

Hitachi Microdrive® 3K6
HARD DISK DRIVES



6GB, 4GB, and 3GB | 3600 RPM

High-capacity ultra-miniature hard drives for consumer electronics devices

Highlights

- > 6GB maximum capacity in a 1.0-inch hard drive
- > Removable or embedded storage for portable handheld devices
- > Industry standard CF+™ Type II or IDE interfaces available
- > Available with PC Card Type II adapter
- > High performance disk storage
- > Low power consumption

More storage, same compact size

Hitachi announces the Microdrive 3K6, a 3600 rpm, 1.0-inch hard disk drive designed to meet the needs of high-capacity, ultra-portable electronic devices. With a maximum capacity of 6GB, the drive holds 50 percent more than its predecessor – more photos, more music, more data – in the same compact size. The new Microdrive 3K6 delivers a higher data rate for improved performance and is available in an embedded version or as removable storage.

Consumer devices

- > Digital still cameras
- > Digital video cameras
- > Digital audio players
- > Personal Digital Assistants (PDA)
- > Personal Media Players (PMP)
- > Mobile phones

Features and Benefits

	Feature / Function	Benefits
Capacity	6GB maximum capacity	* 6,000 digital photos (1MB each)
		* 1.5 hours DV-quality MPEG-2 video, or 8 hours MPEG-4 video
		* 1,500 – 3,000 songs
Size	42.8 x 36.4 x 5.0 mm 16g	High-capacity, portable storage in a package the size of a matchbook
Reliability	200G operating shock 2000G non-operating shock	Exceptional ruggedness to withstand tougher handling and improve portability
Interface	CF+ Type II IDE	Flexibility to support embedded or removable designs
Performance	Sustained data rate up to 9.4MB/sec	30% better than prior generation
		Faster download of files

* Actual storage may vary depending on the compression rate applied.

Optimized embedded design

The embedded Microdrive 3K6, configured with a True IDE interface, offers Ultra DMA high speed mode. This compact, high-capacity Microdrive is a cost-effective, high-performance solution for handheld consumer electronics applications.

Leadership technology for miniaturization

Still no bigger than a matchbook and weighing less than a roll of film, the 6GB, single-disk Microdrive 3K6 leverages Hitachi leading-edge technologies including femto slider technology that enables higher capacities, as well as giant magneto-resistive (GMR) head technology, load/unload features, and True Track™ servo for maximum performance and reliability. If size matters – in both capacity and footprint – then Microdrive 3K6 is the ideal storage device.

Hitachi quality, support, and service

Hitachi Microdrive products are built on a mature architecture with more than five years of field-proven reliability. Designed to the highest quality standards, these superior hard drives are backed by the Hitachi warranty. Hitachi provides worldwide technical support and services to enable global customers to bring their products to market quickly.

Hitachi Microdrive® 3K6



Product Model names

Microdrive 3K6
HMS360606D5CF00
HMS360604D5CF00
HMS360603D5CF00

Microdrive 3K6
←
←
←

Specifications

Configuration	Removable	Embedded
Interface	CF+ Type II	IDE
Capacity (GB) ¹	6 / 4 / 3	←
Sector size (bytes)	512	←
Disks	1	←
Areal density (Gbits/sq.inch, max)	78	←
Performance		
Data buffer (KB) ²	128	←
Rotational speed (RPM)	3600	←
Latency average (ms)	8.33	←
Media transfer rate (Mbits/sec)	67 – 125	←
Interface transfer rate (MB/sec, max)	33 Ultra DMA mode-2 (True-IDE mode)	←
Sustained data rate (MB/sec)	4.9 – 9.4	←
Seek time (read, typical)		
Average (ms)	12	←
Track to track (ms)	1	←
Full track (ms)	24	←
Power-on to ready (sec)	1.0	←
Reliability		
Error rate (non-recoverable)	< 1 per 1.0 E 13 bits transferred	←
Load/unload cycles	300,000	←
Power		
Requirement	+3.3VDC / +5VDC (±5%)	+3.3VDC (±5%)
Current (write)	230mA / 280mA	230mA
Current (standby)	13mA / 15mA	13mA
Physical Size		
Height (mm)	5.0 / +0 / -0.10	←
Width (mm)	42.80 / ±0.10	←
Depth (mm)	36.40 / ±0.15	←
Weight (g, typical)	16	←
Environmental Characteristics		
Operating Temperature ³	0° to 70° C	5° to 60° C
Relative humidity (non-condensing)	8% to 90%	←
Max. wet bulb (non-condensing)	29.4° C	←
Shock (half sine wave)	200 G (2 ms)	←
Random Vibration (RMS)	0.67 G (5 to 500 Hz)	←
Vibration (swept sine)	1 G 0-peak (5 to 500 Hz)	←
Non-operating Ambient temperature	-40° to 70° C	←
Relative humidity (non-condensing)	5% to 95%	←
Max. wet bulb (non-condensing)	40° C	←
Shock (half sine wave)	2000 G (1 ms)	←
Random Vibration (RMS)	3.01 G (5 to 500 Hz)	←
Vibration (swept sine)	NA	←
Acoustics (Bels, Idle (Typical))	1.8	←
RoHS Compliant ⁴	Yes	←

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For more information:

Internet:

- > www.hitachigst.com/microdrive
- > www.hitachigst.com (Main Web site)
- > www.hitachigst.com/vpp (Reseller Web site)

Technical Support E-mail:

- > support_usa@hitachigst.com (N. America)
- > support_ap@hitachigst.com (Asia Pacific)
- > support_uk@hitachigst.com (EMEA and UK)

Technical Support Phone Numbers:

- > 1 888 426-5214 (N. America)
- > 65 6840 9595 (Asia Pacific)
- > 44 20 7133 0032 (EMEA and UK)
- > 49 6929 993601 (Germany)

How to Read the Microdrive Model Number

HMS360606D5CF00 = 6GB

H = Hitachi

M = Microdrive

S = Standard

36 = 3600 RPM

06 = Full capacity – 6GB

06 = Capacity this model – 6GB
(04 = 4GB, 03 = 3GB)

D = Generation code

5 = 5mm z - height

CF = Compact Flash Connector

0 = Reserved

0 = Reserved

¹ 1 GB equals one billion bytes when referring to hard drive capacity; accessible capacity may be less

² Total SRAM is 320KB, 192KB used for firmware

³ Measured at top cover

⁴ RoHS refers to the European Union Directive 2002/95/EC on the restriction of certain hazardous substances in electrical and electronic equipment.

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