

MODEL 9450 1553

DATA TRANSFER SYSTEM

Multi-Port Data Storage System Applications

- ✓ **High Reliability Data Recording**
- ✓ **Severe Military Environments**
- ✓ **Rotary/Fixed Wing Platforms**
- ✓ **Shipboard/Ground Mobile**

SYSTEM DESCRIPTION

Kaman's Model 9450 1553 Data Transfer System (DTS) is designed specifically for use as a data transfer device in military aircraft applications. The unit operates on the MIL-STD-1553 multiplex bus with either A or B protocols, selectable at its discrete interface. The system is compatible with existing protocols and is programmable to suit other applications.

The Model 9450 DTS is a low power, lightweight solution for applications requiring a reliable data transfer function with MIL-STD-1553 interface. The DTS consists of a small electronic unit which accepts two separately addressable Type II PCMCIA (Personal Computer Memory Card International Association) Flash Memory cards and contains memory control electronics, data buffer, MIL-STD-1553 interface and power supply.

The PC cards insert into two slots on the front panel of the DTS, which features a rugged retention and ejection mechanism with a sealed field access door.

Kaman's Sentinel[®] PC cards utilize the PC-Card ATA standard command set and are compatible with PCMCIA equipped computers and laptops for programming and downloading purposes.

The Model 9450 1553 Data Transfer System and its wide range of other data storage and transfer products provide complete solutions for your data storage requirements.

PERFORMANCE CHARACTERISTICS

System Environments

Vibration		5G
Shock:	(Service)	8G, 11msec, Half Sine
	(Crash Safety)	16G, 11msec, Half Sine
Temperature:	(Operating)	-40 ⁰ C* to +71 ⁰ C
	(Non-Operating)	-54 ⁰ C to +85 ⁰ C
Acceleration:	(Operating)	9G
	(Non-Operating)	13.5G
Drop		MIL-STD-810 Handling
Altitude		80,000 feet
Humidity		100% condensing
Salt Spray		per MIL-STD-810
Sand and Dust		per MIL-STD-810
Hydraulic Fluids		per RTCA/DO-160C
EMI		per MIL-STD-461

* Optional Operation at -54⁰C available

Data Storage Capacity

128 MB – 16 GB per PC card

Interface

MIL-STD-1553, A/B, Notice 2

Data Rate

To/From Card 8 Mbytes/sec (typical) read
To/From Card 6 Mbytes/sec (typical) write
To/From DTS 90 Kbytes/sec (standard 1553 data rate)

Average Access Time 5.5 msec

Power Less than 8 Watts (typical, 10 watts maximum) at 28 VDC Aircraft Power Per MIL-STD-704A or MIL-E-7894

Physical Information

Configuration: 2 PC cards

Size: 6.42”L x 4.92”W x 2.20”H

Weight: 4.25 pounds (including cards)

Reliability and Maintenance

Memory Life 2,000,000 Write Cycles minimum per PC card sector

Data Reliability <1 non-recoverable error in 10¹⁴ bits read

MTBF 40,000 hours (AIC @ 55⁰C) excluding cards