

Ultra-fast hard disk drives for today's performance-driven systems and applications.

# 3.5-Inch, 15K RPM Enterprise Hard Disk Drives

MAX3036 • MAX3073 • MAX3147

The highest performance solution available for data streaming and heavy I/O transaction based applications.

- ▶ Features storage capacities of 36, 73 and 147GB<sup>1</sup>.
- ▶ Provides maximum internal data-transfer rates of 147MB/s.
- ▶ Includes 8MB data buffer for optimizing the overall drive performance.
- ▶ Offers Fujitsu Fluid Dynamic Bearing (FDB) technology, assuring remarkably quiet operation.
- ▶ RoHS compliant enterprise hard disk drives with Ultra320 SCSI as well as 2Gbps and 4Gbps Fibre Channel interfaces.



<sup>1</sup> One gigabyte (GB) = one billion bytes; accessible capacity will be less and actual capacity depends on the operating environment and formatting.

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THE POSSIBILITIES ARE INFINITE

# 3.5-Inch, 15K RPM

## Enterprise Hard Disk Drives

MAX3036 • MAX3073 • MAX3147

Over 35 years ago, Fujitsu was manufacturing 14-inch hard disk drives for mainframes. Today we're offering you some of the fastest enterprise 3.5-inch hard disk drives in the industry. Because of our technology expertise and heritage, we can provide your customers with high-capacity and reliable storage options for the most demanding of applications.

The Fujitsu 3.5-inch 15K RPM enterprise hard disk drives offer a host of innovations: their 147GB 4-platter configuration means lower power consumption, better reliability, and higher data rates. These new hard disk drives dramatically increase speed and capacity and are equipped with 68Pin or 80Pin U320 SCSI interfaces, as well as 2Gbps and 4Gbps Fibre Channel.

Additionally, the Fujitsu hard disk drives are compliant with the RoHS directive. Fujitsu is committed to the elimination of hazardous substances in the manufacturing of its entire hard disk drive product line.

These qualities make makes them perfect for today's most challenging storage environments. Fujitsu hard disk drive product variations and accelerated performance allow greater flexibility for system designers making rack-optimized or tower servers, disk systems, RAID or digital video systems.

The time is now to deliver versatile, reliable, and robust hard disk drives to your customers for their most demanding storage application needs. **About Fujitsu Computer Products of America, Inc.** Fujitsu Computer Products of America, Inc. is a subsidiary of Fujitsu Limited, a leading provider of customer-focused IT and communications solutions for the global marketplace. FCPA provides innovative solutions for the U.S. marketplace.

Current product and service offerings include high performance hard disk drives, Magneto-Optical drives, scanners and scanner maintenance, palm vein recognition technology, 10Gb Ethernet switches and degaussers.

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| 3.5-Inch, 15K RPM Enterprise Hard Disk Drive Specifications |  |   |                    |  |
|---|--|---|--------------------|--|
| Description   | MAX3036NC/NP/FC/FD   | MAX3073NC/NP/FC/FD  | MAX3147NC/NP/FC/FD |  |
| <b>Functional Specifications</b>                            |  |   |                    |  |
| Storage capacity (formatted) <sup>1</sup>                   | 36.7 GB  | 73.5 GB   | 147.0 GB           |  |
| Disks   | 1  | 2   | 4                  |  |
| Heads (read/write)  | 2  | 4   | 8                  |  |
| Bytes/sector  | 512  |   |                    |  |
| Seek time   | Track to track   | Read: 0.2 ms (typ.) / Write: 0.4 ms (typ.)                            |                    |  |
|   | Average  | Read: 3.3 ms (typ.) / Write: 3.8 ms (typ.)                            |                    |  |
|   | Full track   | Read: 8.0 ms (typ.) / Write: 9.0 ms (typ.)                            |                    |  |
| Average latency time  | 2.00 ms  |   |                    |  |
| Rotational speed (RPM)                                      | 15,000   |   |                    |  |
| Areal density   | 59 Gbits/sq. in.   |   |                    |  |
| Data transfer rate  | To/from media  | 147 MB/s  |                    |  |
|   | To/from host   | SCSI: 320 MB/s, FC: 2 Gb/s, 4 Gb/s                                    |                    |  |
| Recording code  | 32/34 MEEPRL   |   |                    |  |
| Interface   | SCA-2 80Pin (NC Series), 68Pin Wide (NP Series), SCA-2 40Pin (FC Series) |   |                    |  |
| Head positioning method                                     | Rotary VCM   |   |                    |  |
| Start time  | 30 s (typ)   |   |                    |  |
| Stop time   | 30 s (typ)   |   |                    |  |
| Buffer size   | 8 MB   |   |                    |  |
| <b>Physical Specifications</b>                              |  |   |                    |  |
| Power requirements  | Voltage  | 5 V ± 5%, 12 V ± 5%   |                    |  |
|   | Spin-up  | 12 V ± 5% @ 2.5 A (peak)<br>3.0 A (peak < 100 us)<br>5 V ± 5% @ 0.7 A |                    |  |
|   | Idle (typ.)  | SCSI  | 11.5 W             |  |
|   |  | FC  | 12.5 W             |  |
| Dimensions (HxWxD)  | 25.4 mm x 101.6 mm x 146.0 mm  |   |                    |  |
| Weight  | 750 g  |   |                    |  |
| Ambient temperature   | Operating  | 5°C to 55°C (DE base 60°C max)  |                    |  |
|   | Non-operating  | -40°C to 70°C   |                    |  |
|   | Gradient   | 15°C/H Max  |                    |  |
| Relative humidity   | Operating  | 5% to 95% (non-condensing)  |                    |  |
|   | Non-operating  | 5% to 95% (non-condensing)  |                    |  |
|   | Max. wet bulb  | 29°C (operating)  |                    |  |
| Vibration   | Operating  | 0.6 mm (5 to 20 Hz) / 1.0 G (20 to 300 Hz)                            |                    |  |
|   | Non-operating  | 3.1 mm (5 to 20 Hz) / 5.0 G (20 to 300 Hz)                            |                    |  |
| Shock   | Operating  | 65 G max. (2 ms)  |                    |  |
|   | Non-operating  | 250 G max. (2 ms)   |                    |  |
| Altitude (operation)  | Operating  | 3,048 m (max.)  |                    |  |
|   | Non-operating  | 12,192 m (max.)   |                    |  |
| Acoustic Noise (idle sound power) (typ.)                    | <= 3.6 bels (ready)  |   |                    |  |
| <b>Reliability Specifications</b>                           |  |   |                    |  |
| Mean time between failures (MTBF)                           | 1,200,000 hours  |   |                    |  |
| Component life  | 5 years  |   |                    |  |
| Error rates   | Unrecoverable errors   | 1 per 10 <sup>12</sup> bits read                                      |                    |  |
|   | Seek errors  | 10 per 10 <sup>9</sup> seeks  |                    |  |
| Limited Warranty  | 5 years (from date of purchase)  |   |                    |  |

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