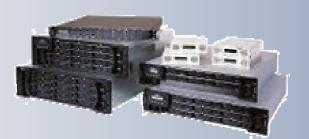


# PRODUCT AT A GLANCE

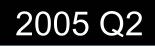
RAID Specialist since 1992

















	Fibre RAID Controller He		Product Details			
<b>M</b> - 1-1	2510FS-4S / -6S	2510FS-4RH / -6RH	2510FS-4D / -6D	A16F-J1210-G	F16F-R2J2 (Dual SES) F16F-S2J2 (Single SES)	
Model						
	Single-UPG Fibre-Fibre RAID Controller Head *1	RAID Controller Head *1	Dual-Single Fibre-Fibre RAID Controller Head *1	Fibre-SATA JBOD Subsystem 3U 16-Bay *2	Fibre JBOD Subsystem 3U 16-Bay *2	
Form Factor *3	1U Rackmount	1U Rackmount	1U Rackmount	3U Rackmount	3U Rackmount	
Drive Channels *6 Hot Swap Trays	Each channel h Each channel mod	els Fibre 2G as two SFP ports ule has built-in PBC and two SFP ports in one loop	4 / 6 Channels Fibre 2G in each Controller, total 8 /12 Channels Each controller has one SFP port for each channel	16 Channels 16-bay (SATA Drives) IDE drives optional	2 Channels Fibre 2G Four SFP ports	
xpansion Channels	Every channel of	can be assigned	Every channel can be assigned as Host or Drive	2 Channels	Dual-Loop 16-bay	
Host Channels *6	as Host or Drive Channel mode Dual-loop		Channel mode Dual-loop	Fibre 2G Two SFP Ports per channel, total four SFP ports	(2G FC-SCA Drives)	
Redundant Controller *1	Single Controller Upgradeable to Redundant Dual-Controller Redundant Dedicated sync-channels user configurable		Dual-Single controller Two independent RAID controllers	-	JBOD ( <i>No RAID Controller</i> ) With dual SES Module (R2J2) Or single SES Module (S2J2)	
RAID Function			IDs, Multiple Host LUNs, Instant RAID Ready, LD o nment	configuration on disks, Dynamic host LUN map	pings	
Advanced Functions	Dual-mode RAID expansions: "Add-in Drive" and		nputers), fibre switch support, fabric log-in (support	ed on fibre-host models), background firmware	e download	
Management	LCD front panel: <i>Easy-to-use menu for accessing all</i> RS-232 Terminal: <i>User friendly menu-driven for accessing all</i> RS-232 Terminal: <i>Sec friendly menu-driven for accessing all</i> RS-232	functions and features. ssing all functions and features.		f-band), event notifications (via e-mail, SNMP trap, f	ax, network broadcast – with full plain-text event message	
Management via Built-in LAN	RAIDWatch™-onboard: Open browser to link to the RAID unit via built-in LAN port.					
Hot Swap Fan Modules	2	2	2	2	2	
Hot Swap Power Supplies	2 x 300 W	2 x 300 W	2 x 300 W	2 x 460 W	2 x 460 W	
Cache Memory	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	128 MB (PC-133 SDRAM)	-	
Battery Backup *4	Included x1	Included x2	Included x2	-	-	

\*1 Single-UPG: Single RAID Controller Upgradeable to Redundant. Redundant: Dual-Redundant Controller configuration Redundant with dedicated sync-channels: Use two dedicated Fibre channels as redundant controller communication and cache synchronization for enhanced write-back performance. Dual-Single: Two RAID controllers both operate individually. No redundant controller functions but performance simply double.

\*2 JBOD models require connecting to a RAID controller or RAID subsystem order to benefit the RAID and management functions.

Single-SES: One SES module is installed.

Dual-SES: Two SES modules are installed to provide redundancy on SES module.

\*3 For rack mount kits, please see page of "Rack Mount Guide".

\*4 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

In redundant controller configuration, the two controllers should have identical cache memory and battery backup configuration.

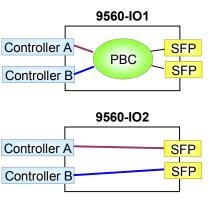
- \*5 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD. The CD also includes RAIDWatch <sup>™</sup> software for RAID management.
- \*6 Host-side dual-loop is supported by using host-side software from the OS or 3rd party to provide redundant loop and load balancing functions.

Drive-side dual-loop is supported by RAID controller on all models with Fibre drive side. RAID controller provides redundant path and dynamic load balancing on the drive-side channels. (User configurable on ER2510FS series)

\*7 SFP modules are not included. To ensure the signal quality for 2G Fibre, we recommend to use SFP module with LC optical connection.



#### Channel IO Module for ER2510FS:



With PBC (portbypass-circuit) builtin which links both controllers and both SFP ports together.

Straight-through connections with no PBC.



	Fibre RAID Controller Hea	ad and JBODs	Variant	ts & Spare Parts	
Model	2510FS-4S/6S	2510FS-4RH/6RH	2510FS-4D/6D	A16F-J1210-G	F16F-R2J2 (Dual SES) F16F-S2J2 (Single SES)
	Single-UPG Fibre-Fibre RAID Controller Head *1	RAID Controller Head *1	Dual-Single Fibre-Fibre RAID Controller Head *1	Fibre-SATA JBOD Subsystem 3U 16-Bay *2	Fibre JBOD Subsystem 3U 16-Bay *2
Controller Module	9560-CTMod-4 (INC x1 for -4S) 9560-CTMod-6 (INC x1 for -6S)	9560-CTMod-4 ( <i>INC x2 for -4RH</i> ) 9560-CTMod-6 ( <i>INC x2 for -6RH</i> )	9560-CTMod-4 (INC x2 for -4D) 9560-CTMod-6 (INC x2 for -6D)	80AF12JC16 (INC x1)	9270FSESM (INC x2 for -R2J2) (INC x1 for -S2J2)
Fan Module	9560-FanMod (INC x2)	9560-FanMod (INC x2)	9560-FanMod (INC x2)	9270CFanMod (INC x2)	9270CFanMod (INC x2)
Power Supply Module	9560-PSU <i>(INC x2)</i>	9560-PSU (INC x2)	9560-PSU <i>(INC x2)</i>	9270CPSU (INC x2)	9270CPSU (INC x2)
Drive Tray	-	-	-	9272CDTray (INC x16)	9270FDTray (INC x16)
Channel IO Module	9560-IO1 (INC x4 for -4S) (INC x6 for -6S)	9560-IO1 (INC x4 for -4RH) (INC x6 for -6RH)	9560-IO2 (INC x4 for -4D) (INC x6 for -6D)	-	-
RS-232 Cable	9560-Scab (INC x1)	9560-Ycab (INC x2)	9560-Scab (INC x1)	-	-
RS-232 Null Modem	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 (INC x1)	-	-
Fibre SFP *7	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)
Rack Mount Kits (See Rack Mount Guide) *3	9253L20 (OPT)	9253L20 (OPT)	9253L20 <i>(OPT)</i>	9270CEncBrk 9270CSlider36 ( <i>OPT</i> )	9270CEncBrk 9270CSlider36 ( <i>OPT</i> )
Cache Memory *4	128 MB, 256 MB, 512MB and 1GB (OPT) PC-133 SDRAM Memory Module Not Included	128 MB, 256 MB, 512MB and 1GB (OPT) PC-133 SDRAM Memory Module Not Included	128 MB, 256 MB, 512MB and 1GB (OPT) PC-133 SDRAM Memory Module Not Included	128 MB PC-133 SDRAM (INC x1)	-
Battery Backup *5	9560-IOBT (INC x1)	9560-IOBT (INC x2)	9560-IOBT (INC x2)	-	-
CD, Manual and QIG *6 (Quick Installation Guide)	CD (INC)	CD (INC)	CD (INC)	QIG (INC)	QIG (INC)
Redundant Ctrl. Upgrade Kit	9560UP4S4RH (-4S OPT) 9560UP6S6RH (-6S OPT)	Redundant enabled, no upgrade kit required	-	-	-

\*1 SC-UPG: Single RAID Controller Upgradeable to Redundant. Redundant: Dual-Redundant Controller configuration Redundant with dedicated sync-channels: Use two dedicated Fibre channels as redundant controller communication and cache synchronization for enhanced write-back performance. Dual-Single: Two RAID controllers both operate individually. No redundant controller functions but performance simply double.

\*2 JBOD models require connecting to a RAID controller or RAID subsystem order to benefit the RAID and management functions.

Single-SES: One SES module is installed.

Dual-SES: Two SES modules are installed to provide redundancy on SES module.

\*3 For rack mount kits, please see page of "Rack Mount Guide".

- \*4 The 2510FS series use PC-133 registered ECC SDRAM (168pin DIMM) only. Please contact Infortrend for optional memory modules.
- \*5 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

In redundant controller configuration, the two controllers should have identical cache memory and battery backup configuration.

\*6 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD. The CD also includes RAIDWatch <sup>™</sup> software for RAID management.

\*7 SFP modules are not included. To ensure the signal quality for 2G Fibre, we recommend to use SFP module with LC optical connection.

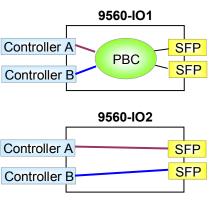
For the minimum / maximum cable length, recommended cable type, wave length and other additional information, please refer to specifications or data sheets from the SFP module manufacturers.

SFP module manufacturer and model: 9270CSFP2GA01 Agilent QFBR-5751ALP



**Advanced Fibre** 

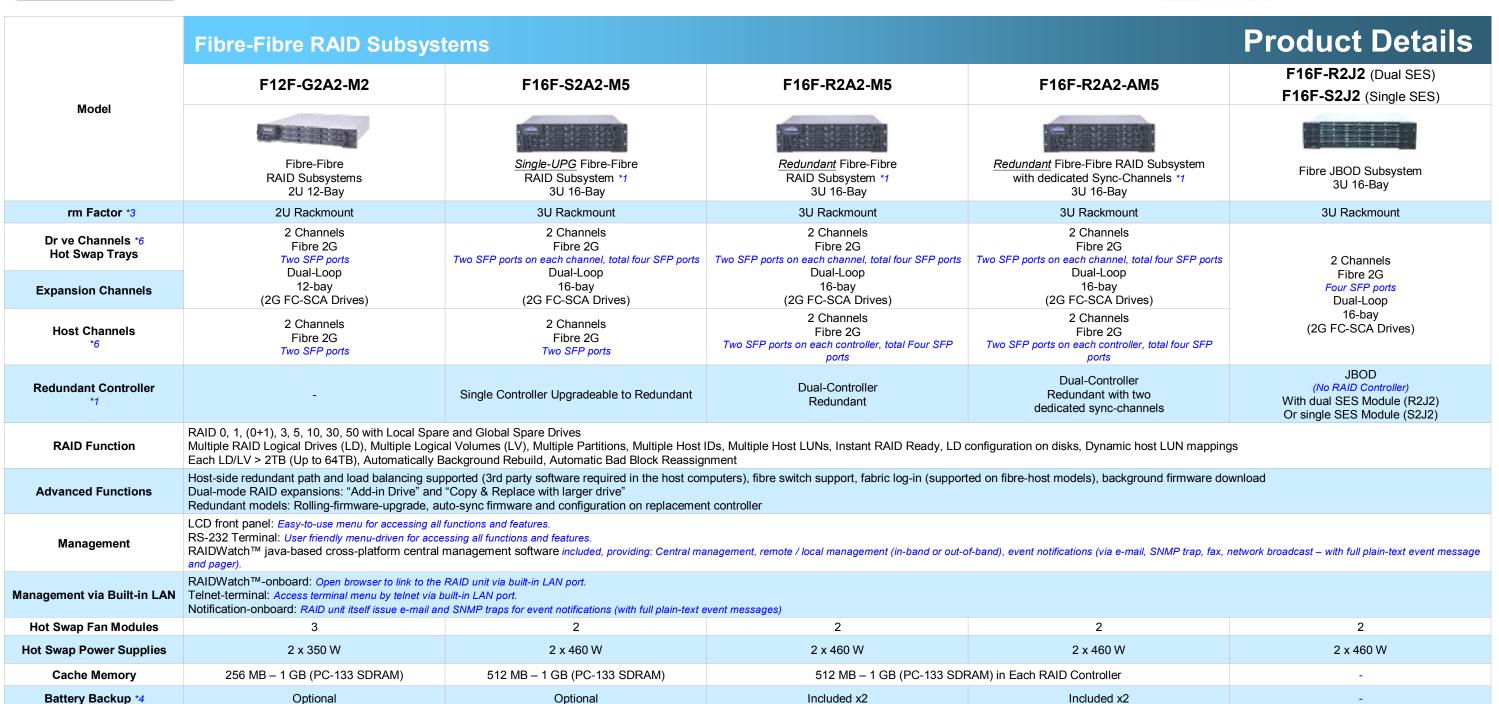
**Channel IO Module for ER2510FS:** 



With PBC (portbypass-circuit) builtin which links both controllers and both SFP ports together.

Straight-through connections with no PBC.





\*1 <u>Single-UPG</u>: Single RAID Controller Upgradeable to Redundant. <u>Redundant</u>: Dual-Redundant Controller configuration <u>Redundant with dedicated sync-channels</u>: Use two dedicated Fibre channels as redundant controller communication and cache synchronization for enhanced write-back performance.

\*2 JBOD models require connecting to a RAID controller or RAID subsystem order to benefit the RAID and management functions.

Single-SES: One SES module is installed.

<u>Dual-SES</u>: Two SES modules are installed to provide redundancy on SES module.

\*3 For rack mount kits, please see page of "Rack Mount Guide".

\*4 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

In redundant controller configuration, the two controllers should have identical cache memory and battery backup configuration.

- \*5 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD. The CD also includes RAIDWatch ™ software for RAID management.
- \*6 Host-side dual-loop is supported by using host-side software from the OS or 3rd party to provide redundant loop and load balancing functions.

Drive-side dual-loop is supported by RAID controller on all models with Fibre drive side. RAID controller provides redundant path and dynamic load balancing on the drive-side channels. (User configurable on ER2510FS series)

\*7 SFP modules are not included. To ensure the signal quality for 2G Fibre, we recommend to use SFP module with LC optical connection.







	Fibre-Fibre RAID Subsystems						
Model	F12F-G2A2-M2 F16F-S2A2-M5		F16F-R2A2-M5	F16F-R2A2-AM5	F16F-R2J2 (Dual SES) F16F-S2J2 (Single SES)		
Woder							
	Fibre-Fibre RAID Subsystems 2U 12-Bay	<u>Single-UPG</u> Fibre-Fibre RAID Subsystem *1 3U 16-Bay	<u>Redundant</u> Fibre-Fibre RAID Subsystem *1 3U 16-Bay	<u>Redundant</u> Fibre-Fibre RAID Subsystem with dedicated Sync-Channels *1 3U 16-Bay	Fibre JBOD Subsystem with Dual-SES *2 3U 16-Bay		
Controller Module	9272FCM4 (INC x1)	9270FCM4 (INC x1)	9270FCM4 (INC x2)	9270FCM6 <i>(INC x2)</i>	9270FSESM (INC x2 for -R2J2) (INC x1 for -S2J2)		
Fan Module	9272CFanMod (INC x3)	9270CFanMod (INC x2)	9270CFanMod ( <i>INC x2</i> )	9270CFanMod (INC x2)	9270CFanMod (INC x2)		
Power Supply Module	9272CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)		
Drive Tray	9272CDTray (INC x12)	9270FDTray (INC x16)	9270FDTray (INC x16)	9270FDTray (INC x16)	9270FDTray (INC x16)		
Channel IO Module	-	-	-	-	-		
RS-232 Cable	9270ASCab (INC x1)	Standard DB-9	Not included. male RS-232 connector, please use standard DB	8-9 RS-232 cable.	-		
RS-232 Null Modem	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 (INC x1)	9011 (INC x1)	-		
Fibre SFP *7	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)		
Rack Mount Kits (See Rack Mount Guide) *3	9272CESlide36 (OPT)	9270CEncBrk 9270CSlider36 (OPT)	9270CEncBrk 9270CSlider36 ( <i>OPT</i> )	9270CEncBrk 9270CSlider36 (OPT)	9270CEncBrk 9270CSlider36 ( <i>OPT</i> )		
Cache Memory	256 MB PC-133 SDRAM (INC x1) 512 MB and 1GB (OPT)	512 MB PC-133 SDRAM (INC x1) 1GB ( <i>OPT</i> )	512 MB PC-133 SDRAM ( <i>INC x2</i> ) 1GB ( <i>OPT</i> )	512 MB PC-133 SDRAM (INC x2) 1GB (OPT)	-		
Battery Backup *4	9270FBT ( <i>OPT</i> )	9270FBT (OPT)	9270FBT (INC x2)	9270FBT (INC x2)	-		
<b>CD, Manual and QIG</b> *5 (Quick Installation Guide)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC)		
Redundant Ctrl. Upgrade Kit	-	9270FCM4 <i>(OPT)</i>	Redundant enabled, no upgrade kit required	Redundant enabled, no upgrade kit required	-		

- \*1 <u>Single-UPG</u>: Single RAID Controller Upgradeable to Redundant. <u>Redundant</u>: Dual-Redundant Controller configuration <u>Redundant with dedicated sync-channels</u>: Use two dedicated Fibre channels as redundant controller communication and cache synchronization for enhanced write-back performance.
- \*2 JBOD models require connecting to a RAID controller or RAID subsystem order to benefit the RAID and management functions.

Single-SES: One SES module is installed.

<u>Dual-SES</u>: Two SES modules are installed to provide redundancy on SES module.

\*3 For rack mount kits, please see page of "Rack Mount Guide".

- \*4 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)
  - The battery is not able to provide the power for RAID controller or drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

In redundant controller configuration, the two controllers should have identical cache memory and battery backup configuration.

- \*5 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD. The CD also includes RAIDWatch <sup>™</sup> software for RAID management.
- \*6 Host-side dual-loop is supported by using host-side software from the OS or 3rd party to provide redundant loop and load balancing functions.
- \*7 SFP modules are not included. To ensure the signal quality for 2G Fibre, we recommend to use SFP module with LC optical connection.

SFP module manufacturer and model: 9270CSFP2GA01 Agilent QFBR-5751ALP





	Fibre-SATA RAID Sub	osystems				oduct Detail
	A08F-G1A2-M1	A12F-G1A2-M1	A16F-G1A2-M1	A16F-R1A2-M2 (Redundant) A16F-S1A2-M2 (Single-UPG)	A16F-R1211-M2 (Redundant) A16F-S1211-M2 (Single-UPG)	A16F-J1210-G
Model	A STATE OF THE STATE					
	Fibre-SATA RAID Subsystem 2U 8-Bay	Fibre-SATA RAID Subsystem 2U 12-Bay	Fibre-SATA RAID Subsystem 3U 16-Bay	Fibre-SATA RAID Subsystem with drive-side expansion *8 3U 16-Bay	Fibre-SATA RAID Subsystem with drive-side expansion and host-side hub function *8 3U 16-Bay	Fibre-SATA JBOD Subsystem 3U 16-Bay
Form Factor *1	2U Rackmount	2U Rackmount	3U Rackmount	3U Rackmount	3U Rackmount	3U Rackmount
Drive Channels Hot Swap Trays *2	8 Channels 8-bay (SATA Drives) IDE drives optional	12 Channels 12-bay (SATA Drives) IDE drives optional	16 Channels 16-bay (SATA Drives) IDE drives optional	16 Channels 16-bay (SATA Drives) IDE drives optional	16 Channels 16-bay (SATA Drives) IDE drives optional	16 Channels 16-bay (SATA Drives) IDE drives optional
xpansions Channels *3	-	-	-	1 Channel Fibre 2G One SFP port on each controller Total two SFP ports (R1A2) or One SFP port (S1A2)	1 Channel Fibre 2G One SFP port on each controller Total two SFP ports (R1211) or One SFP port (S1211)	2 Channels
Host Channels *3 *4	2 Channels Fibre 2G <i>Two SFP ports</i>	2 Channels Fibre 2G <i>Two SFP ports</i>	2 Channels Fibre 2G <i>Two SFP ports</i>	2 Channels Fibre 2G One SFP ports per channel on each controller Total: four SFP ports (R1A2) or two SFP ports (S1A2)	2 Channels Fibre 2G Built-in Fibre hub function Two SFP ports per channel on each controller Total: Eight SFP ports (R1211) or Four SFP ports (S1211)	Fibre 2G Two SFP Ports per channel total four SFP ports
edundant Controller *5	-	-	-	R1A2: Dual-controller redundant S1A2: Single-controller upgradeable to redundant	R1211: Dual-controller redundant S1211: Single-controller upgradeable to redundant	-
RAID Function				stant RAID Ready, LD configuration on disks, I	Dynamic host LUN mappings	
dvanced Functions	Dual-mode RAID expansions: "Add-in Driv			ort, fabric log-in (supported on fibre-host models	s), background firmware download	
Management	LCD front panel: <i>Easy-to-use menu for acces</i> RS-232 Terminal: <i>User friendly menu-driven</i> RAIDWatch™ java-based cross-platform	for accessing all functions and features.	ling: Central management, remote / local mai	nagement (in-band or out-of-band), event notification	s (via e-mail, SNMP trap, fax, network broadcast –	with full plain-text event message ar
Management via Built-in LAN		nk to the RAID unit via built-in LAN port. <b>Telnet-</b> mail and SNMP traps for event notifications (with		built-in LAN port.		
Hot Swap Fan Modules	2	3	2	2	2	2
Hot Swap Power Supplies	2 x 350 W	2 x 350 W	2 x 460 W	2 x 460 W	2 x 460 W	2 x 460 W
Cache Memory *6	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	256 MB – 1 GB (PC-133 SDRAM)	256 MB – 1 GB (PC-133 SDRAM)	128MB (PC-133 SDRAM
Battery Backup *7	_	Optional	Optional	Included (R1A2) Optional (S1A2)	Included (R1211)	_

- \*2 IDE drives can be used with optional dongle-boards installed in each drive tray.
- \*3 SFP modules and Fibre optical cables are not included. To ensure the signal quality for 2G Fibre, we recommend to use SFP module with LC optical connection.
- \*4 Host-side dual-loop is supported by using host-side software from the OS or 3rd party to provide redundant loop and load balancing functions.
- \*5 <u>Single-UPG</u>: Single Controller Upgradeable to Dual-Redunda Controller configuration.
- <u>**Redundant**</u>: Dual-redundant controller configuration. "Activeactive" redundant RAID controller (can be used as "activepassive")
- \*6 Supports Infortrend qualified PC-133 ECC SDRAM modules only. Please contact Infortrend for optional memory upgrades.
- 7 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)
- The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

The drive-side expansion port(s) on A16F-R1A2/S1A2/R1211/ S1211 can be used to connect Fibre-SATA JBOD subsystems. **Up to 7 units of A16F-J1210-G can be connected.** 

The built-in hub function in A16F-S1211 allows two computers connecting to each host channel without using a Fibre switch. (four SFP connections in total)

The built-in hub function in A16F-R1211 provides four SFP connection per host channel without using a Fibre switch. (Eight SFP connections in total)

	Fibre-SATA RAID Sub	osystems		Variants & Spare Parts			
	A08F-G1A2-M1	A12F-G1A2-M1	A16F-G1A2-M1	A16F-R1A2-M2 (Redundant) A16F-S1A2-M2 (Single-UPG)	A16F-R1211-M2 (Redundant) A16F-S1211-M2 (Single-UPG)	A16F-J1210-G	
Model							
	Fibre-SATA RAID Subsystem 2U 8-Bay	Fibre-SATA RAID Subsystem 2U 12-Bay	Fibre-SATA RAID Subsystem 3U 16-Bay	Fibre-SATA RAID Subsystem with drive-side expansion *8 3U 16-Bay	Fibre-SATA RAID Subsystem with drive-side expansion and host-side hub function *8 3U 16-Bay	Fibre-SATA JBOD Subsystem 3U 16-Bay	
Controller Module	9272AFGCM08 (INC x1)	9272AFGCM12 (INC x1)	9270AFGCM (INC x1)	9270AFRCM (R1A2: INC x2; S1A2: INC X1)	80AF12RC16 (R1211: INC x2; S1211: INC X1)	80AF12JC16 (INC x1)	
Fan Module	9272CFanMod (INC x2)	9272CFanMod (INC x3)	9270CFanMod (INC x2)	9270CFanMod (INC x2)	9270CFanMod (INC x2)	9270CFanMod (INC x2)	
Power Supply Module	9272CPSU (INC x2)	9272CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	
Drive Tray	9272CDTray ( <i>INC x8</i> )	9272CDTray (INC x12)	9270CDTray (INC x16)	9270ADT2S1S ( <i>R1A2: INC x16</i> ) 9270ADT1S1S ( <i>S1A2: INC x16</i> )	9270ADT2S1S ( <i>R1211: INC x16</i> ) 9270ADT1S1S ( <i>S1211: INC x16</i> )	9272CDTray (INC x16)	
Dongle Board for IDE Drive *1	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P ( <i>OPT</i> )	-	-	9270AN1S1P (OPT)	
RS-232 Cable	9270ASCab (INC x1)	9270ASCab (INC x1)	9270ASCab (INC x1)	9270AYCab ( <i>R1A2: INC x1</i> ) 9270ASCab ( <i>S1A2: INC x1</i> )	9270AYCab ( <i>R1211: INC x1</i> ) 9270ASCab ( <i>S1211: INC x1</i> )	-	
RS-232 Null Modem	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 (INC x1)	9011 (INC x1)	9011 <i>(INC x1)</i>	-	
Fibre Optical Cable (External) *2	- (OPT)	- (OPT)	- (OPT)	- (OPT)	- (OPT)	- (OPT)	
SFP Module *2	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	
Rack Mount Kits *3 (See Rack Mount Guide)	9272CESlide36 (OPT)	9272CESlide36 <i>(OPT)</i>	9270CEncBrk 9270CSlider36 ( <i>OPT</i> )	9270CEncBrk 9270CSlider36 (OPT)	9270CEncBrk 9270CSlider36 ( <i>OPT</i> )	9270CEncBrk 9270CSlider36 (OPT)	
Cache Memory *4	128 MB PC-133 SDRAM ( <i>INC x1</i> ) 256 MB, 512 MB and 1GB ( <i>OPT</i> )	128 MB PC-133 SDRAM (INC x1) 256 MB, 512 MB and 1GB (OPT)	128 MB PC-133 SDRAM <i>(INC x1)</i> 256 MB, 512 MB and 1GB <i>(OPT)</i>	256 MB PC-133 SDRAM ( <i>R1A2: INC x2; S1A2: INC X1</i> ) 512 MB and 1GB ( <i>OPT</i> )	256 MB PC-133 SDRAM ( <i>R1211: INC x2; S1211: INC X1</i> ) 512 MB and 1GB ( <i>OPT</i> )	128 MB SDRAM (INC x1)	
Battery Backup *5	-	9270ABT ( <i>OPT</i> )	9270ABT <i>(OPT)</i>	9270ABT (R1A2: INC x2; S1A2: OPT)	9270ABT (R1211: INC x2; S1211: INC x1)	-	
CD, Manual & QIG *6 (Quick Installation Guide)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC)	
Redundant Controller Upgrade Kit *7	-	-	-	9270AFSUPKIT (Optional for S1A2 only)	80AF12RC16-M2 (x1) + 9270AN2S1S (x16) (Optional for S1211 only)	-	

- \*1 IDE drives can be used with optional dongle-boards installed in each drive tray.
- \*2 SFP modules and Fibre optical cables are not included. To ensure the signal quality for 2G Fibre, we recommend to use SFP module with LC optical connection.
- \*3 For rack mount kits, please see page of "Rack Mount Guide".
- \*4 Supports Infortrend qualified PC-133 ECC SDRAM modules only. Please contact Infortrend for optional memory upgrades.
- \*5 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

\*6 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD.

The CD also includes RAIDWatch ™ software for RAID management.

\*7 Single-UPG: Single Controller Upgradeable to Dual-Redundant Controller configuration.

Redundant: Dual-redundant controller configuration. "Activeactive" redundant RAID controller (can be used as "activepassive")

\*8 The drive-side expansion port(s) on A16F-R1A2/S1A2/R1211/ S1211 can be used to connect Fibre-SATA JBOD subsystems. Up to 7 units of A16F-J1210-G can be connected.

The built-in hub function in A16F-S1211 allows two computers connecting to each host channel without using a Fibre switch. (four SFP connections in total)

The built-in hub function in A16F-R1211 provides four SFP connection per host channel without using a Fibre switch. (Eight SFP connections in total)



All specifications are subject to change without prior notice. 03/05/2005

# New! Constor iSCS

	iSCSI RAID Storage	Fibre - SATA II RAID Subsy	/stems	<b>Product Details</b>	
	New A12E-G2121-25	New A08F-G2221-M2	New A12F-G2221-M2	New A16F-G2221-M2	New A16F-R2221-M2
Model	把在大学大学				
	iSCSI – SATA II RAID Subsystem 12-Bay	Fibre – SATA II RAID Subsystem 2U 8-Bay	Fibre – SATA II RAID Subsystem 2U 12-Bay	Fibre – SATA II RAID Subsystem 3U 16-Bay	Fibre – SATA II Redundant Controllers RAID Subsystem 3U 16-Bay
Form Factor *1	2U Rackmount	2U Rackmount	2U Rackmount	3U Rackmount	3U Rackmount
Drive Channels Hot Swap Trays *2	12 Channels 12-bay (SATA I - II Drives) IDE drives optional	8 Channels 8-bay (SATA I - II Drives) IDE drives optional	12 Channels 12-bay (SATA I – II Drives) IDE drives optional	16 Channels 16-bay (SATA I - II Drives) <i>IDE drives optional</i>	16 Channels 16-bay (SATA I - II Drives) <i>IDE drives optional</i>
Expansions Channels	-	-	-	-	-
Host Channels *3	2 Channels Gigabit Ethernet <i>Two RJ-45 ports</i>	2 Channels Fibre 2G <i>Two SFP ports</i>	2 Channels Fibre 2G Two SFP ports	2 Channels Fibre 2G <i>Two SFP ports on chassis</i> (Fibre cable connections remain intact when exchanging the RAID controller module)	2 Channels Fibre 2G Four SFP Ports on chassis (Fibre cable connections remain intact when exchanging the RAID controller module)
Redundant Controller	-	-	-	-	Redundant Controller Enabled
RAID Function		nd Global Spare Drives /olumes (LV), Multiple Partitions, Multiple Host IDs, M kground Rebuild, Automatic Bad Block Reassignmen		uration on disks, Dynamic host LUN mappings	
Advanced Functions	The same as RAID subsystems, plus CHAP and other iSCSI related functions. (Refer to brochure)	Host-side redundant path and load balancing suppor Dual-mode RAID expansions: "Add-in Drive" and "Co	rted (3rd party software required in the host compu opy & Replace with larger drive"	ters), background firmware download	
Management	The same as RAID subsystems, no LCD front panel.	LCD front panel: <i>Easy-to-use menu for accessing all fun</i> RS-232 Terminal: <i>User friendly menu-driven for accessin</i> RAIDWatch™ java-based cross-platform central ma <i>broadcast</i> – <i>with full plain-text event message and pager</i> ).	ng all functions and features.	gement, remote / local management (in-band or out-of-band),	event notifications (via e-mail, SNMP trap, fax, network
Management via Built-in LAN	RAIDWatch™-onboard: Open browser to link to the RA Telnet-terminal: Access terminal menu by telnet via built Notification-onboard: RAID unit itself issue e-mail and S		nessages)		
Hot Swap Fan Modules	3	2	3	2	2
Hot Swap Power Supplies	2 x 350 W	2 x 350 W	2 x 350 W	2 x 460 W	2 x 460 W
Cache Memory *4	512 MB – 1 GB (PC-3200 DDR400)	256 MB – 1 GB (PC-3200 DDR400)	256 MB – 1 GB (PC-3200 DDR400)	256 MB – 1 GB (PC-3200 DDR400)	256 MB – 1 GB (PC-3200 DDR400)
Battery Backup *5	Optional	Optional	Optional	Optional	Optional

\*1 For rack mount kits, please see page of "Rack Mount Guide".

\*2 IDE drives can be used with optional dongle-boards installed in each drive tray.

Both SATA I (with or without NCQ) and SATA II drives can be used in SCSI – SATA II and Fibre – SATA II RAID subsystem models.

- \*3 Host-side load balancing and redundant path functions are supported by using host-side software from the OS or 3rd party. (not included)
- \*4 Please note the different memory module types used in different RAID subsystem models:

**PC-3200 ECC DDR400**: A08F-G2221, A12F-G2221, A16F-G2221, A16F-R2221 (And all other Infortrend ASIC-266 based RAID controllers and RAID subsystems) Please contact Infortrend for optional memory upgrades. \*5 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

9273CBT-C is a field replaceable module which is independent from the RAID controller module. It can be exchanged with the RAID controller remaining in the chassis.

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# New! Constor iSCSI & Fibre – SATA II

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	iSCSI RAID Storage	Fibre - SATA II RAID Subs	systems	Variants & Spare Parts		
	New A12E-G2121-25	New A08F-G2221-M2	New A12F-G2221-M2	New A16F-G2221-M2	New A16F-R2221-M2	
Model	<b>国际系统</b> (21)					
	iSCSI – SATA II RAID Subsystem 12-Bay	Fibre – SATA II RAID Subsystem 2U 8-Bay	Fibre – SATA II RAID Subsystem 2U 12-Bay	Fibre – SATA II RAID Subsystem 3U 16-Bay	Fibre – SATA II Redundant Controllers RAID Subsystem 3U 16-Bay	
Co troller Module	82AE21GD12-25 (INC x1)	82AF22GD08-M2 (INC x1)	82AF22GD12-M2 (INC x1)	83AF22GD16-M2 (INC x1)	83AF22RD16C-M2 (INC x2)	
Fan Module	9272CFanModE (INC x3)	9272CFanModE (INC x2)	9272CFanModE (INC x3)	9273CFanMod (INC x2)	9273CFanMod (INC x2)	
Power Supply Module	9272CPSU-0011 (INC x2)	9272CPSU-0011 (INC x2)	9272CPSU-0011 (INC x2)	9273CPSU (INC x2)	9273CPSU (INC x2)	
Drive Tray	9273CDTray (INC x12)	9273CDTray (INC x8)	9273CDTray (INC x12)	9273CDTray (INC x16)	9273ADT2S1S (INC x16)	
Dongle Board for IDE Drive *1	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	
RS-232 Cable	9270ASCab (INC x1)	9270ASCab (INC x 1)	9270ASCab (INC x1)	9270ASCab (INC x1)	9270AYCab (INC x1)	
RS-232 Null Modem	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	
Fibre SFP *2	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	9270CSFP2GA01 (OPT)	
Fibre Optical Cable *3	(OPT)	(OPT)	(OPT)	(OPT)	(OPT)	
Rack Mount Kits *4 (See Rack Mount Guide)	9272CESlide36 (OPT)	9272CESlide36 (OPT)	9272CESlide36 (OPT)	9273CSlider36 (OPT)	9273CSlider36 (OPT)	
Cache Memory *5	512MB PC-3200 DDR400 (INC x1) DDRESCMA (1GB, OPT)	256 MB PC-3200 DDR400 (INC x1) DDRESCM5 (512MB, OPT) DDRESCMA (1GB, OPT)	256 MB PC-3200 DDR400 (INC x1) DDRESCM5 (512MB, OPT) DDRESCMA (1GB, OPT)	256 MB PC-3200 DDR400 (INC x1) DDRESCM5 (512MB, OPT) DDRESCMA (1GB, OPT)	256 MB PC-3200 DDR400 (INC x2) DDRESCM5 (512MB, OPT) DDRESCMA (1GB, OPT)	
Battery Backup *6	9273CBT-C (OPT)	9273CBT-C (OPT)	9273CBT-C (OPT)	9273CBT-C (OPT)	9273CBT-C (INC x2)	
<b>CD, Manual &amp; QIG</b> *7 (Quick Installation Guide)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	
Redundant Controller Upgrade Kit	-	-	-	-	Redundant enabled, no upgrade kit required	

\*1 IDE drives can be used with optional dongle-boards installed in each drive tray.

Both SATA I (with or without NCQ) and SATA II drives can be used in SCSI - SATA II and Fibre - SATA II RAID subsystem models.

\*2 SFP module manufacturer and model: Agilent QFBR-5751ALP 9270CSFP2GA01

- \*3 SFP modules and Fibre optical cables are not included. To ensure the signal quality for 2G Fibre, we recommend to use SFP module with LC optical connection.
- \*4 For rack mount kits, please see page of "Rack Mount Guide".

\*5 Please note the different memory module types used in different RAID subsystem models:

PC-3200 ECC DDR400: A08F-G2221, A12F-G2221, A16F-G2221, A16F-R2221 (And all other Infortrend ASIC-266 based RAID controllers and RAID subsystems) Please contact Infortrend for optional memory upgrades.

\*6 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

9273CBT-C is a hot-swappable battery module, which can be exchanged without removing the RAID controller from the chassis.

\*7 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD.

The CD also includes RAIDWatch ™ software for RAID management.

New
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	SCSI-SATA RAID Subsystems Product Details						
	A08U-G1A3-M1	A08U-G1410-M1	A12U-G1A3-M1	A12U-G1410-M1	A16U-G1A3-M1	A16U-G1410-M1	
Model	CO THE OWNER	Contraction of the local division of the loc					
	U160 SCSI-SATA RAID Subsystem 2U 8-Bay	<b>U320</b> SCSI-SATA RAID Subsystem 2U 8-Bay	U160 SCSI-SATA RAID Subsystem 2U 12-Bay	<b>U320</b> SCSI-SATA RAID Subsystem 2U 12-Bay	U160 SCSI-SATA RAID Subsystem 3U 16-Bay	<b>U320</b> SCSI-SATA RAID Subsystem 3U 16-Bay	
Fo m Factor *1	2U Rackmount	2U Rackmount	2U Rackmount	2U Rackmount	3U Rackmount	3U Rackmount	
Drive Channels Hot Swap Trays *2	8 Channels 8-bay (SATA Drives) <i>IDE drives optional</i>	8 Channels 8-bay (SATA Drives) IDE drives optional	12 Channels 12-bay (SATA Drives) IDE drives optional	12 Channels 12-bay (SATA Drives) IDE drives optional	16 Channels 16-bay (SATA Drives) IDE drives optional	16 Channels 16-bay (SATA Drives) IDE drives optional	
Expansions Channels	-	-	-	-	-	-	
Host Channels *3	2 Channels SCSI U160 <i>Two VHDCI ports</i>	2 Channels SCSI U320 <i>Two VHDCI ports</i>	2 Channels SCSI U160 Two VHDCI ports	2 Channels SCSI U320 Two VHDCI Ports	2 Channels SCSI U160 <i>Two VHDCI ports</i>	2 Channels SCSI U320 <i>Two VHDCI Ports</i>	
Redundant Controller *4	-	-	-	-	-	-	
RAID Function		l Spare and Global Spare Drives Logical Volumes (LV), Multiple Partitions, M cally Background Rebuild, Automatic Bad Blo		RAID Ready, LD configuration on disks, Dy	namic host LUN mappings		
Advanced Functions	Host-side redundant path and load balancir Dual-mode RAID expansions: "Add-in Drive	ng supported (3rd party software required in e" and "Copy & Replace with larger drive"	the host computers), background firmware d	ownload			
Management	LCD front panel: <i>Easy-to-use menu for access</i> RS-232 Terminal: <i>User friendly menu-driven fo</i> RAIDWatch™ java-based cross-platform ce		ıg: Central management, remote / local managem	ent (in-band or out-of-band), event notifications (	via e-mail, SNMP trap, fax, network broadcast – v	with full plain-text event message and pager).	
Management via Built-in LAN	RAIDWatch™-onboard: Open browser to link to the RAID unit via built-in LAN port. Telnet-terminal: Access terminal menu by telnet via built-in LAN port. Notification-onboard: RAID unit itself issue e-mail and SNMP traps for event notifications (with full plain-text event messages)						
Hot Swap Fan Modules	2	2	3	3	2	2	
Hot Swap Power Supplies	2 x 350 W	2 x 350 W	2 x 350 W	2 x 350 W	2 x 460 W	2 x 460 W	
Cache Memory *5	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	
Battery Backup *6	-	-	Optional	Optional	Optional	Optional	

\*1 For rack mount kits, please see page of "Rack Mount Guide".

- \*2 IDE drives can be used with optional dongle-boards installed in each drive tray.
- \*3 Host-side load balancing and redundant path functions are supported by using host-side software from the OS or 3rd party. (not included)
- \*4 All SCSI-SATA RAID subsystems are equipped with single RAID controller. If redundant RAID controller function is required, please choose EonStor™ Fibre-SATA RAID Subsystems.

\*5 Supports Infortrend qualified PC-133 ECC SDRAM modules only. Please contact Infortrend for optional memory upgrades.

\*6 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.





	SCSI-SATA RAID Sub	systems		Variants & Spare Parts		
	A08U-G1A3-M1	A08U-G1410-M1	A12U-G1A3-M1	A12U-G1410-M1	A16U-G1A3-M1	A16U-G1410-M1
Model	CONTRACTOR OF THE OWNER	The same and the same of the s				
	U160 SCSI-SATA RAID Subsystem 2U 8-Bay	<b>U320</b> SCSI-SATA RAID Subsystem 2U 8-Bay	U160 SCSI-SATA RAID Subsystem 2U 12-Bay	U320 SCSI-SATA RAID Subsystem 2U 12-Bay	U160 SCSI-SATA RAID Subsystem 3U 16-Bay	U320 SCSI-SATA RAID Subsystem 3U 16-Bay
Cont oller Module	9272AUGCM08 (INC x1)	82AU14GC08 (INC x1)	9272AUGCM12 (INC x1)	82AU14GC12 (INC x1)	9270AUGCM (INC x1)	80AU14GC16 (INC x1)
Fan Module	9272CFanMod (INC x2)	9272CFanMod (INC x2)	9272CFanMod (INC x3)	9272CFanMod (INC x3)	9270CFanMod (INC x2)	9270CFanMod (INC x2)
Power Supply Module	9272CPSU (INC x2)	9272CPSU (INC x2)	9272CPSU (INC x2)	9272CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)
Drive Tray	9272CDTray (INC x8)	9272CDTray (INC x8)	9272CDTray (INC x12)	9272CDTray (INC x12)	9270CDTray (INC x16)	9270CDTray (INC x16)
Dongle Board for IDE Drive *7	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P (OPT)	9270AN1S1P (OPT)
RS-232 Cable	9270ASCab (INC x1)	9270ASCab (INC x1)	9270ASCab (INC x1)	9270ASCab (INC x1)	9270ASCab (INC x1)	9270ASCab (INC x1)
RS-232 Null Modem	9011 <i>(INC x1</i> )	9011 (INC x1)	9011 <i>(INC x1)</i>	9011 (INC x1)	9011 (INC x1)	9011 (INC x1)
SCSI Cable (External) *1	9270UHstCab (INC x1) 9270UJBODCab (OPT)	9270UHstCab (INC x1) 9270UJBODCab (OPT)	9270UHstCab (INC x1) 9270UJBODCab (OPT)	9270UHstCab (INC x1) 9270UJBODCab (OPT)	9270UHstCab (INC x1) 9270UJBODCab (OPT)	9270UHstCab (INC x1) 9270UJBODCab (OPT)
SCSI Terminator (External) *1	-	-	-	-	-	-
Rack Mount Kits *2 (See Rack Mount Guide)	9272CESlide36 (OPT)	9272CESlide36 (OPT)	9272CESlide36 (OPT)	9272CESlide36 (OPT)	9270CEncBrk 9270CSlider36 (OPT)	9270CEncBrk 9270CSlider36 (OPT)
Cache Memory *3	128 MB PC-133 SDRAM (INC x1) 256 MB, 512 MB and 1GB (OPT)	128 MB PC-133 SDRAM ( <i>INC x1</i> ) 256 MB, 512 MB and 1GB ( <i>OPT</i> )	128 MB PC-133 SDRAM (INC x1) 256 MB, 512 MB and 1GB (OPT)	128 MB PC-133 SDRAM (INC x1) 256 MB, 512 MB and 1GB (OPT)	128 MB PC-133 SDRAM ( <i>INC x1</i> ) 256 MB, 512 MB and 1GB ( <i>OPT</i> )	128 MB PC-133 SDRAM (INC x1) 256 MB, 512 MB and 1GB (OPT)
Battery Backup *4	-	-	9270ABT (OPT)	9270ABT (OPT)	9270ABT (OPT)	9270ABT (OPT)
CD, Manual & QIG *5 Quick Installation Guide)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)
Redundant Controller Upgrade Kit *6	-	-	-	-	-	-

\*1 For SCSI-SATA EonStor™ RAID subsystems, one external SCSI cable is included. The subsystem has built-in SCSI terminators, no external SCSI terminator is included (not required).

Optional external SCSI cables: (U160/U320 ready) 9270UHstCab VHDCI-HD68, 1 meter 9270UJBODCab VHDCI-VHDCI, 1 meter

\*2 For rack mount kits, please see page of "Rack Mount Guide".

- \*3 Supports Infortrend qualified PC-133 ECC SDRAM modules only. Please contact Infortrend for optional memory upgrades.
- \*4 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

\*5 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD.

The CD also includes RAIDWatch ™ software for RAID management.

\*6 All SCSI-SATA RAID subsystems are equipped with single RAID controller. If redundant RAID controller function is required, please choose EonStor™ Fibre-SATA RAID Subsystems.

\*7 IDE drives can be used with optional dongle-boards installed in each drive tray.

\*8 Host-side load balancing and redundant path functions are supported by using host-side software from the OS or 3rd party. (not included)









	SCSI - SATA II RAID Subsystems						
	A08U-C2410-M1	New A08U-G2421-M2	New A12U-G2421-M2	New			
Model	SCSI 320 – SATA II Tower / Desktop RAID Subsystem 8-Bay	SCSI 320 – SATA II RAID Subsystem 2U 8-Bay	SCSI 320 – SATA II RAID Subsystem 2U 12-Bay	SCS RA			
Form Factor *1	Tower / Desktop (Convertible)	2U Rackmount	2U Rackmount				
Drive Channels Hot Swap Trays *2	8 Channels 8-bay (SATA I - II Drives) <i>IDE drives optional</i>	8 Channels 8-bay (SATA I - II Drives) IDE drives optional	12 Channels 12-bay (SATA I – II Drives) IDE drives optional				
Expansions Channels	-	-	-				
Host Channels *3	2 Channels SCSI-320 Four VHDCI ports (in/out ports for each channel)	2 Channels SCSI-320 Four VHDCI ports (in/out ports for each channel)	2 Channels SCSI-320 Four VHDCI ports (in/out ports for each channel)				
Redundant Controller *4	-	-	-				
RAID Function	RAID 0, 1, (0+1), 3, 5, 10, 30, 50 with Local Spare and Global Spare Drives Multiple RAID Logical Drives (LD), Multiple Logical Volumes (LV), Multiple Partitions, Multiple Host IDs, Multiple Host LUNs, Instant RAID Ready, LD configuration on disks, Dynamic host LUN mappings Each LD/LV > 2TB (Up to 64TB), Automatically Background Rebuild, Automatic Bad Block Reassignment						
Advanced Functions	Host-side redundant path and load balancing supported (3rd party software required in the host computers), background firmware download Dual-mode RAID expansions: "Add-in Drive" and "Copy & Replace with larger drive"						
Management	LCD front panel: Easy-to-use menu for accessing all functions and features. RS-232 Terminal: User friendly menu-driven for accessing all functions and features. RAIDWatch™ java-based cross-platform central management software included, providing: Central management, remote / local management (in-band or out-of-band), event notifications (via e-mail, SNMP trap, fax, r						
Management via Built-in LAN	RAIDWatch™-onboard: Open browser to link to the RAID unit via built Telnet-terminal: Access terminal menu by telnet via built-in LAN port. Notification-onboard: RAID unit itself issue e-mail and SNMP traps for						
Hot Swap Fan Modules	2	2	3				
Hot Swap Power Supplies	2 x 250 W	2 x 350 W	2 x 350 W				
Cache Memory *5	128 MB – 1 GB (PC-133 SDRAM)	256 MB – 1 GB (PC-3200 DDR400)	256 MB – 1 GB (PC-3200 DDR400)				
Battery Backup *6	Optional	Optional Optional					

\*1 For rack mount kits, please see page of "Rack Mount Guide".

The A08U-C2410 is a RAID subsystem designed to standup vertically as a tower subsystem, or placed horizontally as a desktop subsystem. User can decide to use it as a tower or desktop RAID. The front panel LCD can also easily be changed between vertical and horizontal position accordingly.

\*2 IDE drives can be used with optional dongle-boards installed in each drive tray.

Both SATA I (with or without NCQ) and SATA II drives can be used in SCSI - SATA II and Fibre - SATA II RAID subsystem models.

\*3 Host-side load balancing and redundant path functions are supported by using host-side software from the OS or 3rd party. (not included)

The SCSI 320 - SATA II models all equipped with two SCSI-320 (Ultra320 SCSI) host channels, each host channel has two VHDCI SCSI connector ports (in/out ports). This design provides an easier way of chaining multiple RAID units to the same SCSI bus, with VHDCI-VHDCI external SCSI cable (9270UJBODCab).

- \*4 All SCSI 320 SATA II RAID subsystems are equipped with single RAID controller. If redundant RAID controller function is required, please choose EonStor™ Fibre - SATA RAID Subsystems with Redundant Controllers equipped.
- \*5 Please note the different memory module types used in different RAID subsystem models: PC-133 ECC SDRAM: A08U-C2410 (And all other

Infortrend ASIC-133 based RAID controllers and RAID subsystems)

PC-3200 ECC DDR400: A08U-G2421, A12U-G2421, A16U-G2421 (And all other Infortrend ASIC-266 based RAID controllers and RAID subsystems)

Please contact Infortrend for optional memory upgrades.

9273CBT-C is a field replaceable module which is independent from the RAID controller module. It can be exchanged with the RAID controller remaining in the chassis.

## **Product Details**

#### A16U-G2421-M2

SCSI 320 – SATA II **RAID Subsystem** 3U 16-Bay



3U Rackmount

16 Channels 16-bay (SATA I - II Drives) IDE drives optional

2 Channels SCSI-320 Four VHDCI ports (in/out ports for each channel)

network broadcast – with full plain-text event message and pager).

2 2 x 460 W 256 MB - 1 GB (PC-3200 DDR400) Optional

\*6 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.





	SCSI - SATA II RAID Subsystems		V	ariants & Spare Parts	
	A08U-C2410-M1	New A08U-G2421-M2	New A12U-G2421-M2	New A16U-G2421-M2	
Model	SCSI 320 – SATA II Tower / Desktop RAID Subsystem 8-Bay	SCSI 320 – SATA II RAID Subsystem 2U 8-Bay	SCSI 320 – SATA II RAID Subsystem 2U 12-Bay	SCSI 320 – SATA II RAID Subsystem 3U 16-Bay	
Con roller Module	81AU24GC08-M1 (INC x1)	82AU24GD08-M2 (INC x1)	82AU24GD12-M2 (INC x1)	83AU24GD16-M2 (INC x1)	
Fan Module	9271CFanMod (//NC x2)	9272CFanModE (INC x2)	9272CFanModE (INC x3)	9273CFanMod (INC x2)	
Power Supply Module	9271CPSU (INC x2)	9272CPSU-0011 (INC x2)	9272CPSU-0011 (INC x2)	9273CPSU (INC x2)	
Drive Tray	9273CDTray (INC x8)	9273CDTray (INC x8)	9273CDTray (INC x12)	9273CDTray (INC x16)	
Dongle Board for IDE Drive *7	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	9270AN1S1P-0011 (OPT)	
RS-232 Cable	9270ASCab (INC x1)	9270ASCab (INC x1)	9270ASCab (INC x1)	9270ASCab (INC x1)	
RS-232 Null Modem	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 (INC x1)	
SCSI Cable (External) *1	9270UJBODCab (INC x1) 9270UHstCab (OPT)	9270UJBODCab <i>(INC x1)</i> 9270UHstCab <i>(OPT)</i>	9270UJBODCab <i>(INC x1)</i> 9270UHstCab <i>(OPT)</i>	9270UJBODCab ( <i>INC x1</i> ) 9270UHstCab ( <i>OPT</i> )	
SCSI Terminator (External) *1	-	-	-	-	
Rack Mount Kits *2 (See Rack Mount Guide)	-	9272CESlide36 (OPT)	9272CESlide36 (OPT)	9270CEnBrk 9273CSlider36 ( <i>OPT</i> )	
Cache Memory *3	128 MB PC-133 SDRAM ( <i>INC x1</i> ) 256 MB, 512 MB and 1GB SDRAM ( <i>OPT</i> )	256 MB PC-3200 DDR400 (INC x1) DDRESCM5 (512MB, OPT) DDRESCMA (1GB, OPT)	256 MB PC-3200 DDR400 (INC x1) DDRESCM5 (512MB, OPT) DDRESCMA (1GB, OPT)	256 MB PC-3200 DDR400 (INC x1) DDRESCM5 (512MB, OPT) DDRESCMA (1GB, OPT)	
Battery Backup *4	9070E + 9271CBT <i>(OPT)</i>	9273CBT-C (OPT)	9273CBT-C (OPT)	9273CBT-C (OPT)	
CD, Manual & QIG *5 (Quick Installation Guide)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	
Redundant Controller Upgrade Kit *6	-	-	-	-	

\*1 For SCSI-SATA EonStor™ RAID subsystems, one external SCSI cable is included. The subsystem has built-in SCSI terminators, no external SCSI terminator is included (not required).

Optional external SCSI cables: (SCSI-160 / SCSI-320 ready)

9270UHstCab VHDCI-HD68, 1 meter

9270UJBODCab VHDCI-VHDCI, 1 meter

\*2 For rack mount kits, please see page of "Rack Mount Guide". The A08U-C2410 comes with four "feet" which can be used for both Tower or Desktop installations.

The A08U-C2410 is a RAID subsystem designed to stand-up vertically as a tower subsystem, or placed horizontally as a desktop subsystem. User can decide to use it as a tower or desktop RAID. The front panel LCD can also easily be changed between vertical and horizontal position accordingly.

\*3 Please note the different memory module types used in different RAID subsystem models:

PC-133 ECC SDRAM: A08U-C2410 (And all other Infortrend ASIC-133 based RAID controllers and RAID subsystems)

PC-3200 ECC DDR400: A08U-G2421, A12U-G2421, A16U-G2421 (And all other Infortrend ASIC-266 based RAID controllers and RAID subsystems)

Please contact Infortrend for optional memory upgrades.

\*4 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or hard drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

9273CBT-C is a field replaceable module which is independent from the RAID controller module. It can be exchanged with the RAID controller remains in the chassis.

\*5 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD.

The CD also includes RAIDWatch ™ software for RAID management.

\*6 All SCSI-SATA RAID subsystems are equipped with single RAID controller. If redundant RAID controller function is required, please choose EonStor™ Fibre-SATA RAID Subsystems.



\*7 IDE drives can be used with optional dongle-boards installed in each drive tray.

Both SATA I (with or without NCQ) and SATA II drives can be used in SCSI - SATA II and Fibre - SATA II RAID subsystem models.

\*8 Host-side load balancing and redundant path functions are supported by using host-side software from the OS or 3rd party. (not included)

	SCSI RAID Subsys	tems					
	U12U-G3A3-M1	U12U-G4010-M1	U16U-G3A3-4M2	U16U-G4010-42	U16U-G3A3-6M2	U16	
Model	Distance						
	SCSI-SCSI RAID Subsystem 2U 12-Bay	<b>U320</b> SCSI-SCSI RAID Subsystem 2U 12-Bay	SCSI-SCSI RAID Subsystem 3U 16-Bay	<b>U320</b> SCSI-SCSI RAID Subsystem 3U 16-Bay	SCSI-SCSI RAID Subsystem with drive-side expansion *2 3U 16-Bay	U3 RA with driv	
Form Factor *1	2U Rackmount	2U Rackmount	3U Rackmount	3U Rackmount	3U Rackmount	31	
Drive Channels Hot Swap Trays	2 Channels SCSI U160 12-bay (SCSI SCA Drives)	2 Channels SCSI U320 12-bay (SCSI SCA Drives)	2 Channels SCSI U160 16-bay (SCSI SCA Drives)	2 Channels SCSI U320 16-bay (SCSI SCA Drives)	2 Channels SCSI U160 16-bay (SCSI SCA Drives)	2 Cha 16-bay	
Expansion Channels	-	-	-	-	2 Channels SCSI U160 Two VHDCI ports	2 Cha Tv	
Host Channels *3	2 Channels SCSI U160 Two VHDCI ports	2 Channels SCSI U320 Two VHDCI ports	2 Channels SCSI U160 Two VHDCI ports	2 Channels SCSI U320 Two VHDCI ports	2 Channels SCSI U160 Two VHDCI ports	2 Cha Tv	
Redundant Controller	-	-	-	-	-		
RAID Function	RAID 0, 1, (0+1), 3, 5, 10, 30, 50 with Local Spare and Global Spare Drives Multiple RAID Logical Drives (LD), Multiple Logical Volumes (LV), Multiple Partitions, Multiple Host IDs, Multiple Host LUNs, Instant RAID Ready, LD configuration on disks, Dynamic host LUN mapp Each LD/LV > 2TB (Up to 64TB), Automatically Background Rebuild, Automatic Bad Block Reassignment						
Advanced Functions	Dual-mode RAID expansions: "Add-	Host-side redundant path and load balancing supported (3rd party software required in the host computers), fibre switch support, fabric log-in (supported on fibre-host models), background firmware of Dual-mode RAID expansions: "Add-in Drive" and "Copy & Replace with larger drive" Redundant models: Rolling-firmware-upgrade, auto-sync firmware and configuration on replacement controller					
Management	RS-232 Terminal: User friendly menu-	CD front panel: <i>Easy-to-use menu for accessing all functions and features.</i> RS-232 Terminal: <i>User friendly menu-driven for accessing all functions and features.</i> RAIDWatch™ java-based cross-platform central management software included, providing: Central management, remote / local management (in-band or out-of-band), event notifications (via e-mail, SNMP trap, fax					
Mgmt. via Built-in LAN	Telnet-terminal: Access terminal menu	RAIDWatch™-onboard: Open browser to link to the RAID unit via built-in LAN port. Telnet-terminal: Access terminal menu by telnet via built-in LAN port. Notification-onboard: RAID unit itself issue e-mail and SNMP traps for event notifications (with full plain-text event messages)					
Hot Swap Fan Modules	3	3	2	2	2		
Hot Swap Power Supplies	2 x 350 W	2 x 350 W	2 x 460 W	2 x 460 W	2 x 460 W		
Cache Memory	128 MB – 1 GB (PC-133 SDRAM)	128 MB – 1 GB (PC-133 SDRAM)	256 MB – 1 GB (PC-133 SDRAM)	256 MB – 1 GB (PC-133 SDRAM)	256 MB – 1 GB (PC-133 SDRAM)	256 MB – 1	
Battery Backup *4	Optional	Optional	Optional	Optional	Optional		

\*1 For rack mount kits, please see page of "Rack Mount Guide".

\*2 JBOD (Just-a-Bunch-Of-Disks) subsystem requires connecting to a RAID subsystem (or RAID controller) in order to benefit the RAID and management functions.

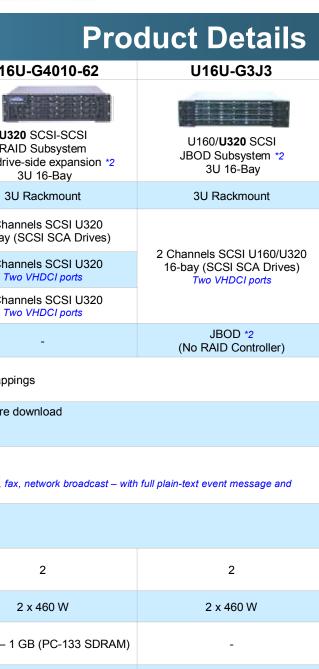
The U16U-G3J3 SCSI JBOD is compliant with U160 / U320 SCSI, either U160 or U320 SCSI disks can be used. The U16U-G3J3 is designed to be used with U16U-G3A3-6M2 and U16U-G4010-62.

\*3 Host-side load balancing and redundant path functions are supported by using host-side software from the OS or 3rd party. (not included) \*4 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

For U16U and U12U series: A battery charger board (9070E) is required for U16U and U12U series, when battery backup option is taken. The battery module (9270UBT) requires the charger board (9070E) in order to recharge the battery.





Optional

	SCSI RAID Subsys	stems				Variants &	Spare Parts
	U12U-G3A3-M1	U12U-G4010-M1	U16U-G3A3-4M2	U16U-G4010-42	U16U-G3A3-6M2	U16U-G4010-62	U16U-G3J3
Model		C HERE					
	SCSI-SCSI RAID Subsystem 2U 12-Bay	U320 SCSI-SCSI RAID Subsystem 2U 12-Bay	SCSI-SCSI RAID Subsystem 3U 16-Bay	<b>U320</b> SCSI-SCSI RAID Subsystem 3U 16-Bay	SCSI-SCSI RAID Subsystem with drive-side expansion *2 3U 16-Bay	U320 SCSI-SCSI RAID Subsystem with drive-side expansion *2 3U 16-Bay	SCSI JBOD Subsystem *2 3U 16-Bay
Controller Module	9272UCM4 (INC x1)	82U40GC4 (INC x 1)	9270UCM4 (INC x1)	80U40GC4 (INC x1)	9270UCM6 (INC x1)	80U40GC6 (INC x1)	-
Fan Module	9272CFanMod (INC x3)	9272CFanMod (INC x3)	9270CFanMod (INC x2)	9270CFanMod (INC x2)	9270CFanMod (INC x2)	9270CFanMod (INC x2)	9270CFanMod (INC x2)
Power Supply Module	9272CPSU (INC x2)	9272CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)	9270CPSU (INC x2)
Drive Tray	9272CDTray (INC x12)	9272CDTray (INC x12)	9270CDTray (INC x16)	9270CDTray (INC x16)	9270CDTray (INC x16)	9270CDTray (INC x16)	9270CDTray (INC x16)
RS-232 Cable	9270ASCab (INC x1)	9270ASCab (INC x1)	Not included. Standard DB-9 male RS-232 connector, please use standard DB-9 RS-232 cable.				
RS-232 Null Modem	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 <i>(INC x1)</i>	9011 (INC x1)	9011 <i>(INC x1)</i>	-
SCSI Cable (External) *1	9270UHstCab (INC x1)	9270UHstCab (INC x1)	9270UHstCab (INC x1)	9270UHstCab (INC x1)	9270UHstCab (INC x1)	9270UHstCab (INC x1)	9270UJBODCab (INC x1)
SCSI Terminator (External) *1	-	-	-	-	-	-	-
Rack Mount Kits *3 (See Rack Mount Guide)	9272CESlide36 (OPT)	9272CESlide36 (OPT)	9270CEncBrk 9270CSlider36 <i>(OPT)</i>	9270CEncBrk 9270CSlider36 <i>(OPT)</i>	9270CEncBrk 9270CSlider36 ( <i>OPT</i> )	9270CEncBrk 9270CSlider36 (OPT)	9270CEncBrk 9270CSlider36 <i>(OPT)</i>
Cache Memory	128 MB PC-133 SDRAM (INC x1) 256 MB, 512 MB and 1GB (OPT)	128 MB PC-133 SDRAM ( <i>INC x1</i> ) 256 MB, 512 MB and 1GB ( <i>OPT</i> )	256 MB PC-133 SDRAM ( <i>INC x1</i> ) 512 MB and 1GB ( <i>OPT</i> )	256 MB PC-133 SDRAM ( <i>INC x1</i> ) 512 MB and 1GB ( <i>OPT</i> )	256 MB PC-133 SDRAM ( <i>INC x1</i> ) 512 MB and 1GB ( <i>OPT</i> )	256 MB PC-133 SDRAM (INC x1) 512 MB and 1GB (OPT)	-
Battery Backup *4	9070E + 9270UBT (OPT)	9070E + 9270UBT (OPT)	9070E + 9270UBT (OPT)	9070E + 9270UBT (OPT)	9070E + 9270UBT (OPT)	9070E + 9270UBT (OPT)	-
CD, Manual and QIG *5 (Quick Installation Guide)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC) CD (INC)	QIG (INC)

\*1 For SCSI-SCSI EonStor<sup>™</sup> RAID subsystems, an external SCSI cable – 9270UHstCab is included (VHDCI-HD68, 1 meter length)

For SCSI JBOD subsystem (U16U-G3J3), an external SCSI cable – 9270UJBODCab is included (VHDCI-VHDCI, 1 meter length).

In order to connect U16U-G3J3 to U16U-G3A3-6M2, two 9270JBODCab are required. (one is included)

The EonStor systems has built-in SCSI terminators, no external SCSI terminator is included (not required).

Optional external SCSI cables: (U160/U320 ready)		
9270UHstCab	VHDCI-HD68, 1 meter	
9270UJBODCab	VHDCI-VHDCI, 1 meter	

\*2 JBOD models require connecting to a RAID controller or RAID subsystem order to benefit the RAID and management functions.

\*3 For rack mount kits, please see page of "Rack Mount Guide".

\*4 Battery backup provides power to cache memory when power fails. The unwritten write-back cached data will be kept in the cache memory with power providing from the battery. With one fully charged battery pack used, cached data will be kept for around 72 hours. (Estimated time based on using 512MB SDRAM memory module)

The battery is not able to provide the power for RAID controller or drives to operate when the power fails. Please use UPS (uninterruptible power supply) if it is required for the entire RAID system to work during the power failure.

In redundant controller configuration, the two controllers should have identical cache memory and battery backup configuration.

For U16U and U12U series: A battery charger board (9070E) is required for U16U and U12U series, when battery backup option is taken. The battery module (9270UBT) requires the charger board (9070E) in order to recharge the battery.

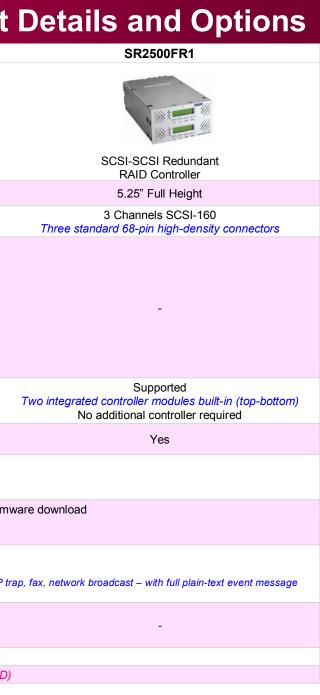
\*5 The manuals are provided in PDF format, in the CD included. The Quick Installation Guide provides basic information to get the system to work. All detailed functions and settings please refer to the manual files in the CD.

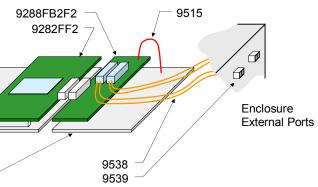
The CD also includes RAIDWatch ™ software for RAID management.



	SCSI-SCSI, Fibre-S	CSI RAID Co	ntrollers – SentinelRAID	тм		Product
	SR150F		SR170		SR2700	
Model	SCSI-SCSI		SCSI-320 – SCSI-320		SCSI-320 – SCSI-320 / Fibr	e – SCSI-320
Form Factor	RAID Controlle 5.25" Half Heigh		RAID Controller		RAID Controlle 5.25" Half Heigh	
Base Channels	4 Channels SCSI-		5.25" Half Height 4 Channels SCSI-320		4 Channels SCSI-	
*2	Four standard 68-pin high-der		Four standard 68-pin high-density c	onnectors	Four standard 68-pin high-der	
Add-on Channels (Optional Daughter Board) *2	4 Channels SCSI- Four standard 68-pin high-der (9284FU3A)		4 Channels SCSI-320 Four standard 68-pin high-density c (9284U4A)	onnectors	4 Channels SCSI- Four standard 68-pin high-der (9284U4 + 9288FB4 - OR 2 Channels Fibre Two optical LC conn	sity connectors + 9515) 2G
Redundant Controller	Supported Requires connections with ar (9535)	nother SR150F	-		(9282FF2 + 9288FB2 -	2F2) *5
Hot-Swap Controller Docking Connectors *3	-		-		Yes	
RAID Function	RAID 0, 1, (0+1), 3, 5, 10, 30, 50 with Multiple RAID Logical Drives (LD), Mu Automatically Background Rebuild, Au	Itiple Logical Volumes (I	LV), Multiple Partitions, Multiple Host IDs, Mu	ltiple Host LUNs, L	D configuration on disks, Dynamic host.	LUN mappings
Advanced Functions	Dual-mode RAID expansions: "Add-in	Drive" and "Copy & Rep	party software required in the host computers) place with larger drive" ware and configuration on replacement contro		ort, fabric log-in (supported on fibre-hos	t models), background firm
Management	LCD front panel: <i>Easy-to-use menu for a</i> RS-232 Terminal: <i>User friendly menu-dri</i>	ccessing all functions and iven for accessing all functions	features.		nagement (in-band or out-of-band), event no	otifications (via e-mail, SNMP
Management via Built-in LAN Port	-		RAIDWatch™-onboard: Open browser to link Telnet-terminal: Access terminal menu by telnet Notification-onboard: RAID unit itself issue e-n	et via built-in LAN por	rt.	ent messages)
Cache Memory			· · ·	•	GB PC-133 SDRAM (Not Included)	
Battery Backup *4		O	ptional (Battery charger board and first battery	y pack: 9070D + 90	010D; second battery pack: 9010D; batt	ery extension cable 9519D
<ul> <li>enclosure. SR2500FR5 and supply or rackmount enclose</li> <li>All channels (base channels configured as Host channel</li> <li>Hot-Swap Controller Dockin controller maintenance – re the need of opening the end SCSI/Fibre/power/RS-232 of The hot-swap drive is support</li> </ul>	s and additional channels) can be or Drive channel by user. ng Connectors provide the ease of moving the controller board without closure or disconnecting any	fails. The unwritten cache memory with fully charged battery kept for 72 hours. A second battery the first battery pact (9519D) can be use controller, when the the RAID controller The battery is no controller or drives to UPS (uninterruptible	ides power to cache memory when power write-back cached data will be kept in the power providing from the battery. With one y pack (9010D) used, cached data will be ( (9010D) can be connected (connecting to k) for longer. The battery extension cable ed in between the battery pack and RAID e location of the battery cannot be close to in the enclosure. In the enclosure. The able to provide the power for RAID to operate when the power fails. Please use e power supply) if it is required for the entire rk during the power failure.	9288FB2F2	2G FC optical-LC cables, 2 pairs LC duplex adapters, 2 pcs 5V auxiliary cable	





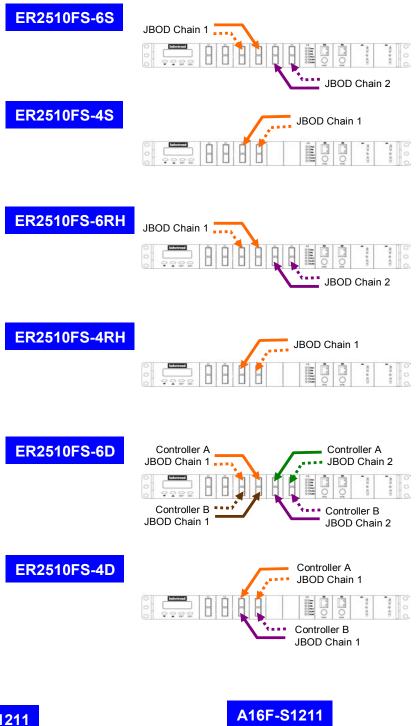


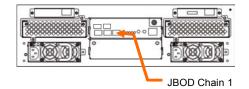
## **SATA Disk Based**

Infortrend

Combination 1: A16	6F-R1A	2 + A16F-J1210-G			
<b>A16F-R1A2</b> (3U, 16 Disks)	+	<b>A16F-J1210-G</b> (Up to <b>7</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>128</b> Disks	Up to 24U Height
A16F-S1A2 (3U, 16 Disks)	+	<b>A16F-J1210-G</b> (Up to <b>7</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>128</b> Disks	Up to 24U Height
Combination 2: A16	6 <b>F-R12</b> 1	I1 + A16F-J1210-G			
A16F-R1211 (3U, 16 Disks)	+	<b>A16F-J1210-G</b> (Up to <b>7</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>128</b> Disks	Up to 24U Height
A16F-S1211 (3U, 16 Disks)	+	<b>A16F-J1210-G</b> (Up to <b>7</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>128</b> Disks	Up to 24U Height
Combination 3: ER	2510FS	+ A16F-J1210-G			
ER2510FS-4S (1U, no disk)	+	<b>A16F-J1210-G</b> (Up to <b>7</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>112</b> Disks	Up to 22U Height
ER2510FS-6S (1U, no disk)	+	A16F-J1210-G (Up to 14 units) <i>(3U, 16 Disks each)</i>	=	Up to <b>224</b> Disks	Up to 43U Height
ER2510FS-4RH (1U, no disk)	+	A16F-J1210-G (Up to 7 units) <i>(3U, 16 Disks each)</i>	=	Up to <b>112</b> Disks	Up to 22U Height
ER2510FS-6RH (1U, no disk)	+	A16F-J1210-G (Up to 14 units) <i>(3U, 16 Disks each)</i>	=	Up to <b>224</b> Disks	Up to 43U Height
ER2510FS-4D (1U, no disk)	+	A16F-J1210-G (Up to 14 units) <i>(3U, 16 Disks each)</i>	=	Up to <b>224</b> Disks	Up to 43U Height
ER2510FS-6D (1U, no disk)	+	A16F-J1210-G (Up to 28 units) <i>(3U, 16 Disks each)</i>	=	Up to <b>448</b> Disks	Up to 85U Height

### **RAID Controller Connections**

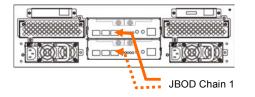


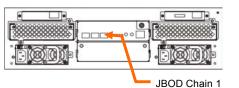


#### Cables and SFPs:

- 1. Fibre cables and SFPs are not included in the above models, should be purchased additionally.
- 2. At least 512MB cache memory is required in each RAID controller, when there are more than 96 disks in the configuration.
- 3. Host channels: Basically needs two LC-LC optical cables and four SFP modules. May vary depending on the connector type on the host computer or Fibre switch.
- 4. Drive channels: Each A16F-J1210-G unit requires two LC-LC optical cables and four SFP modules.
- 5. ER2510FS-6RH: It is recommended to use two of the drive channels as dedicated sync-cache channels, to gain an enhanced WRITE performance. When large capacity or more drives are required, user can configure and use four drive channels to connect drive JBODs.







A16F-S1A2

A16F-R1211



JBOD Chain 7



### **JBODs Connections**

A16F-J1210-G

Connecting to the RAID Controller's **Drive Channels** Drive Drive Channel-B Channel-A \* 10.00 ME SO 100 100 \*

Up to 7 JBOD Subsystems can be chained in one pair of drive channels. (Diagram shown above as one JBOD chain)

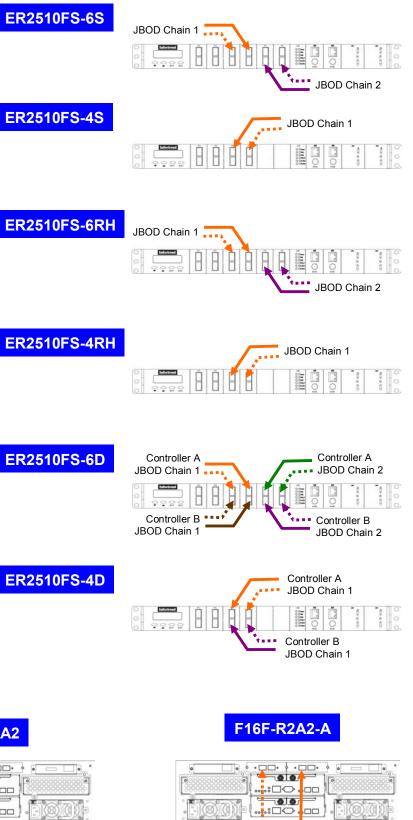




### **Fibre Disk Based**

Combination 1: F	12F-G2	A2 + F16F-R2J2 (or F16F-S2J2)			
<b>F12F-G2A2</b> (2U, 12 Disks)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>6</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>108</b> Disks	Up to 20U Height
Combination 2: F	16F-R2	A2 + F16F-R2J2 (or F16F-S2J2)			
<b>F16F-R2A2-A</b> (3U, 16 Disks)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>6</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>112</b> Disks	Up to 21U Height
F16F-R2A2 (3U, 16 Disks)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>6</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>112</b> Disks	Up to 21U Height
F16F-S2A2 (3U, 16 Disks)	+	<b>F16F-S2J2</b> (or F16F-S2J2) (Up to <b>6</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>112</b> Disks	Up to 21U Height
Combination 3: E	R2510F	S + F16F-R2J2 (or F16F-S2J2)			
ER2510FS-4S (1U, no disk)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>7</b> units) ( <i>3U, 16 Disks each</i> )	=	Up to <b>112</b> Disks	Up to 22U Height
ER2510FS-6S (1U, no disk)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>14</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>224</b> Disks	Up to 43U Height
ER2510FS-4RH (1U, no disk)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>7</b> units) ( <i>3U, 16 Disks each</i> )	=	Up to <b>112</b> Disks	Up to 22U Height
ER2510FS-6RH (1U, no disk)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>14</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>224</b> Disks	Up to 43U Height
ER2510FS-4D (1U, no disk)	+	<b>F16F-R2J2</b> (or F16F-S2J2) (Up to <b>14</b> units) <i>(3U, 16 Disks each)</i>	=	Up to <b>224</b> Disks	Up to 43U Height
ER2510FS-6D (1U, no disk)	+	F16F-R2J2 (or F16F-S2J2) (Up to 28 units) <i>(3U, 16 Disks each)</i>	=	Up to <b>448</b> Disks	Up to 85U Height

### **RAID Controller Connections**

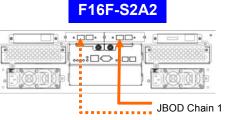


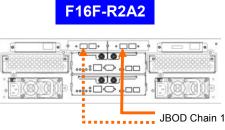
JBOD Chain 1

- 1. Fibre cables and SFPs are not included in the above models, should be purchased additionally.
- 2. At least 512MB cache memory is required in each RAID controller, when there are more than 96 disks in the configuration.
- 3. Host channels: Basically needs two LC-LC optical cables and four SFP modules. May vary depending on the connector type on the host computer or Fibre switch.
- 4. Drive channels: Each F16F-R2J2 (or F16F-S2J2) unit requires two LC-LC optical cables and four SFP modules.
- 5. **ER2510FS-6RH**: It is recommended to use two of the drive channels as dedicated sync-cache channels, to gain an enhanced WRITE performance. When large capacity or more drives are required, user can configure and use four drive channels to connect drive JBODs.



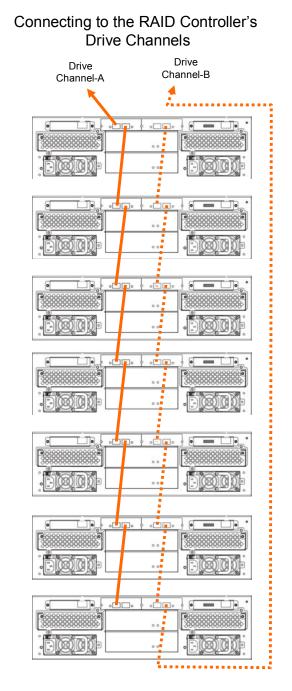






### **JBODs Connections**

#### F16F-R2J2 / F16F-S2J2



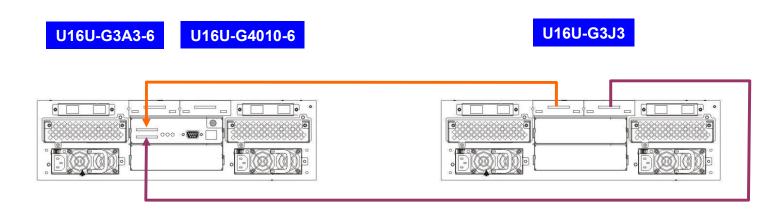
Up to **7** JBOD Subsystems (**ER2510FS**) or up to **6** JBOD Subsystems (**F12F**, **F16F**) can be chained in one pair of drive channels. (Diagram shown above as one JBOD chain)





## **SCSI Disk Based**

Combination 1: U16U	-G4010-62	2 (or U16U-G3A3-6M2) + U16U-G	3J3		
U16U-G3A3-6M2 (3U, 16 Disks)	+	<b>U16U-G3J3</b> (Up to <b>1</b> unit) <i>(3U, 16 Disks)</i>	=	Up to <b>32</b> Disks	Up to 6U Height
U16U-G4010-62 (3U, 16 Disks)	+	<b>U16U-G3J3</b> (Up to <b>1</b> unit) (3U, 16 Disks)	=	Up to <b>32</b> Disks	Up to 6U Height



#### SCSI Cables:

1. Two types of SCSI cables are available	:
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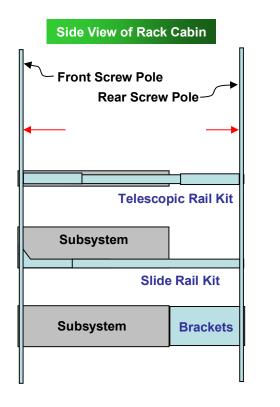
9270UHstCab	VHDCI – HD68, 1 meter
9270UJBODCab	VHDCI – VHDCI, 1 meter

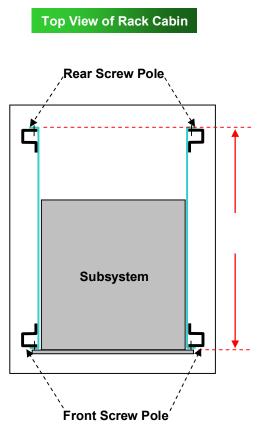
2. Host-side: Depending on the SCSI connector on the SCSI HBA in the host computer. Up to two SCSI cables can be connected. The **U16U-G3A3-6M2** includes one **9270UHstCab** (VHDCI - HD68) cable.

2. Drive-side: Two SCSI cables are required. (VHDCI-VHDCI cable) The **U16U-G3J3** includes one **9270UJBODCab** (VHDCI-VHDCI) cable, the other one should be purchased additionally.



		Rack Mount K	its for Rack Mo	Rack Mount Guide					
Models		9253L20 - 0010	9272CESIide28	9272CESlide36	9273CSlider36	9270CEncBrk	9270CESlide32	9270CESlide36	
		Telescopic Rail Kit	Slide Rail Kit	Slide Rail Kit	Slide Rail Kit	Brackets	Slide Rail Kit	Slide Rail Kit	
	EonRAID™         2510FS *1           ER2510FS-4S         ER2510FS-6S           ER2510FS-4RH         ER2510FS-6RH           ER2510FS-4D         ER2510FS-6D		-	-	-	-	-	-	
GUIDINE	EonStor™ 2U 8 / 12 -Bay A08U-G1A3 A08U-G1410 A08F-G1A2 A08U-G2421 A12U-G1A3 A12U-G1410 A12F-G1A2 A12F-G2221 U12U-G3A3 F12F-G2A2 A12E-G2121	-			-	-	-	-	
	*2 A16U-G1A3 A16U-G1410 A16F-G1A2 A16F-R1A2 A16F-S1A2 A16F-R1211 A16F-S1211 A16F-J1210 U16U-G3A3 U16U-G3J3 U16U-G4010 F16F-S2A2 F16F-R2A2 F16F-S2J2 F16F-R2J2	-	-	-	-				
	EonStor™ 3U 16-Bay (New Chassis) A16U-G2421 A16F-G2221 A16F-R2221	-	-	-		-	-	-	
	Minimum Length *3	511 mm (20.11 inches)	533 mm (20.98 inches)	647 mm (25.47 inches)	605 mm (23.81 inches)	609 mm (24 inches)	609 mm (24 inches)	600 mm (23.62 inches)	
	Maximum Length *3	717 mm (28.22 inches)	724 mm (28.50 inches)	914 mm (35.98 inches)	900 mm (35.43 inches)	812 mm (32 inches)	812 mm (32 inches)	910 mm (35.82 inches)	





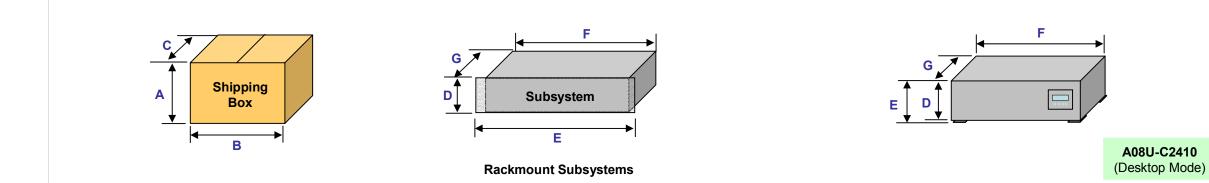
- \*1 The 9253L20-0010 is a revised version from 9253L20. It supports ER2510FS series and 6300 / 6330 series RAID Subsystems.
- \*2 The 3U 16-Bay new chassis uses 9273CSlider36, which covers the length range of both 32" and 36" rail options on the previous equivalent models.
- \*3 The "pole-to-pole" length (or "post-to-post" length) is referring to the distance between the front screw hole pole (post) to the rear screw hole pole (post) in a rack cabin. A typical 900mm rack cabin often has pole-to-pole length of around 670 mm, and 800mm rack has around 615 mm.
- \*4 Rail option part number change:

Previous Part Numbers	New Part Numbers					
9272CSlider28	9272CESlide28					
9272CSlider36	9272CESlide36					
9270CSlider32	9270CESlide32					
9270CSlider36	9270CESlide36					





# Shipping and Rack Planning Reference

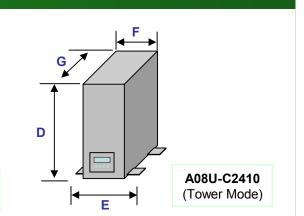


	Shipping Dimensions & Weights					Subsystem Dimensions & Weights						BTU & Amps		Air
	Α	В	С	Shipping Weight without Drives (Estimated)	Shipping Weight with Drives (Estimated) *1	D	E	F	<b>G</b> *2	Subsystem Weight without Drives (Estimated)	Subsystem Weight with Drives (Estimated) *1	Maximum Heat Dissipation (Estimated)	Maximum Current at 230V AC (Estimated)	Airflow Direction
ER2510FS           ER2510FS-4S         ER2510FS-6S           ER2510FS-4RH         ER2510FS-6RH           ER2510FS-4D         ER2510FS-6D	360 mm <i>14.17 "</i>	625 mm 24.60 "	720 mm 28.34 "	19.5 kg 42.95 lbs		44 mm 1.73 "	482 mm 19.00 "	426 mm 16.77 "	470 mm <i>18.50 "</i>	17.5 kg 38.54 lbs		1197 BTU/Hour	1.52 A	Front to Rea
EonStor™ 2U 8-Bay A08U-G1A3 A08U-G1410 A08F-G1A2	344 mm <i>13.54 "</i>	600 mm 23.62"	670 mm 26.37 "	23.5 kg 51.76 lbs	29.5 kg 64.97 lbs	88 mm 3.46 "	482 mm <i>19.00 "</i>	446 mm <i>17.55 "</i>	490 mm <i>19.29 "</i>	16.0 kg <i>35.24 lbs</i>	22.0 kg 48.45 lbs	1197 BTU/Hour	1.52 A	Front to Rear
EonStor™ 2U 8-Bay A08U-G2421 A08F-G2221	390 mm <i>15.35 "</i>	580 mm 22.83"	780 mm <i>30.70 "</i>	26.5 kg 58.37 lbs	32.5 kg 71.58 lbs	88 mm <i>3.46</i> "	482 mm <i>19.00 "</i>	446 mm <i>17.55 "</i>	490 mm 19.29 "	16.0 kg 35.24 lbs	22.0 kg 48.45 lbs	1197 BTU/Hour	1.52 A	Front to Rear
EonStor™ 2U 12-Bay A12U-G1A3 A12U-G1410 A12F-G1A2 U12U-G3A3 U12U-4010 F12F-G2A2	344 mm <i>13.54 "</i>	600 mm 23.62 "	670 mm 26.37 "	25.5 kg 56.16 lbs	34.5 kg 75.99 lbs	88 mm 3.46 "	482 mm 19.00 "	446 mm <i>17.55</i> "	490 mm 19.29 "	18.0 kg 39.64 lbs	27.0 kg 59.47 lbs	1197 BTU/Hour	1.52 A	Front to Rea
EonStor™ 2U 12-Bay A12U-G2421 A12F-G2221 A12E-G2121	390 mm <i>15.35 "</i>	580 mm 22.83"	780 mm <i>30.70 "</i>	28.5 kg 62.77 <i>lbs</i>	37.5 kg 82.59 lbs	88 mm 3.46 "	482 mm <i>19.00 "</i>	446 mm <i>17.55 "</i>	490 mm 19.29 "	18.0 kg 39.64 lbs	27.0 kg 59.47 lbs	1197 BTU/Hour	1.52A	Front to Rea
EonStor™         3U 16-Bay           A16U-G1A3         A16U-G1410         A16F-G1A2           A16F-R1A2         A16F-S1A2         A16F-R1211           A16F-S1211         U16U-G3A3         U16U-G4010           F16F-R2A2         F16F-S2A2         F16F-R2J2           F16F-S2J2         F16F-S2J2	480 mm <i>18.89 "</i>	600 mm 23.62 "	700 mm 27.55 "	34.5 kg 75.99 lbs	46.5 kg 102.42 lbs	132 mm 5.19 "	482 mm 19.00 "	450 mm 17.71 "	500 mm <i>19.68</i> "	18.0 kg 39.64 lbs	30.0 kg 66.07 lbs	1573 BTU/Hour	2 A	Front to Rea
EonStor™ 3U 16-Bay A16U-G2421 A16F-G2221	435 mm <i>17.13 "</i>	575 mm 22.63 "	780 mm <i>30.70 "</i>	34.0 kg 74.88 lbs	46.0 kg 101.32 lbs	132 mm <i>5.19</i> "	482 mm <i>19.00 "</i>	445 mm <i>17.51 "</i>	550 mm <i>21.65 "</i>	18.0 kg 39.64 lbs	30.0 kg 66. <i>07 lbs</i>	1573 BTU/Hour	2 A	Front to Rea
EonStor™ Desktop / Tower 8-Bay A08U-C2410	450 mm 17.71 "	510 mm 20.07 "	610 mm 24.01 "	21.0 kg 42.65 lbs	34.5 kg 60.57 lbs	155 mm 6.10 " 382 mm 15.03 "	167 mm 6.57 " 235 mm 9.25 "	375 mm <i>14.</i> 76 " 155 mm 6. <i>10</i> "	370 mm 14.56 " 370 mm 14.56 "	11.50 kg 25.33 lbs	17.0 kg 37.44 lbs	855 BTU/Hour	1.08 A	Front to Rea

\*1 All weight information are estimated numbers as an example. The actual weight can vary with different drive models and configurations.

\*2 Please allow additional 5 cm at the back of the subsystem for the cabling and airflow.

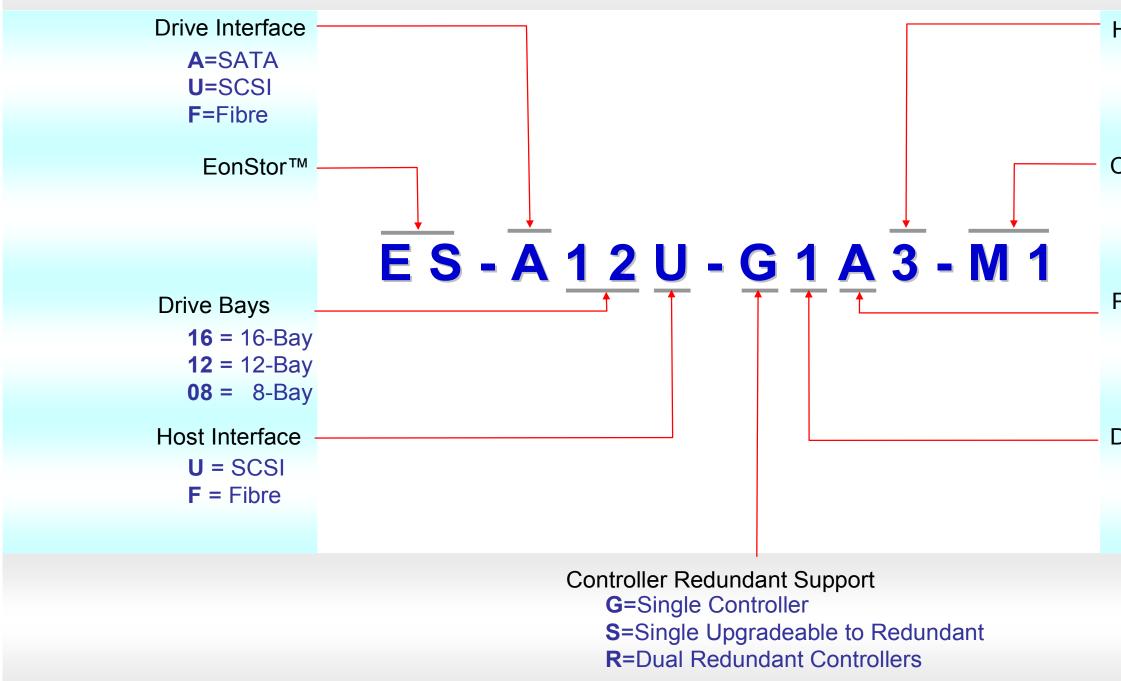






# **Subsystem Model Names**

Models Announced Before March 2004





Host Interface **2** = Fibre 2G **3** = SCSI-160

Cache Memory Installed M1=128MB M5=512MB **M2**=256MB **M10**=1GB

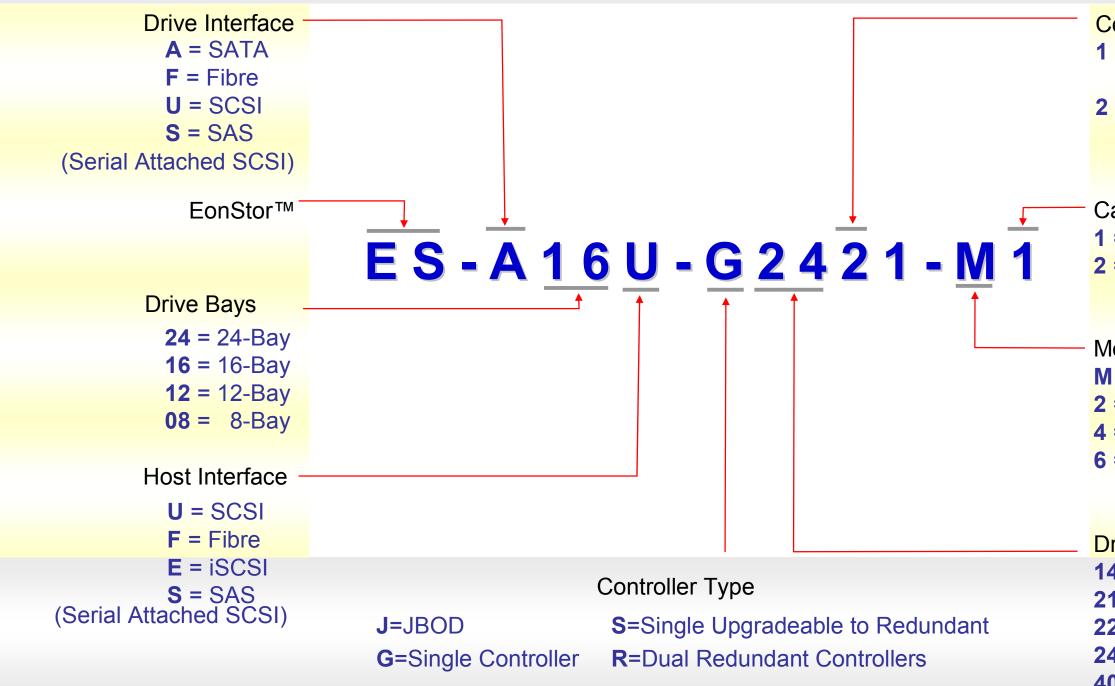
**Product Type** A=RAID Subsystem J=JBOD Subsystem

Drive Interface Type 1=SATA I **2=**FC-2G 3=SCSI-160



# **Subsystem Model Names**

New Models Announced from March 2004



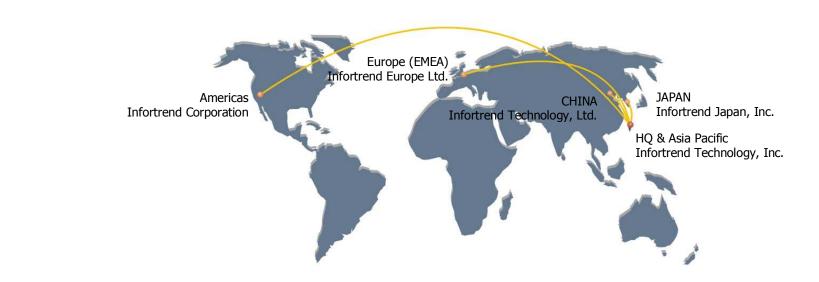
Note: Existing models remain intact, only new models announced after March 2004 use new model naming.



# **Controller** Platform **1** = Infortrend RAID ASIC 133 + PowerPC Processor 2 = Infortrend RAID ASIC 266 + PowerPC Processor Cache Memory Installed **1** = 128MB **5** = 512MB **2** = 256MB **A** = 1GB Model Variants M = No model Variant **2** = 2 Channel model 4 = 4 Channel model 6 = 6 Channel model Drive + Host Interface Type 14 = SATA I + SCSI-32021 = SATA II + iSCSI 22 = SATA II + FC-2G **24** = SATA II + SCSI-320

**40** = SCSI-320 + SCSI-320

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