

## » Carrier Grade Server TIGW1U «



- » NEBS-3 / ETSI compliant
- » Long life support (3 years)
- » Short depth, ruggedized 1U chassis
- » Dual, redundant AC or DC power option
- » Telco alarm management
- » Hardware RAID option
- » Industry-leading performance/watt

Carrier Grade Server TIGW1U is a NEBS-3 and ETSI-compliant, carriergrade rack-mount server, providing industry-leading CPU performance and power efficiency in a compact package. It supports the Quad-Core Intel® Xeon® processor L5410 and Dual-Core Intel® Xeon® processors LV 5148 and LV 5128, both with 64-bit functionality, providing improved performance-per-watt over previous-generation rack-mount servers. This high-performing server is an excellent choice for the demanding environment and limited space of central offices and highly available data

centers. It is also ideal for Services over IP (SoIP) for nextgeneration telecom solutions and communications networks. Offered as a standard building block, the Intel Carrier Grade Server TIGW1U enables OEMs and TEMs to create their own value-added solutions for a variety of telecom applications including unified messaging, SoIP, call control, media and signaling gateways, and operational system support.

## Features & Benefits

### Standard Feature

Support for two 64-bit Quad-Core Intel® Xeon® processors L5410 on 45nm technology or two 64-bit Dual-Core Intel® Xeon® processors LV 5148 or LV 5128 on 65nm technology

Three-year extended lifecycle support with option to extend

Shallow 20-inch depth

Single or redundant (optional) AC or DC power supply

Integrated four-port 10/100/1000 Mbps Ethernet

Supports up to three hot-swap 2.5-inch SAS hard disk drives

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S/W RAID 0,1 and H/W RAID 0, 1, and 5 (optional)

Optical Storage

Remote manageability (optional)

Intel® Remote Management Module 2

Flash storage capability supports 3rd party solid state drives (purchased separately)

### Benefit

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

Reduces customer risk for long product roll-outs

Fewer platform transitions requiring additional testing and software

Increases installation and service flexibility

Flexibility of installation and applications; Uninterrupted operation

Implementation favoring intense network I/O traffic workloads

High-performance, enterprise-class drives for 24/7 operation

High-performance, enterprise-class drives for 24/7 operation

Greater data protection and storage reliability

Improved availability, integrated capacity and performance

DVD-CDR installed

Lights-out management; Remote keyboard, video, and mouse

Lights-out management

High-speed, high-density storage, faster boot times, USB interface

## Technical Information

## Processor

Type	Two 64-bit Quad-Core Intel® Xeon® processors L5410 or two 64-bit Dual-Core Intel® Xeon® processors LV 5148 or LV 5128
Core	Quad or Dual
Front-side bus	1066 and 1333 MHz
Expansion bus	One full-height/full-length super slot: PCI-X or PCIe x8

## Chipset

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

## Storage

Type	SAS 2.5" hot-swap HDD
Redundancy	S/W RAID 0, 1 and H/W RAID 0, 1, and 5(optional)
Internal	Carrier with three HDD trays
External	SAS port on rear supports external x4 SAS

## Environmental

Temperature, operating	+5°C to +40°C (41° F to 104° F)
Temperature, short-termoperating	(<96 hrs) -5°C to 50°C
Temperature, non-operating	-40°C to 70°C (-40° F to 158° F)
Altitude	0 to 1,800m (0 to 5,905 ft) @ 40°C; 0 to 4,000m (0 to 13,123 ft) @ 30°C
Humidity, operating	5% to 85%
Humidity, short-term operating	5% to 90%
Humidity, non-operating	95%, non-condensing at temperatures of 23° C (73° F) to 40° C (104° F)
Vibration, operating	Swept sine survey at an acceleration amplitude of 0.1 G from 5 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 0.5G from 5 to 50 Hz at a rate of 0.1 octaves/minute, and an acceleration amplitude of 3.0 G from 50 to 500 Hz at a rate of 0.25 octaves/minute, on all three axes as per Bellcore GR-63- CORE standard. 2.2 Grms, 10 minutes per axis on all three axes
Shock, operating	Half-sine 2 G, 11 ms pulse, 100 pulses in each direction, on each of the three axes
Shock, non-operating	Trapezoidal, 25 G, 170 inches/sec delta V, three drops in each direction, on each of the three axes
Acoustic	Sound pressure: <55dBA at ambient temperatures <24° C measured at bystander positions in operating modes

## Memory

Cache memory	12 MB or 4 MB shared L2 cache
Maximum memory capacity	24 GB with 4 GB memory per DIMM
Number of DIMM slots	Six
Memory type	FB-DIMM technology at 533 and 667 MHz

## Physical

Height	1.70 inches (43.25 mm)
Width	16.93 inches (430 mm)
Depth	20 inches (508 mm)

## Connections

PCI adapter slot support	PCI-X (included) or PCIe x8 or (optional)
PS/2	Keyboard and mouse connections
USB 2.0 ports	Three: one front/two rear
COM ports	One port: front or rear access

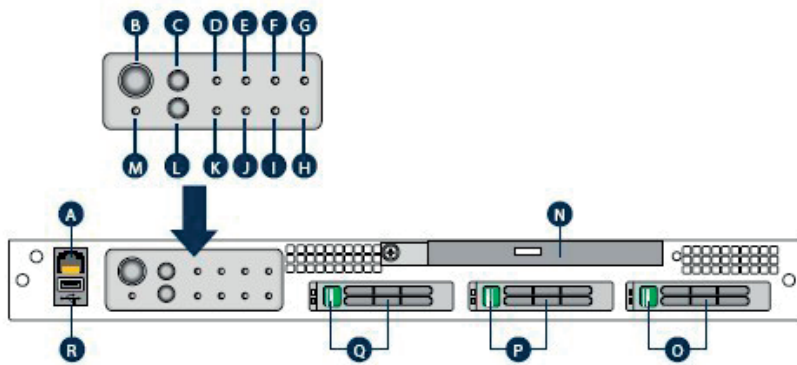
## Regulatory Compliance

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
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## Electromagnetic Compatibility

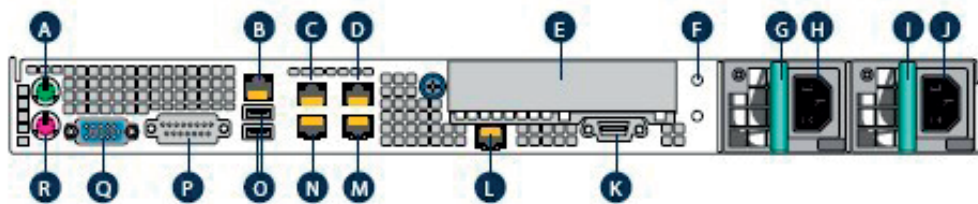
Australia/New Zealand	C-tick, Class A
Canada	ICES-003 Class A Limit
Europe	EMC Directive, 2004/108/EC; EN55022, Class A Limit, Radiated and Conducted Emissions; EN55024 Immunity Characteristics for ITE; EN61000-4-2 ESD Immunity; EN61000-4-3 Radiated Immunity; EN61000-4-4 Electrical Fast Transient; EN61000-4-5 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
Korea	RRL Approval, Class A
Russia	Gost Approval
Taiwan	BSMI Approval, CNS 13438, Class A and CNS13436 Safety
USA	FCC 47 CFR Parts 2 and 15, Verified Class A Limit

## Carrier Grade Server TIGW1U front panel



- |                                       |   |                            |
|---------------------------------------|---|----------------------------|
| A – Front serial B port (RJ45)        | E – Major alarm LED (amber or red)        | J – NIC activity LED       |
| B – Power switch                      | F – Major alarm LED (amber or red)        | K – System ID LED (white)  |
| C – Reset switch                      | G – Power alarm LED (amber)               | L – ID switch              |
| D – Critical alarm LED (amber or red) | H – Disk activity/fault LED (green/amber) | M – NMI switch             |
| I – Main power LED (green)            | N – Optical drive bay                     | O – Drive bay 0 and handle |

## Carrier Grade Server TIGW1U back panel



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|--|--|
| A – PS/2 mouse   | K – External 4x SAS connector                |
| B – RJ45 COM2 (Serial B) port                            | L – GCM 3 port                               |
| C – RJ45 NIC 3 connector                                 | M – NIC port 1                               |
| D – RJ45 NIC 2 connector                                 | N – NIC port 4                               |
| E – PCI card bracket (full-height)                       | O – USB port 0 (bottom),<br>USB port 1 (top) |
| F – Ground studs (for system with DC input power supply) | P – DB15 alarms connector                    |
| G – Power supply 1 (AC or DC)                            | Q – Video connector                          |
| H – Power supply 1 input connector (AC or DC)            | R – PS/2 keyboard connector                  |
| I – Power supply 2 (AC or DC), optional                  |  |
| J – Power supply 2 input connector (AC or DC)            |  |

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