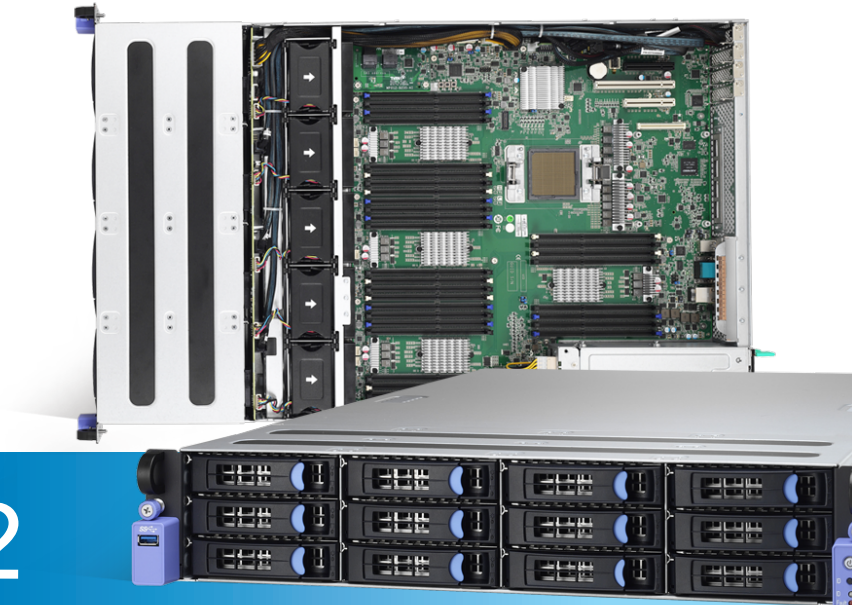


## IBM POWER8 2U SINGLE-SOCKET PLATFORM



## TN71-BP012

BSP012T71V14HR-4T-3 / BSP012T71V14HR-4T-4  
BSP012T71V14HR-4T-5

POWER8 



### ■ Front View



- (12) hot-swap 3.5" SAS 12Gb/s HDDs
- (1) Front USB v3.0

### ■ Back View



- (2) easy-swap 3.5" SATA 6Gb/s HDD
- (1) PCI-E Gen.3 x16 slot
- (4) 10GBASE-T (on mezzanine)
- (1+1) 1,200W RPSU @ 220Vac

## 2U IBM POWER8 Habanero Platform Designed for Commercialized System

- Single IBM POWER8 Turismo SCM socket bundle with
  - (1) IBM POWER8 8-Core 3.325 GHz processor (-3 SKU) or
  - (1) IBM POWER8 10-Core 2.926 GHz processor (-4/-5 SKU)
- (1) PLX PEX8748
- (4) IBM Centaur Memory Buffers
- (32) DIMM slots support up to 1,024GB RDIMM DDR3L 1333
  - Bundle with (8) R-DDR3L 16GB (-3 SKU) or
  - (16) R-DDR3L 16GB (-4 SKU) or
  - (32) R-DDR3L 16GB (-5 SKU)
- (1) Half-Height/ Full-Length PCI-E Gen3 x16 slot support
- (3) Half-Height/ Half-Length PCI-E Gen3 x8 slots support
- Up to (14) hot-swap 3.5" SAS 12G/SATA 6G HDDs
  - (Pre-install MP012-9235-4I TYAN Mezz Card)
  - Bundle with (2) 4TB HDDs (-3/-4 SKU) or (2) 1TB SSD (-5 SKU)
- (1) PHY dedicated for IPMI (via Broadcom BCM5221)
- (4) 10GbE (Pre-install MP012-B840-4T TYAN LAN Mezz Card)
- Onboard BMC w/ IPMI and iKVM support
- (1+1) 1,200W RPSU w/ PFC, 80 plus Platinum Certified

# TN71-BP012

BSP012T71V14HR-4T-3 / BSP012T71V14HR-4T-4  
BSP012T71V14HR-4T-5



## Specifications

### Top View

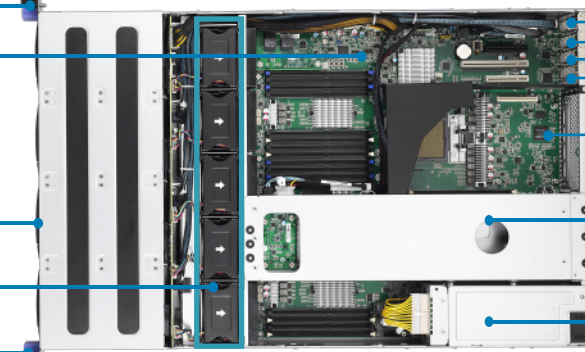
**M1714T71-USB**  
Front USB Module

**SP012GMR**  
(1) IBM POWER8 Turismo  
SCM sockets  
(32) R-DDR4 DDR3L-RDIMM  
1333 Max.1,024GB  
(1) PHY ports

(12) hot-swap 3.5" SAS  
12G/SATA 6G HDDs

**System FANS**  
(5) 8038

**M1811T71-FB**  
Front Panel Module



(1) HH/HL PCI-E Gen.3 x8 slot (from PLX) (#1)  
(1) HH/HL PCI-E Gen.3 x8 slot (from PLX) (#2)  
(1) HH/FL PCI-E Gen.3 x16 slot (from CPU) (#3)  
(1) HH/HL PCI-E Gen.3 x8 slot (from CPU) (#4)

**MP012-B840-4T**  
4x 10GBASE-T Mezz.

(2) easy-swap 3.5" HDDs (boot)  
(connected to embedded mezz. card)

**RPSU**  
(1+1) 1,200W hot-swap RPSU  
@ 220Vac, 80+ Platinum



System (Recommend Chassis)	Form Factor	2U Rackmount
	Chassis Name	TN71
	Dimension (H x W x D)	28" x 17.72" x 3.43" (711 x 450 x 87mm)
	Barebone	BP012T71V14HR
Front Panel	Motherboard	SP012GMR
	Gross Weight	21KG
	Buttons	(1) ID / (1) PWR w/ LED
External Drive Bay	LEDs	(1) ID / (1) Warning
	I/O Ports	(1) USB 3.0 port
	Type / Q'ty	3.5" Hot-Swap / (14) *(12) in front need a discrete HBA/ RAID adapter to enable / *(2) in rear w/ 2-in-1 HDD tray
System Cooling Configuration	Supported HDD Interface	SAS 12Gb/s/ SATA 6Gb/s
	Pre-install TYAN Mezz Card	MP012-9235-4I w/SATA 6G to enable (2) 3.5" HDDs in rear (Marvell 88SE9235)
	Pre-install HDD/SSD	(2) 4TB HDDs (-3/-4 SKU) or (2) 1TB SSD (-5 SKU)
Power Supply	FAN	(5) 8cm fans
	Type	RPSU
	Redundancy	1+1
	Input Range	AC 100-127V/12.47A / AC 200-240V/7.08A
	Output Watts	1,200 Watts / *100-127V support 1,000 Watts only
Processor	Frequency	47 - 63 Hertz
	Efficiency	80-plus Platinum
	Supported CPU Series	IBM POWER8 Turismo SCM processor
	Socket Type / Q'ty	IBM POWER8 Turismo SCM/ (1)
Chipset	Thermal Design Power (TDP) wattage	Up to 190W
	Pre-install Processor	(1) IBM POWER8 8-Core 3.325 GHz processor (-3 SKU) (1) IBM POWER8 10-Core 2.926 GHz processor (-4/-5 SKU)
	Switch IC	(1) PLX PEX8748
Memory	Chipset	(4) IBM Centaur Memory Buffers
	Supported DIMM Qty	(32) DIMM slots
	DIMM Type / Speed	DDR3L-RDIMM 1333
	Capacity	Up to 1,024GB
	Memory voltage	1.35V
Expansion Slots	Pre-install Memory	(8) R-DDR3L 16GB (-3 SKU) or (16) R-DDR3L 16GB (-4 SKU) or (32) R-DDR3L 16GB (-5 SKU)
	PCI-E	(1) PCI-E Gen3 x16 slot (3) PCI-E Gen3 x8 slots
	Pre-install TYAN Mezz Card	MP012-9235-4I / MP012-B840-4T

LAN	Port Q'ty	(4) 10GbE ports (1) PHY dedicated for IPMI
	PHY Controller	Broadcom BCM5221
	Pre-install TYAN LAN Mezz Card	MP012-B840-4T support (4) 10GbE RJ45 ports (Broadcom 57840)
Graphic	Connector type	D-Sub 15-pin
	Resolution	up to 1920 x 1200
I/O Ports	Chipset	Aspeed AST2400
	USB	(4) USB ports (1 USB3.0 at front, 2 USB3.0 at rear, 1 USB1.1 at rear for BMC F/W update only)
	COM	(1) DB-9 COM port
	VGA	(1) D-Sub 15-pin port
	RJ-45	(4) 10GbE + (1) PHY dedicated for IPMI
System Monitoring	Chipset	Aspeed AST2400
	Voltage	Monitors voltage for CPU, memory, chipset & power supply
	Temperature	Monitors temperature for CPU & memory & system environment
System Management	LED	Over temperature warning indicator / Fan & PSU fail LED indicator
	Onboard Chipset	Onboard Aspeed AST2400
	AST2400 IPMI Feature	IPMI 2.0 compliant baseboard management controller (BMC) / Supports storage over IP and remote platform-flash / USB 2.0 virtual hub
PNOR	AST2400 iKVM Feature	24-bit high quality video compression / 10/100 Mb/s MAC interface
	Brand / ROM size	IBM / 64MB
Operating System	Feature	Boot from USB device / CD-ROM / Storage / PXE via LAN IPMI Support / Device Tree / Console Redirection / OCC (Power Management) / Petitboot Bootloader (PPC64)
Regulation	OS supported list	Please refer to our Intel OS supported list.
	FCC (DoC)	Class A
Operating Environment	CE (DoC)	Yes
	Operating Temp.	10° C ~ 35° C (50° F ~ 95° F)
	Non-operating Temp.	- 40° C ~ 70° C (-40° F ~ 158° F)
RoHS	In/Non-operating Humidity	90%, non-condensing at 35° C
	RoHS 6/6 Complaint	Yes

### L10 system configuration

Model: TN71-BP012	IBM Power8 Processors		Memory		Hard Drives	
	SKU	Cores	Size	Qty	Size	Qty
BSP012T71V14HR-4T-3		8	16 GB	8	4 TB	2
BSP012T71V14HR-4T-4		10	16 GB	16	4 TB	2
BSP012T71V14HR-4T-5		10	16 GB	32	1 TB SSD	2

(Specifications are subject to change without notice. Items pictured may only be representative.)

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