







White Paper Improving Build-to-

Order Operations
with Digital Signage



Technology FocusNew Atom[™]

Processor D2700



What's Hot
Upcoming

8 Great Exhibitions



Dear Partners,

Following growth of 20% in 2011, NEXCOM expects to expand by a further 10% in the first quarter of year 2012. Therefore despite the ongoing economic turmoil, we continue to maintain steady and robust pace towards the "brave new IT world"! As a company tightly geared towards satisfying its supply chain and distribution network, NEXCOM always has to keep one step ahead of the competition, and does this with a combination of advanced new products and industry know-how. This enables the entire "ecosystem" of NEXCOM and its partners, to grow together.

To help us better serve our global network of customers, in the last quarter, we have recruited many more engineers, formed a new business unit, and expanded each subsidiary capacity to ensure we are ready to respond to any opportunity, in any corner of the world! For example, we have set up a new BU called "Intelligent Digital Security"-the IDS BU. This BU will provide the platforms and solutions in the surveillance application domain, including the IP camera, the mobile platforms, and the NVR, etc.

We have also expanded the organization, space, and the design and manufacturing capacity in NEXCOM China to provide the "customization at site" service, the low cost, yet high quality MIC (Made in China) products for China, as well as the worldwide market. And, we have also opened the "long stay" service to enable engineers from partner companies to co-develop products with NEXCOM. We welcome this kind of close collaboration to shorten the time to market, and build up the strong connections between engineers of NEXCOM and its partners.

In Q2, you'll see many new products available from NEXCOM: these include various Intel[®] Atom[™] processor D2700 based platforms, and the advanced 3rd generation Intel[®] Core[™] based products from our 3 BUs. This cutting

edge technology will be utilized in many of NEXCOM's most popular product lines including the VTC, NISE and NSA Series. New solutions include the CoreTM i7 based VTC 7110, the 3rd generation Intel[®] CoreTM based NISE 3600, NSA 5130, and NSA 3130.

Our ARM based platforms are also due for production at the end of Q1. From Q2, there will be many more models available, either the standard products or the "computer on module" boards with Q7 form factor for customer's further development. Our subsidiary, GreenBase Technology will first pioneer the market, with its strong programming and customization service for demanding customers. NEXCOM will always provide the H/W implementation and manufacturing service to GreenBase, or the partners directly.

So now we have the full line products based on Intel roadmap ranging from the 4 way, 8 core super servers down to the SoC type E600 series, or even "deeper embedded" in the near future. In the other hand, we have the ARM based platforms with low power, low cost, yet good performance for another huge market we never reached before.

This is an age of "paradigm shift" in products, in applications, even in the life style! It could mean big challenges, or huge opportunities, depending on how we deal with it. Let's keep two eyes on this developing trend, ride the high tide, and leapfrog to a new horizon!

Clement Lin

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EDITORS

Liyin Lin, Yihsuan Ho, Allison Fang, Stephen Ritchie

DESIGN

Wayne Chen, Jason Lee, Yisa Tsai

WEB

www.nexcom.com

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.



data | respons



Data Respons is a stepping stone into Asia for our customers, where our presence ensures an optimal synthesis of local innovation and global production. In addition, our customers can benefit from higher speed in delivery and a better cost-benefit ratio.

Your Bridge to ASIA

ata Respons office in Taipei acts like a "bridge" in the sense that it connects all Data Respons' global offices to our partners in Asia.

The communication between Data Respons, our customers and the Asian partners becomes smoother and the cultural differences and geographical distances are no longer an issue. Data Respons has established long-term strategic partnerships with all our partners in Asia. The Asian partnership model has been developed over a period of ten years, With an important milestone in 2001 when Data Respons opened an office in Taiwan. Data Respons is now expanding further into Asia with our new office in one of the most successful industrial areas in Shanghai, China.

- The close integration with our Asian partners, such as NEXCOM, into Data Respons global embedded development operations gives our customers higher speed and better quality, says Kenneth Ragnvaldsen, CEO in Data Respons ASA.
- Data Respons most important strategy is to be very close to our customers. In fact, we have offices in all important industrial regions in the Nordic and German market. Based on vital local customer knowledge, we can choose the right type of technology in close co-operation with Nexcom. We can then pick the right standard product or customize a solution based on existing computer platforms. The development, industrialization and delivery take place at an ever-increasing pace, and this demand our presence in every step of the embedded value chain, says Ragnvaldsen. Data Respons and Nexcom has a long-term and very close relationship that fuels this process and our combined competitiveness in the market

– A key success factor for Data Respons is that we are able to give our customers benefits in regards to faster development, production time and reduced cost alongside the latest technology. In order to succeed with these goals we must have a committed and trustworthy partnership like we have with our admired partner NEXCOM. Local innovation and global production is the future for us and will benefit our customers, concludes Ragnvaldsen.

Why Asia?

Speed

Local presence and strategic partnerships reduce the overall turnaround time.

Innovation

Access to the primary area for embedded technology in the world.

Cost

Asian high-volume production set-up with a better cost-benefit ratio.

This is Data Respons

Data Respons is a full-service, independent technology company and a leading player in the embedded solutions market. Established: 1986 Employees: 446 Offices: Norway, Sweden, Denmark, Germany, China & Taiwan Stock listing: Oslo Stock Exchange (ticker:

DAT)

Kenneth Ragnvaldsen CEO, Data Respons ASA

a smarter solution starts from











£M.



Mark Your Calendar for 8 Great Exhibitions

Please visit NEXCOM booths in following eight global trade shows.



Exhibitions

Date

Venue Booth No.

Location

Secutech

April 18-20

Taipei World Trade Center Nangang Exhibition Hall L812-L815 Taipei, Taiwan

NAFA Institue & Expo

April 22-23

ExpoAmerica Center 907

St. Louis, USA

Hannover Messe

April 23-27

Convention Center Hall 9. A67

Hannover, Germany

WasteExpo

May 1-3

Las Vegas Convention Center

Les Vegas, USA

IFSEC International

May 14-17

National Exhibition Centre 5/ B80

Birmingham, UK

COMPUTEX

June 5-9

Taipei World Trade Center Nangang Exhibition Hall K0628

Taipei, Taiwan

Digital Signage Japan

June 13-15

Makuhari Messe

Tokyo, Japan

Shanghai Digital Signage

June 27-29

INTEX Shanghai & Shanghai Mart B20

Shanghai, China

Intel[®] Atom[™] D2700

Faster, Cooler, Smaller, and Richer Graphics



Fanless Computer: NISE 104 **COM Express:** ICES 254

Embedded Computing: EBC 353/ 354, NEX 605 **Video Intelligent Surveillance:** NViS 2280, NViS 5240

Digital Signage Player: NDiS 126

ONISE 104

Fanless Computer

Intel® Atom™ processor D2700 based on Intel® 32nm process technology enables fanless computer NISE 104 to encroach further into embedded market segment. NISE 104 running at 2.13GHz with power consumption of 10W brings a new level of performance to NISE EZ controller. In addition, the fanless computer is packed with better graphics performance and I/O options to support dual displays, WWAN communications, networking functions, and CFast storage unit. Not only much more capable, NISE 104 is also compact in size and can transfer heat through cooling fins of fanless aluminum chassis. The ideal use of NISE 104 includes factory automation, machinery automation, public information, self-service kiosk, access control, and data acquisition controller.

2 ICES 254

COM Express Type 2

Based on Intel® Atom™ processor D2700 paired with Intel® ICH10R, ICES 254 will lead to a rapid escalation in value to COM Express market. The COM Express Compact module follows COM Express™ COM.0 Revision 2.0 specification; it supports faster DDR3 SO-DIMM memory, VGA/ LVDS/ HDMI high resolution display, and four SATA 2.0 storage units. In addition, ICES 254 enables application-specific carrier boards to support RAID 0/ 1 /5 / 10, ensuring quick access and integrity of data, images and videos

6 EBC 353/354

Embedded Computing

EBC 353 featuring low power consumption, abundant I/O capabilities and flexible expansion is the answer to fanless embedded computing platforms which impose stringent requirements on heat dissipation. EBC 353 paired with Intel® NM10 Express chipset can issue command, acquire data and guarantee the most reliable and efficient data

package transmission. It is ideal for fanless industrial automation, machine automation, factory automation and industrial control applications.

EBC 354 targeted at multimedia applications brings enhanced graphics performance into play. Thanks to integrated HD decoder and Intel® Graphics Media Accelerator 3600/3650, this 3.5" industrial embedded board can render a wider range of multimedia formats and support Full HD 1080p content playback. EBC 354 is also capable of dual display, providing a choice of two of the follow interfaces: HDMI, VGA, DIV-D, and 24/48-bit LVDS. EBC 354 is certainly targeted at digital signage, retail, hospitality, ATM and medical markets.

ONEX 605

Embedded Computing

Massive storage capacity, enhanced graphics performance, dual display outputs, and high expandability make the industrial motherboard NEX 605 especially attractive to graphics-intensive and storage applications. The embedded board powered by Intel[®] Atom[™] processor D2700 paired with Intel[®] ICH10R supports VGA, HDMI and LVDS, SATA 2.0, USB 2.0, mini-PCIe and PCIe x4. Security surveillance, digital signage, kiosk, NSA, and home/ SME storage sever will all gravitate to NEX 605.

6 NViS 2280

Rugged Mobile NVR

Based on Intel® Atom™ processor D2700 paired with Intel® NM10 Express chipset, rugged mobile NVR NViS 2280 turns megapixel surveillance in hostile mobile environments to reality. NViS 2280 integrates high bandwidth Gigabit PoE and GbE LAN interfaces; simultaneously up to sixteen channels of videos from

high megapixel IP cameras are transmitted at gigabit rates. Along with dual local display and various wireless technologies, NViS 2280 truly puts surveillance on wheels and delivers reliable performance despite environmental challenges such as vibration, power supply, space, and operating temperature.

ONViS 5240

Tower NVR

NViS 5240 featuring Intel® Atom™ processor D2700 supports surveillance recording and video playback. The 16-CH tower NVR can store more than 8TB video footage on four separate HDDs. NViS 5240 can be configured for Wi-Fi/3G connectivity whereby surveillance videos can be efficiently exchanged over the network. NViS 5240 enables application integration and increases system responsiveness in multi-tasking environments by means of Intel® Hyper-Threading Technology. For small and medium-sized entrepreneurs, nothing is better than a single solution which can address a broad range of applications in different business environments.

ONDIS 126

1080P Media Plaver

NEXCOM NDIS 126 is a compact, yet powerful, 1080P media player aimed at budget sensitive users. By integrating HD decoder and Intel® Graphics Media Accelerator 3600/3650 into the architecture, Intel® Atom™ processor D2700 boosts graphics performance of NDIS 126. The media player is capable of playing Full HD 1080P content on two independent displays. It also provides expansion flexibility, allowing users to leverage the options to acquire real-time status, perform immediate update, modify system configuration, and provide undefined contents such as TV programs.

Intel[®] Atom[™] Processor D2700 at a Glance



Clock speed breakthrough -

Clocking at 2.13GHz, Intel® Atom™ processor D2700 is the first Atom™ processor that jumps over the 2.0GHz speed hurdle.

Graphics performance -

Intel® Atom™ processor D2700 integrates Intel® Graphics Media Accelerator 3600/3650 and HD decoder. It supports Full HD content playback on dual displays via multiple output interfaces including VGA, HDMI, DisplayPort and LVDS.

32nm process technology -

Intel® Atom™
processor D2700
is the first Atom™
processor based
on Intel® 32nm
process technology,
which enables
more computing
power, less power
consumption and
better I/O options
in a smaller
footprint.

Flexible expansion -

Paired with Intel® ICH10R/ Intel® NM10 Express chipset, Intel® Atom™ processor D2700 supports SATA 2.0 mass storage and high-bandwidth interfaces such as PCIe, USB 2.0, and Gigabit Ethernet.

Cinema Chain Relies on NEXCOM's NDiS 161 Media Players for Immersive Visual Environment

ave Cinemas, the fifth largest theater circuit in the US by box office gross and number of screens is rolling out digital signage across its 67 locations. Offering both information and entertainment, the digital signage will create immersive and rich visual experience for their guests that begin when they walk in the doors of the cinema.

To map out a seamless digital experience, Rave has replaced LED box office signs with digital displays that are integrated with box office systems. Wayfinding displays in the lobby help moviegoers locate the right auditorium for their desired film, and provide the status of the auditorium (e.g., Seating, Cleaning, Now Showing). The concession stand menu boards provide dynamic promotions and suggestions for movie refreshments. Digital coming attraction posters incorporate Full HD video trailers into the traditional design.

What creates the immersive digital experience is Real Digital Media's enterprise class NEOCAST® platform, backboned on location by NEXCOM's NDiS 161 media

players. For flawless playout of high definition content, support of all required file formats and high reliability, NEXCOM NDiS 161 media player was chosen by Real Digital Media and Rave.



NDiS 161



NDIS 161 can display text, rich media, and high definition 1080P video, providing more engaging content as compared to traditional static backlit billboards. The fanless design of the NDIS 161 provides protection against dust ingress, requiring minimal care and providing very high reliability and a long service life.

Network connectivity is another quality of NDiS 161. Though racked centrally in the theaters' server room, the NEXCOM media players are managed remotely from Rave's operations center in Dallas, TX. Rave can therefore monitor, update, and manage digital signage from more than a thousand miles away.

Cinema is about all aspects of sensations. With full support for high definition content and assorted file formats, high reliability and network connectivity, NEXCOM NDiS 161 media player outputs content that enchants moviegoers and provides an outstanding entertainment experience to the sleepless city of Las Vegas, where digital signage is widely deployed around the city.



Improving Build-to-Order Operations with **Digital Signage**



eticulous execution in the build-to-order (BTO) business model is the key to survival for many small- and medium-sized enterprises (SMEs) across a variety of industries. To prove their BTO ability, these businesses must demonstrate the capacity to deliver highly customized products and services at a rapid speed. However, in today's, fast-paced, ever-changing business environments, the risk of errors and inefficiencies is higher than ever.

To overcome such challenges, many BTO operations are turning to digital signage systems. These systems provide high resolution graphics and video for guidance and training on standard operating procedures (SOPs) and step-by-step processes. With the ability to change content in an instant at one location or many, digital signage systems help employees quickly adapt to new processes and achieve higher performance levels at a cost-effective price.

In this paper, we provide eight tips on the benefits and advantages of digital signage systems. We also offer advice on what to look for in buying such a system for use in communicating SOPs on the factory floor. In terms of hardware, we particularly focus on the benefits of the new Intel® Atom™ processor D2700 and its use in one of our own digital media players, the NEXCOM NDIS 126.

The NEXCOM NDIS 126 is a fanless embedded computer powered by the latest Intel[®] Atom[™] D2700 2.13GHz processor, integrated Intel[®] GMA 3650 graphics, and up to 4GB DDR3 memory. This combination is powerful enough to support full HD 1080P video content over dual independent displays at a low rate of power consumption. The product can be configured with VGA and HDMI, or two HDMI ports.

Digital signage systems

A stand-alone digital signage system consists of a digital media player with content management capabilities and one or more electronic display screens. Systems with multiple media players will have a separate content management server designed for the creation, storage

and distribution of content to the media players over a network.

Industrial digital media players are embedded computing devices encased in a rugged chassis. A wide variety of display screens, including LCD, LED, and plasma screens, are available for use with these (and won't be discussed in this paper) .

Digital signage systems are becoming increasingly popular in public and private environments because, unlike static signage, their content can be quickly digitally updated, saving the time and cost of printing paper signs and instructions. Digital signage systems also are an excellent tool for communicating real-time information throughout a facility or even multiple facilities located thousands of miles from each other.

In factories, digital signage is excellent for providing explicit guidelines and visual diagrams to help keep workers from making avoidable mistakes and missing assembly steps. In chain restaurants, digital signage can provide precise steps and amounts for making each dish, as well as guidance for complying with health regulations. In a healthcare setting, digital signage can be used to detail proper execution of medical procedures that carry a high risk of bacterial infection, such as catheter insertion and replacement.

TIP 1: Quality communications ensure quality work

SOPs are essential to nearly all industries, and to ensure product and service quality, these SOPs must be communicated to employees. But how those SOPs are communicated is almost as important as the SOPs themselves. Better than just words are images. As the adage says, "a picture is worth a thousand words." In the age of digital displays, this is even truer. Today's digital signage enables superior delivery of SOPs through:

- Clear, sharp sequential images and explanatory text or narration
- Flash animations providing step-by-step instructions
- · Powerful multimedia, including video
- Animated 3D models
- Interactive training and presentations

For the most effective delivery of SOPs, BTO operations should look for digital signage systems designed to run high definition (HD) graphics and video. This allows the greatest precision and accuracy in the presentation of complex diagrams or concepts. By choosing a digital signage system that supports high resolution content and displays, businesses can help their staff carry out work assignments with scrupulous attention to detail.

TIP 2: Two screens are better than one

When numerous challenges or variables at particular stages in a process can affect product and service quality, two screens can often be better than one. For this reason, many digital signage systems are designed to run two screens in either clone mode (both screens display the same content) or distinct mode (each screen displays different content).



Digital signage that supports more than one display can serve various purposes. It can enable the coverage of multiple aspects of a process at once. It can provide a big picture view and a closeup view simultaneously. It can support two workers doing the same task but each needing their own screen. Or it can provide an economical way to provide guidelines or instructions to a larger group of employees at once than a system that just supports a single screen.

The Intel[®] Atom[™] processor D2700 is an excellent example of a very affordable processor that can drive two displays simultaneously. This processor includes multiple digital display output options, including HDMI and DisplayPort.

TIP 3: Quality and performance don't have to add up to a high price

As embedded devices, many digital signage systems employ the latest advances in system-on-chip (SoC) technology to deliver excellent processing performance and graphics quality at reasonable prices. For example, digital signage players, such as the NEXCOM NDIS 126, use the Intel[®] Atom™ processor D2700 as their SoC. This processor includes a dedicated media engine that enables full 1080p high-definition playback of videos and Blu-Ray content.

The Intel® Atom™ processor D2700 performs demanding video processing that was formerly offloaded to a separate graphics platform – and does it at a fraction of the power consumption. What's more, its integrated Intel® Graphics Media Accelerator 3600/ 3650, combined with integrated memory controller, delivers enhanced performance and system responsiveness. The Intel® Atom™ processor D2700 provides up to a 2x improvement in graphics performance compared to the previous generation platform.

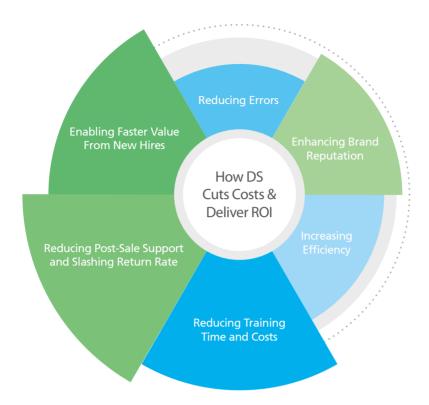
Bottom line? By making an external graphics processing unit (GPU) unnecessary, this processor enables HD digital signage systems to be more affordable and less power hungry.

TIP 4: Return on investment (ROI) doesn't have to be rocket science

When one considers the importance of having each step meticulously followed in BTO operations, using digital signage systems to guide personnel through SOPs and complete every step of a process properly practically guarantees ROI.

Ways digital signage systems can cut production and service costs and deliver ROI to BTO operations include:





- Reducing costly errors and accidents by providing clear instructions and diagrams.
- Increasing efficiency by helping personnel work through tasks in the most efficient manner.
- Reducing the amount of post-sale support and slashing the return rate by improving product quality.
- Enhancing brand reputation through product/service improvements and on-time delivery.
- Reducing training time and costs by giving better instructions on an interactive step-by-step basis.
- Enabling faster value from new hires through providing more on-the-job support.

Each of these savings and advantages mount up over time to repay the cost of a digital signage system many times over. Such ROI makes digital signage systems a great way to get the maximum profit and value out of the BTO business model.

TIP 5: Information should flow at the speed of business

Under the BTO business model, SOPs are often subject to changes that make the efficient transfer and circulation of

information critical to sustaining high product and service quality, as well as productivity. For this reason, it pays to select a digital signage system that supports the fast transfer of information over standard networks.

Network connectivity ensures that the consistency of distributed SOPs across the network can be assured in spite of frequent content updates. As a result, the risk of errors in document management is reduced and every staff member is kept on the same page.

Again, the Intel[®] Atom[™] processor D2700 in particular, paired with Intel[®] NM10 Express chipset, is ideal in this situation. It supports high bandwidth interfaces and multiple network connections, plus has the requisite processing power to receive updates in the background while continuing to perform its signage duties.

This processing performance is due to two factors:

As the first Intel[®] Atom[™] processer based on 32nm process technology, the Intel[®] Atom[™] processor D2700 runs at 2.13 GHz, breaking for the first time the 2.0 GHz core speed barrier for embedded Intel[®] Atom[™]

processors. This translates into significant performance improvements and the best-in-class response times of any Intel[®] Atom™ processor.

 Equipped with Intel® Hyper-Threading Technology, the Intel® Atom™ processor D2700 provides high performance-perwatt efficiency for increased system responsiveness in multi-tasking environments. With Intel® Hyper-Threading Technology, one execution core is seen as two logical

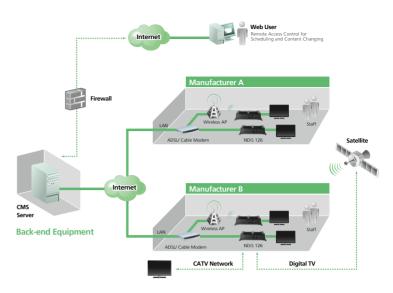
processors, and parallel threads are executed on a single core with shared resources.

Naturally, the processor is only part of the picture. A digital media player like the NEXCOM NDIS 126 comes equipped with LAN and WWAN connectivity that enables content updates from a content management server located in the same building or miles away. Content updates are executed nearly instantaneously – a huge advantage over paper-based signage that requires reprinting and redistribution each time there is a change.

TIP 6: The best training is hands-on interactive training

Comprehensive training programs that include SOPs are a great way to improve quality, efficiency and safety. One of the best ways to deliver this training is through digital signage systems incorporating interactive technologies like touchscreens. Such systems enable anytime training without the need to schedule training staff.

Gone are the days when training required the production of costly paper-based training materials. Interactive training enables employees to learn complex tasks at their own speed and test their knowledge at key points in the training. This helps reinforce instruction and keep employees engaged in the material. SMEs can also use digital signage systems to periodically test employees on SOPs and deliver remedial sessions in areas where employees need a refresher course.



To be effective for training purposes, a digital signage system should provide:

- Excellent HD graphics for animations and video to engage the user
- Fast response to user input so users stay engaged
- A content design and management system that makes it easy to quickly create effective interactive training materials

Teaming a platform like the NEXCOM NDiS 126 based on the Intel[®] Atom[™] processor D2700 with a touchscreencapable display makes the first two objectives easy to achieve. Such a system is designed for fast response to user input and the delivery of sharp HD graphics.



Content management software that runs on Intel® architecture is available from a wide variety of sources. A good example is NEXCOM's own PowerDigis V2 software. This application provides an excellent tool for the creation of interactive materials. It enables designation of active areas on the screen and corresponding actions for when those areas are touched. It also provides easy-to-use templates for use in organizing and presenting content.

TIP 7: The best things come in small packages

Space is at a premium in most BTO factories. But with all the advances in embedded design, powerful digital signage systems are available in small packages.

Each year the continual shrinking of process technology by Intel[®] enables smaller footprint devices to do more and offer more. The latest Intel[®] Atom™ processors use 32nm logic technology and Hi-k metal gate transistors to shrink the size of the processor core while at the same time enabling the integration of many components, such as graphics accelerators and media decoders, which used to require a separate unit on the circuit board. This enables more energy efficient devices that offer more capabilities and functionality for their size.

The power reductions afforded by the 32nm process technology also enable quiet, fanless designs that won't contribute to the sound levels of the factory floor. Companies like NEXCOM use all these features to make powerful media player designs in small form factors that are easy to find space for in any environment. Measuring just 185mm x 147mm x 49mm, the NDIS 126's footprint is smaller than a sheet of A5 paper.

TIP 8: Reliability keeps the production line humming

In working environments, heat, dust, humidity, and vibration all threaten to cause system performance degradation and premature failure. Therefore, reliability is a key factor to consider in digital signage systems for BTO operations.

Digital media players should use processors designed for rugged conditions. Processors such as the Intel[®] Atom™ D2700 processor are designed for low Thermal Design

Power (TDP) to reduce cooling requirements and enable smaller, sleeker industrial designs.

Players should be housed in a trouble-free fanless enclosures designed to keep out dust, protect against shock, and disperse heat efficiently. Again, the NEXCOM NDiS provides an excellent example. The system is housed in a rugged, fanless enclosed aluminum chassis designed to keep out dust and transfer heat through its cooling fins. This design protects against humidity and vibration, providing reliable operation and performance with minimum maintenance.

Conclusion

BTO is a demanding business model that requires careful attention to ensure orders are accurately filled and product and service quality are maintained to high standards. Digital signage systems enable SMEs to quickly and flexibly cope with a wide range of factors in making sure that SOPs and specifications are followed and customer expectations are met.

SMEs looking to use digital signage systems should follow the eight tips provided in this paper to ensure a good balance between performance and value that ensures excellent information flow, real-world reliability, and solid ROI. Such systems will help SMEs rise to the challenge of producing small lot-sized and highly customized products with higher quality and efficiency, while improving their profit margin.



19 Cutting Edge **New Products**

APPC 1930T/1931T

19" Light Industrial Panel PC Featuring SXGA

anless APPC 1930T/ 1931T are 19"4:3 industrialgrade LCD Panel PCs with LED backlight, resolutions up to 1280x 1024 (SXGA), and a industrial motherboard for versatile industrial applications. The front IP65 compliant panel provides protection from water and moisture damage and can even withstand high-pressure water jets enabling the surface to be easily cleaned. The APPC 1930T Panel PC has 2GbE LAN, 2x serial ports, 2x USB, PS2 KB/MS, and Line-in/Line-out/MIC-in.

With wide power input range from 12V to 30V, the APPC series is ideal for industrial applications and machine HMI controller. With additional VGA output, APPC series can

hook to a second display to play different content. Design for flexibility, customers can easily remove rear chassis to install additional components such as DDR3 memory, 2.5" HDD and 2x mini-PCle. For isolation transformers and surge protection, a second variant APPC 1931T is also available. In addition, APPC 1931T has two additional RS-232 COM ports, one GPIO port and 4 input/output for digital control.

- 4:3 19" 1280x 1024 fanless industrial grade LCD panel with 5-wire flush touch screen
- Intel® Atom™ D2700 (1M Cache, 2.13GHz), dual core, DDR3 support
- 2.5" HDD bracket, dual GbE, 2nd display-VGA, Line-in/ Line-out/ MIC-in, PS2 KB/MS
- USBx 4, 2x mini-PCle sockets, 1x external CFast socket,



EBC 353

Intel[®] Atom[™] Processor D2700-Based Embedded Computer for Automation Applications

BC 353 3.5" industrial embedded board computer is best used within machine automation, factory automation and Industrial control. Based on Intel® Atom™ dual core processor D2700 with 1MB L3 cache, EBC 353 supports DDR3 SO-DIMM SDRAM module. The integrated graphics and HD video decoder enable this board to process multiple video formats while consume around 10W. Also supported are two independent displays via CRT, 18/24bit LVDS, and DVI. Other interfaces includes dual GbE LAN, one mini-PCle, four series ports, and PCI-104, which is an industrial control bus specially designed for embedded control.

- Intel[®] Atom[™] processor D2700 at 2.13GHz & NM10 chipset
- SO-DIMM DDR3-1067MHz 4GB Max.
- Two independent displays via VGA, DVI-D, 18/24bit LVDS
- Mini-PCle, PCI-104, 3x RS232, 1x RS232/422/485 port, 2x SATA, 6x USB, 4-in/4-out GPIO, Mic-in, Speak out
- Dual Intel® 82574L GbE
- Support AT/ATX mode and single +12 Vdc input



FRC 35

EBC 354

New Atom[™] Processor D2700-Based Industrial Embedded Board for Multi-Media Applications

argeted at multimedia applications, the 3.5" EBC 354 featuring Intel® Atom™ dual core processor D2700 combines decent graphics performance with energy efficiency. It supports MPEG2, H.264, VC-1/WMV9 video playback and two displays via HDMI, CRT, DVI and 18/24bit LVDS. EBC 354 also supports network connectivity via dual GbE ports and two mini-PCIe slots. Along with four series ports, EBC 354 can be

utilized within digital signage, retail, hospitality, ATM and medical markets.

- Intel[®] Atom[™] processor D2700 at 2.13GHz & NM10 chipset
- Two independent displays via VGA, DVI-D, HDMI, 18/24bit LVDS
- 2x mini-PCle, 3x RS232, 1x RS232/422/485 port, 6x USB, 4-in/4-out GPIO, Mic-in, Speak out
- Support AT/ATX mode and Single +12 Vdc input
- Dual Intel[®] 82574L GbE





EBC 354

ICFS 254

COM Express Module with Rich SATA

he ICES 254 is a COM Express Type 2 compact module that features Intel® Atom™ dual core processor D2700 with ICH10R chipset to support RAID 0/1/5/10, and one DDR3 SO-DIMM memory socket up to 4GB DDR3 SDRAM/ 1067MHz.



ICES 254

The ICES 254 is equipped with Intel® HD graphics engine to support dual displays of CRT resolution up to 1920x 1200 @ 60Hz, single channel 18-/ 24-bit LVDS up to 1440x 900 and HDMI 1080p. The high performance ICES 254 COM Express module supports 4x SATA, 8x USB 2.0, IDE, PCI, five PCIex1 lanes and HDMI through the carrier board. The ICES 254 is compatible with NEXCOM's own ICEB 8050 carrier board.

- Intel[®] Atom[™] dual core processor D2700, 2.13GHz
- Intel® ICH10R to support RAID 0/1/5/10
- 1x DDR3 SO-DIMM socket up to 4GB
- Type 2 COM Express compact size
- 32 bit PCI interface, one IDE, Gigabit LAN and HDMI

NEX 607

Streams Videos to Big Screen for Multimedia and Surveillance Applications

EX 607 is a Mini-ITX industrial motherboard for embedded computers. The board is based on FCPGA 988 socket-type Intel® Core™ i7/i5/i3 and Celeron® mobile processors paired with QM67 PCH Express chipset. NEX 607 has up to 8GB DDR3 1066/1333Mhz memory and an integrated Intel® HD Graphics 3000 engine to deliver powerful graphics performance. The ultra-reliable Mini-ITX board is packed with four SATA, four serial ports, ten USB 2.0 ports, two GbE LAN ports, one PCIe x16 slot, and one mini-

PCIe. Industrial-Grade NEX 607 offers exceptional flexibility at an affordable total-cost-of ownership. The ideal use includes digital signage, POS, multimedia, storage server, machine automation and factory automation.

- 2nd generation Intel[®] Core[™] i3/i5/i7 processor, Intel[®]
 QM67 chipset
- Two 204-pin SO-DIMM socket supports up to 8 GB DDR3 1066/1333 MHz SDRAM
- VGA & DVI-D & HDMI & LVDS displays support (2 x DF13 20-pin 18/24/36/48-bit dual channel)
- 4x SATA, 1x mini-PCle, 1x PCle x16 slot, 2x Intel[®] GbE
- 10x USB, 4-in/4-out GPIO, Mic-in, Line-out
- Serial port: 3x RS232, 1x RS232/422/485 port
- Support AT/ATX mode and single +12 Vdc input



NPT 5850

High Performance 15" TFT LCD POS Terminal with IP65 Front Protection

PT 5850 is a high performance POS hardware solution featuring 2nd generation Intel[®] Core™ i3/i5/i7 mobile processor platform. The innovative design features a removable HDD, MSR, fingerprint and VFD kit which provides easy access for maintenance thus saving your service cost. The DC-12V output provides sufficient power to drive a secondary



display from POS terminal and offers better cable routing and high-integration. The platform's small footprint is ideal for installations where space is critical such as in retail stores. The VESA mounting design of display head, only 100x 100mm, provides another mounting option. The design offers a spill resistant and highly integrated range of POS peripherals, which provides restaurant and retail applications with continuous operation.

- 15" 4:3 XGA (1024*768) TFT LCD panel
- 15" projected capacitive true flat touch screen
- Intel[®] Core[™] i3/i5/i7 mobile processor, 2.1GHz
- 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
- MSR, VFD and VGA (Optional)

NViS 2280

Mobil NVR Speeds up Video Transmission with Gigabit PoE

ViS 2280 is a rugged mobile NVR system powered by Intel[®] Atom™ D2700 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[™] D2700 dual core 2.13GHz processor
- Diversity wireless communication (WWAN/ WLAN/ BT/ GPS)
- · Four Gigabit PoE ports
- MIL-STD-810F 514.5 C3 composite wheeled vehicle verified



NViS 5240

Help SME Retailers Make the Most out of Security Surveillance

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VR surveillance system NViS 5240 is tailored for SME retailers. Featuring Intel[®] Atom[™] processor D2700, NViS 5240 can support both recording



and playback, coordinate up to 16 channels megapixel IP cameras via dual GbE LAN, and store more than 12TB video footage in its four 3.5" hot-swappable HDD trays (3TBx 4). Two independent displays are also supported via HDMI/VGA connectors. Based on Windows Embedded operating system, NViS 5240 can run VMS, ERP, POS, CRM, SCM and more together. This feature is especially particle to small and medium-sized entrepreneurs who need to address different goals in the business environment.

- 4 bay tower NVR surveillance system
- Intel[®] Atom[™] D2700 dual core 2.13GHz processor
- Dual local display (VGA+ HDMI)
- Two Intel[®] GbE, support up to 16CH IP camera connection
- Four hot-swappable HDD tray

NViS 6210/6220

High-Powered Hybrid DVR/ NVR Rules Enterprise Security Surveillance

ecurity surveillance platform NViS 6210/ 6220 has a combination of great features at an exceptional price point. Featuring the 2nd generation Intel® Core™ i3/i5/i7 desktop processors, the NViS 6200 series is capable of simultaneous recording and display for up to 32 channels of both IP and analog cameras with 960fps of 720x480 D1 resolutions. It allows existing security surveillance systems to incorporate advanced IP-based capabilities and, better still, recording and real-time playback functions with a single platform. It has eight 3.5″ hot-swappable HDD trays and can hold up to 24TB videos.

With video decoder chips onboard, NViS 6200 series ensures highly reliable performance in a sturdy 2U chassis. Incorporating Intel® vPro™ technology, NViS 6200 series is the ideal platform for large scale security surveillance deployments including metropolitan security, public safety, enterprise security, and buildings security.

- · 2U rack enterprise hybrid DVR surveillance system
- Support 2nd generation Intel[®] Core[™] i3/i5/i7 desktop processor
- · Video decoder (TW6816) chips on-board
- DVR capability: up to 32CH 960/900FPS @D1 display & recording
- NVR capability: up to 8CH display and 128CH recording @1080P
- Two Intel® GbE, support Intel® AMT 7.0 for remote management
- Eight hot-swappable HDD tray and dual local display (VGA/DVI/HDMI)



VTC 7110

Powerful Vehicle Computer with Flexible Expansion

TC 7110 series, a new generation of VTC series, combines several powerful and rich features for vehicle application requiring more powerful processor performance. It adopts Intel® Core™ i7 processor but remains its traditional design- fanless for reliability concern. For the smart and efficient power control, you can wake the device either by the clock or by texting the message through mobile phone. To enhance the seamless connection, it has dual SIM slots support. The utmost attractive design is its expandable capability to house varied features by customers' demands. This includes the isolation digital I/O ports along with CAN bus in support of SAE J1939 and J1708, and POE that can support up to 8-channel. These features can address the different vehicle segment such as truck fleet management and mobile surveillance.

- Built-in Intel[®] Core[™] i7 2610UE 1.5GHz processor
- Optional CAN bus in support of SAE J1939 or J1708
- Dual SIM slots available
- Wake on RTC/ SMS
- Optional variety wireless communication (WLAN/BT/ WWAN)
- Accessible dual storage interface
- · Rich expansion capability
- Wide range DC power input (9~36V)



VMD 1001/2000/2001

WVGA TFT LCD Display Monitor with Touch Screen and Smart Brightness Control

MD 1000 and VMD 2000/ 2001 have 7" and 8" displays respectively. All adopts industrial high brightness LCD panel up to 1000 nits with LED backlight. The VMD series is therefore highly differentiated from the consumer monitor markets and targeted at vehicular applications. Moreover, for easy maintenance VMD series has several friendly features including automatically brightness control, the IP54 front panel, USB and card reader and camera sensor, and supports for wide 9~36V DC power input. VMD 1000/2001 can

perfectly match with any devices via VGA output; and VMD 2000 can be used with VTC series devices via the 26-pin LVDS cable.

- 7"/ 8" WVGA TFT LCD with LED backlight
- · Automatic/ manual brightness control
- Support USB 2.0 and card reader
- · Camera sensor on front panel (Optional)
- · Front panel compliant with IP54



VMD 2000/2001



VMD 1001

NDiS 126

New Atom™ D2700-Based Powerful 1080P Media Player

Dis 126 is a cost-effective media player is based on new Intel® Atom™ processor D2700. It comes with enhanced graphic engine and video decoder and therefore is powerful enough to support Full HD 1080P contents on dual independent displays. Besides the default HDMI port, an additional HDMI or

VGA output is also available allowing systems integrators to serve users with different preferences.

The player accommodates one Mini PCle slot, a SIM card holder, two GbE LAN ports, and six USB ports. Users can leverage the options to acquire real-time status and content update.





- Intel[®] Atom[™] processor D2700
- Low power consumption
- · Compact and fanless
- Dual GbE LAN
- Intel[®] Hyper-Threading support
- Intel[®] GMA 3650 Integrated Graphic Engine

NDiS 127

Small 1080P Signage Player Reaches High Graphics Performance

owered by AMD G-series T56N dual core Accelerated Processing Unit, NDiS 127 can play rich multimedia contents but consumes little power. Integrated with AMD Radeon™ HD6320 Graphic Processing Unit in APU, NDiS 127 supports 1080P video playback and DirectX 11 to demonstrate high impact contents through dual

displays. NDiS 127 is housed in a maintenance-free fanless chassis with compact size. NDiS 127 is designed to fulfill small form factor, low cost, high reliability and low power requirement in digital signage application.

- AMD G-series T56N 1.65GHz dual core APU
- Integrated AMD Radeon™ HD6320 GPU
- · Fanless and compact design
- 1x half-size mini-PCIe slot for TV tuner/ WLAN support
- 1x Mini PCIe slot for mSATA storage
- DirectX 11 support Full HD video playback





PDSB 102

ARM-Based Digital Signage Appliance Is Aimed at Budget Sensitive Users

DSB 102 is an ARM-based digital signage player preloaded with user-friendly digital signage software, targeting for power saving and low cost digital signage applications. PDSB 102 is enclosed in a slim and compact chassis with very low power consumption and can be easily integrated to display device such as LCD TV or PDP at site installation. PDSB 102 is capable to layout display into multiple rectangle zones and play rich multimedia contents. With maintenance-free fanless design, PDSB 102 offers exceptional reliability. PDSB 102 is ideal for entertainment venues, hotels, and public transportation to deliver dynamic messages and advertising.

- · ARM Cortex-A8 RISC MPU
- Onboard 1GB DDR3 memory support
- Integrated graphics accelerator supports dual Full HD video
- · Fanless and compact design
- · Pre-loaded digital signage software



DNA 3600

NEXCOM's 1st Network Security Platform Implements FreeScale QorlQ Processor

he DNA 3600 is NEXCOM's first desktop network platform to implement the FreeScale QorlQ Processor P1020/ P2020 for embedded applications. DNA 3600 allows home and small businesses to better use and manage energy in network security device. As an entry-level desktop network security platform with small and slim chassis, DNA 3600 is designed to act as the solid foundation on which to host NAPT/Firewall and Encrypted Virtual Private Network (VPN), as well as SMB/ Branch Office Router.

- · Desktop network platform with fanless design
- FreeScale QorlQ P1020/ P2020 processor, dual core, up to 1.2GHz

- On-board DDR3 1GB memory
- On-board up to 256MB NAND Flash
- On-board up to 32MB NOR Flash (optional)
- Support 2 WAN and 4 LAN GbE ports, 1x mini-PCle expansion socket



DNA 3600

NSA 3130

A New Perfect Combination of Performance and Price in Network Security Platform

he NSA 3130 network security platform utilizes Intel® Pentium® G850/ Celeron® G540 processor based on 32nm process technology. With the powerful CPU, NSA 3130 is capable of offering mighty computing performance and great expansion capability. NSA 3130 not only speeds up multitasks; meanwhile, remains to safeguard against all network threats. Moreover, to meet demands in diverse markets, NSA 3130 is able to verify third-party applications, and offers rich I/O options. In addition to long product lifecycle supports, NSA 3130 demonstrates more flexibility, unbreakable security and reliability to satisfy various network security applications.

- 1U 19" rackmount in the size of 426mm (W) x 365mm (D) x 44mm (H)
- Intel[®] Pentium[®] G850/ Celeron[®] G540 processor
- Intel[®] H61 PCH integrated graphics
- 2 DDR3 1066/1333 memory, up to 16GB
- 8 GbE LAN ports with 4 pairs dual latch bypass
- Support one PCle x16 expansion slot
- 1x 3.5" SATA HDD bay



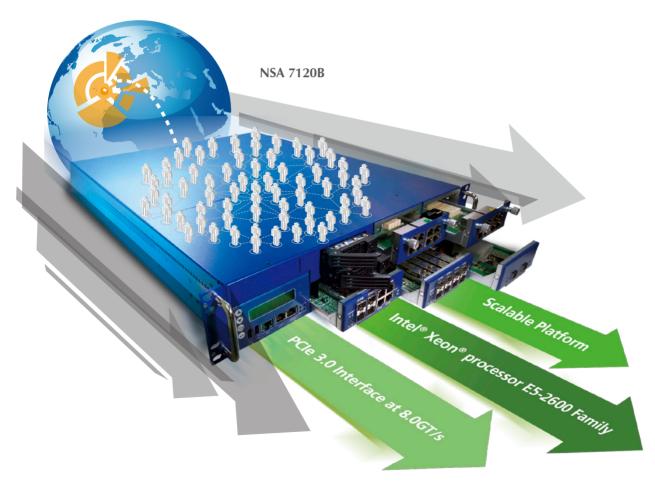
NSA 7120B

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

SA 7120B 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 7120B 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 7120B 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.

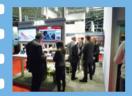
Better still, the gains in performance come with lower power consumption due to the new 32nm process technology. The scalable NSA 7120B encompasses greater capability, higher memory capacity, larger bandwidth and improved connectivity. It will help create a more flexible network environment where the instruction is executed, data accessed and information transmitted at a faster speed with less energy.

- 2U 19" network platform, 580mm system
- Support dual Intel[®] Xeon[®] processor E5-2600 family
- 12 DDR3 1066/1333/1600 DIMMs, up to 96GB
- Max. 5x PCIe LAN modules
- · One optional PCIe x16 expansion slot
- 3 swappable 2.5" HDD bays
- 460W 1+1 ATX redundant PSU

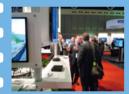


NEXCOM Achieves Great Success with Digital Signage at ISE















t ISE 2012, NEXCOM achieved its most successful Digital Signage Exhibition to date. The stars of the show for NEXCOM were the cost effective players NDiS 126 and NDiS 127; the high-performance NDiS 166; and the video wall NDiS 542.

The new NDiS 126 and NDiS 127 digital signage players' both caught the imagination at ISE. NDiS 126, based on Intel[®] Atom[™] processor D2700 and Intel[®] Graphics Media Accelerator 3650, is aimed at budget sensitive users and is a top

notch solution for advertising, brand promotion and digital menu board applications. Whilst NDiS 127 is a powerful Digital Signage Solution which is based on AMD's new Embedded G-Series T56N APU, furthermore its removable HDD design ensures expansion can be upgraded.

In addition to our ultra-reliable range of hardware platforms, NEXCOM also showcased a selection of total Digital Signage Solutions, which enable users to upgrade their system with user-friendly digital signage software PowerDigiS V2.



NEXCOM Raises High Bar for Quick and Secure Network Access

he more the world is connected, the heavier the workload of back-end infrastructure grows. To increase the performance of network communication in this scenario, NEXCOM demonstrates its latest network security platform, NSA 7120A based on the next-generation communications platform from Intel, codename "Crystal Forest", at RSA Conference in San Francisco.

NSA 7120A, based on the next-generation

communications platform from Intel®, accelerates the performance of network communication by accelerating specialized packet processing. Value-added communication features and network security measures such as packet processing, cryptography, data compression and decompression are carried out by the Intel® QuickAssist Technology. Combined with the Intel® Data Plane Development Kit (Intel® DPDK), NSA 7120A can boast overall system performance with a more efficient allocation of processor resources.



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.tw

America

USA

NEXCOM USA

3758 Spinnaker Court Fremont, CA, 94538, USA Tel: +1-510-656-2248 Fax: +1-510-656-2158 Email: sales@nexcom.com

Asia

Japan

NEXCOM Japan

www.nexcom-jp.com

PF, 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

China

NEXCOM China

2F, Block 4, Venus Plaza, Building 21, ZhongGuanCun Software Park, No.8, Dongbeiwang West Road, Haidian District, Beijing, 100193, China Tel: +86-10-8282-5880 Fax: +86-10-8282-5955 Email: sales@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

Shenzhen Office

www.nexcom.cn

Western Room 708, Block 210, Tairan Industry & Trading Place, Futian Area, Shenzhen, 518040, China Tel: +86-755-833 7203 Fax: +86-755-833 7213 Email: sales@nexcom.cn

Leopolastrabe business Cent Leopoldstraße 244, 80807 Munich, Germany Tel: +49-89-208039-278 Fax: +49-89-208039-279 Email: sales.de@nexcom.eu www.nexcom.eu

NEXCOM ITALIA S.r.I

Europe

NEXCOM France

www.nexcom.eu

Germany NEXCOM GmbH

Italy

Z.I. des Amandiers 17, Rue des entrepreneurs, 78420 Carrières sur Seine, France Tel: +33 (0)1 71 51 10 20 Fax: +33 (0)1 71 51 10 21 Email: sales.fr@nexcom.eu

Leopoldstraße Business Centre,

France

Via Gaudenzio Ferrari 29, 21047 Saronno (VA), Italia Tel: +39 02 9628 0333 Fax: +39 02 9619 8846 Email: sales.it@nexcom.eu

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

