

Express

NEXCOM

Summer 2012



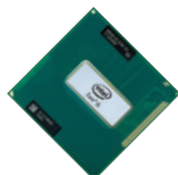
SUBWAY® Selected NEXCOM NDIS 161

to Meet Environment Challenges at Restaurant



Corporate News

NEXCOM Enters the Surveillance Business



Technology Focus

Intel® 22nm Processors-
Big Breakthrough on
Small Die



White Paper

Visual Processing in
Rugged Environments
with 3rd Generation
Intel® Core™ Processors



Dear Partners,

It seems that 2012 is going to be another challenging year for the global economy. Today we not only have sustained EU economic troubles, we also have the serious financial deficits from all the developed countries. Furthermore, both booming economies, China and India, are running into head wind which is already beginning to slow their growth. The good days shortened, and the bad times extended. This is the new and strange world we have to deal with.

Yet, life pushes the world forward! The demand is still out there and huge, people are just acting more cautiously and conservatively in their buying behavior. The trend is still clear and strong, but the timing becomes more unpredictable. The buying decisions take more time. The challenges for us are to react fast enough to catch the opportunities once popping up. The supply chain has to be tightened up to meet the new situation. That means we have to collaborate closely and promptly to win any projects together.

NEXCOM returned to Computex 2012 to show so many new products from 5 Business Units to all partners. We also held a partner's conference at NEXCOM brand new headquarters during Computex. Both events mark NEXCOM's changes in many dimensions. We are now focusing on the vertical application domains. We are extending our products and design services from X86 to SoC architecture to explore the huge embedded market segment. We also build up some alliances for S/W bundled appliances or solutions which will make you, our

partners, very unique in the market to stand out from all competitors.

We are also working very hard to promote NEXCOM brand through many marketing events like exhibitions, road shows, success stories, together with our partners. The "Subway Success Story" is a big hit in the world wide scale, for example. A strong global NEXCOM brand will help all partners in the market to win the trust of the customers. Typically, it's always like this: the stronger the brand, the bigger the customer as well as the project!

NEXCOM is growing up as the multi-product line vendor. We know that each new product line always means new business opportunities. We sincerely hope every partner could carry all our product lines and grow together with NEXCOM. We are not just a so called "IPC vendors" any more. Actually, we are the natural members of the so called "Solution Industry" providing the solutions to the end users on the B to B base. Depending on our capability, we can provide the products all the way from embedded boards, to system platforms, to embedded appliances, to embedded solutions, and finally, to the vertical solutions like GE Medical, or Thales, or Honeywell. And, it's tens of billions USD each!

Although the world economy is not good and clear, we know the IT trend is strong and clear. Furthermore, we know together we'll have great head room to grow in the cast ocean that is the Solutions Industry with hundreds of billions USD in scale!

Clement Lin

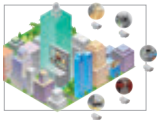
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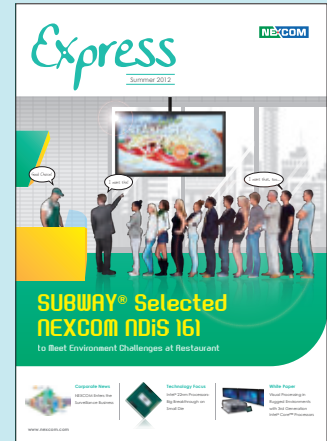
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About NEXCOM

NEXCOM offers a world-class range of industrial fanless computers, embedded computers, Panel PC, video analytic systems, POS, digital signage media players, rugged tablet PCs, in-vehicle computers, and network security appliances.



NEXCOM Enters the Surveillance Business

In the relentless pursuit to offer the best products on the market, NEXCOM proudly announces the creation of its newest business unit, which is aptly named the Intelligent Digital Security (IDS). The surveillance market is on a steady rise. Security conscious retailers, enterprises, and even municipalities are constantly searching for the most suitable surveillance and security products for various projects. IDS will focus on bringing our partners and clients the finest products in the mobile surveillance sector. By leveraging our core technology and years of know-how, NEXCOM is sure to meet or beat everyone's expectations.

NEXCOM's first product line is our ruggedized NVR/

hybrid DVR solutions. NEXCOM NViS 2280 is powered by Intel® duo-core D2550 Atom™ CPU. It can support recording on 16 channels of megapixel IP cameras with up to 2TB of internal storage. It is also capable of full HD video playback on dual local VGA/HDMI display for high resolution video surveillance. It is also equipped with 4 gigabit PoE ports for up to 61.6W of total power output (802.3af compliant).

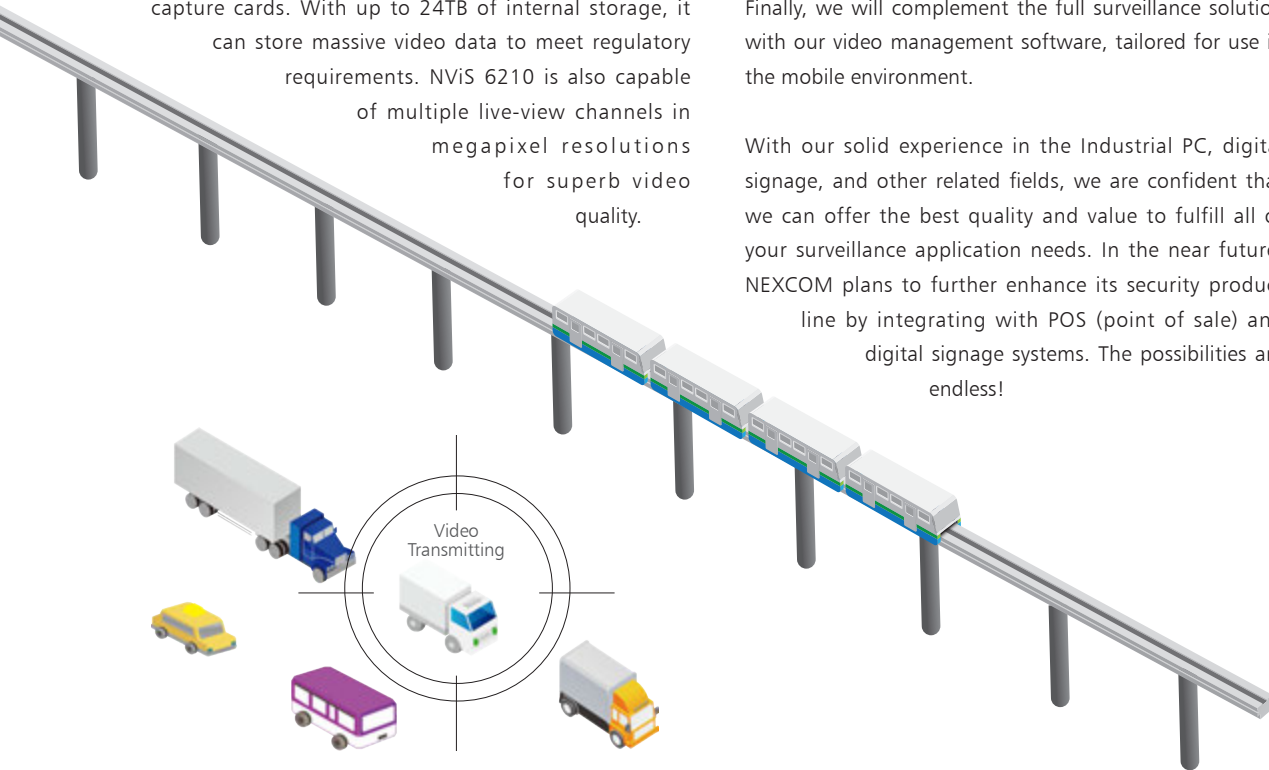
NEXCOM NViS 5240 is powered by Intel® duo-core D2550 Atom™ CPU. It can support recording on 16 channels of megapixel IP cameras with up to 12TB of internal storage. It is also capable of full HD video playback on dual local VGA/HDMI display for high resolution video surveillance.



NEXCOM NViS 6210 is a 2U hybrid NVR featuring Intel® 2nd and 3rd generation processors, with up to 32GB of RAM. In addition to IP camera support, analog camera connections on-board negate the need for any additional capture cards. With up to 24TB of internal storage, it can store massive video data to meet regulatory requirements. NViS 6210 is also capable of multiple live-view channels in megapixel resolutions for superb video quality.

Next phase NEXCOM will offer a full line of IP cameras, with some models targeted specifically for mobile surveillance use. 3 megapixel and 5 megapixels models will be offered concurrently to fulfill different applications. Finally, we will complement the full surveillance solution with our video management software, tailored for use in the mobile environment.

With our solid experience in the Industrial PC, digital signage, and other related fields, we are confident that we can offer the best quality and value to fulfill all of your surveillance application needs. In the near future, NEXCOM plans to further enhance its security product line by integrating with POS (point of sale) and digital signage systems. The possibilities are endless!



Mark Your Calendar for Great Exhibitions

Please visit NEXCOM booths in following three global trade shows/ conferences.

Inno Trans

September 18 - 21

Berlin, Germany

Hall 7.1a, #215
Messe Berlin Fair Grounds

GDSF Japan

September

Akihabara UDX

For additional information, please visit www.asj-corp.jp/media_no3.html
Tokyo, Japan

ASIS

September 10 - 13

Pennsylvania
Convention Center
3161
Philadelphia, PA

Intel® 22nm Processors

Big Breakthrough on Small Die



Fanless Computer: NISE 3600E

COM Express: ICES 668

PICMG 1.3: PEAK 886

Digital Signage Player: NDiS 167

Network Security Appliance: NSA 5130, NSA 3130

Network Communication: OSA 5130

3.3GHz processing speed, supports three independent displays, USB 3.0 5Gb/s, SATA 3.0 6Gb/s and up to two PCIe x4/ PCI expansion cards. It is designed to increase multitasking efficiency in industrial environments. Also, NISE 3600E improves passive cooling measures to accelerate heat dissipation, ensuring reliability of embedded applications despite long working hours.

1 NISE 3600E

Fanless Computer

Fanless computer NISE 3600E series is a powerful mixture of scalable computing performance, flexible PCIe expansion, and high-bandwidth interfaces. Based on the 3rd generation Intel® Core™ processor family paired with the Mobile Intel® QM77 Express chipset, this series has

2 ICES 668

COM Express

Type 6-pinouts COM Express basic module ICES 668 is designed for graphics-intensive applications. Based on the 3rd generation Intel® Core™ processor family integrated with Intel® HD Graphics 4000, ICES 668 supports up to

16GB DDR3 1333/1600MHz memory and DirectX 11 and empowers embedded graphic intensive applications through three displays. Interfaces supported include HDMI, DVI, DisplayPort, SDVO, legacy VGA, and 18-/ 24-bits LVDS.

3 PEAK 886

PICMG 1.3

Full-size PICMG 1.3 single computing board PEAK 886 is targeted at data storage applications. Featuring 3rd generation Intel® Core™ processor family with ECC support and Intel® Q77 Express Chipset, PEAK 886 has up to and 16GB DDR3 1333/ 1600MHz memory and supports the latest and fastest interfaces USB 3.0 and SATA 3.0. Along with RAID and optional TPM functions, PEAK 886 can enhance data integrity, prevent data loss, accelerate data access, and ensure data security.

4 NDiS 167

Digital Signage Player

Digital signage player NDiS 167 is built on the 3rd generation Intel® Core™ processor family integrated with Intel® HD Graphics 4000. With the hardware-assisted acceleration for graphics and support for DirectX 11, this player significantly improves responsiveness and performance on 3D images and full HD content playback to meet ever-demanding market expectations. Better still, NDiS 167 bundled with the Intel® QM77 Express chipset can support up to three independent displays, enabling more desirable content manipulation. By utilizing Intel® Active Management Technology 8.0, IT administrators can take control of the player as early as the phase of BIOS setting without assistance of additional hardware. USB 3.0 5Gb/s interface is also available for fast onsite maintenance and repair.

5 NSA 5130, NSA 3130

Network Security Appliance

Network security appliance NSA 5130 features expandable port density and functionality. Powered by Intel® Xeon® processor E3-1200v2 family paired with Intel® C206 chipset, this appliance can provides up to sixteen GbE ports, eight GbE fiber ports; 10GbE port can also be added by LAN module. Along with network performance enhancement enabled through PCIe expansion, NSA 5130 can process packet encryption/ decryption and data compression/ decompression at different levels of service capacity. Additionally, redundant power supply is available on the NSA 5130 variant. NSA 3130 powered by Intel® Xeon® processor E3-1200v2 family paired with Intel® H61 Express Chipset is aimed at cost-conscious enterprises. The 1U network security appliance has eight GbE LAN ports, with each providing 10/100/1000 Mps network access and configurable LAN bypass feature. For even greater power and speed, users can always turn to the expansion slot to add supplementary functions. Therefore, NSA 3130 is an ideal piece of network platform for enterprises of all sizes.

6 OSA 5130

Network Communication

The VoIP platform OSA 5130 based on Intel® Xeon® processor E3-1200v2 family can overcome network communication quality barriers. Equipped with eight GbE LAN ports, up to 16GB DDR3 memory and two full-length PCIe expansion slots, OSA 5130 can be trusted with major quality issues as conversation proceeds, helping VoIP vendors successfully expand service whilst overcoming signal distortion, quality impairments and security obstacles.

22nm process technology makes it possible to increase processing power yet decrease power consumption and heat generation by reducing current leakage, lowering operating voltage and improving on/off switching speed of transistors.

Intel® HD Graphics 4000 integrates new architecture and visual technologies to deliver much more sophisticated images at a faster pace on three independent displays with DirectX 11 support.



Intel® 22nm Processors at a Glance

3rd Generation Intel® Core™ and Xeon™ Processor featuring Intel® Turbo Boost, Hyper-Threading, and vPro technologies can deliver different levels of performance based on workload.

SATA 3.0 doubles data transfer rate from SATA 2.0 3Gb/s to 6Gb/s while USB 3.0 boosts by ten times to 5Gb/s.

Visual Processing in Rugged Environments

Power-Efficient Performance with 3rd Generation Intel® Core™ Processors



Figure 1 Infrared thermography (IRT) can be used to detect dangerous hot spots, preventing equipment failure.

Complex visual processing is becoming an important part of many rugged industrial applications. Automated optical inspection (AOI) of manufacturing lines, infrared thermography (IRT) in oil refineries, and traffic safety enforcement are just some examples of the ways image and video processing improve quality, efficiency, and safety. Visual computing in rugged environments is not without challenges, however. Most applications are resource-intensive and include extensive 2D and 3D graphics processing. Tough environmental conditions call for fanless designs that limit power and present thermal dissipation challenges. Customers are also pushing for ever-lower system cost and size. Embedded systems designers clearly have their work cut out for them.

Fortunately, the 3rd generation Intel® Core™ processor family helps address these challenges. In this article we

will show how this new processor's increased graphics, computing, and I/O throughput combine with new power-saving features to enable advanced visual computing within strict thermal constraints. We will also illustrate how developers can deliver compact, rugged systems with the NEXCOM NISE 3600E, a state-of-the-art fanless embedded computer designed for high-performance and graphics-intensive applications.

Design Challenge: Graphics Performance

Visual computing applications are widely varied, but share a common theme of helping human operators achieve better results. Automated optical inspection (AOI), for example, has become an indispensable for production of everything from printed circuit boards to agricultural produce. AOI systems use one or more cameras to



Figure 2 The NEXCOM NISE 3600E includes two DisplayPort interfaces on the front panel (right photo) and DVI-D and VGA interfaces on the rear (left photo).

scan products for defects and aberrations, and display the results for an operator. Processor and graphics performance are both critical here: better processor performance helps the AOI system search for smaller defects and support faster production lines. Similarly, high-resolution, multi-display outputs help operators understand the inspection results and take quick actions when needed.

Similar themes can be seen in infrared thermography (IRT), which is used in applications such as determining fuel levels in oil refinery tanks or detecting overheating components (Figure 1). IRT is also used by firefighters, in building construction, and in clinical diagnostics. With faster processors, IRT systems can perform more automated analysis; with better graphics, operators can more easily monitor conditions. The same holds true for

traffic enforcement, where faster processors support automated traffic analysis and multiple displays can help operators monitor a larger number of roads.

In the past, meeting the high demands for display resolution, quality, and responsiveness, these applications often required discrete graphics cards. Adding such external subsystems meant extra size, power, cost, complexity, and additional points of failure.

The 3rd generation Intel® Core™ processor family alleviates many of these issues with much more powerful integrated graphics. 3D graphics performance is up to 60% higher than that of the prior generation, eliminating the need for add-in cards in many applications. New DirectX11 support also brings an overall better 3D experience. The processor also supports up to three

independent displays, further reducing the need for external graphics.

There are also major improvements in processing performance. The 3rd generation Intel® Core™ processor is up to 15% faster than its predecessor, enabling faster, more sophisticated image and video analysis. Many of these algorithms can benefit from the Intel® Advanced Vector Extensions (Intel® AVX), which provide 256-bit floating point processing. Video streaming and storage is enhanced by Intel Quick Sync Video 2.0, which performs encoding and decoding in hardware for effortless

integration of full 1080p HD video and high-resolution cameras. Among other benefits, Intel® Quick Sync Video 2.0 performs video transcoding at twice the speed of the previous generation, and greatly reduces processor loading during transcoding.

Together with the graphics upgrades, the processor enhancements help developers deliver cutting-edge features while minimizing system power, size, and cost. Developers can take advantage of these upgrades with rugged computers like the NEXCOM NISE 3600E. For example, the NEXCOM NISE 3600E offers built-in support for three independent displays through a combination of DisplayPort, DVI-D, and VGA interfaces.

Design Challenge: CPU Performance vs. Thermal Constraints

Rugged environments require fanless designs that limit

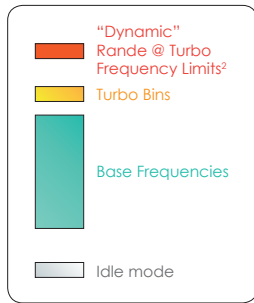
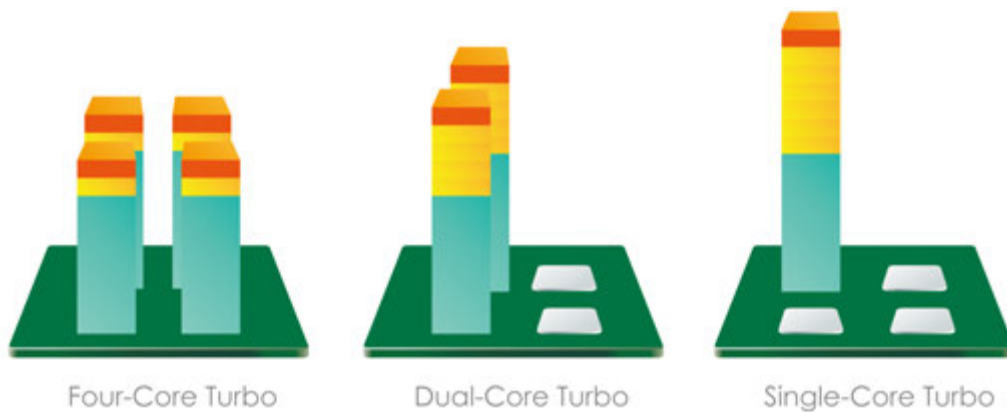


Figure 3 Intel® Turbo Boost Technology 2.0 allows the processor to operate beyond the base frequency.



system power and therefore limit performance. This is a challenge for visual computing, which requires high processor and graphics performance. The 3rd generation Intel® Core™ processors address these conflicting requirements through smart design changes and innovations that provide more performance at the same power levels. They also scale performance to a much wider application load range than was possible before. How was it done, and how does it benefit embedded systems?

First, the switch from the older 45 nm and 32 nm process technologies to 22nm process technology with a novel 3-DTri-Gate transistor design yields better performance per watt via reduced current leakage, lower operating voltage and improved on/off switching speed of transistors.

This means lower power consumption and heat at the same performance levels, or higher performance at the

the base operating frequency if they're operating below power, current, and temperature specification limits. This feature is particularly useful for applications that do not use all of the processor cores. In these applications, the unused cores can be powered off and the remaining cores run at higher frequencies (Figure 3).

Among other upgrades, version 2.0 of this feature has more Turbo steps than before, allowing the processor to more closely track the available power budget. Other improvements include a new Low Power Mode that reduces active power below the nominal TDP through techniques such as placing an idle core in Minimum Frequency Mode.

All of this combines to provide performance characteristics comparable to those of a modern turbocharged engine in a car. It's small and gets great mileage around town, but there's plenty of extra punch when needed. Likewise,

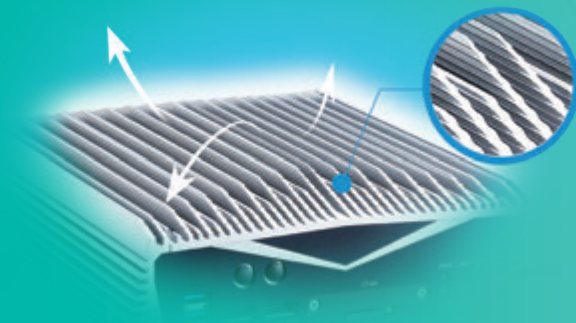


Figure 4 The NISE 3600E housing features unique wave pattern fins.

same power level. What's especially interesting is that the performance gain of 3-D Tri-Gate transistors becomes larger at lower voltage compared to 32nm planar transistors (18% faster at 1.0 Volts; 37% faster at 0.7 Volts).

Second, the 3rd generation processors offer design optimizations that provide a closer match between power and performance. Intel® Turbo Boost Technology 2.0 automatically allows processor cores to run faster than

Intel® 's 3rd generation Intel® Core™ processors assist embedded computing, which has long been caught in a performance vs. power tradeoff, in the transition from bulky rack-mount form factors to smaller systems that no longer need fans to get the job done.

NEXCOM has taken advantage of these new features to deliver high performance for drive visual computing in a remarkably compact 216mm (W) x 270 mm (D) x 93mm

(H) (10.6" x 8.5" x 3.65") package. The NISE 3600E housing features unique wave pattern fins that increase surface areas for air circulation and heat dissipation, helping deliver performance significantly beyond what traditionally has been available in fanless designs (Figure 4).

Design Challenge: I/O Bandwidth

High-performance I/O is also critical for graphics-intensive applications. The native USB 3.0 and PCIe 3.0 support introduced in the 3rd generation Intel® Core™ processor family (Figure 5) allow embedded systems to process much higher data loads and provide quicker, richer and more complex visuals.

These bandwidth improvements are not just incremental. With a maximum transmission speed of up to 5 Gbit/s USB 3.0 — which is backward compatible with USB 2.0 (480 Mbit/s), reducing both data transfer time and power consumption. PCI Express* 3.0, which is also backward compatible with existing PCIe implementations, has twice the bandwidth per lane than PCI Express 2.0 (1GB/s vs. 500MB/s). This means that a single third gen PCIe x16 slot has a capacity of a full 16GB/s per direction.

The NEXCOM NISE 3600E takes advantage of the enhanced I/O, offering a total of four native USB 3.0 ports and up to two PCIe 3.0 x4 expansion ports. These expansion options are ideal for high speed machine

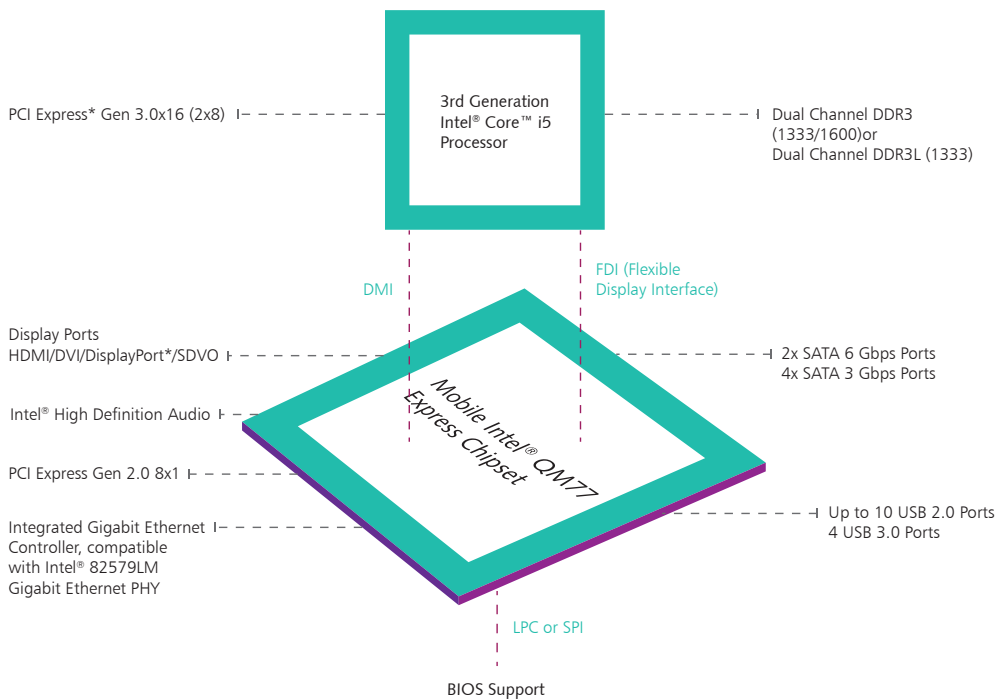


Figure 5 The 3rd generation Intel® Core™ processor family offers rich I/O.

and factory automation applications, allowing for easy integration of specialized motion control, data capture and other industry-specific add-on cards and peripherals.

3rd Generation Intel® Core™ Processor Family — Reliable Performance

Performance and reliability are both crucial for visual computing in rugged environments. Where downtime and unscheduled repairs can have far-reaching consequences.

Reliability in rugged systems means good design and industrial quality components, but it also means optimal thermal management and the fewest possible points of failure. The much faster integrated graphics of the 3rd

generation Intel® Core™ processors eliminate the need for discrete graphics sub-systems, reducing cost and complexity. Their advanced power-saving features let designers control heat generation, offering performance safely and efficiently. And their native USB 3.0 and PCIe 3.0 support eliminate old bandwidth bottlenecks.

By taking advantage of the 3rd generation Intel® Core™ processor family, industrial embedded computers such as the NEXCOM NISE 3600E can offer superior visual computing performance and capabilities while at the same time maximizing operation uptime, minimizing power consumption and heat generation, thus enabling consolidation of previously separate hardware and lowering overall system cost and power.



Digital Signage Entices Your Taste Buds

SUBWAY® selected NEXCOM fanless 1080P media player NDiS 161 to meet challenges at restaurant

Already the world's largest restaurant chain, SUBWAY® with more than 36,000 restaurants across 99 countries, is still taking every step to stimulate customer appetites. SUBWAY® TV & RADIO, which is made up of NEXCOM's fanless 1080P media players NDiS 161 and Real Digital Media's NEOCAST® digital signage platform, serves as a powerful communication medium for helping SUBWAY® franchisees better inform customers of available options and enhance in-store customer experiences.

Challenge

Restaurants pose many environmental challenges. With long restaurant operating hours and variable temperatures, SUBWAY® TV & RADIO required a robust solution that could withstand these conditions to ensure the successful playback of their promotional content, especially during peak times. Furthermore, due to the scale of the network rollout, SUBWAY® required a future-proofed hardware solution that could meet the demands of today as well as tomorrow, and could warranty against premature obsolescence.

Solution

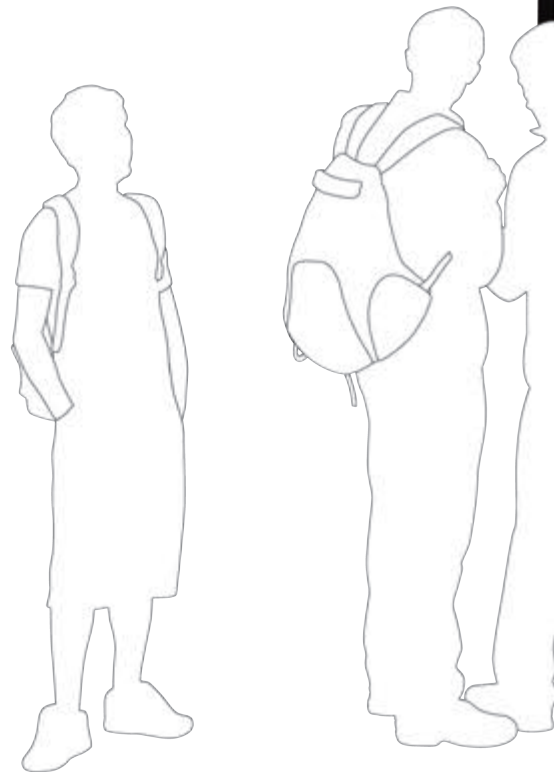
SUBWAY® selected the NEXCOM fanless 1080P media player NDiS 161 to meet these challenges. One of the keys to ensuring

the reliable playback in a restaurant environment is to select a robust, hardened media player appliance. One of the essential aspects of these types of media players is a fanless design. Fanless architecture deters environmental intruders, thereby increasing the durability and lifespan of the media players and protecting SUBWAY® franchisees' investments.

Additionally, the NDiS 161 is NEXCOM's high-definition media player. As SUBWAY® content and digital signage application



NDiS 161



demands increase, the NDiS 161 will be able to support these challenges without requiring SUBWAY® to install new hardware. Delivered pre-loaded with the Real Digital Media NEOCAST® embedded player software, the NDiS 161 media players arrive on site ready to "plug and play". Combined with a multi-year service support contract, SUBWAY® has a technically robust and supported solution to ensure the success of their global rollout.

Result

SUBWAY® TV & RADIO is poised to become the largest digital signage network in the world. At the core of this network will be the NEXCOM

fanless 1080P media player NDiS 161. Built to last, this solution is aimed to help companies like SUBWAY® have confidence in their network infrastructure, so they can deliver their messaging more efficiently and serve customers better.



15 Hot Products Available in Q3

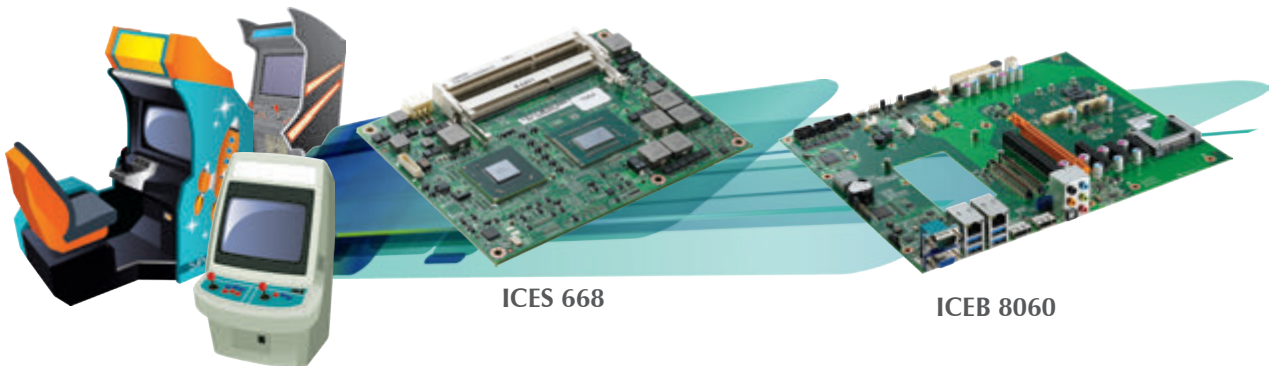
ICES 668

COM Express Type 6 Basic Module Powered by 3rd Generation Intel® Core™ Processor

ICES 668 is a Type 6-pinouts COM Express basic module which features the Intel® 3rd generation Intel® Core™ processor and QM77 PCH chipset with Dual DDR3 SO-DIMM socket up to 16GB DDR3 1333/1600MHz SDRAM with ECC support. The ICES 668 integrates Intel® HD graphics with DX11 support or expands via PCI Express Graphic 1x 16 lanes. It also supports three DDI (Digital Display Interface) to follow the standard of PICMG COM.0 Rev. 2.0 specification. This allows type 6-pinout carrier board to implement HDMI, DVI, Display Port, SDVO and legacy VGA, 18-/ 24-bits LVDS interface. The high performance ICES 668 supports 4x USB 3.0/ 8x USB2.0, 2x SATA 3.0/ 2x SATA 2.0 and 7x PCIe x 1 lanes interfaces by new Type 6 pin-out defined by PICMG

standard COM.0 revision 2.0.

- Embedded 3rd generation Intel® Core™ i7/i5/i3 processor with Mbl and ECC memory
- Intel® QM77 PCH chipset support PICMG COM.0 Rev. 2.0 Type 6 pin-outs
- Support dual channel DDR3 with ECC SO-DIMMs 1333/1600MHz up to 16GB
- Support PCIe x16, 7x PCIe x1, 4x USB3.0/ 8x USB2.0, 2x SATA3.0/ 2x SATA2.0 and GbE
- Up to 3x independent displays, VGA, dual channels 18-/ 24-bits LVDS Interface, DVI, HDMI, display port
- Dimension 95mm (W) x 125mm (L)



ICEB 8060

Start Now, Type 6 COM Express Evaluation Solution !

NEXCOM provides a new type-6 evaluation carrier I/O board named ICEB 8060, which can be used with the ICES668. The ICEB 8060 type 6 evaluation carrier board is designed to offer full I/O connectivity, including the new PCI Express GEN 3.0, up to four USB 3.0 connectors for external devices, up to two SATA 3.0 connectors for internal SSD/ HDD devices and three DDI (Digital Display Interfaces) for multiple displays of VGA, dual channels 18-/24-bit LVDS, onboard two DisplayPorts connectors (could be connected to two independent HDMI ports)

and 3rd DDI signaling from defined PEG slot for 3rd optional independent display by SDVO, HDMI/ DVI or 3rd DisplayPort.

Together ICES668 and ICEB8060 offer a complete type-6 pin-out based COM Express solution. It will be packaged as a "Type-6 starter kit" enabling partners to test a certified functional modulon design, and therefore reduce design efforts, and accelerate time-to-market for your system solutions and applications of digital infrastructure.

NISE 104

Small Fanless Industrial Controller Shows Enormous Functionality

Powered by Intel® Atom™ Dual Core D2550 1.86GHz and NM10 PCH, NISE 104 has higher graphic and computing performance but 3 Watts less power consumption compared with previous Atom™ platform. NISE 104 is fanless and cables-less in a compact and robust chassis. NISE 104 offers dual independent display capability through DVI-I and HDMI connector, dual Intel® GbE LAN ports, 6x USB2.0, 2x RS232/422/485 with 2.5KV isolation, 2x RS232/422/485, CFast socket and mini-PCIe socket for optional wireless module connection, either Wi-Fi or 3.5G module. Moreover, NISE 104 supports 9~36V DC power

input enhance its reliability in different power condition, and also friendly use in any industry.

- Intel® Atom™ Dual Core D2550 1.86GHz and NM10 PCH
- 1x DVI-I & 1x HDMI display output
- 2x Intel® GbE LAN ports; 6x USB2.0
- 2x RS232/422/485 with 2.5KV isolation and 2x RS232/422/485; 1x mini-PCIe with two antenna holes
- Support 9~36V DC input; support ATX power mode, WoL, LAN teaming and PXE function



NISE 104

NISE 2200

Power- Efficient Fanless Controller offers Better Graphics and Computing Performance

With an extended operating temperature, high expansion, a multitude of I/O interfaces and power efficient features, NISE 2200 is a superb addition to the NISE family of fanless industrial computers. Powered by Intel® Atom™ Dual Core D2550 1.86GHz and NM10 PCH, NISE 2200 has higher graphics and computing performance. NISE 2200 has 1x DVI-I and 1x HDMI outputs, 6x USB, 4x RS232/422/485 with 2.5KV Isolation, 2x RS232, 4x GPI, 4x GPO, 2x Intel® GbE LAN which gives the user maximum support and performance. NISE 2200 support 9~36V

wide range DC power input enhance its reliability in different power condition or industry.

- Intel® Atom™ Dual Core D2550 1.86GHz and NM10 PCH
- 2x RS232/422/485 with 2.5KV Isolation, 2x RS232/422/485
- 6x USB2.0; 2x Intel® GbE LAN; 4x GPI; 4x GPO
- 1x DVI-I; 1x HDMI; 1x CFast; 1x SIM card holder
- 9~36V DC input
- Designed for self-service kiosk

NISE 3600E

Fanless Industrial Computer Invigorated by 3rd Generation Intel® Core™ Processors

Integrated with 3rd generation Intel® Core™ i7/i5/i3 with QM77 PCH chipset, the NISE series has evolved into a new generation called NISE 3600E. The new system has not only sustained the NISE series exceptional reputation for quality and user friendly features but also has a new innovative mechanical design. With computing and graphic performance enhancement, NISE 3600E supports 2x display port, 1x VGA port and 1x DVI-D port to fulfill the graphic-intensive or computing oriented applications, including Auto Optical Inspection, Machinery Automation, ePolice infotainment, Surveillance or Image Processing equipments and Health care industry.

- Support 3rd generation Intel® Core™ i7/i5/i3 with QM77 PCH platform
- 1x VGA, 1x DVI-D and 2x DisplayPort with 3 independent display support

- 4x USB3.0, 2x USB2.0, 5x RS232 and 1x RS232/422/485
- 1x PCIe x4 expansion and 1x external CFast socket
- Support 9~30V DC power input; support ATX power mode and WoL



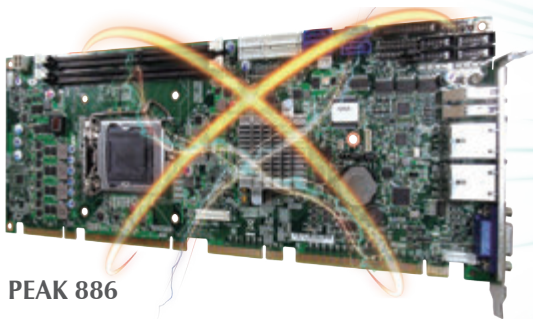
NISE 3600E

PEAK 886

PICMG 1.3 SBC Features 3rd Generation Intel® Core™ Processor with Q77 PCH

The PEAK 886 is a PICMG 1.3 full-size single computing board that features 3rd generation Intel® Core™ processor and Q77 PCH chipset with dual DDR3 DIMM socket up to 16GB DDR3 1333/ 1600MHz SDRAM, and integrated HD Graphic controller. The Intel® Q77 PCH manages SATA2.0/3.0 ports and USB 2.0/3.0 ports. Furthermore, it supports a number of I/O ports such as legacy four series ports, KB/Mouse interface, optional TPM function, eight USB ports, four PCIe x1 interface and two Intel® PCI express Gigabit LAN ports. It is therefore a great solution for advanced industrial applications that require superb display and processing performance.

- Scalable platform utilizes 3rd generation Intel® Core™ i7/ i5/ i3 processors
- Intel® Q77 PCH chipset supports PICMG 1.3 specification
- Support dual channel DDR3 with non-ECC DIMMs 1333/1600MHz up to 16GB
- Support PCIe x16, 4x PCIe x1, 4x USB3.0/ 4x USB2.0, 4x SATA3.0/ 2x SATA2.0 and GbE
- Display support for VGA, DVI, HDMI, DisplayPort
- 338.58mm(W) x 126.39mm(L)
- 8-layers single-sided PCB



PEAK 886



VMC 3000 series

Robust All-in-One Vehicle Computer

The VMC 3000 series, all-in-one computer, integrates the 10.4-inch LCD combining a high resolution display with 5-wire resistive touch sensor. This series is equipped with smart ignition and vehicle power management. Designed with scalability and flexibility in mind, the VMC 3000 series supports a wide selection of processors and I/O features and can therefore meet different application needs. The robust design and IP65 rated construction make the VMC 3000 series highly resistant to shock, vibration and dust. This series is ideal not only for mass transportation vehicles but also for machineries used in construction sites and agricultural land.

- Support Intel® Core™ i7/i5/i3, Atom™, and Celeron® processors
- Variety wireless communication (WLAN/ BT/ WWAN)
- Wide range DC input from 9~36VDC
- Smart ignition power on/off and power management

- Compliant with IP65 design
- Certified by CE/ FCC/ e13

VMC 3000



NViS 2280

Mobile NVR Speeds up Video Transmission with Gigabit PoE

NViS 2280 is a rugged mobile NVR system powered by Intel® Atom™ D2550 processor. It can support recording on 16 channels of megapixel IP cameras with up to 2TB (1TBx2) of two 2.5" hot-swappable HDD tray. It features full HD video playback on dual local display by VGA and HDMI for high resolution video surveillance with higher bandwidth Gigabit PoE ports for up to 61.6W of total power output (802.3af compliant). The NViS 2280 offers 3G/3.5G/Wi-Fi, GPS, and Bluetooth, building an environment that is supportive to intricate network with different range of coverage.

In accordance with MIL-STD-810F 514.5 C3 standards, NViS 2280 is resistant to high levels of vibration. Additionally, NViS 2280 features an event recording mode when the built-in G sensor detects unusual vehicle movements. The platform has a wide range of power input options from 9V to 36V and optional power ignition is offered to address power issue in vehicle. In-vehicle mobile NVR surveillance system

- Intel® Atom™ D2550 Dual Core 1.86GHz processor
- Diversity wireless communication (WWAN/ WLAN/ BT/ GPS)
- Four Gigabit PoE ports
- MIL-STD-810F 514.5 C3 composite wheeled vehicle verified

NViS 2280



NViS 3542H

PoE Integrated NViS 3542 Series Excels at Mobile Hybrid DVR

NEXCOM PoE-integrated NViS 3542H series consolidate mobile Hybrid DVR with surveillance capability, vehicular functionality and system reliability. The NViS 3542H series supports real-time playback and recording; it feature a hybrid DVR solution that can support up to 8 channels of both IP and analog cameras through PoE ports and optional video capture card.

Based on the Intel® Core™ i7/i5 processor, the PoE-integrated NViS 3542 series supports high bandwidth GbE LAN, PoE interface, GPS communication, WAN/WLAN connectivity, and dual HDD trays. The NViS 3542H is designed for harsh environment, certified MIL-STD-810F-514.5 C3 resistance, power ignition

and 9~30V DC input. This ruggedized mobile Hybrid DVR series guarantees highly reliable performance in challenging mobile environments and is suitable for use in police patrol cars, fire engines, ambulances, public transportation and more. Hybrid solution for both IP and Analog camera

- Capable for 120FPS @ 1080P preview and recording
- Wide vehicle power input from 9V dc to 30V dc, optional power ignition module
- Support variety communication module like WWAN or WLAN, and GPS
- Optional anti-vibration kit for tough environment



NViS 3542H

NDiS 165

Immersive and Stunning- NDiS 165 Brings Realism to Computer Graphics

NDiS 165 is powered by AMD embedded R-series APU and powerful ATI HD7000 GPU for the best graphic performance. NDiS165 can seamlessly play video clips, pictures, music, Adobe flash, web pages, RSS news feed, and scrolling text on multiple screen rectangles. NDiS 165 is specifically designed for hospitality, brand promotion and digital menu board applications. With three HDMI outputs, NDiS 165 totally eliminates the hassle to connect monitors with different cable connectors.

- AMD embedded R-series APU
- Integrated Radeon HD7000 GPU with UVD 3.0 and DirectX 11 support
- 3 x HDMI output
- DirectX 11 support
- WWAN/ WLAN/ TV tuner support



NDiS 165

NDiS 167

Digital Signage Player Trilogy: Performance, Connectivity, and Manageability

NDiS 167 is a powerful digital signage player based on the 3rd generation Intel® Core™ processor family paired with Mobile Intel® QM77 Express chipset and integrated Intel® HD Graphics 4000. With the hardware-assisted acceleration for graphics and support for DirectX 11, NDiS 167 allows for great details of 3D images and multiple full HD video playbacks on three independent displays. Also equipped with two GbE LAN ports and WWAN/ WLAN expansion support, NDiS 167 can ensure remote timely content updates. Out-of-band management is another important feature of NDiS 167, which gives IT administrators from a distance control over

the player as early as the phase of BIOS setting without assistance of additional hardware.

- 3rd generation Intel® Core™ processor
- Intel® integrated HD 4000 graphic engine
- Intel® AMT support
- 3 independent displays
- Multiple full-HD contents
- 2x USB 3.0, dual GbE LAN support
- WWAN/ WLAN/ TV tuner support



NDiS 167

PDSB 102

Ultra Cost-Effective Digital Signage Appliance

PDSB 102 is a RISC based digital signage player designed to address a broad spectrum of digital signage applications demanding low power consumption, ultra reliability and compact design. Preloaded with PowerDigiS software, PDSB 102 offers users great plug-and-play convenience. In the meanwhile, PDSB 102 is built with hardware accelerated graphic engines and video decoder which greatly enhance its ability to handle high quality pictures and 1080P full HD video decoding. PDSB 102 is one of the best choices of cost-effective digital signage appliance.

- RISC-based SoC
- Pre-loaded digital signage software
- Ultra low power consumption
- Very cost effective
- WLAN/ TV tuner support
- Dual displays



PDSB 102

NSA 5130HA

Network Security Platform Shows Excess of Service Capacity

In pursuit of various different vertical market segments, network security vendors require scalable platforms which are suitable for both entry-level and high-end applications, in response to these demands, NEXCOM has unveiled the NSA 5130HA. NSA 5130HA can be configured with eight to sixteen GbE ports, 10GbE fiber ports with LAN module, and one PCIe card to give network performance an extra boost. Computing performance can also be modified with a wide range of processors including Intel® recently launched Xeon® E3 family, 2nd generation Core™, Pentium®, and Celeron® processors.

NSA 5130HA also features extra flexibility. In addition to 8+8 GbE ports, the network security platform has DDR3 memory up to 16GB, one CF expansion slot, two 2.5" HDD, and one PCI expansion slot. NSA 5130HA can also be tailored for SSL, xDSL card, or Wireless card.

- Intel® Xeon® E3 family, 2nd generation Intel® Core™, Pentium®, and Celeron® processors
- Intel® C206 chipset integrated VGA controller
- 8 GbE LAN ports with 4 latch bypass (optional 8x GbE LAN ports)
- 4 DDR3 1066/1333 memory, up to 16GB
- Support one PCIe slot
- 200W 1+1 ATX Redundant power supply



NSA 5130HA

OSA 5130HA

Protects VoIP Network Communications against Quality and Security Threats

NEXCOM has unveiled a VoIP platform OSA 5130HA to overcome network communication quality barriers. OSA 5130HA houses two full-length PCIe slots in a 1U rackmount chassis. The platform can connect to a VoIP system to traditional landlines and allow rapid packet data transfer when configured with a T1/E1 telephone card. With a second expansion card alongside, the VoIP platform can compress speech, lower latency, decrease jitter, fix packet loss and remove echo, solving major quality issues as conversation proceeds.

Moreover, OSA 5130HA supports a broad spectrum of processors. The platform which adopts Intel® C206 chipset, is compatible with the recently launched Xeon® E3 family, 2nd generation Intel® Core™, Pentium®, and

Celeron® processors. This means this innovative VoIP system is scalable and can therefore address a broad spectrum of applications. In addition, the platform has eight GbE LAN ports, DDR3 memory up to 16GB, one CF expansion slot, and two 2.5" SATA HDD.

- Intel® Xeon® E3 family, 2nd generation Intel® Core™, Pentium®, and Celeron® processors
- Intel® C206 chipset integrated VGA controller
- Support two PCIe slots for VoIP extensibility, 8 GbE LAN ports
- 4 DDR3 1066/1333 memory, up to 16GB
- Two 2.5" HDD bay
- Support 1+1 redundant power supply

NSA 7120R

Network Security Platform Runs Faster, Performs Better, and Reaches Higher

NSA 7120R based on Intel® Xeon® processor E5-2600 family is aimed to continue to elevate the unequalled system performance while assist service providers to adjust network infrastructures in accordance with dynamic business requirements and market trends with a scalable solution. NSA 7120R powered by Intel® Xeon® processor E5-2600 family, enables substantial increments in overall system performance to meet a myriad of application requirements.

With up to eight cores, 20MB cache, and the latest PCIe 3.0 interface at 8.0GT/s, NSA 7120R is allowed to reduce latency incurred in network data processing so that response time is improved across computing-heavy, data-demanding, network-intensive, and bandwidth-hungry applications. Better still, the gains in performance come with lower power consumption due to the new 32nm process technology.

- 2U 19" network platform support dual Intel® Xeon® processor E5-2600/ Intel® Romley-EP
- 12 DDR3 1066/1333/1600 DIMMs, up to 384GB
- Max. 5x PCIe LAN modules, one optional PCI-E 16x expansion slot
- 3 swappable 2.5" HDD bays
- LSI RAID controller on board



Top 5 Most Attractive Vertical Market Platforms at Worldwide Shows

Even though global economy continues to drag its feet, worldwide exhibitions continue to reveal a vibrant energy with potential demands in vertical markets. Based on our observation from Intertraffic, Secutech, IFSEC, Hannover Messe, to COMPUTEX, five NEXCOM platforms for vertical markets are top of buyers wish lists, these include, NDiS 167 digital signage player, VMC 1000 vehicle mount computer, NViS mobile surveillance system, NISE 3600 series industrial fanless controller, and FPPC 1220 factory Panel PC.

NDiS 167 1080P signage player engage digital signage buyers in its excellence in performance, connectivity, manageability. Based on the 3rd generation Intel® Core™ processor family, NDiS 167 paired with Intel® QM77 Express chipset can support up to three independent displays, enabling more desirable content manipulation. With the hardware-assisted acceleration for graphics and support for DirectX 11, NDiS 167 is able to achieve significant progress in responsiveness and performance in depicting great details of 3D images and play full HD multimedia content to meet ever-demanding market expectations. In addition, efficiency remote management is enhanced by Intel AMT 8.0.

NDiS 167

Based on the 3rd generation Intel® Core™ processor family, NDiS 167 paired with Intel® QM77 Express chipset can support up to three independent displays



FULL HD
1080





The all-in-one vehicle mount computer VMC 1000 is favored for its high cost and performance value. It features an incredibly compact, vibration resistant; IP54 rated exterior and smart power management mechanism. VMC 1000 integrates a telematics computer and 7" LCD touch screen to provide an AIO solution which is specifically designed for telematics, vehicle tracking, fleet management, and transportation type applications. It measures 185.4mm wide, 50.42mm high, and 141.4mm deep and therefore can be slotted into space-limited environment including heavy-duty off-road equipment. Not only is the size of VMC 1000 reduced, its AIO design removes redundant cables, allowing easy installation and maintenance.

VMC 1000

VMC 1000 integrates a telematics computer and 7" LCD touch screen to provide an AIO solution which is specifically designed for telematics, vehicle tracking, fleet management, and transportation type applications.

With demand booming for mobile NVR within the surveillance market, NEXCOM NViS mobile surveillance is based upon decades of experience and knowledge in overcoming the environmental challenges associated with mobile surveillance; such as excessive vibration, extreme operating temperatures, network communication, system installation and maintenance. NEXCOM's mobile NVR/ DVR is designed to incorporate such features as reliability, power management, wireless communication, and expansion. The favored models include NViS 2280 and NViS 3542 series mobile NVR for public transportation and ANPR/LPR applications.



NViS 2280

NEXCOM's mobile NVR/ DVR is designed to incorporate such features as reliability, power management, wireless communication, and expansion.

A powerful and compact embedded system is important for automation operations and is directly relevant to the cost of ownership. Powered by 3rd generation of Intel® Core™ family processor with Intel® QM77 chipset, rugged NISE 3600E fanless controller is specially targeted at graphic-intensive computing applications and can support three independent displays. This series can accomplish assigned tasks in a shorter period of time and handle sophisticated graphics with support for DirectX 11. Yet, the cross compatibility between the 2nd generation and 3rd generation Intel® Core™ processors and chipsets enables the NISE 3600 series to deliver different levels of performance to meet individual project requirements.

NISE 3600E

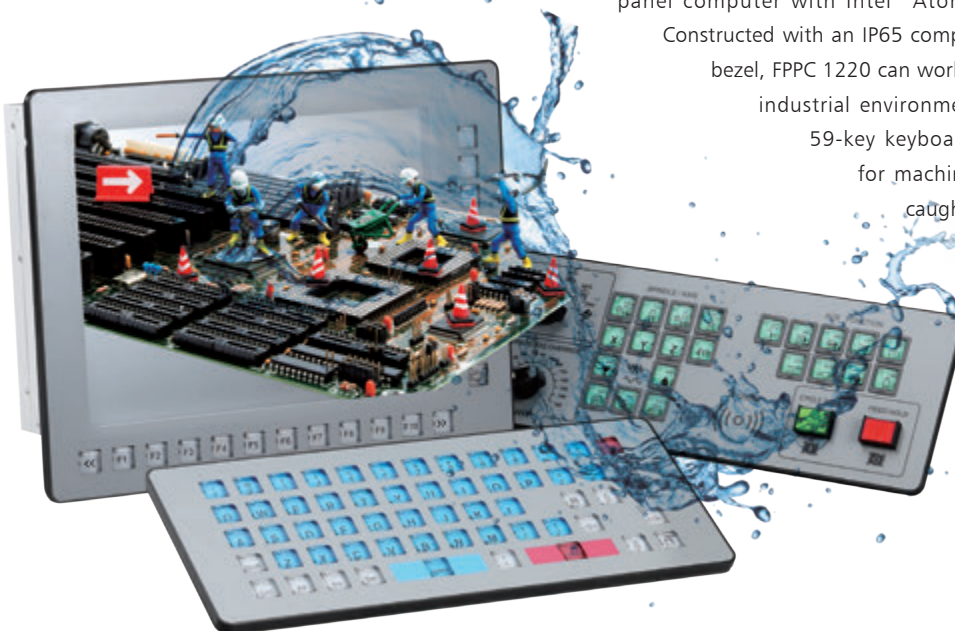
Powered by 3rd generation of Intel® Core™ family processor with Intel® QM77 chipset, rugged NISE 3600E fanless controller is specially targeted at graphic-intensive computing applications and can support three independent displays.



FPPC 1220

Constructed with an IP65 compliant, aluminum front bezel, FPPC 1220 can work well under any harsh industrial environments.

The other star product for industrial automation applications is FPPC 1220. The 12.1" factory automation control Panel PC FPPC 1220 is a fanless panel computer with Intel® Atom™ D425 processor. Constructed with an IP65 compliant, aluminum front bezel, FPPC 1220 can work well under any harsh industrial environments. In addition, the 59-key keyboard and control panel for machinery applications also caught visitor's imagination.



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