

Frequently asked questions about the MiniDisc Data Drive

#	Question	Answer
1 2	What is the positioning for MD Data? Where are the applications for MD Data?	MD Data is being positioned as a floppy replacement for the personal computer. In addition, a line-up of MiniDisc-based consumer products is in planning (PDA, Still Camera, ViewCam, etc.). MiniDisc will offer a single media across many application platforms.
3	During the transition period, will floppy disk coexist with MiniDisc?	Yes, both storage options will coexist. Because the MiniDisc Data drive is being multiplexed over the existing floppy cable, the same storage slot can accommodate either an FDD or an MDD. The MDD i/f function will be handled on the motherboard of the host via a cell within the Super I/O chip (for more information, please visit the National Semiconductor booth).
4	What about CD-ROM?	CD-ROM and MiniDisc Data are complimentary storage technologies. CD-ROM is read only and an excellent tool for software distribution. MDD is rewriteable and its very compact form factor makes it an ideal portable storage solution for authoring personal multimedia content.
5	What is the schedule for the first MD Data product?	We will sample the 17mm drive after Q1 '96 with mass production in Q3 '96.
6	What is the target price of the data drive?	Target is \$200 OEM.
7	What about other form factors?	In 8/97 we are planning the release of a 12.5mm drive with a target 4X capacity.
8	Who makes the 2.5" media today?	There are multiple sources for the media: Sony, Kurare, TDK, Hitachi, Maxcell, Idemitsu, and Zeus.
9	Is there any plan for speed increases? Capacity increases?	A 2x speed desktop drive will be introduced at the end of 1996. A capacity jump to 650MB (4X) is planned for 1997.
10	What about multimedia capabilities?	Today, the 140MB disk can contain 365 still pictures plus 40 minutes of audio. However, the motion picture standard has not been finalized.
11	What is the power consumption of the 17mm drive?	2W/5V
12	What are the physical dimensions?	101.6mm x 123mm x 17mm
13	What kind of interface (i/f) does it use?	"MDIC" (Multidrive Interface Controller) developed by National Semiconductor as an enhancement to the floppy disk controller. NSC designed a cell within the Super I/O to control the software implementation of most of the i/f functions of the drive. In this manner, the drive cost and integration ease were significantly streamlined.
14	Who offers MiniDisc Data drives?	Today, Sony and Sharp. But, many AV manufacturers are jumping into the MD Audio market: JVC, Kenwood, Columbia, Sanyo, Fujitsu-Ten, Pioneer, Ten, Matsushita, etc.
15	Is the 140MB compressed data?	No, Minidisc data is uncompressed data at writing. Using popular compression algorithms available on the PC, 140MB can be compressed to 280MB+.
16	What are some of the specifications?	Data transfer rate: 150KB/s Access time: ~300ms Buffer memory: 512KB
17	Can the same data minidisk be used in Macintosh and AT/PC environments?	Yes.

Frequently asked questions about the MultiDrive Interface Controller

#	Question	Answer
1	What does MDIC stand for?	MultiDrive Interface Controller—literally it controls multiple kinds of drives with one controller and one interface.
2	What is MDIC?	MDIC is an interface used with a personal computer which can control MiniDisc Data Drives, Floppy Drives, Tape Backup Units, and even CD-ROM drives.
3	How does MDIC work with MiniDisc Data?	MDIC is comprised of hardware and software which uses the PC resources to do some common drive functions. The drive control and data signals are multiplexed over the floppy cable.
4	Does MDIC support external drives?	In conjunction with certain members of National's Super I/O Family, the floppy cable signals can be routed to the PC parallel port, allowing for an easy connection for external drives.
5	When will MDIC be available?	MDIC will be available in early 1996, concurrent with samples of Sharp MiniDisc Data drives which will be built for this interface.
6	Is this a new interface?	MDIC is an enhancement which can be used in conjunction with the standard floppy disk controller. The MDIC uses the floppy controller to interface to the drives. The drives in the PC system (including Sharp's MiniDisc Data Drives) still connect to the standard floppy cable. For more drive information, please see Sharp Corporation's booth here at COMDEX.
7	Will MDIC support 2X drives?	Yes, MDIC can support the roadmap of future MiniDisc Drives including 2X and 4X speeds.
8	In what forms will MDIC be available?	The MultiDrive Interface will be available as a standalone part or as a cell which can be integrated with National's Super I/O family of parts. This allows for retrofit solutions like ISA cards, as well as motherboard-based parts like integrated Super I/Os.
9	Why did National develop the MDIC?	National Semiconductor worked with Sharp Corporation to achieve the best MiniDisc Data system solution at the lowest cost. The MDIC is the direct result of streamlining the system to use host PC resources (like memory and processing power). This unique combination of hardware and software brings superior storage, multimedia capability, and a low entry cost for MiniDisc Data on Notebook and Desktop PCs.
10	What is the pricing for MDIC?	Published pricing for the MDIC cell has not been finalized at this time. However, for OEM interest please contact a National Semiconductor representative for the latest details.