

Software Product Description

PRODUCT NAME: DEC FDDIcontroller/TURBOchannel Software Microcode,
Version 1.0

SPD 44.47.00

DESCRIPTION

The DEC FDDIcontroller/TURBOchannel Software Microcode is for the DEFTA-FA, a Single Attachment Station (SAS) with 62.5/125 multimode fiber media support. The DEC FDDIcontroller/TURBOchannel complies with Digital Equipment Corporation's TURBOchannel bus specification and ANSI X3T9 FDDI standard. FDDI stations can be configured up to 2km apart in the local area network. Customers can connect supported systems that incorporate the TURBOchannel I/O bus to FDDI local area networks.

Characteristics of DEC FDDIcontroller/TURBOchannel Software Microcode are:

- Initiates diagnostic self-test automatically at power-up and also when initiated by host (DEC 3000 AXP) console
- Performs device initialization
- Implements ANSI draft FDDI Station Management (SMT) V7.2
- Supports Full Duplex FDDI (FDX) in a point-to-point configuration with other Digital FDDIcontrollers with FDX, FDDIcontrollers with Digital's licensed FDX, and with GIGAswitch
- Supports ANSI FDDI MIB II and DEC MIB extensions

Full Duplex FDDI (FDX) is a special feature which supports enhanced performance in point-to-point connections and in switched FDDI LANs connected with GIGAswitch. FDX allows concurrent transmission and receipt of datagrams using a protocol that does not use a token. Therefore, transmission of data is never delayed due to lack of a token. FDX is a Digital proprietary protocol but can be licensed from Digital.

FDX has many advantages:

- No transmit delay waiting for a token
- Increased bandwidth between two nodes or multiple nodes
- Reduced round trip latency because data transmission does not prevent message reception

- Fully FDDI compatible such that a DEFTA can increase the performance of a server even when the clients are using FDDI controllers that are not capable of FDX operation, or when the clients are using Ethernet

The DEC FDDIcontroller/TURBOchannel hardware is shipped from the factory with the DEC FDDIcontroller/TURBOchannel Software Microcode preloaded. The microcode resides in electronically alterable memory within DEC FDDIcontroller/TURBOchannel hardware, and can be updated via console utility if new versions of the microcode are issued. It is stored in non-volatile memory which retains the contents even during power-off states. The DEFTA-FA is customer installable.

HARDWARE REQUIREMENTS

DEC FDDIcontroller/TURBOchannel is qualified on the following systems:

DEC 3000 Model 400 AXP Workstation
DEC 3000 Model 400S AXP Server
DEC 3000 Model 500 AXP Workstation
DEC 3000 Model 500S AXP Server

DEC 3000 AXP systems support multiple DEC FDDIcontroller/TURBOchannels. Support of DEFTA is dependent on the number of slots available in the hardware. Two modules per system were tested. DEFTA requires one TURBOchannel slot.

The DEFTA-FA can be connected as an SAS device to an FDDI LAN via an ANSI-compliant FDDI wiring concentrator such as the DECconcentrator 500 or an FDDI hub such as the DECchub 900. It can be configured with a standalone FDDI concentrator as part of a workgroup. For larger LANs requiring more flexibility, it can be connected to a dual ring, a tree of concentrators, or a dual ring of trees topology.

Point-to-point configuration with two FDDIcontrollers is another supported formation. If the configuration uses two Digital FDDIcontrollers that implement FDX, Digital FDX licensed controller, or GIGAswitch, there is enhanced performance. Digital's options supporting

FDX include the DEC FDDIcontroller/TURBOchannel (DEFTA) and DEC FDDIcontroller/EISA (DEFEA).

Cables are not included. The DEFTA has ST connectors and thus requires any fiber cable with ST-type connectors. Use BN24D-XX for FDDI MIC-to-2.5mm bayonet ST-type connector patch cable. Use BN24E-XX for dual 2.5mm bayonet ST-type connector patch cable.

Electrical Specifications:

5 volts, 2.0 amps maximum
12 volts, 0.1 amps maximum

Module Size:

4.600" x 5.675"

SOFTWARE REQUIREMENTS

Drivers for DEC FDDIcontroller/TURBOchannel are included with the following operating systems:

DEC OSF/1® AXP Operating System V1.2
OpenVMS AXP Operating System V1.5

The DEC OSF/1 AXP Operating System V1.2 driver includes support for TCP/IP.

DECnet/OSI for DEC OSF/1 AXP V1.0 and DECnet for OpenVMS AXP V1.5 support DEFTA.

In addition to the Station Management support on the module, the product has additional capabilities for network management applications. The DEC OSF/1 AXP operating system supports Simple Network Management Support (SNMP) agent, netstat, and fddi_config. The netstat application can be used to report statistics. The fddi-config application can be used to set characteristics of the controller. DECnet has mop support.

SOFTWARE LICENSING

The software license required to run DEC FDDIcontroller/TURBOchannel Software Microcode is included with the hardware. This license cannot be purchased as an independent line item.

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about Digital's licensing terms and policies, contact your local Digital office.

SOFTWARE WARRANTY

Warranty of this software microcode product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

The above information is valid at time of release. Please contact your local Digital office for the most up-to-date information.

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