RMS INSTRUMENTS
Data Recording Systems

HDS

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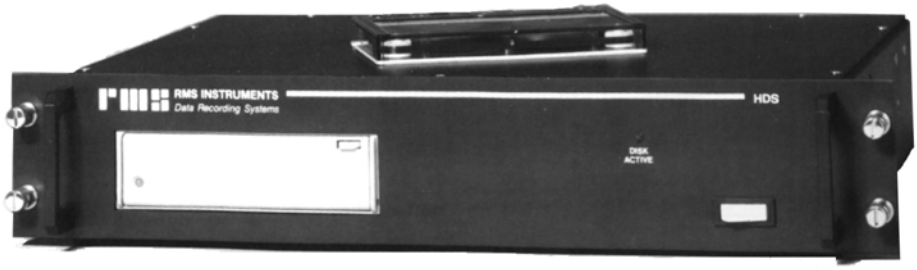
HARD DISK AND STREAMER TAPE DRIVE RECORDING SYSTEM



*** SCSI Interface**

*** Hard Disk Drive**

*** Quarter Inch Tape Cartridge (QIC)**

*** Simultaneous Recording or Back-up Mode**

The HDS series of data recording systems combines a hard disk drive with a 1/4 inch streamer tape drive operating on the Small Computer System Interface (SCSI). In general, the user may select a combination of a random access device, such as a hard disk, and a sequential device (tape). The disk and tape capacities can be selected to be compatible with your overall system requirements. Refer to the specifications for details.

The recording system is packaged in a 19 inch rack mountable enclosure and is available in AC or DC powered versions. The high performance disk drive is a sealed assembly and is double shock mounted. The 1/4 inch streaming tape drive has a 5-1/4 half-height form factor and is also shock mounted, making the system suitable for high vibration environments.

When the HDS recording system is used with the RMS Instruments' ***DGR33A or DAS8 data acquisition systems,*** it can record simultaneously to the tape and hard disk drives, providing redundant recording. This is a popular technique in airborne surveys as it immediately provides a transportable medium, while at the same time archiving additional flights on the hard disk for possible back-up if required. Alternatively, the user can select either the tape or hard disk independently. It also provides features such as back-up and restore. Both data files and data collecting programmes can be stored on tape or the hard disk drive. The data on hard disk is in MS-DOS* format, while the tape is in the QIC format.

* MS-DOS - Trademark of Microsoft Corp.

SPECIFICATIONS

SIZE:
19. in. W x 3.5 in. H x 12 in. D
(48.26 x 8.89 x 30.48 cm)

WEIGHT:
10 pounds (4.5 Kg)

POWER REQUIREMENTS:
-1 : 12 - 28 VDC ±10%
-2 : 115/220 VAC
58 W max

INTERFACE:
SCSI, SCSI II

BACKUP SPEED: (for approx. 30 MB file)
540-MB disk onto QIC-525 tape: 10.8 MB/min
540-MB disk onto QIC-150 tape: 6.3 MB/min
2.26-GB disk onto QIC-525 tape: 10.5 MB/min.

ENVIRONMENT:
(For ST32171N disk drive and TDC3800 tape drive; specs. may vary slightly for other devices. Consult RMS Instruments.)

Operating Temp.: +5 to +50°C
Storage Temp.: –40 to +70°C
Relative humidity:
disk drive: 5 - 90% (N.C.)
tape drive: 20 - 80% (N.C.)
Altitude:
disk drive: –1,000 to 10,000 ft.
tape drive: 13,000 ft. maximum
Vibration (operating; single shock mount):
disk drive: 0.5G pk. (5 - 350 Hz)
tape drive: 0.035 mm (5 - 60 Hz)
0.5G (60 - 500 Hz)
Shock (operating; single shock mount):
disk drive: 2.0G (1/2 sine @ 11 msec)
tape drive: 10.0G (1/2 sine @ 11 msec)

HARD DISK AND TAPE DRIVE OPTIONS:

The information below is circa 1997. Consult RMS Instruments for the latest options.
Devices marked thus [*] are no longer produced by the manufacturer.

Disk Drive	***Average seek time [msec]***	***Non-recoverable errors per bits read***
80 MB (CP30080*)	< 19.0	1 per 10^{12} bits
540 MB (CFA540*)	10.5 read / 11.5 write	1 per 10^{14} bits
2 GB (ST32171N)	8.8 read / 9.8 write	1 per 10^{14} bits
2.26 GB (ST32272N)	8.8 read / 9.8 write	1 per 10^{14} bits

	Format		
Tape Drive	***Write***	***Read***	***Tape Cartridge Type***
60 MB (TDC3620*)	QIC-24	QIC-24	DC600A, DC300XLP (45MB)
150 MB (TDC3660)	QIC-150	QIC-150 QIC-24	DC6150, DC6250 (250 MB)
525 MB (TDC3800)	QIC-525 QIC-150	QIC-525 QIC-150 QIC-24	DC6525 DC6150

ORDERING INFORMATION:

HDS *X* - *Y* - *Z*

X : hard disk capacity; e.g., '2260' for 2.26 Gbyte
Y: tape drive capacity; e.g., '525' for 525 Mbyte
Z : Power requirement, e.g., '1' for 12 - 28 VDC
'2' for 115/220 VAC

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE