MCR 3230SS / MCR 3230AP
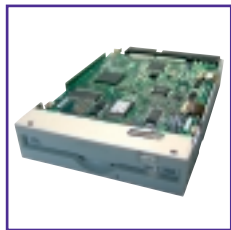
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GIGAMO MOd SecureMO

MCR 3230SS / MCR 3230AP
2.3 GB Magneto-Optical Disk Drives

- Maximum 2.3 GB capacity per MO disk
- 23 ms average access time
- Up to 8.4 MB/s internal data transfer rate
- Fully downward compatible to 1.3 GB, 640, 540, 230 and 128 MB MO disks
- ULTRA SCSI or ATAPI interface
- ZCLV mode for high performance

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THE POSSIBILITIES ARE INFINITE

The latest generation of **Fujitsu's** internal 3.5" MO Disk Drives offer superb performance and reliability.

The MCR3230SS with Ultra SCSI interface, and the MCR3230AP with ATAPI interface both have a storage capacity of 2.3 GB, an internal data transfer rate of 8.3 MB/sec, an access time of 23 ms and 8 MB read/write buffer. Both drives are downward compatible meaning all media from 2.3 GB down to 128 MB can be written to and read from.

Both drives offer a high motor spindle rotational speed and are supported by ZCLV (Zone Constant Linear Velocity) mode for 1.3 GB and 2.3 GB media. During a read or write transfer of large files, the ZLCV mode automatically adapts the rotational speed of the motor to the specific zone on the MO disk that the data is being transferred to or from. This new technology ensures that the best possible data transfer rate will always be achieved.

The MCR3230SS and MCR3230AP drives are designed for integration in PCs, workstations or industrial equipment. As they are only 1" in height, they can be assembled directly into the 3.5" floppy disk bay of a PC. They are ideal for all users who have a requirement to store, exchange, manage and archive larger volumes of data.

The strength of the MO disk as a storage medium is in the security it offers for your data, coupled with the convenience of direct access to your information and similar performance to your hard disk drive. A 2.3 GB MO disk costs roughly £16 equating to only 0.7 pence per MB.

Emails, presentations, graphic files, business data, images, audio and video files or documents – all your valuable data can be stored and archived safely on MO media and accessed quickly and simply.

Functional Specifications

Model		MCR 3230SS / MCR 3230AP					
Storage capacity		128 MB	230 MB	540 MB	640 MB	1.3 GB	2.3 GB
	Unformatted	725 bytes	725 bytes	778 bytes	2,584 bytes		
	Formatted	512 bytes			2,048 bytes		
Standard		ISO/IEC 10090	ISO/IEC 13963	ISO/IEC 15041		–	–
Interface	MCR 3230SS	ULTRA SCSI					
	MCR 3230AP	ATAPI					
Data transfer rate (max.)	Drive	1.84 MB/s	2.21 - 3.53 MB/s	3.95 - 6.64 MB/s	3.94 - 6.56 MB/s	4.41 - 7.54 MB/s	4.70 - 8.39 MB/s
	ATAPI interface	33.3 MB/s asynchron					
	ULTRA SCSI interface	20 MB/s synchron, 5 MB/s asynchron					
Recording density (µm/bit)		1.04 (24,424 bpi)	0.87 (29,308 bpi)	0.48 (52,900 bpi)		0.285 (89,100 bpi)	0.227 (111,894 bpi)
Track density (µm/track)		1.60 (15,875 tpi)	1.39 (18,275 tpi)	1.10 (23,090 tpi)		0.90 (28,200 tpi)	0.67 (37,910 tpi)
Seek time[1]	Random seek	23 ms (typ.)					
Average latency time		4.9 ms				7.3 ms	8.2 ms
Rotational speed		6,094 rpm				4,094 rpm	3,640 rpm
Recording code		2 - 7 RLLC		1 - 7 RLLC			
Load time		8 sec. (typ.)			10 sec. (typ.)		
Unload time		4 sec. (typ.)					
Buffer size		8 MB					

Physical Specifications

Power requirements		5 V DC ± 5%, 1.2 A (typ.), 2.8 A (max.)
Power consumption	Random read/write	MCR 3230SS: 5.8 W (typ.), MCR 3230AP: 5.1 W (typ.)
	Sleep	MCR 3230SS: 1.0 W (typ.), MCR 3230AP: 0.7 W (typ.)
Dimensions (H x W x D)		25.4 x 101.6 x 150.0 mm
Weight		480 g
Ambient temperature		Operating: 5°C to 45°C, Non-operating: 0°C to 50°C
Relative humidity		Operating: 10% to 85% (Non-condensing), Non-operating: 10% to 85% (Non-condensing)
Vibration		Operating: 3.92 m/s² (0.4G) (5 to 500 Hz, sine sweep), Non-operating: 9.80 m/s² (1.0G) (5 to 500 Hz, sine sweep)
Shock		Operating: 19.6 m/s² (2.0G) (10 ms, half-sine pulse), Non-operating: 49 m/s² (5.0G) (10 ms, half-sine pulse)
		Transport: 980 m/s² (100 G) (10 ms, half-sine pulse)
Altitude		Operating: Less than 3,000 m, Non-operating: Less than 12,000 m
Acoustic noise		Less than 30 dBA
Airflow requirement		0.02 m/s² min. or lower, 0.3 m/s or lower

Reliability Specifications

Mean time between failures	120,000 power-on hours
Component life	5 years or 20,000 power-on hours

NOTES:
[1] Mathematical average of 1,000 times of seek. Not including interface overhead and track address recognition time. It depends on the quality of the media, environmental conditions around the drive, etc.

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

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