

# ▶ 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

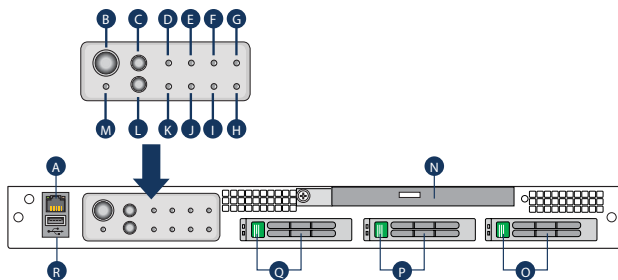
## ► Product Overview

Carrier Grade Server TIGW1U is a NEBS-3 and ETSI-compliant, carrier-grade 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 next-generation 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.

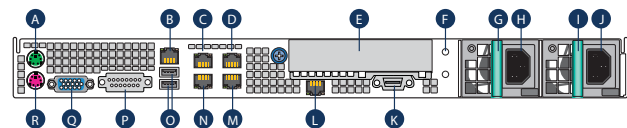
## ► Features & Benefits

Standard Features	Benefits
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	<ul style="list-style-type: none"> <li>► New 45nm enhanced Intel® Core™ microarchitecture boosts performance on multiple applications/user environments and data-demanding workloads</li> <li>► Performance-optimized, energy-efficient processor enables denser deployments</li> </ul>
Three-year extended lifecycle support with option to extend	<ul style="list-style-type: none"> <li>► Reduces customer risk for long product roll-outs</li> <li>► Fewer platform transitions requiring additional testing and software</li> </ul>
Shallow 20-inch depth	<ul style="list-style-type: none"> <li>► Increases installation and service flexibility</li> </ul>
Single or redundant (optional) AC or DC power supply	<ul style="list-style-type: none"> <li>► Flexibility of installation and applications; Uninterrupted operation</li> </ul>
Integrated four-port 10/100/1000 Mbps Ethernet	<ul style="list-style-type: none"> <li>► Implementation favoring intense network I/O traffic workloads</li> </ul>
Supports up to three hot-swap 2.5-inch SAS hard disk drives	<ul style="list-style-type: none"> <li>► High-performance, enterprise-class drives for 24/7 operation</li> </ul>
S/W RAID 0,1 and H/W RAID 0, 1, and 5 (optional)	<ul style="list-style-type: none"> <li>► Greater data protection and storage reliability</li> <li>► Improved availability, integrated capacity and performance</li> </ul>
Optical Storage	<ul style="list-style-type: none"> <li>► DVD-CDR installed</li> </ul>
Remote manageability (optional)	<ul style="list-style-type: none"> <li>► Lights-out management; Remote keyboard, video, and mouse</li> </ul>
Flash storage capability supports 3rd party solid state drives (purchased separately)	<ul style="list-style-type: none"> <li>► High-speed, high-density storage, faster boot times, USB interface</li> </ul>



Carrier Grade Server TIGW1U front panel

- A Front serial B port (RJ45)
- B Power switch
- C Reset switch
- D Critical alarm LED (amber or red)
- E Major alarm LED (amber or red)
- F Major alarm LED (amber or red)
- G Power alarm LED (amber)
- H Disk activity/fault LED (green/amber)
- I Main power LED (green)
- J NIC activity LED
- K System ID LED (white)
- L ID switch
- M NMI switch
- N Optical drive bay
- O Drive bay 0 and handle
- P Drive bay 1 and handle
- Q Drive bay 2 and handle
- R USB port 2



Carrier Grade Server TIGW1U back panel

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

## ► Technical Information

Processor		Specifications
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		Specifications
Memory controller hub	Intel® 5000P Memory Controller Hub (MCH)	
I/O controller hub	Intel® 6321ESB I/O Controller Hub (ICH)	
Storage		Specifications
Type	SAS 2.5-inch 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		Specifications
Temperature, operating	+5° C to +40° C (41° F to 104° F)	
Temperature, short-term operating (<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, 11ms 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 mode	



## ► Corporate Offices

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Memory		Specifications
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		Specifications
Height	1.70 inches (43.25 mm)	
Width	16.93 inches (430 mm)	
Depth	20 inches (508 mm)	
Connections		Specifications
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		Specifications
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, Class A	
Canada	ICES-003 Class A Limit	
China	CCC Approval, Class A (EMC and Safety)	
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 Interruptions 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	