

FUJITSU

Quality OEM Products

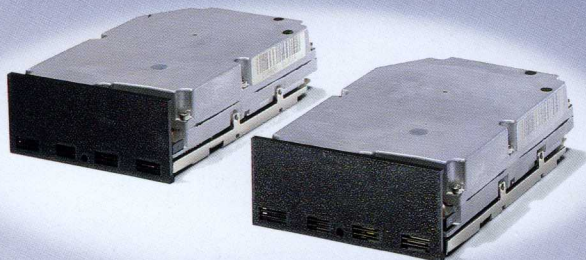
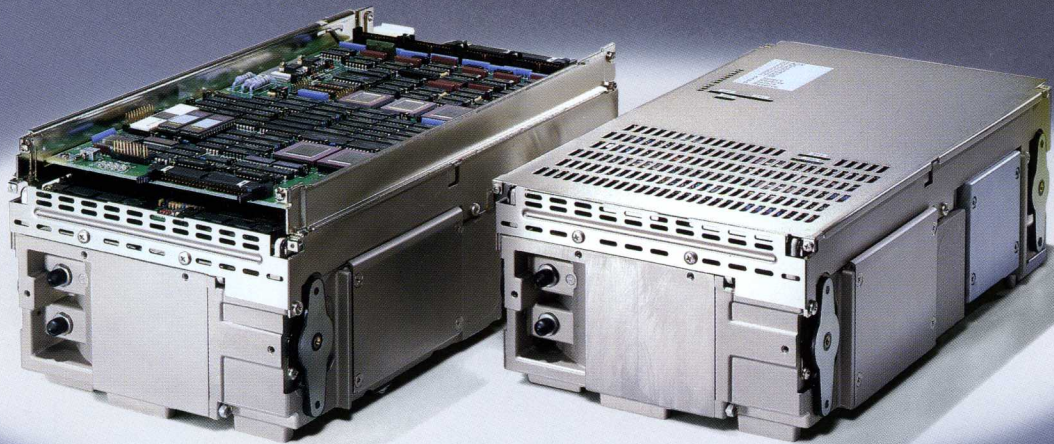
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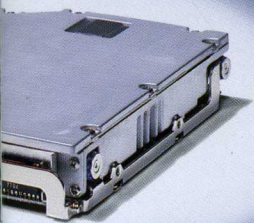
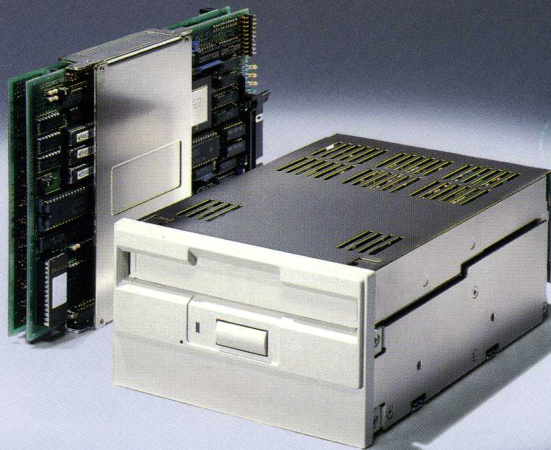
3.5-inch through 10.5-inch
Disk Drives



A reliable, high-performance disk storage family you can rely on.

Fujitsu's field-proven technology in high-performance and superb reliability will help you design unsurpassed products. Our full range of magnetic fixed disk drives and an optical disk offer enhanced flexibility to best meet your requirements.





Who is Fujitsu?

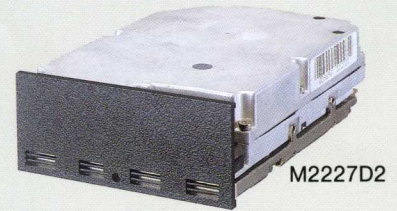
Fujitsu is Japan's number one computer maker, with a full lineup of products ranging from microcomputers to large-scale mainframes and supercomputers. We're also one of the world's leading manufacturers of telecommunications equipment and advanced microelectronic devices.

At the heart of this triple computer-communications-components expertise is Fujitsu's singular commitment to quality — a commitment shared by every one of our 90,000 employees worldwide.

With Fujitsu you get quality built into every stage of production, from initial design to customer service. Fujitsu's distinguished reputation for quality products is based on a long tradition of independent research and development.

It is this unique integration of technologies and uncompromising quality standards that allows us to provide only the most efficient, reliable and economical solutions to industries of all kinds and sizes.

3.5-inch



3.5-inch magnetic disk drives

	M222X Series		
	M2225D2	M2226D2	M2227D2
Storage capacity (unformatted)	25.6 MB	38.4 MB	51.2 MB
Disks	2	3	4
Heads	4	6	8
Track capacity (unformatted)	10,416 bytes		
Cylinders	615		
Average positioning time	35 ms		
Rotational speed	3,600 rpm		
Data transfer rate	625 KB/s		
Actuator	Encoder motor		
Recording code	MFM		
Interface	ST506/412		
Power	12 VDC/5 VDC		
Dimensions (H x W x D)	41.3 mm x 101.6 mm x 146 mm (1.625 in. x 4.0 in. x 5.75 in.)		
Weight	1.0 kg (2.2 lb)		
MTBF	More than 30,000 power-on hours		
Controller	M1055B		

Other feature

- Ideal for personal computers and other compact office automation equipment.

3.5-inch



M1055B

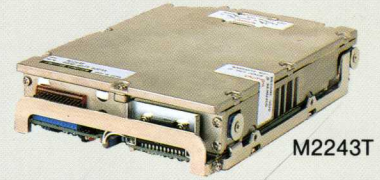
3.5-inch magnetic disk controller

	M1055B
Host interface	SCSI with single-ended bus lines
Data transfer rate	625 KB/s (asynchronous mode)
Interleave	Non-interleaving or selectable sector interleaving
Drives controllable	Max. 2
Drive interface	ST506
Power	5 VDC
Dimensions (H x W x D)	8.5 mm x 146 mm x 102 mm (0.34 in. x 5.75 in. x 4.0 in.)
MTBF	More than 150,000 power-on hours

Other features

- Card controller
- Dual sector buffer
- Logical block addressing
- Multiple block read/write
- Automatic seek/verify
- Overlapped seek
- Automatic volume formatting
- SCSI common command set

5 1/4-inch



M2243T

5 1/4-inch magnetic disk drives

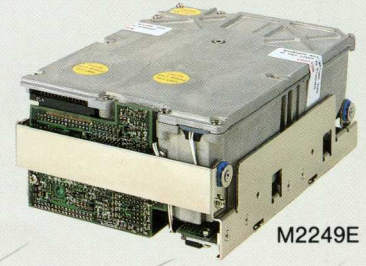
	M224X Series				
	M2241AS2/B	M2242AS2/B	M2243AS2/B	M2243T	M2243R
Storage capacity (unformatted)	31.4 MB	54.9 MB	86.3 MB	86.4 MB	129.6 MB
Disks	3	4	6	4	
Heads	4 + 1*	7 + 1*	11 + 1*	7 + 1*	
Track capacity (unformatted)	10,416 bytes				15,624 bytes
Cylinders	754			1,186	
Average positioning time	30 ms (AS2 type), 33 ms (B type)			25 ms	
Rotational speed	3,600 rpm				
Data transfer rate	625 KB/s				937 KB/s
Actuator	Rotary voice coil motor				
Recording code	MFM				RLL (2/7)
Interface	ST412 (AS2 type), ST506 (T type), ST506 RLL (R type), SA4000 (B type)				
Power	12 VDC/5 VDC				
Dimensions (H x W x D)	83 mm x 146 mm x 203 mm (3.3 in. x 5.7 in. x 8.0 in.)			41 mm x 146 mm x 203 mm (1.6 in. x 5.7 in. x 8.0 in.)	
Weight	3.0 kg (6.6 lb)			1.5 kg (3.3 lb)	
MTBF	More than 30,000 power-on hours				
Controller	—				

*servo head

Other features

- Replaceable for 5 1/4-inch flexible disk drive (except for T, R types)
- Replaceable for half-height 5 1/4-inch flexible disk drive (T, R types)
- Horizontal or vertical mounting
- Low power consumption (30 watts)
- Microprocessor controlled voice coil motor

5 1/4-inch



M2249E

5 1/4-inch magnetic disk drives

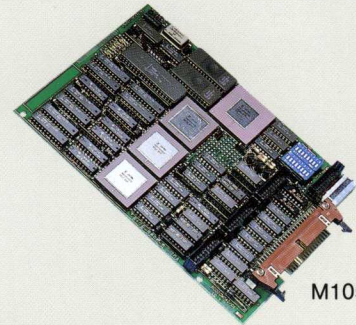
	M224X Series					
	M2244C/E S/SA/SB	M2245C/E S/SA/SB	M2246C/E S/SA/SB	M2247E/ S/SA/SB	M2248E/ S/SA/SB	M2249E/ S/SA/SB
Storage capacity (unformatted)	85.8 MB	120.2 MB	171.7 MB	181.5 MB	285.3 MB	389.0 MB
Disks	3	5	6	4	6	8
Heads	5 + 1*	7 + 1*	10 + 1*	7 + 1*	11 + 1*	15 + 1*
Track capacity (unformatted)	20,864 bytes					
Cylinders	823			1,243		
Average positioning time	25 ms			18 ms		
Rotational speed	3,600 rpm					
Data transfer rate	1,250 KB/s (ESDI), 1,500 KB/s (SCSI, asynchronous mode), 2,500 KB/s (SCSI, synchronous mode)					
Actuator	Rotary voice coil motor					
Recording code	RLL (2/7)			RLL (1/7)		
Interface	ESDI (C, E types), SCSI (S, SA, SB types)					
Power	12 VDC/5 VDC					
Dimensions (H x W x D)	83 mm x 146 mm x 203 mm (3.3 in. x 5.7 in. x 8.0 in.)					
	83 mm x 146 mm x 218 mm (3.3 in. x 5.7 in. x 8.6 in.) (S, SA, SB types)					
Weight	3.0 kg (6.6 lb)			3.5 kg (7.7 lb)		
MTBF	More than 30,000 power-on hours					
Controller	M1054A (for C and E types only), Embedded SCSI controller (S, SA, SB types)					

*servo head

Other features

- Replaceable for 5 1/4-inch flexible disk drive
- Horizontal or vertical mounting
- Microprocessor controlled voice coil motor

5 1/4-inch



M1054A

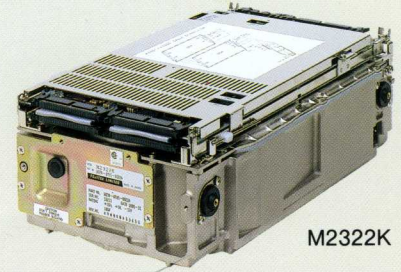
5 1/4-inch magnetic disk controller (for C and E types)

	M1054A
Host interface	SCSI with single-ended bus lines
Data transfer rate	1,500 KB/s (asynchronous mode)
Interleave	Non-interleaving or selectable sector interleaving
Drives controllable	Max. 4
Drive interface	ESDI
Power	5 VDC
Dimensions (H x W x D)	21.1 mm x 210 mm x 140 mm (0.83 in. x 8.3 in. x 5.5 in.)
MTBF	More than 150,000 power-on hours

Other features

- Card controller
- Dual-sector buffer
- Logical block addressing
- Multiple block read/write
- Automatic seek/RPS/verify
- Overlapped seek/RPS
- Automatic volume formatting

8-inch



M2322K

8-inch magnetic disk drives

	M232X Series	
	M2321K	M2322K
Storage capacity (unformatted)	84.2 MB	168.5 MB
Disks	3	6
Heads	5 + 1*	10 + 1*
Track capacity (unformatted)	20,480 bytes	
Cylinders	823	
Average positioning time	20 ms	
Rotational speed	3,600 rpm	
Data transfer rate	1,229 KB/s	
Actuator	Rotary voice coil motor	
Recording code	MFM	
Interface	SMD	
Power	24 VDC/5 VDC/-12 VDC	
Dimensions (H x W x D)	127 mm x 216 mm x 380 mm (5.0 in. x 8.5 in. x 15.0 in.)	
Weight	14 kg (31 lb)	
MTBF	More than 30,000 power-on hours	
Controller	—	

*servo head

Other features

- Cost-effective
- Replaceable for flexible disk drive
- Low power consumption
- Reduced noise and vibration
- Horizontal or vertical mounting
- Dual-channel option
- Optional power supply unit
- Auto-actuator lock

8-inch



M2344K

8-inch magnetic disk drives

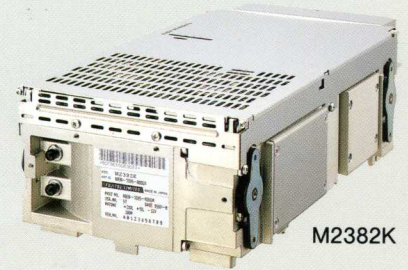
	M233X Series		M234X Series	
	M2331K/KS/P	M2333K/KS/P	M2343K/KS	M2344K/KS
Storage capacity (unformatted)	168.5 MB	337.1 MB	383.3 MB	690.1 MB
Disks	3	6	5	8
Heads	5 + 1*	10 + 1*	15 + 1*	27 + 1*
Track capacity (unformatted)	40,960 bytes			
Cylinders	823		624	
Average positioning time	20 ms		16 ms	
Rotational speed	3,600 rpm			
Data transfer rate	2,458 KB/s			
Actuator	Rotary voice coil motor			
Recording code	RLL (2/7)			
Interface	Modified SMD (K, KS types) IPI-2 (P type)		Modified SMD	
Power	24 VDC/5 VDC/-12 VDC			
Dimensions (H x W x D)	127mm x 216mm x 380mm (5.0 in. x 8.5 in. x 15.0 in.)			
Weight	14 kg (31 lb)		17 kg (38 lb)	
MTBF	More than 30,000 power-on hours			
Controllers	M1053A/AD/B/BD (for KS type only)			

*servo head

Other features

- Cost-effective
- Replaceable for flexible disk drive
- Low power consumption
- Reduced noise and vibration
- Horizontal or vertical mounting
- Dual-channel option
- Optional power supply unit
- Auto-actuator lock
- Diagnostic panel option (M234X)

8-inch



M2382K

8-inch magnetic disk drives

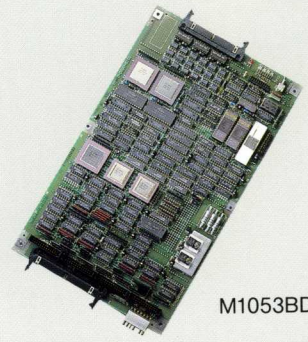
	M237X Series		M238X Series	
	M2371K/KS	M2372K/KS	M2381K/P	M2382K/P
Storage capacity (unformatted)	457.7 MB	823.9 MB	555.7 MB	1,000 MB
Disks	5	8	5	8
Heads	15 + 1*	27 + 1*	15 + 1*	27 + 1*
Track capacity (unformatted)	40,960 bytes		49,728 bytes	
Cylinders	745			
Average positioning time	16 ms			
Rotational speed	3,600 rpm		3,620 rpm	
Data transfer rate	2,458 KB/s		3,000 KB/s	
Actuator	Rotary voice coil motor			
Recording code	RLL (2/7)		RLL (1/7)	
Interface	Modified SMD		ESMD (K type), IPI-2 (P type)	
Power	24 VDC/5 VDC/-12 VDC		24 VDC/5 VDC/-5.2 VDC/-12 VDC	
Dimensions (H x W x D)	127mm x 216mm x 380mm (5.0 in. x 8.5 in. x 15.0 in.)			
Weight	17 kg (38 lb)			
MTBF	More than 35,000 power-on hours			
Controllers	M1053B/BD (for KS type only)			

*servo head

Other features

- Embedded dual-port
- Improved shock/vibration resistance
- Automatic PCA adjustment (without synchroscope)
- AM (variable soft sector) supported (K type)
- Small-sized PSU and shielding cable option
- Diagnostic panel option (K type)

8-inch



M1053BD

8-inch magnetic disk controller (for KS type)

		M1053 Series			
		M1053A	M1053B	M1053AD	M1053BD
Host interface		SCSI with single-ended bus lines		SCSI with differential bus lines	
Data transfer rate	Synchronous mode	2,458 KB/s	2,670 KB/s	2,458 KB/s	4,000 KB/s
	Asynchronous mode	1,500 KB/s			
Interleave		Non-interleaving or selectable sector interleaving			
Drives controllable		Max. 4			
Drive interface		Modified SMD			
Power		5 VDC/-12 VDC			
Dimensions (H x W x D)		21mm x 330mm x 196mm (0.8 in. x 13.0 in. x 7.7 in.)		19mm x 330mm x 196mm (0.75 in. x 13.0 in. x 7.7 in.)	
MTBF		More than 150,000 power-on hours			

Other features

M1053A/AD

- Card controller
- Dual-sector buffer
- Logical block addressing
- Multiple block read/write
- Automatic seek/RPS/verify
- Overlapped seek/RPS
- Automatic volume formatting
- SMD dual-port configuration

M1053B/BD

- Card controller
- 16 KB data buffer
- Logical block addressing
- Multiple block read/write
- Automatic seek/RPS/verify
- Overlapped seek/RPS
- Automatic volume formatting
- SCSI common command set
- Command queuing
- SMD dual-port configuration

10.5-inch



M2361A

10.5-inch magnetic disk drives

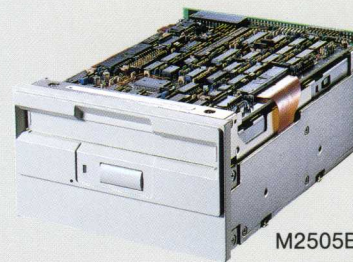
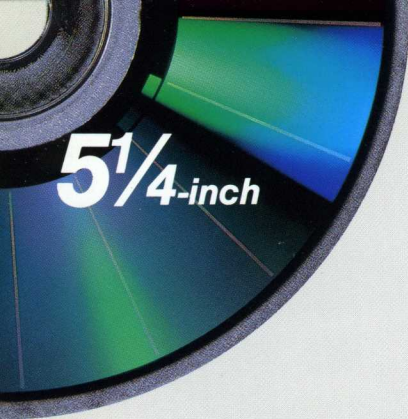
	M235X Series		M236X Series	
	M2350A	M2351A	M2360A	M2361A
Storage capacity (unformatted)	474.2 MB		689.8 MB	
Disks	6			
Heads	20 + 1*1			
Track capacity (unformatted)	28,160 bytes		40,960 bytes	
Cylinders	841 + 1 (CE)*2	842	841 + 1 (CE)*2	842
Average positioning time	18 ms			
Rotational speed	3,961 rpm		3,673 rpm	3,600 rpm
Data transfer rate	1,859 KB/s (1 channel) 7,436 KB/s (4 channels) 9,295 KB/s (5 channels)	1,859 KB/s	2,507 KB/s (1 channel) 10,029 KB/s (4 channels) 12,573 KB/s (5 channels)	2,458 KB/s
Actuator	Rotary voice coil motor			
Recording code	MFM		RLL	
Interface	Modified SMD			
Power	100/120/200/220/240 VDC			
Dimensions (H x W x D)	356mm x 483mm x 762mm (14.0 in. x 19.0 in. x 30.0 in.)	264mm x 483mm x 700mm (10.4 in. x 19.0 in. x 27.6 in.)	356mm x 483mm x 762mm (14.0 in. x 19.0 in. x 30.0 in.)	264mm x 483mm x 710mm (11.4 in. x 19.0 in. x 28.0 in.)
Weight	95 kg (209 lb)	65 kg (143 lb)	75 kg (165 lb)	65 kg (143 lb)
MTBF	More than 30,000 power-on hours		More than 35,000 power-on hours	
Controller	—			

Other features

- 4- or 5-channel parallel data transfer (M2350A, M2360A)
- Rotational synchronization (M2350A, M2360A)
- Deskew circuit option (M2350A, M2360A)
- Remote power control (M2350A, M2360A)
- Auto-actuator lock (M2350A, M2360A, M2361A)
- 19-inch rack or system cabinet mountable
- Dual-channel option
- Integrated power supply

*1 servo head

*2 CE cylinder is used for self diagnostics.



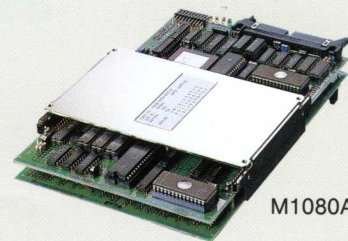
M2505B

5 1/4-inch optical disk drive

	M2505B
Media	Optical disk packaged in a cartridge, spiral-grooved, preformatted, 600 MB capacity, 18,320 tracks, 16 sectors
Cartridge	Size (H x W x D) : 11mm x 135mm x 153mm (0.4 in. x 5.3 in. x 6.0 in.) Weight : 200 g (0.4 lb)
Average positioning time	Less than 100 ms
Rorational speed	1,800 rpm
Data transfer rate	694 KB/s
Actuators	Stepping motor and lens actuator
Recording code	RLL (2/7)
Interface	Modified ESDI
Power	12 VDC/5 VDC
Dimensions (H x W x D)	82mm x 146mm x 203mm (3.2 in. x 5.7 in. x 8.0 in.)
Weight	3 kg (6.6 lb)
MTBF	More than 20,000 power-on hours
Controller	M1080A

Other features

- Horizontal or vertical mounting
- Low power consumption
- Microprocessor controlled stepping motor



M1080A

5 1/4-inch optical disk controller

	M1080A
Host interface	SCSI with single-ended bus lines
Data transfer rate	1,500 KB/s (asynchronous mode)
Interleave	Non-interleaving
Drives controllable	Max. 4
Drive interface	Modified ESDI
Power	5 VDC
Dimensions (H x W x D)	42.2mm x 146mm x 210mm (1.7 in. x 5.7 in. x 8.3 in.)
Weight	1 kg (2.2 lb)
MTBF	More than 100,000 power-on hours

Other features

- Card controller (2 cards)
- 64 KB data buffer
- Logical block addressing
- Multiple block read/write
- Automatic seek/RPS/verify
- Automatic DEF/ALT sector assignment
- Automatic error recovery
- Automatic error correction with powerful ECC
- Overwrite protection for WORM
- Erase/Search space/Copy command

Specifications are subject to change without notice. For the latest information, contact your local Fujitsu representative.
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