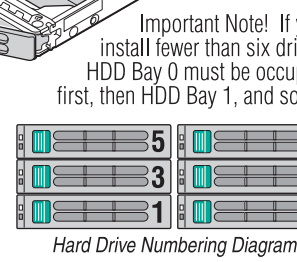
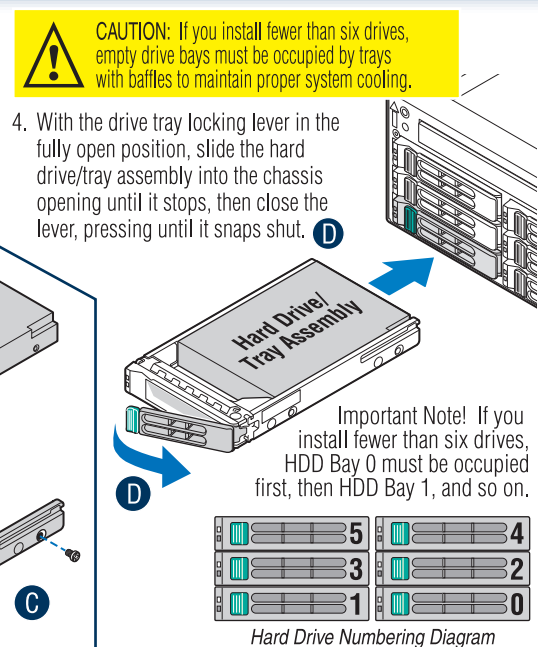
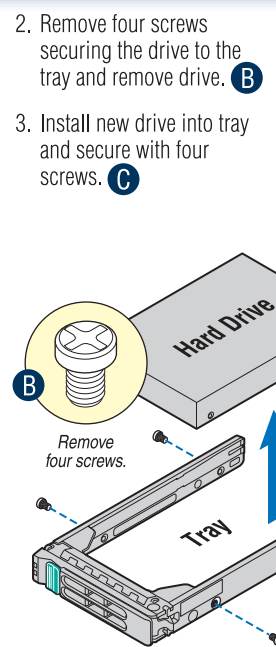
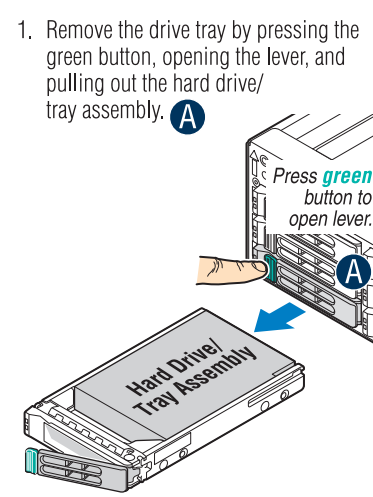


# 10 Servicing the Hard Disk Drives

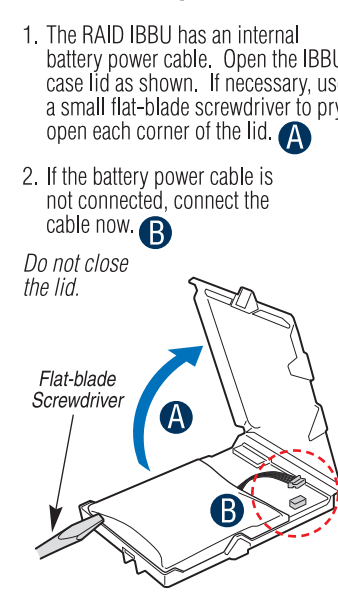


**Important Note!** If you install fewer than six drives, HDD Bay 0 must be occupied first, then HDD Bay 1, and so on.

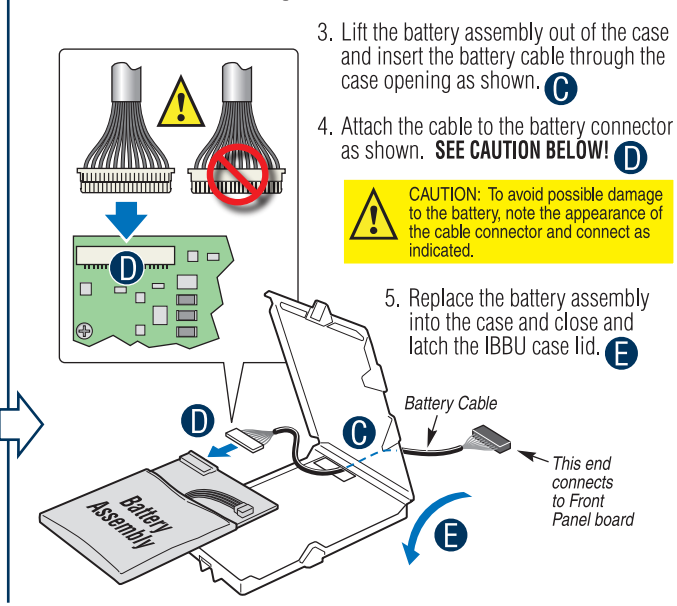
**CAUTION:** If you install fewer than six drives, empty drive bays must be occupied by trays with baffles to maintain proper system cooling.

# 11 Installing Hardware RAID5 Components (optional)

## Check Battery Connection

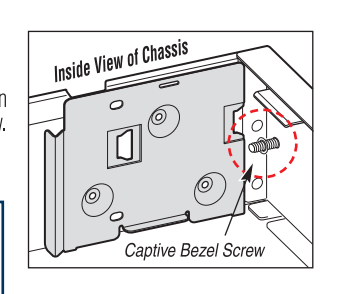


## Connect RAID Battery Cable



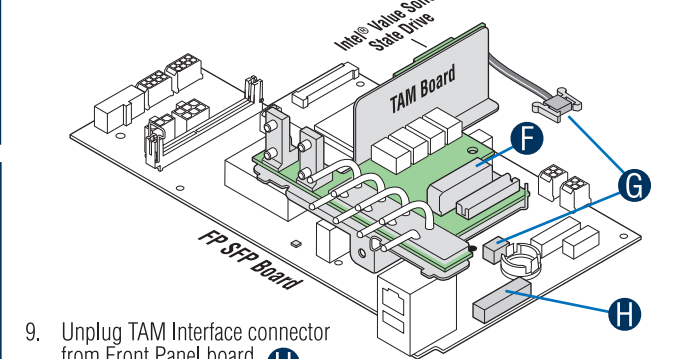
## Remove the Bezel

The captive bezel screw also secures the RAID battery when installed. If you have not already done so, loosen the bezel screw and remove the bezel now. See Step 2 on the front side of this document.



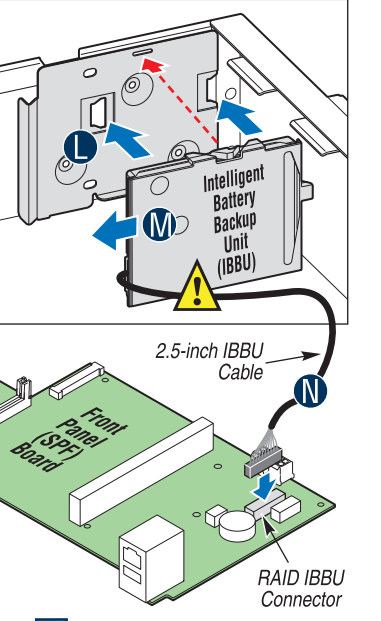
## Disconnect the TAM Board

For ease of installation, remove the TAM board before installing the RAID battery. Note: This optional accessory component may not be installed.



## Install RAID Battery

13. The RAID IBBU has two hooks on the underside. Place IBBU on edge and align these hooks with the matching chassis tabs. 14. Then slide the IBBU toward the back panel to lock into place. Note: Check that the top tab snaps into the small slot. 15. Connect the 2.5-inch IBBU power cable to the front panel board as shown.



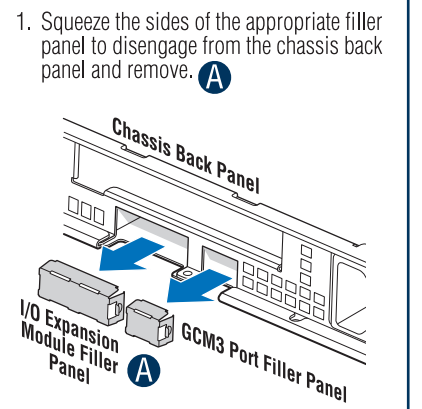
**CAUTION:** Route the IBBU power cable flush around the battery edge as shown above to avoid interference with the system fan module. Use cable ties if needed.

# 12 Installing an Optical Device (optional)

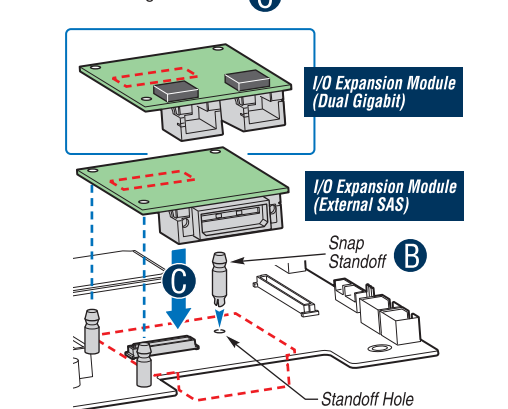
To install an optional optical device, see the Intel® Carrier Grade Server TIGH2U Product Guide on the CD accompanying your system.

# 13 Installing I/O Expansion Module (optional)

**Remove Module Filler Panels**  
Prior to installing the I/O Module and/or the Intel® RMM Modules, you must remove the matching module filler panel(s).

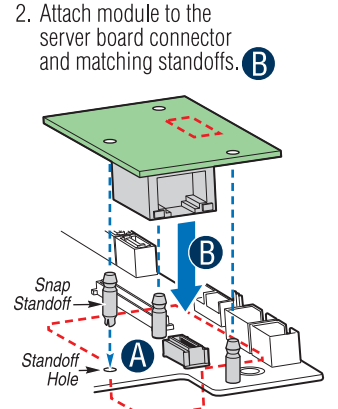


**Install I/O Expansion Module**  
2. Snap the three standoffs into the server board first. 3. Attach module to the server board connector and matching standoffs.

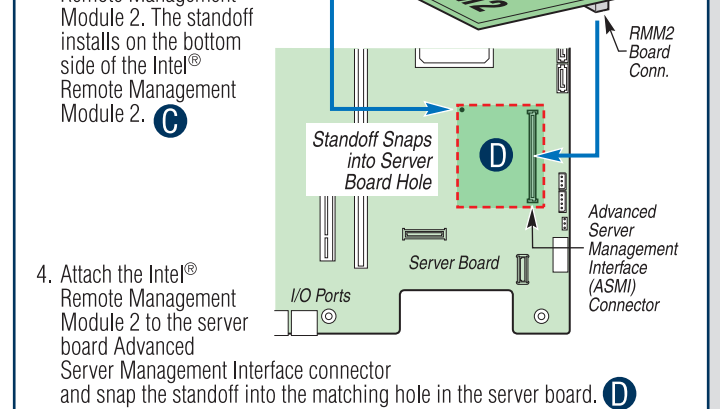


# 14 Installing Intel® Remote Management Module 2 (optional)

**Install Intel® RMM2 NIC Module**  
1. Snap the three standoffs into the server board first. 2. Attach module to the server board connector and matching standoffs.

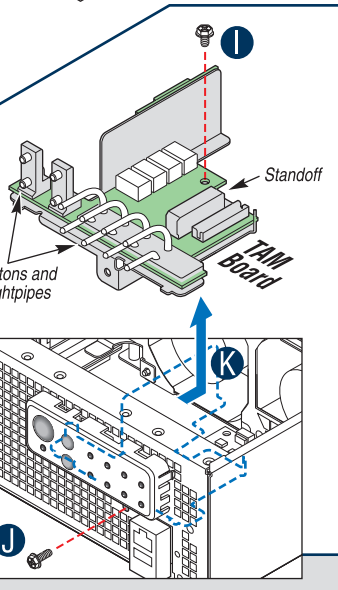


**Install Intel® RMM2 Module**  
3. Insert the standoff into the hole labeled TH4 on the Intel® Remote Management Module 2. The standoff installs on the bottom side of the Intel® Remote Management Module 2. 4. Attach the Intel® Remote Management Module 2 to the server board Advanced Server Management Interface connector and snap the standoff into the matching hole in the server board.



## Remove the TAM Board

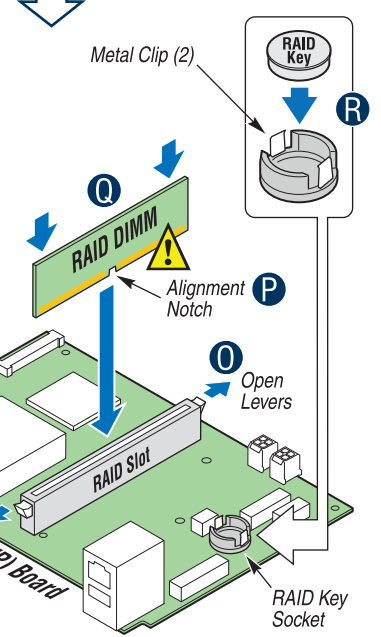
10. Remove the screw securing the TAM board to the Front Panel board standoff. 11. Remove the screw securing the TAM board to the chassis front panel. 12. To remove the TAM board, slide toward the rear about 1/4-inch to disengage the buttons and lightpipes, then lift.



## Install RAID DIMM and RAID Key

16. Open both DIMM socket levers. 17. Note location of alignment notch. 18. Insert DIMM making sure the connector edge of the DIMM aligns correctly with the slot. Using both hands, push down firmly on both sides of the DIMM until it snaps into place and the levers close.

**CAUTION:** Avoid touching contacts when handling or installing the RAID DIMM.



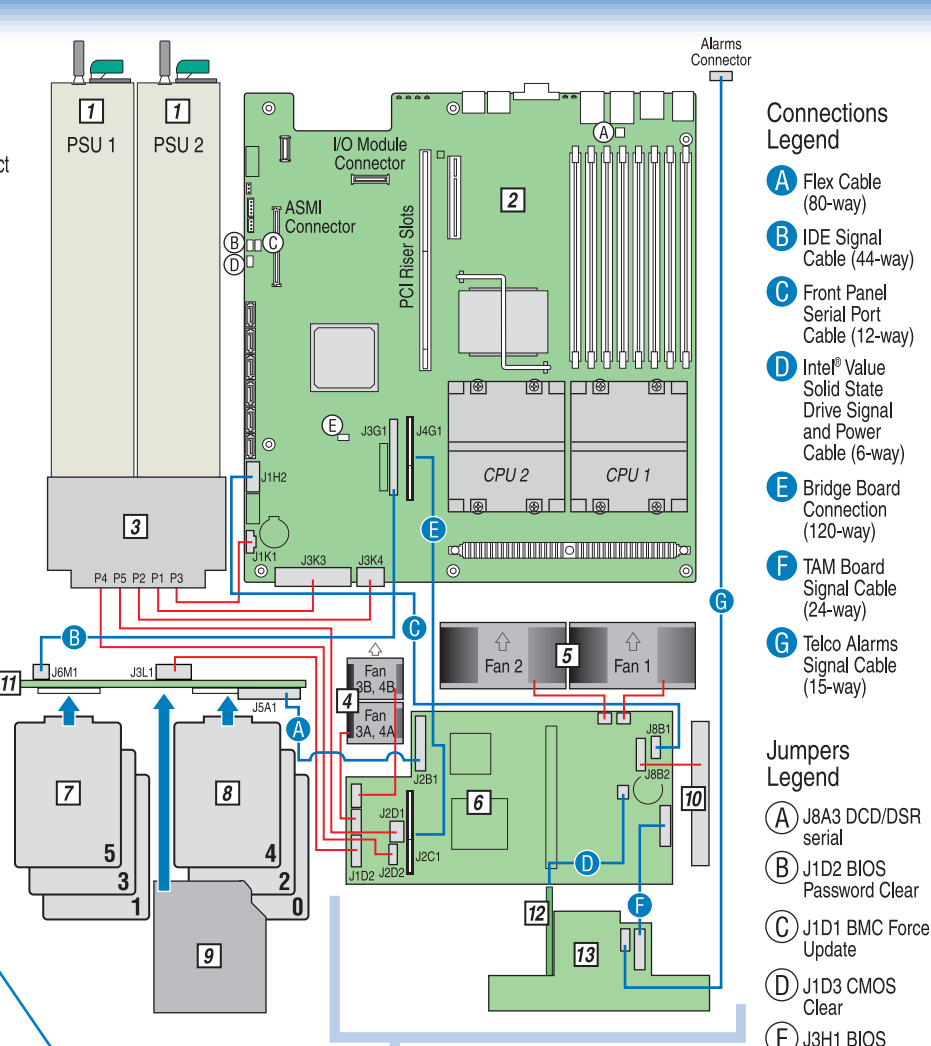
**Finish integration of this component**  
Re-install the TAM board and the front bezel by reversing the disassembly procedures from sub-step 12 to sub-step 6.

# Reference

## Server System Cabling and Component Diagram

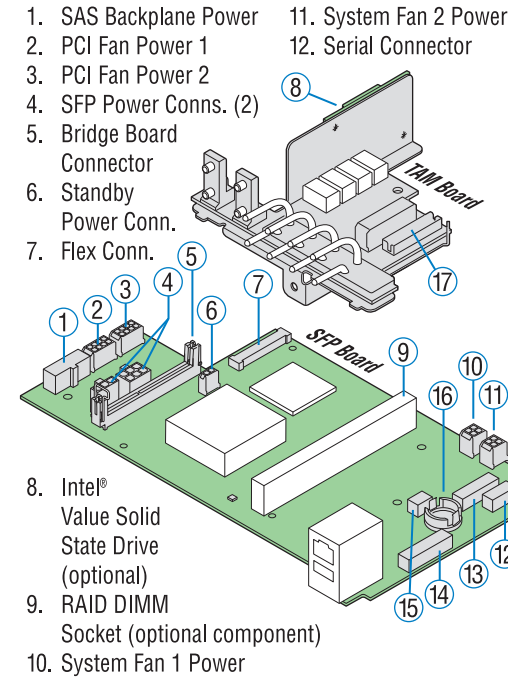
**IMPORTANT NOTE:** See your Intel® Carrier Grade Server TIGH2U Product Guide for complete cabling and server board component descriptions.

- System Components Legend**
- 1 Power Supplies
  - 2 Server Board
  - 3 Power Distribution Board
  - 4 40 MM PCI Fans
  - 5 System Fan Module
  - 6 Front Panel (SFP) Board
  - 7 SAS HDD 1, 3, 5
  - 8 SAS HDD 0, 2, 4
  - 9 Optical Device (optional)
  - 10 Intel® RAID Smart Battery (IBBU) (optional)
  - 11 SAS Backplane Board
  - 12 Intel® Value Solid State Drive (optional)
  - 13 TAM Board



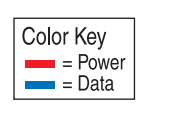
- Connections Legend**
- A Flex Cable (80-way)
  - B IDE Signal Cable (44-way)
  - C Front Panel Serial Port Cable (12-way)
  - D Intel® Value Solid State Drive Signal and Power Cable (6-way)
  - E Bridge Board Connection (120-way)
  - F TAM Board Signal Cable (24-way)
  - G Telco Alarms Signal Cable (15-way)
- Jumpers Legend**
- A J8A3 DCD/DSR serial
  - B J1D2 BIOS Password Clear
  - C J1D1 BMC Force Update
  - D J1D3 CMOS Clear
  - E J3H1 BIOS Bank Select

## Front Panel (SFP) Board/TAM Board Connector/Component Layout

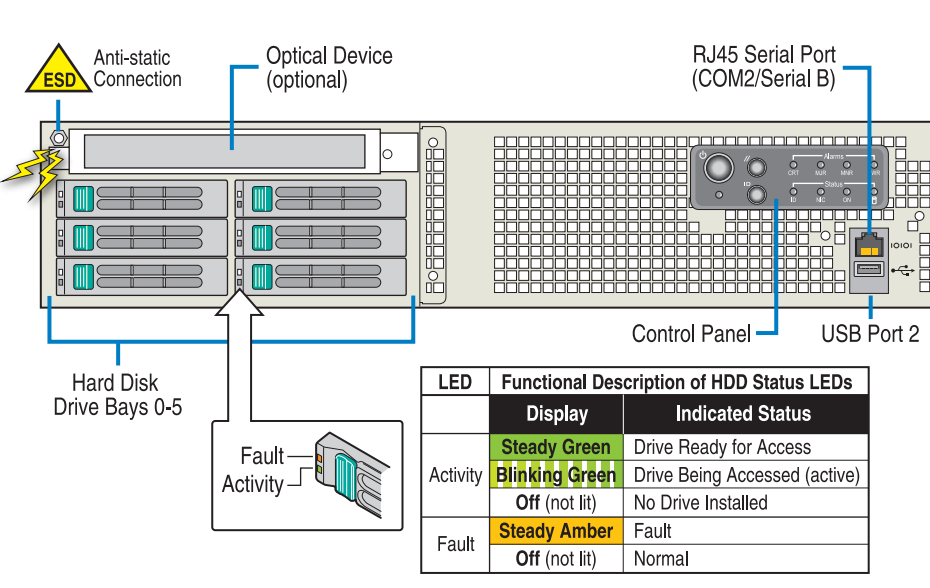


- 13. RAID BBU Connector (optional component)
- 14. TAM Interface Conn.
- 15. Intel® Value Solid State Drive Connector (optional component)
- 16. RAID Key (optional component)
- 17. TAM Interface Conn.

**CAUTIONS:** See product documentation for detailed service instructions. Observe normal ESD precautions when installing components. See product documentation for detailed ESD procedures.



## Front Panel Controls and Features (Bezel Removed)



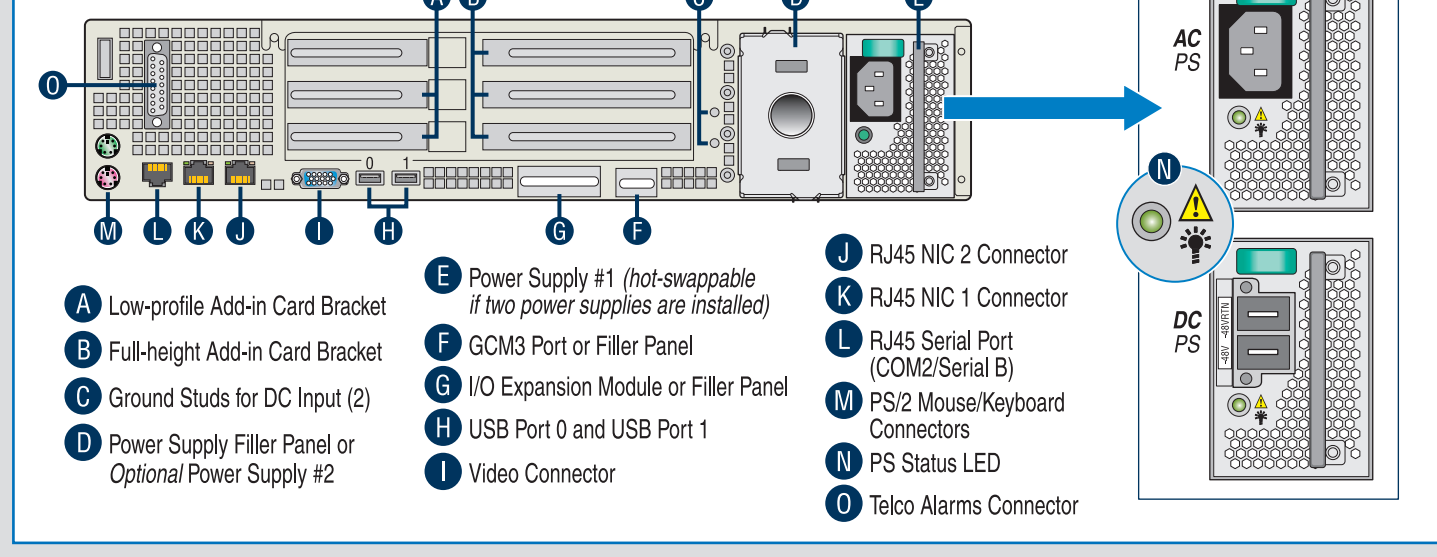
### Control Panel

- A Power Switch
- B Reset Switch
- C NMI Switch
- D ID Switch
- E Critical Alarm LED
- F Major Alarm LED
- G Minor Alarm LED
- H Power Alarm LED
- I System ID LED
- J NIC LED
- K Main Power LED
- L Disk Activity LED

LED	Functional Description of HDD Status LEDs	Indicated Status
Activity	Steady Green	Drive Ready for Access
	Blinking Green	Drive Being Accessed (active)
	Off (not lit)	No Drive Installed
Fault	Steady Amber	Fault
	Off (not lit)	Normal

LED	Functional Description of Status LEDs	Indicated Status
E	Amber or Red	Critical System Fault
F	Amber or Red	Major System Fault
G	Amber	Minor System Fault
H	Amber	Power System Fault
I	White	System Identification
J	Green	NIC Activity
K	Green	DC Power Available
L	Green	HDD Activity
L	Amber	HDD Fault

## Back Panel Controls and Features



TIGH2U Production Spares / Accessories			
PID Order Code	Description	MM#	Minimum Order Qty
TLIACPSU003	TIGH2U AC Power Supply Module	880110	1
TLIDCPSU003	TIGH2U DC Power Supply Module	880116	1
NNSCKNCLP01	NSC2U CPU Heat Sink	891200	1
NNSCDVDEGTABW	NSC2U DVD Drive Engagement Tab	889845	1
FXX25HDDCAR	TIGH2U SAS HDD Carrier	881681	10
NNSCRAD01W	RAID5 Kit	880202	1
AXXRSBBU3	RAID Backup Battery Kit	883471	5
AXXMINDIMM	128 MB registered DDR-2 mini-DIMM for RAID cache	881258	5
AXXRM2	Intel® Remote Management Module 2 (RMM2) with GCM, single pack	888501	1
AXXRM2BULK	Intel® Remote Management Module 2 (RMM2) with GCM, 10-pack	888498	10
ASR2500FHR	SR2400 (2U) Full Height PCI Express* Riser (two PCI Express* slots, one PCI-X* slot)	880515	5
ADRACTRIS	SR2500 (2U) Full Height PCI-X* Riser (high-performance, three PCI-X* slots)	856546	1
ADRPCXRIS	SR2500 (2U) Full Height PCI-X* Riser (passive riser, three PCI-X* slots)	863135	1

TIGH2U Production Spares / Accessories			
PID Order Code	Description	MM#	Minimum Order Qty
FSR2500LPR	Two-slot Low-profile PCI Express Riser	880516	5
AXXGBIOMOD	Dual Gigabit Ethernet I/O Module	880518	1
AXXSASIOMOD	Four-port External SAS I/O Expansion Module	880517	1
TLHBEZEL04W	TIGH2U Telco Bezel, unpainted	890813	12
TLHTAM04W	TIGH2U Telco Alarms Module with LED Pipe	890809	1
TLHFPIB04W	TIGH2U Front Panel I/O Board	890773	1
TLHSCBL04W	TIGH2U System Interconnect Cable Kit	891494	1
NNSCPWRDISBOW	NSC2U Power Distribution Board	889805	1
NNSCASBSBDIW	NSC2U Server Board (T5000PAL)	889828	1
NNSCASBKPLNW	NSC2U SAS Backplane	889829	1
NNSCBRIDGEBOW	NSC2U Bridge Board	889852	1
TLHFANSETW	TIGH2U Fan Assembly (set of 4)	893601	1
SSDUSM0001GL10	Intel® Z-U130 Value Solid State Drive, 1 GB	888523	1
SSDUSM0002GL10	Intel® Z-U130 Value Solid State Drive, 2 GB	888524	1
SSDUSM0004GL10	Intel® Z-U130 Value Solid State Drive, 4 GB	888525	1
TMWVSDRIVE01W	Value Solid State Drive Interposer Board	893165	1

Note: Refer to the Intel® Carrier Grade Server TIGH2U Configuration Guide for complete details on configuration and ordering of product.