

EonStor® S12F-R1432  
EonStor® S12F-G1433

**Infortrend**®

## EonStor® S12F 2U FC-to-SAS/SATA RAID Series



Unparalleled performance via  
4G FC host ports  
Contributes to a scalable and  
manageable Fibre SAN

### Highlights and Features

- Dual controller S12F-R1432 or single controller S12F-G1433
- Two 4G FC host ports on each controller, deliver leading-edge performance
- Fault-tolerant hardware modules, including controllers, PSUs, fans and BBUs, ensure high availability

- Twelve disk trays to accommodate SAS or 3Gbps SATA-II disk drives

- Maximum expansion of 4 JBODs over multi-lane SAS links (SFF-8088), up to 60 HDDs in total (1 RAID + 4 JBODs)

RAID model	S12F-R1432	S12F-G1433
2U JBOD	S12S-J1002-R	S12S-J1000-G
Configuration	Dual controller, fault-tolerant paths	Single controller, single path

- 5th generation ASIC400 architecture, boosting performance and enhancing availability:
  - Hardware RAID5 + RAID6 engine
  - Dedicated, 18Gbps sync. cache channels
- SANWatch storage management suite, enables simple administration and advanced data protection features, including snapshot and multi-pathing (EonPath)

*This new-generation S12F series offers 4Gbps FC host ports and boosts overall performance through Infotrend's exclusive ASIC400. Besides the dominant high throughput fit for the most demanding environments, it also provides flexible scalability through the built-in SAS expansion ports and simple manageability through Infotrend's proprietary storage management suite, SANWatch.*

#### ● Industry-leading Performance

As other members in EonStor FC-host RAID family, the new S12F arrays provide outstanding throughput via the 4G FC host channels whose performance is enhanced by the advanced ASIC400. Depending on various application needs, users can further fine-tune the firmware setting parameters to realize the best possible performance. S12F-R1432 is able to deliver 1420MBps Read and 780MBps Write RAID5 performance. With the S12F, those enterprises challenged by rising performance demands in IT environments can find a satisfactory answer to their transaction-intensive applications.

#### ● Flexible drive compatibility

The S12F allows users to start with the storage capacity they currently need and scale up to a massive of 60TB as more capacity needs arise. Users can also flexibly populate the S12F and expansion enclosures with a mix of SAS and SATA drives to deploy tiered storage, which ensures the best ROI. No matter what level of performance, capacity and cost an application demands, users can always find the best matching solution.

#### ● Centralized management

In addition to the common monitoring and management methods, the S12F is now made even easier to manage by SANWatch. SANWatch is Infotrend's proprietary storage management suite, especially designed for EonStor subsystems. It supports local and remote management and provides advanced data protection capabilities, such as snapshot and multi-pathing. With SANWatch, S12F can contribute to a solid SAN with enhanced manageability and availability.

## AVAILABLE MODELS

Models	Controller	Host Ports	Expansion Ports	Drive Bays	Scalability
<b>S12F-R1432</b>	Redundant	4 (4G FC)	2, SAS multi-lane (SFF-8088)	12	1 RAID + 3 JBODs (48 SAS or SATA HDDs)
<b>S12F-G1433</b>	Single	2 (4G FC)	1, SAS multi-lane (SFF-8088)	12	1 RAID + 4 JBODs (60 SAS or SATA HDDs)

**S12F-R1432**



**S12F-G1433**



## SPECIFICATIONS

### Subsystem Characteristics

- ASIC400 RAID engine
- Up to 2GB cache (per controller)
- FC host ports (per controller) 2
- LCD keypad panel 1
- BBU (per controller) 2
  - S12F-R1432
  - S12F-G1433 (Optional)
- Default DDR cache memory (per controller) 512MB
- 10/100BaseT management port (per controller) 1
- COM ports (per controller) 2
- PSUs 2
- Cooling modules 2
  - S12F-R1432
  - S12F-G1433
- Diagnostic LEDs on all FRUs
- SAS multi-lane expansion port (per controller) 3
  - \* SFF-8088

### Drive Interface

- No. of disk trays SAS or 3Gbps SATA-II 12
- Enclosure service via I<sup>2</sup>C or in-band over SAS expansion links

### Host Connection Ports

- 4Gbps Fibre Channel (per controller) 2
- Tag command queuing

### RAID Configurations

- RAID levels 0, 1(0+1), 3, 5, 6, 10, 30, 50, 60
- Up to 32 logical drives & 64 partitions per logical drive (varied by memory size)
- Up to 1024 LUNs (varied by memory size)
- Multiple array configurations
- Background rebuild/scan/initialization
- Infortrend SMART fault management technologies

### High Availability

- Redundant, hot-swappable FRUs
- Subsystem self-diagnostics
- Li-Ion battery backup (standard for R1432)
- UPS status detection
- Cluster ready
- Multi-pathing (EonPath)

### Management

- Java-based SANWatch software
- Terminal via RS-232C
- Telnet over Ethernet
- LCD keypad panel
- Event notification methods: Email, Fax, LAN broadcast, SNMP traps, SMS, MSN

### OS Support

- Microsoft Windows Server 2003/ 2008
- Sun Solaris ver.10
- Red Hat Linux Enterprise ver. 4, 32/64 bit
- SuSE Linux Enterprise ver.10, 32/64 bit; ver. 9.1, 64bit
- Fedora 64bit
- MAC OS X

### Requirements

- AC Input:
  - S12F-R1432: 100-240VAC 530W with PFC
  - S12F-G1433: 100-240VAC 350W with PFC
- DC Output:
  - S12F-R1432: 5V-25A; 12V-43A
  - S12F-G1433: 12V-32A; 5V-32A; 3.3V-30A
- Relative Humidity: 5% to 95% non-condensing
- Operating Temperature:
  - 0°C to 40°C (without BBU)
  - 0°C to 35°C (with BBU)

### Dimensions

- S12F-R1432
- With chassis ears/protrusions: 482mm (W) x 88mm (H) x 516mm (D)
  - Without chassis ears/protrusions: 446mm (W) x 88mm (H) x 505mm (D)

### S12F-G1433

- With chassis ears/protrusions: 482mm (W) x 88mm (H) x 498mm (D)
- Without chassis ears/protrusions: 446mm (W) x 88mm (H) x 490mm (D)

### Certificates

- IEC 60068-2
- MIL-STD-810E/883E
- ISTA
- ASTM-D3332
- IPC-TM-650
- IEC 1000-4
- IEC 1000-3-2, IEC 1000-3-3
- ISO 7779/3744
- RoHS
- Microsoft WHQL-Windows Server 2003

### EMC

- CE
  - EN 55022: 2006
  - EN 61000-3-2: 2006
  - EN 61000-3-3: A1: 2001/A2: 2005
  - EN 55024: 1998/A1: 2001/A2: 2003
- FCC (FCC Part 15, subpart B)
- BSMI (CNS 13438)

### Safety

- UL (60950-1: 2006)
- BSMI
  - CNS 14336: 1993
  - IEC 60950-1, First Edition
- CB IEC 60950-1: 2001
- GOST-R: GOST 60950-2002

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