Innovation, higher capacity, and improved performance for portable electronic devices

IBM

IBM family of Microdrives

Highlights

Provides high-capacity, high-performance removable storage ranging from 340 MB to 1 GB in a one-inch hard disk drive

Integrates with a variety of hand-held devices through use of the industry-standard CF+ ** **Type II format and compatibility with PCMCIA Type II (with an adapter)**

Provides reliable storage for digital cameras, handheld PCs, digital audio players, laptops, and other portable handheld devices

Incorporates leading-edge IBM technologies such as giant magnetoresistive (GMR) head technology, load/unload features, Enhanced Adaptive Battery Life Extender* 3.0, and TrueTrack* servo for maximum capacity, performance, and reliability

New applications for high-capacity, compact storage

The IBM Microdrive* provides break-through storage capacity for portable electronic devices in an industry-standard CF+ Type II form factor. This capacity enables users of digital cameras to capture more high-resolution photos without having to frequently download data. In addition, handheld PC users can access more applications and maintain large databases, while notebook users can back up and transport their data more quickly and conveniently.

Increased capacity, portability, and value

With capacities ranging from 340 MB to 1 GB on a single hard disk drive, the IBM family of Microdrives provides high-capacity, cost-effective personal storage. Weighing only 16 grams, the IBM Microdrive provides outstanding capacity in a compact, portable package—a key requirement for today's handheld devices.

Higher performance, improved productivity

With a maximum sustained data rate exceeding 4 MB/sec, the IBM Microdrive provides a significant performance improvement over current flash memory. As a result, large files can be transferred very quickly, and users can be much more productive.

IBM 1 GB Microdrive (model for illustration only)

For more information

Internet and e-mail:
• www.ibm.com/storage/microdrive
• drive@us.ibm.com

IBM TECHFAX document server:
• 408-256-5418 (requires touch-tone phone)
• International callers must call from a fax machine

IBM hard disk drive product information:
• 1 888-IBM-5214 (United States)
• 507-253-4110 (outside of the U.S.)

Model	IBM 1 GB Microdrive/IBM 512 MB Microdrive/ IBM 340 MB Microdrive DSCM-11000/DSCM-10512/DSCM-10340	
Configuration		
Interface	CF+ (ATA and PCMCIA compatible)	
Capacity (MB)	1000/512/340	
Sector size (bytes)	512	
Disks	1	
Areal density (max Gbits/sq. inch)	15.2	
Recording density (max KBPI)	435.0	
Track density (TPI)	35,000	
Performance		
Data buffer (KB)	128[1]	
Rotational speed (RPM)	3600	
Latency (average ms)	8.33	
Media transfer rate (Mbits/sec)	38.8 to 59.9	
Interface transfer rate (MB/sec)	11.1 (PIO mode 3) 13.3 (DMA mode 1)	
Sustained data rate, typical read or write (MB/sec)	2.6 (min); 4.2 (max)	
Seek time (read)		
Average (ms)	12	
Track-to-track (ms)	1	
Full-track (ms)	19	
Reliability		
Error rate (nonrecoverable)	< 1 per 1.0 E 13 bits transferred	
Load/unload cycles	300,000	

Power	**+3.3V power supply**	**+5V power supply**
Voltage requirement (auto-detect)	+3.3VDC, ±5% or	+5VDC, ±5%
Current (write)	250 mA	260 mA
Current (standby)	20 mA	20 mA
Power consumption efficiency (watts/MB)	0.000495/0.000967	0.00085/0.00166

Physical size		
Height (mm)	5 +0 / -0.10	
Width (mm)	42.80/±0.10	
Depth (mm)	36.40/±0.15	
Weight (g)	16 (max)	

Environmental characteristics	**Operating**	**Nonoperating**
Ambient temperature	0 to 65° C (meas. at unit)	-40 to 65° C
Relative humidity (noncondensing)	8 to 90%	5 to 95%
Maximum wet bulb (noncondensing)	29.4°	40.0°
Shock (half sine wave)	175 G (2 ms)	1500 G (1 ms)
Vibration (random [RMS])	0.67 G (5 to 500 Hz)	3.01 G (5 to 500 Hz)
Vibration (swept sine)	1 G 0-peak (5 to 500 Hz)	5 G 0-peak (10 to 500 Hz)

[1] 68 KB used for microcode

IBM family of Microdrives

- IBM 1 GB Microdrive, IBM 512 MB Microdrive, and IBM 340 MB Microdrive

- A Travel Kit for the IBM 1 GB, 512 MB, and 340 MB Microdrive, including Microdrive, PC Card adapter, and field case

IBM

www.ibm.com/storage/microdrive

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