» IP Network Server NSW1U «

» Front and Rear I/O flexibility, with up to 8 x Gb NICs in front
» Short depth, ruggedized 1U chassis
» "Appliance" look and feel
» Long life support (3 years)
» Dual, redundant AC or DC power option
» Industry-leading performance/watt

IP Network Server NSW1U
Product Overview

IP Network Server NSW1U provides an unmatched combination of network port density and CPU performance in a compact package that is ideal for Services over IP (SoIP). The NSW1U uses Intel's most advanced 64-bit quad-core processor, offering high performance coupled with power efficiency, to provide improved performance per watt over previous-generation rack-mount servers.

As an alternative to custom chassis for network security applications, the NSW1U is uniquely suited for network data applications with high I/O requirements. With a longer life than enterprise servers and with many of the features found on carriergrade servers, the NSW1U raises the performance bar for IP network security products by supporting Intel® I/O Acceleration Technology (Intel® I/OAT), Intel® 64 architecture and Fully Buffered DIMM technology at 533 MHz and 667 MHz.

Features & Benefits	
Standard Feature	Benefit
Support for one 64-bit Quad-Core Intel® Xeon® processor 5400 series on 45nm technology	New 45nm enhanced Intel® Core™ microarchitecture boosts performance on multiple applications/user environments and data-demanding workloads Performance-optimized, energy-efficient processor enables denser deployments
Also supports 64-bit Dual-Core Intel® Xeon® processor 5100 series	Continues long-life support for designs using those processors
Three-year production life (with option to extend)	Reduces customer risk for long product roll-outs Fewer platform transitions requiring additional testing and software
Shallow 20-inch-depth	Increases installation and service flexibility
Single or redundant (optional) AC or DC power supply	Flexibility for installation and applications; uninterrupted operation
Scalable Gigabit Ethernet ports	Four or eight (optional) front or four rear-panel Gigabit Ethernet ports supporting Intel® I/OAT1 enhance applicability to I/O-intensive applications, and allow versatility in cabling
I/O bypass capability (optional)	Four front Gigabit Ethernet (GbE) bypass-enabled ports support uninterrupted packet flow in the event of a system failure; Programmable bypass mode with watchdog timer features real-time control, fail-open or shut down upon power failure detection; Four additional front or rear NIC bypass ports may be added using an available NIC
Flash storage capability supports 3rd party solid state drives (purchased separately)	High-speed, high-density storage, faster boot times, USB interface

Technical Information

Processor

Type	Single 64-bit Quad-Core Intel® Xeon® processor 5400 series or single 64-bit Dual-Core Intel® Xeon® processor 5100 series
Chipset	Intel® 5000P chipset
Core	Quad or Dual
Front-side bus	Supports 1066 MHz and 1333 MHz
Network interface	4 x GbE ports or 8 x GbE ports (bypass SKU, four ports are bypass-enabled). All products support four additional ports as an option over the respective standard configuration.

Memory

Cache Memory	12 MB or 4 MB shared L2 cache
Maximum Memory Capacity	24 GB with 4 GB memory per DIMM Registered ECC SDRAM DIMMs
Number of DIMM slots	Six
Memory type	Fully Buffered DIMM technology at 533 MHz and 667 MHz

Environmental

Temperature, operating	50˚ F to 95˚ F (10˚ C to 35˚ C)
Temperature, non-operating	-40˚ F to 158˚ F (-40˚ C to 70˚ C)
Altitude	0 to 900 m (2,950ft.) @ 35˚ C, temperature derated by 1˚ C for each additional 300 m (985ft.)
Humidity non-operating	95%, non-condensing at temperatures of 73˚ F (23˚ C) to 104˚ F (40˚ C)
Vibration operating	Swept sine survey at an acceleration amplitude of 0.1 g from 5 Hz to 100 Hz and back to 5 Hz at a rate of 0.1 octave/minute, 90 minutes per axis on all three axes as per Bellcore GR-63-CORE* standards
Vibration non-operating	Swept sine survey at an acceleration amplitude of 0.1 g from 5 Hz to 100 Hz and back to 5 Hz at a rate of 0.1 octave/minute, 90 minutes per axis on all three axes as per Bellcore GR-63-CORE* standards
Shock operating	Half-sine 2 G, 11 ms pulse, 100 pulses in each direction, on each of the three axes as per the Intel Environmental Standards Handbook

Physical

Height	1.70 in. (4.32 cm)
Width	16.93 in. (43.00 cm)
Depth	20.0 in. (50.8 cm)
Weight	25.4 lbs. (11.52 kg)

Chipset

Memory controller hub	Intel® 5000P Memory Controller Hub(MCH)
I/O controller hub	Intel® 6321ESB I/O Controller Hub

Connections

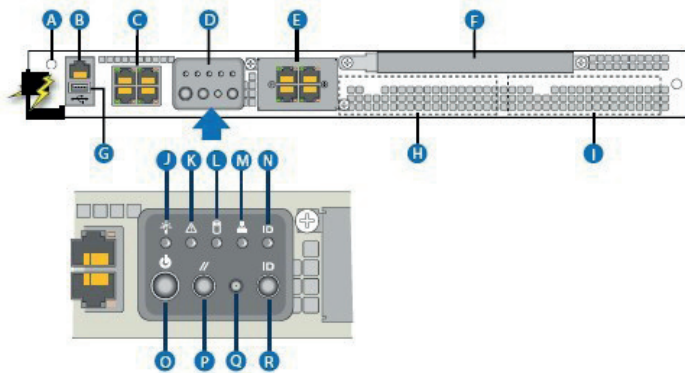|	
PCIe x8	1 slot
PS/2	Keyboard and mouse connections
Three USB 2.0 ports	1 front, 2 rear
One COM port	Front or rear

Storage

Type	Fixed 3.5" SATA HD Drive
Redundancy	Software RAID 0 and 1
Internal	Carrier with two HDD trays

Regulatory Compliance

Safety	UL 60950-1, 1st Edition/CSA 22.2, 60950-1, Low Voltage Directive, 2006/95/EC, GS to EN60950-1, 1st Edition CB Certificate and Report to IEC60950-1, 1st Edition and all international deviations
Electromagnetic Compatibility:	
Australia/New Zealand	C-tick Approval
Canada	IC ICES-003 Class A Limit
Europe	EMC Directive, 2004/108/EC; EN55022 Class A Limit, Radiated and Conducted Emissions; EN55024 Immunity Characteristics for ITE; EN61000-4-2 ESD Immunity, EN61000-4-3 Radiated Immunity; EN61000-4-4 Electrical Fast Transient, EN61000-4-5 Surge; EN61000-4-6 Conducted RF, EN61000-4-8 Power Frequency Magnetic Fields; EN61000-4-11 Voltage Fluctuations and Short Interrupts, EN61000-3-2 Harmonic Currents, EN61000-3-3 Voltage Flicker
International	CISPR 22, Class A Limit, CISPR 24 Immunity
Japan	VCCI Class A ITE (CISPR 22, Class A Limit)
Korea	RRL Approval, Class A
Russia	Gost Approval (EMC and Safety)
Taiwan	BSMI Approval, CNS 13438, Class A and CNS 13436 Safety
USA	FCC 47 CFR Parts 2 and 15, Verified Class A Limit

Front Panel (NSRA0401W configuration shown)


A – Anti-static connection
B – RJ45 serial port (COM2/serial B)
C – 4xGbE bypass-enabled NIC ports (NSRA0401W)
D – Control panel
E – 4xGbE NIC ports (optional)
F – Optical device (optional)

G – USB port 2
H – Hard disk drive bay 1
I – Hard disk drive bay 0
J – Power LED
K – System status LED
L – Disk activity/fault LED

M – NIC activity LED
N – ID LED
O – Power switch
P – Reset switch
Q – NMI switch
R – ID switch

Back Panel (NSRA0201W/NSRA0401W configuration shown)
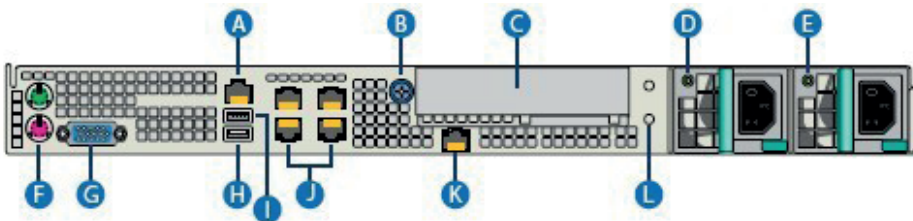
A – RJ45 serial port (COM2/serial B)
B – PCI cage thumbscrew
C – PCI add-in card bracket or filler panel
D – Power supply #1 (hot-swap if two power supplies are installed)
E – Power supply #2/optional (hot-swap if two power supplies are installed)

F – PS/2 mouse and keyboard connectors
G – Video connector
H – USB 0
I – USB 1
J – 4xGbE NIC ports (NSRD0201W, NSRA0201W, and NSRA0401W)
K – Remote management connector
L – Ground studs for DC input (2)

CORPORATE OFFICES

Europe, Middle East & Africa

Lise-Meitner-Str. 3-5
86156 Augsburg
Germany

Tel.: +49 (0) 821 4086-0
Fax: +49 (0) 821 4086 111
sales@kontron.com

North America

14118 Stowe Drive
Poway, CA 92064-7147
USA

Tel.: +1 888 294 4558
Fax: +1 858 677 0898
info@us.kontron.com

Asia Pacific

17 Building,Block #1, ABP.
188 Southern West 4th Ring Road
Beijing 100070, P.R.China

Tel.: +86 10 63751188
Fax: +86 10 83682438
info@kontron.cn