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THE MAXTOR XT-8000E™ FAMILY



769-, 615- and 410-Megabyte
5.25-inch Fixed Disk Drives with
15 Mbit/sec ESDI Interface
and 150,000 Hour MTBF

This high-capacity 5.25-inch disk drive incorporates the ESDI high-performance standard interface. Fast seek times of 16.5 and 14.5 msec provide the performance necessary for today's systems applications. A 15 Mbit/sec transfer rate, and status and configuration reporting across the interface are included in the benefits of this high-capacity, high-performance disk drive family. The XT-8000E family offers size and cost reduction opportunities relative to larger-sized, high capacity disk drives.

Maxtor®

THE MAXTOR XT-8000E™ FAMILY

769-, 615 and 410-Megabyte 5.25-inch Fixed Disk Drives with 15 Mbit/sec ESDI Interface and 150,000 Hour MTBF

KEY FEATURES

- Capacities of 769 and 410 Mbytes (unformatted)
- High performance with 16.5 and 14.5 msec seek times
- High-performance data transfer rate of 15 Mbits/second
- Supports hard or soft sectoring, user selectable one byte granularity
- Spindle motor synchronization option available
- Drive control and data signals use the same cabling as the ST506/412 disk drives
- High-performance MAXTORQ™ rotary voice-coil actuator with microprocessor-controlled closed-loop track-following servo system
- Microprocessor-controlled acceleration profile allows highest performance on all seeks
- Microprocessor-controlled spindle motor for precise speed control (+0, -0.2%) under all conditions
- Maxtor (patented) brushless DC spindle motor inside disk hub
- Advanced Whitney suspension heads
- Thin film media
- Dynamic braking during power-down cycle
- Dedicated landing/shipping zone
- Fully automatic, positive actuator latch
- Surface-mounted components allow a single MAXPAK™ printed circuit board for improved reliability
- Standard power requirements
- Physical dimensions and mounting holes identical to industry standards

SPECIFICATIONS

PERFORMANCE

	XT-8760E	XT-8610E	XT-8380E
Capacity, unformatted			
Per drive (Mbytes).....	768.92	615.3	410.09
Per surface (Mbytes).....	51.26	51.3	51.26
Per track (bytes, minimum).....	31,410	31,410	31,410
Capacity, typical format			
Per drive (Mbytes).....	676.82	541.4	360.97
Per surface (Mbytes).....	45.12	45.1	45.12
Per track (bytes).....	27,648	27,648	27,648
Per sectors (bytes).....	512	512	512
Sectors/track.....	54	54	54
Disk transfer rate (Mbits/sec)	15	15.08	15
Sectoring	Hard or soft, with one byte granularity supported		
Seek* time (msec), typical			
Average.....	16.5	15.5	14.5
Track-to-track.....	2.5	3	2.5
Maximum.....	33	33	32
Rotational speed (rpm)	3,600	3,600	3,600
Average latency (msec)	8.33	8.33	8.33

FUNCTIONAL

	XT-8760E	XT-8610E	XT-8380E
Bit density (bpi)	31,596	32,320	31,596
Flux density (fci)	21,064	24,300	21,064
Track density (tpi)	1,376	1,376	1,376
Disks	8	7	5
Data heads	15	12	8
Servo heads	1	1	1
Tracks	24,480	19,584	13,056
Sectors (512 bytes)	1,321,920	1,057,536	705,024
Cylinders	1,632	1,632	1,632

* Includes settling

PHYSICAL

Dimensions

Height	3.25 in. (82.55 mm)
Width	5.75 in. (146.05 mm)
Depth	8.20 in. (208.28 mm)
Weight	7.1 lbs. (3.2 Kg)

Temperature limits

Operating	10° to 50°C (50° to 122°F)
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Relative humidity limits

(Non-condensing)	
Operating	8% to 80%
Maximum gradient/hr	10%
Maximum wet bulb	26.7°C

Power dissipation

Typical	27 watts
Maximum	35 watts

Power requirements

+12 VDC ± 5%, 1.57A (typical)
4.5A (maximum)
+5 VDC ± 5%, 1.7A (typical)
1.9A (maximum)

RELIABILITY

MTBF	150,000 hours
PM	Not required
MTTR	30 minutes
Recoverable error rate	≤10 in 10 ¹¹
Unrecoverable errors rate	≤10 in 10 ¹³
Seek error rate	≤10 in 10 ⁷

Maxtor®

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