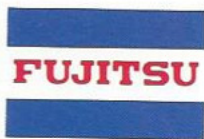


STORAGE PRODUCTS

FUJITSU AMERICA, INC.



STORAGE PRODUCTS

FUJITSU AMERICA, INC.

OVER FIFTEEN YEARS OF EXCELLENCE FUJITSU AMERICA, INC. (FAI) is a leading supplier of OEM Winchester disk drives and tape drives. For over fifteen years, FUJITSU has been building quality peripherals to help our customers accomplish one of the most important aspects of business today: entering, storing and retrieving large amounts of data quickly and reliably.

QUALITY—FUJITSU'S TRADITION FUJITSU's tradition of quality has evolved from our commitment to excellence and through a tremendously innovative engineering and manufacturing expertise. This expertise, plus the fact that FUJITSU is a completely integrated manufacturer able to exercise control over all phases of parts and assembly, guarantee our customers quality peripheral products that are high in performance and reliability. Our large customer base is solid evidence of the fact that, at FUJITSU, quality is not just a promise but an achieved goal.



QUALITY COMPONENTS, ASSEMBLY, AND VERIFICATION All elements of the manufacturing process must be highly controlled to produce the best products consistently. To ensure quality of components in the disk drives, FUJITSU manufactures the media, heads, actuators, motors, PC boards, custom semiconductors and even some of the castings. All disk drives have a newly specified MTBF of 20,000 hours and MTTR is less than 30 minutes. Similarly, tape drives are manufactured with the same standards of quality.

To ensure constant conformance, highly automated production lines and computerized testing are used extensively. All units are subjected to a lengthy burn-in process to cull out any latent infant mortality. The results produce the most reliable storage products in the industry.

SUPERIOR FIELD SUPPORT Reliable hardware deserves the best possible service and field support. To ensure this, FUJITSU is committed to protecting its customers' investments by providing easy and immediate access to a highly-skilled staff of application engineers and product specialists. For a complete listing of our regional support offices, please turn to the back of this brochure.

LOOKING INTO THE FUTURE FUJITSU's reputation is built on quality products and service, and our every effort is designed to protect that reputation. Our team of scientists and engineers are continually striving to create products that provide larger capacities, faster access, and higher reliability—products that stress advanced technology, higher speeds, and higher density recording techniques and still deliver Fujitsu quality.

STORAGE PRODUCTS

5.25"

HALF-HIGH

M223X



SPACE SAVING AND RELIABLE

The M223X 5¼ inch half-high disk drives have the same physical size as the industry standard half-high mini-floppy. The drive is available with a ST506/412 interface (M223X AT) or a SA4000 interface (M223X BT).

CAPACITY Using the same track capacity and density of the full height M223X, the half-high models provide 6.7MB (5.2MB formatted) or 13.3MB (10.5 formatted).

PERFORMANCE The M223X AT/BT models combine compactness and high performance. The average positioning time, including settling-time, is 95 milliseconds. The data transfer rate to the interface is 625 kilobytes per second.

FLEXIBILITY Each model can be mounted horizontally or vertically for ease of integration. The drive weighs only 3.3 pounds (1.5 kg) and consumes a mere 30 watts.

RELIABILITY These drives use Whitney-type contact start/stop heads which eliminate moving parts for head loading. LSI logic further enhances the drive's reliability. The results produce a specified MTBF of 20,000 hours with MTTR less than 30 minutes.

COMPATIBILITY The M223X half-high drives have a standard 5¼ inch mini-floppy footprint and a choice of ST506 or SA4000 interfaces. DC voltages are used to ensure international compatibility.

FUNCTIONAL SPECIFICATIONS

	M2230	M2233
Drive Capacity		
Unformatted	6.7 MB	13.3 MB
Formatted	5.2 MB	10.5 MB
Disks	1	2
Heads		
Read/Write	2	4
Track Capacity		
Unformatted		10,416 B
Formatted		8,192 B
Cylinders		320
Sectors		32 ¹
Positioning Time		
Track to Track		18 ms
Average		95 ms
Maximum		245 ms
Average Latency		8.3 ms
Rotational Speed		3600 RPM
Recording Density		10,200 BPI
Track Density		300 TPI
Data Transfer Rate		625 KB/S
Recording Code		MFM
Interface Code		MFM/NRZ ²
Interface		ST506/ SA4000 ³
Start Time		20 sec.
Stop Time		15 sec.
Power Requirement	+ 12 VDC ± 10%, 1.8A (4.0A max.) + 5 VDC ± 5%, 1A ('AS' model) 1.6 A ('B' model)	
Dimensions	1.6 in.(H) × 5.7 in.(W) × 8 in.(D)	
Weight	3.3 lbs.	

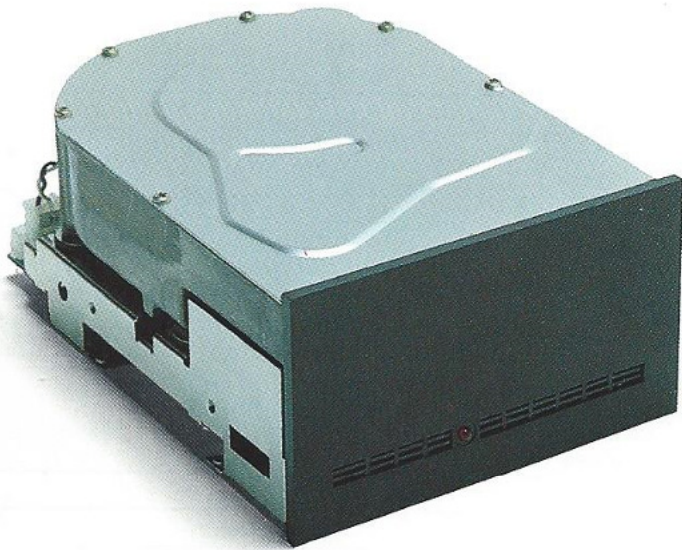
1. 16 sector format is selectable on the 'B' model.
2. An on-board data separator provides NRZ on the 'B' model.
3. ST506 on the 'AS' model and SA4000 on the 'B' model.

Specifications are subject to change without notice.

STORAGE PRODUCTS

5.25"

M223X



IDEAL FOR OFFICE APPLICATIONS

The M223X 5 $\frac{1}{4}$ -inch disk drives are ideal for small business computers, terminal systems, and word processing systems. The drives are available in two models: 'AS' designating the ST506 interface, and 'B' designating the SA4000 interface.

CAPACITY To achieve a track capacity of 10,416 bytes and a density of 300 tracks per inch, Winchester technology is incorporated into the drive to provide formatted capacities of 10.5 MB, 15.7 MB and 21 MB.

ECONOMY Simplifying the head positioning mechanism, a stepping motor enhances reliability and reduces cost. The drives consume less than 30 watts and operate within a wide ambient temperature range (41°F to 113°F), thus reducing cooling requirements.

PERFORMANCE The stepping motor's viscous damper shortens settling time, and a microprocessor controls the speed of the stepping motor to optimize access time, resulting in a 83-millisecond average positioning time.

RELIABILITY The drives are designed for a durability of more than 10,000 start/stops without media degradation. LSI logic reduces the component count on the 'B' model.

COMPATIBILITY The M223X drives have the same footprint as 5 $\frac{1}{4}$ mini-floppies and the ST506. The drives can be mounted horizontally (except with the PCB on top) or vertically. To ensure international compatibility, DC voltages only are required.

FUNCTIONAL SPECIFICATIONS

	M2233	M2234	M2235
Drive Capacity			
Unformatted	13.3 MB	20 MB	26.7 MB
Formatted	10.5 MB	15.7 MB	21.0 MB
Disks	2	3	4
Heads			
Read/Write	4	6	8
Track Capacity			
Unformatted		10,416 B	
Formatted		8,192 B	
Cylinders		320	
Sectors		32 ¹	
Positioning Time			
Track to Track		18 ms	
Average		83 ms	
Maximum		192 ms	
Average Latency		8.3 ms	
Rotational Speed		3600 RPM	
Recording Density		10,200 BPI	
Track Density		300 TPI	
Data Transfer Rate		625 KB/S	
Recording Code		MFM	
Interface Code		MFM/NRZ ²	
Interface		ST506/SA4000 ³	
Start Time		20 sec.	
Stop Time		15 sec.	
Power Requirement		+ 12 VDC \pm 5%, 1.8A (4.5A max.)	
		+ 5 VDC \pm 5%, 1A ('AS' model)	
		1.6A ('B' model)	
Dimensions		3.3 in.(H) \times 5.7 in.(W) \times 8 in.(D)	
Weight		5.5 lbs.	

1. 16 sector format is selectable on the 'B' model.
2. An on-board data separator provides NRZ on the 'B' model.
3. ST506 on the 'AS' model and SA4000 on the 'B' model.

Specifications are subject to change without notice.

STORAGE PRODUCTS

5.25"

M224X



LARGE CAPACITY, HIGH PERFORMANCE FAMILY

Fujitsu expands its 5¼ inch Winchester disk drive line with the large capacity, high performance M224X family. These drives are ideal for high performance microcomputer systems requiring large drive capacity and performance.

31.4 TO 86.3 MEGABYTES OF STORAGE The M224X family has new capacities which were previously available only with 8 inch disk drives. The M2241 stores 31.4 megabytes, the M2242, 54.9 megabytes and the M2243, 86.3 megabytes—all unformatted.

HIGH PERFORMANCE The M224X series achieves fast positioning times of 8 milliseconds track-to-track and 33 milliseconds average including settling time.

This performance is achieved using a microprocessor controlled rotary voice coil actuator. As a result, the seek control circuit is greatly simplified and reliability increased.

HIGH RELIABILITY The M224X has a specified MTBF of 20,000 hours and the MTTR is less than 30 minutes. Superior reliability is achieved by using Whitney-type contact start/stop heads, LSI drive logic and Head IC read/write amplifiers. The voice coil motor uses a unique safety system to protect the head-disk interface during shipments.

COMPACT DESIGN Large capacity and high performance have not been achieved at the expense of compactness. The M224X family's physical size is the standard mini-floppy form factor. They can be mounted horizontally or vertically. Noise and vibration have been minimized making the drives ideal for office applications.

COMPATIBILITY The ST506/412 and SA4000 interface options in addition to the use of low-voltage DC power of +12V and +5V, permit complete international compatibility.

FUNCTIONAL SPECIFICATIONS

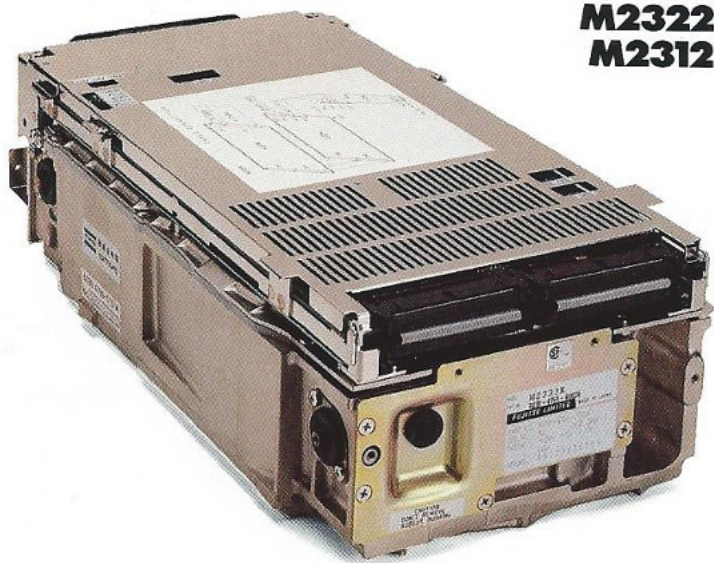
	M2241	M2242	M2243
Drive Capacity			
Unformatted	31.4MB	54.9MB	86.3MB
Formatted	27.7MB	43.2MB	67.8MB
Disks	3	4	6
Heads			
Read/Write	4	7	11
Track Capacity			
Unformatted		10,416	
Formatted		8,192	(32 sectors)
Cylinders		754	
Sectors		32	
Positioning Time			
Track to Track		8 ms	
Average		33 ms	
Maximum		60 ms	
Average Latency		8.3 ms	
Rotational Speed		3,600 RPM	
Recording Density		10,200 BPI	
Track Density		760 TPI	
Data Transfer Rate		625KB/S	
Recording Code		MFM	
Start Time		<20 sec.	
Stop Time		<20 sec.	
Power Requirement	+12 VDC ± 10%, 2.5A (4.8A max.)		
	+5 VDC ± 5%, 2.5A		
Dimensions	3.3 in.(H) × 5.7 in.(W) × 8 in.(D)		
Weight	6.6 lbs.		

Specifications are subject to change without notice.

STORAGE PRODUCTS

8"

M2333
M2322
M2312



HIGH PERFORMANCE, COMPACT FAMILY

The M2312 and M2322 microdisk drives are 8-inch Winchester-type fixed disk drives featuring large storage capacity, fast access and superb reliability. They are designed to provide cost-effective storage for small computer systems and high performance work stations.

LARGE STORAGE CAPACITY The M2312 offers 84.4MB on four disks, the M2322 provides 168MB on six disks and the M2333 doubles the M2322 track capacity to provide 337MB—a storage capacity which had previously been available only with 14-inch disk drives.

SUPERIOR PERFORMANCE A voice coil rotary actuator using a closed-loop servo system and a direct DC spindle motor with 3,600 rpm rotational speed assures very fast head positioning—5 milliseconds for track-to-track, 20 milliseconds average and 40 milliseconds maximum. The M2312 and M2322 transfer data at 1.23 megabytes per second while the M2333 provides the new performance SMD rate of 2.46 megabytes per second, substantially increasing I/O throughput.

HIGH RELIABILITY The 8-inch family has Fujitsu's 20,000 hour MTBF specification resulting from many special design features and proven manufacturing capabilities.

COMPACT DESIGN Two M2333's can be mounted horizontally side by side in a 19 inch rack to provide 674MB of storage in a 5.1 inch high by 19.0 inch wide by 15.0 inch deep package.

DUAL-PORT OPTION A dual port option is available so that one drive can be accessed by two controllers.

INTERFACE The M2312 and M2322 are supplied with the industry standard Storage Module Device (SMD) interface. An optional Small Computer Systems Interface (SCSI) is offered for the M2312S and M2322S models. The M2333 uses a modified SMD interface which supports a 2.46 megabyte per second transfer rate.

FUNCTIONAL SPECIFICATIONS

	M2312	M2322	M2333
Drive Capacity			
Unformatted	84.4 MB	168.6 MB	337 MB
Disks	4	6	6
Heads			
Read/Write	7	10	10
Servo	1	1	1
Track Capacity			
Unformatted	20,480 B	20,480 B	40,960 B
Cylinders	589	823	823
Positioning Time			
Track to Track		5 ms	
Average		20 ms	
Maximum		40 ms	
Average Latency		8.3ms	
Rotational Speed		3,600 RPM	
Recording Density	9,550 BPI	9,867 BPI	19,734 BPI
Track Density	720 TPI	683 TPI	683 TPI
Data Transfer Rate	1.229 MB/S	1.229 MB/S	2.46 MB/S
Recording Code	MFM	MFM	RLL
Interface	SMD	SMD	HSMD
Start Time		20 sec.	
Stop Time		40 sec.	
Power Requirement		+ 24 VDC ± 10%, 3A (6A max.)	
		+ 5 VDC ± 5%, 3.5 A	
		- 12 VDC ± 5%	
Dimensions	5.0 in.(H) × 8.5 in.(W) × 15 in.(D)		
Weight	24.2 lbs.		

Specifications are subject to change without notice.

STORAGE PRODUCTS

10.5"

M2361
M2351



HIGHEST PERFORMANCE AVAILABLE TODAY

The famous M2351 "Eagle" disk drive is joined by a new family member, the M2361. These drives offer the highest performance in the industry with exceptional, field-proven reliability.

LARGE STORAGE CAPACITY The M2351 and M2361 are fully self-contained 10.5 inch disk drives with capacities of 474MB and 689MB respectively. These drives mount conveniently in 19-inch racks, requiring only a 10.5 inch rack height.

SUPERIOR SERVO PERFORMANCE Employing a unique rotary actuator design, the track-following servo provides an unequaled access time of 18 ms average, 5.5 ms for track-track, and 35 ms maximum. Combined with a reduced latency of 7.58 ms, the M2351 provides the fastest access time available today.

HIGH-SPEED DATA TRANSFER The M2361 offers significant throughput advantages with the new 2.46MB/S SMD transfer rate. The M2351 has a 1.86MB/S rate; the one it established as a new high performance standard in the industry. These drives can be easily integrated with many bus interfaces with readily available off-the-shelf controllers.

UNIVERSAL POWER SUPPLY A modular, linear DC power supply provides regulated DC voltages for applications ranging from 100 to 240 volts, 50/60 Hertz. Thermal protection, in addition to over-current/over-voltage circuitry, adds to reliability.

VIRTUALLY MAINTENANCE-FREE A completely sealed disk enclosure, low power consumption, DC motor, proper cooling and highly reliable printed circuit boards contributes to an MTBF of 20,000 power-on hours and an MTTR of 30 minutes: In the event of a failure, status information is latched in 7-segment displays to facilitate isolation to sub-assembly level.

DUAL CHANNEL OPTION Dual port option is readily available.

FUNCTIONAL SPECIFICATIONS

	M2351	M2361
Drive Capacity		
Unformatted	474MB	689MB
Disks	6	
Heads		
Data	20 (2 per surface)	
Servo	1	
Track Capacity		
Unformatted	28,160 B	40,960 B
Tracks per Cylinder	20	
Cylinders	842	
Positioning Time		
Track to Track	5 ms	
Average	18 ms	
Maximum	35 ms	
Average Latency	7.58 ms	8.33 ms
Rotational Speed	3,961 RPM	3,600 RPM
Recording Density	12,790 BPI	18,620 BPI
Track Density	880 TPI	
Data Transfer Rate	1,859 MB/S	2,458 MB/S
Recording Code	MFM	RLL
Interface	MSMD	HSMD
Head Positioning Method	Servo-controlled track-following	
Start Time	30 sec.	
Stop Time	15 sec.	
Power Requirement	100 VAC \pm 10%, 50 Hz \pm 2 Hz 5.7A or 60 Hz \pm 2 Hz, 5.4A 120 VAC \pm 10%, 60 Hz \pm 2 Hz, 4.6A 220 VAC \pm 10%, 50 Hz \pm 2 Hz, 2.9A 240 VAC \pm 10%, 50 Hz \pm 2 Hz, 2.6A	
Dimensions	10.4 in.(H) \times 19.0 in.(W) \times 27.6 in.(D) ¹ 10.4 in.(H) \times 19.0 in.(W) \times 30.3 in.(D) ²	
Weight	132 lbs.	179 lbs.

1. M2351
2. M2361

Specifications are subject to change without notice.

STORAGE PRODUCTS

PTD

M2350



PARALLEL TRANSFER PERFORMANCE AVAILABLE TODAY

The M2350 provides the storage solution for very high speed data transfer systems used in image and vector processing applications. The M2350 can concurrently transfer data through 4 or 5 channels for effective transfer rates of 7.44 and 9.29MB/S. One channel transfer is permitted under system software control.

LARGE CAPACITY, HIGH PERFORMANCE

The M2350 uses the field-proven disk enclosure of Fujitsu's M2351 10.5-inch Eagle disk drive. It provides a large, 474MB capacity with superior performance—18 ms average positioning time and 7.58 ms average latency time.

MODIFIED SMD INTERFACE The standard SMD interface is modified to support a single channel 1.86MB/S transfer rate and 4 or 5 channel parallel data transfer.

SYSTEM DESIGN FEATURES Multiple M2350 drives can be connected using the rotational synchronization feature to set speed and phase operation of the spindle motor with controller pulses. With this feature, many M2350 drives connected to a controller operate as if they were a single drive, dramatically increasing effective transfer rate and achieving an effective access time of zero. Dual port and a de-skew option, used to reduce data skew in parallel transfer, are also available.

ENHANCED SERVICEABILITY The M2350 requires no preventive maintenance except for infrequent cleaning of the air filter, and assures MTBF exceeding 20,000 power-on hours. A comprehensive maintenance panel provides device status display and diagnostic programs.

FUNCTIONAL SPECIFICATIONS

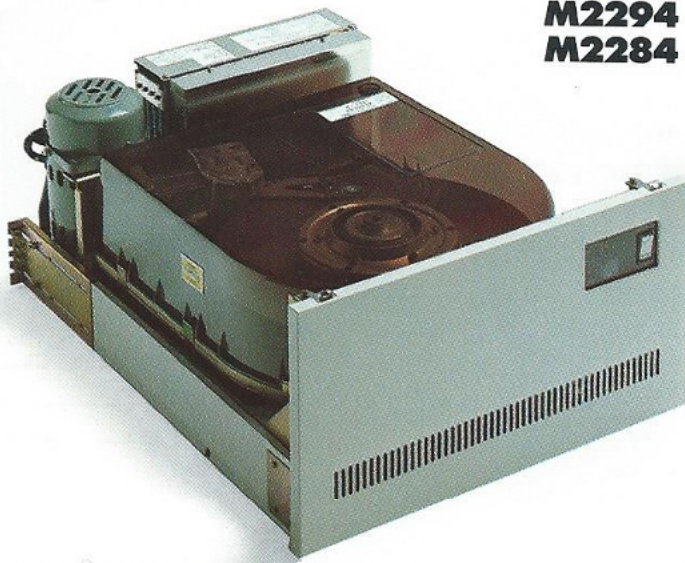
	M2350		
Read/Write Channels	1	4	5
Head Groups	20	5	4
Capacity	474MB		
Disks	6		
Track Capacity	28,160 bytes		
Cylinders	841 + 1 (CE)		
Positioning Time			
Track-to-Track	5.5 ms		
Average	18 ms		
Maximum	35 ms		
Average Latency	7.58 ms		
Rotational Speed	3,961 RPM		
Recording Density	12,790 BPI		
Track Density	880 TPI		
Data Transfer Rate:			
1 channel	1.859MB/S		
4 channels	7.436MB/S		
5 channels	9.295MB/S		
Recording Code	MFM		
Interface	Modified SMD		
Start Time	40 S		
Stop Time	15 S		
Power Requirements	100/120/200/220/240 VAC	50/60 HZ	
Dimensions	14 in (H) × 19 in (W) × 27 in (D)		
Weight	187 lbs.		

Specifications are subject to change without notice.

STORAGE PRODUCTS

14"

M2298
M2294
M2284



HIGH CAPACITY, COST EFFECTIVE

The FUJITSU 14-inch Winchester-type fixed disk drives, with 168.6 to 671.1 megabyte capacities and 27 millisecond average positioning time, offer large storage capacity, low cost per megabyte and enhanced reliability.

HIGH PERFORMANCE The high-speed rotary actuator achieves 27 ms average positioning time and a servo-controlled track following system assures accurate head positioning.

HIGH RELIABILITY AND MAINTENANCE-FREE

The disk is completely sealed in a contamination-free enclosure; Winchester-type contact start/stop heads minimize moving parts; and a read preamplifier on each head arm improves the signal-to-noise ratio and minimizes external noise interference. All 14-inch drives have an MTBF specification of 20,000 hours.

COST EFFECTIVE STORAGE The 14-inch family of rack-mount drives offers the lowest cost per megabyte storage alternative in the industry; made possible by years of experience and field-proven quality.

COMPATIBILITY The FUJITSU 14-inch disk drives have an industry standard Storage Module Device interface. Models can add to or replace existing disk drives of a lower capacity for increased storage capacity. A selection of power supplies is available to support most international requirements.

DUAL-PORT OPTION Allows two controllers to share access to the drive.

FUNCTIONAL SPECIFICATIONS

	M2284	M2294	M2298
Drive Capacity			
Unformatted	168.6 MB	335.5 MB	671.1 MB
Disks	3	5	5
Heads			
Read/Write	10	16	16
Servo	1	1	1
Track Capacity			
Unformatted	20,480 B	20,480	40,960 B
Cylinders	823	1024	1024
Positioning Time			
Track to Track		6 ms	
Average		27 ms	
Maximum		55 ms	
Average Latency	10.12 ms	10.12 ms	11.02 ms
Rotational Speed	2964 RPM	2964 RPM	2722 RPM
Recording Density	6580 BPI	6500 BPI	13,000 BPI
Track Density	680 TPI	850 TPI	793 TPI
Data Transfer Rate	1.012 MB/S	1.012 MB/S	1.86 MB/S
Recording Code	MFM	MFM	RLL
Interface	SMD	SMD	MSMD
Start Time		40 sec.	
Stop Time		30 sec.	
Power Requirement	115 VAC + 15, -10%; 60 Hz ± 1%; 3A (9.5A max.) ¹ 240 + 24, -27 VAC; 50 Hz + 1, -2%; 2A (5A max.) ²		
Dimensions	9.8 in.(H) × 16.4 in.(W) × 25.6 in.(D)		
Weight	88 lbs.		

1. 'K' model

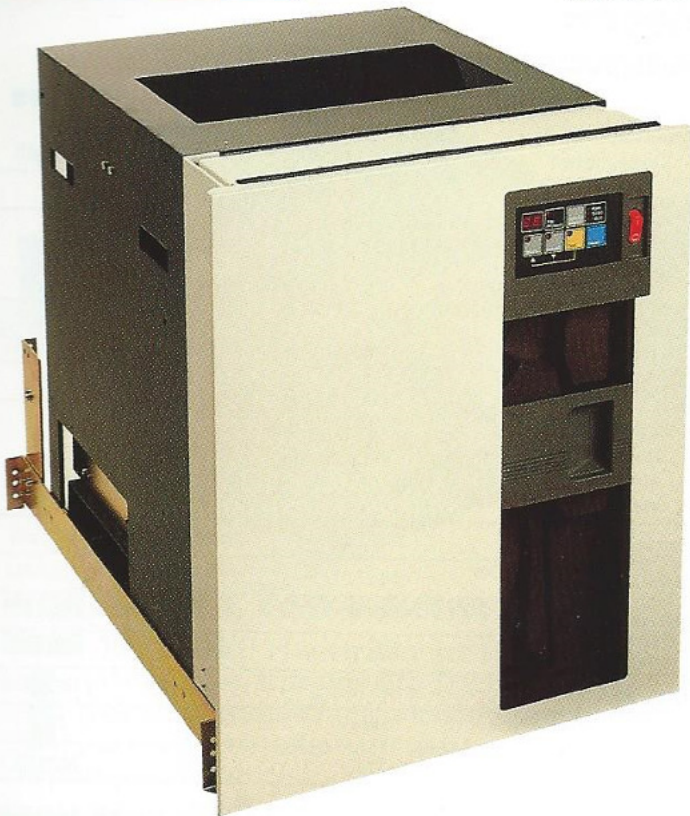
2. 'N' model

Specifications are subject to change without notice.

STORAGE PRODUCTS

GCR TAPE DRIVES

M244X



THE BACK-UP SOLUTION

Fujitsu used their many years of experience producing tape drives to develop the all new M244X Series of streaming tape drives.

These drives are dual speed, dual density devices designed for high speed, cost effective back-up. Utilizing group code recording, (GCR), the M244X Series provides up to 180MB of data storage, four times more capacity than older formats, while maintaining IBM and ANSI compatibility.

HIGH RELIABILITY/PERFORMANCE A direct reel-to-reel servo system and advanced LSI formatter eliminates costly, high failure items found in traditional tension arm and vacuum column drives. The M2442 operates at 100 ips using streaming techniques, providing the highest data transfer rate available today in this class of machine.

NO MAINTENANCE PHILOSOPHY The M244X Series features some of Fujitsu's most advanced semiconductors. Designed to a "No Maintenance Philosophy," there are no adjustments required. Drive parameters are internally monitored and adjusted automatically, eliminating costly P.M.'s and ensuring low total ownership cost.

ADVANCED DIAGNOSTICS The M244X Series incorporates powerful maintenance-aid program modules.

Self-Diagnostic Module—A sanity check of the entire system is activated automatically at power-on.

Service Module—Executed when a machine fault occurs. A fault-symptom code (FSC) is displayed on a two digit indicator which may be used by the operator to easily determine the problem.

Self-Adjustment Module—Internally monitors the outputs of the read and write amplifiers, and automatically adjusts their gain to normal levels. The new parameters are stored in a non-volatile memory for future use.

INTERFACE The M244X Series is offered with the industry standard (Pertec/Cipher) interface, including sense and extended sense bytes for error analysis.

FUNCTIONAL SPECIFICATIONS

	M2442	M2444
Montion Control	Microprocessor controlled direct reel to reel Servo	
Recording Code and Denisty	1600 PE/6250 GCR	
Tape Speed		
Start/Stop	12.5 ips	25 ips
Streaming	100 ips	75 ips
Rewind Time	2.6 min. (2400 Reel)	
Access Time		
Streaming	167 ms GCR 170 ms PE	129 ms GCR 133 ms PE
Start/Stop	18 ms GCR 19 ms PE	54 ms GCR 66 ms PE
Reinstruction Time	1.5 ms GCR 4.5 ms PE	1.8 ms GCR 5.8 ms PE
Reposition Time	660 ms GCR 666 ms PE	515 ms GCR 523 ms PE
IBG	.3 in GCR .6 in PE	
Data Transfer Rate		
Streaming	625 KB GCR 160 KB PE	470 KB GCR 120 KB PE
Start/Stop	78 KB GCR 20 KB PE	156 KB GCR 40 KB PE
Reel Size	6.25 in, 7.01 in, 8.01 in, 10.5 in	
Loading Time	2.6 min (2,400 ft. reel)	
MTBF	8000 Hours	
MTTR	1 Hour	
Power	100, 120, 200, 240 VAC/50 or 60 HZ	
Dimensions	24.3 in.(H) × 19.0 in.(W) × 22.0 in.(D)	
Weight	154 lbs.	
Interface	Industry Standard (Pertec, Cipher)	

Specifications are subject to change without notice.

STORAGE PRODUCTS

TAPE SUBSYSTEMS

M243X



SUPERIOR COST-PERFORMANCE

The M243X Series subsystems permit a maximum data transfer rate of 1.25 megabytes per second and a storage capacity of up to 180MB offering ideal back-up for large capacity disk storage. With the combined 125/200 ips streaming and 75/125/200 ips start/stop capabilities, the M243X Series provides the flexibility to satisfy all high performance tape requirements.

ENHANCED RELIABILITY Traditional GCR systems require four to six times more electronics than phase-encoded drives. The M243X incorporates microprocessor and LSI technology to reduce the number of electronic components dramatically. The result is the most reliable tape subsystem in the industry.

SIMPLIFIED OPERATION The M243X Series are auto load/auto thread devices. These subsystems will accept both half-size or full-size reels. Tape loading is fully automatic with or without a cartridge.

A data protection feature enables the operator to disengage the write enable function by a switch on the operator's panel without removing the write enable ring from the supply reel.

Also, a unique tape quality monitoring feature automatically stamps a red E warning mark on the back of marginal tapes allowing the operator to take proper action before the tape becomes unusable.

INCREASED AVAILABILITY Optional two formatter systems provide two control paths to host computers enhancing drive availability.

Designed on a master/slave concept, eight drives may be controlled by a single formatter saving the expense of duplicating formatting electronics for each drive.

SOPHISTICATED DIAGNOSTICS A wide variety of microprogrammed self-diagnostic functions greatly enhance the M243X Series' troubleshooting and preventive maintenance capabilities. Two-digit error codes on the operator panel identify the cause of tape and drive errors. With this information, the operator can decide whether the trouble is operator-correctable or the customer engineer must be called.

FUNCTIONAL SPECIFICATIONS

M2436

Motion Control	Microprocessor Controlled Vacuum Column	
Recording Code and Density	1600 BPI Phase-Encoded/6250 BPI Group Code Recording, 800 BPI NRZI Optional	
Tape Speed		
Start/Stop	75 ips, 125 ips or 200 ips	
Streaming	125 ips or 200 ips	
Rewind	65 sec avg. (2400 foot reel)	
Access time		
Streaming	4.5 ms @ 200 ips GCR	
Start/Stop	1.6 ms @ 200 ips GCR	
Positioning Time		
Read	9.5 ms @ 200 ips	
Write	17.3 ms @ 200 ips	
Reinstruction Time		
Read	1.3 ms @ 200 ips GCR	
Write	.5 ms @ 200 ips GCR	
IBG	.3 in GCR .6 in PE/NRZI	
Data Transfer Rate	1,250 KB/S @ 200 ips GCR	
Reel Size	Half or Full Reel Size	
Loading Time	Auto Load 12 seconds	
MTBF	Drive: 2500 hrs. Formatter: 10,000 hrs	
MTTR	1 hr.	
Power	200/208/220/230/240 VAC 50/60 HZ	
Dimensions	Available in standalone or rack mount versions	
Interface	STC Type	

Specifications are subject to change without notice.

REGIONAL OFFICES AND AUTHORIZED DISTRIBUTORS/REPS.

EASTERN

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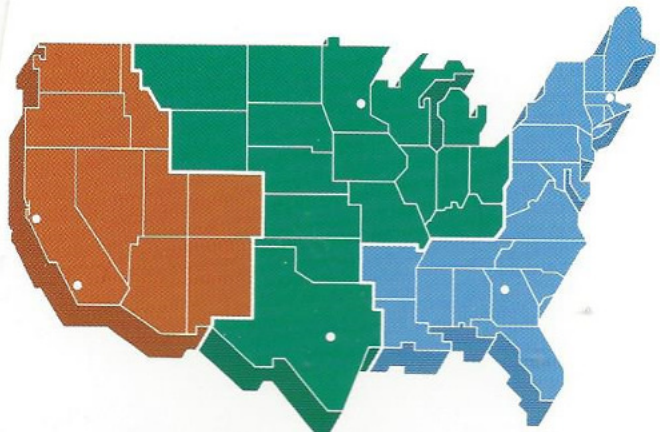
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