

NEC Express5800/B120g-h System Configuration Guide



Introduction

This document contains product and configuration information that will enable you to configure your system. The guide will ensure fast and proper configuration of your NEC Express5800 server.

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Technical Specification

Key Features

- High performance with the latest Intel® Xeon® processor E5-2600 v4 product family
- Up to 1152 GB of high speed DDR4-2400 memory
- Full manageability by integrated EXPRESSSCOPE Engine 3

Specification

(1/2)

Model		B120g-h		
Part Number		N8400-250F	N8400-251F	N8400-252F
Processor	Type	Intel® Xeon® processor E5-2620 v4	Intel® Xeon® processor E5-2650 v4	Intel® Xeon® processor E5-2667 v4
	Clock speed	2.10 GHz	2.20 GHz	3.20 GHz
	Number of Processors	1 to 2		
	Cache	20 MB	30 MB	25 MB
	Cores and Threads	8C-16T	12C-24T	8C-16T
	Chipset	Intel® C612 Chipset		
Memory	Type	DDR4-2400 Registered DIMM (4/8/16/32GB) DDR4-2400 TSV Registered DIMM (64GB)		
	Standard Capacity	0 GB		
	Maximum Capacity	1152 GB (18 x 64 GB)		
	Memory protection	ECC, x4 SDDC, Memory Lockstep, Memory Sparring ¹ , Memory Mirroring ¹		
Internal Storage	Standard Capacity	0 GB		
	Maximum Capacity	SATA SSD: 800 GB (2 x 400GB)	-	
	Disk Controller	SATA: 6Gb/s (Integrated)		
	RAID	RAID 0/1 (Integrated)		
	Hot Plug	Not supported		
	Disk Drive Bays	2 [2]		-
Expansion Slots	Standard	Total: 3 slots available 1 Type 1 mezzanine 1 Type 2 mezzanine 1 PCIe for a flexible integrated NIC		
Video	Controller (VRAM)	Integrated in Server Management Controller (32MB)		
	Resolution / Color	640 x 480 – 1600 x 1200 / 16.7M ²		
Interfaces		1 SUV (1 front)		
Server Management		EXPRESSSCOPE Engine 3		
Maximum Power Consumption (VDC)		364 Watt	409 Watt	483 Watt
Dimensions (W x D x H)		51.6 x 515.4 x 180.7 mm / 2.0 x 20.3 x 7.1 in		
Weight (Minimum / Maximum)		2kg / 5 kg, 4.41 / 13.23 lbs.		
Enclosures		Blade Enclosure M, Blade Enclosure-H v2		
Temperature, Relative Humidity (non-condensing)		Operating: 5° to 40° C ³ / 41° to 104° F ³ , 20 to 80% Non-Operating: -10° to 55° C / 14° to 131° F, 20 to 80%		
Regulatory and Safety		FCC, UL, CB, CE, BSMI, CCC, RoHS, WEEE		

Model	B120g-h
Operating Systems and Virtualization Software	Microsoft® Windows Server® 2012 R2 Standard Microsoft® Windows Server® 2012 R2 Datacenter Microsoft® Windows Server® 2016 Standard Microsoft® Windows Server® 2016 Datacenter Red Hat Enterprise Linux 7.2 or later ⁴ VMware ESXi 5.5 Update 3 or later VMware ESXi 6.0 Update 1 or later VMware ESXi 6.5 or later

- ¹ To configure memory sparing or mirroring, contact your sales representative.
- ² Maximum resolution and color available via EXPRESSSCOPE Engine 3 remote console is 1280 x 1024 / 65K colors.
- ³ Up to 35°C (95°F) when a dual processor configuration with E5-2667 v4, E5-2698 v4 or E5-2699 v4.
- ⁴ For Linux support, contact your sales representative or go to the NEC website at: <http://www.nec.com/global/prod/express/linux/index.html>

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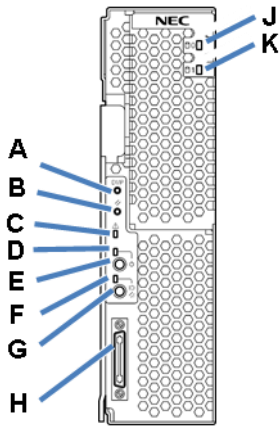
Model	B120g-h			
Part Number	N8400-253F	N8400-254F	N8400-255F	
Processor	Type	Intel® Xeon® processor E5-2690 v4	Intel® Xeon® processor E5-2698 v4	Intel® Xeon® processor E5-2699 v4
	Clock speed	2.60 GHz	2.20 GHz	2.20 GHz
	Number of Processors	1 to 2		
	Cache	35 MB	50 MB	55 MB
	Cores and Threads	14C-28T	20C-40T	22C-44T
Chipset	Intel® C612 Chipset			
Memory	Type	DDR4-2400 Registered DIMM (4/8/16/32GB) DDR4-2400 TSV Registered DIMM (64GB)		
	Standard Capacity	0 GB		
	Maximum Capacity	1152 GB (18 x 64 GB)		
	Memory protection	ECC, x4 SDDC, Memory Lockstep, Memory Sparing ¹ , Memory Mirroring ¹		
Internal Storage	Standard Capacity	0 GB		
	Maximum Capacity	SATA SSD: 800 GB (2 x 400GB)	-	
	Disk Controller	SATA: 6Gb/s (Integrated)		
	RAID	RAID 0/1 (Integrated)		
	Hot Plug	Not supported		
	Disk Drive Bays	2 [2]	-	
Expansion Slots	Standard	Total: 3 slots available 1 Type 1 mezzanine 1 Type 2 mezzanine 1 PCIe for a flexible integrated NIC		
Video	Controller (VRAM)	Integrated in Server Management Controller (32MB)		
	Resolution / Color	640 x 480 – 1600 x 1200 / 16.7M ²		
Interfaces	1 SUV (1 front)			
Server Management	EXPRESSSCOPE Engine 3			
Maximum Power Consumption (VDC)	485 Watt	492 Watt	514 Watt	
Dimensions (W x D x H)	51.6 x 515.4 x 180.7 mm / 2.0 x 20.3 x 7.1 in			
Weight (Minimum / Maximum)	2kg / 5 kg, 4.41 / 13.23 lbs.			

Model	B120g-h
Enclosures	Blade Enclosure M, Blade Enclosure-H v2
Temperature, Relative Humidity (non-condensing)	Operating: 5° to 40° C ³ / 41° to 104° F ³ , 20 to 80% Non-Operating: -10° to 55° C / 14° to 131° F, 20 to 80%
Regulatory and Safety	FCC, UL, CB, CE, BSMI, CCC, RoHS, WEEE
Operating Systems and Virtualization Software	Microsoft® Windows Server® 2012 R2 Standard Microsoft® Windows Server® 2012 R2 Datacenter Microsoft® Windows Server® 2016 Standard Microsoft® Windows Server® 2016 Datacenter Red Hat Enterprise Linux 7.2 or later ⁴ VMware ESXi 5.5 Update 3 or later VMware ESXi 6.0 Update 1 or later VMware ESXi 6.5 or later

- ¹ To configure memory sparing or mirroring, contact your sales representative.
- ² Maximum resolution and color available via EXPRESSSCOPE Engine 3 remote console is 1280 x 1024 / 65K colors.
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- ⁴ For Linux support, contact your sales representative or go to the NEC website at: <http://www.nec.com/global/prod/express/linux/index.html>

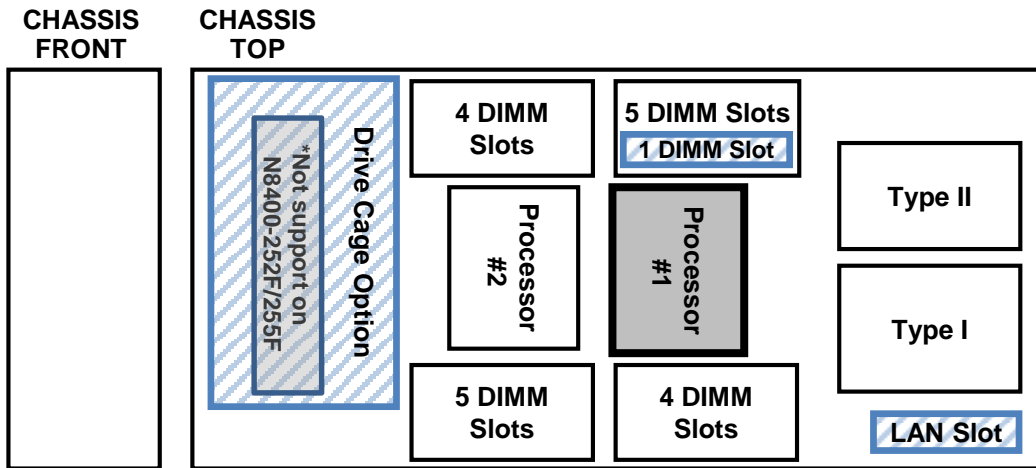
External Views

Front View



Legend			
A.	Dump (NMI) Switch	F.	UID LED
B.	System Reset Switch	G.	UID LED Button
C.	System Status LED	H.	SUV Connector
D.	Power LED	J.	SSD Access Lamp #0
E.	Power Button	K.	SSD Access Lamp #1

Configuration Diagram

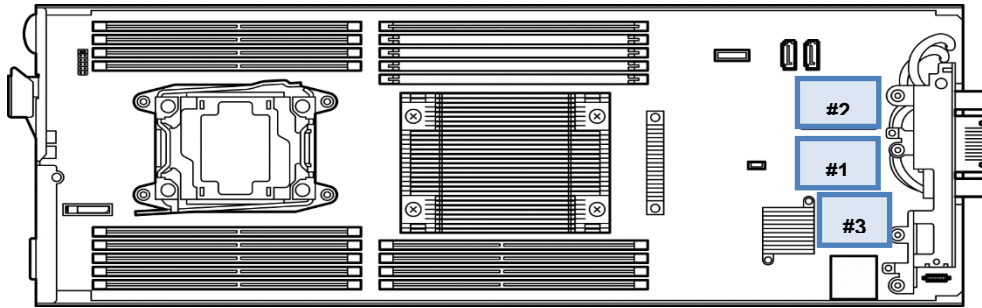


Legend: Mandatory Components Standard Components

NOTE:

- Solid State Drive Cage is not available in Xeon E5-2667 v3, Xeon E5-2697 v3 and Xeon E5-2699 v3 systems.

Expansion Slot



Legend

#1	Type-I mezzanine card slot
#2	Type-II mezzanine card slot
#3	Flexible integrated NIC card slot

Server Configuration

1 Base Models

Product Name / Description	Part Number
NEC Express5800 B120g-h (8C/E5-2620v4) no RAM, no SSD, no Network Controller Including: One Intel Xeon processor E5-2620 v4, EXPRESSBUILDER	N8400-250F
NEC Express5800 B120g-h (12C/E5-2650v4) no RAM, no SSD, no Network Controller Including: One Intel Xeon processor E5-2650 v4, EXPRESSBUILDER	N8400-251F
NEC Express5800 B120g-h (8C/E5-2667v4) no RAM, no Drive Cage, no Network Controller Including: One Intel Xeon processor E5-2667 v4, EXPRESSBUILDER	N8400-252F
NEC Express5800 B120g-h (14C/E5-2690v4) no RAM, no SSD, no Network Controller Including: One Intel Xeon processor E5-2690 v4, EXPRESSBUILDER	N8400-253F
NEC Express5800 B120g-h (20C/E5-2698v4) no RAM, no SSD, no Network Controller Including: One Intel Xeon processor E5-2698 v4, EXPRESSBUILDER	N8400-254F
NEC Express5800 B120g-h (22C/E5-2699v4) no RAM, no Drive Cage, no Network Controller Including: One Intel Xeon processor E5-2699 v4, EXPRESSBUILDER	N8400-255F

NOTE:

- The base model must be ordered with a memory kit and a network riser card kit.

2 2nd Processor

Available sockets: 1

Product Name / Description	Part Number
Xeon E5-2620 v4 Processor Kit Intel® Xeon® Processor E5-2620 v4 (2.10 GHz, 8C/16T, 20 MB)	N8401-100F
Xeon E5-2650 v4 Processor Kit Intel® Xeon® Processor E5-2650 v4 (2.20 GHz, 12C/24T, 30 MB)	N8401-101F
Xeon E5-2667 v4 Processor Kit Intel® Xeon® Processor E5-2667 v4 (3.20 GHz, 8C/16T, 25 MB)	N8401-102F
Xeon E5-2690 v4 Processor Kit Intel® Xeon® Processor E5-2690 v4 (2.60 GHz, 14C/28T, 35 MB)	N8401-103F
Xeon E5-2698 v4 Processor Kit Intel® Xeon® Processor E5-2698 v4 (2.20 GHz, 20C/40T, 50 MB)	N8401-104F
Xeon E5-2699 v4 Processor Kit Intel® Xeon® Processor E5-2699 v4 (2.20 GHz, 22C/44T, 55 MB)	N8401-105F

NOTE:

- The 2nd processor must be the same as what is used in the base model

The maximum number of logical processors supported by OS

See the table below for the maximum number of logical processors that you can actually use on your system.

Number of Logical Processors Supported by Operating Systems		Maximum Available Number of logical Processors
Microsoft Windows Server 2012 R2 Standard	640 ¹	88
Microsoft Windows Server 2012 R2 Datacenter		
Microsoft Windows Server 2016 Standard		
Microsoft Windows Server 2016 Datacenter		
Red Hat Enterprise Linux 7	240	72
VMware ESXi 5.5	320	88
VMware ESXi 6.0	480	88
VMware ESXi 6.5	576	72

¹ The maximum numbers of logical processors when using Hyper-V are below
 - Windows Server 2012 R2 : 320
 - Windows Server 2016 : 512

3 Memory

3.1 Memory Configuration

Available slots: 9 per processor

Category	Product Name / Description	Part Number
Registered DIMM (RDIMM)	4GB DDR4-2400 REG Memory Kit (1x4GB/R) 1 x 4 GB Registered ECC DIMM, DDR4-2400(PC4-19200)	N8402-170F
	8GB DDR4-2400 REG Memory Kit (1x8GB/R) 1 x 8 GB Registered ECC DIMM, DDR4-2400(PC4-19200)	N8402-171F
	16GB DDR4-2400 REG Memory Kit (1x16GB/R) 1 x 16 GB Registered ECC DIMM, DDR4-2400(PC4-19200)	N8402-172F
	32GB DDR4-2400 REG Memory Kit (1x32GB/R) 1 x 32 GB Registered ECC DIMM, DDR4-2400(PC4-19200)	N8402-173F
TSV-Registered DIMM (TSV-RDIMM)	64GB DDR4-2400 TSV REG Memory Kit (1x64GB/TSV-R) 1 x 64 GB TSV Registered ECC DIMM, DDR4-2400(PC4-19200)	N8402-174F

NOTE:

- Mix configurations of RDIMM and TSV RDIMM are not supported.
- Minimum one memory kit per processor must be installed into the system.
- It is recommended to install four identical memory kits for quad-channel symmetric memory configurations to increase memory transfer speed.
- At least 5 GB of memory is required for VMware ESXi 5.5 / 6.0 / 6.5.

Maximum Memory Speed

See the table below for the actual maximum memory transfer speed. The memory speed depends on the native memory bus speed of the memory controller.

Processor Type	Populated DIMMs	# of DIMMs per processor	DIMM Speed
N8400-250F(E5-2620v4)	RDIMM (4, 8, 16, 32GB)	Up to 8	2133 MHz
	TSV RDIMM (64GB)	9	1600 MHz

N8400-251F(E5-2650v4)	RDIMM (4, 8, 16, 32GB)	Up to 4	2400 MHz
N8400-252F(E5-2667v4)			
N8400-253F(E5-2690v4)	TSV RDIMM (64GB)	5-8	2133 MHz
N8400-254F(E5-2698v4)			
N8400-255F(E5-2699v4)			

Maximum Available Memory

See the table below for the maximum memory size that you can actually use on your system.

Maximum Memory Size Supported by Operating Systems		Maximum Available Memory
Microsoft Windows Server 2012 R2 Standard ¹	4 TB	1152 GB
Microsoft Windows Server 2012 R2 Datacenter ¹		
Microsoft Windows Server 2016 Standard ¹	24 TB	1152 GB
Microsoft Windows Server 2016 Datacenter ¹		
Red Hat Enterprise Linux 7	6 TB	1152 GB
VMware ESXi 5.5 ²	4 TB	1152 GB
VMware ESXi 6.0 ³	6 TB	1152 GB
VMware ESXi 6.5 ⁴	12 TB	576 GB

¹ The maximum available memory size of Hyper-V systems are below:

- Windows Server 2012 R2 : 4 TB
- Windows Server 2016 : 24 TB

² Up to 1 TB of the main memory is available to each virtual machine.

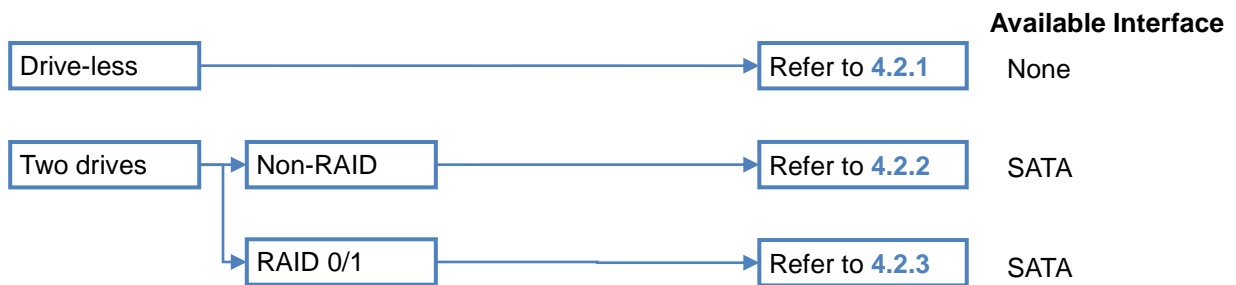
³ Up to 4 TB of the main memory is available to each virtual machine.

⁴ Up to 6 TB of the main memory is available to each virtual machine.

4 Internal Drives

4.1 Drive and RAID Configuration

Refer to the section in accordance with your drive configuration.



NOTE:

- Internal drives are not supported on a B120g-h with E5-2667v4 or E5-2699v4.
- RAID 0/1 is supported only on Windows operating systems.

4.2 Internal Drive Configuration

4.2.1 Drive-less

Category	Product Name / Description	Part Number
Drive Cage Required ¹	Drive-less Blade Kit Stiffener	N8403-079F

¹ Not required for the B120g-h with E5-2667v4 or E5-2699v4, since those blades include a drive-less blade kit as standard.

4.2.2 Embedded SATA non-RAID Controller

Category		Product Name / Description	Part Number
Drive Cage Required		SSD Drive Cage Kit Two 2.5-inch non-hot plug hard drive bays, one internal SATA cable	N8403-080F
Drive 2 slots available	SATA SSD	200GB Non-hot Plug 2.5-inch SATA SSD One 200 GB, 2.5-inch, eMLC, SATA ME(Middle Endurance)	N8450-712
		400GB Non-hot Plug 2.5-inch SATA SSD One 400 GB, 2.5-inch, eMLC, SATA ME(Middle Endurance)	N8450-713
		200GB Non-hot Plug 2.5-inch SATA SSD One 200 GB, 2.5-inch, eMLC, SATA VE(Value Endurance)	N8450-717

NOTE:

- Minimum one solid state drive must be installed.
- Solid State Drive Cage is not applicable for Xeon E5-2667 v4 or Xeon E5-2699 v4 systems.

4.2.3 Embedded SATA RAID Controller

Category		Product Name / Description	Part Number
Drive Cage Required		SSD Drive Cage Kit Two 2.5-inch non-hot plug hard drive bays, one internal SATA cable	N8403-080F
Drive 2 slots available	SATA SSD	200GB Non-hot Plug 2.5-inch SATA SSD One 200 GB, 2.5-inch, eMLC, SATA ME(Middle Endurance)	N8450-712
		400GB Non-hot Plug 2.5-inch SATA SSD One 400 GB, 2.5-inch, eMLC, SATA ME(Middle Endurance)	N8450-713
		200GB Non-hot Plug 2.5-inch SATA SSD One 200 GB, 2.5-inch, eMLC, SATA VE(Value Endurance)	N8450-717

NOTE:

- All drives within a RAID array should be of the same capacity.
- RAID 0/1 is supported only on Windows operating systems.
- Solid State Drive Cage is not applicable for Xeon E5-2667 v4 or Xeon E5-2699 v4 systems.

5 I/O Expansion Card

5.1 Network Interface Controller

Category		Product Name / Description	Part Number
Riser Required	GbE	Dual Port 1GbE Riser Card Kit QLogic BCM57810	N8403-094F
	10GbE	Dual Port 10GbE Riser Card Kit QLogic BCM57810	N8403-095F
		Dual Port 10GbE Riser Card Kit (iSCSI) QLogic BCM57810	N8403-096F
Adapter Type I	GbE	Dual Port 1000BASE Adapter Intel® Ethernet Controller I350-AM2	N8403-076F
	10GbE	Dual Port 10GbE Adapter QLogic BCM57810	N8403-097F
		Dual Port 10GbE Adapter (iSCSI)	N8403-098F

		QLogic BCM57810	
		Quad Port 10GbE Adapter	N8403-099F
		QLogic BCM57840	
		Quad Port 10GbE Adapter (iSCSI)	N8403-100F
		QLogic BCM57840	
Adapter Type II	GbE	Quad Port 1000BASE Adapter	N8403-077F
		Intel® Ethernet Controller I350-AM4	

NOTE:

- 8 GB of memory per one 10GbE network controller is recommended to avoid network performance issues.
- Only one 10GbE NIC can be installed when using with 32-bit operating systems.

NIC Partitioning feature

The 10GbE Controllers support NIC partitioning which is the ability to configure a single 10GbE port into two or four virtual NICs. To use NIC Partitioning, please note the following:

- NIC Partitioning should be enabled to install Windows Server operating systems.
- NIC Partitioning should be configured under the maximum configuration limits for networking when running with VMware systems. For more detail, see the Networking Maximum in the Configuration Maximums document for VMware. VMware system counts each divided network port as nx_nic 10Gb Ethernet port.
- For connections between virtual machines on the same server, configure the virtual machines on the same virtual switch or disable NIC Partitioning.
- An external switch may not loopback depending on its function or setting. For connections between controllers, confirm your network specifications in advance.

NIC Teaming feature

The Server blade supports NIC teaming which is the ability to configure multiple NICs to a single network interface for fault tolerance and load balancing.

Windows Server 2012 R2, Windows Server 2016 and Red Hat Enterprise Linux support NIC teaming feature.

When using NIC teaming, please note the following:

- Any of the network teaming must be processed in a single LAN controller.
- Teaming feature is not supported when iSCSI is used in network interface.

iSCSI Offload Feature

See the table below for the support matrix of NIC cards supporting iSCSI, available operating systems, and iSCSI offload feature.

Type	Part Number	Operating Systems	iSCSI Offload
GbE	N8403-094F	Windows Server 2012 R2 / Windows Server 2016 / Red Hat Enterprise Linux / VMware	Not available
	N8403-076F N8403-077F	Windows Server 2012 R2 / Windows Server 2016 / Red Hat Enterprise Linux / VMware	Not available
	N8403-095F	Windows Server 2012 R2 / Windows Server 2016 / Red Hat Enterprise Linux / VMware	Not available
10GbE	N8403-096F N8403-098F	Windows Server 2012 R2 / Red Hat Enterprise Linux	Available
	N8403-097F	Windows Server 2012 R2 / Windows Server 2016 / Red Hat Enterprise Linux / VMware	Not available

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N8403-099F	Windows Server 2012 R2 / Windows Server 2016 / Red Hat Enterprise Linux / VMware	Not available
N8403-100F	Windows Server 2012 R2 / Red Hat Enterprise Linux	Available

NOTE:

- To configure iSCSI boot system, please contact your sales representative.

5.2 External Storage Controller

5.2.1 Fibre Channel Controller

Category	Product Name / Description	Part Number
Adapter Type I	Fibre Channel Controller(8Gbps/2ch) Emulex LightPulse LPe1205-N Host Bus Adapter	N8403-034F

NOTE:

- Link speed of two ports in one card should be identical.

6 Other Add-in Components

6.1 Trusted Platform Module Kit

Product Name / Description	Part Number
Trusted Platform Module Kit TPM 2.0 module	N8415-010F

NOTE:

- The kit is not available in China.
- The kit is not removable after attachment.
- "TPM Support" in BIOS setup menu must be activated prior to use of this product.
- To use Windows BitLocker drive encryption, be sure to keep the "recovery password" of BitLocker function. The recovery password is required to restore data for hardware replacement during a system error.

References

Boot Mode Setting

The server supports Legacy mode and UEFI mode (default) as an OS Boot Mode. See the table below for the Boot Mode and X2APIC setting for each Operating System. As the default settings at the factory, UEFI mode is set as OS Boot mode and X2APIC is enabled. Refer to the User's Guide and change the settings before installing an Operating System requiring Legacy Mode.

Operating System	Supported Boot Mode	Supported X2APIC Setting
Windows Server 2012 R2	UEFI	Enabled
Windows Server 2016	UEFI	Enabled
Red Hat Enterprise Linux 7	UEFI	Enabled
VMware ESXi 5.5 Update 3	Legacy	Disabled
VMware ESXi 6.0 Update 1	Legacy	Disabled
VMware ESXi 6.5	UEFI ¹	Enabled ¹

¹ If the server is upgraded from VMware ESXi 5.5/6.0 to VMware ESXi 6.5, please set the server in "Boot Mode : Legacy" and "X2APIC Setting : Disabled". The server supports Legacy mode and UEFI mode as an OS Boot Mode in VMware ESXi 6.5.

Server Management

The EXPRESSSCOPE Engine 3, integrated into the server, provides superior remote control and system management features listed in the table below.

		Standard
Hardware monitoring	Temperature, voltage, power, drives, degeneration (memory, hard drive)	✓
	Hardware event log collection	✓
Boot monitoring	Booting, BIOS/POST stall, OS stall, shutdown	✓ ¹
Alerting	HW error, Boot error and OS panic (by SNMP, E-Mail)	✓
Remote KVM (via LAN)	POST/BIOS setup, DOS utility	✓
	Panic screen, Boot screen	✓
	Text-based screen (OS console)	✓
	GUI-based screen (OS console)	✓
Remote control (via LAN)	Remote reset/power on-off/ dump	✓
	Power control	✓
	BIOS and BMC Firmware update	✓
	BIOS setting ²	✓
	OS shutdown	✓ ¹
	Remote media (CD/DVD, FD, USB Key)	✓
	CLP (Command Line Protocol) (DMTF compliant)	✓
	Remote control via Web browser (multi user login at the same time)	✓
Others	Scheduling (without UPS)	✓ ¹
	Set automatic IP address via DNS/DHCP	✓
	LDAP/Active Directory verification/user control	✓
	Clock synchronization of main unit and the RTC	✓
Industry standard	Access log collection	✓
	IPMI	2.0

¹ The feature is not supported on VMware ESXi systems.

² Some setting items can only be changed.

OS Support Matrix for PCI Cards and Embedded Controllers

Part number	Product Name	WS 2016	WS 2012 R2	RHEL 7	ESXi 5.5	ESXi 6.0
N8403-094F	Dual Port 1GbE Riser Card Kit	✓	✓	✓	✓	✓
N8403-095F	Dual Port 10GbE Riser Card Kit	✓	✓	✓	✓	✓
N8403-096F	Dual Port 10GbE Riser Card Kit (iSCSI)			✓	✓	- -
N8403-097F	Dual Port 10GbE Adapter	✓	✓	✓	✓	✓
N8403-098F	Dual Port 10GbE Adapter (iSCSI)			✓	✓	- -
N8403-099F	Quad Port 10GbE Adapter	✓	✓	✓	✓	✓
N8403-100F	Quad Port 10GbE Adapter (iSCSI)			✓	✓	- -
N8403-076F	Dual Port 1000BASE Adapter	✓	✓	✓	✓	✓
N8403-077F	Quad Port 1000BASE Adapter	✓	✓	✓	✓	✓
N8403-034F	Fibre Channel Controller (8Gbps/2ch)	✓	✓	✓	✓	✓

Support Matrix for Adapters and Network Interconnect Devices

Network Adapter

Part Number	Product Name	N8460-023A	N8460-023	N8406-044	N8406-029	N8406-011	N8406-036	N8406-035	N8406-051F	N8406-052F
		Switch	1Gb Intelligent L3 Switch	1/10Gb Intelligent L3 Switch	Card	1Gb Pass-Through Card	10Gb Pass-Through Card	10Gb Pass-Through Card	10Gb Intelligent L3 Switch	10Gb Intelligent L3 Switch
N8403-094F	Dual Port 1GbE Riser Card Kit	✓	✓	✓	✓	✓ ²	✓	✓	✓	✓
N8403-095F	Dual Port 10GbE Riser Card Kit	✓	✓	✓	✓	✓	✓	✓	✓	✓
N8403-096F	Dual Port 10GbE Riser Card Kit	✓	✓	✓	✓	✓	✓	✓	✓	✓
N8403-097F	Dual Port 10GbE Adapter	✓	✓	✓	✓	✓	✓	✓	✓	✓
N8403-098F	Dual Port 10GbE Adapter	✓	✓	✓	✓	✓	✓	✓	✓	✓
N8403-099F	Quad Port 10GbE Adapter	-	-	-	-	-	-	-	-	✓
N8403-100F	Quad Port 10GbE Adapter	-	-	-	-	-	-	-	-	✓
N8403-076F	Dual Port 1000BASE Adapter	✓ ¹	✓	✓	✓	✓ ²	✓	✓	✓	✓
N8403-077F	Quad Port 1000BASE Adapter	✓	✓	✓	✓	✓ ²	✓	✓	✓	✓

¹ Existing 1Gb Intelligent L3 Switch installed for embedded NIC can be shared with embedded NIC and the optional NIC if N8406-013 1Gb Inter-link Expansion Card is installed in Blade Enclosure M system

² N8406-037 10GBASE-SR SFP+ module is not supported

Fibre Channel Controller

Part Number	Product Name	N8406-040	N8406-042
		8G FC switch (12 ports)	8G FC switch (24 ports) ¹
N8403-034F	Fibre Channel Controller (8Gbps/2ch)	✓	✓

¹ Supported for Blade Enclosure H v2 only

Supported PCI Cards and Installable Slots

Part Number	Product Name	Slots		
		#1	#2	#3
	Slot # :	#1	#2	#3
	Slot type:	Type I	Type II	NIC
N8403-094F	Dual Port 1GbE Riser Card Kit	-	-	✓
N8403-095F	Dual Port 10GbE Riser Card Kit	-	-	✓
N8403-096F	Dual Port 10GbE Riser Card Kit	-	-	✓
N8403-097F	Dual Port 10GbE Adapter	✓	✓	-
N8403-098F	Dual Port 10GbE Adapter	✓	✓	-
N8403-099F	Quad Port 10GbE Adapter	✓	✓	-
N8403-100F	Quad Port 10GbE Adapter	✓	✓	-
N8403-076F	Dual Port 1000BASE Adapter	✓	✓	-
N8403-077F	Quad Port 1000BASE Adapter	-	✓	-
N8403-034F	Fibre Channel Controller (8Gbps/2ch)	✓	✓	-

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For hard drive capacity measurements, 1 GB = 1 billion bytes. Actual formatted capacity is less.

Revision History

Revision	Date	Description
1.2	June 15, 2017	Others: Added Windows Server 2016 to the list of operating system supported Updated OS Support Matrix for PCI Cards and Embedded Controllers
1.1	February 24, 2017	Others: Added VMware ESXi 6.5 and Red Hat Enterprise Linux 7 to the list of operating system supported Updated OS Support Matrix for PCI Cards and Embedded Controllers
1.0	April 25, 2016	Initial release