DILOG MODEL DQ152
1/2-INCH MAGNETIC TAPE COUPLER
DEC MicroVAX II/Q-BUS COMPATIBLE

A dual height coupler, interfacing industry standard 1/2-inch formatted start/stop, streamer or cached streamer tape drives to DEC MicroVAX II, MicroPDP-11 or LSI-11 Q-bus based computer systems.

FEATURES

- TS11/TSV05 compatible
- Block mode memory compatible
- 64K byte data buffer
- 22-bit addressing
- Inhibit DMA increment
- Supports tape drive data rate of 1.25 MBytes per second
- Supports industry-standard 1/2-inch tape drives
- NOVRAM
- Automatic diagnostic self-test
- On Board Boot
- Parity support

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SOFTWARE SUPPORT
The DQ152 is transparent to the TS11/TSV05 software driver contained in RTI1, RSX11M++, RSTS, MicroVMS, ULTRIX, UNIX, and DMS. Consult the factory for additional software support.

DATA BUFFER
The DQ152 contains a 64K byte data buffer to support the attachment of high performance GCR start/stop or cached streamer tape drives to the Q-bus by reducing software generated latencies between the tape drive and Q-bus.

NOVRAM (Non-Volatile Random Access Memory)
The DQ152 contains a NOVRAM for the storage of user selectable options, such as device address, vector address, dwell time, and other Q-bus parameters. Selection of the Pertec Interface performance parameters for the tape drive are also controlled from the NOVRAM. With the on-board NOVRAM the user does not have to remove the DQ152 from the system to change configuration information.

ERROR CHECKING FEATURES
To increase the data integrity of the tape subsystem, the DQ152 contains parity generation and verification circuitry. This circuitry checks for the loss of data as data travels through the data paths, data buffer and interconnect cables between the DQ152 and tape drive. Additional features supported by the coupler are volume check, logical end of tape and data error status from the tape drive.

AUTOMATIC SELF-TEST
The DQ152 is supplied with an automatic self-test function that is run each time the coupler is powered up. A card-edge LED activity indicator will flash after each successful completion of the on-board self test. Should the self test fail, the DQ152 disallows any communications between the CPU and tape drive, which protects critical data from being overwritten. The DQ152 will then flash a code via the card-edge LED indicator signifying the type of error encountered.

USER BENEFITS
Increased data integrity, ease of user configuration, increased system performance, improved self-test diagnostics, smaller size, reduced power and higher MTBF.

DOCUMENTATION
Each coupler is supplied with an installation and operations manual.

OPTIONS
Formatted tape drive I/O cables, maintenance manual, factory integration of customer supplied drives. Diagnostic Access Port (DAP) is a RS232 connection for extensive offline field diagnostics, or set-up of the NOVRAM.

TAPE DRIVE SUPPORTED
DRIVE TYPE—Reel to reel, 1/2" wide ANSI/IBM compatible tape or formatted 1/2" cartridge tape drives.

The Model DQ152 interfaces to a Pertec industry/standard single, dual or tri-density 1/2" formatted GCR start-stop or high performance cached GCR streaming tape drives. The coupler is compatible with tape drives from such manufacturers as:

- CIPHER MEGATAPE
- CONTROL DATA PERTEC
- DIGI-DATA QUALSTAR
- IDT S.E. LABS (EMI)
- FUJITSU STC
- KENNEDY TELEX

For additional tape drive support, contact the factory.

FORMAT DENSITIES
800 BPI NRZI, 1600 BPI PE, 3200 BPI PE and 6250 BPI GCR.

READ/WRITE SPEED—Up to 1.25 MBytes per second.

DRIVE TRANSFER RATE—Up to 1.25 MBytes per second.

COUPLER SPECIFICATIONS
The coupler is completely contained on one dual height module 5.22 inches (13.2 cm) wide by 8.85 inches (20.5 cm) high and plugs into one dual slot in a Q-Bus backplane.

BASE ADDRESS (User selectable) factory set 772550/772522.
Consult the factory for additional address requirements.

TSDB/TSBA 772520 772524 772530 772534
TSBR 772522 772526 772532 772536

INTERRUPT VECTOR ADDRESS—User programmable 0-774.

ADDRESS RANGE—Q-Bus memory to 4 Mbytes.

PRIORITY LEVEL—Factory set at BR4, user selectable BR5, 6 & 7.

TAPE DRIVE I/O—industry standard formatted I/O.

CONNECTOR—Two 50 pin ribbon cable type mounted on outer edge of controller module. Mate is 3M 3452-5000 or equivalent.

POWER—+ 5 volts @ 2.5 amps.

ENVIRONMENT—Operating temperature 50°F to 104°F, humidity 10%-90% non-condensing.

SHIPPING WEIGHT—5 pounds, including documentation.