STORAGE

FUJITSU

ATA-4 3.5-inch Hard Disk Drives



MPE3XXXAT/MPE3XXXAH

Available in 6.4 to 27.3 GB and 5,400/7,200 rpm

- ATA-4 interface
- Supporting Ultra/ATA (transfer rate up to 66 MB/s)
- 9.5 ms/8.5 ms average seek time
- 5,400 rpm/7,200 rpm rotational speed

Our latest 5,400 rpm/7,200 rpm desktop series offer optimum capacities ranging from 6.4 GB to 27.3 GB, with improved performance and reliability.

The new series are designed to deliver supreme performance for all desktop applications.

The new series offer industry-leading 8.5 ms average seek time. They also support UDMA 66, which allows data transfer at speeds up to 66.6 MB/s. These features firmly underscore Fujitsu's position as the leader in the desktop market. Concerning reliability, the new drives support SMART (Self-Monitoring Analysis Reporting Technology), which monitors the status of the drive and alerts the user to save important data before problems occur. The drives also prevent data corruption by the addition of CRC (Cyclic Redundancy Check) which improves data integrity.

The entire desktop family is rated at 500,000 hours mean time between failures (MTBF), building on Fujitsu's reputation for Quality and Reliability.

Functional Specifications

Model		MPE3064AT	MPE3102AT	MPE3136AT	MPE3170AT	MPE3204AT	MPE3273AT	MPE3102AH	MPE3136AH	MPE3204AH	MPE3273AH
Storage capacity (formatted)*1		6.48 GB	10.24 GB	13.66 GB	17.08 GB	20.49 GB	27.32 GB	10.24 GB	13.66 GB	20.49 GB	27.32 GB
Disks		1	2	2	3	3	4	2	2	3	4
Heads (read/write)		2	3	4	5	6	8	3	4	6	8
Track capacity (formatted)		158,720 to 257,024 bytes	146,432 to 257,024 bytes					151,040 to 257,024 bytes			
Bytes/sectors		512									
Cylinders		15,264	16,348					15,871			
Sectors/track		310 to 502	286 to 502					295 to 502			
Seek time	Track to track	1.5 ms (typ.)						1.0 ms (typ.)			
	Average	Read 9.5 ms (typ.); Write 10.5 ms (typ.)						Read 8.5 ms (typ.); Write 9.5 ms (typ.)			
	track	Read 18 ms (typ.); Write 19 ms (typ.)						Read 17 ms (typ.); Write 18 ms (typ.)			
Average latency time; Rotational speed		5.56 ms; 5,400 rpm						4.17 ms; 7,200 rpm			
Recording density; Track density		299,066 BPI; 17,250 TPI						316,929 BPI; 16,750 TPI			
Data transfer rate	To/from media	17.2 to 30.4 MB/s						24.5 to 40.7 MB/s			
	To/from host	66.6 MB/s (UDMA mode 4), 33.3 MB/s (UDMA mode 2), 16.7 MB/s (PO mode 4, DMA mode 2)									
Recording code		16/17 EPR4ML						48/51 EEPR4ML			
Interface		ATA-4									
Head positioning method		ROTARY VCM (Embedded Servo)									
Start time/Stop time		8 sec (typ.)/20 sec (typ.)						10 sec (typ.)/20 sec (typ.)			
Buffer size		512 KB (2 MB)						2 MB			

Physical Specifications

Model		MPE3064AT	MPE3102AT	MPE3136AT	MPE3170AT	MPE3204AT	MPE3273AT	MPE3102AH	MPE3136AH	MPE3204AH	MPE3273AH
Power requirements	Voltage/Ripple	5V±5%/12V±8% / 100mVp-p/200mVp-p									
	Spin-up (max.)	+5V :0.8A, +12V :1.8A						+5V :0.8A, +12V : 1.9A			
	Read/write (typ.)	5.3W	5.6W		6.0W	6.5W		7.3W	8.0W	8.7W	
	Idle (typ.)	3.4W	3.7W		4.1W	4.6W		5.0W	5.7W	6.4W	
	Sleep (typ.)	1.0W									
Dimensions	Height; Width; Depth	26.1 mm (max.) (1.0 in); 101.6 mm (4.0 in); 146.0 mm (5.7 in)									
Weight		620 g (21.9 oz)									
Ambient temperature	Operating	5°C to 55°C (41°F to 131°F)									
	Non-operating	-40°C to 60°C (-40°F to 140°F)									
	Gradient	20°C (68°F)/H									
Relative humidity	Operating	8% to 80% RH (non-condensing)									
	Non-operating	5% to 85% RH (non-condensing)									
	Max. wet bulb	29°C (non-condensing)									
Vibration	Operating; Non-operating	0.5 Go-p (5 to 300 Hz); 4.0 Go-p (5 to 400 Hz)									
Shock	Operating; Non-operating	30 Go-p, 2 ms; 250 Go-p, 2 ms									
Attitude	Operating; Non-operating	-60 to 3,000 m (-200 to 10,000 ft); -60 to 12,000 m (-200 to 40,000 ft)									
Acoustic noise (idle sound power) (typ.)		3.4 bels	3.5 bels		3.6 bels			3.7 bels		3.8 bels	

Reliability Specifications

Model		MPE3XXXAT	MPE3XXXAH
Mean time between failures (MTBF)		More than 500,000 POH	
Mean time to repair (MTTR)		Less than 30 min.	
Component life		5 years or 20,000 POH	
Error rates	Recoverable errors	-	
	Unrecoverable errors	1 per 10^{14} bits read	
	Seek errors	1 per 10^{6} seeks	
Start/stop cycles		40,000 cycles	

Note : *1 : Capacity under the LBA mode

Specifications are subject to change without notice. For the latest information, contact your local Fujitsu representative.
All brand names and product names are trademarks and registered trademarks of their respective holders.

European contacts:

FUJITSU EUROPE LTD.
2 Longwalk Road, Stockley Park,
Uxbridge, Middlesex. UB11 1AB, ENGLAND.
Phone: (44-20) 8573-4444
Fax: (44-20) 8573-2643

FUJITSU DEUTSCHLAND GmbH
Frankfurter Ring 211,
80807 München, GERMANY.
Phone: (49-89) 32378-0
Fax: (49-89) 32378-100

FUJITSU NORDIC AB
Kung Hans väg 12,
S-192 68 Sollentuna, SWEDEN.
Phone: (46-(0)8) 626-4500
Fax: (46-(0)8) 626-4588

FUJITSU ITALIA S.p.A.
Via Nazario Sauro, 38
20099 Sesto San Giovanni (MI), ITALY.
Phone: (39-02) 26294-1
Fax: (39-02) 26294-201

FUJITSU FRANCE S.A.
1 Place Des Etats-Unis, SILIC 310,
94588 Rungis cedex, FRANCE.
Phone: (33-1) 4180-3888
Fax: (33-1) 4180-3850

FUJITSU

www.fujitsu-europe.com