A Passion for Quality, Security and Connectivity

2016
Network and Communication Solutions

- Network Application Appliances
- Network Security Appliance
- Henge™ Industry Solution

www.nexcom.com
Network and Communication Solutions

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- NS 025
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Mainstream Platform
- NSA 5150 027
- NSA 5150HA 029
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Henge™ Industry Solution

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About NEXCOM

Reliable Partner for the Intelligent Solutions

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

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

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

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

Corporate Vision

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

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

Corporate Mission

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

Business Strategy

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

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

Innovation, Quality, Speed 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.

NEXCOM offers solutions for IoT gateway, robot controller, connected cars, Industry 4.0, and industrial security applications. The team is encouraged to “Think with New Ideas” and “Know how to make it and do it right first time”. In addition, NEXCOM’s R&D team has been expanded to over 300 engineers with the ration of software engineers to hardware engineers coming to about 1:1, and remains as one of core competences of the company.

Versatile Design Capabilities

- Fanless technology for industrial 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.

Inventory/ Shipping

- SMT Process
- AOI Checking
- DIP Process
- Touch Up & Power-On Test

Closed-Loop Quality Assurance System

- 105E II AQL 0.65%
- 20% Dynamic Burn-In
- 100% Function Test
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.
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 intelligent systems 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

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:

<table>
<thead>
<tr>
<th>Prompt Time-to-Market</th>
<th>Flexible Design and Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEXCOM possesses 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.</td>
<td>NEXCOM possesses a complete R&amp;D team to design and engineer the latest industrial grade products. As R&amp;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&amp;D capabilities, the state of art manufacturing facility and production lines enables NEXCOM to offer a flexible manufacturing with highly skilled factory staff.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rigid Quality Control</th>
<th>Extensive DMS Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>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”.</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Level</th>
<th>Service Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Logo Re-brand</td>
<td>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.</td>
</tr>
<tr>
<td>2</td>
<td>Customerized Build</td>
<td>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.</td>
</tr>
<tr>
<td>3</td>
<td>Manufacturing Service</td>
<td>Contract manufacturing. The service scope includes system assembly &amp; burn-in, software loading &amp; testing. MOQ and manufacturing service charge are required.</td>
</tr>
<tr>
<td>4</td>
<td>New Project</td>
<td>The design of new board &amp; system is available. NRE and quantity commitment are required.</td>
</tr>
</tbody>
</table>
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 Telematics 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.

**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.

**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.

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

The Diversify Network Application Solutions

As consumers demand more sophisticated services over increasingly advanced networks, managing complexity is becoming more challenging. While enterprises and service providers alike may dream of simply replacing existing networks, the reality is that most legacy installations still work beautifully, forcing networks from various generations to co-exist and interconnect seamlessly for the foreseeable future.

NEXCOM offers a media appliance that interconnects different types of media streams to create a transparent end-to-end path for voice, video, and data in corporations and service provider environments. Available in a range of functionality and sizes, these gateways may also include premier bandwidth and codec optimization that can reduce costs significantly in the access and core portions of the network.

Rising to this interwork challenge, NEXCOM supplies a full suite of products ready to deliver video calls, text messaging, and location-based services and many other high-demand services over mobile, VoIP, and traditional networks. Whatever the need- from switching to transport- NEXCOM supplies the technology to create, manage and security control, voice, video, and data sessions simultaneously to meet your business.

VoIP Application Diagram
Is Your Info Protected?

The invention of the Internet has broken down geographic barriers and created numerous business opportunities, however the Internet has also exposed businesses to the catastrophic danger of web attack. In the e-business generation, a company’s daily operation relies on the Internet. Without proper Internet and network protection, an organization operation could be severely damaged by Internet attack, such as malicious hacking and security breach. Where a security breach occurs, the true cost of the incident is often difficult to measure, but could include the cost of server down time, stolen or lost data and subsequent loss of an organization’s reputation.

The Most Trustworthy Network Security Solutions

To protect all of your valuable investments, NEXCOM offers a full range of network security platforms. Designed to fit various Network environments, NEXCOM’s Network Security Appliances are designed to act as the solid foundation on which to host Virtual Private Network (VPN) as well as load balancing and Intrusion Detection System/Intrusion Prevention System (IDS/IPS). NEXCOM’s network security solutions provide highly secure platforms to ensure the normal operation of your critical business systems.

Applications
- SSL VPN
- Link Load Balancing
- IDP/IPS
- Bandwidth Management
- Firewall
- Anti-Spyware
- UTM
- Network Access Control
- Web Filter
- AntiVirus Wall
- Core Switch
- Server Load Balancing
- IM Filter (Instant Message)
- Anti-Spam
- AAA Server
The HENGE™ Family

Industrial facilities, systems, machines and devices are getting more and more connected for the benefit of enhanced efficiency. To ensure enhancements come with consistency, NEXCOM HENGE™ family has integrated rich functionality, scalability, and ruggedness into the CoreFort™ Industry Firewall series and the CoreVault™ Industry Network-Attached Storage series to provide reliable security, storage, and networking for industrial applications.

The CoreFort™ Series

The CoreFort™ series is a fully integrated industrial multi-port firewall router with VPN function, the CoreFort™ Industry Firewall provides a remote access infrastructure to secure connections, and helps machine builder/system integrator to design easily maintained systems. Furthermore, its tough fully-rugged design is ideal for harsh environment applications. With wide temperature range to 70°C (158°F) degree, it offers reliable communication network in extreme temperature conditions.

Protect Critical Assets Against Cyber Threats

In recent years, rising demand in electricity intensively presses power plants to provide more renewable energy at lower price. By leveraging existing IP infrastructure, power plants can maximize plant efficiency and reliability through automation, integration, and optimization of the entire plant. However, the electrical, environmental and operational requirements of process control system can make IT security solutions unsuitable for control networks. As a result, many critical systems operate with little protection against accidental or malicious cyber attacks. Entire plants have been shut down due to an infected USB thumb drive.

The stateful firewall router can not only examine a packet more deeply to eliminate the chance a packet pretending what it’s not and possible damage, but also can keep track of incoming and outgoing traffic’s connection states. With the aid of stateful firewall/NAT function, the CoreFort™ Industry Firewall series provides comprehensive protection for critical cyber assets against network security threats.

Increase Operational Efficiency

In a volatile world economy, market presents both challenges and opportunities for companies, such as setting up profitable growth, expanding into new territories, differentiation and more. Traditionally, machine control network for automation is a closed network with narrow bandwidth, which makes remote machine diagnosis more difficult. Now, thanks to the rapid decline in IP network cost. With remote-access solution, machine builder/
system integrator can improve business operations by reducing emergency service calls, inefficient on-site technical services, and so on. Furthermore, the advantages include remote accessibility, easy installation and integration, and better scalability, flexibility and cost effectiveness.

For remote machine diagnosis scenarios, the firewall router can be used as a VPN gateway for IPSec/SSL VPN tunnels. With VPN gateway and client functions, the firewall router supplies encrypted network connectivity over a possibly long physical distance and work over both private networks as well as public networks like the Internet. The CoreFort™ Industry Firewall series is designed to provide remote machine monitoring with VPN tunnels to increase operational efficiency, reduced costs and increased margins.

Connect with Simplicity, Efficiency, Security

With the CoreFort™ VPN dispatcher you can define and manage network connections with extreme flexibility, adapting them to suit your specific needs:
- Create multiple and distributed networks using VPN gateway to gateway
- Enable remote user connections to your network and take advantage of the intuitive VPN client, which is universally compatible with Windows, Mac OS X and Linux
- Define custom per-user profiles to provide enhanced security and more control over user connections

The CoreVault™ Series

The CoreVault™ series consists of extremely rugged network-attached storage (NAS) devices to provide high performance, reliability and capacity of data storage in harsh environments. Equipped with a unique storage technology, the series offers high level of data accuracy for use in industries including oil and gas, transportation, industrial automation and more.

High Performance, Reliability, Capacity & Endurance

Furthermore, the Core Vault™ series offers various data recovery options. The Remote Replication feature supports data backup to remote NAS or FTP servers and synchronizes files to remote folders from local folders with better backup efficiency and reduced backup time. It also supports rsync protocol to back up data to remote servers on a scheduled basis. It is compatible with SMB/CIFS, NFS, and AFP protocols for file sharing across Windows, Mac, and Linux/UNIX networks. The Core Vault™ series also supports Access Control List (ACL), enabling system administrators to easily configure user permissions.

The Core Vault™ series is built with a fanless, power-efficient, dust- and water-resistant chassis with IP 54 rating. This sealed enclosure eliminates the use of failure-prone fans, increasing system reliability and preventing dust and water ingress.

The Core Vault™ series is also compliant with EN50155 (railway applications) and EN61373 (vibrations & shocks) to deliver reliable video surveillance recording for a wide variety of railway transportation applications.

With data interception technology, the Core Vault™ series is also equipped with a fanless, power-efficient, dust- and water-resistant chassis with IP 54 rating. This sealed enclosure eliminates the use of failure-prone fans, increasing system reliability and preventing dust and water ingress.

The Core Vault™ series is also compliant with EN50155 (railway applications) and EN61373 (vibrations & shocks) to deliver reliable video surveillance recording for a wide variety of railway transportation applications.

With data interception technology, the Core Vault™ series provides intelligent data and drive protections against extremes of heat and vibration, making it suitable for a variety of industrial applications.
2016 New Products

NSA 7135
Dual Intel® Xeon® E5-2600 V3 Processors for Multi-Thread Network
- Dual Intel® Xeon® E5-2600 V3 processors
- Support DDR4 1866/2133 ECC & REG, up to 512GB
- Modular design supports 8 PCIe LAN modules
- Support swappable 3.5” SATA/SAS HDD
- Support CRPS (1 + 1) redundant power supply
- Support LCD module

NSA 5160
Intel® Xeon® Processor D-1500 Product Family, 1U Rackmount with 8 PCIe GbE LAN & LAN Module
- 1U rackmount network platform
- Intel® Xeon® processor D-1500 product family
- Support DDR4 2133 ECC & REG, up to 128GB
- On-board 8G LAN copper + 2 x 10G SFP+
- Up to Two LAN modules support

NSA 5150HA
4th Gen. Intel® Core™ Processor, 1U Rackmount with 8 PCIe GbE LAN & LAN Module, Dual PSU
- 1U rackmount network platform
- Supports 4th generation Intel® Xeon® E3-1200 v3/Core™ processors
- Support four DDR3 1333/1600 memory, up to 32GB
- Support one PCIe8 expansion
- Redundant 220 watt PSU

NSA 5170
Intel® 6th Gen. XEON®/Core™/Pentium® Processors, 1U Rackmount with 6~16 GbE LAN & 3 LAN Module
- 1U UP workstation rack mount system
- Intel® 6th XEON®/Core™/Pentium® processor
- On board 6GbE LAN ports
- Three LAN modules
- Optional CRPS redundant power
- Supporting NEXCOM IPMI

NSA 3170
Intel® 6th Gen. Xeon®/Core™/Pentium® Processors, 1U Rackmount with 6~16 GbE LAN & 1 LAN Module
- 1U rackmount network platform
- Supports Intel® 6th gen. Xeon®/Core™/Pentium® processors
- Support DDR4 2400 ECC & REG, up to 32GB
- Support one PCIe x8 expansion
- Internal two 2.5” HDD bay
- Single 250 watt PSU
DNA 1510
Industrial Firewall Platform
- Cavium CN7010 1.2GHz single core CPU bases on cnMIPS64
- On-board 1GByte DDR3 (4x128Mx16bit). Upgradable to be up to 2GBytes
- Flexible design on WAN and DMZ ports by combo copper/fiber connector
- Dual power DC input selections by Industrial Phoenix 3-pin type (12V-72V DC) or standard coaxial power type (12V DC)
- Compact and Fanless mechanical design

ISA 1120A
Intel® Atom™ Processor E3800 Product Family BGA Type, with 4 PCIe GbE LAN ports
- Intel® Atom™ processor E3815, BGA type
- DDR3-1066 SO-DIMM memory, Max. 8GB
- Support 4 PCIe GbE LAN ports
- Support -40°C~70°C extended operating temperature
- Redundant DC Input, support 9~30V DC input

IFA 2610
CoreFort™ Industry Firewall, 3 ports VPN Router with Rugged Design
- Stateful (L4) packet firewall
- Intrusion prevention (IPS)
- SSL VPN secure remote access
- DI/DO support
- Serial gateway (RS485)
- Versatile logging & report system

INA S330
Rugged-Design Industry Network Attached Storage
- 2 Gigabit Ethernet ports for date/power redundancy with PoE (M12)
- Data protection in harsh environments
- Max Capacity: Up to 3T
- Wide temperature range support, -40°C ~ 70°C
- IP rating: IP 54 (NEMA)
- Fully compliant with EN50155 (railway applications), EN61373 (vibrations & shocks)
**Products Selection Tables**

**Gateway to Communication**

NEXCOM delivers the trusted and reliable platforms for network security appliances. Building upon the standard x86 architecture, our products allow network security software vendors to create their own professional appliances easier without additional efforts in BIOS and drivers. With the integration of leading technology from x86 CPU, PCI-Express and I/O accelerations, the security and performance of customers’ applications are greatly improved.

**Features and Benefits**

- **RoHS compliance**: commit to produce green products and services compliant with EU RoHS directive 2002/95/EC.
- **PCIe based GbE LAN**: our PCIe based network security appliances can be enhanced to utilize 10 Gigabit networks to boost network performance.
- **Dual/quad core processors with I/O acceleration**: greatly improve CPU computing bandwidth in complex and intensive security computing. With sufficient processing power, they are appropriate for connection/ control- oriented and threat management-oriented network security appliances.
- **Modular design platforms**: can cope with diverse connection types from copper to fiber or from 2 ports to multi port. Security software vendors can focus on per port performance or increased connectivity with high port density.
- **LAN bypass**: enable connection fault tolerance for appliances, which act as the transparent bridges among networks. Users will hardly sense the network inaccessible when the appliances stops working due to hardware or software detects.

**Applications and Market Focus**

- **Firewall/VPN**
- **Anti-Virus/Anti-Spyware**
- **Voice & Date Convergence**
- **E-mail Filtering & Anti-Spam**
- **Traffic Load Balance**
- **Unified Threat Management**
- **Intrusion Detection & Prevention**
- **Bandwidth Management**

**Network Security Appliance**

<table>
<thead>
<tr>
<th>Model</th>
<th>NSA 7130</th>
<th>NSA 7135</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Dual Intel® Xeon® E5-2600 V3 Processor Family</td>
<td>Dual Intel® Xeon® E5-2600 V3 Processor Family</td>
</tr>
<tr>
<td>RAM</td>
<td>16 x DDR4 1866/ 2133 DIMM, up to 512GB</td>
<td>16 x DDR4 1866/ 2133 DIMM, up to 512GB</td>
</tr>
<tr>
<td>Chipset</td>
<td>Intel® 612</td>
<td>Intel® 612</td>
</tr>
<tr>
<td>LAN Chip</td>
<td>Intel® i350 Intel® XL710</td>
<td>Intel® i211</td>
</tr>
<tr>
<td>GbE</td>
<td>On board 16Gbps Copper/ Fiber 4 x 10G SFP+ + 2 LAN Module</td>
<td>On board 2 GbE + 8 LAN Module</td>
</tr>
<tr>
<td>HDD</td>
<td>3.5” HDD x 2</td>
<td>3.5” HDD x 1</td>
</tr>
<tr>
<td>CF/C-Fast</td>
<td>1/0</td>
<td>0/1</td>
</tr>
<tr>
<td>DOM</td>
<td>SATA DOM x 1</td>
<td>SATA DOM x 1</td>
</tr>
<tr>
<td>Serial</td>
<td>1 at Front (RJ-45 Connector)</td>
<td>1 at Front (RJ-45 Connector)/ On board 2x5 2.0mm Box Header x 1</td>
</tr>
<tr>
<td>IDE/SATA</td>
<td>0/4</td>
<td>0/5</td>
</tr>
<tr>
<td>USB</td>
<td>2 at Front</td>
<td>2 at Front/ 2 at Rear</td>
</tr>
<tr>
<td>Expansion</td>
<td>PCIe Slot x 1, LAN Module Bay x 2</td>
<td>PCIe Slot x 1, LAN Module Bay x 8</td>
</tr>
<tr>
<td>LCM Module</td>
<td>Graphic, SIO</td>
<td>Graphic, SIO</td>
</tr>
<tr>
<td>Indicators</td>
<td>Power, HDD, Bypass LED, GPIO LED</td>
<td>Power status, HDD status, GPIO status, ERROR status LEDs</td>
</tr>
<tr>
<td>Power</td>
<td>700 Watt 1+1 CRPS Redundant Power Supply</td>
<td>700 Watt 1+1 CRPS Redundant Power Supply</td>
</tr>
<tr>
<td>Form Factor</td>
<td>2U</td>
<td>2U</td>
</tr>
<tr>
<td>Dimensions (mm)</td>
<td>430 x 450 x 88</td>
<td>432 x 550 x 88</td>
</tr>
<tr>
<td>NSA 5150</td>
<td>NSA 5150HA</td>
<td>NSA 5160</td>
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</tbody>
</table>

**Dimensions**
- 430 x 450 x 88 mm
- 432 x 550 x 88 mm

**Form Factor**
- 2U

**LCM Module**
- Graphic, SIO Graphic, SIO

**Expansion**
- PCIe Slot x 1
- USB 2 at Front 2 at Front 2 at Rear
- IDE/SATA 0/4 0/5
- Serial 1 at Front
- CF/C-Fast 1/0 0/1
- HDD 3.5" HDD x 2 3.5" HDD x 1

**Power Supply**
- 16GbE Copper/ Bypass LED, GPIO LED
- 1+1 CRPS Redundant
- 16 x DDR4 1866/
- Processor Family
- NSA 7130 NSA 7135
- up to 512GB
- Intel® LAN Module
- 2133 DIMM,
- E5-2600 V3
- XL710 Intel® i350
- 612 Intel® Xeon®

**Error Status**
- LED
- 1+1 CRPS Redundant
- On board 2x5 2.0mm LAN Module Bay x 8 (RJ-45 Connector)

**Power Status**
- 250W ATX Power Supply
- 65 Watt 1+1 Redundant Power Supply
- 1U
- 340 x 450 x 44

**Product Selection Tables**
- NSA 5150 - NSA 5170 - NSA 3150 - NSA 3170 - ISA 1120A
- 4th Gen. Intel® Core™ Processor Family/ Intel® Xeon® E3 Family
- Intel® C226 PCH Intel® C226 PCH
- Intel® i350AM4 Intel® i350AM4
- Intel® i211 Intel® i211
- Intel® i210 Intel® i210

**Ports**
- 16 x DDR4 1866/
- Processor Family
- NSA 7130 NSA 7135
- up to 512GB
- Intel® LAN Module
- 2133 DIMM,
- E5-2600 V3
- XL710 Intel® i350
- 612 Intel® Xeon®

**Power Supply**
- 250W ATX Power
- 65 Watt 1+1 Redundant Power Supply
- 1U
- 340 x 450 x 44
<table>
<thead>
<tr>
<th>Model</th>
<th>NSA 1120</th>
<th>NSA 1150</th>
<th>DNA 125B</th>
<th>DNA 120</th>
<th>DNA 1120</th>
<th>DNA 1150</th>
<th>DNA1510</th>
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<tbody>
<tr>
<td>CPU</td>
<td>Intel® Atom™ D525 Dual Core/ D425 Single Core 1.8GHz Processor</td>
<td>New Intel® Atom™ Processor C2358, BGA Type</td>
<td>Intel® Atom™ E3815 Processor</td>
<td>Intel® Atom™ E3815 Processor</td>
<td>New Intel® Atom™ Processor C2358, BGA Type</td>
<td>New Intel® Atom™ Processor C2358, BGA Type</td>
<td>Cavium CN7010 1.2GHz single core CPU bases on cnMIPS64</td>
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<tr>
<td>RAM</td>
<td>1 x 204-pin DDR3 800 SO-DIMM, up to 2GB</td>
<td>2 x DDR3 1333/1600 Memory, up to 16GB</td>
<td>1 x DDR3 1066 Memory, up to 8GB</td>
<td>1 x DDR3 1600 Memory, up to 8GB</td>
<td>1 x DDR3 800 SO-DIMM, up to 2GB</td>
<td>2 x DDR3 1333/1600 Memory, up to 16GB</td>
<td>On-board 1GB DDR3, 4GBytes eMMC, up to 8GBytes</td>
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<td>Chipset</td>
<td>Intel® ICH8M</td>
<td>Intel® C2358 (SoC)</td>
<td>Intel® E3815 (SoC)</td>
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<td>Intel® ICH8M</td>
<td>Intel® C2358 (SoC)</td>
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<td>LAN Chip</td>
<td>Intel® 82583V</td>
<td>Intel® i211</td>
<td>Intel® i211 Broadcom BCM5312</td>
<td>Intel® i211</td>
<td>Intel® 82583V</td>
<td>Intel® i210</td>
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<td>GbE</td>
<td>6 Ports</td>
<td>6 Ports</td>
<td>2 + 8 Ports</td>
<td>4 Ports</td>
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<td>2.5&quot; HDD x 1</td>
<td>-</td>
<td>2.5&quot; HDD x 1</td>
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<tr>
<td>CF/C-Fast</td>
<td>1/0</td>
<td>1/0</td>
<td>-</td>
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<td>DOM</td>
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<td>CF Card</td>
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<td>1 at Front (RJ-45 Connector)</td>
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<td>USB</td>
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<td>2 at Rear</td>
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<td>Mini-PCIe slot x 1 (Option)</td>
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<td>-</td>
<td>-</td>
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<td>Indicators</td>
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<td>Power, HDD, Bypass LED, GPIO LED</td>
<td>Power, GPIO LED</td>
<td>Power, GPIO LED</td>
<td>Power, HDD, Bypass LED, GPIO LED</td>
<td>Power, GPIO LED</td>
<td>Power, Alert, WAN, DMZ, LAN and USB LED</td>
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<td>Power</td>
<td>100W ATX Power supply</td>
<td>65W ATX Power Supply</td>
<td>40W Power Adapter</td>
<td>40W Power Adapter</td>
<td>40W Power Adapter</td>
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<td>1U</td>
<td>1U</td>
<td>Desktop</td>
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<tr>
<td>Dimensions (mm)</td>
<td>426 x 238 x 44</td>
<td>426 x 260 x 44</td>
<td>232 x 184 x 44</td>
<td>204 x 110 x 44</td>
<td>272 x 195 x 44</td>
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<td>160 x 120 x 66</td>
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### Industry Firewall

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Industry Firewall Multi-port VPN Router</th>
<th>VPN Dispatcher</th>
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<tbody>
<tr>
<td>IFA 1610</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>IFA 2610</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>IFA 3610</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>IVD 1000-S/A</td>
<td>Unlimited</td>
<td>25/100 Licenses</td>
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</tbody>
</table>

| Network Security | Yes | Yes | Yes | Yes |
| VPN Connections  | Unlimited | Unlimited | Unlimited | 25/100 Licenses |
| VPN Function     | Client/Site-to-Site | Client/Site-to-Site | Client/Site-to-Site | VPN Management |
| LAN Bypass       | -   | -   | Yes | Yes |
| High Availability| -   | Yes | Yes | Yes |
| WAN Failover     | -   | Yes | Yes | Yes |
| Network Address Translation | Yes | Yes | Yes | Yes |
| Routing          | -   | Yes | Yes | Yes |
| Logging/Reporting | Yes | Yes | Yes | Yes |
| Updates and Backup Management | Yes | Yes | Yes | Yes |

### Hardware Specification

| Mounting | Wall Mount/DIN Rail | Wall Mount/DIN Rail | Rack Mount |
| Power Input | 24V DC Terminal/DC Jack Input | Dual 24V DC Input | 65W Power Supply |
| CPU       | ARM® Cortex® A8 | ARM® Cortex® A8 | Intel® Atom™ |
| Memory    | 512MB | 512MB | 512MB | 1GB |
| Ethernet  | 2 x 10/100/1000Mbps | 3 x 10/100/1000Mbps | 5 x 10/100/1000Mbps | 6 x 10/100/1000Mbps |
| Serial Communication | RS232/485/422 | RS232/485/422 | RS232/485/422 | Console Port |
| USB       | 2 x USB | 1 x USB | 1 x USB | 2 x USB |
| Digital Input/Output | - | 1xD/1xD | 1xD/1xD | - |
| Storage   | MicroSD 4GB | MicroSD 4GB | MicroSD 4GB | 2.5” HDD/RADJ |
| Cooling   | Fanless | Fanless | Fanless | - |
| Dimension (HxWxD) | 114 x 28 x 100mm | 167 x 59 x 140mm | 167 x 59 x 140mm | 44 x 462 x 238mm |
| Operating Temperature | -40°C to 70°C | -40°C to 70°C | -40°C to 70°C | -40°C to 70°C |
| Storage Temperature | -20°C to 70°C | -20°C to 70°C | -20°C to 70°C | -20°C to 70°C |
| Relative Humidity | Operating 10%–90%, non-condensing | Operating 5%–95%, non-condensing | Operating 5%–95%, non-condensing | Operating 10%–90%, non-condensing |
| SIM Card Holder | - | Yes | Yes | - |
| Service & Maintenance | 3 Years | 3 Years | 3 Years | 3 Years |

### Model Name

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Rugged Industry Network-Attached Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>INA S330</td>
<td></td>
</tr>
</tbody>
</table>

### Hardware Specification

| CPU/Memory | ARM® Dual Cortex®-A9 CPU; Onboard 4G eMMC; 512MB DDR3 |
| LEDS       | Power LED/System LED/PoE/TMP LED/HDD LED/LAN LED |
| Ethernet   | 2 x Gigabit LAN Ports for Data & PoE Redundancy (M12) |
| Power Supply | PoE (IEEE 802.3af) / PoE+ (IEEE 802.3at) |
| System Dimensions (H x W x D) | 60 x 246 x 194mm (2.36” x 9.69” x 7.64” |
| Vibration/Tem. Protection | Yes |
| Heating Solution | Yes |
| Housing | Metal, Aluminum, Fanless |
| Mounting | Wall Mount Kit (Optional) |

### Environmental Limits

| Service & Maintenance | 3 Years |

### Regulation

| Compliance | *EN50155 (Railway Applications); IEC61373 (Vibrations & shocks); EN60950 |
| Certification | *FCC/CE/RoHS/WEEE |
| IP Rating | IP 54 (NEMA) |

* Available in Q2
Main Features

- Dual Intel® Xeon® E5-2600 V3 processors
- Support DDR4 1866/2133 ECC & REG, up to 512GB
- On-board 16G LAN Copper/Fiber + 4 x 10G SFP+
- Two LAN modules slots
- Support two swappable 3.5” SATA/SAS HDD
- Support CRPS (1 + 1) redundant power supply
- 2U, 450mm depth chassis design

Specifications

Main Board
- NSB 7130
- Dual Intel® Xeon® Processors E5-2600 V3
- Support 9.6 GT/s QPI Speed
- Intel® C612
- Support IPMI 2.0

Main Memory
- 16 x 284-pin DDR4 1866/2133 DIMM Sockets, up to 512GB ECC & REG SDRAM

LAN Features
- On board 16 x 1G LAN, Intel® i350, support Copper/Fibre ports
- On board 4 x 10G SFP + Intel® XL710
- Support 10/100/1000/10G link speed
- LAN Bypass: 4 pairs by pass support
- Two LAN Module slots

I/O Interface-Front
- 8 x RJ45, 8 x SFP port, 4 x SFP + ports
- Support 2 x 20 Characters LCD module, SIO interface
- Power status/HDD status/LAN status/Bypass status LEDs
- 2 x 3.5” HDD Swappable bays
- 2 x LAN Module bays
- 2 x USB 2.0 ports
- 1 x RJ45 type Console port
- 1 x Software button
- 2 x Management LAN ports

I/O Interface-Rear
- 3 x Swappable System FANS
- 1 x VGA Port
- 2 x USB 2.0 ports

Devices
- 1 x on-board CFast socket

Power Input
- 700W 1+1 CRPS Redundant Power Supply

Chassis Dimensions
- Chassis Dimension: 430mm x 450mm x 88mm
- Carton Dimension: 640mm x 640mm x 310mm

Weight
- Without packing: 19kg
- With packing: 25kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE approval
- FCC Class A
**Ordering Information**

**Barebone**
- **NSA 7130 (P/N: 10500713002X0)**
  Support Intel® Xeon® E5 series processors V3, 16 DDR4 memory slots, On board 16G LAN + 4 x 10G LAN ports, Two LAN Modules slots, CFast Socket, VGA, USB port, With LCM
- **NSK 5150R-F8**
  PCIe 1GbE module with 8 SFP ports base on Intel® i350 chipset
- **NSK 5199R-F2**
  PCIe 10GbE module with 2 SFP+ ports base on Intel® 82599EB chipset
- **NSK-CVCK**
  PCIe 1GbE module with 4 Copper ports base on Intel® CAVE CREEK SKU4 DH8920CC
- **NSK-CTCK**
  PCIe 1GbE module base on Intel® chipset Coleto Creek: DH8925CL

<table>
<thead>
<tr>
<th>PN Controller</th>
<th>Interface</th>
<th>Type</th>
<th>Port Number</th>
<th>Bypass/Segment</th>
<th>Expansion Slot</th>
<th>Location Slot</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSK 5150R-F8</td>
<td>Intel i350</td>
<td>PCIe x8</td>
<td>8 SFP</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
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<tr>
<td>NSK 5199R-F2</td>
<td>Intel 82599</td>
<td>PCIe x8</td>
<td>2 SFP+</td>
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<td>None</td>
<td>All Slot</td>
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<tr>
<td>NSK-CVCK</td>
<td>DH8920CC</td>
<td>PCIe x8</td>
<td>4 Copper</td>
<td>Dual Latch/2</td>
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<td>All Slot</td>
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<tr>
<td>NSK-CTCK</td>
<td>DH8925CL</td>
<td>PCIe x8</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
</tr>
</tbody>
</table>
NSA 7135

Main Features
- Dual Intel® Xeon® E5-2600 V3 processors
- Support DDR4 1866/2133 ECC & REG, up to 512GB
- Modular design supports 8 PCIe LAN modules
- Support swappable 3.5" SATA/SAS HDD
- Support CRPS (1 + 1) redundant power supply
- Support LCD module

Specifications

Main Board
- NSB 7135
- Dual Intel® Xeon® processors E5-2600 V3
- Support 9.6 GT/s QPI speed
- Intel® C612
- Support IPMI 2.0 (option)
- One PCIe x8 expansion slot

Main Memory
- 16 x 284-pin DDR4 1866/2133 DIMM sockets, up to 512GB ECC & REG SDRAM

LAN Features
- Swappable LAN modules
- Support Intel® i350/Intel® XL710 Copper/Fiber ports
- Support 10/100/1000/10G link speed
- LAN Bypass: ** please see Lan module list information

I/O Interface-Front
- Support 2 x 20 characters LCD module, SIO interface
- Power status/HDD status/GPIO status/system failure status LEDs
- 1 x 3.5" HDD swappable bays
- 8 x LAN module bays
- 2 x USB 2.0 ports
- 1 x RJ45 type console port
- 1 x Reset button
- 2 x Management LAN ports

I/O Interface-Rear
- 3 x Swappable system FANS
- 1 x Power button switch
- 1 x VGA Port
- 2 x USB 2.0 ports

Devices
- 1 x on-board CFast socket

Power Input
- 700W 1+1 CRPS redundant power supply

Chassis Dimensions
- Chassis dimension: 432mm x 550mm x 88mm
- Carton dimension: 774mm x 636mm x 293mm

Weight
- Without packing: 19kg
- With packing: 25kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%-90% non-condensing

Certifications
- CE approval
- FCC Class A
- UL
Ordering Information

Barebone

- **NSA 7135 (P/N: 10S00713500X0)**
  2U Intel® Xeon® E5-2600 v3 PCH C612, with LCM, 1 swappable 3.5” HDD tray, 3 swappable system fans, 8 LAN module (NI/NX series) bays, 700W PSU

- **NX 140F**
  Intel® XL710-AM1 10GbE module 4 fiber ports by PCIe x8 interface with PKG

- **NX 142F**
  Intel® XL710-AM1 10GbE module 4 fiber ports with 2 bypass segment (multi mode) by PCIe x8 interface with PKG

- **NI 140F**
  Intel® I350 module 4 fiber ports with PCIe x8 interface with PKG

- **NI 180F**
  Intel® I350 module 8 fiber ports with PCIe x8 interface with PKG

- **NI 142C**
  Intel® I350 module 4 copper ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 180C**
  Intel® I350 module 8 copper ports by PCIe x8 interface with PKG

- **NI 184C**
  Intel® I350 module 8 copper ports with 4 bypass segment by PCIe x8 interface with PKG

- **NI 142F**
  Intel® I350 module 4 fiber ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 121F**
  Intel® I350 module 2 fiber ports with 1 bypass segment by PCIe x8 interface with PKG

---

<table>
<thead>
<tr>
<th>Model</th>
<th>P/N Controller</th>
<th>Interface</th>
<th>Type</th>
<th>Port Number</th>
<th>Bypass/Segment</th>
<th>Expansion Slot</th>
<th>Location Slot</th>
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<tr>
<td>NX 140F</td>
<td>10S20140F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
<td>4 SFP+</td>
<td>None</td>
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<td>NX 142F</td>
<td>10S20142F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
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<td>i350AM2x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>1 bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
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</table>
NI Series LAN Module

Main Features
- Intel® i350-AM4 LAN controller
- Supporting 4~8GbE RJ45 copper/SFP fiber ports
- Supporting bypass function up to 4 pairs

Specifications

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Controller</th>
<th>Bypass</th>
<th>Link Speed</th>
<th>Media Type</th>
<th>I/O ports</th>
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<td>NI 184C</td>
<td>i350AM4x2</td>
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<td>1G</td>
<td>Copper</td>
<td>8 RJ45</td>
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<td>1G</td>
<td>Copper</td>
<td>8 RJ45</td>
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<tr>
<td>NI 142C</td>
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<td>2</td>
<td>1G</td>
<td>Copper</td>
<td>4 RJ45</td>
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<td>1G</td>
<td>Copper</td>
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<td>NI 180F</td>
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<td>Fiber</td>
<td>2 SFP</td>
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Dimensions
- PCBA dimension: 167mm x 71.3mm x 1.6mm

Environment
- Operating temperature: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Ordering Information
- NI 184C (P/N: 10S10184C01X0)
  Intel® i350 module 8 copper ports with 4 bypass segment by PCIe x8 interface with PKG
- NI 180C (P/N: 10S10180C01X0)
  Intel® i350 module 8 copper ports by PCIe x8 interface with PKG
- NI 142C (P/N: 10S10142C01X0)
  Intel® i350 module 4 copper ports with 2 bypass segment by PCIe x8 interface with PKG
- NI 140C (P/N: 10S10140C01X0)
  Intel® i350 module 4 copper ports by PCIe x8 interface with PKG
- NI 180F (P/N: 10S10180F01X0)
  Intel® i350 module 8 fiber ports with PCIe x8 interface with PKG
- NI 140F (P/N: 10S20140F01X0)
  Intel® i350 module 4 fiber ports with PCIe x8 interface with PKG
- NI 142F (P/N: 10S10142F01X0)
  Intel® i350 module 4 fiber ports with 2 bypass segment by PCIe x8 interface with PKG
- NI 121F (P/N: 10S10121F01X0)
  Intel® i350 module 2 fiber ports with 1 bypass segment by PCIe x8 interface with PKG
**Main Features**
- Intel® XL710 LAN controller
- Supporting up to 40GbE SFP+ fiber ports
- Supporting bypass function up to 1 pair

**Specifications**

**LAN Features**

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Controller</th>
<th>Bypass</th>
<th>Link Speed</th>
<th>Media Type</th>
<th>I/O ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX 142F</td>
<td>XL710-AM1</td>
<td>2</td>
<td>10G</td>
<td>multi mode Fiber</td>
<td>4 SFP+</td>
</tr>
<tr>
<td>NX 142F-LR</td>
<td>XL710-AM1</td>
<td>0</td>
<td>10G</td>
<td>single mode Fiber</td>
<td>4 SFP+</td>
</tr>
<tr>
<td>NX 140F</td>
<td>XL710-AM1</td>
<td>1</td>
<td>10G</td>
<td>Fiber</td>
<td>2 SFP+</td>
</tr>
<tr>
<td>NX 121F</td>
<td>X710-AM2</td>
<td>0</td>
<td>10G</td>
<td>Fiber</td>
<td>2 SFP+</td>
</tr>
</tbody>
</table>

**Dimensions**
- PCBA dimension: 167mm x 71.3mm x 1.6mm

**Environment**
- Operating temperatures: 0°C–40°C
- Storage temperature: -20°C–75°C
- Relative humidity: 10%–90% non-condensing

**Ordering Information**
- **NX 142F (P/N: 10S20142F01X0)**
  Intel® XL710-AM1 10GbE module 4 fiber ports with 2 bypass segment (multi mode) by PCIe x8 interface with PKG
- **NX 142F-LR (P/N: 10S20142F03X0)**
  Intel® XL710-AM1 10GbE module 4 fiber ports with 2 bypass segment (single mode) by PCIe x8 interface with PKG
- **NX 140F (P/N: 10S20140F01X0)**
  Intel® XL710-AM1 10GbE module 4 fiber ports by PCIe x8 interface with PKG
- **NX 121F (P/N: 10S20121F00X0)**
  Intel® X710-AM2 10GbE module 2 fiber ports with 1 bypass segment by PCIe x8 interface with PKG
- **NX 120F (P/N: 10S20120F00X0)**
  Intel® X710-AM2 10GbE module 2 fiber ports by PCIe x8 interface with PKG
NS Series LAN Module

Main Features
- Intel® Ethernet multi-host controller FM10420
- Supporting up to 200GbE QSFP28 fiber ports

Specifications

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Controller</th>
<th>Bypass</th>
<th>Link Speed</th>
<th>Media Type</th>
<th>I/O ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 120F</td>
<td>FM10420</td>
<td>0</td>
<td>100G</td>
<td>Fiber</td>
<td>2 QSFP</td>
</tr>
</tbody>
</table>

Dimensions
- PCBA dimension: 167mm x 71.3mm x 1.6mm

Environment
- Operating temperatures: 0°C–40°C
- Storage temperature: -20°C–75°C
- Relative humidity: 10%–90% non-condensing

Ordering Information
- NS 120F (P/N: TBC)
  Intel® FM10420 100GbE module 2 fiber ports by PCIe x8 interface with PKG
Main Features

- Intel® XL710 LAN Controller
- Supporting up to 80GbE QSFP fiber ports

<table>
<thead>
<tr>
<th>Specifications</th>
</tr>
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<tbody>
<tr>
<td>LAN Features</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Module Type</th>
<th>Controller</th>
<th>Bypass</th>
<th>Link Speed</th>
<th>Media Type</th>
<th>I/O ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>NQ 120F</td>
<td>XL710-AM2</td>
<td>0</td>
<td>40G</td>
<td>Fiber</td>
<td>2 QSFP</td>
</tr>
</tbody>
</table>

Dimensions

- PCBA dimension: 167mm x 71.3mm x 1.6mm

Environment

- Operating temperatures: 0°C–40°C
- Storage temperature: -20°C–75°C
- Relative humidity: 10%–90% non-condensing

Ordering Information

- NQ 120F (P/N: TBC)
  Intel® XL710-AM2 40GbE module 2 fiber ports by PCIe x8 interface with PKG
NSA 5150

4th Generation Intel® Core™ Processor, 1U Rackmount with 8 PCIe GbE LAN & LAN Module

Main Features
- 1U rackmount network platform
- Supports 4th generation Intel® Xeon® E3-1200 v3/Core™ processors
- Support four DDR3 1333/1600 memory, up to 32GB
- Support one PCIex8 expansion
- Internal one 3.5” HDD bay/two 2.5” HDD bay (optional)

Specifications

Main Board
- NSB 5150
- Supports 4th Generation Intel Xeon® E3-1200 v3/ Core™ Processors
- Intel® C226

Main Memory
- 4 x 240-pin DDR3 1333/1600MHz DIMM sockets, up to 32GB ECC SDRAM

LAN Features
- LAN Chip: Intel® I350
- Support 10/100/1000 link speed
- LAN Bypass: 4pairs

Expansion
- 1 x PCIe4x Slot
- 1 x LAN Module

I/O Interface-Front
- Power status/HDD status/LAN status/Bypass status LEDs
- 1 x RJ45 type console port
- 8 x copper LAN ports
- 1 x LAN Module (Optional)

I/O Interface-Rear
- 1 x expansion slot
- 2 x USB 2.0 ports
- 1 x VGA port

Devices
- 1 x MO-297 socket
- 1 x internal 3.5” HDD bay/two 2.5” HDD Bay (Optional)
- 1 x SATA-DOM device space

Power Input
- 250W ATX power supply

Dimensions
- Chassis Dimension: 430mm x 450mm x 44mm
- Carton Dimension: 560mm x 620mm x 190mm

Weight
- Without Packing: 8Kg
- With Packing: 12Kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE approval
- FCC Class A
- UL
Ordering Information

Barebone

- **NSA 5150 (P/N: 10500515000X0)**
  Support 4th generation Intel® Core™ processors, 4 DDR3 memory slots, 8PCIe GbE LAN ports, MO-297 socket, USB ports, VGA port, one PCIe x4 expansion slot, w/o LCM

- **NSK 5350-C8**
  PCIe 1GbE module with 8 copper ports base on Intel® I350 chipset and 2 pairs dual latch bypass

- **NSK 5350-F8**
  PCIe 1GbE module with 8 SFP ports base on Intel® I350 chipset

- **NSK 5350-C4F4**
  PCIe 1GbE module with 4 copper and 4 SFP ports base on Intel® I350 chipset and 2 pairs dual latch bypass

- **NSK 5399-F2**
  PCIe 10GbE module with 2 SFP ports base on Intel® 82599EB chipset

- **NSK-CVCK**
  PCIe 1GbE module with 4 Copper ports base on Intel® CAVE CREEK SKU4 DH8920CC

- **NSK-CTCK**
  PCIe 1GbE module base on Intel® chipset Coleto Creek: DH8925CL

<table>
<thead>
<tr>
<th>P/N</th>
<th>Interface</th>
<th>Port Number</th>
<th>Bypass/Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSK 5350-C8</td>
<td>Intel® I350</td>
<td>8 Copper</td>
<td>Dual Latch/2</td>
</tr>
<tr>
<td>NSK 5350-F8</td>
<td>Intel® I350</td>
<td>8 SFP</td>
<td>None</td>
</tr>
<tr>
<td>NSK 5350-C4F4</td>
<td>Intel® I350</td>
<td>4 Copper/4 SFP</td>
<td>Dual Latch/2</td>
</tr>
<tr>
<td>NSK 5399-F2</td>
<td>Intel® 82599</td>
<td>2 SFP+</td>
<td>None</td>
</tr>
<tr>
<td>NSK-CVCK</td>
<td>DH8920CC</td>
<td>4 Copper</td>
<td>Dual Latch/2</td>
</tr>
<tr>
<td>NSK-CTCK</td>
<td>DH8925CL</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
NSA 5150HA

4th Generation Intel® Core™ Processor, 1U Rackmount with 8 PCIe GbE LAN & LAN Module, Dual PSU

Main Features
- 1U rackmount network platform
- Supports 4th generation Intel® Xeon® E3-1200 v3/Core™ processors
- Support four DDR3 1333/1600 memory, up to 32GB
- Support one PCIe8 expansion
- Redundant 220 watt PSU

Specifications

Main Board
- NSB 5150
- Supports 4th generation Intel Xeon® E3-1200 v3/Core™ processors
- Intel® C226

Main Memory
- 4 x 240-pin DDR3 1333/1600MHz DIMM sockets, up to 32GB ECC SDRAM

LAN Features
- LAN Chip: Intel® I350
- Support 10/100/1000 link speed
- LAN Bypass: 4 pairs

Expansion
- 1 x PCIe4 slot
- 1 x Lan module

I/O Interface-Front
- Power status/HDD status/LAN status/Bypass status LEDs
- 1 x RJ45 type console port
- 8 x copper LAN ports
- 1 x LAN module (optional)

I/O Interface-Rear
- 1 x expansion slot
- 2 x USB 2.0 ports
- 1 x VGA port

Devices
- 1 x MO-297 socket
- 1 x internal two 2.5" HDD bay (optional)
- 1 x SATA-DOM device space

Power Input
- Redundant POWER supply 220W

Chassis Dimensions
- Chassis dimension: 430mm x 450mm x 44mm
- Carton dimension: 560mm x 620mm x 190mm

Weight
- Without packing: 8kg
- With packing: 12kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE approval
- FCC Class A
Ordering Information

Barebone

• NSA5150HA(P/N: 10S00515003X0)
  Support 4th generation Intel® Core™ processors, 4 DDR3 memory slots, 8 PCIe GbE LAN ports, M0-297 socket, USB ports, VGA port, one PCIex4 expansion slot, w/o LCM, Dual PSU

• NSK 5350-C8
  PCIe 1GbE module with 8 copper ports base on Intel® I350 chipset and 2 pairs dual latch bypass

• NSK 5350-F8
  PCIe 1GbE module with 8 SFP ports base on Intel® I350 chipset

• NSK 5399-F2
  PCIe 10GbE module with 2 SFP ports base on Intel® 82599EB chipset

• NSK-CVCK
  PCIe 1GbE module with 4 Copper ports base on Intel® CAVE CREEK SKU4 DH8920CC

• NSK-CTCK
  PCIe 1GbE module base on Intel® chipset Coleto Creek: DH8925CL

<table>
<thead>
<tr>
<th>P/N</th>
<th>Interface</th>
<th>Port Number</th>
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<tbody>
<tr>
<td>NSK 5350-C8</td>
<td>Intel® I350</td>
<td>8 Copper</td>
<td>Dual Latch/2</td>
</tr>
<tr>
<td>NSK 5350-F8</td>
<td>Intel® I350</td>
<td>8 SFP</td>
<td>None</td>
</tr>
<tr>
<td>NSK 5350-C4F4</td>
<td>Intel® I350</td>
<td>4 Copper/4 SFP</td>
<td>Dual Latch/2</td>
</tr>
<tr>
<td>NSK 5399-F2</td>
<td>Intel® 82599</td>
<td>2 SFP+</td>
<td>None</td>
</tr>
<tr>
<td>NSK-CVCK</td>
<td>DH8920CC</td>
<td>4 Copper</td>
<td>Dual Latch/2</td>
</tr>
<tr>
<td>NSK-CTCK</td>
<td>DH8925CL</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
NSA 5160

Intel® Xeon® Processor D-1500 Product Family, 1U Rackmount with 8 PCIe GbE LAN & LAN Module

Main Features
- 1U rackmount network platform
- Intel® Xeon® processor D-1500 product family
- Support DDR4 2133 ECC & REG, up to 128GB
- On-board 8G LAN Copper + 2 x 10G SFP+
- Up to Two LAN modules support

Specifications

Main Board
- NSB 5160
- Intel® Xeon® processor D-1500 product family
- CS4227 10G PHY
- Support IPMI 2.0 (option)
- One PCIe x8 expansion slot

Main Memory
- 4 x DDR4 2133 memory.DIMM support ECC/Non-ECC memory, Max 128GB

LAN Features
- Swappable LAN modules
  ** please see Lan module list information
- Support Intel® i350/Intel® XL710 Copper/Fiber ports
- Support 10/100/1000/10G link speed

I/O Interface-Front
- Power status/HDD status/LAN status/Bypass status LEDs
- 2 x USB 2.0 ports
- 1 x RJ45 type console port
- 2 x SFP + ports
- 8 x Copper LAN ports
- 2 x LAN module

I/O Interface-Rear
- 1 x Power button switch
- 1 x VGA port

Devices
- 1 x SATA-DOM device space

Power Input
- 300W SWITCHING power supply

Dimensions
- Chassis dimension: 430mm x 450mm x 44mm
- Carton dimension: 560mm x 620mm x 190mm

Weight
- Without packing: 8kg
- With packing: 12kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE approval
- FCC Class A
- UL
Ordering Information

Barebone

- **NSA 5160 (P/N: 10500516000X0)**
  1U Intel® Xeon® processor D-1520 4C/2.2Ghz with 2 x 10GbE+ 8 1GbE Lan ports, 2 LAN module (NI/NX series) bays, w/o LCM kit

- **NX 140F**
  Intel® XL710-AM1 10GbE module 4 fiber ports by PCIe x8 interface with PKG

- **NX 142F**
  Intel® XL710-AM1 10GbE module 4 fiber ports with 2 bypass segment (multi mode) by PCIe x8 interface with PKG

- **NI 140F**
  Intel® I350 module 4 fiber ports with PCIe x8 interface with PKG

- **NI 180F**
  Intel® I350 module 8 fiber ports with PCIe x8 interface with PKG

- **NI 142C**
  Intel® I350 module 4 copper ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 180C**
  Intel® I350 module 8 copper ports by PCIe x8 interface with PKG

- **NI 184C**
  Intel® I350 module 8 copper ports with 4 bypass segment by PCIe x8 interface with PKG

- **NI 142F**
  Intel® I350 module 4 fiber ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 121F**
  Intel® I350 module 2 fiber ports with 1 bypass segment by PCIe x8 interface with PKG

<table>
<thead>
<tr>
<th>Model</th>
<th>P/N Controller</th>
<th>Interface</th>
<th>Type</th>
<th>Port Number</th>
<th>Bypass/Segment</th>
<th>Expansion Slot</th>
<th>Location Slot</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX 140F</td>
<td>10S20140F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
<td>4 SFP+</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NX 142F</td>
<td>10S20142F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
<td>4 SFP+</td>
<td>2 bypass (multi mode)</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 140F</td>
<td>10SK000NI02X0</td>
<td>i350AM4x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 180F</td>
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<td>i350AM4x2</td>
<td>PCIe x8</td>
<td>8 SFP</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
</tr>
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<td>PCIe x8</td>
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<tr>
<td>NI 180C</td>
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<td>i350AM4x2</td>
<td>PCIe x8</td>
<td>8 Copper</td>
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<td>None</td>
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<td>NI 184C</td>
<td>10S10184C01X0</td>
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<td>PCIe x8</td>
<td>8 Copper</td>
<td>4 bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 142F</td>
<td>10S10142F01X0</td>
<td>i350AM4x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>2 bypass</td>
<td>None</td>
<td>All Slot</td>
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<tr>
<td>NI 121F</td>
<td>10S10121F01X0</td>
<td>i350AM2x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>1 bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
</tbody>
</table>
Main Features

- 1U up workstation rack mount system
- Intel 6th XEON®/Core™/Pentium® processor
- On board 6GbE LAN ports
- Three LAN modules
- Optional CRPS redundant power
- Supporting NEXCOM IPMI

Specifications

Main Board
- NSB 5170
- Supports Intel® 5th gen XEON®/Core™/Pentium® processors
- Intel® C236

Main Memory
- 4 x DDR4 2400 memory DIMM support ECC/non-ECC memory, max 64GB

LAN Features
- 2 x management ports (LAN chip: Intel® i211-AT)
- 4 x ethernet ports (LAN chip: Intel® i350-AM4)
- Support 10/100/1000/10G link speed

I/O Interface-Front
- Power status/HDD status/LAN status/bypass status LEDs
- 2 x USB 3.0 ports
- 1 x microUSB console port
- 1 x RJ45 type console port
- 1 x reset button
- 3 x PCIe x8 LAN module slots

I/O Interface-Rear
- 1 x rear PCIe x 8 expansion slot (optional for single power)
- 1 x VGA port
- 1 x power button switch (optional)
- 2 x USB 3.0 ports (optional)

Devices
- CFast x 1
- 3.5" HDD bay x 1 or 2.5" HDD bay x 2

Power Input
- CRPS power supply 250W (optional redundant PSU)

Dimensions
- Chassis dimension: 438 mm x 450mm x 44mm
- Carton dimension: TBC

Weight
- Without packing: TBC
- With packing: TBC

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE approval
- FCC class A
- UL
### Ordering Information

#### Barebone

- **NSA 5170 (P/N: TBC)**
  - Supports Intel® 6th gen. XEON®/Core™/Pentium® processors, 4 DDR4 memory slots, 6 PCIe GbE LAN ports, CFast socket, USB ports, VGA port, three PCIe x8 LAN expansion slot (Front), w/o LCM

- **NX 140F**
  - Intel® XL710-AM1 10GbE module 4 fiber ports by PCIe x8 interface with PKG

- **NX 142F**
  - Intel® XL710-AM1 10GbE module 4 fiber ports with 2 bypass segment (multi mode) by PCIe x8 interface with PKG

- **NI 140F**
  - Intel® I350 module 4 fiber ports with PCIe x8 interface with PKG

- **NI 180F**
  - Intel® I350 module 8 fiber ports with PCIe x8 interface with PKG

- **NI 142C**
  - Intel® I350 module 4 copper ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 180C**
  - Intel® I350 module 8 copper ports by PCIe x8 interface with PKG

- **NI 184C**
  - Intel® I350 module 8 copper ports with 4 bypass segment by PCIe x8 interface with PKG

- **NI 142F**
  - Intel® I350 module 4 fiber ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 121F**
  - Intel® I350 module 2 fiber ports with 1 bypass segment by PCIe x8 interface with PKG

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<th>Expansion Slot</th>
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<td>10S20140F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
<td>4 SFP+</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
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<tr>
<td>NX 142F</td>
<td>10S20142F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
<td>4 SFP+</td>
<td>2 bypass (multi mode)</td>
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<td>NI 140F</td>
<td>10S000902XO</td>
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<td>PCIe x8</td>
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<td>All Slot</td>
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<td>NI 180F</td>
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<td>i350AM4x2</td>
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<td>All Slot</td>
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<td>NI 142C</td>
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<td>PCIe x8</td>
<td>4 Copper</td>
<td>2 bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 180C</td>
<td>10S10180C01X0</td>
<td>i350AM4x2</td>
<td>PCIe x8</td>
<td>8 Copper</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
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<tr>
<td>NI 184C</td>
<td>10S10184CO1X0</td>
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<td>PCIe x8</td>
<td>8 Copper</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
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<tr>
<td>NI 142F</td>
<td>10S10142F01X0</td>
<td>i350AM4x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>2 bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 121F</td>
<td>10S10121F01X0</td>
<td>i350AM2x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>1 bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
</tbody>
</table>
Main Features
- Intel® Atom™ processor E3815, BGA type
- DDR3-1066 SO-DIMM memory, Max. 8GB
- Support 4 PCIe GbE LAN ports
- Support -40°C~70°C extended operating temperature
- Redundant DC Input, support 9~30V DC input

Specifications

Main Board
- ISA 1120A
- Intel® Atom™ processor E3815, BGA type

Main Memory
- DDR3 1066 SO-DIMM memory, Max. 8GB

LAN Features
- 4 x LAN Chip: Intel® i210-IT
- Support 10/100/1000 link speed
- 4 x copper ports

I/O Interface-Front
- 2 x USB2.0 port
- 4 x RJ45 port (bypass function 1 pair)
- 1 x VGA (internal debug)
- 2 x DC input 1 x 2-pin
- 1 x Reset button
- 1 x GPIO button
- Power status/bypass status/CFast status

I/O Interface-Rear
- 2 x Console Port (support RS232/RS422/RS485)
- 1 x CFast

Devices
- None

Power Input
- Redundant DC input power adapter (65W), support +9V to +30VDC input

Chassis Dimensions
- Chassis dimension: 190 mm x 140 mm x 70 mm
- Carton dimension: 301 mm x 268 mm x 250 mm

Weight
- Without packing: 2.2 Kg
- With packing: 3.8 Kg

Environment
- Operating temperature: -40°C~70°C
- Storage temperature: -40°C~85°C
- Relative humidity: 5%~95% non-condensing

Certifications
- CE approval
- FCC Class A
- UL

Ordering Information
- ISA 1120A (P/N: 10Q00112001X0)
  Fanless industrial grade desktop Intel® Atom™ processor E3815 1C/1.46GHz with 4 Giga LAN ports with 1pairs bypass, operation temperature: -40°C~70°C
Main Features

- 1U rackmount network platform
- Intel® Atom™ D525 Dual Core/D425 Single Core 1.8GHz processor
- Support DDR3/800 memory, up to 2GB
- 6 x GbE LAN ports
- Support LAN Bypass
- Internal one 3.5" HDD bay/two 2.5" HDD bay (optional)
- Support LCD module (optional)

Specifications

Main Board
- NSB 1120
- Support Intel® Atom™ D525 Dual Core/D425 Single Core 1.8GHz processor
- Intel® ICH8M Chipset

Main Memory
- 1 x 204-pin DDR3 800 SO-DIMM slot, up to 2GB Non-ECC SDRAM

LAN Features
- LAN Chip: Intel® 82583V
- Support 10/100/1000 link speed
- LAN Bypass: 2 pairs

Expansion
- 1 x PCI Slot (Optional)

I/O Interface-Front
- Support 2 x 16 Characters LCD Module, PIO interface (Optional)
- Power status/HDD status/LAN status/Bypass status LEDs
- 2 x USB 2.0 Ports
- 1 x RJ45 type Console Port
- 1 x software button
- 6 x Copper LAN Ports
- 1 x PCI Expansion (Optional)

I/O Interface-Rear
- 2 x USB 2.0 Ports
- 1 x VGA Port

Devices
- 1 x CompactFlash Socket (Optional)
- 1 x Internal 3.5" HDD bay
- 1 x SATA-DOM device space

Power Input
- 100W ATX Power supply

Dimensions
- Chassis Dimension: 426mm x 238mm x 44mm
- Carton Dimension: 556mm x 384mm x 185mm

Weight
- Without Packing: 5.6kg
- With Packing: 8kg

Certifications
- CE approval
- FCC Class A
- UL

Ordering Information

Barebone
- NSA 1120 (P/N: 10S00112000X0)
  Intel® Atom™ D425 Single Core 1.8 GHz Processor, 1 DDR3 memory slot, 6 Gigabit LAN ports with two pairs bypass, VGA, USB port, w/o LCM
- NSA 1120A (P/N: 10S00112001X0)
  Intel® Atom™ D525 Dual Core 1.8 GHz Processor, 1 DDR3 memory slot, 6 Gigabit LAN ports with two pairs bypass, VGA, USB port, w/o LCM
- NSA 1120-C4 (P/N: 10S00112002X0)
  Intel® Atom™ D425 Single Core 1.8 GHz Processor, 1 DDR3 memory slot, 4 Gigabit LAN ports with two pairs bypass, VGA, USB port, w/o LCM
- NSA 1120A-C4 (P/N: 10S00112003X0)
  Intel® Atom™ D525 Dual Core 1.8 GHz Processor, 1 DDR3 memory slot, 4 Gigabit LAN ports with two pairs bypass, VGA, USB port, w/o LCM

Options
- NSA 1120/NSA 1120A LCM & MEMBRANE (P/N: 88S00112000X0)
- NSA 1120-C4/NSA 1120A-C4 LCM & MEMBRANE (P/N: 88S0011201X0)
NSA 1150

Main Features
- Intel® Atom™ processor C2358, 2 Core 1.7 GHz with Quick Assist, BGA type
- DDR3 1333MHz Long-DIMM sockets, up to 16GB ECC or non-ECC SDRAM
- Support 6 PCIe GbE LAN ports
- Support 2 ports LAN module (optional)
- Internal one 2.5” HDD bay
- Two pairs dual latch bypass

Specifications
Main Board
- NSB1150
- Intel® Atom™ processor C2358, 2 Core 1.7 GHz with Quick Assist, BGA type

Main Memory
- 2 x 240-pin DDR3 1333MHz DIMM sockets, up to 16GB ECC or non-ECC SDRAM

LAN Features
- 2 x LAN chip: Intel® i211
- 1 x MARVELL PHY: 88E1543
- Support 10/100/1000 link speed
- LAN bypass: 2 pairs
- 6 x copper ports
- Support 2 ports LAN module (optional)

Expansion
- 1 x PCIe x4 slot (optional)

I/O Interface-Front
- 2 x USB 2.0 ports
- 1 x RJ45 type console port
- 6 x copper ports
- 1 x reset button

I/O Interface-Rear
- 2 x USB 2.0 ports
- 1 x VGA port

Storage
- 1 x 2.5” HDD bay
- 1 x CF socket

Power Input
- 65W Power supply

Dimensions
- Chassis dimension: 430mmx260mmx44mm

Weight
- Without packing: 5Kg
- With packing: 7Kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE/FCC/UL

Ordering Information
Barebone
- NSA 1150 (P/N: 10S00115000X0)
  Intel® Atom™ processor C2358/2 cores 1.7GHz, BGA type, 2 DDR3 memory slots, 6 copper LAN ports, CF socket, USB ports, VGA port
- NSA 1150A (P/N: 10S00115001X0)
  Intel® Atom™ processor C2358/4 cores 2.4GHz, BGA type, 2 DDR3 memory slots, 6 copper LAN ports, CF socket, USB ports, VGA port
NSA 3150

Main Features
- 1U rackmount network platform
- 4th generation Intel® Core™ processors
- Support two DDR3 1333/1600 memory, up to 16GB
- Support one PCIe8 expansion
- Internal one 3.5” HDD bay/two 2.5” HDD bay (optional)

Specifications
Main Board
- NSB3150
- Support 4th generation Intel® Core™ processors
- Intel® H81

Main Memory
- 2 x 240-pin DDR3 1333/1600MHz DIMM sockets, up to 16GB non-ECC SDRAM

LAN Features
- LAN chip: Intel® I211
- Support 10/100/1000 link speed
- LAN bypass: 4pairs

Expansion
- 1 x PCIe x8 slot
- 1 x LAN module (Optional Support)

I/O Interface-Front
- Power status/HDD status/LAN status/Bypass status LEDs
- 2 x USB 2.0 ports
- 1 x RJ45 type console port
- 8 x copper LAN ports
- 1 x LAN module

I/O Interface-Rear
- 1 x expansion slot (optional)
- 2 x USB 2.0 ports
- 1 x VGA port

Devices
- 1 x internal 3.5” HDD bay/two 2.5” HDD bay (optional)
- 1 x SATA-DOM device space

Power Input
- 250W ATX power supply

Dimensions
- Chassis dimension: 430mm x 400mm x 44mm
- Carton dimension: 698mm x 543mm x 220mm

Weight
- Without packing: 8Kg
- With packing: 12Kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE approval
- FCC Class A
- UL

Ordering Information
Barebone
- NSA 3150 (P/N : 10S00315000X0)
  Support 4th generation Intel® Core™ processors, 2 DDR3 memory slots, 8 PCIe GbE LAN ports, USB ports, VGA port, w/o LCM
NSA 3170

Main Features
- 1U rackmount network platform
- Supports Intel® 6th gen. Xeon®/Core™/Pentium® processors
- Support DDR4 2400 ECC & REG, up to 32GB
- Support one PCIe x8 expansion
- Internal two 2.5” HDD bay
- Single 250 watt PSU

Specifications

Main Board
- NSB 3170
- Supports Intel® 6th gen. Xeon®/Core™/Pentium® processors (codenamed Skylake-S)
- Intel® H110/Intel® C236 chipset

Main Memory
- 2 x DDR4 2400 memory DIMM, support ECC/non-ECC memory, Max 32GB

LAN Features
- LAN Chip: Intel® i211-AT
- Support 10/100/1000/10G link speed
- LAN Bypass: 2 pairs

I/O Interface-Front
- Power status/HDD status/LAN status/bypass status LEDs
- 2 x USB 3.0 ports
- 1 x micro USB console port (optional)
- 1 x RJ45 type console port
- Max. 16 x copper LAN ports
- 1 x Reset button

I/O Interface-Rear
- 1 x Rear PCIe x8 expansion slot (optional)
- 1 x VGA Port
- 1 x Power button switch (optional)
- 2 x USB 3.0 ports (optional)

Devices
- 1 x SATA DOM (power pin reserved)
- 2 x 2.5” HDD bay

Power Input
- ATX power supply 250W

Chassis Dimensions
- Chassis dimension: 438 mm x 300mm x 44mm
- Carton dimension: TBC

Weight
- Without packing: TBC
- With packing: TBC

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE approval
- FCC Class A
- UL
**Ordering Information**

**Barebone**

- **NSA 3170-H110 (P/N: TBC)**
  Supports Intel® Xeon®/Core™/Pentium® processors, 2 DDR4 memory slots, 6 PCIe GbE LAN ports, mSATA socket, 2 USB ports, VGA port, one PCIe x8 LAN expansion slot (Front), w/o LCM

- **NSA 3170-C236 (P/N: TBC)**
  Supports Intel® Xeon®/Core™/Pentium® processors, 2 DDR4 memory slots, 8 PCIe GbE LAN ports, mSATA socket, 2 USB ports, VGA port, one PCIe x8 LAN expansion slot (Front), w/o LCM

- **NSK3169C4-I211 (P/N: TBC)**
  Intel® I211-AT module 4 copper ports by PCIe x4 interface (LAN port expansion for NSA 3170)

- **NSK3169C4-I210 (P/N: TBC)**
  Intel® I210-IT module 4 fiber ports by PCIe x4 interface (LAN port expansion for NSA 3170)

- **NX 140F**
  Intel® XL710-AM1 10GbE module 4 fiber ports by PCIe x8 interface with PKG

- **NX 142F**
  Intel® XL710-AM1 10GbE module 4 fiber ports with 2 bypass segment (multi mode) by PCIe x8 interface with PKG

- **NI 140F**
  Intel® I350 module 4 fiber ports with PCIe x8 interface with PKG

- **NI 180F**
  Intel® I350 module 8 fiber ports with PCIe x8 interface with PKG

- **NI 142C**
  Intel® I350 module 4 copper ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 180C**
  Intel® I350 module 8 copper ports by PCIe x8 interface with PKG

- **NI 184C**
  Intel® I350 module 8 copper ports with 4 bypass segment by PCIe x8 interface with PKG

- **NI 142F**
  Intel® I350 module 4 fiber ports with 2 bypass segment by PCIe x8 interface with PKG

- **NI 121F**
  Intel® I350 module 2 fiber ports with 1 bypass segment by PCIe x8 interface with PKG

<table>
<thead>
<tr>
<th>Model</th>
<th>P/N Controller</th>
<th>Interface</th>
<th>Type</th>
<th>Port Number</th>
<th>Bypass/Segment</th>
<th>Expansion Slot</th>
<th>Location Slot</th>
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</thead>
<tbody>
<tr>
<td>NX 140F</td>
<td>10S20140F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
<td>4 SFP+</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NX 142F</td>
<td>10S20142F01X0</td>
<td>XL710-AM1</td>
<td>PCIe x8</td>
<td>4 SFP+</td>
<td>2 Bypass (Multi Mode)</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 140F</td>
<td>10S000NI02X0</td>
<td>i350AM4x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 180F</td>
<td>10S10180F01X0</td>
<td>i350AM4x2</td>
<td>PCIe x8</td>
<td>8 SFP</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
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<td>NI 142C</td>
<td>10S000NI03X0</td>
<td>i350AM4x1</td>
<td>PCIe x8</td>
<td>4 Copper</td>
<td>2 Bypass</td>
<td>None</td>
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<td>NI 180C</td>
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<td>i350AM4x2</td>
<td>PCIe x8</td>
<td>8 Copper</td>
<td>None</td>
<td>None</td>
<td>All Slot</td>
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<td>i350AM4x2</td>
<td>PCIe x8</td>
<td>8 Copper</td>
<td>4 Bypass</td>
<td>None</td>
<td>All Slot</td>
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<tr>
<td>NI 142F</td>
<td>10S10142F01X0</td>
<td>i350AM4x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>2 Bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
<tr>
<td>NI 121F</td>
<td>10S10121F01X0</td>
<td>i350AM2x1</td>
<td>PCIe x8</td>
<td>4 SFP</td>
<td>1 Bypass</td>
<td>None</td>
<td>All Slot</td>
</tr>
</tbody>
</table>
DNA 125B

Main Features
- Intel® Atom™ processor E3815, BGA type
- DDR3L SO-DIMM memory, Max. 8GB
- Support 2 Giga LAN ports
- Support 8 Gbe switch ports
- Support one Mini-PCIe slot

Specifications

Main Board
- DNB125B
- Intel® Atom™ processor E3815, BGA type

Memory
- DDR3L 1066 SO-DIMM memory, Max. 8GB

LAN Features
- 2 x LAN Chip: Intel® i211-AT
- 8 x Broadcom S3128 Switch ports
- Support 10/100/1000 link speed

Expansion
- 1 x mini-PCIe slot

I/O Interface-Front
- Power status/HDD status/Power Button

I/O Interface-Rear
- 2 x USB 2.0 ports
- 1 x RJ45 type console port
- 2 x Giga LAN ports
- 8 x switch ports
- 1 x VGA port
- 1 x DC power input
- 1 x Reset Button

Devices
- 1 x Internal SATA DOM
- 1 x 2.5” HDD

Power Input
- 40W power Adapter

Dimensions
- Chassis Dimension: 232mm x 184mm x 44mm
- Carton Dimension: 303mm x 435mm x 176mm

Weight
- Without Packing: 2Kg
- With Packing: 4Kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Standards/Certifications
- CE approval
- FCC Class B
- UL

Ordering Information

Barebone
- DNA 125B (P/N: 10L00012501X0)
  Intel® Bay Trail SoC E3815 single core, BGA type, 1 DDR3 SO-DIMM slots, 2 Giga LAN ports, SATA DOM socket, USB ports, VGA port, Mini PCIe slot
DNA 120

Main Features
- Intel® Atom™ processor E3815, BGA type
- DDR3L 1600 SO-DIMM memory, Max. 8GB
- Support 4 PCIe GbE LAN ports
- Support one mini-PCIe x1 slot (optional)

Specifications

Main Board
- DNB120
- Intel® Atom™ processor E3815, BGA type

Memory
- DDR3L 1600 SO-DIMM memory, Max. 8GB

LAN Features
- 4 x LAN Chip: Intel® i211-AT
- Support 10/100/1000 link speed
- 4 x copper ports

Expansion
- 1 x mini-PCIe slot (Optional)

I/O Interface-Front
- Power status/HDD status/Power Button

I/O Interface-Rear
- 2 x USB 2.0 ports
- 1 x RJ45 type console port
- 4 x Copper ports
- 1 x VGA port
- 1 x DC power input
- 1 x Reset Button

Devices
- 1 x Internal SATA DOM

Power Input
- 40W power Adapter

Dimensions
- Chassis Dimension: 202.4mm x 110.1mm x 44mm
- Carton Dimension: 229mm x 197mm x 125mm

Weight
- Without Packing: 2Kg
- With Packing: 4Kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Standards/Certifications
- CE approval
- FCC Class B
- UL

Ordering Information

Barebone
- DNA 120 (P/N: 10L00012000X0)
  4th generation Intel® Atom™ processor E3815 single core, BGA type,
  1 DDR3 SO-DIMM slots, 4 Copper LAN ports, SATA DOM socket, USB ports, VGA port
Main Features

Desktop network platform
Intel® Atom™ D525 Dual Core/D425 Single Core 1.8 GHz processor
Support DDR3 800 memory up to 2GB
4 x GbE LAN ports

Support LAN Bypass
One PCI expansion
On-board CF socket
Internal one 2.5" HDD bay

Specifications

Main Board
- DNB 1120
- On board Intel® Atom™ D525 Dual Core/D425 Single Core 1.8 GHz Processor
- Intel® ICH8M Chipset

Main Memory
- 1 x 204-pin DDR3 800 SO-DIMM slot, up to 2GB Non-ECC SDRAM

LAN Features
- LAN Chip: Intel® 82583V
- Support 10/100/1000 link speed
- LAN Bypass: 1 pair

Expansion
- 1 x PCI Slot
- 1 x mini-PCI Slot
- 1 x PCI-e Slot (Optional)
- 1 x mini-PCIe Slot (Optional)

I/O Interface-Front
- Power status/HDD status/LAN status LEDs

I/O Interface-Rear
- 1 x Power button
- 1 x RJ45 type Console port
- 2 x USB 2.0 ports
- 4 x Copper LAN ports
- 1 x PCI Expansion Slot

Devices
- 1 x on-board CompactFlash socket
- 1 x Internal 2.5" HDD bay
- 1 x SATA DOM device
- 1 x VGA port

Power Input
- 45W Power Adaptor

Dimensions
- Chassis Dimension: 272mm x 195mm x 44mm
- Carton Dimension: 430mm x 300mm x 170mm

Weight
- Without Packing: 2kg
- With Packing: 4kg

Certifications
- CE approval
- FCC Class B
- UL

Ordering Information

Barebone
- DNA 1120 (P/N: 10L00112000X0)
  Intel® Atom™ D425 Single Core 1.8GHz Processor, one DDR3 memory slot, 4 Gigabit LAN ports with one pair bypass, CompactFlash Socket, VGA, USB port, One mini-PCI Slot, one PCI expansion slot
- DNA 1120A (P/N: 10L00112001X0)
  Intel® Atom™ D525 Dual Core 1.8GHz Processor, one DDR3 memory slot, 4 Gigabit LAN ports with one pair bypass, CompactFlash Socket, VGA, USB port, One mini-PCI Slot, one PCI expansion slot
- DNA 1120E (P/N: 10L00112002X0)
  Intel® Atom™ D425 Single Core 1.8GHz Processor, one DDR3 memory slot, 4 Gigabit LAN ports with one pair bypass, CompactFlash socket, VGA, USB port, one mini-PCIe Slot, one PCIe expansion slot
- DNA 1120AE (P/N: 10L00112003X0)
  Intel® Atom™ D525 Dual Core 1.8GHz Processor, one DDR3 memory slot, 4 Gigabit LAN ports with one pair bypass, CompactFlash socket, VGA, USB port, one mini-PCIe slot, one PCIe expansion slot
DNA 1150

Intel® Atom™ Processor C2358, 2 Cores 1.7GHz with Quick Assist, BGA type, with 6 PCIe GbE LAN ports

Main Features

- Intel® Atom™ processor C2358, 2 Cores/1.7GHz with Quick Assist, BGA type
- DDR3 1333MHz Long-DIMM sockets, up to 16GB ECC or non-ECC SDRAM
- Support 6 PCIe GbE LAN ports
- Support one mini-PCIe slot
- Internal one 2.5” HDD bay
- Two pairs dual latch bypass

Specifications

Main Board
- DNB 1150
- Intel® Atom™ processor C2358, BGA type
- 2 Cores/1.7GHz

Main Memory
- 2 x 240-pin DDR3 1333MHz DIMM sockets, up to 16GB ECC or non-ECC SDRAM

LAN Features
- 2 x LAN Chip: Intel® i210
- MARVELL PHY 88E1543
- Support 10/100/1000 link speed
- LAN Bypass: 2 pairs
- 6 x copper ports

Expansion
- 1 x Mini-PCIe slot

I/O Interface-Front
- Power status/HDD status/LAN status

I/O Interface-Rear
- 2 x USB 2.0 ports
- 1 x RJ45 type console port
- 6 x copper ports
- 1 x VGA port
- 1 x Power Button

Devices
- 1 x On-board MO-297 socket
- 1 x Internal 2.5” HDD Bay

Power Input
- 40W power Adapter

Dimensions
- Chassis Dimension: 272mm x 194.7mm x 44mm
- Carton Dimension: 420mm x 290mm x 147mm

Weight
- Without Packing: 2.5Kg
- With Packing: 5Kg

Environment
- Operating temperatures: 0°C~40°C
- Storage temperature: -20°C~75°C
- Relative humidity: 10%~90% non-condensing

Certifications
- CE
- FCC
- UL

Ordering Information

Barebone
- DNA 1150 (P/N: 10L00115000X0)
  Intel® Atom™ Processor C2358, 2 Cores 1.7GHz, BGA type, 2 DDR3 memory slots, 6 copper LAN ports, MO-297 socket, USB ports, VGA port, mini-PCIe slot
DNA 1510

Main Features
- Cavium CN7010 1.2GHz single core CPU bases on cnMIPS64
- On-board 1GByte DDR3 (4x128Mx16bit). Upgradable to be up to 2GBytes
- On-board 4GBytes eMMC. Upgradable to be up to 8GBytes
- Dual power DC input selections by Industrial Phoenix 3-pin type (12V-72V DC) or standard coaxial power type (12V DC)
- Compact and Fanless mechanical design
- Supports multiple mounting type: din rail, rack mount shelf, desktop and wall mount

Product Overview
DNA 1510 is a highly-integrated design for industrial firewall application. The CPU is MIPS64® processor with single-core cnMIPS™ III at 1.2GHz which provides highest performance capability for packet processing and network security. WAN and DMZ provides flexible design which support Copper/Fiber combo connector. Compact and flexible design is easier to fulfill different requirements and applications.

Specifications
CPU
- Cavium CN7010 cnMIPS™ III 1.2GHz single core CPU bases with 78KB I-Cache and 32KB D-Cache
- Integrate 512KB four-way set-associative L2 cache
- Integrate hardware cryptographic and CRC acceleration
- Integrate hardware packet-processing acceleration

Memory
- On-board 1GByte DDR3 (4x128Mx16bit). Upgradable to be up to 2GBytes
- On-board 4GBytes eMMC. Upgradable to be up to 8GBytes

Ethernet
- One GbE combo WAN (RJ45+SFP) and one GbE combo DMZ (RJ45+SFP) via Marvell 88E1322
- Four GbE copper LAN (RJ45) via Marvell 88E6350R

Other I/Os
- One USB 3.0 host
- One USB 2.0 host
- One Micro SD card reader with protective cover
- One RJ45 console supports to connect with serial modem for remote management

Indicators and Buttons
- LEDs for power, Alert, WAN, DMZ, LAN and USB
- One factory default button
- One system reboot button

HW Monitor
- Support HW monitor features via two thermocouples and six voltages

Power Input (either one)
- External wall-mounted AC to DC power adapter
  - Power input: 100V~240VAC
  - Power output: 12V/24W
- DC to DC power input: DC12V ~72V

Physical Characteristics
- Housing: metal
- Dimensions: 160mm x 120mm x 66mm
- Weight: 1.8kg
- Installation: tabletop, rack mount, din rail, wall mount

Environment
- Operation temperature: -40°C ~75°C
- Storage temperature: -40°C ~85°C
- Humidity: 5 to 90% (non-condensing)

Certifications
- FCC
- CE/CB
**Ordering Information**

- **DNA 1510 (P/N: 10L001S1000X0)**
  Fanless industrial grade desktop Cavium processor CN7010 1C/1.2GHz, 1GB DDR3, 4GB eMMC, with 2 GbE combo WAN (RJ45+SFP) and 4 GbE switch LAN ports, operation temperature: -40°C~75°C
IFA 1610

CoreFort™ Industry Firewall, 2 ports VPN Router

Main Features
- Stateful (L4) packet firewall
- Intrusion prevention (IPS)
- SSL VPN secure remote access
- Serial gateway (RS485)
- Operating temperature range, from 0°C (32°F) up to 60°C (140°F)
- Compact palm size

Product Overview
The CoreFort™ industry firewall series is a fully integrated industry 2 ports firewall router with VPN function. The fully equipped, broadband-capable firewall router offers a stateful packet inspection firewall, denial-of-service (DoS)/distributed denial-of-service (DDoS) protection and intrusion prevention, portscan detection, and real-time alerts. It gives additional protection for machinery and equipment installed on the secure side of the firewall. Equipped with SSL VPN functions, the CoreFort™ industry firewall provides a remote access infrastructure to secure connections, and helps machine builder/system integrator to design easily maintained systems. Furthermore, its full-industrial design is ideal for industrial environment application.

Pairing VPN capabilities, the CoreFort™ industry firewall series is an ideal endpoint connectivity and security solution for industrial automation, process control, and medical instrument remote management application.

Specifications

Network Security
- Stateful packet firewall
- Intrusion detection/prevention (IDS/IPS)
- Multiple public IPs
- SNMP support (V1/V2/V3)
- VoIP/SIP support
- Portscan detection
- DoS and DDoS protection
- SYN/ICMP flood protection
- DNS proxy/routing
- One-to-one NAT
- Source NAT (SNAT)
- IPSec NAT Traversal

WAN
- Supports uplinks/WANs: Ethernet (Static/DHCP), PPPoE

Traffic Shaping
- Bandwidth management

User Authentication
- Active directory/NTLM
- LDAP
- Local

Network Address Translation
- Destination NAT
- Incoming routed traffic
- Voice NAT

VPN (Virtual Private Network)
- IPSec
  - Encryption: 3DES, AES 128/256-bit, MD5, SHA1
  - Diffie Hellman (2, 5, 14, 15, 16, 17, 18)
  - Authentication: Pre-Shared Key, RSA Keys
  - IKEv1, L2TP
  - DPD (dead peer detection)
  - NAT Traversal
  - Compression
  - Perfect Forward Secrecy
- VPN: site-to-site
- VPN: client-to-site (road warrior)
- Integrated certificate authority
• True SSL/TLS VPN (OpenVPN)
  - Encryption: DES, 3DES, AES 128/192/256-bit, CAST5, Blowfish
  - Authentication: Pre-shared key, X.509-certificates, certification authority, and local
  - Support for VPN over HTTPS proxy (OpenVPN)
  - PPTP passthrough
  - VPN: site-to-site
  - VPN: client-to-site (road warrior)
  - VPN client for Microsoft Windows, Mac OS X and Linux
  - Multiple logins per user

Services
• Event notification & handling
• NTP (network time protocol)
• DHCP server
• SNMP server
• DynDNS

Logs and Reports
• Customizable real-time dashboard
• Live log viewer (AJAX based)
• Detailed user based web access report
• Network/system/performance statistics
• Rule-based logging settings (firewall rules)
• Syslog: local or remote
• openTSA trusted time stamping

Management
• Easy web-based administration (SSL)
• Secure remote SSH/SCP access
• Centralized management (via SSL)

Updates and Backup
• Centralized updates through CoreFort™ network
• Scheduled backup
• Encrypted backups via e-mail
• Instant recovery/backup to USB stick

Hardware Specification
• 1 x 10/100/1000 Base-T Ethernet WAN
• 1 x 10/100/1000 Base-T Ethernet LAN
• 2 x USB
• RS232/422/485
• microSD 4GB

Physical and Power
• DIN rail/wall mount (optional)/desktop
• Fanless
• Dimension(H x W x D): 110 x 25.4 x 100mm
• Weight(G.W. Kg): 0.51 Kg
• IP30
• DC Jack/terminal block, 24V DC

Environmental Specification
• Operating temperature 0°C – 60°C (32°F – 140°F)
• Storage temperature -20°C – 70°C (-4°F – 158°F)
• Humidity: 10% – 90%, non-condensing

Certification
• Safety: UL 508
• FCC/CE/RoHS

Package Content
• IFA1610 x 1
• QIG x 1
• Power input 5.08mm terminal block x 1

Ordering Information
• IFA 1610 (P/N: 10IF0161000X0)
  Industry firewall 2 ports VPN router (3 years service & maintenance)
**Main Features**

- Stateful (L4) packet firewall
- Intrusion prevention (IPS)
- SSL VPN secure remote access
- DO/DO support
- Serial gateway (RS485)
- Versatile logging & report system

**Product Overview**

The CoreFort™ industry firewall series is a fully integrated industry 3 ports firewall router with VPN function. The fully equipped, broadband-capable firewall router offers a stateful packet inspection firewall, denial-of-service (DoS)/distributed denial-of-service (DDoS) protection and intrusion prevention, portscan detection, and real-time alerts. It gives additional protection for machinery and equipment installed on the secure side of the firewall. Equipped with SSL VPN functions, the CoreFort™ industry firewall provides a remote access infrastructure to secure connections, and helps machine builder/system integrator to design easily maintained systems. Furthermore, its tough fully-rugged design is ideal for harsh environment application.

Pairing VPN capabilities, the CoreFort™ industry Firewall series is an ideal endpoint connectivity and security solution for industrial automation, process control, energy and medical instrument remote management application.

**Specifications**

**Network Security**
- Stateful packet firewall
- Intrusion detection/prevention (IDS/IPS)
- Multiple public IPs
- SNMP support (V1/V2/V3)
- VoIP/SIP support
- Portscan detection
- DoS and DDoS protection
- SYN/ICMP flood protection
- DNS proxy/routing

**Multi-WAN/Failover**
- Supports multiple uplinks/WANs: Ethernet (Static/DHCP), PPPoE, Analog/UMTS modem
- Automatic WAN uplink failover
- Monitoring of WAN uplinks

**Traffic Shaping**
- Bandwidth management

**User Authentication**
- Active directory /NTLM
- LDAP
- Local

**Network Address Translation**
- Destination NAT
- Incoming routed traffic
- One-to-one NAT
- Source NAT (SNAT)
- IPSec NAT Traversal

**High Availability**
- Hot standby (active/passive)
- Node Data/configuration synchronization

**Bridging**
- Firewall stealth mode
- OSI-layer 2 Firewall-function
- Spanning tree
- Unlimited bridges
- Unlimited interfaces per bridge

**VPN (Virtual Private Network)**
- IPsec
  - Encryption: 3DES, AES 128/256-bit, MD5, SHA1
  - Diffie hellman (2, 5, 14, 15, 16, 17, 18)
  - Authentication: Pre-shared key, RSA keys, X.509-certificates, IKEv1, L2TP
  - DPD (dead peer detection)
  - NAT Traversal
  - Compression
  - PFS (perfect forward secrecy)
- VPN: site-to-site
- VPN: client-to-site (road warrior)
- Integrated certificate authority
  - True SSL/TLS VPN (OpenVPN)
  - Encryption: DES, 3DES, AES 128/192/256-bit, CAST5, Blowfish
  - Authentication: Pre-shared key, X.509-certificates, certificate authority, and local
  - Support for VPN over HTTPS proxy (OpenVPN)
- PPTP passthrough
- VPN: site-to-site
- VPN: client-to-site (road warrior)
- VPN: client for Microsoft Windows, Mac OS X and Linux
- Multiple logins per user
- VPN Failover

**Services**
- Event notification & handling
- NTP (network time protocol)
- DHCP server
- SNMP server
- DynDNS

**Logs and Reports**
- Customizable real-time dashboard
- Live log viewer (AJAX based)
- Detailed user based web access report
- Network/system/performance statistics
- Rule-based logging settings (firewall rules)
- Syslog: local or remote
- openTSA trusted time stamping

**Management**
- Easy Web-based administration (SSL)
- Secure remote SSH/SCP access
- Centralized management (via SSL)

**Updates and Backup**
- Centralized updates through CoreFort™ network
- Scheduled backup
- Encrypted backups via e-mail
- Instant recovery/backup to USB stick

**Routing**
- Static routes
- Source-based routing
- Destination-based routing
- Policy-based routing (based on interface, MAC, protocol, or port)

**Hardware Specification**
- 1 x 10/100/1000 Base-T Ethernet WAN
- 2 x 10/100/1000 Base-T Ethernet LAN
- 1 x USB
- 1 x DI/DO
- RS-232/422/485
- microSD 4GB

**Physical and Power**
- DIN rail/wall mount (optional)
- Fanless
- Dimension (H x W x D): 167 x 59 x 140mm
- Weight (G.W. Kg): 1.90Kg
- IP30
- Terminal block, 24V DC

**Environmental Specification**
- Operating temperature: 0°C ~ 60°C (32°F ~ 140°F)
- Storage temperature: -20°C ~ 70°C (-4°F ~ 158°F)
- Humidity: 5% ~ 95%, non-condensing

**Certification**
- Safety: UL 508
- FCC/CE/RoHS

**Package Content**
- IFA 2610 x 1
- QIG x 1
- Power Input 5.08mm terminal block x 1
- DI/DO terminal block x 1

**Ordering Information**
- IFA 2610 (P/N: 10IF0261000X0)
  Industry firewall 3 ports VPN router (3 years service & maintenance)
IFA 3610
CoreFort™ Industry Firewall, 5 ports VPN Router with Wide Temperature Range

Main Features
- Stateful (L4) packet firewall
- Intrusion prevention (IPS)
- SSL VPN secure remote access
- Do/Do support
- Serial gateway (RS485)
- Wide temperature range, up to 70°C (158°F)

Product Overview
The CoreFort™ industry firewall series is a fully integrated industry multi-port firewall router with VPN function. The fully equipped, broadband-capable firewall router offers a stateful packet inspection firewall, denial-of-service (DoS)/distributed denial-of-service (DDoS) protection and intrusion prevention, portscan detection, and real-time alerts. It gives additional protection for machinery and equipment installed on the secure side of the firewall. Equipped with SSL VPN functions, the CoreFort™ industry firewall provides a remote access infrastructure to secure connections, and helps machine builder/system integrator to design easily maintained systems. Furthermore, its tough fully-rugged design is ideal for harsh environment application. With wide temperature range up to 70°C (158°F) degree, it offers reliable communication network in extreme temperature conditions.

Pairing VPN capabilities, the CoreFort™ industry firewall series is an ideal endpoint connectivity and security solution for industrial automation, process control, energy and medical instrument remote management application.

Specifications

**Network Security**
- Stateful packet firewall
- Intrusion detection/prevention (IDS/IPS)
- Multiple public IPs
- SNMP support (V1/V2/V3)
- VoIP/SIP support
- Portscan detection
- DoS and DDoS protection
- SYN/ICMP flood protection
- DNS proxy/routing

**Multi-WAN/Failover**
- Supports multiple Uplinks/WANs: Ethernet (Static/DHCP), PPPoE, Analog/UMTS modem
- Automatic WAN uplink failover
- Monitoring of WAN uplinks

**Traffic Shaping**
- Bandwidth management

**User Authentication**
- Active directory /NTLM
- LDAP
- Local

**Network Address Translation**
- Destination NAT
- Incoming routed traffic
- One-to-one NAT
- Source NAT (SNAT)
- IPSec NAT Traversal

**High Availability**
- Hot standby (active/passive)
- Node Data/Configuration Synchronization

**Bridging**
- Firewall Stealth Mode
- OSI-layer 2 firewall-function
- Spanning tree
- Unlimited bridges
- Unlimited interfaces per bridge

**VPN (Virtual Private Network)**
- IPsec
  - Encryption: 3DES, AES 128/256-bit, MD5, SHA1
  - Diffie Hellman (2, 5, 14, 15, 16, 17, 18)
  - Authentication: Pre-Shared Key, RSA Keys, X.509-certificates, IKEv1, L2TP
  - DPD (Dead Peer Detection)
  - NAT-Traversal
  - Compression
  - PFS (perfect forward secrecy)
- VPN: site-to-site
- VPN: client-to-site (road warrior)
- Integrated certificate authority
  - True SSL/TLS VPN (OpenVPN)
- Encryption: DES, 3DES, AES 128/192/256-bit, CAST5, Blowfish
- Authentication: Pre-shared key, X.509-certificates, certification authority, and local
- Support for VPN over HTTPS proxy (OpenVPN)
- PPTP passthrough
- VPN: site-to-site
- VPN: client-to-site (road warrior)
- VPN: client for Microsoft Windows, Mac OS X and Linux
- Multiple logins per user
- VPN failover

Services
- Event notification & handling
- NTP (network time protocol)
- DHCP server
- SNMP server
- DynDNS

Logs and Reports
- Customizable real-time dashboard
- Live Log Viewer (AJAX based)
- Detailed user based web access report
- Network/system/performance statistics
- Rule-based logging settings (firewall rules)
- Syslog: local or remote
- OpenTSA trusted time stamping

Management
- Easy web-based administration (SSL)
- Secure remote SSH/SCP access
- Centralized management (via SSL)

Updates and Backup
- Centralized updates through CoreFort™ network
- Network
- Scheduled backup
- Encrypted backups via e-mail
- Instant recovery/backup to USB stick

Routing
- Static routes
- Source-based routing
- Destination-based routing
- Policy-based routing (based on interface, MAC, protocol, or port)

Hardware Specification
- 1 x 10/100/1000 Base-T Ethernet WAN
- 4 x 10/100/1000 Base-T Ethernet LAN
- 1 x USB
- 1 x DI/DO
- RS-232/422/485
- microSD 4GB

Physical and Power
- DIN rail/wall mount (optional)
- Fanless
- Dimension (H x W x D): 167mm x 59mm x 140mm
- Weight (G.S. Kg): 1.90Kg
- IP30
- Dual power input 24VDC

Environmental Specification
- Operating temperature: -20°C ~ 70°C/-4°F ~ 158°F
- Storage temperature: -40°C ~ 80°C/-40°F ~ 176°F
- Humidity: 5% ~ 95%, non-condensing

Certification
- Safety: UL 508
- FCC/CE/RoHS

Package Content
- IFA 3610 x 1
- QIG x 1
- Power Input 5.08mm terminal block x 2
- DI/DO terminal block x 1

Ordering Information
- IFA 3610 (P/N: 10IF0361000X0)
  Industry firewall 5 ports VPN router (3 years service & maintenance)
**Main Features**

- Fully-integrated VPN server
- Stateful (L4) packet firewall
- SSL VPN secure remote access
- Serial gateway (RS485)
- Up to 25/100 concurrent licenses
- Redundant storage (RAID1)

**Specifications**

**Network Security**
- Stateful packet firewall
- Intrusion detection/prevention (IDS/IPS)
- Multiple public IPs
- SNMP support (V1/V2/V3)
- VoIP/SIPs support
- Portscan detection
- DoS and DDoS protection
- SYN/ICMP flood protection
- DNS proxy/routing
- Multi-WAN/Failover
  - Supports multiple uplinks/WANs: Ethernet (Static/DHCP), PPPoE, Analog/UMTS modem
  - Automatic WAN uplink failover
  - Monitoring of WAN uplinks
- Traffic shaping
  - Bandwidth management
- User Authentication
  - Active directory/NTLM
  - LDAP
  - Local
- Network Address Translation
  - Destination NAT
  - IPsec
  - One-to-one NAT
  - Source NAT (SNAT)
  - IPSec NAT traversal
- High Availability
  - Hot standby (active/passive)
  - Node data/configuration synchronization
- Bridging
  - Firewall stealth mode
  - OSI-layer 2 firewall-function
  - Spanning tree
  - Unlimited bridges
  - Unlimited interfaces per bridge
- **VPN (Virtual Private Network)**
  - IPsec
    - Encryption: 3DES, AES 128/256-bit, MD5, SHA1
    - Diffie Hellman (2, 5, 14, 15, 16, 17, 18)
    - Authentication: Pre-shared key, RSA keys, X.509-certificates, IKEv1, L2TP
    - DPD (Dead Peer Detection)
    - NAT Traversal
    - Compression
    - PFS (perfect forward secrecy)
    - VPN: site-to-site
    - VPN: client-to-site (road warrior)
    - Integrated certificate authority

**Product Overview**

With the CoreFort™ VPN Dispatcher, users can define and manage network connections with extreme flexibility, adapting them to suit the specific needs. You can create multiple and distributed networks using VPN gateway to gateway and enable remote connections to your network and take advantage of the intuitive VPN client, which is universally compatible with Windows, Mac OS X and Linux...and so on.
- True SSL/TLS VPN (OpenVPN)
  - Encryption: DES, 3DES, AES 128/192/256-bit, CAST5, blowfish
  - Authentication: Pre-shared key, X.509-certificates, certification authority, and local
  - Support for VPN over HTTPS proxy (openVPN)
  - PPTP passthrough
  - VPN: client-to-Site (road warrior)
  - VPN: client for Microsoft Windows, Mac OS X and Linux
  - Multiple logins per user
  - VPN failover

**Services**
- Event notification & handling
- NTP (network time protocol)
- DHCP server
- SNMP server
- DynDNS

**Logs and Reports**
- Customizable real-time Dashboard
- Live log viewer (AJAX based)
- Detailed user based web access report
- Network/system/performance statistics
- Rule-based logging settings (firewall rules)
- Syslog: local or remote
- openTSA trusted time stamping

**Management**
- Easy web-based administration (SSL)
- Secure remote SSH/SCP access
- Centralized management (via SSL)

**Updates and Backup**
- Centralized updates through CoreFort™ network
- Scheduled backup
- Encrypted backups via e-mail
- Instant recovery/backup to USB Stick

**Routing**
- Static routes
- Source-based routing
- Destination-based routing
- Policy-based routing (based on interface, MAC, protocol, or port)

**Hardware Specification**
- Intel® Atom™ CPU
- 6 x 10/100/1000 Base-T Ethernet
- 2 x USB
- 1 x Console port
- 2 x 2.5" HDD (RAID1)

**Physical and Power**
- Rack mount
- Dimension (H x W x D): 44mm x 426mm x 238mm
- 100W ATX power supply

**Environmental Specification**
- Operating temperature: 0°C - 40°C (32°F - 104°F)
- Storage temperature: -20°C - 70°C (-4°F - 158°F)
- Humidity: 10% - 90%, non-condensing

**Certification**
- FCC/CE/RoHS

**Package Content**
- IVD1000-S/A x 1
- QIG x 1
- Power cord
- Rack mount kit

**Ordering Information**
- IVD 1000-S (P/N: TBD)
  VPN dispatcher server with 25 licenses
  stateful packet firewall, SSL VPN, unified VPN management
  (3 years services & maintenance)
**Main Features**
- 2 Gigabit Ethernet ports for data/power redundancy with PoE+
- Data protection in harsh environments
- Fully compliant with EN50155 (railway applications), EN61373 (vibrations & shocks)
- Wide temperature range support, -40°C~70°C
- IP rating: IP 54 (NEMA)
- Max capacity: Up to 3T

**Product Overview**
The INAS330 is extremely rugged-design network-attached storage (NAS), which was designed to provide high performance, reliability and capacity data storage in harsh environments. Equipped with a unique storage technology, it is able to record the accurate data in harsh environments, such as Oil & Gas, Transportation, and Industrial automation…and so on.

Furthermore, it offers various data backup options. Remote replication supports data backup from target unit to another remote unit, FTP servers and file-level synchronization. By integrated with Rsync protocol, it’s able to keep critical data always consistent. Also, it supports SMB/CIFS, NFS, and AFP protocols for file sharing among cross-platforms such as Windows, Mac and Linux/UNIX.

The INAS330 supports Power over Ethernet (PoE/PoE+) and following the specifications in IEEE 802.3af/IEEE 802.3at. It’s has dual PoE+ interfaces which could support power redundancy. In addition, INAS330 could be used on video recording system widely which supports RAID 5 function and also offers the data protection. The INAS330 was built with a fanless, thermally efficient, dust- and water-protected IP 54-rated chassis. It’s sealed enclosure eliminates internal fans as a point of critical system failure, protecting the internals.

**Specifications**

**Hardware Features**
- **Computer**
  - Processor: Dual Cortex-A9 CPU
  - Storage: Up to 3 x 2.5” HDD/SSD
  - On board SSD storage
  - Storage buffer available for anytime status
- **Ethernet**
  - 2 x Gigabit LAN ports for data redundancy (M12)
  - 1 x Gigabit LAN port for management (M12)
- **Button**
  - Reset button: Reset to factory default
  - (Pressing and holding the button for 5 seconds will reset to factory default)
- **LEDs**
  - Power LED: power On/Off
  - System LED: system status
  - PoE/Temp LED: PoE/Temp status
  - HDD LED: HDD1, HDD2, HDD3 (read/write/fail)
  - LAN LED: 10/100/1000M x3 (link/activity)

**Power Requirements**
- Input: PoE (IEEE 802.3af), or PoE+ (IEEE 802.3at)
- Power redundancy

**HS Control**
- Smart heating system

**Physical Characteristics**
- Fanless
- Housing: metal, IP 54 protection
- Mounting: wall mount (optional)

**Environmental Specification**
- Operating temperature:
  - -40°C~+70°C (-40°F~+158°F) For SSD
  - -25°C~+55°C (-13°F~+131°F) For HDD
- Storage temperature:
  - -40°C~+85°C (-40°F~+176°F)
- Humidity: 5%~95%, non-condensing

**Certifications**
- FCC/CE
- RoHS/WEEE
**Compliance**
- EN50155 (railway applications)
- IEC61373 (vibrations & Shocks)
- EN60950; EN61000 (immunity, emission)
- EN60068-2-32/IEC68-2-32 (environmental testing)

**Package Content**
- INAS330 unit x 1
- QIG x 1
- CD x 1

**Optional Accessories**
- Wall-mount-kit: 2 extra brackets and screws
- M12 cables: waterproof 8pin male M12 to RJ45 gigabit Ethernet cable, rated IP67

**System Dimensions**
- 246mm (w) x 194mm (D) x 60mm (H) (9.69” x 7.64” x 2.36”)

**Software Features**
- OS: Linux
- Firmware upgrade via system web UI
- System management via management web UI
- RAID management: RAID 0,1,5,JBOD
- IP Settings: fixed IP, DHCP
- Auto data rebuilding
- Remote backup
- Backup management
  - Green power management
  - Data protection (Support data buffer available for vibration status and harsh temperature environment)

**Client O.S. support**
- Linux & UNIX
- Mac OS X 10.7 or later

**Web Browsers Support**
- Internet Explorer IE 9.0 later
- Mozilla Firefox
- Apple Safari
- Google Chrome

**Networking**
- HTTP/HTTPS, Samba/CIFS, NFSv4, AFP(v3.3), SNMP(v3), FTP,
- TLS 1.0, TLS 1.2, TCP/IP,v4/v6,IEEE 802.3x

**Ordering Information**
- INAS330 (P/N:101G0033000X0)
  Rugged-design industry storage (3 years service & maintenance)