

EonStor[®] Fibre-to-Fibre Series for the 4Gb SAN

Performance, Scalability,
Unrivalled Price/Performance Ratio



OVERVIEW

The F16F Fibre-to-Fibre series features a maximum of 12 x 4Gb/s channel bandwidth. With extraordinary scalability and high throughput, your demands for capacity and performance can be easily fulfilled.

The F16F series comes in a backplane-based enclosure with redundant, hot-swappable component pairs whose operation statuses are constantly available via comprehensive interfaces such as LCD screen, firmware utility, or across the network via telnet console and browser-/Java-based RAIDWatch software.

Drive expansion is easily made through the extension of the dual loop within or the connection to F16F SBODs by converting two of the FC channels to drive mode.

APPLICATIONS

Infortrend products are widely applied in server-attached and network data storage and in major applications such as OLTP, ILM, CDP, VOD, MOD, stream editing, and others that require high-speed transactions.

HIGHLIGHTS

- 4Gb/s host & drive Fibre Channels
- High availability dual-active RAID controllers and fault-tolerant hardware
- Affordable & upgradable single-controller option
- Scalable to dozens of TBs, maximum 13 chassis, in F16F-J4000 Switched Bunch of Drives
- Loop switched, high efficiency drive loops
- 5th generation, ASIC400 backbone:
 - Hardware RAID5 + RAID6 engine
 - Dedicated, 18Gb/s sync. cache channels
 - Path redundancy with bypass/hubbed channels
- EonPath™ Multipathing software



High Availability

- * Active-active redundancy
- * Hot-swap mechanisms
- * Component redundancy
- * Dedicated sync. cache channels
- * Intelligent reactive & preventive mechanisms
 - Automated cache flush
 - Automated Media Scan
 - Auto rebuild on hot spares
 - Automated caching mode switch

Advanced RAID Features

- * RAID levels 0, 1 (0+1), 3, 5, 6, 10, 30, 50, 60
- * EonPath multipathing software
- * RAID Parity regeneration
- * 64-bit LBA support
- * 3 spare disk types: dedicated, global, enclosure-specific
- * Instant array availability
- * Stripe size and caching mode configurable per logical drive
- * Online array expansion by adding drives or copying & replacing drives
- * Online disk cloning

Management

- * Browser-based RAIDWatch manager
- * Java-based RAIDWatch manager
- * LCD keypad panel
- * Terminal console via RS-232
- * Telnet

Configurations

- * F16F-R/S4031-6
4 host + 2 drive channels (112 HDD)
2 host + 4 drive channels (224 HDD)
- * F16F-R/S4031-4
2 host + 2 drive channels
- * 4G or 2G FC disk drives
(loop speed configurable)

Expansion

- * Loop switched w/ access fairness
- * SES monitoring via in-band connection
- * Maximum up to 224 disks

Monitoring

- * SMART status pooling
- * Voltage, module presence, temp. Monitoring
- * Automated FRU status pooling

Operation Robustness

- * Intelligent read algorithms
- * Write cache threshold purge
- * Bad sector reassignment
- * Adaptive write policy
- * Configurable task priority
- * Multiple, co-existing RAID arrays w/ stripe sizes ranging from 4K to 1MB
- * RAID level migration
- * RAID configuration on drives (drive roaming)
- * RAID and SBOD controller transparent failover/failback


AVAILABLE MODELS

Models	Controller	FC Ports	Channels	Drive Bays	Scalability
F16F-R4031-6	Dual	12	6	16	1+13 chassis
F16F-R4031-4	Dual	8	4	16	1+6 chassis
F16F-S4031-6	Single	12	6	16	1+13 chassis
F16F-S4031-4	Single	8	4	16	1+6 chassis

Dual-controller, high-availability F16F-R4031

Business continuity, fault-tolerant components, ease of capacity expansion, and failover capabilities.

Single-controller, affordable F16F-S4031

Capacity- or performance-oriented storage, with affordable hardware and scalability.

SPECIFICATIONS
F16F-R/S4031 (RAID Subsystem)
Subsystem Characteristics

- 800MHz PowerPC GL RISC CPU, 1MB L2
- ASIC400 RAID engine
- Up to 2GB cache per controller
- FC SFP ports 12 or 8
- Total capacity w/ expansion (300GB) 67TB
- LCD keypad panel 1
- BBU (per controller) 1
- Default DDR cache memory (per controller) 512MB
- 10/100 Ethernet port (per controller) 1
- COM ports (per controller) 2
- PSUs 2
- Cooling modules 2
- Diagnostic LEDs on all FRUs

Drive Interface

- No. of disk trays 16
- 4G FC
- Drive-side SES service

Host Connection Ports

- Data single path bandwidth 4Gb/s
- Tag command queuing 256
- SFP ports (optical Fibre) 12

RAID Configurations

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

High Availability

- Redundant, hot-swappable FRUs
- Subsystem self-diagnostics
- Li-Ion battery backup unit
- UPS status detection
- Cluster ready

Management Software

- Browser- or Java-based RAIDWatch 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 2000 Server/2003 Server
- Sun Solaris ver. 9/10
- Red Hat Linux ver. 8/9, 64bit, Enterprise ver. 3
- SuSE: Linux ver. 8/9, 64bit
- Fedora 64bit
- MAC OSX Version 10.4

Approvals

- BSMI, CB, CE, FCC, UL, cUL, RoHS
- Windows WHQL-Windows Server 2003

Requirements

- AC Input: 100 ~ 240VAC 530W with PFC
- DC Output: 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

- 3U, 19-inch rackmount chassis
- Without handles: 445(W) x 130(H) x 488.2(D) mm (17.5 x 1.7 x 20.1 inches)
- With handles: 482.6(W) x 131(H) x 504.3(D) mm (18.8 x 1.7 x 20.1 inches)

F16F-J4000-R/S (SBOD)
JBOD Characteristics

- Single/redundant controller
- SFP ports per controller 2
- Transfer rate 4Gb/s
- PSUs 2
- Cooling module 2
- Diagnostic LEDs panel

Drive Interface

- 4G/2G FC
- Number of disk trays 16

Maximum Connection

- To RAID per dual-loop 7

Requirements

- AC Input: 100 ~ 240VAC 530W with PFC
- DC Output: 12V-32A 5V-32A 3.3V-30A
- Relative Humidity: 5% to 95% non-condensing
- Operating Temperature: 0°C to 40°C

Asia Pacific
International Headquarters
Infotrend Technology, Inc.
8F, No. 102 Chung-Shan Rd., Sec. 3
Chung-Ho City, Taipei Hsien, Taiwan
Tel: +886-2-2226-0126
Fax: +886-2-2226-0020
sales.ap@infotrend.com
support.ap@infotrend.com
http://esupport.infotrend.com.tw
http://www.infotrend.com

Americas
Infotrend Corporation
3150 Coronado Dr., Unit C
Santa Clara, CA 95054, USA
Tel: +1-408-988-5088
Fax: +1-408-988-6288
sales.us@infotrend.com
http://esupport.infotrend.com
http://www.infotrend.com/americas

Europe
Infotrend Europe Limited
5 Elmwood Chineham Business Park
Basingstoke, Hampshire RG24 8WG, UK
Tel: +44-(0)1256-707-700
Fax: +44-(0)1256-707-889
sales.eu@infotrend.com
support.eu@infotrend.com
http://esupport.infotrend-europe.com
http://www.infotrend.com/europe

China
Infotrend Technology, Limited
Room 1210, West Wing, Tower One,
Junefield Plaza, No. 6 Xuanwumen Street,
Xuanwu District, Beijing, China.
Post code: 100052
Tel: +86-10-63106168
Fax: +86-10-63106188
sales.cn@infotrend.com
support.cn@infotrend.com
http://esupport.infotrend.com.tw
http://www.infotrend.com/china

Japan
Infotrend Japan, Inc.
6F, Okayasu Bldg.,
1-7-14 Shibaura Minato-ku,
Tokyo, 105-0023 Japan
Tel: +81-3-5730-6551
Fax: +81-3-5730-6552
sales.jp@infotrend.com
support.jp@infotrend.com
http://esupport.infotrend.com.tw
http://www.infotrend.com/japan