2013
The Technology Hub of ARM Based Solutions

www.nexcom.com

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About NEXCOM

Reliable Partner for Building the Digital Infrastructure

Founded in 1992 and headquartered in Taipei, Taiwan, NEXCOM is committed to being your trustworthy partner in building the digital infrastructure. 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 four global businesses, which are Multi-Media Solutions (MMS), Mobile Computing Solutions (MCS), Industrial Computing Solutions (ICS), Network and Communication Solutions (NCS), and Intelligent Digital Security (IDS). 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 seven subsidiaries, from China, France, Germany, Italy, Japan, 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.

ICS	EmbeddedPro Solutions: Embedded Computer, Single Board Computer, Computer-on-Module Panel PC: Industrial PPC, Applied PPC, Multimedia PPC, Factory PPC, Medical PPC, Industrial PPC, In-Wall PPC Industrial Fanless Controller (NISE) Point of Services Industrial Wireless Machine Automation (MA) Factory Automation (FA)
IDS	Intelligent Digital Security: IP Cam, NVR, Mobile Server Platform
MCS	Mobile Computing Solutions: Rugged Computer Devices, Rugged Mobile Computer Vehicle Telematics Computer: Car PC, Train PC
MMS	Multimedia Solutions: Digital Signage
NCS	Network and Communication Solutions: Network Security, VoIP, HPC, Telecommunication, Storage, Industrial Firewall

Corporate Mission

- An Innovative Supplier in Vertical Application Markets
- A Quality Partner in Engineering, Manufacturing, and Services

Corporate Vision

To become the industrial leader in building the digital infrastructure, 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.

Business Strategy

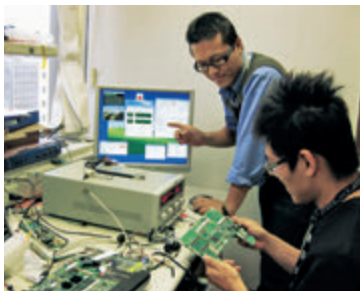
Aim to better support the activities of all its partners, NEXCOM divides its sales force into four dedicated business units to target rapidly expanding vertical markets. This enhances each business unit concentrating on strategic channel accounts and on repeat order business. Moreover, NEXCOM's business 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 industry platform (VIP) solutions, optimized for the next wave of low power, small footprint embedded applications.

Research and Development

Speed, Quality, Innovation and One-stop Service

Over a decade ago, NEXCOM successfully launched the PEAK series of Single Board Computers onto the IPC market, and in doing so, gained a solid reputation for product quality and innovation. In subsequent years, NEXCOM has enhanced its reputation for R&D excellence with a multitude of high-end technology products, which has cemented NEXCOM as one of the industry leaders for R&D and innovation.



The mission of NEXCOM R&D team is to design exceptional products that meet the stringent requirements of today's global markets. In order to achieve this goal, we have recruited hundreds of talented engineers who have the knowledge and expertise to make NEXCOM's products stand out in this highly competitive market.

In 2012, NEXCOM R&D will develop solutions within the following categories, fanless computers, Panel PCs, video analytic, self-service platform, vehicle telematics computers, rugged mobile tablet computers, digital signage platform solutions, and ATCA platforms for telecommunications. The team is encouraged to "Think with New Ideas" and "Know how to make it and do it right first time". In addition, the size of NEXCOM's R&D team has been expanded to over 130 members and remains as one of core competences of the company.

Versatile Design Capabilities

- Leading industrial fanless computer
- High availability network security platform, blade, and cPCI
- Rugged tablet computer and car PC
- Ultra small footprint computer-on-module
- High speed networking
- Isolated and non-isolated power system
- Isolated and non-isolated industrial I/O
- Wide range of operating temperature

24/7 Production Line

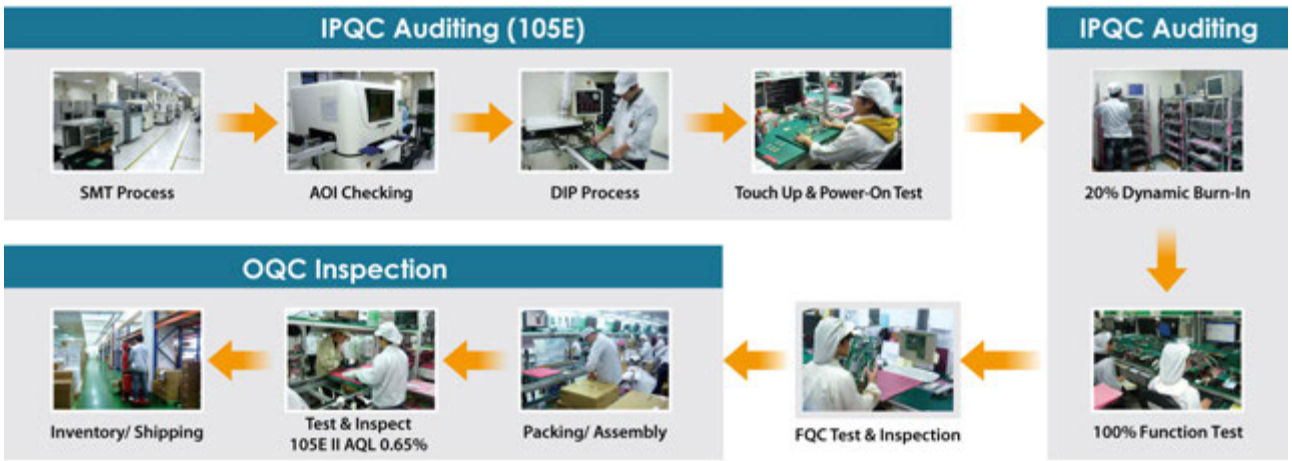
Optimal Manufacturing Efficiency

The manufacturing of delicate products requires a high-level technology, craftsmanship, standards and time-to-market efficiency. Over years continual investment in advanced manufacturing equipment and systemic training programs has enabled NEXCOM to obtain optimal manufacturing efficiency.

To fulfill the increasing market demand for NEXCOM's products, the company has opened a 24/7 production line. This investment not only furthers the quality of products, but also reduces production lead-time for all global customers.

Quality Assurance

Under a strict Quality Assurance System, product design and reliability are controlled to support all critical solutions, and ensure Total Quality Assurance (TQA) implementation for all NEXCOM products and service. Furthermore, NEXCOM technical support team aims to provide feedback within 24 hours to ensure technical issues are resolved in the shortest possible time.



Closed-Loop Quality Assurance System

Green Policy

As a global citizen, NEXCOM is committed to providing green products and services, which are compliant with WEEE and RoHS legislation. NEXCOM continues to proactively work with industry peers and suppliers, to clarify standards, and identify compatible technologies and practices that help reduce hazardous substances from our products and manufacturing processes.

Global Fulfillment Service

Product delivery and customer support are always more effective when delivered locally. NEXCOM localizes support and provides a global customer service network to handle all aspects of global business, from presales, order taking, and system assembly to logistics. For expeditious product delivery, NEXCOM has established four regional service centers: Taiwan (for Asia), USA (for North America and South America), the United Kingdom (for Europe) and China. Therefore, NEXCOM customers benefit from quality assured product assembly and four service centers.

NEXCOM has invested heavily to establish operational infrastructures, including advanced equipment and facilities, not only at its global headquarters but also at subsidiary offices. Today, each of our service centers, with ISO 9001:2008 certification, has a purpose built assembly line, RMA/ DOA center and warehouse storage capability.

NEXCOM Global Service Network

Assembly Line Operation

NEXCOM offers custom-built products based on customers' specific requirements through the build-to-order services. A dedicated 24/7 assembly line and Quality Assurance System are installed in the services center to ensure exceptional production efficiency and superb product performance and reliability.

Service Pledge and Connection

As a reliable industrial computing platform provider for vertical markets, NEXCOM provides the very best products and the most expeditious service to help customers build the digital infrastructure. Comprehensive types of service are provided to promptly satisfy varying requirements. In addition to the headquarters in Taiwan, seven subsidiaries and distributors in strategic worldwide locations are at your service.

Service Types

Quotation | Project Consultant | Technical Support | Solution Alliance | RMA/DOA | Assembly/ Test | Global Logistics | Customization | ODM Original Design Manufacturing

Your Truly Global Information Resource

www.nexcom.com

www.nexcom.com is your one-stop platform for the latest information on all NEXCOM products and services. The rejuvenated website not only contains product relevant information and data, solutions/ products demo, up-to-date news, but incorporates online downloads, publications, and technical service supports, such as RMA/ DOA centre. Furthermore to localize service and support, seven NEXCOM sister websites remain to serve visitors in diverse geographical regions.

Get the Latest Updates Anytime, Anywhere

m.nexcom.com

At the end of the year 2011, NEXCOM launches its mobile site, m.nexcom.com. The site aims to cross time and space boundaries by allowing users to access the latest innovation and information of NEXCOM via smartphones. On this website, users will easily find our latest products, news, application stories, white papers, and videos. The mobile site now supports iOS and Android system. Please visit us at m.nexcom.com.

Design and Manufacturing Services (DMS)

Customized Service for Tailor-Made Solutions

NEXCOM provides cost-effective and time-to-market Design and Manufacturing Services (DMS). The DMS offers product customization from core modular designs to finished products based on customers' specifications in all kinds of industrial field. The levels of the service include manufacturing new CPU boards and system based products to fulfill customers' unique applications.

Unique DMS Features

With vast experience, the know-how, leading technology and innovative design capabilities, NEXCOM DMS incorporates the following features:

Prompt Time-to-Market

NEXCOM posses a dedicated project management team to monitor and ensure each DMS project is delivered on schedule. Thus, a quick time-to-market solution can be offered with time-scales varying from one-three months for the design phase, with an average six month period from design to market.

Flexible Design and Manufacturing

NEXCOM posses a complete R&D team to design and engineer the latest industrial grade products. As R&D engineers grouped into small cross-functional teams, they can develop more reliable products with flexible designs and quicker response to customers' requirements. In addition to our R&D capabilities, the state of art manufacturing facility and production lines enables NEXCOM to offer a flexible manufacturing with highly skilled factory staff.

Rigid Quality Control

NEXCOM is pledged to deliver high quality products, from design to manufacture, and safeguard against defective products by implementing a rigid Quality Assurance System. In this system, at the end of each process, NEXCOM performs various tests to ensure that the product passes the industrial standard before it enters into next stage. Finally, additional tests are performed to ensure all board and system level products function correctly. Tests include "Failure Mode and Effects Analysis", "Vibration test", "Burn-in Chambers", "Drop test", and "AC power source test".

Extensive DMS Experience

We set higher standards! NEXCOM surpasses your tailor-made product requirements with extensive DMS experiences. We are specialized in X86 architecture and have accumulated invaluable experience and know-how in real working environments. Moreover, with a superb reputation, NEXCOM has under its belt many ODM projects in diverse fields, such as gaming, medical, POS, network security, transportation, marine, blade servers, and Linux BIOS etc.

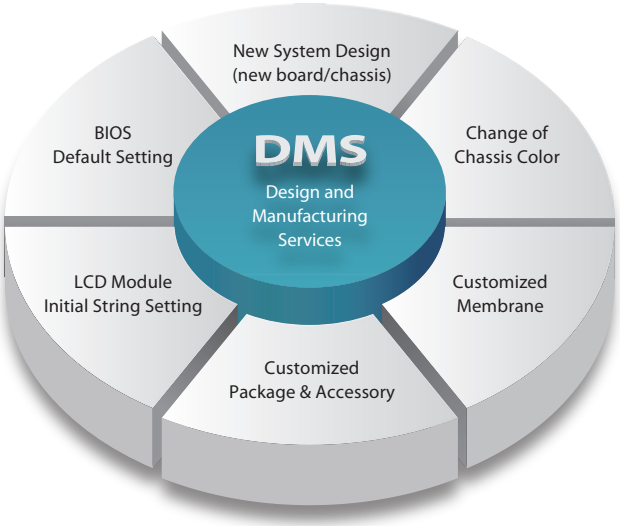
Scope of DMS Work

Original Design Manufacturing Service (ODMS)

NEXCOM offers a complete ODM Service starting from the brand new product design right through to the finished product. We can design products based on the customer's unique specifications and application requirements.

Customization to Order Service (CTOS)

NEXCOM also provides CTOS, which is a quick-to-market solution by modifying the existing products to fit your business requirements, such as BIOS setting, component change by using current PCM layout, chassis color change, and packing accessories etc.



Service of DMS

With decades of industrial computing experience, NEXCOM has the capability to provide different levels of customized service to manufacture innovative products with exceptional high quality. We can assist you to differentiate from competitors, and save significant time and efforts.

Level 1	Logo Re-brand	We provide the service to change the membrane to re-brand the company logo on the front panel. Customers need to provide Membrane drawing with all color pantone number. There is a service charge involved.
Level 2	Customerized Build	Customers can change the membrane and chassis color to re-brand the packing. NEXCOM can offer dedicated part numbers and BOM. MOQ and service charge are required.
Level 3	Manufacturing Service	Contract manufacturing. The service scope includes system assembly & burn-in, software loading & testing. MOQ and manufacturing service charge are required.
Level 4	New Project	The design of new board & system is available. NRE and quantity commitment are required.

Professional Conformal Coating Solution

Get Ruggedized with NEXCOM Cost-Effective Conformal Coating Service for Hash Environment Protection

Prompt Time-to-Market

NEXCOM recognizes the harsh reality that many embedded systems find themselves operating in unusual hostile environments. When conformal coating is required to protect your application against substantial humidity, dust, chemicals or temperature extremes, we can help!

Cost Effective Service to Apply Coating Solution in Vertical Market Segments

In addition to the usual military and harsh industrial environments that demand conformal coating, NEXCOM expand our conformal coating to Vehicle Telematic Computing, outdoor traffic control/surveillance, and off-shore Marine applications. These applications demand embedded computing performance with increased reliability through conformal coating process.

To support a wide range of applications in vertical markets, NEXCOM has engineered a diverse range of platforms, which incorporate the latest.

"State of the Art" Conformal Coating Line

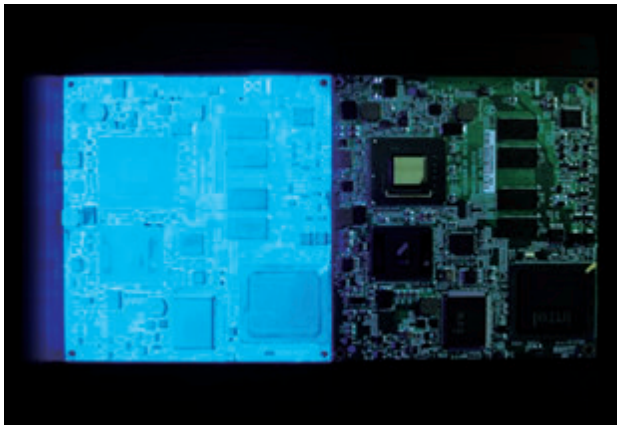
NEXCOM uses automated Conformal Coater equipment for applications that require a high level of accuracy and repeatability in moderate to high volume manufacturing environments. "State of the Art"coating line is a closed-loop robotic platform featuring optical encoder feedback on all axes.

Smart Masking Technology

Our smart masking technology can pin point specific area on the PCBA for coating. The green, programmable conformal coater equipment allow user to only coat the area selected, which save labor/ material costs.

De-Flux Cleaning

To prepare a PCB for conformal coating, the circuits need to be cleaned. NEXCOM uses automatic defluxing and cleanliness testing systems. The deflux system is equipped with an automatic chemical management system that automatically doses and mixes defluxing chemicals at the turn of a keyed switch.



Real Time Cleanliness Testing

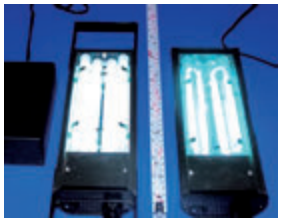
NEXCOM's deflux cleaning system is also equipped with an onboard cleanliness testing system which allows a user to program a desired cleanliness level. This assures that cleanliness levels will be consistent batch after batch.

De-Coating RMA Service

NEXCOM offer De-Coating RMA service upon request. This new service allows you to further cost down and generate higher ROI.

Quality Assurance Policy and Consistency Guarantee

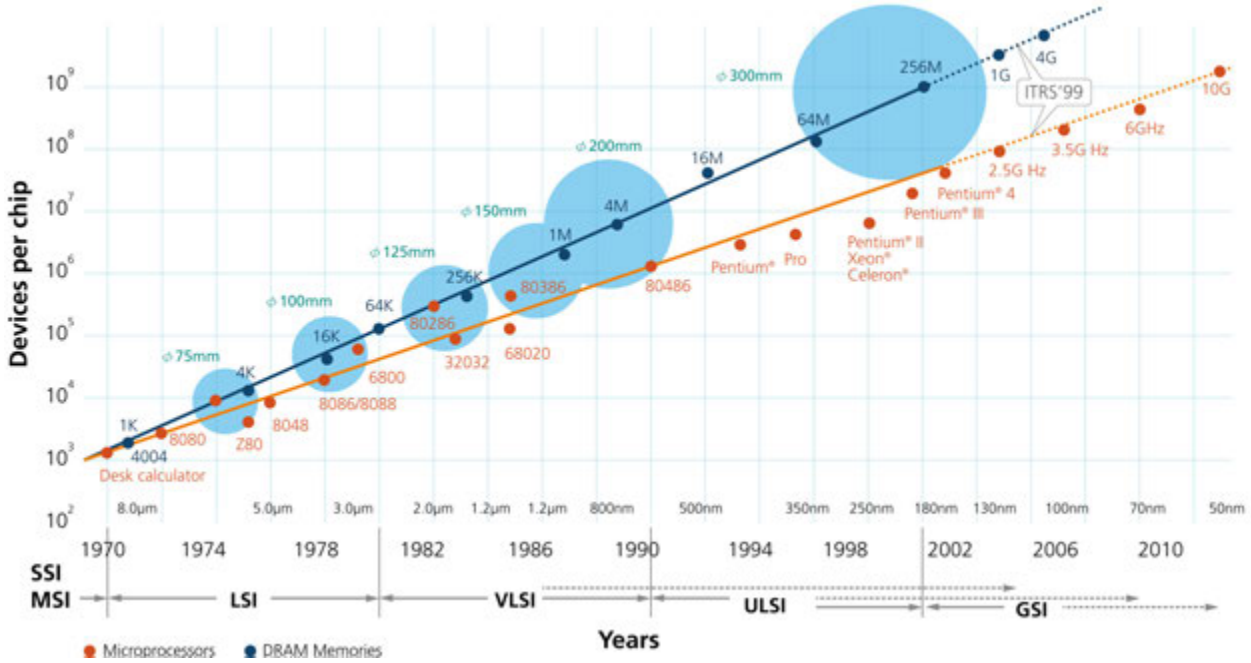
Conformal coating inspection is a critical factor in deterMining successful coating application and long term reliability of PCBs. Using the IPC standards allows the coating operator to monitor the coating application performance. NEXCOM offers 100% manual screening by exaMining the PCB under white and UVA light and Thickness Gauge.



NEXCOM follows IPC-A 610, IPC-CC-830, IPC J-STD-001E regulations to generate consistent, adjustable coating thickness and cleanliness.

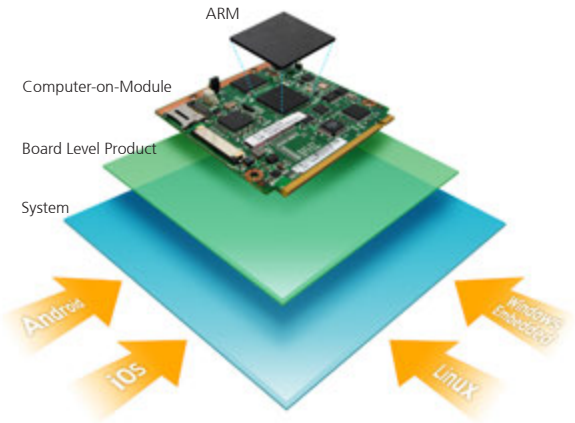
The Rise of SoC Technology

SoC is a concept that appeared in the early 1990s. SoC stands for system-on-chip, the packaging of all the necessary electronic circuits and parts for a "complete system" on a single integrated circuit. It includes on-chip memory (RAM and ROM), one or more microprocessors, DSP, peripheral interfaces, I/O logic control, data converters, and other components that comprise a complete computer system. With the technology enhancement of foundry, from the SSI, MSI, LSI, VLSI, to 025 μm, 0.18 μm, 0.13 μm process, the logic gate count may be larger than 100 millions today. We can integrate more mature and reusable IP, like digital circuit, analog circuit, digital-analog mixed-signal circuit, and on-chip programmable logic into one SoC. The trend of SoC technology is to integrate MEMS, and SiP cores together to meet the complex single chip requirments.



The advantages of SoC are compact and simple system design, lighter weight, high performance with lower power consumption, multiple functions and cost-competitive. SoC are widely adopted in computers, communications, consumer, industrial, transportation, and other products. According to the forecast, the CAGR of SoC sales is expected to grow by more than 20% still in the coming 5 years.

The SoC industry has developed rapidly over the last 20 years from producing VLSI devices that integrated a processor and a few memory and peripheral components onto a single chip to today's high-performance SoCs that incorporate hundreds of IP blocks. This progress is a consequence of Moore's Law:
"The performance of an IC, including the number components on it, doubles every 18-24 months with the same chip price ..." - Gordon Moore – 1960



The SoC is usually divided into three categories according to the implementation technology adopted: CSoC (Configurable SoC), SoPC (System-on-a-Programmable-Chip), and ASIC SoC for final mass-production.

It is a trend to integrate multiple processor IP in recent SoC design. It increases the complexity of system verification, especially when multiple software running on the processors concurrently. To build prototype on the FPGA prototype is widely adopted to verify these IP. Many IC vendors have provided well-integrated SoPC (FPGA, EPGA), which includes processor, memory, bus logic, IO logic, and programmable logic. The Engineer can therefore verify high level software application on such platform. This solution can reduce the risk of new SoC development, offer high flexibility, and shorten the development cycle.

The SoC may adopt any kind of instruction set, Intel® X86 core (e.g. NS SC2200, SiS550), MIPS core (e.g. AMD AU1500), PowerPC core (e.g. IBM PPC405), ARM 7/ 9/ 11 cores, or new ARM® Cortex™-M/A series.

In addition to the reusable IP modules, the most important feature of SoC is its bus architecture for the inter-connection between IP modules.

Each vendor adopt their own bus architectures, such as the AMBA bus (ARM), AXI bus (AMBA extension), EC bus (MIPS), CoreFram bus (MIPS), CoreConnect bus (IBM), Wishbone bus (Silicore). It is almost impossible to interconnect IP cores based on different bus architecture. Today, some companies devote efforts to establish a common on-chip bus architecture VSIA (Virtual Socket Interface Association). It needs an efficient routing algorithm as basis.

Demands of SoC in Intelligent Industrial Control

Some demands make the SoC widely adopted in the industrial control:

1. Higher computing power: the SOA (Service Oriented Architecture) is widely adopted. Comparing to the traditional server/client architecture, the thin device needs higher computing power.
2. Wireless communication: because ubiquitous Wi-Fi network, GSM network, the cloud computing becomes necessary. We need a system integrating network connection capability, security protection. The SoC is the better choice.
3. Compact size: no matter how many functions integrated, smaller size is a always need. It's reasonable to choose SoC.
4. Everything portable: to realize this feature, we need lower power consumption, reliable battery support.
5. Rapid response (real-time response): most precise equipments, or critical devices, need very rapid response after data analysis. The SoC is the most reliable solution in such application.
6. Multi-cores (distributed, or pipeline) computing: in complex system, it may need individual processor (or DSP) for each application. Like a GPU is dedicated for graphic operations, graphic accelerator, video codec, a RTU for data acquisition. Finally, there are 5 processors in ST's DVD recorder, 8 processors in HDTV, more than 10 processors in a mobile handset. To integrate these processors as one SoC is a necessary solution.

NEXCOM SoC-based Platforms and Customizing Services

Since the mobile device application is becoming popular, the technology for SoC platform is enhancing fast. The performance of SoC based CPU is much higher than before and it is still with the benefits of low energy, compact size, easy to design. These features are also beneficial for industrial application. As the features of ARM based CPU, it can be designed as small form factor devices like box PC, panel PC, embedded board, vehicle computer, and even in network security appliance. The focus market can be industrial automation, POS/ KIOSK, M2M and so on. NEXCOM provides the service for standard models, OEM/ ODM service for system and board products. By leveraging our strong designing experience in versatile industrial applications, we can offer the complete service for meeting customers' requirements in SoC based platform.

Features and Benefits

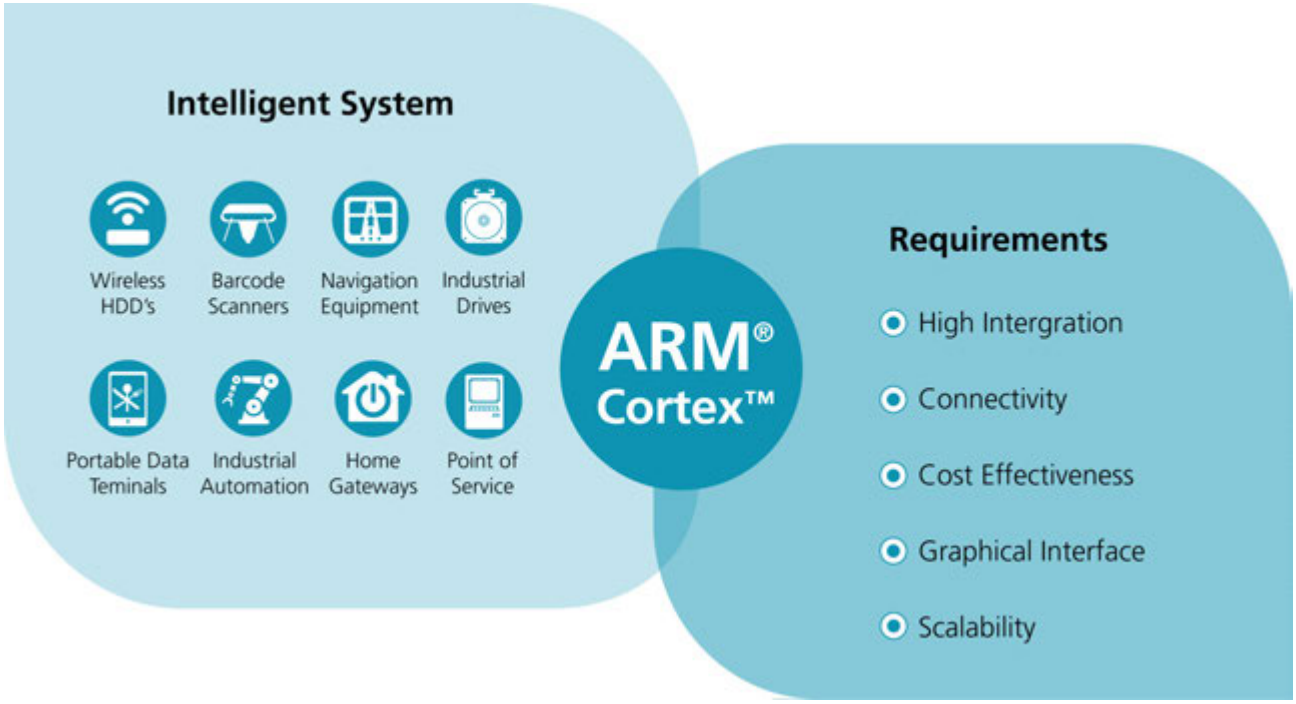
- Low Power Consumption
- Compact size form factor
- Cost Effective
- Flexible Design and Manufacturing
- Reduced Point of Failure

Application and Market Focus

- Factory Automation Controller
- Machine Automation Controller
- Data Acquisition Server
- Communication Gateway
- HMI platform for Industrial Automation
- POS/ KIOSK Application
- Hardware device for M2M application
- Digital signage appliance
- In vehicle computing appliance
- Network security appliance

ARM Embedded Solution Triggers the Future Intelligent System Revolution

Driven by IoT (Internet of Things) application, wired/ wireless networking and Cloud Computing infrastructure, the conventional embedded device has been upgraded to be Intelligent Systems that become more and more common in professional fields, daily life and ordinary work environment now & future. Those diverse intelligent Systems share the same characteristic-Power-optimized, Mobile networking, Cost Effective solutions. Amongst the various types of RISC based architecture, the new generation of ARM® Cortex™ core has been widely adapted because of higher performance and lower power consumption as well as its multi-core architecture.



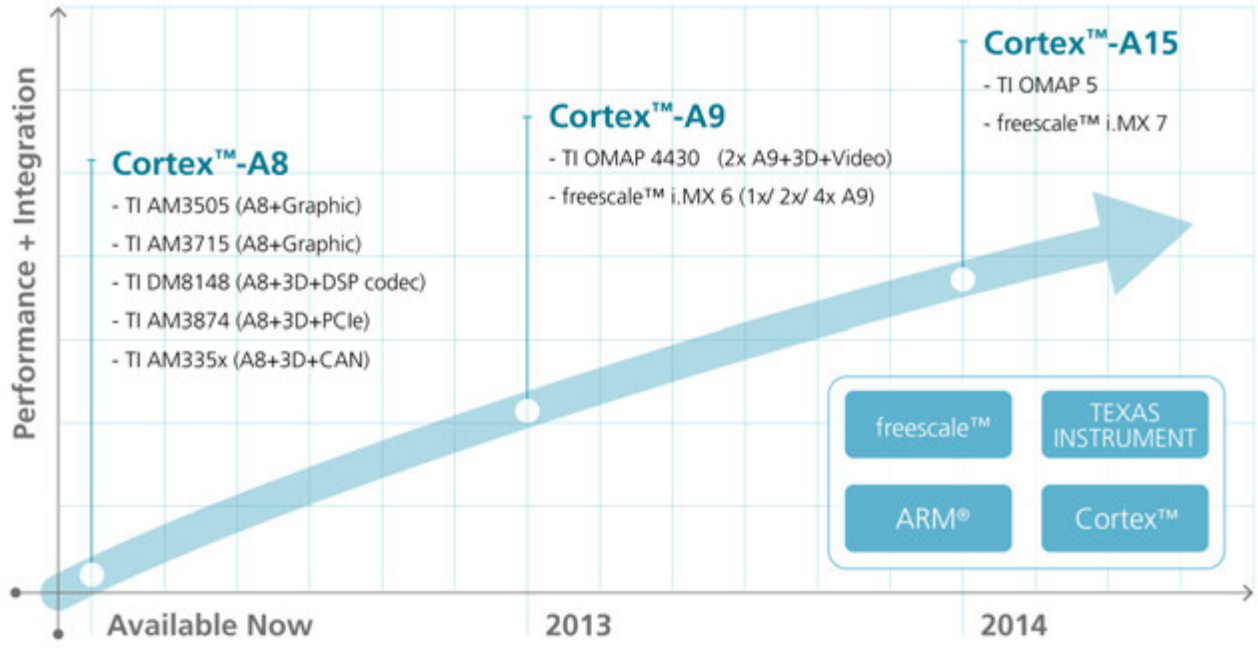
NEXCOM Solutions and Services

NEXCOM ARM Based Computing Roadmap

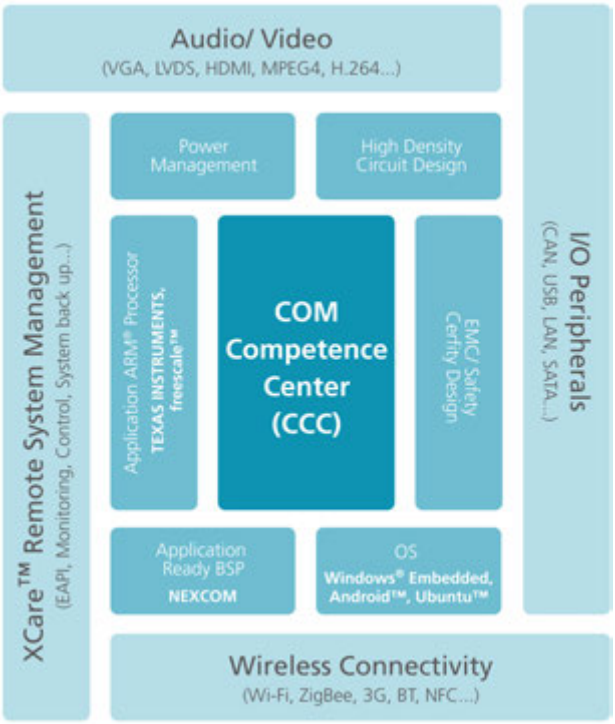
As a leading Embedded Platform provider, NEXCOM ARM based solution adopts the mainstream Cortex™ core, the low power leadership architecture across from mature Cortex™-A8, Cortex™-A9, and the most advanced Cortex™-A15 based Application Processor from strategic SoC partners like TI and freescale™.

A Key to Turn on Your Dream Solution

Unlike standard x86 architecture, a typical ARM based platform is a comprise of integrated hardware and software components, including CPU core, Peripherals circuit, system boot-loader, firmware, OS, drivers, and system management, even validation tool that is not only add complication in development, but also requires diverse skill set to realize the integration. NEXCOM utilizes

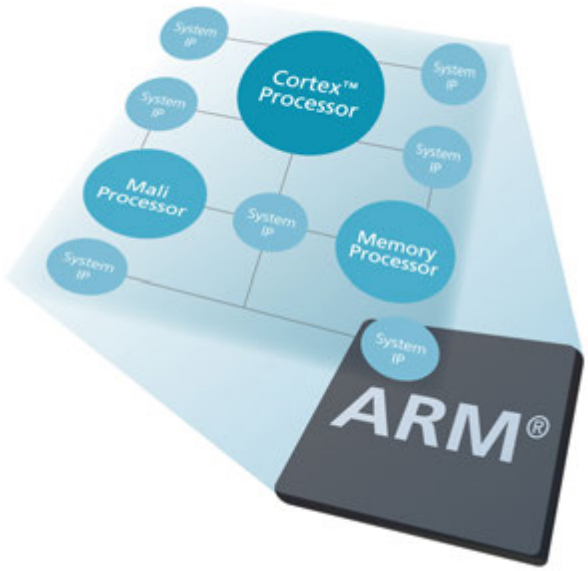


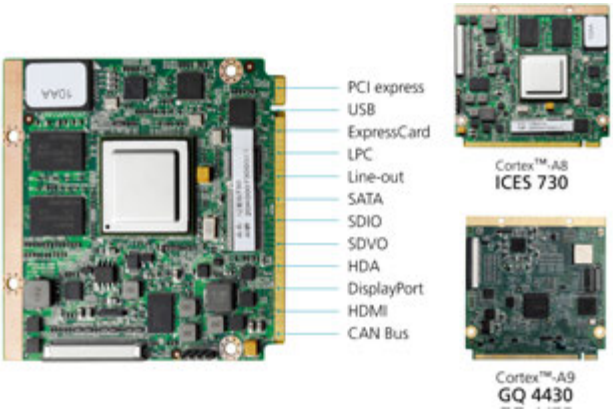
this expertise within its Computer-on-Module (COM) as turnkey building block to facilitate the development of customer designated application board or system. NEXCOM adopts two industrial standards and form-factors, the Qseven and ULP-COM, in COM product line. The ULP-COM standard is organized by SGeT association. NEXCOM is one of its members of SGeT association.



The Super SoC Module

NEXCOM ARM based module is a kind of super System-on-Computer (SoC) that has been integrated with NEXCOM-proof hardware & software IP building block to produce a fast time to market for customization thus delivering a solution board or system. With this modules design concept, customer application migration can be started as early as the project evaluation stage thus fast tracking prototype availability.





Advantages of NEXCOM ARM Solution

- Complete line-up from Cortex™-A8, Cortex™-A9, to most advanced Cortex™-A15
- Application-ready board support package of Windows® Compact, Linux, Android
- Industrial standard Q-Seven (Q7) & ultra low-power Computer-on-Modules (ULP-COM)
- Rich design expertise in I/O interface, connectivity, power management and industrial communication
- Rugged system integration service for heatsink-less, small compact, GUI interactive, extended temperature operation
- Flexible & fast-time market design-win service with longevity supply commitment

NEXCOM ARM Platform Solution Competence

NEXCOM have complete Board Support Package (BSP) and Hardware Product Development Process (PLM), and COM (Computer-on-Module) Competence Center (CCC) service to provide Evaluation Starter Kits and Expert Advice to smooth ODM BSP Development and talent pool of engineers providing service across the product life cycle.

We offer hardware circuit design, OS migration, field application development, system integration, complemented by verification and validation service. All of our development activities, acceptance criteria, and deliveries are strictly tracked and managed by PLM system. NEXCOM project managers and local design partners can work closely with customersfor instant response, securing quality level and collaboration across geographic regions.

Application-Ready BSP

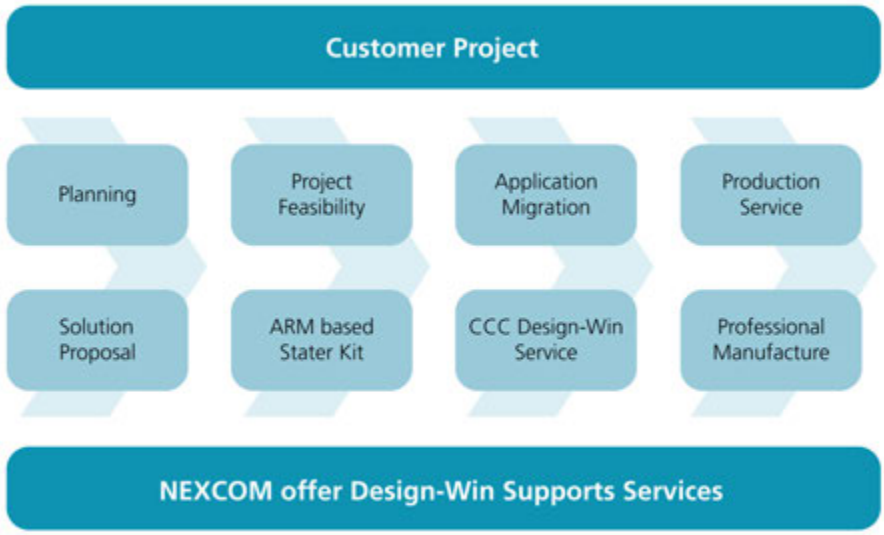
NEXCOM ARM Design-Win Support Services team are based on Windows® CE, Embedded Linux and Android to streamline the whole design process and help customers rapidly develop their own embedded devices. Our expertise is as following:

NEXCOM Design-Win Support Services

NEXCOM Design-Win Support Service to ensure our join-design project development with solution proposal, NEXCOM provides ARM based evaluation kit for early verification and fast tracking application migration.

Base-on customer requirements, NEXCOM provides solution proposals with ARM based starter kit for system performance evaluation in the initial stage. After project kick off, NEXCOM provides CCC Design-Win Support Service to ensure project success.

NEXCOM provide professional manufacturing service like wide-range operating temperature board design and conformal coating service for your design-in as design win as one-stop solution service.



Successful Applications

Medical Aid Device

Cortex™-A8, AM3503, Linux 2.6.x, Battery Powered

To help medical care personnel monitor the health status of patients or new born baby. This portable device works for various sensor input as data collection devices. It processes this data over a wireless radio or wired Ethernet connection. This communicator can also connect to a computer via USB-OTG to upload simulation logs and download scenarios and software updates as configured as a USB mass storage.

Interactive Fitness Console

Cortex™-A9, i.MX6 DL, Linux 2.6.x, 15.6" LCD + Touch

This fitness HMI console is build-in 15.6" TFT LCD panel with 5-wire resistive touch and support Ethernet and Wi-Fi for wireless connectivity and software update for interaction application.

Industrial FA Controller

Cortex™-A8, AM3352, Win CE 6.0, CAN, Isolated I/O

This devices designed with eight isolation digital I/O ports as controller gateway where use in the factory automation, machinery and control monitoring. Its fan-less system designed and chassis could be mounted on the wall or plug-in DIN-rail cabinet. The isolation series ports support three RS232 and one RS232/ RS422/ RS485 and one CAN bus port. VGA and LVDS interfaces and internal Mini-PCIe socket may add-on fieldbus module for EtherCAT, ProfitNET, ProfitBUS, DeviceNET application for factory automation.

Smart Shopping Cart Console

Cortex™-A8, AM3715, Win CE 6.0, Battery Powered

The 7" tablet is a 7-inch rugged portable station with hot-swappable battery. It is used for movable operation terminal for warehousing station, retail picking trolley or medical cart. It's housing is designed by anti-glare coating surface and 4-wire resistant touch for user interface. Two external USB connectors and one external SDHC socket up to 32GB for mass storage.

Mobile POS Terminal

Cortex™-A9, i.MX6 solo, Android 4.0.x, Battery Powered

The mobile 6" handheld housing design 1 meter drop and water splash proof capacitive multi-touch on 6" LCD that is ideal for restaurant, store, warehouse, school and working place. It built-in 2D barcode reader, one font camera and back camera with LED flash. Built-in Wi-Fi and Bluetooth connection with micro-SD socket for mass storage. This device also reserved feature connector for charging battery cradle.

Reference Products

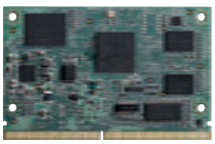
Digital Signage Player

Model		
	NDiS 102	PDSB 102
CPU	ARM® Cortex™-A8 RISC MPU	ARM® Cortex™-A8 RISC MPU
Chipset	N/A	N/A
Graphic	SGX530	SGX530
RAM	DDR3-1333 1GB	DDR3-1333 1GB
LAN	x1,10/100/1000Mbps	x1,10/100/1000Mbps
WLAN	Optional	Optional
HDD	1x 2.5" SATA	Optional
Flash Storage	Micro SD	8GB Micro SD with pre-installed OS
Video Output	2x HDMI	2x HDMI
Display Resolution	1920 x 1080	1920 x 1080
Output Channel	2 Expanded or Clone	2 Expanded or Clone
Supported Media Format	Hardware decode: MPEG1, MPEG2, VC1, H.264 Quality: 1x 1080p or 2x 720p	Video: MPEG1, MPEG2, VC1, H.264 Picture: JPG, BMP, PNG, ICO, ICP, GIF, TIFF, WMF Sound: WMA, AAC, MP3
Graphic Capability	1920 x 1080 raster image with advanced transition/ animated effect	1920 x 1080 raster image with advanced transition/ animated effect
Audio Output	1x Line-out, 1 x Line-in	1x Line-out, 1 x Line-in
TV Tuner	Optional	Optional
RS 232	1 (RJ45 Connector)	1 (RJ45 Connector)
USB 2.0	2	2
Expansion Slot	1x Mini-PCIe	1x Mini-PCIe
Power Type	12V DC	12V DC
Dimension (mm)	179.9 x 114.9 x 37.5	179.9 x 114.9 x 37.5
OS Support	Linux 2.6.x	Linux 2.6.x
Screen Support	N/A	Single display, two clone displays, or two expanded displays, or two independent displays. Portrait or landscape orientation. Presentation can be segmented to different screen layouts. Up to 4 zones in each screen layout.
Playing Effect	N/A	Scrolling text and emergency message. Multiple languages.
Management Function	N/A	Web-based management with password access control. Multilingual management interface. Presentation management. Presentation scheduling. Presentation play/ pause/ stop control function. System reboot, shutdown, firmware upgrade.
Presentation Design	N/A	Presentation layout and playlist editing function. Presentation and content file preview function. Presentation publish function.

In-vehicle Computer

Model		Coming Soon
	VTC 100	VMC 100
CPU	ARM® Cortex™-A8 RISC MPU	ARM® Cortex™-A8 RISC MPU
Memory	256MB DDR2 on board up to 512MB	256MB DDR2 on board up to 512MB
Storage	4GB Micro SDHC up to 16GB	4GB Micro SDHC up to 16GB
Power Input	DC 9V to 36V	DC 9V to 36V
Ignition Control	Yes w/ 8 level delay time setting	Yes w/ 8 level delay time setting
Power Management	Battery deep discharge protection	Battery deep discharge protection
GPS	Built-in	Built-in
WWAN	Optional	Optional
Wi-Fi	Optional	Optional
BT	Optional	N/A
USB	USB2.0 x2 (Front)	USB2.0 x1
COM	RS232 x1 RS485 x1	RS232 x2 RS485 x1
CAN Bus	Optional	Optional
Ethernet	10/100/1000 x1	10/100/1000 x1
Audio	Mic-in x1, Line-out x1	Mic-in x1, Line-out x1
GPIO	In x 3, Out x 3	N/A
Video Output	VGA	N/A
Mini-Card	N/A	N/A
DC Output	N/A	N/A
Dimension (mm) W x D x H	180 x 110 x 45	182 x 50 x 138
Certification	CE, FCC Class B	CE, FCC Class B
Operation Temperature	-20°C to 70°C	-20°C to 70°C
Operating System	WEC 7/ Linux	WEC 7/ Linux
LCD Size	N/A	7" TFT LCD
Resolution	N/A	800 x 480
Brightness	N/A	400cd/m^2
Contrast Ratio	N/A	600:1
View Angle	N/A	V:60/60 H:70/70
Brightness Adjustment	N/A	Auto via light sensor
Audio	N/A	Built-in speaker x2
Touch Screen	N/A	4-wire antiglare
Camera	N/A	Optional
Control Botton	N/A	Power button x1 Brightness control x2 Volume control x2
Mounting	N/A	VESA 75
Ingress Protection	N/A	Front Panel IP65

Computer-on-Modules

Model				
	ACES 3354	**GQ 8148**	**GQ 3874**	**GQ 4430**
SoC	TI- AM3354	TI- DM8148	TI- AM3874	TI- OMAP4430
ARM CPU	1x ARM® Cortex™-A8	1x ARM® Cortex™-A8	1x ARM® Cortex™-A8	2x ARM® Cortex™-A9
DSP	N/A	1x C674x	N/A	N/A
Max. MHz	up to 720MHz	up to 1GHz	up to 1GHz	up to 1.2GHz
Max. DMIPS	1440	2000	2000	5000
Graphic Accelerator	SGX530	SGX530	SGX530	SGX540
Hardware Accelerator	Up to 2x PRU-ICSS, Crypto Accelerator	N/A	N/A	N/A
Video Acelerator	N/A	1x HDVICP2	N/A	IVA3-HD
Form Factor	ULP-COM STD.01	Qseven v1.20	Qseven v1.20	Qseven v1.20
Dimension	82 x 50mm	70 x 70mm	70 x 70mm	70 x 70mm
Connector	MXM3.0/ 314pins	MXM2.0/ 230pins	MXM2.0/ 230pins	MXM2.0/ 230pins
RAM	DDR3 512MB/ 1GB	DDR3 512MB/ 1GB	DDR3 512MB/ 1GB	LPDDR2 1GB
Flash	eMMC 4GB/ 8GB	eMMC 4GB/ 8GB	eMMC 4GB/ 8GB	eMMC 4GB/ 8GB
HDMI	N/A	1080p	1080p	1080p
TTL	V	by edge connector	by edge connector	by edge connector
LVDS	V	V	V	V
Audio	V	V	V	V
Camera In	N/A	N/A	N/A	MIPI CSI- 2
Connectivity	MXM 3.0/ 314pins	MXM2.0/ 230pins	MXM2.0/ 230pins	MXM2.0/ 230pins
Network	1x GbE	2x GbE	2x GbE	1x FE (10/100)
Wireless	N/A	N/A	N/A	802.11b/g/n, BT v2.1
PCI Express	N/A	1x PCIe	1x PCIe	N/A
SATA	N/A	1x SATA	1x SATA	N/A
USB	1x USB 2.0	4x USB 2.0	4x USB 2.0	2x USB 2.0
USB-OTG	V	V	V	V
SDIO	V	V	V	V
UART	2x UART	4x UART	4x UART	3x UART
SPI	V	V	V	V
I2C	3x I2C	2x	2x	2x
GPIO	V	V	V	V
CAN	DCAN 2.0b	2x	2x	N/A
OS Support	Windows® Compact 7	Linux 2.6.x	Linux 2.6.x	Android 2.3.x
Carrier Board Evaluation	ACEB-35	BQ-35	BQ-35	BQ-35
Dimension (mm)	146 x 105	146 x 105	146 x 105	146 x 105
Ethernet	1x GbE/ RJ45	2x GbE/ RJ45	2x GbE/ RJ45	2x GbE/ RJ45
USB	1x USB 2.0/ Type A	2x USB 2.0/ type A	2x USB 2.0/ type A	2x USB 2.0/ type A
VGA	1x VGA/ DB15	1x VGA	1x VGA	1x VGA
HDMI	N/A	1x HDMI	1x HDMI	1x HDMI
UART	1x RS232/ DB9	N/A	N/A	N/A
micro-SD	1x mSD/ Push-Pull	1x mSD/ Push-Pull	1x mSD/ Push-Pull	1x mSD/ Push-Pull
SATA-SSD	N/A	Half Slim SATA/ MO297A	Half Slim SATA/ MO297A	Half Slim SATA/ MO297A
Power Input	DC + 12V/ Jack	DC + 12V/ Jack	DC + 12V/ Jack	DC + 12V/ Jack

Network Security Platform

Model			Coming Soon
	DNA 2610	DNA 2620	ISA 1610
CPU	freescale™ P1010 QorIQ Processor, 533MHz	freescale™ P1020 QorIQ Processor, 800MHz	freescale™ P1010 QorIQ Processor, 533MHz
RAM	On board DDR3 1GB Memory	On board DDR3 1GB Memory	On board DDR3 1GB Memory
Chipset	RTL8367VB-CG GbE Switch	Vitesse GbE L2 Switch VSC7385	MARVELL 88E6172 GbE switch
LAN Chip	N/A	N/A	N/A
GbE	2x LAN ports + 4x Switch ports	2x LAN ports + 4x Switch ports	2xLAN ports + 4x Switch ports
HDD	On board 256MB NAND Flash	On board 256MB NAND Flash	On board 256MB NAND Flash
CF	N/A	N/A	N/A
DOM	N/A	N/A	N/A
Serial	1x DB9 type console port	1x DB9 type console port	1x DB9 type console port
IDE/SATA	0/0	0/0	0/0
USB	1x rear	1x rear	N/A
Expansion	Mini-PCIe slot x2	Mini-PCIe slot x2	Mini-PCIe slot x1
LCM Module	N/A	N/A	N/A
Indicators	Power, GPIO Led	Power, HDD, GPIO Led	Power, GPIO Led
Power	40W power adaptor	40W power adaptor	40W power adaptor
Form Factor	Desktop	Desktop	DIN Rail
Dimenions (mm)	230 x 187 x 30	230 x 187 x 30	59 x 140 x 167

Headquarters

NEXCOM International Co., Ltd.
15F, No. 920, Chung-Cheng Rd., ZhongHe District, New Taipei City, 23586, Taiwan, R.O.C.
Tel: +886-2-8226-7786
Fax: +886-2-8226-7782
www.nexcom.com

America

USA
NEXCOM USA
2883 Bayview Drive,
Fremont CA 94538, USA
Tel: +1-510-656-2248
Fax: +1-510-656-2158
Email: sales@nexcom.com
www.nexcom.com

Asia

Taiwan
Central Taiwan Office
16F, No. 250, Sec. 2, Chongde Rd.,
Beitun Dist.,
Taichung City 406, R.O.C.
Tel: +886-4-2249-1179
Fax: +886-4-2249-1172
Email: sales@nexcom.com.tw
www.nexcom.com.tw

Japan
NEXCOM Japan
9F, Tamachi Hara Bldg.,
4-11-5, Shiba Minato-ku,
Tokyo, 108-0014, Japan
Tel: +81-3-5419-7830
Fax: +81-3-5419-7832
Email: sales@nexcom-jp.com
www.nexcom-jp.com

China

NEXCOM China
2F, Block 4, Venus Plaza, Bldg. 21,
ZhongGuanCun Software Park, No. 8,
Dongbeiwang West Rd., Haidian District,
Beijing, 100193, China
Tel: +86-10-8282-6599
Fax: +86-10-8282-5955
Email: sales@nexcom.cn
www.nexcom.cn

Shanghai Office
Room 1505, Greenland He Chuang Bldg.,
No. 450 Caoyang Rd.,
Shanghai, 200062, China
Tel: +86-21-6150-8008
Fax: +86-21-3251-6358
Email: sales@nexcom.cn
www.nexcom.cn

Nanjing Office
Hall C, Block 17, Tian Xing Cui Lang Bldg.,
No. 49 Yunnan North Rd.,
Nanjing, 210018, China
Tel: +86-25-8315-3486
Fax: +86-25-8315-3489
Email: sales@nexcom.cn
www.nexcom.cn

Shenzhen Office
Western Room 708, Block 210,
Tairan Industry & Trading Place, Futian Area,
Shenzhen, 518040, China
Tel: +86-755-8332 7203
Fax: +86-755-8332 7213
Email: sales@nexcom.cn
www.nexcom.cn

Wuhan Office
1-C1804/1805, Mingze Liwan, No. 519
South Luoshi Rd., Hongshan District,
Wuhan, 430070, China
Tel: +86-27-8722-7400
Fax: +86-27-8722-7400
Email: sales@nexcom.cn
www.nexcom.cn

Chengdu Office
9F, Shuxiangxie, Xuefu Garden,
No.12 Section 1, South Yihuan Rd.,
Chengdu, 610061, China
Tel: +86-28-8523-0186
Fax: +86-28-8523-0186
Email: sales@nexcom.cn
www.nexcom.cn

Europe

France
NEXCOM France
La Grande Arche-Paroi Nord,
92044 Paris La Défense, France
Tel: +33 (0) 1 40 90 33 35
Fax: +33 (0) 1 40 90 31 01
Email: sales.fr@nexcom.eu
www.nexcom.eu

Germany
NEXCOM GmbH
Leopoldstraße Business Centre,
Leopoldstraße 244,
80807 Munich, Germany
Tel: +49-89-208039-278
Fax: +49-89-208039-279
Email: sales.de@nexcom.eu
www.nexcom.eu

Italy
NEXCOM ITALIA S.r.l
Via Gaudenzio Ferrari 29,
21047 Saronno (VA), Italia
Tel: +39 02 9628 0333
Fax: +39 02 9286 9215
Email: nexcomitalia@nexcom.eu
www.nexcomitalia.it

United Kingdom
NEXCOM EUROPE
10 Vincent Avenue,
Crownhill Business Centre,
Milton Keynes, Buckinghamshire
MK8 0AB, United Kingdom
Tel: +44-1908-267121
Fax: +44-1908-262042
Email: sales.uk@nexcom.eu
www.nexcom.eu

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