFast Socket2 12 2CH or CFast2 12 1CH or CFast2 12 1CH or CFast2 12 1CH or CFast1 11CH or CFast3 Pin Phoneix Connector3 Pin Phoneix ConnectorSF Hard Driver BayYesYesYesCh or CFast2 x mini-PCle2 x mini-PCleCh or CFast2 x CFast SortCo <t< th=""><th>Backlight</th><th>LED</th><th>LED</th><th>LED</th></t<>	Backlight	LED	LED	LED
Turssion         No.         No.           Tission         80%         80%         80%           CPU         Intel® Acom® 3826 Dual         Intel® Acom® 3826 Dual         Intel® Core 2.0GH2           Memory         %GB DDR31         SD-DIMM module         SD-DIMM module           CF or CFast Socket         1 CFast         1 CFast         1 CFast           Znd Display Output         VGA         VGA         VGA           PS2 KB/MS         1 1         1         1           Ethernet         Cline-out         Line-out         Line-out           USB2.0/ USB3.0         Z11         1         1           COM port         2 X RS232/422/485         2 X RS232/422/485         2 X RS232/422/485           Power Switch         1         1         1         1           Rese Button         1         1         1         1           Power Jack         3 Pin Phoneix Connector         3 Pin Phoneix Connector         3 Pin Phoneix Connector           Z.5' Hard Driver Bay         Yes         Yes         Yes         Yes           Reset Button         1 1         1         1         1           Power Jack         3 Pin Phoneix Connector         3 Pin Phoneix Connector         2 X m	LCD Color	16.2M	16.7M	16.7M
missionoutsoutsoutsCPUIntel® Acon™ E3826 DualIntel® Acon™ E3826 DualIntel® Celora™ JS00 QuadMemory\$4GB DDR31 SO-DIMM module\$4GB DDR31 SO-DIMM module\$6GB DDR31 SO-DIMM moduleCF or CFast Socket1 CFast1 CFast1 CFast2nd Display OutputVGA\$000000000000000000000000000000000000	Touch Screen	Resistive 5-wire	Resistive 5-wire	Resistive 5-wire
CPOCore 1.46GHzCore 1.46GHzCore 2.0GHzCore 2.0GHZ		80%	80%	80%
MemorySO-DIMM moduleSO-DIMM moduleSO-DIMM moduleCF or CFast Socket11 CFast11 CFast2nd Display OutputVGAVGAVGA11PS2 KB/MS11Ethernet (10/100/1000)222 KB/MS2,112Line-out11USB2.0/ USB3.02/12/12 x R5232/422/4852 x R5232/422/4852 x R5232/422/485Power Switch111Reset Button3 Pin Phoneix Connector3 Pin Phoneix Connector3 Pin Phoneix Connector3 Pin Phoneix Connector3 Pin Phoneix ConnectorSV-THAT Driver BayYesYesYesKaunting2 x mini-PCle2 x mini-PClePower Jack9anel/Wall/Stand/VESA 75x75, 100x100mmPanel/Wall/Stand/VESA 75x75, 100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDCPower SupplyOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°CStorage Temp.10% ~ 90%, Non-condensingNon% ~ 90%, Non-condensingDimension10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing	CPU			
2nd Display OutputVGAVGAPS2 KB/MSNGANGAPS2 KB/MS11Ethernet (0/1000)22222Line-outLine-outLine-outUSB2.0/ USB3.02/12/1COM port2 x RS232/422/4852 x RS232/422/485Power Switch11Reset Button11Power Jack3 Pin Phoneix Connector3 Pin Phoneix Connector2.5' Hard Driver BayYesYesYesPower Jack2 x mini-PCle2 x mini-PCleRower Suphy0ptional0ptionalPower SuphyOptional0ptionalOperating Temp5°C to 50°C-5°C to 50°CStorage Temp.20°C to 75°C20°C to 75°COperating Humdity10% < 090%, Non-condensing23°E x 90 x 60 3Dimension20°C x 200 x 61 923°E x 90 x 60 3	Memory			
PS2 KB/MS         1         1         1           PS2 KB/MS         1         1         1         1           Ethernet (10/100/1000)         2         2         2         2         2           Line-out         Line-out         Line-out         Line-out         Line-out         Line-out           USB2.0/ USB3.0         2/1         2/1         2/1         2/1         2/1           COM port         2 x RS232/422/485         2 x RS232/422/485         2 x RS232/422/485         2 x RS232/422/485           Power Switch         1         1         1         1           Reset Button         1         1         1         1           Power Jack         3 Pin Phoneix Connector         3 Pin Phoneix Connector         3 Pin Phoneix Connector           2.5" Hard Driver Bay         Yes         Yes         Yes         Yes           Expansion         2 x mini-PCle         2 x mini-PCle         2 x mini-PCle           Mounting         Panel/Wall/Stand/YESA 75x75,         Panel/Wall/Stand/YESA 75x75,         Panel/Wall/Stand/YESA 75x75,           Power Supply         Optional         Optional         Optional         Optional           Operating Temp.         -5°C to 50°C         -5°C to 50°C <td< th=""><th>CF or CFast Socket</th><th>1 CFast</th><th>1 CFast</th><th>1 CFast</th></td<>	CF or CFast Socket	1 CFast	1 CFast	1 CFast
Ethoritotion         2         2         2           Line-out         Line-out         Line-out         Line-out           USB2.0/USB3.0         2/1         2/1         2/1           COM port         2 x R5232/422/485         2 x R5232/422/485         2 x R5232/422/485           Power Switch         1         1         1           Reset Button         1         1         1           Power Jack         3 Pin Phoneix Connector         3 Pin Phoneix Connector         3 Pin Phoneix Connector           System         2 x mini-PCle         2 x mini-PCle         2 x mini-PCle           Mounting         Panel/Wall/Stand/ VESA 75x75, 100x100mm         Panel/Wall/Stand/ VESA 75x75, 100x100mm         Panel/Wall/Stand/ VESA 75x75, 100x100mm           Power Input         -12 - 30VDC         -12 - 30VDC         -12 - 30VDC           Power Supply         Optional         Optional         Optional           Operating Temp.         -5°C to 50°C         -5°C to 50°C         -5°C to 50°C           Storage Temp.         -20°C to 75°C         -20°C to 75°C         -20°C to 75°C           Operating Humidty         10% 90%, non-condensing         10% 90%, non-condensing         10% 90%, non-condensing	2nd Display Output	VGA	VGA	VGA
(10/100/1000)         2         2         2         2           Line-out         Line-out         Line-out         Line-out           USB2.0/ USB3.0         2/1         2/1         2/1           COM port         2 x RS232/422/485         2 x RS232/422/485         2 x RS232/422/485           Power Switch         1         1         1           Reset Button         1         1         1           Power Jack         3 Pin Phoneix Connector         3 Pin Phoneix Connector         3 Pin Phoneix Connector           2.5" Hard Driver Bay         Yes         Yes         Yes         Yes           Kapansion         2 x mini-PCle         2 x mini-PCle         2 x mini-PCle           Mounting         Panel/Wall/Stand/VESA 75x75, 100×100mm         Yenel/Wall/Stand/VESA 75x75, 100×100mm         Yenel/Wall/Stand/VESA 75x75, 100×100mm           Power Input         +12 ~ 30VDC         +12 ~ 30VDC         +12 ~ 30VDC           Prover Supply         Optional         Optional         Optional           Operating Temp.         -5°C to 50°C         -5°C to 50°C         -5°C to 50°C           Storage Temp.         -20°C to 75°C         -20°C to 75°C         -20°C to 75°C           Operating Humidity         10% ~ 90%, Non-condensing         Non-cond	PS2 KB/MS	1	1	1
USB2.0/ USB3.0         2/1         2/1         2/1           COM port         2 x R5232/422/485         2 x R5232/422/485         2 x R5232/422/485           Power Switch         1         1         1           Reset Button         1         1         1           Power Jack         3 Pin Phoneix Connector         3 Pin Phoneix Connector         3 Pin Phoneix Connector           2.5' Hard Driver Bay         Yes         Yes         Yes           Mounting         2 x mini-PCle         2 x mini-PCle         2 x mini-PCle           Power Supply         Yes         Panel/Wall/Stand/ VESA 75x75, 100x100mm         Panel/Wall/Stand/ VESA 75x75, 100x100mm           Power Supply         Optional         Optional         Optional         Optional           Operating Temp.         -5°C to 50°C         -5°C to 50°C         -5°C to 50°C           Storage Temp.         20°C to 75°C         -20°C to 75°C         -20°C to 75°C           Dimension         20°C x 240 x 64 8         210% - 20% x 68 2         220 x 260 x 68 2		2	2	2
COM port2 x RS232/422/4852 x RS232/422/4852 x RS232/422/485Power Switch111Reset Button111Power Jack3 Pin Phoneix Connector3 Pin Phoneix Connector3 Pin Phoneix Connector2.5' Hard Driver BayYesYesYesExpansion2 x mini-PCle2 x mini-PCle2 x mini-PCleMountingPanel/Wall/Stand/VESA 75x75, 100x100mmPanel/Wall/Stand/VESA 75x75, 100x100mmPanel/Wall/Stand/VESA 75x75, 100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDC+12 ~ 30VDCPower Supply 	Line-out	Line-out	Line-out	Line-out
Power Switch11Reset Button111Power Jack3 Pin Phoneix Connector3 Pin Phoneix Connector3 Pin Phoneix Connector2.5" Hard Driver BayYesYesYesZ.5" Hard Driver BayYes2 x mini-PCle2 x mini-PCleMountingPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDC+12 ~ 30VDCPower SupplyOptionalOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°C-5°C to 50°CCoperating Humidity10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing208 × 300 × 60 2Dimension207 × 240 × 61 9208 × 300 × 60 2220 × 260 × 60 2	USB2.0/ USB3.0	2/1	2/1	2/1
Reset Button11Power Jack3 Pin Phoneix Connector3 Pin Phoneix Connector3 Pin Phoneix Connector2.5" Hard Driver BayYes3 Pin Phoneix Connector3 Pin Phoneix ConnectorExpansion2 x mini-PCle2 x mini-PCle2 x mini-PCleMountingPanel/Wall/Stand/VESA 75x75, 100x100mmPanel/Wall/Stand/VESA 75x75, 100x100mmPanel/Wall/Stand/VESA 75x75, 100x100mmPanel/Wall/Stand/VESA 75x75, 100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDC+12 ~ 30VDCPower Supply AdapterOptionalOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°C-5°C to 50°CStorage Temp.10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing10% ~ 90%, Non-condensingDimension207 x 240 x 61 8238 x 280 x 68 3238 x 280 x 68 3	COM port	2 x RS232/422/485	2 x RS232/422/485	2 x RS232/422/485
Power Jack3 Pin Phoneix Connector3 Pin Phoneix Connector3 Pin Phoneix Connector2.5" Hard Driver BayYesYesYesExpansion2 x mini-PCle2 x mini-PCle2 x mini-PCleMountingPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDC+12 ~ 30VDCPower Supply AdapterOptionalOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°C-5°C to 50°CStorage Temp.10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing10% ~ 90%, Non-condensingDimension207 x 240 x 61 8238 x 280 x 68 2228 x 280 x 68 2	Power Switch	1	1	1
2.5" Hard Driver BayYesYesExpansion2 x mini-PCle2 x mini-PCleMountingPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDCPower Supply AdapterOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°CStorage Temp20°C to 75°C-20°C to 75°COperating Humidity10% ~ 90%, Non-condensing10% ~ 90%, Non-condensingDimension207 x 240 x 61 8239 x 290 x 69 3	Reset Button	1	1	1
Expansion         2 x mini-PCle         2 x mini-PCle         2 x mini-PCle           Mounting         Panel/Wall/Stand/VESA 75x75, 100x100mm         Panel/Wall/Stand/VESA 75x75, 100x100mm         Panel/Wall/Stand/VESA 75x75, 100x100mm         Panel/Wall/Stand/VESA 75x75, 100x100mm           Power Input         +12 ~ 30VDC	Power Jack	3 Pin Phoneix Connector	3 Pin Phoneix Connector	3 Pin Phoneix Connector
NountingPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPanel/Wall/Stand/ VESA 75x75, 100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDC+12 ~ 30VDCPower Supply AdapterOptionalOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°C-5°C to 50°CStorage Temp20°C to 75°C20°C to 75°C20°C to 75°COperating Humidity10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing20°C x 240 x 61 8Dimension20°C x 240 x 61 8220 x 280 x 69 3220 x 280 x 69 3	2.5" Hard Driver Bay	Yes	Yes	Yes
Nounting100x100mm100x100mm100x100mmPower Input+12 ~ 30VDC+12 ~ 30VDC+12 ~ 30VDCPower Supply AdapterOptionalOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°C-5°C to 50°CStorage Temp20°C to 75°C-20°C to 75°C-20°C to 75°COperating Humidity10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing2328 × 280 × 68 3Dimension207 × 240 × 61 82328 × 280 × 68 32328 × 280 × 68 3	Expansion	2 x mini-PCIe	2 x mini-PCIe	2 x mini-PCIe
Power Supply AdapterOptionalOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°C-5°C to 50°CStorage Temp20°C to 75°C-20°C to 75°C-20°C to 75°COperating Humidity10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing10% ~ 90%, Non-condensing229 × 280 × 69 2Dimension207 × 240 × 61 8229 × 280 × 69 2229 × 280 × 69 2	Mounting			
AdapterOptionalOptionalOptionalOperating Temp5°C to 50°C-5°C to 50°CStorage Temp20°C to 75°C-20°C to 75°COperating Humidity10% ~ 90%, Non-condensing10% ~ 90%, Non-condensingDimension207 x 240 x 61 %229 x 280 x 69 3	PowerInput	+12 ~ 30VDC	+12 ~ 30VDC	+12 ~ 30VDC
Storage Temp.         -20°C to 75°C         -20°C to 75°C         -20°C to 75°C           Operating Humidity         10% ~ 90%, Non-condensing         10% ~ 90%, Non-condensing         10% ~ 90%, Non-condensing           Dimension         207 x 240 x 61 %         229 x 280 x 69 2         229 x 280 x 69 2		Optional	Optional	Optional
Operating Humidity     10% ~ 90%, Non-condensing     10% ~ 90%, Non-condensing     10% ~ 90%, Non-condensing       Dimension     207 x 240 x 61 %     229 x 280 x 69 2     229 x 280 x 69 2	Operating Temp.	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C
Operating Humidity     Non-condensing     Non-condensing     Non-condensing       Dimension     207 x 240 x 61 8     229 x 280 x 69 2     229 x 280 x 69 2	Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
	Operating Humidity			
		307 x 240 x 61.8	329 x 280 x 69.3	329 x 280 x 69.3
Weight (kg)         3.8         4         4	Weight (kg)	3.8	4	4

# Open Frame Panel PC

Model		100	1000
	OPPC 1740T	OPPC 1940T	OPPC 1940T-J1900
LCD Size	17" 4:3	19" 4:3	19" 4:3
Max. Resolution	SXGA, 1280 x 1024	SXGA, 1280 x 1024	SXGA, 1280 x 1024
Luminance (cd/m2)	350	350	350
Contrast Ratio	1000	1000	1000
Viewing Angle (H-V)	80(U), 80(D), 85(L), 85(R)	80(U), 80(D), 85(L), 85(R)	80(U), 80(D), 85(L), 85(R)
Backlight	LED	LED	LED
LCD Color	16.7M	16.7M	16.7M
Touch Screen	Resistive 5-wire	Resistive 5-wire	Resistive 5-wire
Touch Light Transmission	80%	80%	80%
CPU	Intel® Atom™ E3826 Dual Core 1.46GHz	Intel® Atom™ E3826 Dual Core 1.46GHz	Intel® Celoron™ J1900 Quad Core 2.0GHz
Memory	4GB DDR3L SO-DIMM module	4GB DDR3L SO-DIMM module	4GB DDR3L SO-DIMM module
CF or CFast Socket	1 CFast	1 CFast	1 CFast
2nd Display Output	VGA	VGA	VGA
PS2 KB/MS	-	-	-
Ethernet (10/100/1000)	2	2	2
Line-out	Line-out	Line-out	Line-out
USB2.0/ USB3.0	2/1	2/1	2/1
COM port	2 x RS232/422/485	2 x RS232/422/485	2 x RS232/422/485
Power Switch	1	1	1
Reset Button	1	1	1
Power Jack	3 Pin Phoneix Connector	3 Pin Phoneix Connector	3 Pin Phoneix Connector
2.5" Hard Driver Bay	Yes	Yes	Yes
Expansion	2 x mini-PCIe	2 x mini-PCIe	2 x mini-PCle
Mounting	Panel/Wall/Stand/ VESA 75x75, 100x100mm	Panel/Wall/Stand/ VESA 75x75, 100x100mm	Panel/Wall/Stand/ VESA 75x75, 100x100mm
Power Input	+12 ~ 30VDC	+12 ~ 30VDC	+12 ~ 30VDC
Power Supply Adapter	Optional	Optional	Optional
Operating Temp.	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10% ~ 90%, Non-condensing	10% ~ 90%, Non-condensing	10% ~ 90%, Non-condensing
Dimension (WxHxD)(mm)	387 x 323.2 x 73.6	422.6 x 350.6 x 75.8	422.6 x 350.6 x 75.8

# Open Frame High Brightness Panel PC

Model	OPPC 1540HT-J1900	OPPC 1940HT-J1900
LCD Size	15" 4:3	19" 4:3
Max. Resolution	SXGA, 1280 × 1024	SXGA, 1280 x 1024
Luminance (cd/m2)	1000	1000
Contrast Ratio	2500	1000
Viewing Angle (H-V)	88(U), 88(D), 88(L), 88(R)	80(U), 80(D), 85(L), 85(R)
Backlight	LED	LED
LCD Color	16.2M	16.7M
Touch Screen	Resistive 5-wire	Resistive 5-wire
Touch Light Transmis- sion	80%	80%
CPU	Intel® Celoron™ J1900 Quad Core 2.0GHz	Intel® Celoron™ J1900 Quad Core 2.0GHz
Memory	4GB DDR3L SO-DIMM module	4GB DDR3L SO-DIMM module
CF or CFast Socket	1 CFast	1 CFast
2nd Display Output	VGA	VGA
PS2 KB/MS	-	-
Ethernet (10/100/1000)	2	2
Line-out	Line-out	Line-out
USB2.0/ USB3.0	2/1	2/1
COM port	2 x RS232/422/485	2 x RS232/422/485
Power Switch	1	1
Reset Button	1	1
Power Jack	3 Pin Phoneix Connector	3 Pin Phoneix Connector
2.5" Hard Driver Bay	Yes	Yes
Expansion	2 x mini-PCIe	2 x mini-PCIe
Mounting	Panel/Wall/Stand/ VESA 75x75, 100x100mm	Panel/Wall/Stand/ VESA 75x75, 100x100mm
Power Input	+12 ~ 30VDC	+12 ~ 30VDC
Power Supply Adapter	Optional	Optional
Operating Temp.	-5°C to 50°C	-5°C to 50°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10% ~ 90%, Non-condensing	10% ~ 90%, Non-condensing
Dimension (WxHxD) (mm)	329 x 280 x 69.3	422.6 x 350.6 x 75.8
Weight (kg)	4	6.15

PANEL PC Product Selection Guide

# Transport Infotainment Panel PC & Display

Model	2     2     2     2     2     2     2     2     2       2     4     4     4     4     4     4     4       2     4     5     4     5     4     5     4       2     4     5     4     5     4     5     4       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5       2     5     5     5     5     5     5     5 <t< th=""><th></th></t<>		
	TPPC 2210	TPPD 2200	
LCD Size	21.5" 16:9	21.5" 16:9	
Max. Resolution	FD 1920x1080	FD 1920x1080	
Luminance (cd/m2)	500	500	
Contrast Ratio	3000	3000	
Viewing Angle (H-V)	89(U), 89(D), 89(L), 89 (R)	89(U), 89(D), 89(L), 89 (R)	
Backlight	LED	LED	
LCD Color	16.7M	16.7M	
CPU	Intel® CeleronTM N2807 Dual core 1.58GHz	N/A	
Memory	DDR3L SO-DIMM, up to 4GB	N/A	
Storage Device	1 x 2.5" SSD 1x mSATA	N/A	
2nd Display Output	N/A	N/A	
Ethernet (10/100/1000)	2	N/A	
USB2.0/USB3.0	2/0	N/A	
COM Port	1	N/A	
CAT5 extender Daisy Chain	TX(Optional)	TX/RX	
Speaker	2W x 2	N/A	
power input	DC 12V to 36V	DC 12V to 36V	
Expansion	2 x mini PCIe	N/A	
Power Switch	1	N/A	
Mounting	VESA 75/ 100/ 200	VESA 75/ 100/ 200	
Power Jack	2 x 3 P2.5	2 x 3 P2.5	
Operating Temp.	-10°C to 40°C	-10°C to 40°C	
Storage Temp.	-20°C to 60°C	-20°C to 60°C	
Operating Humidity	10% ~ 90%, Non-condensing	10% ~ 90%, Non-condensing	
IP Level	IP54	IP54	
Dimension (WxHxD)(mm)	528.46x323.06x58	528.46x323.06x58	
Weight (kg)	7	7	

# Marine Panel PC

Image: space of the space of	Model				AR.
LLD Size16.9 8°16.9 12°16.9 12°16.9 12°16.9 24°Max. ResolutionWVCA RB0 x 480WVCA 1280 x 800WVCA 1280 x 800Full HD 1920 x 1080Luminance (c/m2)600500500500Contrast Ratio6001000600, 500, 701, 701, 701, 701, 701, 701, 701, 7					
Area ResolutionVVCA 800 x 480VVCA 1280 x 800VVCA 1280 x 800Full HD 1920 x 1080Luminance (cd/m2)600500500300300Contrast Ratio6600100001000098(U), 88(U), 88(					
unimatic (cd/m2)660055005500300Contrast Ratio66001000100050005000Viewing Angle (HV)6600, 600), 700, 700, 700, 700, 700, 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0), 88(0),					
Carbrank Red Contrast Red6-00100010005000Viewing Angle (HV)6-0(U), 60(U), 70(U), 70(R)86(U), 88(U), 88(D),					
Vewing Angle (VI-V)60(U), 60(D), 70(L), 70(R)88(U), 88(D), 88(L), 88(R)80(U), 89(D), 89(L), 88(R)80(D), 80(L), 88(R)80(L), 88(R) </td <td></td> <td></td> <td></td> <td></td> <td></td>					
BacklightLEDLEDLEDLEDLCD Color16.2M16.2M16.2M16.2M16.7MTouch Screen3° Projected Capacitive Touch Panel With AR coating Touch Light Transmis Son Dink Indult12° Projected Capacitive Touch Light Transmis Processor E3485, 1.91 CH2, 2M L2 Cache12° Projected Capacitive Touch Light Transmis Processor E3485, 1.91 CH2, 2M L2 Cache1111 CH2, 2M L2 CacheMemoryACB DOB31, So-DinM Indult128 GM.2 SATA32 GB DOB31, So-DinM Indult32 GB DOB31, So-DinM Indult32 GB DOB31, So-DinM IndultStorage128 GM.2 SATA128 GM.2 SATA32 GB DOB31, So-DinM Indult40 GB DOB31, So-DinM Indult32 GB DOB31, So-DinM IndultStorage128 GM.2 SATA128 GM.2 SATA32 GB DOB31, So-DinM Indult12 CACStorage128 GM.2 SATA128 GM.2 SATA32 GB DOB31, So-DinM Indult12 CACCM port11111112/212 GG M.2 SATA12 GG M.2 SATAStorage111111111112/2CM port12.8 GM.2 SATA12 SO-DINA Indult12 SC-DIADispaced Sata12.9 Pro Poenix Storage Temp.12 SG M.2 SATA13 SC-DIAStorageNoYesYes12 SC-DIAPower Jack12 SATA13 SATA13 SATA13 SATASonageCH2 SATA12 SATA12 SATA					
Loc16.2M16.2M16.2M16.2M16.2M12° Projected Capacitive tach Panel With AR coaling24° Projected Capacitive tach Panel With AR coaling24° Projected Capacitive tach Panel With AR coalingTouch Light Transmis89%89%89%91%CPUInitel® Atom" processor EB45 processor EB45 <b< th=""><th></th><th></th><th></th><th></th><th></th></b<>					
Touch Screen         8" Projected Capacitive Buch Panel With AR coating         12" Projected Capacitive Buch Panel With AR coating         24" Projected Capacitive Buch Panel With AR coating           Touch Light Transmis         89%         89%         89%         9%         9%           CPU         Intel® Atom <sup>™</sup> processor E384S, processor E384S, Broth Z, 2ML 2 Cache         Intel® Atom <sup>™</sup> processor E384S, Broth Z, 2ML 2 Cache         Intel® Atom <sup>™</sup> processor E384S, Broth Z, 2ML 2 Cache         Intel® Core <sup>®</sup> processor E384S, Broth Z, 2ML 2 Cache         Intel® Core <sup>®</sup> Broth Core Broth East 2 Cach					
Houch Series         Touch Painel With AR coating         Touch Painel With AR coating         Touch Painel With AR coating           Touch Light Transmis- sion         89%         89%         89%         91%           CPU         Intel® Atom <sup>™</sup> processor E384S, SD-DIMM module         Intel® Atom <sup>™</sup> SD-DIMM module         Intese SD-DIMM module         Intese SD-DIMM module	LCD Color	16.2M	16.2M	16.2M	16.7M
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CPUprocessor E3845, 1.91 GHz, 2M 22 Gabprocessor E3845, 1.91 GHz, 2M 22 GBprocessor E3845, So-DIMM moduleprocessor E38		89%	89%	89%	91%
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And the second	2.5" Hard Driver Bay	No	Yes	Yes	No
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Operating Temp.         -25°C to 70°C         -25°C to 70°C         -25°C to 70°C         -25°C to 70°C           Storage Temp.         -25°C to 75°C         -25°C to 75°C         -25°C to 75°C         -25°C to 75°C           Operating Humidity         10%~90%, non-condensing         10%~90%, non-condensing         10%~90%, non-condensing         10%~90%, non-condensing           IP Level         IP65 front bezel IP20 back system         Spox366.6x71.66	Power Input	24VDC	24VDC	24VDC	110/230VAC 24VDC
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Operating Humidity     non-condensing     non-condensing     non-condensing     non-condensing       IP Level     IP65 front bezel IP20 back system       Dimension (WxHxD)(mm)     218.5x147.5x39.5     307.5x209x39.9     307.5x209x39.9     590x366.6x71.66	Storage Temp.	-25°C to 75°C	-25°C to 75°C	-25°C to 75°C	-25°C to 75°C
IP Level     IP20 back system     IP20 back system     IP20 back system     IP20 back system       Dimension (WxHxD)(mm)     218.5x147.5x39.5     307.5x209x39.9     307.5x209x39.9     590x366.6x71.66	Operating Humidity				
(WxHxD)(mm) 218.5x147.5x39.5 307.5x209x39.9 307.5x209x39.9 590x366.6x71.66	IP Level				
Weight(kg)         3         5         9		218.5x147.5x39.5	307.5x209x39.9	307.5x209x39.9	590x366.6x71.66
	Weight(kg)	3	5	5	9

# **IPPC 1560TE**







### **Main Features**

- 4:3 15" XGA fanless panel computer
- Powerful 2nd/3rd generation Intel<sup>®</sup> Core<sup>™</sup> processor
- Two expansion slots for add-on PCI or/and PCIe cards
- Optional 3.5G/Wi-Fi module/2.5" HDD

- Metal housing with robust aluminum front bezel for harsh environment
- IP65 compliant front panel
- Support fieldbus module, JMobile HMI and CODESYS SoftLogic (optional)
- For class I, division 2 hazardous locations

## **Product Overview**

IPPC 1560TE is a heavy industrial panel PC equipped with powerful 2nd/3rd generation Intel® Core™ processor, TFT LCD panel with LED backlight and userfriendly touch screen. It provides two expansion slots to support PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. The NEMA4/IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC 1560TE is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

# **Specifications**

#### Panel

- LCD Size: 15", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 400cd/m<sup>2</sup>
- Contrast ratio: 700
- LCD color: 16.7M
- Viewing angle: 60 (U), 80 (D), 80 (L), 80 (R)
- Backlight: LED

#### Touch

- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

#### System

- CPU: support 2nd/3rd gen. Intel<sup>®</sup> Core<sup>™</sup> processor family, rPGA 988 - Intel<sup>®</sup> Core™ i5-3610ME, Dual Core, 2.7GHz, 3M Cache (maximum
- frequency 3.3GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System chipset: Intel® HM76 express chipset
- System memory: 1 x 204-pin DDR3 SO-DIMM socket, 4G DDR3 (default), support up to 8GB DDR3-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x External locked CFast socket
- 1 x Hard drive bay
- Watchdog timer: Watchdog timeout can be programmable by

software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module) 2 x expansion slots for add-on PCI or/and PCIe cards
- 1 x PCI and 1 x PCIe x4 slots (default)
- 2 x PCIe x4 slots
- 2 x PCI slots

#### Rear I/O

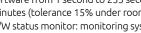
- 2nd display VGA port: 1 x DB15
- Ethernet: 2 x RJ45
- USB: 4 x USB 2.0 (hidden)
- COM #1: RS232/422/485 w/ 2.5kv isolated protection
- COM #2: RS232/422/485 w/ 2.5kv isolated protection
- COM #3: RS232 w/ RI or 5V or 12V selection
- ATX power switch
- Reset button

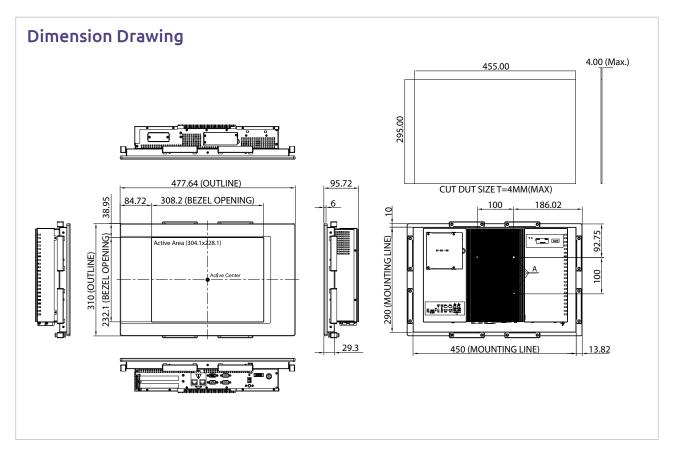
#### Ethernet

- LAN chip: dual Intel® 82574L Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

#### Fieldbus

• Support up to two fieldbus module (1 universal kit and 1 special kit)





#### Mechanical & Environment

- Color: Pantone 432C\RAL 70 24 front bezel
- Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
  - Power input: 24 VDC, 4A, Class 2
  - Power protection: ±20% with 1.5kv isolated protection
  - Fuse: 250V/10A
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature: -10°C to 50°C
- Storage temperature: -20°C to 75°C
- + Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 477.64 x 310 x 95.72mm
- Weight: 9.51Kg

#### Certifications

- CE (including EN61000-6-2/EN61000-6-4)
- FCC Class A
- UL508
- C1D2: USL-ANSI/ISA 12.12.01-2013
  - CNL-CSA C22.2 No. 213-M1987

#### **OS Support Lists**

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0
- Windows XP 32-bit

## **Ordering Information**

#### System

- IPPC 1560TE (P/N: 10II1560T02X0)
- 15" XGA LED backlight fanless touch panel PC, Intel® Core™ i5-3610ME 2.7GHz, touch screen, 4GB DDR3, 3 x COM, isolated protection DC power

#### Optional

- 24V/5A, 120W AC to DC DIN rail power adapter w/o power cord (P/N: 7440120001X00)
- Riser card 2 x PCI slots (P/N: 20JK036P200X0)
- Riser card 2 x PCIe x4 slots (P/N: 20JK036E200X2)
- PROFINET, EtherNet/IP, EtherCAT, SERCOSIII master interface module: FBI90E-REM (P/N:10J50090E08X0)
- PROFINET master interface module: FBI90E-PNM (P/N: 10J50090E21X0)
- PROFIBUS master interface module: FBI90E-PBM (P/N:10J50090E09X0)
- DeviceNet master interface module: FBI90E-DNM (P/N:10J50090E10X0)
- EtherCAT master interface module: FBI90E-ECM (P/N:10J50090E19X0)
- EtherNet/IP master interface module: FBI90E-EPM (P/N:10J50090E20X0)

# **IPPC A1570T**







### **Main Features**

- 4:3 15" XGA fanless panel computer
- Powerful 4th generation Intel<sup>®</sup> Core<sup>™</sup> i processor
- · Optional two expansion slots for add-on PCI or/and PCIe card
- Optional 3.5G/Wi-Fi module/2.5" HDD
- Front accessible USB 2.0 for easy of field maintenance
- Inside USB 2.0 type A connector for license key
- Metal housing with robust aluminum IP66 compliant front bezel for harsh environment
- Two FBI Windows
- Wide range 12~30VDC power input

### **Product Overview**

IPPC A1570 series is a heavy industrial panel PC to support powerful 4th generation Intel® Core™ i processor, TFT LCD panel with LED backlight and userfriendly touch screen. It provides two expansion slots to support PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. The IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC A1570 series is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

## **Specifications**

#### Panel

- LCD Size: 15", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 450cd/m<sup>2</sup> Contrast ratio: 800
- LCD color: 16.2M
- Viewing angle: 70 (U), 80 (D), 80 (L), 80 (R)
- Backlight: LED

#### Touch

- For IPPC A1570T Series
- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

#### System

- CPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
- Core<sup>™</sup> i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency 3.3GHz if turbo boost enabled)
- Core<sup>™</sup> i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost) BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket,
- support up to 16GB DDR3/ DDR3L 1333/1600, non-ECC and unbuffered • Storage device:
  - 1 x External locked CFast socket

- 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage - 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage • Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/ NVRAM/mSATA storage)
- 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
- 1 x PCI and 1 x PCIe x4 slots
- 2 x PCIe x4 slots

#### Rear I/O

- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mic-in
- USB: 4 x USB 3.0
- 3-pin remote power on/off switch connector ٠
- ٠ Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

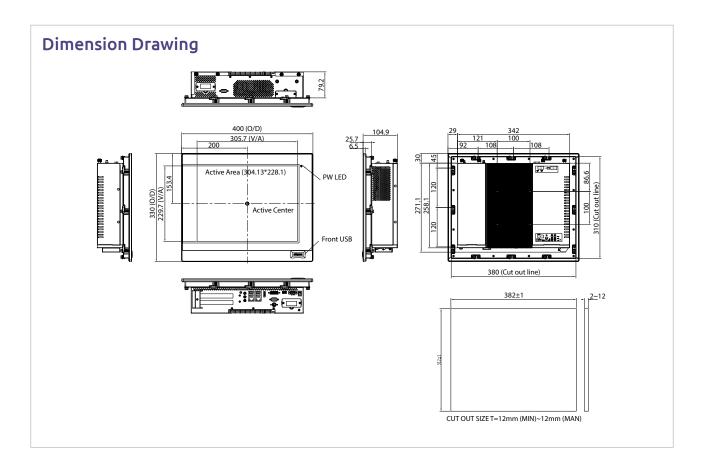
#### Top I/O

COM#2 RS232/422/485 w/ 5V or 12V selection

#### Audio

HD codec: Realtek ALC886-GR

- 2 x PCI slots
- 1 x PCIe x16 slot
- 1 x Front accessible USB 2.0



• Audio interface: Line-out/Line-in/Mic-in audio jack

#### Ethernet

- LAN chip: dual Intel® I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

#### Fieldbus

Two FBI Windows

#### Mechanical & Environment

- Color: Pantone 432C\RAL 70 24 front bezel
- Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
  - Power input: 12~30 VDC
  - Power connector: 3-pin PHOENIX connector
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  Shock:
  - IEC 68 2-27
  - HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature
- Resistive: -20°C to 50°C
- P-Cap: -20°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing (for IPPC A1570T series, limits to be at 90% RH at max 50°C)
- Dimension: 400 x 330 x 104.9 mm
- Weight: (barebone)
- IPPC A1570TE2-DC: 8.99kg
- IPPC A1570PE2-DC: 9.08kg

#### Certifications

• CE (including EN61000-6-2/EN61000-6-4), FCC Class A

#### **OS Support Lists**

- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit

### **Ordering Information**

#### System

- IPPC A1570T-DC (P/N: 10II1570T01X0)
- 15" XGA LED backlight fanless RTP touch panel PC, 2 x COM, DC power input

#### Optional

- 24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120023X00)
- ASSY NISK37P1E1, one PCI slot and one PCIe x4 slot riser card (P/N: 20JK037P100X0)
- ASSY NISK37P2, two PCI slots (P/N: 20JK037P200X0)
- ASSY NISK37E2, two PCIe x4 slot (P/N: 20JK037E200X0)
- ASSY NISK37E16, one PCIe x16 slot (P/N: 20JK037E100X0)

# **IPPC A1770T**







### **Main Features**

- 4:3 17" SXGA fanless panel computer
- Powerful 4th generation Intel<sup>®</sup> Core™ i processor
- Optional two expansion slots for add-on PCI or/and PCIe card
- Optional 3.5G/Wi-Fi module/2.5" HDD
- Front accessible USB 2.0 for easy of field maintenance
- Inside USB 2.0 type A connector for license key
- Metal housing with robust aluminum IP66 compliant front bezel for harsh environment
- Two FBI Windows

## **Product Overview**

IPPC A1770 series is a heavy industrial panel PC to support powerful 4th generation Intel® Core™ i processor, TFT LCD panel with LED backlight and userfriendly touch screen. It provides two expansion slots to support PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. The IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC A1770 series is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

### **Specifications**

#### Panel

- LCD size: 17", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)

#### Backlight: LED

#### Touch

#### For IPPC A1770T Series

- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

#### System

- CPU (optional): support 4th gen. Intel<sup>®</sup> Core™ i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled )
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency 3.3GHz if turbo boost enabled )
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium<sup>®</sup> G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
   Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket, support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered
- Storage device:
  - 1 x External locked CFast socket
  - 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
  - 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional) (for DC model only)
  - 2 x Hard drive bay: support 2 x 2.5" SATA HDD/SSD (optional)

RAID 0, 1 (for AC model only)

- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
  Expansion:
- Expansion:
  - 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/ NVRAM/mSATA storage)
  - 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
  - 1 x PCI and 1 x PCIe x4 slots
  - 2 x PCIe x4 slots
- 2 x PCI slots
- 1 x PCIe x16 slot
- 1 x Front accessible USB 2.0

#### Rear I/O

- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mlic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

## Top I/O

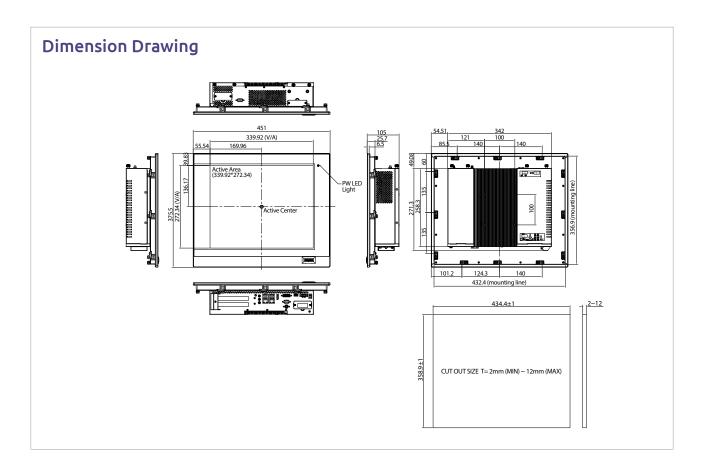
COM#2 RS232/422/485 w/ 5V or 12V selection

#### Audio

- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

#### Ethernet

- LAN chip: dual Intel® I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible



#### Fieldbus

### Two FBI Windows

- Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
  Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
  - Power input: 12~30 VDC
  - Power connector: 3-pin PHOENIX connector
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating) 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - -
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating) Shock:
- IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature:
  - Resistive: -10°C to 50°C
  - P-Cap: -20°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing (for IPPC A1770T series, limits to be at 90% RH at max 50°C)
- Dimension
- IPPC A1770TE2-DC/PE2-DC/TFE2-DC: 451 x 375.5 x 105mm
- Weight: (barebone)
  - IPPC A1770TE2-DC: 9.54kg

#### Certifications

CE (including EN61000-6-2/EN61000-6-4), FCC Class A

#### **OS Support Lists**

- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit

### **Ordering Information**

#### System

- IPPC A1770T-DC (P/N: 10II1770T03X0)
- 17" SXGA LED backlight fanless RTP touch panel PC, 2 x COM, DC power input

#### Optional

- + 24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120023X00)
- + ASSY NISK37P1E1, one PCI slot and one PCIe x4 slot riser card (P/N: 20JK037P100X0)
- ASSY NISK37P2, two PCI slots (P/N: 20JK037P200X0)
- ASSY NISK37E2, two PCIe x4 slot (P/N: 20JK037E200X0)
- ASSY NISK37E16, one PCIe x16 slot (P/N: 20JK037E100X0)

# **IPPC A1970T**







### **Main Features**

- 4:3 19" SXGA fanless panel computer
- Powerful 4th generation Intel<sup>®</sup> Core<sup>™</sup> i processor
- Optional two expansion slots for add-on PCI or/and PCIe card
- Optional 3.5G/Wi-Fi module/2.5" HDD
- Front accessible USB 2.0 for easy of field maintenance
- Inside USB 2.0 type A connector for license key
- Metal housing with robust aluminum IP66 compliant front bezel for harsh environment
- Two FBI Windows
- Wide range 12~30VDC power input

### **Product Overview**

IPPC A1970 series is a heavy industrial panel PC to support powerful 4th generation Intel<sup>®</sup> Core™ i processor, TFT LCD panel with LED backlight and userfriendly touch screen. It provides two expansion slots to support PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. The IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC A1970 series is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

## **Specifications**

#### Panel

- LCD size: 19", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

#### Touch

#### For IPPC A1970T Series

- 5-wire resistive (flush panel type)
- Light transmission: 80±3%
- Interface: USB

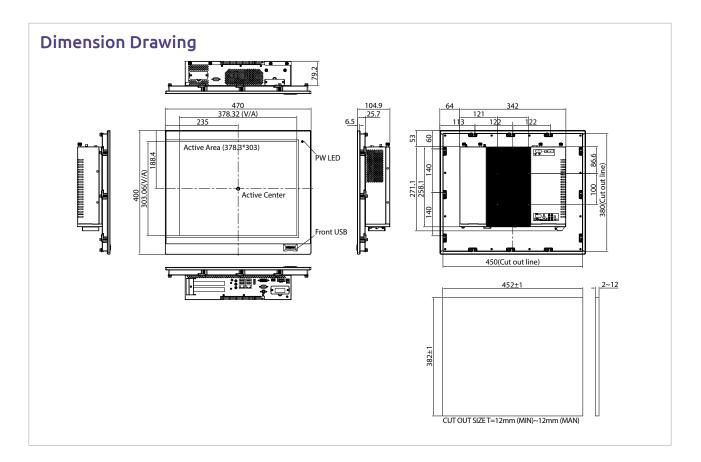
#### System

- CPU (optional): support 4th gen. Intel<sup>®</sup> Core<sup>™</sup> i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled )
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency 3.3GHz if turbo boost enabled )
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
   BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket, support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered

- Storage device:
  - 1 x External locked CFast socket
  - 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
  - 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255
- software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
  Expansion:
  - 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/ NVRAM/mSATA storage)
  - 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
  - 1 x PCI and 1 x PCIe x4 slots
  - 2 x PCIe x4 slots
  - 2 x PCI slots
  - 1 x PCIe x16 slot
- 1 x Front accessible USB 2.0

#### Rear I/O

- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mic-in
- USB: 4 x USB 3.0
- 3-pin remote power on/off switch connector
- Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch



#### Top I/O

• COM#2 RS232/422/485 w/ 5V or 12V selection

#### Audio

- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

#### Ethernet

- LAN chip: dual Intel<sup>®</sup> I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

#### Fieldbus

Two FBI Windows

#### Mechanical & Environment

- Color: Pantone 432C\RAL 70 24 front bezel
- Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
- Power input: 12~30 VDC
- Power connector: 3-pin PHOENIX connector
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature:
  - Resistive: -10°C to 50°C
  - P-Cap: -20°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing (for IPPC A1970T series, limits to be at 90% RH at max 50°C)
- Dimension: 470 x 400 x 104.9 mm
- Weight: (barebone)
- IPPC A1970TE2-DC: 10.25kg

#### Certifications

- CE (including EN61000-6-2/EN61000-6-4)
- FCC Class A
- OS Support Lists
- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit

### Ordering Information

#### System

- IPPC A1970T-DC (P/N: 10II1970T00X0)
- 19" SXGA LED backlight fanless RTP touch panel PC, 2 x COM, DC power input

#### Optional

- 24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120023X00)
- ASSY NISK37P1E1, one PCI slot and one PCIe x4 slot riser card (P/N: 20JK037P100X0)
- ASSY NISK37P2, two PCI slots (P/N: 20JK037P200X0)
- ASSY NISK37E2, two PCIe x4 slot (P/N: 20JK037E200X0)
- ASSY NISK37E16, one PCIe x16 slot (P/N: 20JK037E100X0)

# **IPPC 1670P**







### **Main Features**

- 16:9 WXGA, 1366 x 768 fanless panel computer
- Powerful 4th generation Intel® Core™ i processor
- Optional two expansion slots for add-on PCI or/and PCIe cards
- Optional 3.5G/Wi-Fi module/2.5" HDD

- Inside USB 2.0 type A connector for license key
- Metal housing with robust aluminum IP66 compliant front bezel for harsh environment
- Two FBI Windows

## **Product Overview**

IPPC 1670P is a heavy industrial panel PC to support powerful 4th generation Intel® Core™ i processor, TFT LCD panel with LED backlight and userfriendly touch screen. It provides two expansion slots to support PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. The IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC 1670P is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

# **Specifications**

#### Panel

- LCD size: 15.6", 16:9
- Resolution: WXGA, 1366 x 768
- Luminance: 300cd/m<sup>2</sup>
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

#### Touch (for IPPC 1670P Series)

- Ten points P-Cap (projected capacitive touch)
- Light transmission: 87%
- Interface: USB
- Anti-scratch surface: >= 6H hardness

#### System

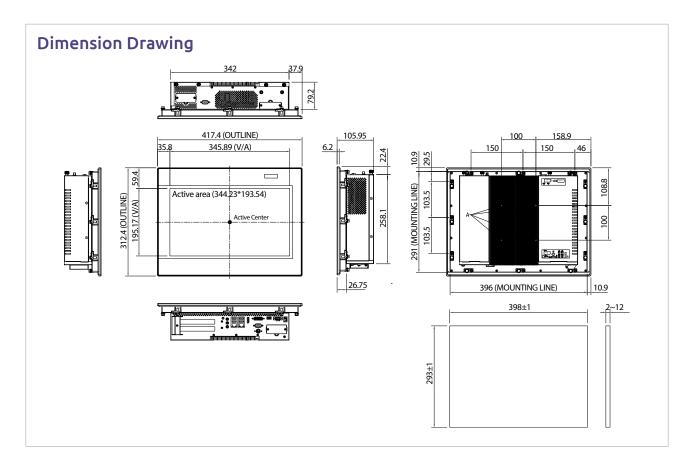
- CPU (optional): support 4th gen. Intel<sup>®</sup> Core<sup>™</sup> i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency3.3GHz if turbo boost enabled)
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM

socket, support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered

- Storage device:
  - 1 x External locked CFast socket
  - 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
  - 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)(for DC model only)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
  Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/ NVRAM/mSATA storage)
  - 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
- 1 x PCI and 1 x PCIe x4 slots
- 2 x PCIe x4 slots
- 2 x PCI slots
- 1 x PCIe x16 slot

#### Rear I/O

- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mlic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector
- Reset button



- COM#1: RS232/422/485 w/ 5V or 12V selection (for T/P-DC only)
- ATX power switch (for T/P-DC only)

#### Top I/O

• COM#2 RS232/422/485 w/ 5V or 12V selection (for T/P-DC only)

#### Audio

- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

#### Ethernet

- LAN chip: dual Intel<sup>®</sup> I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

#### Fieldbus

• Two FBI Windows

#### Mechanical & Environment

- Color: Pantone 432C\RAL 70 24 front bezel
- Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power: IPPC 1670P
  - Power input: 12~30 VDC
  - Power connector: 3-pin PHOENIX connector
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
  Operating temperature:Resistive: -10°C to 50°C
  - P-Cap: -10°C to 50°C
  - Storage temperature: -20°C to 75°C
  - Operating humidity: 10%~90% relative humidity, non-condensing

- Dimension
  - (for IPPC 1670P series, limits to be at 90% RH at max 50°C)
     417.4 x 312.4 x 105.95mm
- Weight: (barebone): 9.18kg

#### Certifications

• CE (including EN61000-6-2/EN61000-6-4), FCC Class A

#### **OS Support Lists**

- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit
- Windows 10 32-bit and 64-bit

# Ordering Information

#### System

• IPPC 1670P-DC (P/N: 10II1670P01X0)

15.6" WXGA LED backlight fanless P-CAP touch panel PC, 2 x COM, DC power input

#### Options

- 24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120023X00)
- ASSY NISK37P1E1, one PCI slot and one PCIe x4 slot riser card (P/N: 20JK037P100X0)
- ASSY NISK37P2, two PCI slots (P/N: 20JK037P200X0)
- ASSY NISK37E2, two PCIe x4 slot (P/N: 20JK037E200X0)
- ASSY NISK37E16, one PCIe x16 slot (P/N: 20JK037E100X0)

# **IPPC 2170P**







### **Main Features**

- 16:9 Full HD, 1920 x 1080 fanless panel computer
- Powerful 4th generation Intel<sup>®</sup> Core<sup>™</sup> i processor
- Optional two expansion slots for add-on PCI or/and PCIe cards
- Optional 3.5G/Wi-Fi module/2.5" HDD

- Inside USB 2.0 type A connector for license key
- Metal housing with robust aluminum IP66 compliant front bezel for harsh environment
- Two FBI Windows

### **Product Overview**

IPPC 2170P is a heavy industrial panel PC to support powerful 4th generation Intel® Core™ i processor, TFT LCD panel with LED backlight and userfriendly touch screen. It provides two expansion slots to support PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. The IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC 2170P is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

## **Specifications**

#### Panel

- LCD size: 21.5", 16:9
- Resolution: Full HD, 1920 x 1080
- Luminance: 300cd/m<sup>2</sup>
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89(U), 89(D), 89(L), 89(R)
- Backlight: LED

#### Touch (for IPPC 2170P Series)

- Ten points P-Cap (projected capacitive touch)
- Light transmission: 87%
- Interface: USB
- Anti-scratch surface: >= 6H hardness

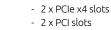
#### System

- CPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency3.3GHz if turbo boost enabled)
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM

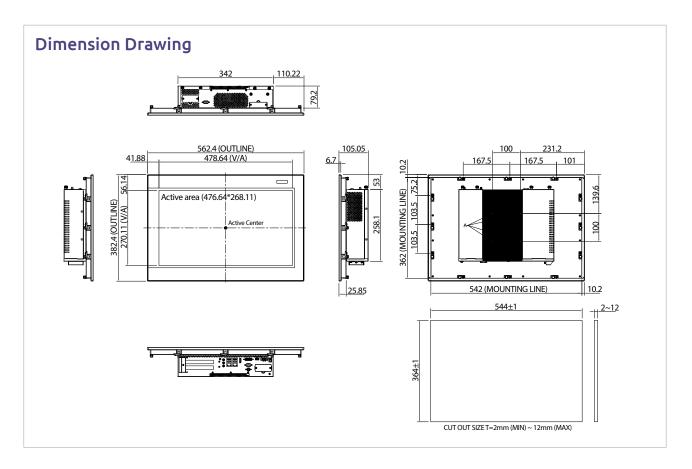
socket, support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered

- Storage device:
  - 1 x External locked CFast socket
  - 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
  - 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)(for DC model only)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/ NVRAM/mSATA storage)
  - 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
- 1 x PCI and 1 x PCIe x4 slots
- 1 x PCIe x16 slot

- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mlic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector
- Reset button



#### Rear I/O



- COM#1: RS232/422/485 w/ 5V or 12V selection (for T/P-DC only)
- ATX power switch (for T/P-DC only)

#### Top I/O

• COM#2 RS232/422/485 w/ 5V or 12V selection (for T/P-DC only)

#### Audio

- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

#### Ethernet

- LAN chip: dual Intel<sup>®</sup> I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

#### Fieldbus

Two FBI Windows

#### Mechanical & Environment

- Color: Pantone 432C\RAL 70 24 front bezel
- Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power: IPPC 2170P
  - Power input: 12~30 VDC
  - Power connector: 3-pin PHOENIX connector
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature:
  - Resistive: -10°C to 50°C P-Cap: -10°C to 50°C
  - Storage temperature: -20°C to 75°C
  - Operating humidity: 10%~90% relative humidity, non-condensing (for IPPC 2170P series, limits to be at 90% RH at max 50°C)

#### Dimension

- 562.4 x 382.4 x 105.05mm
- Weight: (barebone): 11.7kg

#### Certifications

• CE (including EN61000-6-2/EN61000-6-4), FCC Class A

#### . . . .

- OS Support Lists
- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit
- Windows 10 32-bit and 64-bit

# Ordering Information

#### System

 IPPC 2170P-DC (P/N: 10II2170P01X0)
 21.5" Full HD WXGA LED backlight fanless P-CAP touch panel PC, 2 x COM, DC power input

#### Options

- 24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120023X00)
- ASSY NISK37P1E1, one PCI slot and one PCIe x4 slot riser card (P/N: 20JK037P100X0)
- ASSY NISK37P2, two PCI slots (P/N: 20JK037P200X0)
- ASSY NISK37E2, two PCIe x4 slot (P/N: 20JK037E200X0)
- ASSY NISK37E16, one PCIe x16 slot (P/N: 20JK037E100X0)

# **IPPC 1640P**





## **Main Features**

- Intel® Celeron® quad core processor J1900, up to 2.42GHz, 2M L2 cache
- Metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- Dual GbE/2nd display-VGA/ Line-out/PS2 KB/MS
- USB x 3/2 x mini-PCIe sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP66 compliant front panel
- Support fieldbus module, JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

The 15.6" fanless panel PC IPPC 1640P incorporating an industrial motherboard is intended for versatile industrial applications. The panel PC has a touch screen LED backlight LCD panel with 1366x768 (HD; WXGA) resolution. The front panel which adopts flush design and complies with IP66 standard makes it the perfect fit in industrial applications.

The IPPC 1640P supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, IPPC 1640P can gain a strong foothold in industrial field and machine devices. In addition, IPPC 1640P can hook 2nd display via a VGA port for dual independent display. IPPC 1640P has two isolated RS232/422/485 ports and optional fieldbus ports.

# Specifications

#### Panel

- LCD size: 15.6", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 300cd/m2
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

#### Touch

- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

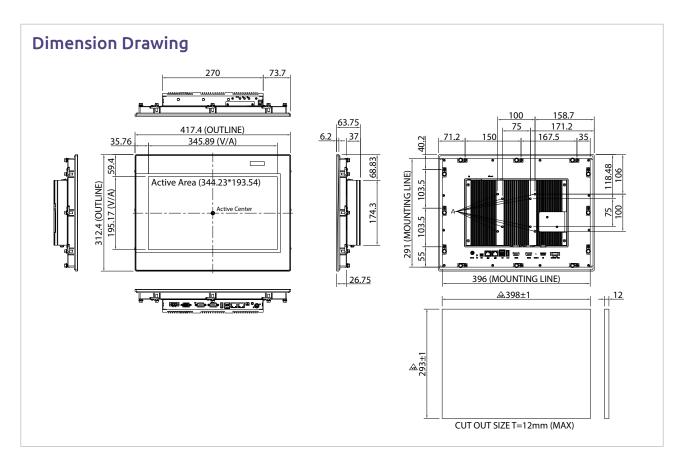
#### System

- CPU: onboard Intel® Celeron® Quad Core processor J1900, 2.0GHz, 2M L2 Cache (maximum frequency 2.42GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered

- Storage device:
  - 1 x External locked CFast socket
  - 1 x Hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
  Expansion: 2 x mini-PCIe sockets
- (support optional Wi-Fi, 3.5G module or fieldbus card) Panel backlight control button: increase brightness/decrease
- brightness/backlight on/offFront logo LED indicator to show operating status

### Rear I/O

- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
  2-pin remote power on/off switch
- Power switch
- Reset button
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated
- Fieldbus: (protocol interface optional)



Model	Protocol	Connector	
FBI90E-PNM	PROFINET Master		
FBI90E-EP	EtherNet/IP Master	Dual RJ-45	
FBI90E-ECM	EtherCAT Master	1	
FBI90E-PBM	PROFIBUS Master	DB9	
FBI90E-DNM	DeviceNet Master	5-pins PHOENIX contact terminal	

#### Audio

- HD codec: Realtek ALC886-GR
- Audio interface: Line-out audio jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 based-Tx Ethernet compatible

#### Mechanical & Environment

- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
   Shock:
- SHUCK:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
  Operating temperature: -10°C to 60°C
- Storage temperature: -10 C to 60
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 417.4 x 312.4 x 63.75mm
- Weight: 6.4Kg

#### Certifications

- CE (including EN61000-6-2/EN61000-6-4)
- FCC class A

#### OS Support Lists

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0

# Ordering Information

#### Barebone

• IPPC 1640P (P/N: 10II1640P00X0)

15.6" WXGA LED backlight touch panel PC, Intel® Celeron® quad core processor J1900, up to 2.42GHz, touch screen, 4GB DDR3L, 2 x RS232/422/485 and brightness adjustment buttons, optional fieldbus module

#### Options

- 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)
- PROFINET Master interface module: FBI90E-PNM for APPC (P/N: 88IA1932T00X0)
- EtherNet/IP Master interface module: FBI90E-EP for APPC (P/N: 88IA1932T01X0)
- EtherCAT Master interface module: FBI90E-ECM for APPC (P/N: 88IA1932T02X0)
- PROFIBUS Master interface module: FBI90E-PBM for APPC (P/N: 88IA1932T03X0)
- DeviceNet Master interface module: FBI90E-DNM for APPC (P/N: 88IA1932T04X0)

# **IPPC 2140P**

#### 21.5" TFT WXGA 16:9 Heavy Industrial Panel PC with Intel® Celeron® quad core processor J1900, up to 2.42GHz, Multi-Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM and Fieldbus Port







## **Main Features**

- Intel® Celeron® quad core processor J1900, up to 2.42GHz, 2M L2 Cache
- Metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- Dual GbE/2nd display-VGA/ Line-out/PS2 KB/MS
- USB x 3/2 x mini-PCIe sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP66 compliant front panel
- Support fieldbus module, JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

The 21.5" fanless panel PC IPPC 2140P incorporating an industrial motherboard is intended for versatile industrial applications. The panel PC has a touch screen LED backlight LCD panel with 1920 x 1080 (Full HD) resolution. The front panel which adopts flush design and complies with IP66 standard makes it the perfect fit in industrial applications.

The IPPC 2140P supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, IPPC2140P can gain a strong foothold in industrial field and machine devices. In addition, IPPC 2140P can hook 2nd display via a VGA port for dual independent display. IPPC 2140P has two isolated RS232/422/485 ports and optional fieldbus ports.

## **Specifications**

#### Panel

- LCD size: 21.5", 16:9
- Resolution: Full HD 1920x1080
- Luminance: 300cd/m2
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

#### Touch

- Ten points P-Cap (Projected Capacitive Touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

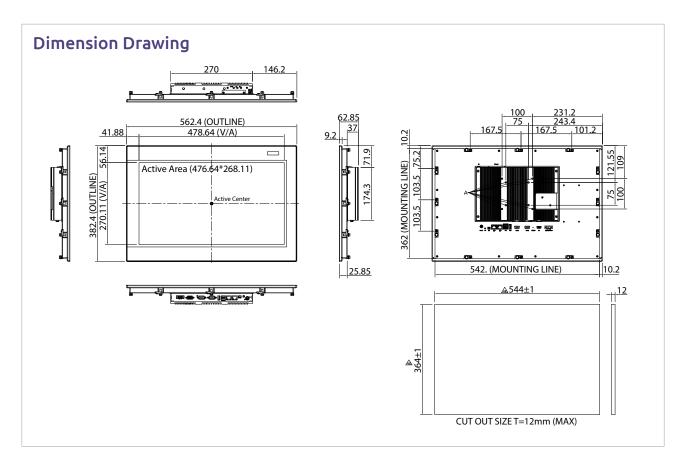
#### System

- CPU: onboard Intel® Celeron® Quad Core processor J1900, 2.0GHz, 2M L2 Cache (maximum frequency 2.42GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 4GB DDR3L-1066/1333, non-ECC and un-buffered

- Storage device:
  - 1 x external locked CFast socket
  - 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module or fieldbus card)
- Panel backlight control button: Increase brightness/decrease brightness/ backlight on/off
- Front logo LED Indicator to show operating status

#### Rear I/O

- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line out
- USB: 2 x USB 2.0, 1 x USB 3.0
- 2-pin Remote Power on/ off switch
- Power switch
- Reset button
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated
- Fieldbus: (protocol interface optional)



Model	Protocol	Connector	
FBI90E-PNM	PROFINET Master		
FBI90E-EP	EtherNet/IP Master	Dual RJ-45	
FBI90E-ECM	EtherCAT Master		
FBI90E-PBM	PROFIBUS Master	DB9	
FBI90E-DNM	DeviceNet Master	5-pins PHOENIX contact terminal	

#### Audio

- HD codec: Realtek ALC886-GR
- Audio interface: Line-out audio jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 562.4x382.4x62.85mm
- Weight: 9.26Kg

#### Certifications

- CE (including EN61000-6-2/EN61000-6-4)
- FCC Class A

#### **OS Support Lists**

- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

IPPC 2140P (P/N: 10II2140P00X0)

21.5" full HD LED backlight touch panel PC, Intel® Celeron® quad core processor J1900, up to 2.42GHz, 2M L2 Cache, touch screen, 4GB DDR3L, 2 x RS232/422/485 and brightness adjustment buttons, optional fieldbus module

#### Options

- 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)
- PROFINET Master interface module: FBI90E-PNM for APPC (P/N: 88IA1932T00X0)
- EtherNet/IP Master interface module: FBI90E-EP for APPC (P/N: 88IA1932T01X0)
- EtherCAT Master interface module: FBI90E-ECM for APPC (P/N: 88IA1932T02X0)
- PROFIBUS Master interface module: FBI90E-PBM for APPC (P/N: 8IA1932T03X0)
- DeviceNet Master interface module: FBI90E-DNM for APPC (P/N: 88IA1932T04X0)

# **IPPD 1600P**





## **Main Features**

- IP66 compliant and metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- 3 display input interface: analog VGA/DVI-D/DisplayPort
- Shares identical appearance with IPPC series

- Ultra slim in depth
- OSD multilanguage function
- All connectors with lock
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12~24VDC

## **Product Overview**

15.6" 16:9 LCD display IPPD 1600P is based on a ten points P-Cap multi-touch screen with resolution up to 1366 x 768 Panel. IPPD 1600P has system grade grounding protection which means chassis grounding and power grounding design to avoid in-rush current damage monitor. IPPD 1600P is ideal for spacecritical environments where systems and displays are kept apart. In addition, IPPD 1600P adopts zero bezel flush panel design and has IP66 front panel. IPPD 1600P provides prevailing video interface: VGA, DVI-D and DisplayPort, supporting both digital and analog signals. Moreover, IPPD1600P supports 12~24VDC power input and offers panel mount and VESA mount, allowing users to choose the mounting method that meets their situation. IPPD 1600P is the best solution for NEXCOM NISE fanless computer, NViS security surveillance series and APPC/IPPC panel PC when a second display is required.

## **Specifications**

#### Panel

- LCD size: 15.6", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 300cd/m2
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

#### Touch

- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

#### Rear I/O

- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-D connector)/DisplayPort
- DC power input connector: 3-pin PHOENIX terminal Blocks

#### **OSD** Function

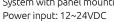
- OSD keypad
- Multilanguage OSD

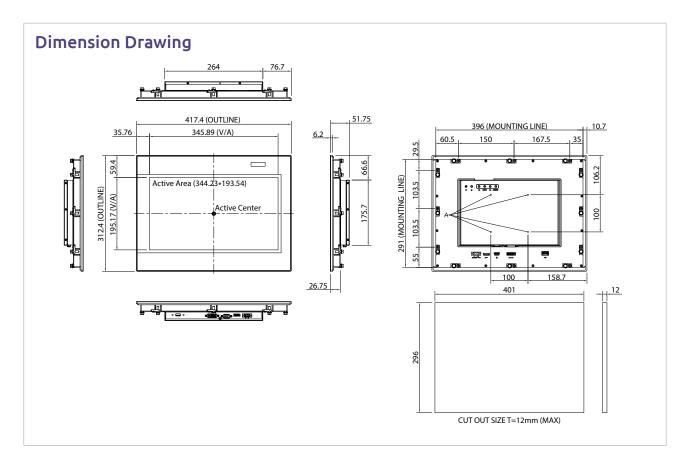
#### Mechanical & Environment

- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
  - System with panel mounting kit w/o panel mounting hole
  - Power input: 12~24VDC
  - Power adapter: optional AC to DC power adapter (+12V, 60W)
  - Vibration:
  - IEC 68 2-64
  - 2Grms @ sine, 5~500Hz, 1hr/axis (operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  - Shock: - IEC 68 2-27
    - HDD: 20G@wall mount, half sine, 11ms
  - Operating temperature: -10°C to 60°C
  - ٠ Storage temperature: -20°C to 75°C
  - Operating humidity: 10%~90% relative humidity, non-condensing
  - Dimension: 417.4 x 312.4 x 51.75mm
  - Weight: 5.48Kg

#### Certifications

- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)
- FCC Class B





# **Ordering Information**

#### Barebone

 IPPD 1600P (P/N: 10II1600P00X0)
 15.6" WXGA heavy industrial 16:9 LED backlight P-Cap touch monitor with VGA, DVI-D and DisplayPort input, 12~24VDC input

#### Option

- 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)
- 1.8m DVI-D male to DVI-D male cable (P/N: 603DVI0007X00)
- 1.8m DisplayPort cable (P/N: 6030000122X00)

# **IPPD 1800P**





## **Main Features**

- IP66 compliant and metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- 3 display input interface: analog VGA/DVI-D/DisplayPort
- Shares identical appearance with IPPC series

- Ultra slim in depth
- OSD multi-language function
- All connectors with lock
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12~24VDC

## **Product Overview**

18.5" 16:9 LCD display IPPD 1800P is based on a ten points P-Cap multi-touch screen with resolution up to 1366 x 768 Panel. IPPD 1800P has system grade grounding protection which means chassis grounding and power grounding design to avoid in-rush current damage monitor. IPPD 1800P is ideal for space-critical environments where systems and displays are kept apart. In addition, IPPD 1800P adopts zero bezel flush panel design and has IP66 front panel. IPPD 1800P provides prevailing video interface: VGA, DVI-D and DisplayPort, supporting both digital and analog signals. Moreover, IPPD 1800P supports 12~24VDC power input and offers panel mount and VESA mount, allowing users to choose the mounting method that meets their situation. IPPD 1800P is the best solution for NEXCOM NISE fanless computer, NViS security surveillance series and APPC/IPPC panel PC when a second display is required.

## Specifications

#### Panel

- LCD size: 18.5", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 400cd/m2
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

#### Touch

- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

#### Rear I/O

- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-D connector)/DisplayPort
- DC power input connector: 3-pin PHOENIX terminal blocks

#### **OSD** Function

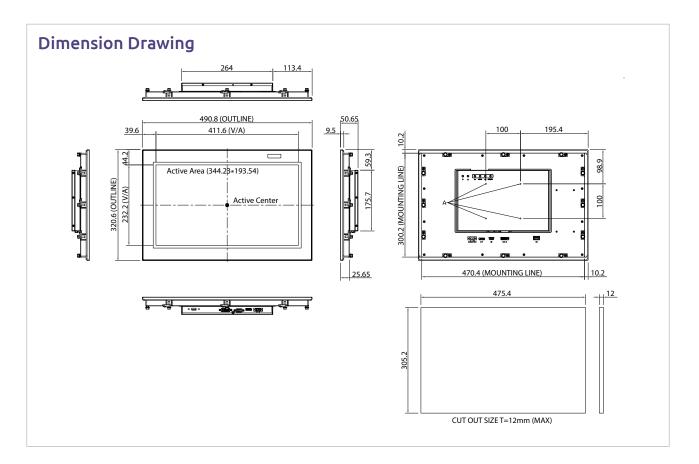
- OSD keypad
- Multilanguage OSD

#### Mechanical & Environment

- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/ o panel mounting hole
- Power input: 12~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64
  - 2Grms @ sine, 5~500Hz, 1hr/axis (operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 490.8 x 320.6 x 50.65mm
- Weight: 6.24Kg

### Certifications

- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)
- FCC Class B



# **Ordering Information**

#### Barebone

 IPPC 1800P (P/N: 10II1800P00X0)
 18.5" WXGA heavy industrial 16:9 LED backlight P-Cap touch monitor with VGA, DVI-D and DisplayPort input, 12~24VDC input

#### Option

- 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)
- 1.8m DVI-D male to DVI-D male cable (P/N: 603DVI0007X00)
- 1.8m DisplayPort cable (P/N: 6030000122X00)

# **IPPD 2100P**

#### 21.5" IP66 Heavy Industrial 16:9 WXGA Zero Bezel Flush Touch Monitor





## **Main Features**

- IP66 compliant and metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- 3 display input interface: analog VGA/DVI-D/DisplayPort
- Shares identical appearance with IPPC series

- Ultra slim in depth
- OSD multi-language function
- All connectors with Lock
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12~24VDC

## **Product Overview**

21.5" 16:9 LCD display IPPD 2100P is based on a ten points P-Cap multi-touch screen with resolution up to 1920 x 1080 (Full HD) Panel. IPPD 2100P has system grade grounding protection which means chassis grounding and power grounding design to avoid in-rush current damage monitor. IPPD 2100P is ideal for space-critical environments where systems and displays are kept apart. In addition, IPPD 2100P adopts zero bezel flush panel design and has IP66 front panel. IPPD 2100P provides prevailing video interface: VGA, DVI-D and DisplayPort, supporting both digital and analog signals. Moreover, IPPD 2100P supports 12~24VDC power input and offers panel mount and VESA mount, allowing users to choose the mounting method that meets their situation. IPPD 2100P is the best solution for NEXCOM NISE fanless computer, NVIS security surveillance series and APPC/IPPC panel PC when a second display is required.

## Specifications

#### Panel

- LCD size: 21.5", 16:9
- Resolution: full HD 1920 x 1080
- Luminance: 300cd/m2
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

#### Touch

- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

#### Rear I/O

- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1x DVI-D connector)/DisplayPort
- DC power input connector: 3-pin PHOENIX terminal blocks

#### **OSD** Function

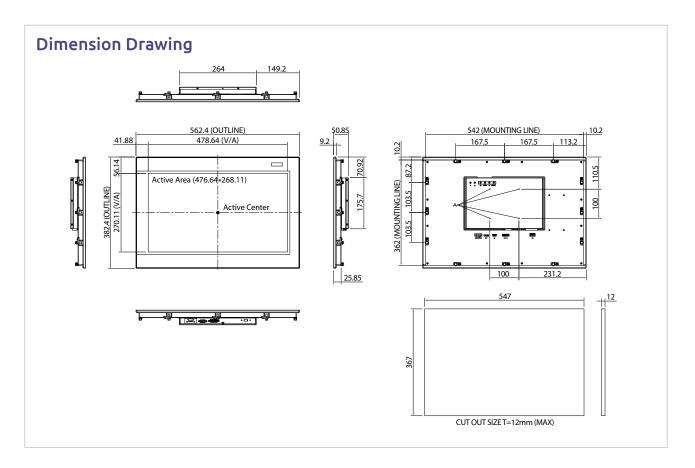
- OSD keypad
- Multilanguage OSD

#### Mechanical & Environment

- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64
  - 2Grms @ sine, 5~500Hz, 1hr/axis (operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 562.4 x 382.4 x 50.85mm
- Weight: 7.87Kg

### Certifications

- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)
- FCC Class B



# **Ordering Information**

#### Barebone

• IPPC 2100P (P/N: 10II2100P00X0) 21.5" full HD heavy industrial 16:9 LED backlight P-Cap touch monitor with VGA, DVI-D and DisplayPort input, 12~24VDC input

#### Option

- 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)
- 1.8m DVI-D male to DVI-D male cable (P/N: 603DVI0007X00)
- 1.8m DisplayPort cable (P/N: 6030000122X00)

# **APPC 0840T**

### 8" TFT SVGA 4:3 Flush Panel PC with Intel® Atom™ E3826, 1.46GHz, Touch Screen, 2GB DDR3L, 4 x USB, 2 x COM and VGA







- 4:3 8" SVGA fanless panel computer
- Intel<sup>®</sup> Atom<sup>™</sup> E3826, Dual Core, low power consumption CPU
- Flush panel by 5-wire touch screen
- Dual GbE/2nd display-VGA/2x RS232/422/485/Line-out
- 3 x USB 2.0/1 x USB 3.0/1 x mini-PCIe socket/1 x CFast
- Remote power switch

- DDR3L 2GB/2.5" HDD bracket
- IP65 compliant front panel
- Support Fieldbus module, JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 75mm x 75mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 8" 4:3 touch screen LCD panel with resolutions up to 800 x 600 (SVGA) and 400 nits brightness, the APPC 0840T are fanless Panel PC based on the Atom<sup>M</sup> E3826 processor. The industrial motherboard is reengineering to have RAM and mini-PCIe aligned in the same side of the board with its Intel<sup>®</sup> Atom<sup>M</sup> E3826 CPU. This dedicated motherboard benefits users both in future capability expansion and ease for maintenance. The Panel PC comes with flush panel design and can have IP65 front for industrial applications. The touch screen provides the durable, reliable, and scratchable benefits for easy maintenance in wide applications.

The ultra slim APPC 0840T makes it become industrial slimmest model for space-critical applications, such as, access control, small automation machineries, forklift and truck etc. This APPC 0840T supports fieldbus module, WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, one mini-PCIe slot and one SIM card holder. With support for wide power input of 12~30VDC, this APPC 0840T can gain a strong foothold in industrial field and machine devices. In addition, this APPC 0840T can hook 2nd display via a VGA port for dual independent display. 0840T has two RS232/422/485 ports, three USB 2.0 port, one USB 3.0 port and fieldbus port.

## Specifications

#### Panel

- LCD size: 8", 4:3
- Resolution: SVGA 800 x 600
- Luminance: 400cd/m2
- Contrast ratio: 500
- LCD color: 262K
- Viewing angle: 50(U), 70(D), 70(L), 70(R)
- Backlight: LED

#### Touch screen

- 5-wire resistive (flush panel type)
- Touch light transmission: 82%
- Touch interface: USB

#### System

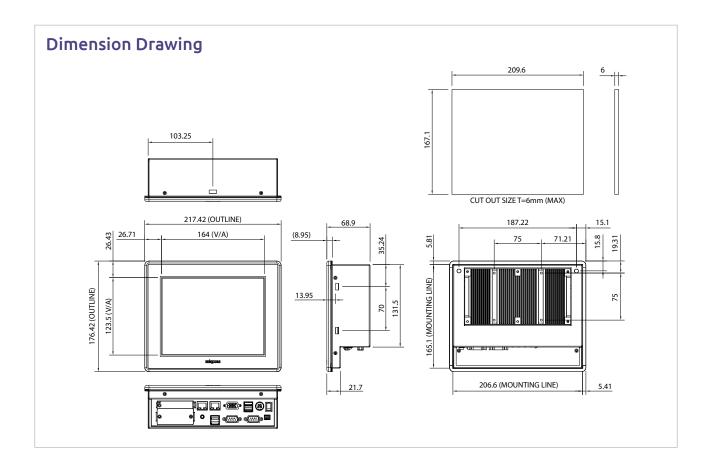
- CPU: on-board Intel<sup>®</sup> Atom<sup>™</sup> dual core processor E3826, 1.46GHz, 1M L2 cache
- BIOS: AMI BIOS
- System memory: 1x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:

- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 1 x mini-PCle socket1

(support optional Wi-Fi, 3.5G module or fieldbus card)

#### Rear I/O

- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 3 x USB 2.0; 1 x USB 3.0
- Power switch
- Remote power switch
- Reset button
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Fieldbus: (protocol interface optional)



Model	Protocol	Connector
FBI90E-PNM	PROFINET Master	Dual RJ-45
FBI90E-EP	EtherNet/IP	
	Master	
FBI90E-ECM	EtherCAT Master	
FBI90E-PBM	PROFIBUS Master	DB9
FBI90E-DNM	DeviceNet Master	5-pins Phoenix contact terminal

#### Audio

- HD codec: realtek ALC886-GR
- Audio interface: Line-out audio jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

#### Mechanical & Environment

- Color: Pantone black
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 75mm x 75mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 217.4x176.4x68.9mm

#### • Weight: 2.3Kg

- Certifications
- CE approval
- FCC Class A

#### **OS Support Lists**

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0

# **Ordering Information**

#### Barebone

- APPC 0840T (P/N: 10IA0840T00X0)
   8" SVGA LED backlight touch panel PC with Intel<sup>®</sup> Atom™ E3826 1.46
  - GHz, touch screen, 2GB DDR3L with 2x RS232/422/485

#### Options

- 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060029X00)
- PROFINET, EtherNet/IP, EtherCAT, SERCOSIII master interface module: FBI 90E-REM (P/N: 10J50090E08X0)
- PROFINET master interface module: FBI 90E-PNM (P/N: 10J50090E21X0)
- PROFIBUS master interface module: FBI 90E-PBM (P/N: 10J50090E09X0)
- DeviceNet master interface module: FBI 90E-DNM (P/N: 10J50090E10X0)
- EtherCAT master interface module: FBI 90E-ECM (P/N: 10J50090E19X0)

# **APPC 1240T**





## **Main Features**

- 4:3 12.1" SVGA fanless LED panel computer
- Intel<sup>®</sup> Celeron<sup>®</sup> J1900, Quad Core, low consumption CPU
- Flush panel by 5-wire touch screen
- Dual GbE/2nd display-VGA/Line-out/PS2 KB/MS
- 3 x USB/2 x mini-PCle sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP65 compliant front panel
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~30VDC

## **Product Overview**

The 12.1" fanless panel PC APPC 1240T incorporating an industrial motherboard is intended for versatile industrial applications. APPC 1240T has a touch screen LED backlight LCD panel with 800 x 600 (SVGA) resolution and 450-nit brightness. The front panel which adopts flush design and complies with IP65 standard makes it the perfect fit in industrial applications.

This APPC series supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, this APPC series can gain a strong foothold in industrial field and machine devices. In addition, this APPC series can hook 2nd display via a VGA port for dual independent display. APPC 1240T has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LCD size: 12.1", 4:3
- Resolution: SVGA 800 x 600
- Luminance: 450cd/m<sup>2</sup>
- Contrast ratio: 700
- LCD color: 16.2M
- Viewing angle: 65 (U), 75 (D), 80 (L), 80 (R)
- Backlight: LED

#### **Touch Screen**

- 5-wire resistive (flush panel type)
- Light transmission: 80%
- Interface: USB

#### System

- CPU: on-board Intel<sup>®</sup> Celeron<sup>®</sup> Quad Core processor J1900 processor, up to 2.42GHz, 2M L2 cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
  - 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM

- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- PS2 keyboard/mouse
- Power switch
- Reset button
- 2-pin remote power on/off switch
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

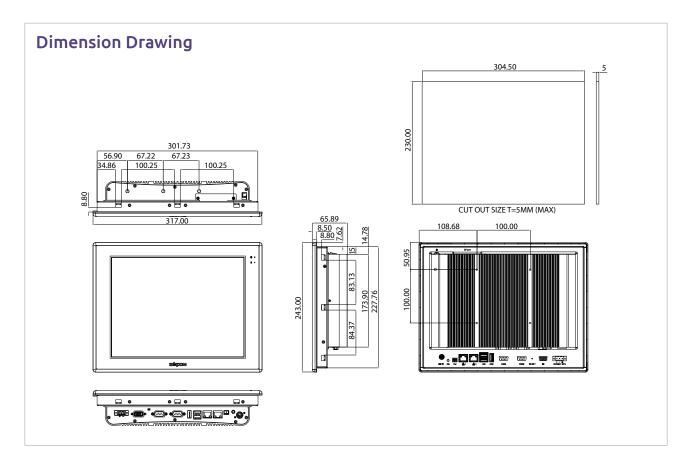
#### Audio

- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

#### Ethernet

- LAN chip: dual Intel<sup>®</sup> I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible





#### Mechanical & Environment

- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing Limits to be at 90% RH at max 50°C
- Dimension: 317 x 243 x 65.89mm
- Weight: 4 Kg

#### Certifications

- CE approval
- FCC Class A

#### OS Support Lists

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

• APPC 1240T-J1900-4G (P/N: 10IA1240T07X0) 12.1" SVGA LED backlight touch panel PC, Celeron® J1900 up to 2.42GHz, touch screen, 4GB DDR3L, 2 xRS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)

# **APPC 1245T**

### 12.1" TFT XGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.42GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM





## **Main Features**

- 4:3 12.1" XGA fanless LED panel computer
- Intel<sup>®</sup> Celeron<sup>®</sup> J1900, Quad Co re, low consumption CPU
- Flush panel by 5-wire touch screen
- Dual GbE/2nd display-VGA/Line-out/PS2 KB/MS
- 3 x USB/2 x mini-PCIe sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP65 compliant front panel
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~30VDC

## **Product Overview**

The 12.1" XGA fanless panel PC APPC 1245T incorporating an industrial motherboard is intended for versatile industrial applications. APPC 1245T supports 1024 x 768 (XGA) resolution and 500-nit brightness. The front panel which adopts flush design and complies with IP65 standard makes it the perfect fit in industrial applications.

This APPC series supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, this APPC series can gain a strong foothold in industrial field and machine devices. In addition, this APPC series can hook 2nd display via a VGA port for dual independent display. APPC 1245T has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LCD size: 12.1", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 500cd/m<sup>2</sup>
- Contrast ratio: 700
- LCD color: 16.2M
- Viewing angle: 80 (U), 80 (D), 80 (L), 80 (R)
- Backlight: LED

#### Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 80%
- Interface: USB

#### System

- CPU: on-board Intel<sup>®</sup> Celeron<sup>®</sup> Quad Core processor J1900 processor, up to 2.42GHz, 2M L2 cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
  - 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by

software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

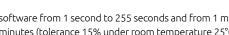
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0 + 1 x USB 3.0
- PS2 keyboard/mouse
- Power switch
- Reset button
- 2-pin remote power on/off switch
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

#### Audio

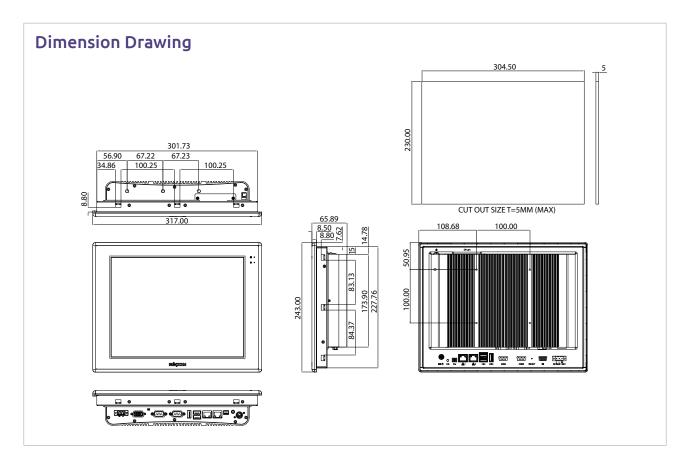
- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible



Storage device:



#### Mechanical & Environment

- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 317 x 243 x 65.89mm
  Weight: 4 Kg

### Certifications

## CE approval

- CE approval
   FCC Class A
- FUU CIdSS A

### OS Support Lists

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

APPC 1245T-J1900-4G (P/N: 10IA1245T06X0)
 12.1" XGA LED backlight touch panel PC, Intel® Celeron® J1900 up to
 2.42GHz, touch screen, 4GB DDR3L, 2 x RS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)

# **APPC 1540T**

### 15" TFT XGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.42GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM





## **Main Features**

- 4:3 15" XGA fanless LED panel computer
- Intel<sup>®</sup> Celeron<sup>®</sup> J1900, Quad Core, low consumption CPU
- Flush panel by 5-wire touch screen
- Dual GbE/2nd display-VGA/Line-out/PS2 KB/MS
- 3 x USB/2 x mini-PCIe sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP65 compliant front panel
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~30VDC

## **Product Overview**

The 15" fanless panel PC APPC 1540T incorporating an industrial motherboard is intended for versatile industrial applications. The panel PC has a touch screen LED backlight LCD panel with 1024 x 768 (XGA) resolution and 400-nit brightness. The front panel which adopts flush design and complies with IP65 standard makes it the perfect fit in industrial applications.

The APPC 1540T supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, APPC 1540T can gain a strong foothold in industrial field and machine devices. In addition, APPC 1540T can hook 2nd display via a VGA port for dual independent display. APPC 1540T has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LCD size: 15", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 450cd/m<sup>2</sup>
- Contrast ratio: 800
- LCD color: 16.2M
- Viewing angle: 70 (U), 80 (D), 80 (L), 80 (R)
- Backlight: LED

#### Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

#### System

- CPU: on-board Intel<sup>®</sup> Celeron<sup>®</sup> Quad Core processor J1900 processor, up to 2.42GHz, 2M L2 cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
  - 1 x external locked CFast socket
  - 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- · Watchdog timer: Watchdog timeout can be programmable by

software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

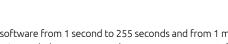
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- PS2 keyboard/mouse
- Power switch
- Reset button
- 2-pin remote power on/off switch
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

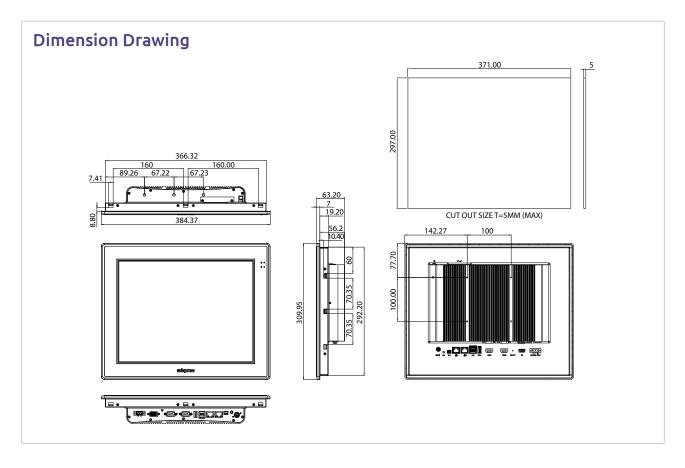
#### Audio

- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible





#### Mechanical & Environment

- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 384.37 x 309.95 x 63.2 mm
- Weight: 5.1 Kg

#### Certifications

- CE approval
- FCC Class A

#### OS Support Lists

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0

# Ordering Information

#### Barebone

• APPC 1540T-J1900-4G (P/N: 10IA1540T12X0) 15" XGA LED backlight touch panel PC, Intel® Celeron® J1900 up to 2.42GHz, touch screen, 4GB DDR3L, 2 x RS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)

# **APPC 1740T**

### 17" TFT SXGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.42GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM





## **Main Features**

- 4:3 17" SXGA fanless panel computer
- Intel<sup>®</sup> Celeron<sup>®</sup> J1900, Quad Core, low consumption CPU
- Flush panel by 5-wire touch screen
- Dual GbE/2nd display-VGA/Line-out/PS2 KB/MS
- 3 x USB/2 x mini-PCIe sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP65 compliant front panel
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~30VDC

## **Product Overview**

The 17" fanless panel PC APPC 1740T incorporating an industrial motherboard is intended for versatile industrial applications. The panel PC has a touch screen LCD panel with 1280 x 1024 (SXGA) resolution and 350-nit brightness. The front panel which adopts flush design and complies with IP65 standard makes it the perfect fit in industrial applications.

The APPC 1740T supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, APPC 1740T can gain a strong foothold in industrial field and machine devices. In addition, APPC 1740T can hook 2nd display via a VGA port for dual independent display. APPC 1740T has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LCD size: 17", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

#### Touch Screen

- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

#### System

- CPU: on-board Intel<sup>®</sup> Celeron<sup>®</sup> Quad Core processor J1900, up to 2.42GHz, 2M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
  - 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- · Watchdog timer: Watchdog timeout can be programmable by

software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

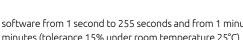
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- PS2 keyboard/mouse
- Power switch ٠
- Reset button
- 2-pin remote power on/off switch
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

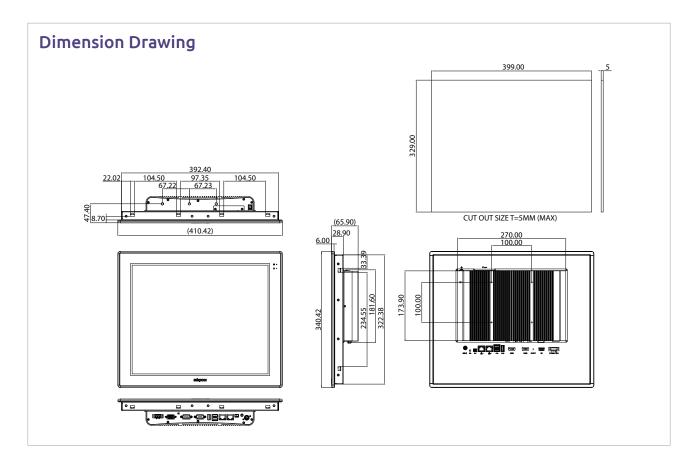
#### Audio

- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

#### Ethernet

- LAN chip: dual Intel<sup>®</sup> I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible





#### Mechanical & Environment

- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 410.4 x 340.4 x 65.9mm
- Weight: 6.7 Kg

#### Certifications

- CE approval
- FCC Class A

#### OS Support Lists

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

• APPC 1740T-J1900-4G (P/N: 10IA1740T05X0) 17" SXGA LED backlight touch panel PC, Intel® Celeron® J1900 up to 2.42GHz, touch screen, 4GB DDR3L, 2 x RS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)

# **APPC 1940T**

### 19" TFT SXGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.42GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM





## **Main Features**

- 4:3 19" SXGA fanless LED panel computer
- Intel<sup>®</sup> Celeron<sup>®</sup> J1900, Quad Core, low consumption CPU
- Flush panel by 5-wire touch screen
- Dual GbE/2nd display-VGA/Line-out/PS2 KB/MS
- 3 x USB/2 x mini-PCle sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP65 compliant front panel
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~30VDC

## **Product Overview**

The 19" fanless panel PC APPC 1940T incorporating an industrial motherboard is intended for versatile industrial applications. The panel PC has a touch screen LED backlight LCD panel with 1280 x 1024 (SXGA) resolution. The front panel which adopts flush design and complies with IP65 standard makes it the perfect fit in industrial applications.

The APPC 1940T supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, APPC 1940T can gain a strong foothold in industrial field and machine devices. In addition, APPC 1940T can hook 2nd display via a VGA port for dual independent display. APPC 1940T has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LCD size: 19", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

#### **Touch Screen**

- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

#### System

- CPU: on-board Intel<sup>®</sup> Celeron<sup>®</sup> Quad Core processor J1900 processor, up to 2.42GHz, 2M L2 cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255

- minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

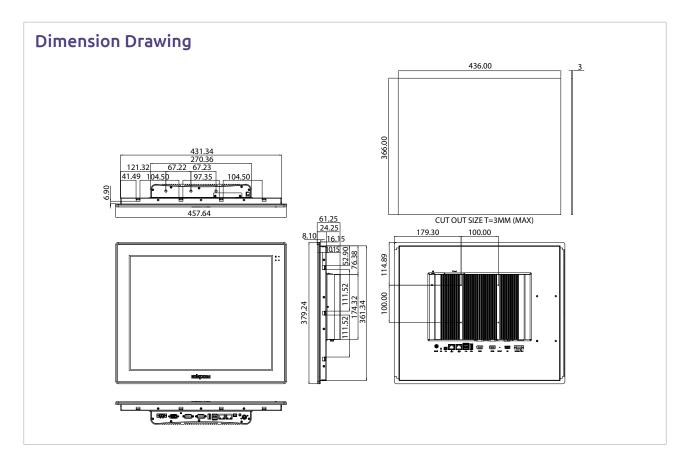
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- PS2 keyboard/mouse
- P32 Keyboard,
- Power switchReset button
- 2 ain somete power on /off switz
- 2-pin remote power on/off switch
  COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #1. RS232/422/485 w/ 2.5kv isolated
   COM #2: RS232/422/485 w/ 2.5kv isolated
- COIVI #2. R3232/422/463 W/ 2.3KV ISOlated

#### Audio

- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible



#### Mechanical & Environment

- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
   Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing Limits to be at 90% RH at max 50°C
- Dimension: 457.64 x 379.24 x 61.25 mm
- Weight: 6.7 Kg

#### Certifications

- CE approval
- FCC Class A

#### OS Support Lists

- Windows 8 32-bit/64-bit
- Windows 7 32-bit/64-bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

 APPC 1940T-J1900-4G (P/N: 10IA1940T05X0)
 19" SXGA LED backlight touch panel PC, Intel® Celeron® J1900 up to 2.42GHz, touch screen, 4GB DDR3L, 2 x RS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)

# eLITE610



## **Main Features**

- 10.1"TFT color display, LED backlight
- 1024 x 600 pixel (WSVGA) resolution, 16.7M colors
- Resistive touchscreen
- 2 x Giga LAN and 2 x USB 3.0

- 1 x RS232/422/485 communication port
- Extremely cost efficient HMI with plastic chassis
- Slim design, mounting depth less than 30mm
- System frame ground protection (GPE) design

## **Product Overview**

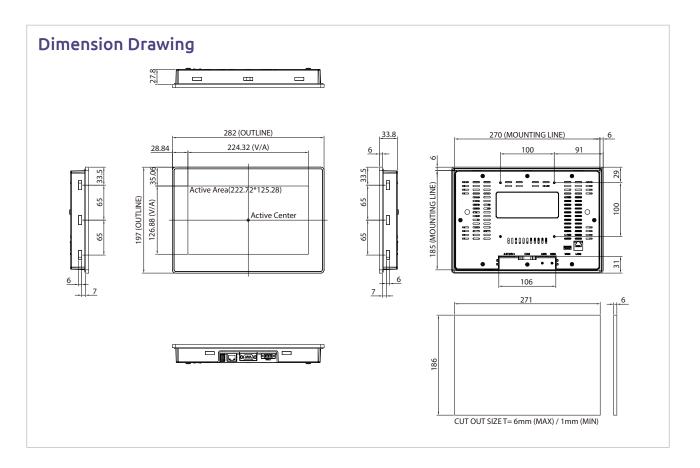
The eLITE610 is Intel Atom x5-E3930 high performance HMI with the JMobile software offers full vector graphic capabilities and plenty of connectivity options. The eLITE610 features a bright 10.1" TFT widescreen (16:9) display with 2 Giga LAN and 2 USB 3.0.

#### Hightlight

- JMobile runtime included. Full compatibility with JMobile Studio
- Full vector graphic support. Native support of SVG graphic objects. Transparency and alpha blending
- Multilanguage applications. Easily create and manage your applications in multiple languages to meet global requirements. Far east languages are supported. Tools available in JMobile studio support easy third-party translations and help reducing development and maintenance costs of the application
- Data display in numerical, text, bargraph, analog gauges and graphic image formats
- Rich set of state-of-the-art HMI features: data acquisition, alarm handling, scheduler and timed actions (daily and weekly schedulers, exception dates), recipes, users and passwords, e-mail and RSS feeds, rotating menus
- Includes support for a wide range of communication drivers for factory and building automation systems
- Multiple drivers communication capability
- Remote monitoring and control. Client- server functionality. Mobile clients supported
- Remote maintenance and support with VNC-based functionality
- Off-line simulation of the HMI application with JMobile studio
- Powerful scripting language for automating HMI applications. Script debugging improves efficiency in application development
- Rich gallery of symbols and objects
- Project templates
- Optional plug-in modules for fieldbus systems, I/O and controllers
- Display backlight dimmable to 0%

# Specifications

Technical Data	eLITE610	Technical Data	eLITE610
Panel	<ul> <li>10.1", 16:9, WSVGA, 1024 x 600</li> <li>Luminance: 240 cd/m<sup>2</sup> typ.</li> <li>LCD color: 16.7M</li> <li>Active display area: 10.1" diagonal</li> <li>Backlight: LED</li> </ul>	Ratings	<ul> <li>Power supply voltage: 24 Vdc (19.2 to 28.8 Vdc)</li> <li>Current consumption: 1.64A at 24Vdc (max.)</li> <li>Weight: Approx. 1.37Kg</li> </ul>



Technical Data	eLITE610	Technical Data	eLITE610
Operator Interface	- Touch: resistive		- Operating temperature: -5°C to 50°C
System Resources	<ul> <li>CPU: Intel® Atom™ x5-E3930 processor</li> <li>Operating System: Windows 10 Enterprise (64-bit)</li> <li>System Resources</li> <li>RAM: 4GB DDR3L</li> <li>Flash: 32 GB</li> <li>Real time clock: Yes</li> <li>Buzzer: Yes</li> </ul>	Environmental Conditions	<ul> <li>Storage temperature: -20°C to 70°C</li> <li>Operating and storage humidity: 5%~85% relative humidity, noncondensing</li> <li>Panel/VESA mounting</li> <li>Protection class: IP66 (front), IP20 (rear)</li> </ul>
		Dimensions	<ul> <li>Faceplate LxH: 282 x 197mm</li> <li>Cutout AxB: 271 x 186mm</li> <li>Depth D+T: 29 + 6mm</li> </ul>
Interface	<ul> <li>Ethernet: 2x 10/100/1000Mbit</li> <li>USB: 2 x USB3.0</li> <li>Serial: 1 x RS232/422/485 BIOS configuration</li> </ul>	Certifications	<ul> <li>CE (Emission EN61000-6-4; Immunity EN61000-6-2 for installation in industrial environments)</li> <li>FCC</li> </ul>

# **Ordering Information**

#### Barebone

- eLITE610 (P/N: 10IE0061000X0)
   10.1" widescreen WSVGA with Intel<sup>®</sup> Atom<sup>™</sup> x5-E3930, Ethernet and USB 3.0 interfaces, JMobile run-time
- eLITE610-NH (P/N: 10IE0061001X0) 10.1" widescreen WSVGA with Intel® Atom™ x5-E3930, Ethernet and USB 3.0 interfaces

### 4.3" Widescreen TFT WQVGA HMI Panel PC with Touchscreen

# eSMART04N







## **Main Features**

- 4.3" TFT color display, LED backlight
- 480 x 272 pixel (WQVGA) resolution, 64K colors
- Resistive touchscreen
- 1 x Ethernet port

- 1 x USB host port
- 1 x RS232/422/485 communication port
- Extremely cost efficient HMI with plastic chassis
- Slim design. Mounting depth less than 30mm

## **Product Overview**

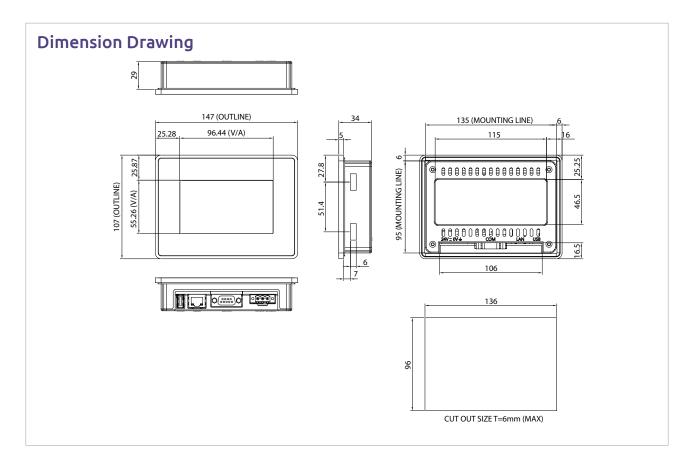
The eSMART Series HMI products combine state-of-the-art features and top performance with an outstanding design. They are the ideal choice for adding affordable functionality and control to your system. The eSMART04N features a bright 4.3" TFT widescreen (16:9) display with a fully dimmable LED backlight. The JMobile software offers full vector graphic capabilities and plenty of connectivity options.

#### Hightlight

- JMobile runtime included. Full compatibility with JMobile Studio
- Full vector graphic support. Native support of SVG graphic objects. Transparency and alpha blending
- Multilanguage applications. Easily create and manage your applications in multiple languages to meet global requirements. Far East languages are supported. Tools available in JMobile studio support easy third-party translations and help reducing development and maintenance costs of the application
- Data display in numerical, text, bargraph, analog gauges and graphic image formats
- Rich set of state-of-the-art HMI features: data acquisition, alarm handling, scheduler and timed actions (daily and weekly schedulers, exception dates), recipes, users and passwords, e-mail and RSS feeds, rotating menus
- · Includes support for a wide range of communication drivers for factory and building automation systems
- Multiple drivers communication capability
- Remote monitoring and control. Client- server functionality. Mobile clients supported
- Remote maintenance and support with VNC-based functionality
- Off-line simulation of the HMI application with JMobile studio
- Powerful scripting language for automating HMI applications. Script debugging improves efficiency in application development
- Rich gallery of symbols and objects
- Project templates
- Optional plug-in modules for fieldbus systems, I/O and controllers
- Display backlight dimmable to 0%

# Specifications

Technical Data	eSMART04N	Technical Data	eSMART04N
Panel	<ul> <li>4.3", 16:9, WQVGA, 480 x 272</li> <li>Luminance: 200 cd/m<sup>2</sup> typ.</li> <li>LCD color: 64K</li> <li>Active display area: 4.3" diagonal</li> <li>Backlight: LED</li> </ul>	Ratings	<ul> <li>Power supply voltage: 24Vdc (18 to 32 Vdc)</li> <li>Current consumption: 0.3A at 24Vdc (max.)</li> <li>Fuse: Automatic</li> <li>Weight: Approx. 0.6Kg</li> </ul>
Operator Interface	- Touch: Resistive		



Technical Data	eSMART04N	Technical Data	eSMART04N
System Resources System Resources Operating - RAM: 256 - Flash: 2 G - Applicatio - Real-time - RTC backu	<ul> <li>CPU: ARM Cortex A8 300 MHz</li> <li>Operating system: Linux 3.12</li> <li>RAM: 256MB DDR</li> <li>Flash: 2 GB</li> <li>Application memory: 60MB</li> <li>Real-time clock: Yes</li> <li>RTC backup: Supercapacitor</li> <li>Buzzer: Yes</li> </ul>	Environmental Conditions	<ul> <li>Operating temperature: 0°C to 50°C (vertical installation)</li> <li>Storage temperature: -20°C to 70°C</li> <li>Operating and storage humidity: 5%~85%, relative humidity, non-condensing</li> <li>Protection class: IP66 (front), IP20 (rear)</li> </ul>
		Dimensions	<ul> <li>Faceplate LxH: 147 x 107mm</li> <li>Cutout AxB: 136 x 96mm</li> <li>Depth D+T: 29 + 5mm</li> </ul>
Interface	<ul> <li>Ethernet: 1 x 10/100Mbit</li> <li>USB: 1 x host V2.0, max. 500 mA</li> <li>Serial: 1 x RS232/422/485 software configuration</li> </ul>	Certifications	<ul> <li>CE (Emission EN61000-6-4; Immunity EN61000-6-2 for installation in industrial environments)</li> <li>CE (Emission EN61000-6-3; Immunity EN61000-6-1 for installation in residential environments)</li> <li>CULus (UL508 Listed)</li> </ul>

# **Ordering Information**

### • eSMART04N (P/N: 10IE0000408X0) +ESMA04AN301

4.3" widescreen TFT WQVGA touchscreen with Ethernet and USB interfaces. JMobile run-time

\* Note: This product is only for Taiwan, China, Thailand, Vietnam, Philippines, Korea, UAE and Saudi Arabia.

# eSMART07N

7" Widescreen TFT WVGA HMI Panel PC with Touchscreen







## **Main Features**

- 7" TFT color display, LED backlight
- 800 x 480 pixel (WVGA) resolution, 64K colors
- Resistive touchscreen
- 1 x Ethernet port

- 1 x USB host port
- 1 x RS232/422/485 communication port
- Extremely cost efficient HMI with plastic chassis
- Slim design. Mounting depth less than 30mm

## **Product Overview**

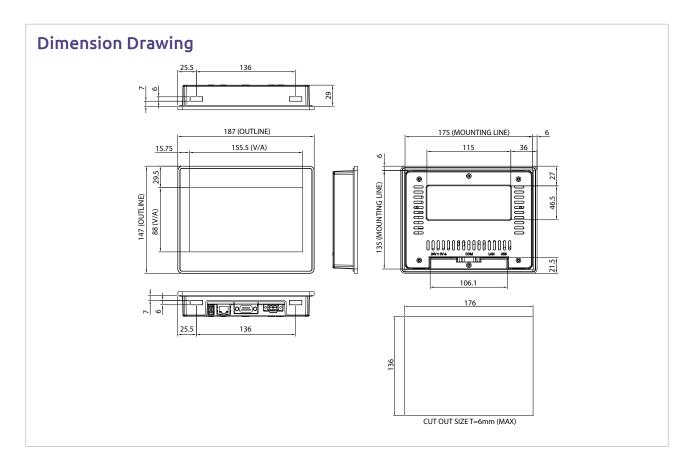
The eSMART Series HMI products combine state-of-the-art features and top performance with an outstanding design. They are the ideal choice for adding affordable functionality and control to your system. The eSMART07N features a bright 7" TFT widescreen (16:9) display with a fully dimmable LED backlight. The JMobile software offers full vector graphic capabilities and plenty of connectivity options.

#### Hightlight

- JMobile runtime included. Full compatibility with JMobile Studio
- Full vector graphic support. Native support of SVG graphic objects. Transparency and alpha blending
- Multilanguage applications. Easily create and manage your applications in multiple languages to meet global requirements. Far east languages are supported. Tools available in JMobile studio support easy third-party translations and help reducing development and maintenance costs of the application
- Data display in numerical, text, bargraph, analog gauges and graphic image formats
- Rich set of state-of-the-art HMI features: data acquisition, alarm handling, scheduler and timed actions (daily and weekly schedulers, exception dates), recipes, users and passwords, e-mail and RSS feeds, rotating menus
- Includes support for a wide range of communication drivers for factory and building automation systems
- Multiple drivers communication capability
- Remote monitoring and control. Client- server functionality. Mobile clients supported
- Remote maintenance and support with VNC-based functionality
- Off-line simulation of the HMI application with JMobile studio
- Powerful scripting language for automating HMI applications. Script debugging improves efficiency in application development.
- Rich gallery of symbols and objects
- Project templates
- Optional plug-in modules for fieldbus systems, I/O and controllers
- Display backlight dimmable to 0%

# Specifications

Technical Data	eSMART07N	Technical Data	eSMART07N
Panel	<ul> <li>7", 16:9, WVGA, 800 x 480</li> <li>Luminance: 200 cd/m<sup>2</sup> typ.</li> <li>LCD color: 64K</li> <li>Active display area: 7" diagonal</li> <li>Backlight: LED</li> </ul>	Ratings	<ul> <li>Power supply voltage: 24Vdc (18 to 32 Vdc)</li> <li>Current consumption: 0.25A at 24Vdc (max.)</li> <li>Fuse: Automatic</li> <li>Weight: Approx. 0.4Kg</li> </ul>
Operator Interface	- Touch: Resistive		



Technical Data	eSMART07N	Technical Data	eSMART07N
System Resources	<ul> <li>CPU: ARM Cortex A8 300 MHz</li> <li>Operating system: Linux 3.12</li> <li>RAM: 256MB DDR</li> <li>Flash: 2 GB</li> <li>Application memory: 60MB</li> <li>Real-time clock: Yes</li> <li>RTC backup: Supercapacitor</li> <li>Buzzer: Yes</li> </ul>	Environmental Conditions	<ul> <li>Operating temperature: 0°C to 50°C (vertical installation)</li> <li>Storage temperature: -20°C to 70°C</li> <li>Operating and storage humidity: 5%~85%, relative humidity, non-condensing</li> <li>Protection class: IP66 (front), IP20 (rear)</li> </ul>
		Dimensions	<ul> <li>Faceplate LxH: 187 x 147 mm</li> <li>Cutout AxB: 176 x 136 mm</li> <li>Depth D+T: 29 + 5 mm</li> </ul>
Interface	<ul> <li>Ethernet: 1 x 10/100Mbit</li> <li>USB: 1 x host V2.0, max. 500 mA</li> <li>Serial: 1 x RS232/422/485 software configuration</li> </ul>	Certifications	<ul> <li>CE (Emission EN61000-6-4; Immunity EN61000-6-2 for installation in industrial environments)</li> <li>CE (Emission EN61000-6-3; Immunity EN61000-6-1 for installation in residential environments)</li> <li>cULus (UL508 Listed)</li> </ul>

# **Ordering Information**

### • eSMART07N (P/N: 10IE0000708X0) +ESMA07AN301

- 7" widescreen TFT WVGA touchscreen with Ethernet and USB interfaces. JMobile run-time
- \* Note: This product is only for Taiwan, China, Thailand, Vietnam, Philippines, Korea, UAE and Saudi Arabia.

# eSMART10N







## **Main Features**

- 10.1"TFT color display, LED backlight
- 1024 x 600 pixel (WSVGA) resolution, 64K colors
- Resistive touchscreen
- 1 x Ethernet port

- 1 x USB host port
- 1 x RS232/422/485 communication port
- Extremely cost efficient HMI with plastic chassis
- Slim design. Mounting depth less than 30mm

## **Product Overview**

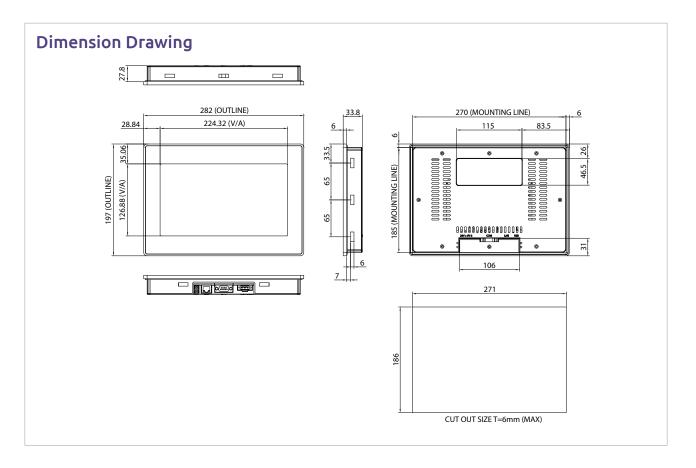
The eSMART Series HMI products combine state-of-the-art features and top performance with an outstanding design. They are the ideal choice for adding affordable functionality and control to your system. The eSMART10N features a bright 10.1" TFT widescreen (16:9) display with a fully dimmable LED backlight. The JMobile software offers full vector graphic capabilities and plenty of connectivity options.

#### Hightlight

- JMobile runtime included. Full compatibility with JMobile Studio
- Full vector graphic support. Native support of SVG graphic objects. Transparency and alpha blending
- Multilanguage applications. Easily create and manage your applications in multiple languages to meet global requirements. Far east languages are supported. Tools available in JMobile studio support easy third-party translations and help reducing development and maintenance costs of the application
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- Multiple drivers communication capability
- Remote monitoring and control. Client- server functionality. Mobile clients supported
- Remote maintenance and support with VNC-based functionality
- Off-line simulation of the HMI application with JMobile studio
- Powerful scripting language for automating HMI applications. Script debugging improves efficiency in application development
- Rich gallery of symbols and objects
- Project templates
- Optional plug-in modules for fieldbus systems, I/O and controllers
- Display backlight dimmable to 0%

# Specifications

Technical Data	eSMART10N	Technical Data	eSMART10N
Panel	<ul> <li>10.1", 16:9, WSVGA, 1024 x 600</li> <li>Luminance: 200 cd/m² typ.</li> <li>LCD color: 64K</li> <li>Active display area: 10.1" diagonal</li> <li>Backlight: LED</li> </ul>	Ratings	<ul> <li>Power supply voltage: 24Vdc (18 to 32 Vdc)</li> <li>Current consumption: 0.38A at 24Vdc (max.)</li> <li>Fuse: Automatic</li> <li>Weight: Approx. 1.0Kg</li> </ul>
Operator Interface	- Touch: Resistive		



Technical Data	eSMART10N	Technical Data	eSMART10N
System Resources	<ul> <li>CPU: ARM Cortex A8 1 GHz</li> <li>Operating system: Linux 3.12</li> <li>RAM: 512MB DDR</li> <li>Flash: 4 GB</li> <li>Application memory: 60MB</li> <li>Real-time clock: Yes</li> <li>RTC backup: Supercapacitor</li> <li>Buzzer: Yes</li> </ul>	Environmental Conditions	<ul> <li>Operating temperature: 0°C to 50°C (vertical installation)</li> <li>Storage temperature: -20°C to 70°C</li> <li>Operating and storage humidity: 5%~85%, relative humidity, non-condensing</li> <li>Protection class: IP66 (front), IP20 (rear)</li> </ul>
		Dimensions	<ul> <li>Faceplate LxH: 282 x 197mm</li> <li>Cutout AxB: 271 x 186mm</li> <li>Depth D+T: 29 + 6mm</li> </ul>
Interface	<ul> <li>Ethernet: 1 x 10/100Mbit</li> <li>USB: 1 x host V2.0, max. 500 mA</li> <li>Serial: 1 x RS232/422/485 software configuration</li> </ul>	Certifications	<ul> <li>CE (Emission EN61000-6-4; Immunity EN61000-6-2 for installation in industrial environments)</li> <li>CE (Emission EN61000-6-3; Immunity EN61000-6-1 for installation in residential environments)</li> <li>cULus (UL508 Listed)</li> </ul>

# **Ordering Information**

#### • eSMART10N (P/N: 10IE0001005X0) +ESMA010AN301

10.1" widescreen TFT WSVGA touchscreen with Ethernet and USB interfaces. JMobile run-time

\* Note: This product is only for Taiwan, China, Thailand, Vietnam, Philippines, Korea, UAE and Saudi Arabia.

#### 18.5" Kiosk Panel PC

# KPPC 1812



## **Main Features**

- Quad core Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900 2GHz
- 18.5" WXGA (1366 x 768) P-cap zero bezel touch display
- 2MP front webcam with autofocus
- 4GB of DDR3L SO-DIMM memory

- 320GB 5,400rpm 2.5" HDD
- Ultra slim 64.5mm
- VESA mounting (100 x 100mm)
- 24VDC 120W Power brick

## **Product Overview**

NEXCOM has released the Kiosk Panel PC KPPC 1812 to help build a smart future-proof kiosk that can evolve with changing needs of retail and hospitality industries. Based on Intel® Celeron® J1900 processor, the KPPC 1812 can power multimedia contents for advertising and enable multiple ways of user interaction for self-servicing. The KPPC 1812 is designed with expansion flexibility and ease of use and maintenance and can maximize kiosk uptime and lower total cost of ownership (TCO) for users.

## **Specifications**

#### System Processor

- Motherboard: NP-BYT0-A/NC-DK0-A
- Processor: IIntel® Celeron® J1900 Processor, 4C, 2.0GHz, 2MB Cache
- System Memory:
  - 1 x DDR3L 1333 SO-DIMM
  - Default: 1 x SO-DIMM DDR3L 1333 4GB
  - Optional: 1 x SO-DIMM DDR3L 1333 8GB
- Graphics: Integrated graphics controller, Intel's Gen 7 graphics and media encode/decode engine

#### LCD Touch Screen

- LCD Size: 18.5" TFT WXGA (1366x768) 250cd/m<sup>2</sup> LCD panel
- Touch Screen: 18.5" Projected Capacitive Touch Panel

#### **Storage Device**

1 x 2.5" SATA HDD 320GB 5,400rpm w/ HDD Door

#### Expansion

- 1 x Full size Mini-Card slot (mini-PCIe/USB/3G SIM slot)
- 1 x Half size Mini-Card slot (mini-PCIe/USB)

#### Rear I/O

- Serial (4):
  - 2 x RJ-50 Powered RS-232 (COM1, COM2, adjust RI/5V by BIOS setting)
  - 1 x RJ-50 Powered RS-232 (COM3, adjust RI/ 12V by BIOS setting)
- 1 x RJ-50 Powered RS-232/422/485 (COM4, adjust RI/12V & RS232/422/485 by BIOS setting)

- USB (2/2): 2 x USB 2.0; 2 x USB 3.0
- Parallel: 1 x DB-25 Parallel Port
- LAN: 1 x RJ-45 (10/100/1000Mbps Ethernet)
- VGA: 1 x DB-15 VGA port for 2nd Display
- Cash Drawer Port: 1 x RJ-11, support Two Cash Drawers (24V, Max 1.1A)
- DC-in Jack: 1 x DC-24V Input
- DC-out Jack: 1 x DC-12V Output for 2nd Display Power (12V, Max 3.0A)
- Line-out/Mic: 1 x Line-out for External Audio Speaker & Mic-in

#### Audio

### 1 x System Buzzer

### System Control

• 1 x Power ON/OFF Switch

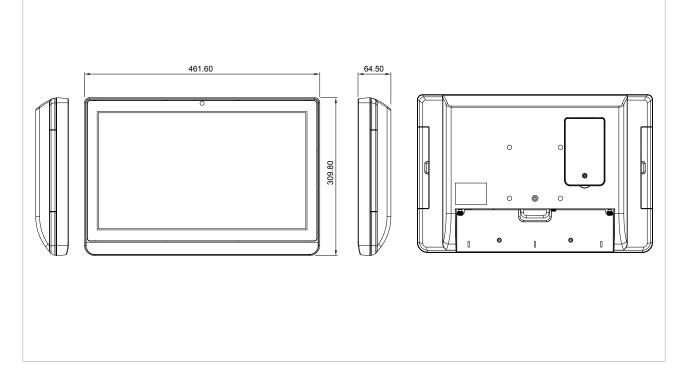
#### Power

- Default: External AC DC 24V/5.0A 120W Power Brick
- Optional: Upgrade to DC-24V 180W Power Brick

#### Kits/Peripherals

- Web Camera: Default: build-in 2M Auto Focus Web CAM, USB interface
- MSR: Optional: ISO 3 Tracks MSR (USB/RS232 combo interface or PS/2)
- MSR/ Fingerprint Combo: Optional: ISO 3 Tracks MSR (PS/2) & Fingerprint (USB) combo
- RFID/ NFC: Optional: RFID Mifare Read/ Write Module; NFC Contactless Reader Module
- Scanner: Optional: 2D Scanner
- Thermal Printer: Optional: 2"/3" Thermal Printer

## **Dimension Drawing**



#### Environment

- Operating Temperature: 0°C to 40°C (32°F ~ 104°F)
- Storage Temperature: -20°C to 60°C (-4°F ~ 140°F)
- Operating Humidity: 20% to 80% RH non-condensing
- Storage Humidity: 20% ~ 85% RH non-condensing

#### Dimension

- Display Head: 461.6mm (W) x 309.8mm (H) x 64.5mm (D)
- Package Size: 585mm (L) x 235mm (W) x 450mm (H) (No MSR)

#### Weight

Net Weight/Gross Weight: 9.0kg (19.8lbs)/10.5kg (23.2lbs)

#### **Operating System**

- Windows 8
- WES 8
- POSReady 7
- Win 7 Pro
- WES 7
- Fedora 17
- TIZEN

#### Certificate

- EMC & Safety
- FCC/CE/LVDS

## **Ordering Information**

- KPPC-1812-010 (P/N: A0YK0181200X0)
  - CPU: Intel® Celeron® J1900 Processor, 4C, 2.0 GHz, 2MB Cache
  - LCD/ Touch: 18.5" TFT WXGA (1366x768) 250 cd/m<sup>2</sup> LCD panel/ Projected Capacitive Zero Bezel Touch
  - Memory: 4GB DDR3L SO-DIMM
  - HDD: 320GB 2.5" SATA 5,400rpm
  - Power: DC-24V/120W Power Brick
  - Color: Black
  - Web Camera: Build-in 2M Auto Focus Web Camera

# **KPPC 1057**



## **Main Features**

- Intel Atom<sup>®</sup> processor E39xx processor family (Apollo Lake)
- 10.1" WXGA (1280 x 800) P-cap touch display
- 4GB of DDR3L SO-DIMM memory
- Panel Mount & VESA mounting supported (100 x 100mm)
- 12VDC 50W Power brick
- Ultra Slim Design
- Front IP65 Water & Dust Proof

## **Product Overview**

NEXCOM has released the Kiosk Panel PC KPPC 1057 to help build a smart future-proof kiosk that can evolve with changing needs of retail and hospitality industries. Based on Intel Atom® E39XX processor, the KPPC 1057 can power multimedia contents for advertising and enable multiple ways of user interaction for self-servicing. The KPPC 1057 is designed with expansion flexibility and ease of use and maintenance and can maximize kiosk uptime and lower total cost of ownership (TCO) for users.

## **Specifications**

#### Motherboard

EBC-357X

#### Processor

 Inte Atom<sup>®</sup> E39xx processor family, 14nm core, Quad/Dual Core, 1.8/2.0GHz

#### System Memory

- 1 x DDR3L 1333 SO-DIMM
- Default: 1 x SO-DIMM DDR3L 1333 4GB
- Optional: 1 x SO-DIMM DDR3L 1333 8GB

#### Graphics

Intel<sup>®</sup> HD Graphics 500/505

#### LCD Touch Screen

- LCD Size: 10.1" TFT WXGA (1280x800) 350cd/m<sup>2</sup> LCD panel
- Touch Screen: 10.1" Projected Capacitive Touch Panel

#### Storage Device

• 1 x 2.5" SATA HDD

#### Expansion

- 1 x Half size mini-PCIe slot
- 1 x NGFF (M.2) B Key

#### Rear I/O

- Serial:
- 1 x RS232, 422, 485 selectable
- USB: 4 x USB 3.0 A Type
- LAN: 2 x RJ-45 (10/100/1000Mbps Ethernet)
- VGA: 1 x DB-15 VGA port for 2nd Display
- HDMI: 1 x HDMI 1.4 Out
- Audio/Mic: 1 x Line-out for External Speaker & Mic-in
- DC-in Jack: 1 x DC-12V Input

### System Control

• 1 x Power ON Button

#### Power

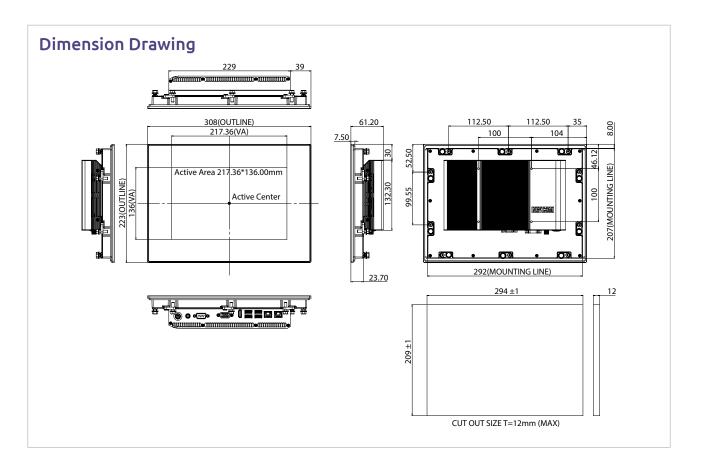
External AC to DC 12V/4.16A 50W Power Brick

#### Environment

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Storage Temperature: -20°C to 60°C (-4°F to 140°F)
- Operating Humidity: 20% to 80% RH non-condensing
- Storage Humidity: 20% to 85% RH non-condensing

#### Dimension

- Display Head: 308 x 223 x 61.2 mm
- Package Size: TBD



#### Weight

• Net Weight/Gross Weight: 5.0kg (11.02lbs)/6kg (13.23lbs)

#### **Operating System**

- Windows 10 IoT
- Windows 7 Pro
- Windows Embedded Standard 7
- POSReady 7
- Fedora 17

#### Certificate

- EMC & Safety
- FCC/CE

## **Ordering Information**

#### • KPPC 1057 (P/N: TBD)

- CPU: Intel Atom® EX39xx Processor, 2/4C, 1.8/2.0 GHz, 2MB Cache
- LCD: 10.1" TFT WXGA (1280x800) 350 cd/m<sup>2</sup> LCD panel/
- Touch: Projected Capacitive Touch Screen
- Memory: 4GB DDR3L SO-DIMM
- HDD: 2.5" SATA HDD or 2.5" SSD
- Power: DC-12V/50W Power Brick
- Color: Black

# **KPPC 1514**



## **Main Features**

- Intel<sup>®</sup> Celeron<sup>®</sup> N3060 (Braswell) Dual Core Processor
- 15.6" WXGA (1366 x 768) P-cap touch display
- 4GB of DDR3L SO-DIMM memory
- Panel Mount & VESA mounting supported (100 x 100mm)
- 12VDC 84W Power brick
- Ultra Slim Design
- Front IP65 Water & Dust Proof

## **Product Overview**

NEXCOM has released the Kiosk Panel PC KPPC 1514 to help build a smart future-proof kiosk that can evolve with changing needs of retail and hospitality industries. Based on Intel® Celeron® processor, the KPPC 1514 can power multimedia contents for advertising and enable multiple ways of user interaction for self-servicing. The KPPC 1514 is designed with expansion flexibility and ease of use and maintenance and can maximize kiosk uptime and lower total cost of ownership (TCO) for users.

# Specifications

Motherboard

#### • NEX-614A

#### Processor

• Intel<sup>®</sup> Celeron<sup>®</sup> N3060 (Braswell) Dual Core Processor 1.60 GHz (6W)

#### System Memory

- 1 x DDR3L 1600 SO-DIMM
- Default: 1 x SO-DIMM DDR3L 1600 4GB
- Optional: 1 x SO-DIMM DDR3L 1600 8GB

#### Graphics

Intel<sup>®</sup> HD Graphics 400

#### LCD Touch Screen

- LCD Size: 15.6" TFT WXGA (1366x768) 300cd/m<sup>2</sup> LCD panel
- Touch Screen: 15.6" Projected Capacitive Touch Panel

#### **Storage Device**

• 1 x 2.5" SATA HDD

#### Expansion

- 1 x ini-PCIe slot (Full Size)
- 1 x NGFF (M.2) M Key (2242/2280)
- 1 x PCle by 1

#### Rear I/O

• Serial:

#### - 4 x RS232

- 1 x RS232,422,485 selectable
- USB: 4 x USB 3.0 A Type
- LAN: 2 x RJ-45 (10/100/1000Mbps Ethernet)
- VGA: 1 x D-Sub15
- DVI: 1 x DVI D
- Audio: 1 x Line-out / Mic-in
- DC-in Jack: 1 x DC-12V Input

#### System Control

• 1 x Power ON Button

#### Power

• External AC to DC 12V/7A 84W Power Brick

#### Environment

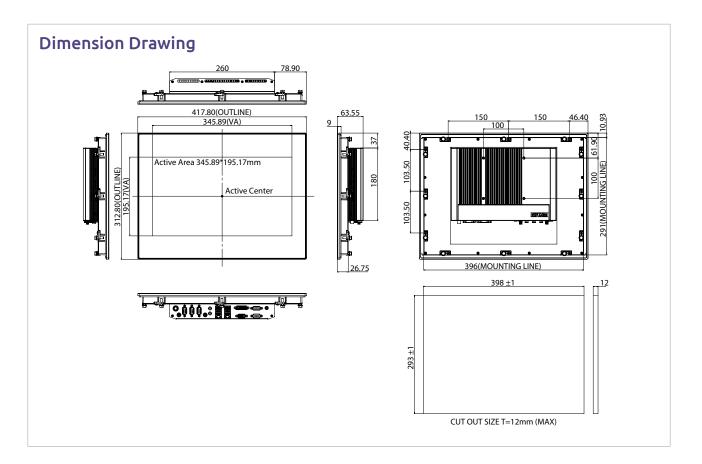
- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Storage Temperature: -20°C to 60°C (-4°F to 140°F)
- Operating Humidity: 20% to 80% RH non-condensing
- Storage Humidity: 20% to 85% RH non-condensing

#### Dimension

- Dimension: 417.8 x 312.8 x 63.55 mm
- Package Size: TBD

#### Weight

• Net Weight/Gross Weight: 6.6kg (14.55lbs)/7.8kg (17.20lbs)



#### **Operating System**

- Windows 10 IoT
- Windows 7 Pro
- Windows Embedded Standard 7

#### Certificate

- EMC & Safety
- FCC/CE

## **Ordering Information**

#### • KPPC 1514 (P/N: TBD)

- CPU: Intel® Celeron® N3060 (Braswell) Dual Core Processor 1.60 GHz (6W)
- LCD: 15.6" TFT WXGA (1366x768) 300 cd/m² LCD panel/
- Touch: Projected Capacitive Touch Screen
- Memory: 4GB DDR3L SO-DIMM
- HDD: 2.5" SATA HDD or 2.5" SSD
- Power: DC-12V/84W Power Brick
- Color: Black

#### 18.5" Multi Touch Panel PC

## **KPPC 1814**



### **Main Features**

- Intel<sup>®</sup> Celeron<sup>®</sup> N3060 (Braswell) Dual Core Processor
- 18.5" WXGA (1366 x 768) P-cap touch display
- 4GB of DDR3L SO-DIMM memory
- Panel Mount & VESA mounting supported (100 x 100mm)
- 12VDC 84W Power brick
- Ultra Slim Design
- Front IP65 Water & Dust Proof

## **Product Overview**

NEXCOM has released the Kiosk Panel PC KPPC 1814 to help build a smart future-proof kiosk that can evolve with changing needs of retail and hospitality industries. Based on Intel® Celeron® processor, the KPPC 1814 can power multimedia contents for advertising and enable multiple ways of user interaction for self-servicing. The KPPC 1814 is designed with expansion flexibility and ease of use and maintenance and can maximize kiosk uptime and lower total cost of ownership (TCO) for users.

## Specifications

- Motherboard
- NEX-614A

#### Processor

• Intel<sup>®</sup> Celeron<sup>®</sup> N3060 (Braswell) Dual Core Processor 1.60 GHz (6W)

#### System Memory

- 1 x DDR3L 1600 SO-DIMM
- Default: 1 x SO-DIMM DDR3L 1600 4GB
- Optional: 1 x SO-DIMM DDR3L 1600 8GB

#### Graphics

Intel<sup>®</sup> HD Graphics 400

#### LCD Touch Screen

- LCD Size: 18.5" TFT WXGA (1366x768) 250cd/m<sup>2</sup> LCD panel
- Touch Screen: 18.5" Projected Capacitive Touch Panel

#### Storage Device

• 1 x 2.5" SATA HDD

#### Expansion

- 1 x mini-PCIe slot (Full Size)
- 1 x NGFF (M.2) M Key (2242/2280)
- 1 x PCle by 1

#### Rear I/O

• Serial:

- 4 x RS232
- 1 x RS232,422,485 selectable
- USB: 4 x USB 3.0 A Type
- LAN: 2 x RJ-45 (10/100/1000Mbps Ethernet)
- VGA: 1 x D-Sub15
- DVI: 1 x DVI D
- Audio: 1 x Line-out / Mic-in
- DC-in Jack: 1 x DC-12V Input

#### System Control

• 1 x Power ON Button

#### Power

• External AC to DC 12V/7A 84W Power Brick

#### Environment

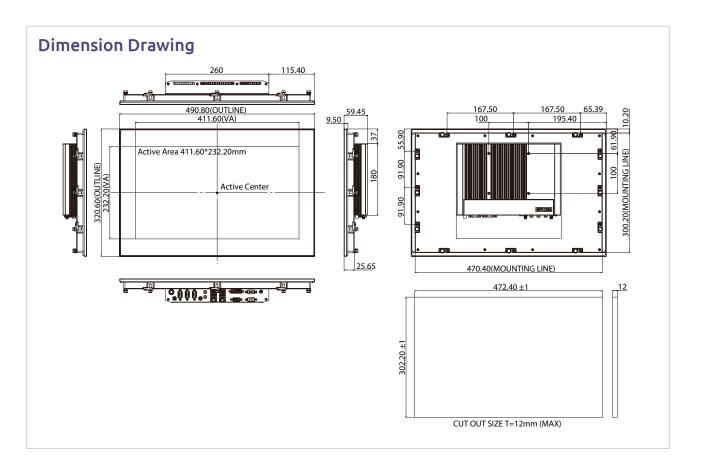
- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Storage Temperature: -20°C to 60°C (-4°F to 140°F)
- Operating Humidity: 20% to 80% RH non-condensing
- Storage Humidity: 20% to 85% RH non-condensing

#### Dimension

- Display Head: 490.8 x 320.6 x 59.45mm
- Package Size: TBD

#### Weight

Net Weight/Gross Weight: 7.6kg (16.76lbs)/8.7kg (19.18lbs)



#### **Operating System**

- Windows 10 IoT
- Windows 7 Pro
- Windows Embedded Standard 7

#### Certificate

- EMC & Safety
- FCC/CE

## **Ordering Information**

#### • KPPC 1814 (P/N: TBD)

- CPU: Intel<sup>®</sup> Celeron<sup>®</sup> N3060 (Braswell) Dual Core Processor 1.60 GHz (6W)
- LCD: 18.5" TFT WXGA (1366x768) 250 cd/m² LCD panel
- Touch: Projected Capacitive Touch Screen
- Memory: 4GB DDR3L SO-DIMM
- HDD: 2.5" SATA HDD or 2.5" SSD
- Power: DC-12V/84W Power Brick
- Color: Black

#### 21.5" Multi Touch Panel PC

## **KPPC 2114**



## **Main Features**

- Intel<sup>®</sup> Celeron<sup>®</sup> N3060 (Braswell) Dual Core Processor
- 21.5" FHD (1920 x 1080) P-cap touch display
- 4GB of DDR3L SO-DIMM memory
- Panel Mount & VESA mounting supported (100 x 100mm)
- 12VDC 84W Power brick
- Ultra Slim Design
- Front IP65 Water & Dust Proof

## **Product Overview**

NEXCOM has released the Kiosk Panel PC KPPC 2114 to help build a smart future-proof kiosk that can evolve with changing needs of retail and hospitality industries. Based on Intel® Celeron® processor, the KPPC 2114 can power multimedia contents for advertising and enable multiple ways of user interaction for self-servicing. The KPPC 1814 is designed with expansion flexibility and ease of use and maintenance and can maximize kiosk uptime and lower total cost of ownership (TCO) for users.

## Specifications

- Motherboard
- NEX-614A

#### Processor

• Intel<sup>®</sup> Celeron<sup>®</sup> N3060 (Braswell) Dual Core Processor 1.60 GHz (6W)

#### System Memory

- 1 x DDR3L 1600 SO-DIMM
- Default: 1 x SO-DIMM DDR3L 1600 4GB
- Optional: 1 x SO-DIMM DDR3L 1600 8GB

#### Graphics

Intel<sup>®</sup> HD Graphics 400

#### LCD Touch Screen

- LCD Size: 21.5" TFT FHD (1920x1080) 250cd/m<sup>2</sup> LCD panel
- Touch Screen: 21.5" Projected Capacitive Touch Panel

#### Storage Device

• 1 x 2.5" SATA HDD

#### Expansion

- 1 x mini-PCIe slot (Full Size)
- 1 x NGFF (M.2) M Key (2242/2280)
- 1 x PCle by 1

#### Rear I/O

• Serial:

- 4 x RS232
- 1 x RS232,422,485 selectable
- USB: 4 x USB 3.0 A Type
- LAN: 2 x RJ-45 (10/100/1000Mbps Ethernet)
- VGA: 1 x D-Sub15
- DVI: 1 x DVI D
- Audio: 1 x Line-out / Mic-in
- DC-in Jack: 1 x DC-12V Input

#### System Control

1 x Power ON Button

#### Power

• External AC to DC 12V/7A 84W Power Brick

#### Environment

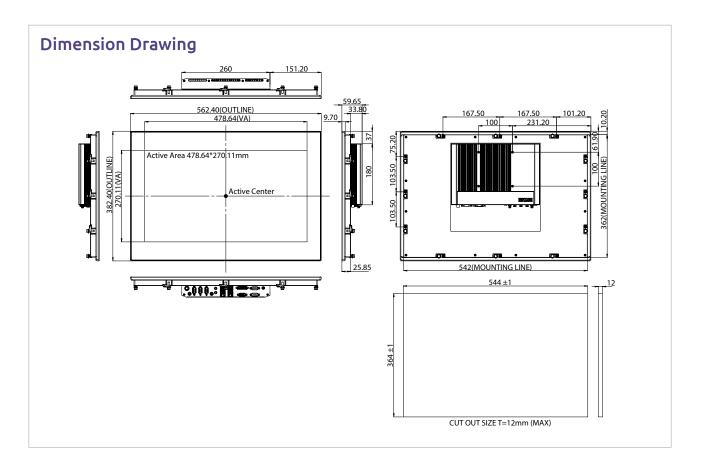
- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Storage Temperature: -20°C to 60°C (-4°F to 140°F)
- Operating Humidity: 20% to 80% RH non-condensing
- Storage Humidity: 20% to 85% RH non-condensing

#### Dimension

- Display Head: 562.4 x 382.4 x 59.65mm
- Package Size: TBD

#### Weight

Net Weight/Gross Weight: 7.6kg (16.76lbs)/8.7kg (19.18lbs)



#### **Operating System**

- Windows 10 IoT
- Windows 7 Pro
- Windows Embedded Standard 7

#### Certificate

- EMC & Safety
- FCC/CE

## **Ordering Information**

#### • KPPC 2114 (P/N: TBD)

- CPU: Intel® Celeron® N3060 (Braswell) Dual Core Processor 1.60 GHz (6W)
- LCD: 21.5" TFT WXGA (1920x1080) 250 cd/m² LCD panel
- Touch: Projected Capacitive Touch Screen
- Memory: 4GB DDR3L SO-DIMM
- HDD: 2.5" SATA HDD or 2.5" SSD
- Power: DC-12V/84W Power Brick
- Color: Black

## NPT 1560



## **Main Features**

- Quad core Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900 2GHz
- 4GB of DDR3L SO-DIMM memory
- 15" 4:3 XGA(1024\*768) 5 Wire-Resistive touch display with IP65
   rated front panel
- Fanless design

- 320GB 5,400rpm 2.5" HDD
- 2 x Mini-PCIe, 4 x COM, 2 x USB 3.0, 2 x USB 2.0, 1 x VGA, 1 x GbE LAN
- 24VDC 120W Power brick
- Optional peripheral expansion: MSR, fingerprint, VFD, 2nd display, cash drawer, scanner

## **Product Overview**

NEXCOM has released the fanless POS NPT 1560 to help increase checkout speed and sales at checkout counters. Powered by Intel® Celeron® processor J1900, the fanless POS NPT 1560 embodies high responsiveness, dual-display capability and ease of maintenance features, aimed to help kill off long checkout lines and generate more revenue for retailers and restaurants.

## **Specifications**

#### System Processor

- Motherboard: NP-BYT0-B/C/D
- Processor: Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900, 4C, 2.0 GHz, 2MB Cache
- Chipset: Integrated in Intel<sup>®</sup> Atom<sup>™</sup> SoC
- System Memory: 1 x SO-DIMM DDR3L 1333 4GB
- Graphics: Integrated graphics controller, Intel's Gen 7 graphics and media encode/decode engine

#### LCD Touch Screen

- LCD Size: 15" TFT XGA (1024x768) 250cd/m<sup>2</sup> LED Panel
- Touch Screen: 15" 5-wire Resistive Touch Panel
- Tilt Angle: 0° ~ 80°

#### Storage Device

• 1 x 2.5" SATA HDD 320GB 5,400rpm Removable type

#### Expansion

- 1 x Full size mini-Card slot (mini-PCIe/USB/3G SIM slot)
- 1 x Half size mini-Card slot(mini-PCIe/USB)

#### Rear I/O

- Serial port: 4 x DB-9 Powered RS-232 (adjust RI/5V/12V by BIOS setting)
- USB port: 2 x USB 3.0, 2 x USB 2.0
- Parallel port: 1 x DB-25 Parallel Optional
- LAN Port: 1 x RJ-45 (10/100/1000Mbps Ethernet)
- VGA: 1 x DB-15 VGA
- Cash Drawer Port: 1 x RJ-11, support Two Cash Drawers (24V, Max 1.1A)
- DC-IN Jack: 1 x DC-24V Input
- DC-OUT Jack: 1 x DC-12V Output for 2nd Display Power (12V, Max 3.0A)

• Line-OUT/MIC: 1 x Line-OUT for External Audio Speaker

#### Audio

1 x System Buzzer

#### System Control/Indicator

- Power Switch: 1 x Power ON/OFF switch
- Power LED: 1 x Power ON LED (Green)

#### Power

• External AC DC 24V/5A 120W Power Brick

#### Peripheral (Optional)

- MSR: ISO 3 Tracks MSR (USB/RS-232 combo interface or PS/2)
- MSR/Fingerprint Combo: ISO 3 Tracks MSR (PS/2) & Fingerprint (USB) combo
- Customer Display: 2 x 20 VFD customer display
- 2nd Display: 15" LCD monitor

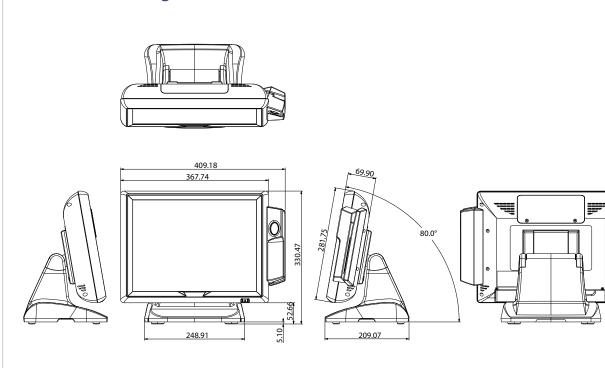
#### Environment

- Operating Temperature: 0°C ~ 40°C (32°F ~ 104°F)
- Storage Temperature: -20°C ~ 60°C (-4°F ~ 140°F)
- Operating Humidity: 20% 80% RH non-condensing
- Storage Humidity: 20% 85% RH non-condensing

#### Dimension

- 80° tilt angle: 368mm (W) x 331mm (H) x 210mm (D) (No MSR)
- 80° tilt angle W/ MSR: 410mm (W) x 331mm (H) x 210mm (D)
- Display Head: 368mm (W) x 282mm (H) x 69.9mm (D)
- + Display Head W/ MSR: 410mm (W) x 282mm (H) x 69.9mm (D)

## **Dimension Drawing**



- Footprint: 249mm (W) x 209mm (D)
- Package Size: 490mm (L) x 390mm (W) x 400mm (H) (No MSR) 560mm (L) x 390mm (W) x 350mm (H) (W/ MSR)

#### Weight

- Net Weight: 8.0kg (17.6lbs)
- Gross Weight: 9.5kg (20.9lbs)

#### **Operating System**

- Windows: Windows 8, WES 8, POS 7, Win 7 Pro, WES 7
- Linux: Fedora 17, TIZEN

#### Certificate

FCC/CE/LVD

## **Ordering Information**

- NPT 1560-036 (P/N: A0Y00156000X0)
  - CPU: Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900 2GHz
  - LCD/Touch:15" XGA 1024 x 768 250nits with LED backlight/5-wire resistive touch display
  - Memory: 4GB DDR3 SO-DIMM
  - HDD: 320GB 2.5" SATA 5,400rpm
  - Power: DC-24V/120W Power Brick
  - Color: Black



## **Main Features**

- Quad core Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900 2GHz
- 4GB of DDR3L SO-DIMM memory
- 15" 4:3 XGA (1024x768) P-cap true flat touch display with IP65rated front panel
- Fanless design

- 320GB 5,400rpm 2.5" HDD
- 2 x Mini-PCIe, 4 x COM, 2 x USB 3.0, 2 x USB 2.0, 1 x VGA, 1 x GbE LAN
- 24VDC 120W Power brick
- Optional peripheral expansion: MSR, fingerprint, VFD, 2nd display, cash drawer, scanner

## **Product Overview**

NEXCOM has released the fanless POS NPT 1562 to help increase checkout speed and sales at checkout counters. Powered by Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900, the fanless POS NPT 1562 embodies high responsiveness, dual-display capability and ease of maintenance features, aimed to help kill off long checkout lines and generate more revenue for retailers and restaurants.

## **Specifications**

#### System Processor

- Motherboard: NP-BYT0-B/C/D
- Processor: Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900, 4C, 2.0 GHz, 2MB Cache
- Chipset: Integrated in Intel<sup>®</sup> Atom<sup>™</sup> SoC
- System Memory: 1 x SO-DIMM DDR3L 1333 4GB
- Graphics: Integrated graphics controller, Intel's Gen 7 graphics and media encode/decode engine

#### LCD Touch Screen

- LCD Size: 15" TFT XGA (1024x768) 250cd/m<sup>2</sup> LED Panel
- Touch Screen: 15" Zero Bezel Projected Capacitive Touch Panel
- Tilt Angle: 0° ~ 80°

#### Storage Device

• 1 x 2.5" SATA HDD 320GB 5,400rpm Removable type

#### Expansion

- 1 x Full size mini-Card slot (mini-PCIe/USB/3G SIM slot)
- 1 x Half size mini-Card slot(mini-PCIe/USB)

#### Rear I/O

- Serial port: 4 x DB-9 Powered RS-232 (adjust RI/5V/12V by BIOS setting)
- USB port: 2 x USB 3.0, 2 x USB 2.0
- Parallel port: 1 x DB-25 Parallel Optional
- LAN Port: 1 x RJ-45 (10/100/1000Mbps Ethernet)
- VGA: 1 x DB-15 VGA
- Cash Drawer Port: 1 x RJ-11, support Two Cash Drawers (24V, Max 1.1A)
- DC-IN Jack: 1 x DC-24V Input
- DC-OUT Jack: 1 x DC-12V Output for 2nd Display Power (12V, Max 3.0A)

• Line-OUT/MIC: 1 x Line-OUT for External Audio Speaker

#### Audio

1 x System Buzzer

#### System Control/Indicator

- Power Switch: 1 x Power ON/OFF switch
- Power LED: 1 x Power ON LED (Green)

#### Power

• External AC DC 24V/5A 120W Power Brick

#### Peripheral (Optional)

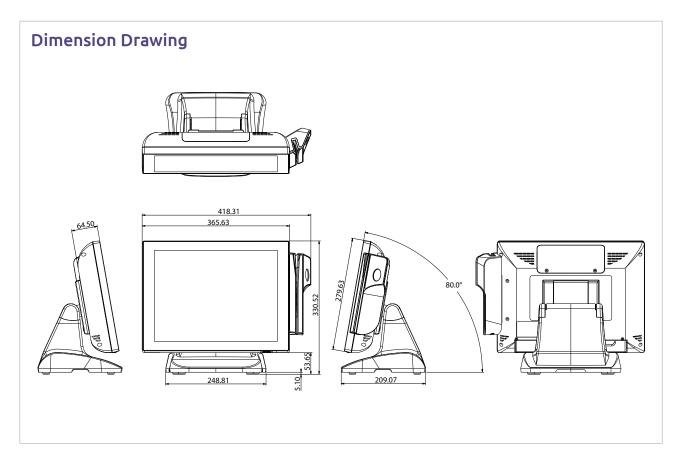
- MSR: ISO 3 Tracks MSR (USB/RS-232 combo interface or PS/2)
- MSR/Fingerprint Combo: ISO 3 Tracks MSR (PS/2) & Fingerprint (USB) combo
- Customer Display: 2 x 20 VFD customer display
- 2nd Display: 15" LCD monitor

#### Environment

- + Operating Temperature:  $0^{\circ}C \sim 40^{\circ}C (32^{\circ}F \sim 104^{\circ}F)$
- Storage Temperature: -20°C ~ 60°C (-4°F ~ 140°F)
- Operating Humidity: 20% 80% RH non-condensing
- Storage Humidity: 20% 85% RH non-condensing

#### Dimension

- 80° tilt angle: 366mm (W) x 331mm (H) x 210mm(D) (No MSR)
- 80° tilt angle W/ MSR: 419mm (W) x 331mm (H) x 210mm (D)
- Display Head: 366mm (W) x 280mm (H) x 64.5mm (D)
- Display Head W/ MSR: 419mm (W) x 280mm (H) x 64.5mm (D)
- Footprint: 249mm (W) x 209mm (D)



 Package Size: 490mm (L) x 390mm (W) x 400mm (H) (No MSR) 560mm (L) x 390mm (W) x 350mm (H) (W/ MSR)

#### Weight

- Net Weight: 8.0kg (17.6lbs)
- Gross Weight: 9.5kg (20.9lbs)

#### **Operating System**

- Windows: Windows 8, WES 8, POS 7, Win 7 Pro, WES 7
- Linux: Fedora 17, TIZEN

#### Certificate

• FCC/CE/LVD

## **Ordering Information**

- NPT 1562-036 (P/N: A0Y00156200X0)
  - CPU: Intel<sup>®</sup> Celeron<sup>®</sup> processor J1900 2GHz
  - LCD/Touch:15" XGA 1024 x 768 250nits with LED backlight/P-cap true flat touch display
  - Memory: 4GB DDR3 SO-DIMM
  - HDD: 320GB 2.5" SATA 5,400rpm
  - Power: DC-24V/120W Power Brick
  - Color: Black

## NPT 5850



## **Main Features**

- 15" 4:3 XGA (1024 x 768) TFT LCD panel
- 15" 5-wire resistive touch screen
- 2nd/3rd generation Intel® Core™ i3/i5/i7 processor
- Support DDR3 1333 SO-DIMM memory
- 2.5" removable SATA HDD

- Powered COM (4), USB (4), printer port (1), VGA (1), GbE LAN (1), cash drawer (1)
- Front bezel complies with IP-65 protection standard
- Option kits for MSR/Fingerprint/VFD
- Optional VESA 100 x 100mm mounting for wall-mount application

## **Product Overview**

The NPT 5850 is a high performance Point-of-Sale (POS) hardware solution to fulfill your POS hardware requirement. Removable HDD, MSR, fingerprint and VFD kit design provides an easy maintenance method and saving your service cost. The +12VDC output provides sufficient power for your 2nd display from POS terminal and offers better cable routing and high-integration for the 2nd display. Small footprint is ideal for installations where space is compact in stores. The VESA mounting design of display head, only 100 x 100mm, provides another option for wall-mounting application when detaching the stand of terminal. The design offers a spill resistant and high integration for POS peripherals, which provides restaurant and retail conditions with continuous operation.

## **Specifications**

#### Panel

- LCD Size: 15" , 4:3
- Resolution: XGA 1024 x 768
- Luminance: 250cd/m<sup>2</sup>
- Contrast ratio: 700
- LCD color: 16.2M
- Viewing angle: 80 (upper), 80 (lower), 85 (left), 85 (right)
- Backlight: CCFL/LED
- Touch screen: 5-wire Resistive
- Touch light transmission: 80%
- Touch interface: USB

#### System

- CPU:
- Default:
- Intel<sup>®</sup> Pentium<sup>®</sup> processor B950, 2C/2T, 2.10 GHz, 2MB Cache - Upgrade Optional:
- 2nd generation Intel<sup>®</sup> Core™ mobile processor: i7-2710QE, 4C/8T, 2.1GHz, 6MB Cache; i5-2510E, 2C/4T, 2.5GHz, 3MB Cache; i3-2330E, 2C/4T, 2.2GHz, 3MB Cache
- Optional:
- Intel® Celeron® processor B810, 2C/2T, 1.60 GHz, 2M Cache
- BIOS: AMI BIOS
- System chipset: Intel® HM65
- System memory: 1 x 204-pin DDR3 1333 SO-DIMM socket, 2GB DDR3 (default), optional two sockets support up to 8GB DDR3 1333,

non-ECC and un-buffered

- Hard disk drive: One 2.5" 320 GB SATA HDD, removable type
- Expansion: 1 x Mini-card socket for Mini-PCle and USB interface

#### Rear I/O

- USB: 4 x USB 2.0 port
- COM: 4 x DB-9 powered RS-232 port, adjust RI/5V/12V by BIOS setting
- Ethernet: 1 x RJ-45, 10/100/1000 Mbps
- VGA: 1 x DB-15 2nd VGA port
- Cash drawer: 1 x RJ-11 port, support two cash drawers (24V, Max 1.1A)
- Parallel: 1 x DB-25 printer port
- Audio: 1 x Line-out jack
- DC-IN: 1 x +19VDC input, Mini-DIN 4Pin lock type
- DC-OUT: 1 x +12VDC output for 2nd display power (12V, Max 3.0A)

#### Audio

- High Definition audio codec: Realtek ALC886-GR
- Internal audio: One 3W speaker
- External audio: Line-out audio jack

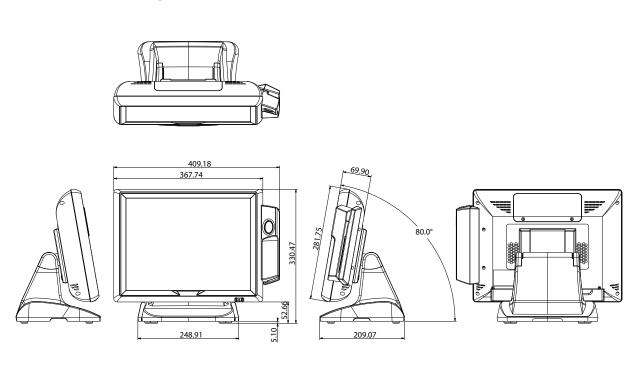
#### Ethernet

- LAN chip: Intel<sup>®</sup> PHY WG82579LM Gigabit LAN
- Ethernet interface: 10/100/1000 Based-TX Ethernet compatible

#### Mechanical & Environment

Color: Iron gray/black

## **Dimension Drawing**



- Mounting: desktop type, optional VESA 100 x 100mm wall-mount when detaching stand
- IP protection: front bezel complies with IP-65 protection standard
- Power input: +19VDC
- Power adapter: AC to DC power brick (+19VDC/6.315A, 120W)
- Operating temperature: 0°C to 40°C
- Storage temperature: -20°C to 60°C
- Operating humidity: 20% ~ 80% relative humidity, non-condensing
- Dimension: 368mm (W) x 331mm (H) x 210mm (D) (No MSR),
- 410mm (W) x 331mm (H) x 210mm (D) (with MSR)
- Weight: 8.5kg
- Tilt angle: 0° ~ 80°

#### Certifications

- CE approval
- FCC Class A

## **Ordering Information**

- NPT 5850-035 (P/N: A0Y00585004X0)
  - Color :Black
     CPU: Intel® Core™ i3/i5/i7 mobile processor,2C/2T,2.10GHz, 2MB cache
  - LCD/Touch: 15" XGA 1024 x 768 250nits with LED Backlight/ELO 5-wire resistive touch
  - Memory: 2GB DDR3 SO-DIMM
  - HDD: 320GB 2.5" SATA 5,400rpm
  - Power: +19VDC/120W power brick
- Options
  - -3G module kit (P/N: BW00000023X00)
  - WiFi module kit (P/N: TBD)

## NPT 5852



### **Main Features**

- 15" 4:3 XGA (1024 x 768) TFT LCD panel
- 15" projected capacitive true flat touch screen
- 2nd/3rd generation Intel® Core™ i3/i5/i7 processor
- Support DDR3 1333 SO-DIMM memory
- 2.5" removable SATA HDD

- Powered COM (4), USB (4), printer port (1), VGA (1), GbE LAN (1), cash drawer (1)
- Front bezel complies with IP-65 protection standard
- Option kits for MSR/Fingerprint/VFD
- Optional VESA 100 x 100mm mounting for wall-mount application

## **Product Overview**

The NPT 5852 is a high performance Point-of-Sale (POS) hardware solution to fulfill your POS hardware requirement. The stylish zero bezel design makes it easy for your POS Terminal to fit the modern store design. Projected Capacitive Touch Screen is the best reliable solution and Minimum service effort on Touch Screen.

Removable HDD, MSR, fingerprint and VFD kit design provides an easy maintenance method and saving your service cost. The +12VDC output provides enough power for your 2nd display from POS terminal, and offers better cable routing and high-integration for the 2nd display. Small footprint is ideal for installations where space is compact in stores. The VESA mounting design of display head, only 100 x100m m, provides an option for Wall-mounting application when detaching the stand of terminal. The design offers a spill resistant and high integration for POS peripherals, which provides restaurant and retail conditions with continuous operation.

## **Specifications**

#### Panel

- LCD Size: 15" , 4:3
- Resolution: XGA 1024 x 768
- Luminance: 250cd/m<sup>2</sup>
- Contrast ratio: 700
- LCD color: 16.2M
- Viewing angle: 80 (upper), 80 (lower), 85 (left), 85(right)
- Backlight: CCFL/LED
- Touch screen: projected capacitive true flat (zero bezel)
- Touch light transmission: 91%
- Touch interface: USB

#### System

#### CPU:

- Default:
- Intel<sup>®</sup> Pentium<sup>®</sup> processor B950, 2C/2T, 2.10 GHz, 2MB Cache - Upgrade Optional:
- 2nd generation Intel® Core™ mobile processor: i7-2710QE, 4C/8T, 2.1GHz, 6MB Cache; i5-2510E, 2C/4T, 2.5GHz, 3MB Cache; i3-2330E, 2C/4T, 2.2GHz, 3MB Cache - Optional:
- Intel® Celeron® processor B810, 2C/2T, 1.60 GHz, 2M Cache
- BIOS: AMI BIOS
- System chipset: Intel<sup>®</sup> HM65

- System memory: 1 x 204-pin DDR3 1333 SO-DIMM socket, 2GB DDR3 (default), optional two sockets support up to 8GB DDR3 1333, non-ECC and un-buffered
- Hard disk drive: One 2.5" 320GB SATA HDD, removable type
- Expansion: 1 x Mini-Card Socket for Mini-PCIe and USB interface

#### Rear I/O

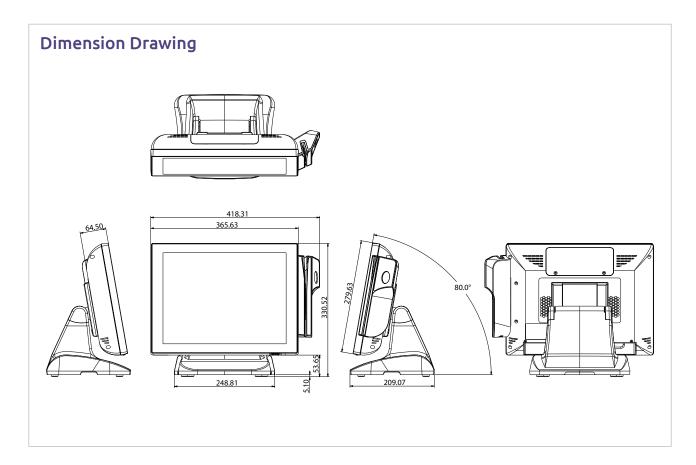
- USB: 4 x USB 2.0 port
- COM: 4 x DB-9 powered RS-232 port, adjust RI/5V/12V by BIOS setting
- Ethernet: 1 x RJ-45, 10/100/1000 Mbps
- VGA: 1 x DB-15 2nd VGA port
- Cash Drawer: 1 x RJ-11 port, support two cash drawers (24V, Max 1.1A)
- Parallel: 1 x DB-25 printer port
- Audio: 1 x Line-out jack
- DC-IN: 1 x +19VDC input, Mini-DIN 4Pin lock type
- DC-OUT: 1 x +12VDC output for 2nd display power (12V, Max 3.0A)

#### Ethernet

- LAN chip: Intel® PHY WG82579LM Gigabit LAN
- Ethernet interface: 10/100/1000 Based-TX Ethernet compatible

#### Mechanical & Environment

Color: beige/black



- Mounting: desktop type, optional VESA 100 x 100mm wall-mount when detaching stand
- IP protection: front bezel complies with IP-65 protection standard
- Power input: +19VDC
- Power adapter: AC to DC power brick (+19VDC/6.315A, 120W)
- Operating temperature: 0°C to 40°C
- Storage temperature: -20°C to 60°C
- Operating humidity: 20%~ 80% relative humidity, non-condensing
- Dimension: 366mm (W) x 331mm (H) x 210mm (D) (no MSR),
- 419mm (W) x 331mm (H) x 210mm (D) (with MSR)
- Weight: 8.5kg
- Tilt angle: 0° ~ 80°

#### Certifications

- CE approval
- FCC Class A

## **Ordering Information**

- NPT 5852-036 (P/N: A0Y00585206X0)
  - Color: Black
     CPU: Intel<sup>®</sup> Core<sup>™</sup> i3/i5/i7 mobile processor,2C/2T,2.10GHz, 2MB cache
  - LCD/Touch: 15" XGA 1024 x 768 250nits with LED backlight/ projected capacitive true flat touch
  - Memory: 2GB DDR3 SO-DIMM
  - HDD: 320GB 2.5"SATA 5,400rpm
  - Power: +19VDC/120W power brick

#### Options

- 3G module kit (P/N: BW00000023X00)
- WiFi module kit (P/N: TBD)

## NPD 1050



## **Main Features**

- Front Bezel IP-65 Stand Compliant
- Slim and compact enclosure design
- stand accommodate Power Brick

- Zero Bezel Touch(P Cap/Resistive Option)
- Modular MSR/FingerPrint (Option)
- Optional wall-mount kit for compact space accommodation

## **Product Overview**

The NPD 1050 is a reliable and flexibility touch monitor that can support an integrated magnetic stripe reader (MSR) and also supports an integrated 2 x 20 rear customer display. The display has touchscreen with five-wire resistive and also with projected capacitive (PCAP) for a multi-touch experience and zero-bezel. The front bezel with frame and borderless (True Flat Surface) types design combined with its Solid IP65 Water and Dust proofing.

The NPD 1050 offers a stable base touch screen and a hidden cable management system, all in an elegant and simple-to-use design. The display can function as a desktop or wall-mounted unit and includes a VESA mounting option. The 15" touch monitor provides an affordable product in a convenient, space-saving design that both first-time and experienced users can deploy more easily, reliably, and more cost-effectively.NPD-1050 is the best solution for NEXPOS box PC fanless computer.

## **Specifications**

#### Panel

- 15" 4:3 XGA (1024 x 768) TFT LCD panel
- 15" 5-wire resistive touch screen
- 15" projected capacitive true flat touch screen(optional)
- Front bezel complies with IP-65 protection standard
- Option kits for MSR/Fingerprint/VFD
- Optional wall-mount kit for compact space accommodation

#### Rear I/O

- Touch interface port: 1 x USB2.0 Type B connector for Upstreaming; 1 x USB2.0 Type A for Downstreaming
- Video port: 1 x DB15 VGA/1 x DVI-I connector/1 x DP (Display Port)
- OSD: 1 x AUTO button for auto adjust setting; optional 4 buttons
- (MENU, SELECT, ▲/+, ▼/-), on optional OSD switch board • COM: Optional: 2 x DB-9F for RS-232 Upstream
- DC-IN Jack : 1 x +12VDC Input

#### System Control/Indicator

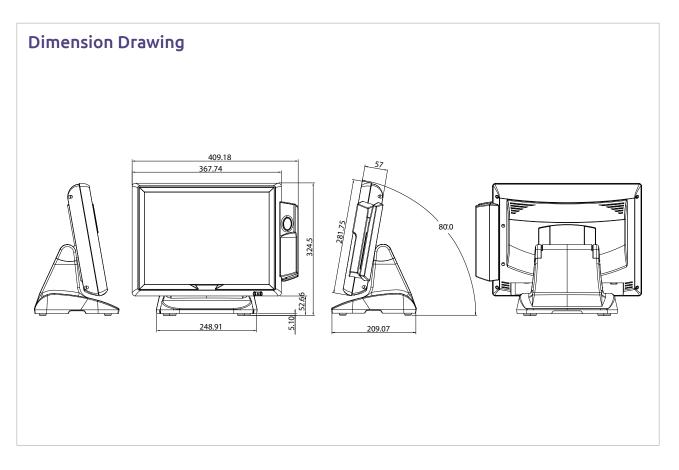
- Power Switch: 1 x Power ON/OFF switch
- Power LED: 1 x Power ON LED (Green)

#### Mechanical & Environment

- Color: black
- Mounting: desktop type, optional VESA 100 x 100mm wall-mount
  when detaching stand
- IP protection: front bezel complies with IP-65 protection standard
- Power input: +12VDC
- Power adapter: Default: Power source from NPB 3550 PoweredUSB 12V; Optional: External AC DC 12V/5.0A 60W Power Brick
- Operating temperature: 0°C to 40°C
- Storage temperature: -20°C to 60°C
- Operating humidity: 20%~80% relative humidity, non-condensing
- Dimension: 368mm (W) x 331mm (H) x 210mm (D) (no MSR), 410mm (W) x 331mm (H) x 210mm (D) (with MSR)
- Weight: 6.4kg
- Tilt angle: 0° ~ 80°

#### Certifications

- CE approval
- FCC Class A



## **Ordering Information**

- NPD 1050-032 (P/N: A0Y20105002X0)
  - NexPOS 15" touch display
  - LCD: XGA 1024 x 768 250nits
  - Touch: 15" 5-wire true flat resistive touch
  - Power: DC-12V/60W power brick
  - I/O: VGA, DVI-D, DP, USB, COM (for MSR)

## **OPPC 1240T**

#### 12.1" TFT SVGA 4:3 Fanless Open Frame PC with Intel Atom<sup>®</sup> E3826, 1.46GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM and VGA





## **Main Features**

- 4:3 12.1" SVGA fanless LED panel computer
- Intel Atom<sup>®</sup> E3826, dual core, low power consumption CPU
- PS2 KB/ MS/ Line-out/ dual GbE/ 3x USB
- 2 x RS232/422/485/2nd display-VGA/2 x mini-PCIe sockets/1 x CFast
- Remote power switch

- DDR3L 4GB/2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 12.1" 4:3 touch screen LCD panel with resolutions up to 1024 x 768 (XGA) and 350 nits brightness. It is specially designed with bezel-less display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC 1240T are fanless panel PC based on the Atom® E3826 processor. The OPPC 1240T supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder.

With support for wide power input of 12V~30V, OPPC 1240T can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1240T can hook 2nd display via a VGA port for dual independent display. OPPC 1540T has two isolated RS232/422/485 ports.

## Specifications

#### Panel

- LED Size: 12.1", 4:3
- Resolution: SVGA 800 x 600
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 800
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 80(L), 80(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Light transmission: 80%
- Interface: USB

#### System

- CPU: On-board dual core Intel Atom® processor E3826 1.46GHz, 1M L2 Cache
- Processor: Intel<sup>®</sup> Celeron<sup>®</sup> J1900 processor, 4C, 2.0GHz, 2MB Cache (optional)
- BIOS: AMI BIOS
- System memory: 22 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/ 1333, non-ECC and un-buffered
- Storage Device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM

- Watchdog timer: watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: Monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module)

#### Rear I/O

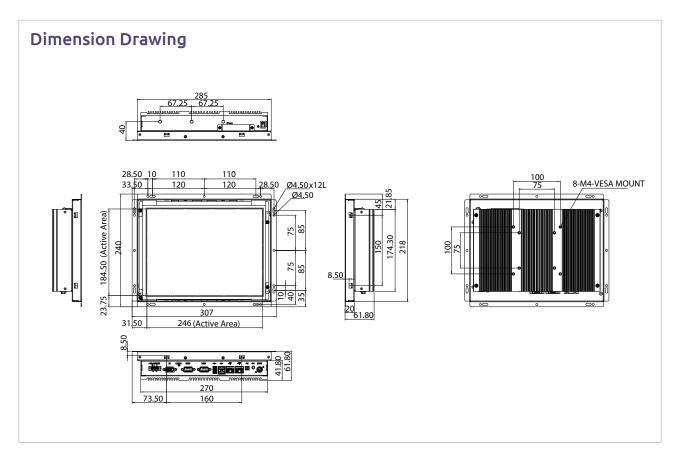
- PS2 keyboard/mouse
- Audio port: 1x Line-out
- Remote power switch
- Ethernet: 2x RJ45
- USB: 2 x USB 2.0; 1 x USB 3.0
- COM #1: RS232/422/485
- COM #2: RS232/ 422/ 485
- Reset button
- 2nd display VGA port: 1 x DB15

### Power switch

- Audio
- AC'97 codec: realtek ALC886-GR
- Audio interface: Line-out/ Line-in (optional)/ MIC-in (optional) audio Jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 based-Tx Ethernet compatible



#### Mechanical & Environment

- Mounting: Panel/wall/stand/VESA 100mm x 100mm Power input: 12~30VDC
- Power adapter: Optional AC to DC power adapter (+12V, 60W) • Vibration:
- IEC 68 2-64 (w/ HDD) 1Grms @ sine, 5~500Hz, 1hr/axis (HDD Operating) 2Grms @ random condition, 5~500Hz, 0.5hr/axis (Non-operating)
- Shock: IEC 68 2-27 HDD: 20G@wall mount, half sine, 11ms Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 307 x 240 x 61.8mm
- Weight: 3.8kg

#### Certifications

- CE approval
- FCC Class A

#### **OS Support Lists**

- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

OPPC1240T (P/N: 90IQ1240T00X0)
 15" XGA LED backlight touch panel PC with Intel Atom® E3826 1.46
 GHz, touch screen, 4GB DDR3L with 2 x RS232/ 422/ 485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)

## **OPPC 1540T**

#### 15" TFT XGA 4:3 Fanless Open Frame PC with Intel® Atom™ E3826, 1.46GHz, Touch Screen, 2GB DDR3L, 3 x USB, 2 x COM and VGA





## **Main Features**

- 4:3 15" XGA Fanless Panel Computer
- Intel<sup>®</sup> Atom™ E3826, dual core, low power consumption CPU
- PS2 KB/MS/Line-out/Dual GbE/3x USB
- 2 x RS232/422/485/2nd display-VGA/2 x Mini-PCIe sockets/1 x CFast
- Remote power switch

- DDR3L 2GB/2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: Panel/Wall/Stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 15" 4:3 touch screen LCD panel with resolutions up to 1024 x 768 (XGA) and 420 nits brightness. It is specially designed with bezel-less display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC1540T are fanless Panel PC based on the Atom™ E3826 processor. The OPPC 1540T supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two Mini-PCIe slots and one SIM card holder.

With support for wide power input of 12~30VDC, OPPC 1540T can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1540T can hook 2nd display via a VGA port for dual independent display. OPPC 1540T has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LED size: 15", 4:3
- Resolution: XGA 1024x768
- Luminance: 420cd/m<sup>2</sup>
- Contrast ratio: 800
- LCD color: 262K
- Viewing angle: 80(U), 80(D), 80(L), 80(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Touch light transmission: 81%
- Touch interface: USB

#### System

- CPU: On-board Intel<sup>®</sup> Atom<sup>™</sup> Dual Core processor E3826, 1.46GHz, 1M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (Default), Support up to 8GB DDR3L-1066/1333, Non-ECC and Unbuffered
- Storage device:
  - 1 x external locked CFast socket
  - 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255

minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x Mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

- PS2 keyboard/mouse
- Audio port: 1 x Line-out
- Remote power switch
- Ethernet: 2 x RJ45
- USB: 2 x USB2.0; 1 x USB3.0
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Reset button
- 2nd display VGA port: 1 x DB15
- Power switch

#### Audio

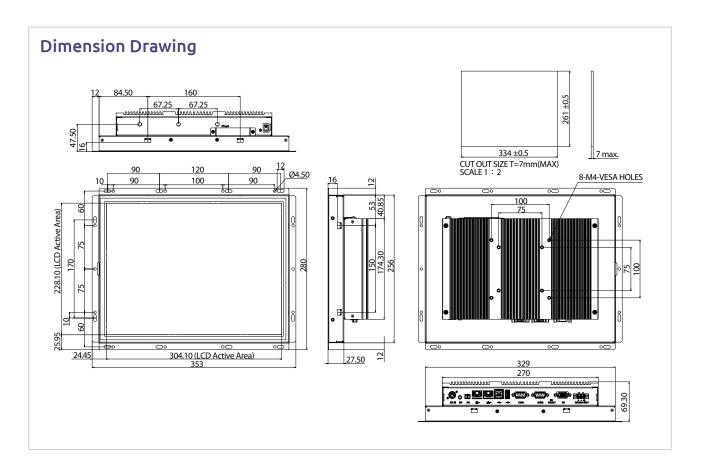
- HD Codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in (Optional)/MIC-in (Optional) audio Jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12~30VDC



- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 329 x 280 x 69.3mm
- Weight: 4Kg

#### Certifications

#### CE approval

• FCC Class A

#### **OS Support Lists**

- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

• OPPC 1540T (P/N: 90IQ1540T00X0) 15" XGA LED backlight touch Panel PC with Intel® Atom™ E3826 1.46 GHz, touch screen, 2GB DDR3L with 2x RS232/422/485

#### Options

- 12V, 60W AC/DC power adapter w/o power cord
  - (P/N: 7400060017X00)

## OPPC 1540T-J1900

#### 15" TFT XGA 4:3 Fanless Open Frame PC with Intel® Celeron<sup>™</sup> J1900, 2.0GHz, Touch Screen, 2GB DDR3L, 3 x USB, 2 x COM and VGA





## **Main Features**

- 4:3 15" XGA Fanless Panel Computer
- Intel<sup>®</sup> Celeron<sup>™</sup> J1900, Quad core, low power consumption CPU
- PS2 KB/ MS/ Line-out/ Dual GbE/ 3x USB
- 2 x RS232/422/485/2nd display-VGA/2 x Mini-PCIe sockets/1 x CFast
- Remote power switch

- DDR3L 2GB/ 2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: Panel/ Wall/ Stand/ VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 15" 4:3 touch screen LCD panel with resolutions up to 1024 x 768 (XGA) and 420 nits brightness. It is specially designed with bezel-less display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC 1540T-J1900 are fanless Panel PC based on the Celeron™ J1900 processor. The OPPC 1540T-J1900 supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two Mini-PCIe slots and one SIM card holder.

With support for wide power input of 12~30VDC, OPPC 1540T-J1900 can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1540T-J1900 can hook 2nd display via a VGA port for dual independent display. OPPC 1540T-J1900 has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LED size: 15", 4:3
- Resolution: XGA 1024x768
- Luminance: 420cd/m<sup>2</sup>
- Contrast ratio: 800
- LCD color: 262K
- Viewing angle: 80(U), 80(D), 80(L), 80(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Touch light transmission: 81%
- Touch interface: USB

#### System

- CPU: On-board Intel<sup>®</sup> Celeron<sup>™</sup>, Quad core processor J1900, 2.0GHz, 2M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (Default), Support up to 8GB DDR3L-1066/1333, Non-ECC and Unbuffered
- Storage device:
  - 1 x external locked CFast socket
  - 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255

minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x Mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

- PS2 keyboard/mouse
- Audio port: 1 x Line-out
- Remote power switch
- Ethernet: 2 x RJ45
- USB: 2 x USB2.0; 1 x USB3.0
- COM #1: RS232/422/485
- COM #2: RS232/ 422/ 485
- Reset button
- 2nd display VGA port: 1 x DB15
- Power switch

#### Audio

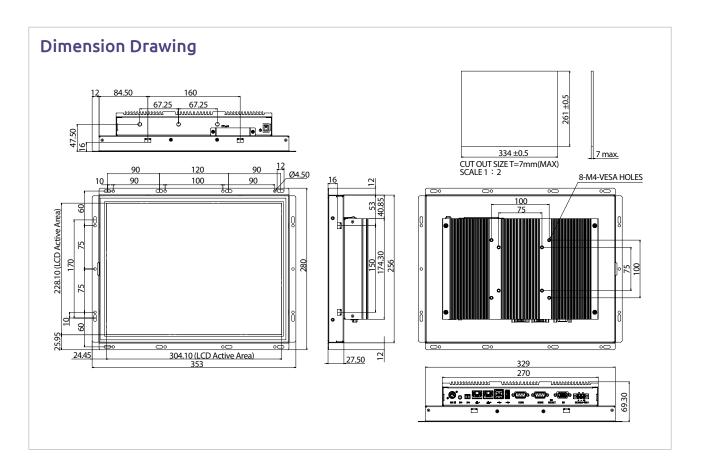
- HD Codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in (Optional)/MIC-in (Optional) audio Jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm
- Power input: 12~30VDC



- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/ axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/ axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 329 x 280 x 69.3mm
- Weight: 4Kg

#### Certifications

#### CE approval

• FCC Class A

#### OS Support Lists

- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

• OPPC 1540T-J1900 (P/N: 90IQ1540T02X0) 15" TFT XGA 4:3 Fanless Open Frame PC with Intel® Celeron™ J1900, 2.0GHz, Touch Screen, 2GB DDR3L, 3 x USB, 2 x COM and VGA

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060017X00)

## **OPPC 1740T**

#### 17" TFT SXGA 4:3 Fanless Open Frame PC with Intel Atom<sup>®</sup> E3826, 1.46GHz, Touch Screen, 4GB DDR3L, 3x USB, 2 x COM and VGA





## **Main Features**

- 4:3 17 " XGA fanless LED panel computer
- Intel Atom<sup>®</sup> E3826, dual core, low power consumption CPU
- PS2 KB/ MS/ Line-out/ dual GbE/ 3 x USB
- 2 x RS232/422/485/2nd display-VGA/2 x mini-PCIe sockets/1 x CFast
- Remote power switch

- DDR3L 4GB/ 2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/ wall/ stand/ VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 17" 4:3 touch screen LCD panel with resolutions up to 1024 x 768 (XGA) and 420 nits brightness. It is specially designed with bezel-less display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC 1740T are fanless Panel PC based on the Atom® E3826 processor. The OPPC 1740T supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two Mini-PCIe slots and one SIM card holder.

With support for wide power input of 12V~30V, OPPC 1740T can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1740T can hook 2nd display via a VGA port for dual independent display. OPPC 1540T has two isolated RS232/422/485 ports.

## Specifications

#### Panel

- LED Size: 17", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Light transmission: 80%
- Interface: USB

#### System

- CPU: On-board dual core Intel Atom® processor E3826 1.46GHz, 1M L2 Cache
- Processor: Intel<sup>®</sup> Celeron<sup>®</sup> J1900 processor, 4C, 2.0GHz, 2MB Cache (optional)
- · BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage Device:
  - 1 x external locked CFast socket

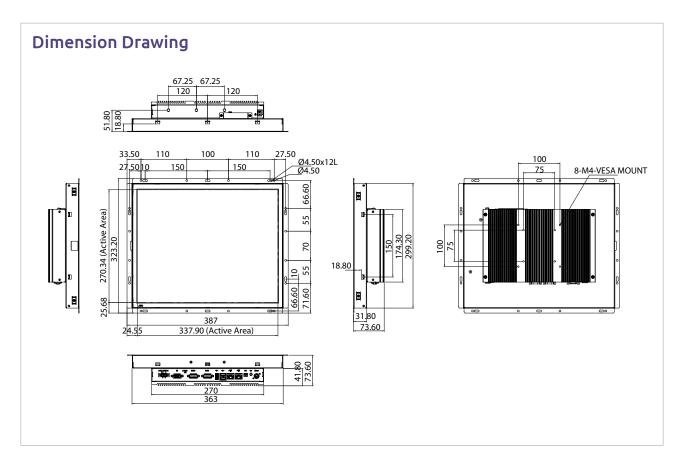
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: Monitoring system temperature, and voltage
- Expansion: 2 x mini-PCle sockets (support optional Wi-Fi or 3.5G module)

#### Rear I/O

- PS2 keyboard/mouse
- Audio port: 1x Line-out
- Remote power switch
- Ethernet: 2x RJ45
- USB: 2 x USB 2.0; 1 x USB 3.0
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Reset button
- 2nd display VGA port: 1 x DB15

#### Power switch

- Audio
- AC'97 codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in (optional)/MIC-in (optional) audio Jack



#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

- Mounting: Panel/wall/stand/VESA 100mm x 100mm
   Power input: 12~30VDC
- Power adapter: Optional AC to DC power adapter (+12V, 60W)

  Vibration:
- IEC 68 2-64 (w/ HDD) 1Grms @ sine, 5~500Hz, 1hr/axis (HDD Operating)
- 2Grms @ random condition, 5~500Hz, 0.5hr/axis (Non-operating)
- Shock: IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 387 x 323.2 x 73.6mm
- Weight: 5.6 kg

#### Certifications

- CE approval
- FCC Class A

#### OS Support Lists

- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

OPPC 1740T (P/N: 90IQ1740T00X0)
 17" XGA LED backlight touch panel PC with Intel Atom® E3826 1.46
 GHz, touch screen, 4GB DDR3L with 2 x RS232/ 422/ 485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)

## **OPPC 1940T**

#### 19" TFT SXGA 4:3 Fanless Open Frame PC with Intel® Atom™ E3826, 1.46GHz, Touch Screen, 2GB DDR3L, 3 x USB, 2 x COM and VGA





## **Main Features**

- 4:3 19" SXGA Fanless Panel Computer
- Intel<sup>®</sup> Atom<sup>™</sup> E3826, dual core, low power consumption CPU
- PS2 KB/MS/Line-out/Dual GbE/3x USB
- 2 x RS232/422/485/2nd display-VGA/2 x Mini-PCIe sockets/1 x CFast
- Remote power switch

- DDR3L 2GB/2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: Panel/Wall/Stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 19" 4:3 touch screen LCD panel with resolutions up to 1280 x 1024 (SXGA) and 350 nits brightness. It is specially designed with bezel-less display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC1940T are fanless Panel PC based on the Atom™ E3826 processor. The OPPC 1940T supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two Mini-PCIe slots and one SIM card holder.

With support for wide power input of 12~30VDC, OPPC 1940T can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1940T can hook 2nd display via a VGA port for dual independent display. OPPC 1940T has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LED size: 19", 4:3
- Resolution: S XGA 1280x1024
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 1000:1
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Touch light transmission: 80%
- Touch interface: USB

#### System

- CPU: On-board Intel<sup>®</sup> Atom<sup>™</sup> Dual Core processor E3826, 1.46GHz, 1M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (Default), Support up to 8GB(4GB+4GB) DDR3L-1066/1333, Non-ECC and Un-buffered
- Storage device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255

minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x Mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

- PS2 keyboard/mouse
- Audio port: 1 x Line-out
- Remote power switch
- Ethernet: 2 x RJ45
- USB: 2 x USB2.0; 1 x USB3.0
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Reset button
- 2nd display VGA port: 1 x DB15
- Power switch

#### Audio

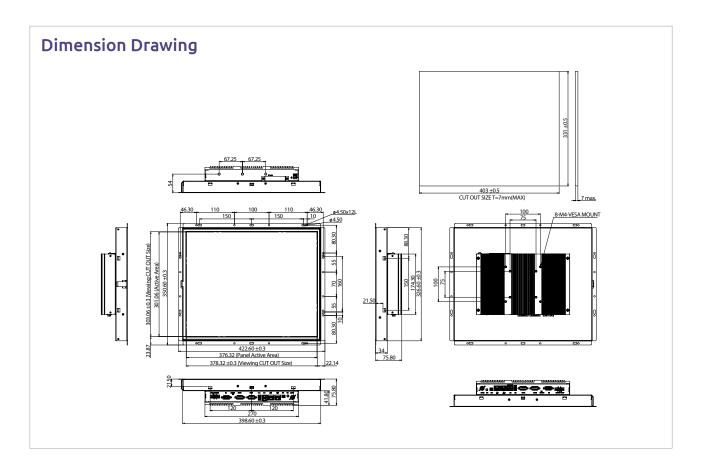
- HD Codec: Realtek ALC886-GR
- · Audio interface: Line-out/Line-in (Optional)/MIC-in (Optional) audio Jack

#### Ethernet

- LAN chip: dual Intel<sup>®</sup> I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

Mounting: panel/wall/stand/VESA 100mm x 100mm



- Power input: 12~30VDC
- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 422.6(W) x 350.6(H) x 73.2(D)mm
- Weight: 6.15Kg

#### Certifications

- CE approval
- FCC Class A
- OS Support Lists
- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

- OPPC 1940T (P/N: 90IQ1940T00X0)
   19" S XGA LED backlight touch Panel PC with Intel<sup>®</sup> Atom™ E3826 1.46 GHz, touch screen, 2GB DDR3L with 2x RS232/422/485
- Options
- 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060017X00)

## OPPC 1940T-J1900

## 19" TFT SXGA 4:3 Fanless Open Frame PC with Intel® Celeron™ J1900, 2.0GHz, touch Screen, 2GB DDR3L, 3 x USB, 2 x COM and VGA





## **Main Features**

- 4:3 19" SXGA Fanless Panel Computer
- Intel<sup>®</sup> Celeron<sup>™</sup> J1900, Quad core, low power consumption CPU
- PS2 KB/ MS/ Line-out/ Dual GbE/ 3x USB
- 2 x RS232/422/485/2nd display-VGA/2 x Mini-PCIe sockets/1 x CFast
- Remote power switch

- DDR3L 2GB/2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: Panel/ Wall/ Stand/ VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 19" 4:3 touch screen LCD panel with resolutions up to 1280 x 1024 (SXGA) and 350 nits brightness. It is specially designed with bezel-less display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC 1940T-J1900 are fanless Panel PC based on the Celeron<sup>™</sup> J1900 processor. The OPPC 1940T-J1900 supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two Mini-PCIe slots and one SIM card holder.

With support for wide power input of 12~30VDC, OPPC 1940T-J1900 can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1940T-J1900 can hook 2nd display via a VGA port for dual independent display. OPPC 1940T-J1900 has two isolated RS232/422/485 ports.

## Specifications

#### Panel

- LED size: 19", 4:3
- Resolution: S XGA 1280x1024
- Luminance: 350cd/m<sup>2</sup>
- Contrast ratio: 1000:1
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Touch light transmission: 80%
- Touch interface: USB

#### System

- CPU: On-board Intel<sup>®</sup> Celeron<sup>™</sup>, Quad core processor J1900, 2.0GHz, 2M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (Default), Support up to 8GB(4GB+4GB) DDR3L-1066/1333, Non-ECC and Un-buffered
- Storage device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255

minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x Mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

- PS2 keyboard/ mouse
- Audio port: 1 x Line-out
- Remote power switch
- Ethernet: 2 x RJ45
- USB: 2 x USB2.0; 1 x USB3.0
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Reset button
- 2nd display VGA port: 1 x DB15
- Power switch

#### Audio

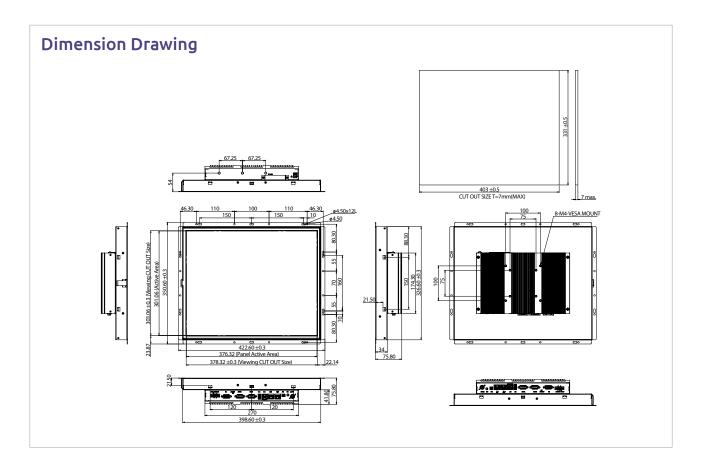
- HD Codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in (Optional)/MIC-in (Optional) audio Jack

#### Ethernet

- LAN chip: dual Intel<sup>®</sup> I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

Mounting: panel/ wall/ stand/ VESA 100mm x 100mm



- Power input: 12~30VDC
- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 422.6(W) x 350.6(H) x 73.2(D)mm
- Weight: 6.15Kg

#### Certifications

- CE approval
- FCC Class A
- ----
- OS Support Lists
- Windows 8 32bit/ 64bit
- Windows 7 32bit/ 64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

OPPC1940T-J1900 (P/N: 90IQ1940T01X0)
 19" S XGA LED backlight touch Panel PC with Intel<sup>®</sup> Celeron<sup>™</sup> J1900,
 2.0GHz, touch screen, 2GB DDR3L with 2x RS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060017X00)

## OPPC 1540HT-J1900





## **Main Features**

- 4:3 15" XGA Fanless Panel Computer
- Intel<sup>®</sup> Celeron™ J1900, Quad core, low power consumption CPU
- 1000 nits High brightness
- PS2 KB/MS/Line-out/Dual GbE/3x USB
- 2 x RS232/422/485/2nd display-VGA/2 x Mini-PCIe sockets/1 x CFast
- Remote power switch
- DDR3L 2GB/2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: Panel/Wall/Stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 15" 4:3 touch screen LCD panel with resolutions up to 1024 x 768 (XGA) and 1000 nits high brightness. It is specially designed with bezelless display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC 1540HT-J1900 are fanless Panel PC based on the Celeron™ J1900 processor. The OPPC 1540HT-J1900 supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two Mini-PCIe slots and one SIM card holder.

With support for wide power input of 12~30VDC, OPPC 1540HT-J1900 can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1540HT-J1900 can hook 2nd display via a VGA port for dual independent display. OPPC 1540HT-J1900 has two isolated RS232/422/485 ports.

## **Specifications**

#### Panel

- LED size: 15", 4:3
- Resolution: XGA 1024x768
- Luminance: 1000 cd/m<sup>2</sup>
- Contrast ratio: 2500
- LCD color: 16.2M
- Viewing angle: 88(U), 88(D), 88(L), 88(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Touch light transmission: 81%
- Touch interface: USB

#### System

- CPU: On-board Intel<sup>®</sup> Celeron<sup>™</sup>, Quad core processor J1900, 2.0GHz, 2M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (Default), Support up to 8GB DDR3L-1066/1333, Non-ECC and Unbuffered
- Storage device:
  - 1 x external locked CFast socket
  - 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255

minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x Mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

- PS2 keyboard/mouse
- Audio port: 1 x Line-out
- Remote power switch
- Ethernet: 2 x RJ45
- USB: 2 x USB2.0; 1 x USB3.0
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Reset button
- 2nd display VGA port: 1 x DB15
- Power switch

#### Audio

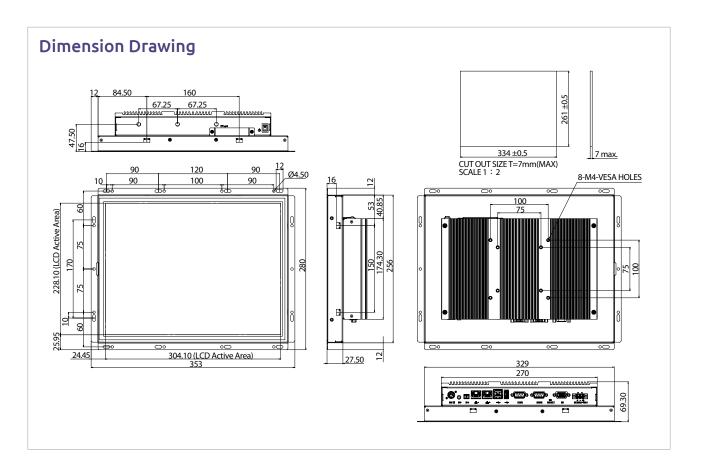
- HD Codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in (Optional)/MIC-in (Optional) audio Jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12~30VDC



- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 329 x 280 x 69.3mm
- Weight: 4Kg

#### Certifications

#### CE approval

• FCC Class A

#### OS Support Lists

- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## **Ordering Information**

#### Barebone

• OPPC 1540HT-J1900 (P/N: TBD)

15" XGA LED backlight touch Panel PC with Intel® Celeron™ J1900, 2.0GHz, 1000 nits, touch screen, 2GB DDR3L with 2x RS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060017X00)

## OPPC 1940HT-J1900

#### 19" TFT SXGA 4:3 Fanless Open Frame PC with Intel® Celeron™ J1900, 2.0GHz, 1000 nits





## **Main Features**

- 4:3 19" SXGA Fanless Panel Computer
- Intel<sup>®</sup> Celeron<sup>™</sup> J1900, Quad core, low power consumption CPU
- 1000 nits High brightness
- PS2 KB/MS/Line-out/Dual GbE/3x USB
- 2 x RS232/422/485/2nd display-VGA/2 x Mini-PCIe sockets/1 x CFast
- Remote power switch
- DDR3L 2GB/2.5" HDD bracket
- Support JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: Panel/Wall/Stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## **Product Overview**

Incorporated a 19" 4:3 touch screen LCD panel with resolutions up to 1280 x 1024 (SXGA) and 1000 nits high brightness. It is specially designed with bezelless display which allows customers to design front bezel according to their application requirements without any limitation. The OPPC 1940HT-J1900 are fanless Panel PC based on the Celeron™ J1900 processor. The OPPC 1940HT-J1900 supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two Mini-PCIe slots and one SIM card holder.

With support for wide power input of 12~30VDC, OPPC 1940HT-J1900 can gain a strong foothold in industrial field and machine devices. In addition, OPPC 1940HT-J1900 can hook 2nd display via a VGA port for dual independent display. OPPC 1940HT-J1900 has two isolated RS232/422/485 ports.

## Specifications

#### Panel

- LED size: 19", 4:3
- Resolution: S XGA 1280x1024
- Luminance: 1000 cd/m<sup>2</sup>
- Contrast ratio: 1000:1
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

#### Touch

- 5-wire resistive
- Touch light transmission: 80%
- Touch interface: USB

#### System

- CPU: On-board Intel<sup>®</sup> Celeron<sup>™</sup>, Quad core processor J1900, 2.0GHz, 2M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (Default), Support up to 8GB(4GB+4GB) DDR3L-1066/1333, Non-ECC and Un-buffered
- Storage device:
  - 1 x external locked CFast socket
  - 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)

- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x Mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

#### Rear I/O

- PS2 keyboard/mouse
- Audio port: 1 x Line-out
- Remote power switch
- Ethernet: 2 x RJ45
- USB: 2 x USB2.0; 1 x USB3.0
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Reset button
- 2nd display VGA port: 1 x DB15
- Power switch

#### Audio

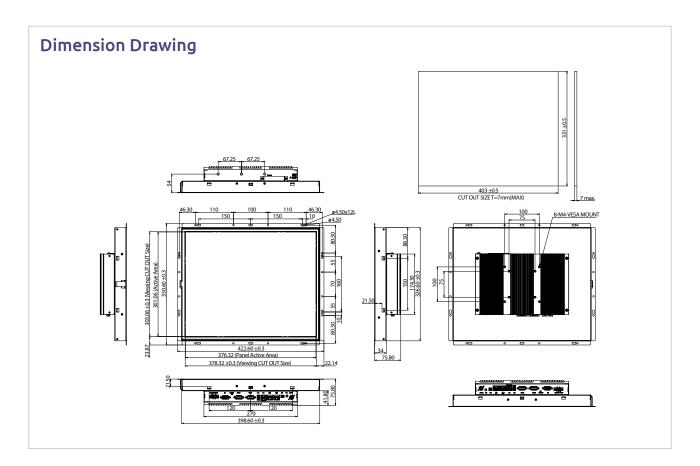
- HD Codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in (Optional)/MIC-in (Optional) audio Jack

#### Ethernet

- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Mechanical & Environment

- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12~30VDC



- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
  Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 422.6(Ŵ) x 350.6(H) x 73.2(D)mm
- Weight: 6.15Kg

#### Certifications

#### CE approval

• FCC Class A

#### **OS Support Lists**

- Windows 8 32bit/64bit
- Windows 7 32bit/64bit
- WinCE 7.0

## Ordering Information

#### Barebone

• OPPC 1940HT-J1900 (P/N: TBD)

19" SXGA LED backlight touch Panel PC with Intel® Celeron™ J1900, 2.0GHz, 1000 nits, touch screen, 2GB DDR3L with 2x RS232/422/485

#### Options

 12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060017X00)

## **TPPC 2210**



## **Main Features**

- Intel<sup>®</sup> Celeron<sup>®</sup> N2807
- Wide range DC input from 12~36V
- Front bezel compliant with IP54
- Tempered glass

- Fan Less
- Video over Ethernet extender (HDBaseT)
- Supports W-Fi, GPS, and 3G module

## **Product Overview**

TPPC 2210 is 21.5" 16:9 LCD with resolutions to 1920 x 1080 (Full HD) and industrial motherboard making it the perfect "AIO" In transit panel PC solution. VESA mount Kit (optional) design for easy installation almost any location, including retail outlets, supermarkets, train station, airports and Bus. It is compliant to in-vehicle industrial standard, like E/e-Mark.

Support Daisy Chain HDMI over Ethernet of HDBaseT technology, it allows multimedia signal easily to use Cat5e/Cat6 cable to extend TV display UP to 60M or longer distance It can connect to maximum eight displays, making the whole system more flexible on applications.

## **Specifications**

#### LCD Panel

- LCD size: 21.5", 16:9
- Resolution: full HD, 1920 x 1080
- Luminance: 1000 cd/m<sup>2</sup>
- Contrast ratio: 3000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
  Backlight: LED

### CPU Support

Intel<sup>®</sup> Celeron<sup>®</sup> processor N2807 1.58GHz

#### Chipset

• SoC (codenamed Intel® Baytrail-M)

#### Graphics

Intel<sup>®</sup> HD Graphics

#### Main Memory

 1 x 204-pin SO-DIMM socket, Supports DDR3L 1333MHz non-ECC, un-buffered memory up to 4GB

#### I/O Interface

- 1 x 12~36V, 6-pin (Power, Ignition, Ground)
- 2 x USB2.0
- 2 x LAN
- 1 x COM port

- 1 x Power button
- 1 x Video over Ethernet extender (Optional, TPPC 2210T)

#### Audio

- AC'97 codec: Realtek ALC622
- Two 2W Speakers

#### Ethernet

- 2 x LAN chip: Realtek RTL8111G LAN Chip, support Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

#### Storage

- 1 x SATA 2.5"
- 1 x mSATA (share with mini-PCIe)

#### Expansion

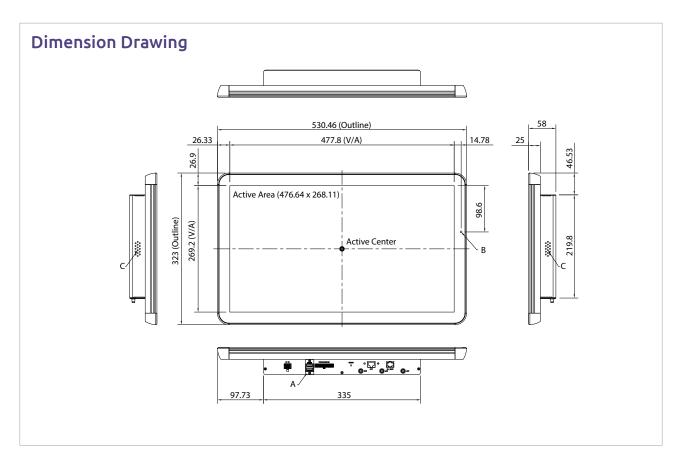
- 1 x mini-PCIe slot (Full size)
- 1 x mini-PCIe slot (Half size)

#### Environment

- Operating temperature: -10°C to 40°C
- Storage temperature: -20°C to 60°C
- Humidity: 10 to 90% (non-condensing)

#### Certification

- CE
- FCC
- E/e-Mark



#### **Operating System**

• Win7/WES7/Win8/WE8S/Win10/Linux

#### Mechanical

- Color: Pantone Black C
- Enclosure: Aluminum and Iron
- Mounting: support VESA75/100/200mm
- Ingress protection: Front bezel IP54
- Dimension: 530.46mm x 323mm x 58mm
- Weight: 7kg

## **Ordering Information**

- TPPC 2210T (P/N: 10ID0221000X0) With Video over Ethernet extender
- TPPC 2210 (P/N: 10ID0221001X0) W/o Video over Ethernet extender

## 21.5" Passenger Information Display with video over Ethernet extender

## **TPPD 2200**



### **Main Features**

- 21.5" full-HD TFT LCD panel
- Wide range DC input from 12~36V
- Front bezel compliant with IP54

- Tempered glass
- Video over Ethernet extender and Daisy Chain

## **Product Overview**

TPPD 2200 is 21.5" 16:9 LCD with resolutions up to 1920 x 1080 (Full HD) industrial display. It is a video over Ethernet receiver and extender. VESA mount Kit (Optional) design for easy installation in almost any location, including retail outlets, supermarkets, train station, airports and Bus. It is compliant to in-vehicle industrial standard, like E/e-Mark.

Support Daisy Chain HDMI over Ethernet of HDBaseT technology, it allows multimedia signal easily using Cat5e/Cat6 cable to extend TV display Up to 60M or longer distance. It can connect to maximum eight displays, making the whole system more flexible on applications.

## **Specifications**

#### LCD Panel

- LCD size: 21.5", 16:9
- Resolution: full HD, 1920 x 1080
- Luminance: 1000 cd/m<sup>2</sup>
- Contrast ratio: 3000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

#### I/O Interface

- 1 x 12~36V, 6-pin (Power, Ignition, Ground)
- 1 x Video over Cat5 Receiver Input
- 1 x Video over Cat5 Extender Output

#### Environment

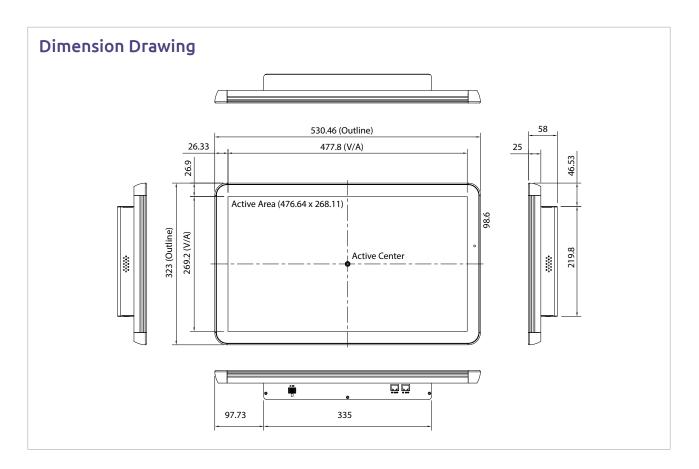
- Operating temperature: -10°C to 40°C
- Storage temperature: -20°C to 60°C
- Humidity: 10 to 90% (non-condensing)

#### Certification

- CE
- FCC
- E/e-Mark

#### Mechanical

- Color: Pantone Black C
- Enclosure: Aluminum and Iron
- Mounting: support VESA75/100/200mm
- Ingress protection: Front bezel IP54
- Dimension: 530.46mm x 323mm x 58mm
- Weight: 7kg



## **Ordering Information**

• TPPD 2200 (P/N: 10ID0220000X0) With video over Ethernet extender and daisy chain

# (M)PPC-080T-BT-01



## **Main Features**

- 16:9 8" WVGA marine panel computer
- Intel® Atom™ E3845, Quad Core, 1.91GHz
- 8" PCAP touch screen with AR coating
- 4 Gigabit EtherNet/mini DisplayPort for external monitor
- 1 USB 2.0, 1 USB 3.0
- 1 RJ45 output for RS232/422/485

- DDR3L 4GB/ M.2 SATA 128GB
- IP65 compliant front panel
- Built in 24VDC power input
- Mounting support: flush/VESA 75mm x 75mm
- IEC-60945 maritime standards compliance

## **Product Overview**

PPC-080T-BT-01 8-inch panel computer features the Intel® Atom™ E3845 processor with low power consumption and deliver a reliable, durable, highperformance platform of wide versatility for use in maritime and offshore environments. The panel PC has a touch screen LCD panel with 800 x 480 (WVGA) resolution and 600-nit brightness. The front panel which adopts a flush panel design and has IP65 front panel. It offers a projected-capacitive, glove-friendly multi-touch screen for outdoor applications.

PPC-080T-BT-01 has a RJ45 output for RS-232/422/485, four gigabit EtherNet LAN ports, two USB posts, and also comes with a mini DisplayPort for external monitor, allowing you to extend the screen size and reduce the total cost of system development. The PPC-080T-BT series panel computers are designed with a wide -25°C to 70°C temperature range, supports 24VDC power input and come with a minimalistic and fanless enclosure designed, and satisfy IEC-60945 maritime standards compliance.

## **Specifications**

#### Panel

- LED size: 8", 16:9
- Resolution: WVGA 800 x 480
- Luminance: 600cd/m2
- Contrast ratio: 600
- LCD color: 16.2M
- Viewing angle: 60(U), 60(D), 70(L), 70(R)
- Backlight: LED

#### **Touch Screen**

- Projected capacitive (flush panel type)
- Light transmission: 89%
- Interface: USB
- With AR coating

#### System

- CPU: onboard Intel<sup>®</sup> Atom<sup>™</sup> processor E3845, 1.91 GHz, 2M L2 Cache
- BIOS AMI BIOS
- System memory: 1x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L
- (default), support up to 4GB DDR3L-1067/1333, non-ECC and un-buffered • Storage device
  - 1x SATA connector, support SATA 3Gb/s and SATA 6Gb/s
- 1x SATA M.2 connector, 128G M.2 SATA (default)
- Graphics: Intel<sup>®</sup> HD Graphics

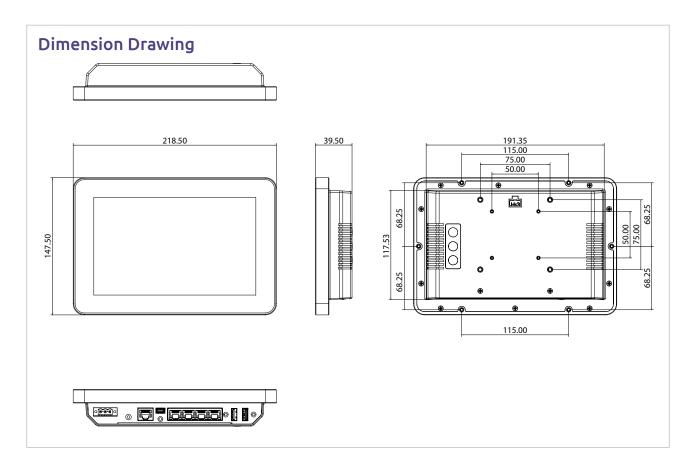
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Backlight control
  - Control button: increase brightness, decrease brightness, backlight on/off
  - Auto dimming function can be adjust by ambient light sensor
  - Panel backlight can be controlled by software with 45 steps, dimming range from 0% to 100%

#### Rear I/O

- EtherNet: 4x RJ45
- 2nd DisplayPort: 1x mini DisplayPort
- USB: 1x USB 2.0, 1x USB 3.0
- COM #1: 1x RJ45 output for RS232/422/485
- Power status LED
- DC power input connector: 3-pin Phoenix terminal blocks

#### EtherNet

- LAN chip: 4x Intel® I210-IT Gigabit LAN
- EtherNet interface: 10/100/1000 Mbps
- Support wake up on LAN



#### **Power Requirements**

- Input voltage: 24VDC
- Reverse polarity protection
- Galvanic isolated
- Power consumption: 13W to 25W

#### Mechanical & Environment

- Fanless system design
- Color
  - Pantone black RAL9005, powder painting for aluminum front bezel
     Pantone black RAL9005 for backlight button membrane
- IP protection
  - IP65 front bezel
  - IP20 back system
- Mounting: flush/VESA 75mm x 75mm
- Vibration
  - 1.15Grms @ random condition, 1~200Hz, 1.5hr/axis (operating/non-operating)
- Shock
  - IEC 68 2-27
  - 20G @ wall mount, half sine, 11ms
- Operating temperature: -25°C to 70°C
- Storage temperature: -25°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 218.5 x 147.5 x 39.5 mm
- Weight: 3 KG

#### Certifications

- CE approval
- FCC Class A
- IEC-60945 maritime standards compliance

## **Ordering Information**

#### Barebone

• PPC-080T-BT-01 (P/N: 10M20080T00X0)

8" WVGA LED backlight touch panel PC, Intel® Atom™ E3845 1.91GHz, touch screen, 4GB DDR3L, 128G M.2 SATA, 1x RJ45 output for RS23/422/485, brightness adjustment buttons

# (M)PPC-120T-BT-01/02

#### 12" WXGA 16:9 Marine Panel PC with Intel® Atom™ E3845, 1.91GHz



## **Main Features**

- 16:9 12" WXGA marine panel computer
- Intel® Atom™ E3845, Quad Core, 1.91GHz
- 12" PCAP touch screen with AR coating
- 4 Gigabit EtherNet/mini DisplayPort for external monitor
- 1 USB 2.0, 1 USB 3.0
- 1 RJ45 output for RS232/422/485

- DDR3L memory/M.2 SATA storage
- 1 swappable SSD Tray for 2.5" SSD
- IP65 compliant front panel
- Built-in 24VDC power input
- Mounting support: flush/VESA 75mm x 75mm
- IEC-60945 maritime standards compliance

## **Product Overview**

PPC-120T-BT-01/02 12-inch panel computer features the Intel<sup>®</sup> Atom<sup>™</sup> E3845 processor with low power consumption and deliver a reliable, durable, high-performance platform of wide versatility for use in maritime and offshore environments. The panel PC has a touch screen LCD panel with 1280 x 800 (WXGA) resolution and 500-nit brightness. The front panel which adopts a flush panel design and has IP65 front panel. It offers a projected-capacitive, glove-friendly multi-touch screen for outdoor applications.

PPC-120T-BT-01/02 has a RJ45 output for RS-232/422/485, four gigabit EtherNet LAN ports, two USB posts, and also comes with a mini DisplayPort for external monitor, allowing you to extend the screen size and reduce the total cost of system development. The PPC-120T-BT series panel computers are designed with a wide -25°C to 70°C temperature range, supports 24VDC power input and come with a minimalistic and fanless enclosure designed, and satisfy IEC-60945 maritime standards compliance.

## Specifications

#### Panel

- LED size: 12", 16:9
- Resolution: WXGA 1280 x 800
- Luminance: 500cd/m2
- Contrast ratio: 1000
- LCD color: 16.2M
- Viewing angle: 88(U), 88(D), 88(L), 88(R)
- Backlight: LED

#### **Touch Screen**

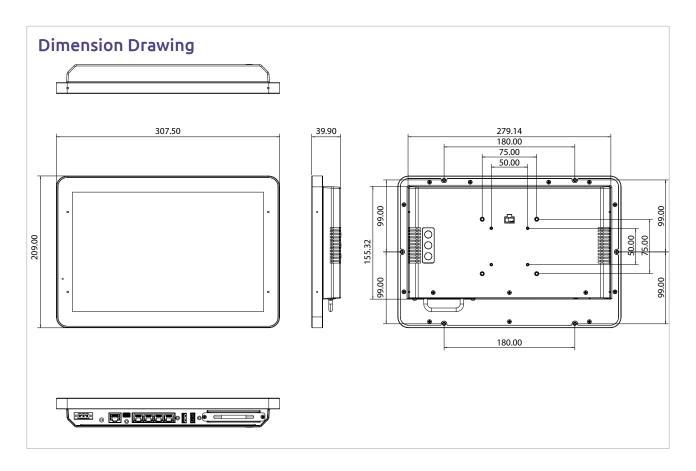
- Projected capacitive (flush panel type)
- Light transmission: 89%
- Interface: USB
- With AR coating

#### System

- CPU: onboard Intel® Atom™ processor E3845, 1.91 GHz, 2M L2 Cache
- BIOS AMI BIOS
- System memory
  - PPC-120T-BT-01: 1x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 4GB DDR3L-1067/1333, non-ECC and unbuffered
  - PPC-120T-BT-02: 1x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L

(default), support up to 4GB DDR3L-1067/1333, non-ECC and unbuffered

- Storage device
  - PPC-120T-BT-01:
  - 1x SATA M.2 connector, 128G M.2 SATA (default) 1x SATA connector, support SATA 3Gb/s and SATA 6Gb/s
  - 1x swappable SSD tray for 2.5" SSD
  - PPC-120T-BT-02: 1x SATA M.2 connector, 32G M.2 SATA (default)
  - 1x SATA KIL2 connector, support SATA 3Gb/s and SATA 6Gb/s 1x swappable SSD tray for 2.5" SSD
- Graphics: Intel® HD Graphics
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
  Backlight control
  - Control button: increase brightness, decrease brightness, backlight on/off
  - Auto dimming function can be adjust by ambient light sensor
  - Panel backlight can be controlled by software with 45 steps, dimming range from 0% to 100%



#### Rear I/O

- EtherNet: 4x RJ45
- 2nd DisplayPort: 1x mini DisplayPort
- USB: 1x USB 2.0, 1x USB 3.0
- COM #1: 1x RJ45 output for RS232/422/485
- Power status LED
- DC power input connector: 3-pin Phoenix terminal blocks

#### EtherNet

- LAN chip: 4x Intel® I210-IT Gigabit LAN
- EtherNet interface: 10/100/1000 Mbps
- Support wake up on LAN

#### **Power Requirements**

- Input voltage: 24VDC
- Reverse polarity protection
- Galvanic isolated
- Power consumption: 22W to 30W

#### Mechanical & Environment

- Fanless system design
- Color
  - Pantone black RAL9005, powder painting for aluminum front bezel
    Pantone black RAL9005 for backlight button membrane
- IP protection
  - IP65 front bezel
  - IP20 back system
- Mounting: flush/VESA 75mm x 75mm
- Vibration
  - 1.15Grms @ random condition, 1~200Hz, 1.5hr/axis (operating/non-operating)

- Shock
- IEC 68 2-27
- 20G @ wall mount, half sine, 11ms
- Operating temperature: -25°C to 70°C
- Storage temperature: -25°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 307.5 x 209 x 39.9 mm
- Weight: 5 KG

#### Certifications

- CE approval
- FCC Class A
- IEC-60945 maritime standards compliance

## Ordering Information

#### Barebone

PPC-120T-BT-01 (P/N: 10M20120T00X0)

12" WXGA LED backlight touch panel PC, Intel® Atom™ E3845 1.91GHz, touch screen, 4GB DDR3L, 128G M.2 SATA, 1x RJ45 output for RS23/422/485, brightness adjustment buttons

• **PPC-120T-BT-02 (P/N: 10M20120T01X0)** 12" WXGA LED backlight touch panel PC, Intel® Atom™ E3845 1.91GHz, touch screen, 2GB DDR3L, 32G M.2 SATA, 1x RJ45 output for RS23/422/485, brightness adjustment buttons

# (M)PPC-240T-HW-01



## **Main Features**

- 16:9 24" Full HD Marine Panel Computer
- Intel® Core™ i5-4300U, Dual Core, 1.9 GHz
- 24" PCAP touch screen with AR coating
- 4 Gigabit Ethernet/1x DVI-I port for connecting secondary display
- 2 USB 2.0, 2 USB 3.0
- 1 RS232/422/485 isolated

- DDR3L 4GB/M.2 SATA 128GB
- IP65 compliant front panel
- Full range AC + 24VDC power inputs
- Mounting support: flush/VESA 100mm x 100mm
- IEC-60945 maritime standards compliance

## **Product Overview**

PPC-240T-HW-01 24-inch panel computer features the Intel<sup>®</sup> Core i5-4300U processor with low power consumption and deliver a reliable, durable, highperformance platform of wide versatility for use in maritime and offshore environments. The panel PC has a touch screen LCD panel with 1920 x 1080 (Full HD) resolution and 300-nit brightness. The front panel which adopts a flush panel design and has IP65 front panel. It offers a projected-capacitive, glove-friendly multi-touch screen for outdoor applications.

PPC-240T-HW-01 has an Isolated RS-232/422/485 port, four Gigabit Ethernet LAN ports, four USB posts, and also comes with a DVI-I port for connecting secondary display, allowing you to extend the screen size and reduce the total cost of system development. The PPC-240T-HW series panel computers are designed with a wide -25°C to 70°C temperature range, supports full range 110/230VAC or 24VDC power inputs and come with a minimalistic and fanless enclosure designed, and satisfy IEC-60945 maritime standards compliance.

## **Specifications**

#### Panel

- LED size: 24", 16:9
- Resolution: Full HD 1920 x 1080
- Luminance: 300cd/m2
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89(U), 89(D), 89(L), 89(R)
- Backlight: LED

#### **Touch Screen**

- Projected capacitive (flush panel type)
- Light transmission: 91%
- Interface: USB
- With AR coating

#### System

- CPU: onboard Intel<sup>®</sup> Core<sup>™</sup> processor i5-4300U, 1.9GHz, 3M Cache
- BIOS AMI BIOS
- System memory: 2x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L
- (default), support up to 16GB DDR3L-1066/1333, non-ECC and un-buffered • Storage device
  - 1x SATA M.2 connector, 128G M.2 SATA (default)
  - 1x mini-PCle connector
- Graphics: Intel<sup>®</sup> HD Graphics

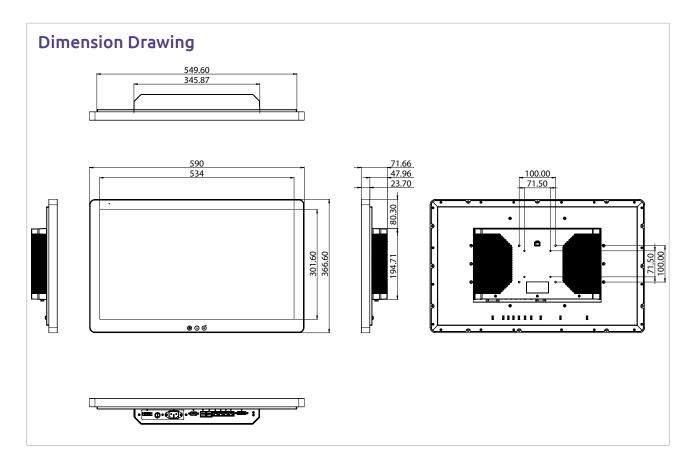
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Control buttons
- Poweron/off, reset, brightness
- Backlight control
  - Auto dimming function can be adjust by ambient light sensor
  - Panel backlight can be controlled by software, dimming range from 0% to 100%

#### Rear I/O

- Ethernet: 4x RJ45
- 2nd display port: 1x DVI-I port
- USB: 2x USB 2.0, 2x USB 3.0
- COM #1: 1x RS232/422/485
- Power status/ HDD status LEDs
- AC power input connector: IEC 60320 C14 connector
- DC power input connector: 3-Pin Phoenix terminal blocks

#### EtherNet

- LAN chip: 2x Intel® I210-IT Gigabit LAN + 2x Intel® 82574 Gigabit LAN
  - Ethernet interface: 10/100/1000 Mbps
- Support wake up on LAN



#### **Power Requirements**

- AC power input
  - Input voltage: 110/230VAC
  - Power consumption: 28W to 55W
- DC power input
  - Input voltage: 24VDC
  - Reverse polarity protection
  - Galvanic isolated
  - \* Note: only one power source (AC or DC) to be connected. No failover functionality.

#### Mechanical & Environment

- Fanless system design
- Color
  - Pantone black RAL9005, powder painting for aluminum front bezel
  - Pantone black RAL9005 for backlight button membrane
- IP protection
  - IP65 front bezel
  - IP20 back system
- Mounting: flush/VESA 100mm x 100mm
- Vibration
  - Compliance with EN60945 protected b
  - Sweep 2 Hz 13.2 Hz at ±1 mm, 13.2 Hz 100 Hz at 7m/s<sup>2</sup> and for 2 h on each resonance (Q>5), 2h on one resonance/observed frequency (Q<5), otherwise (Q=0) 2 h at 30 Hz in all three axes, 12 minutes/axis

- Shock
- IEC 68 2-27
- 20G @ wall mount, half sine, 11ms
- Operating temperature: -25°C to 70°C
- Storage temperature: -25°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 590 x 366.6 x 71.66 mm
- Weight: 9 KG

#### Certifications

- CE approval
- FCC Class A
  - FCC CldSS A
- CCC approvalIEC-60945 maritime standards compliance

## **Ordering Information**

#### Barebone

- PPC-240T-HW-01 (P/N: 10M20240T00X0)
  - 24" Full HD LED backlight touch panel PC, Intel® Core™ i5-4300U 1.9 GHz, touch screen, 4GB DDR3L, 128G M.2 SATA, 1x RS23/422/485, PCAP control buttons

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