

Catalyst 5000 Fiber Distributed Data Interface (FDDI) Module

Wide Variety of Fiber Distributed Data Interface (FDDI) Connectivity and Switching Options

The Catalyst® 5000 Family Fiber Distributed Data Interface (FDDI) module provides the following functionality:

- A backbone (A/B port) link for connecting switched Ethernet or Token Ring segments to FDDI
- Ability to connect FDDI workgroups to other workgroups using the Catalyst 5000 Fast Ethernet, Gigabit Ethernet, or ATM modules

The FDDI module is available in a variety of media/connector types: multimode fiber module with MIC connector; Category 5 unshielded twisted pair (UTP) module with RJ-45 connector; and single-mode fiber with ST connector.

Figure 1 Catalyst 5000 FDDI Module



Applications

Backbone Connection

The Catalyst 5000 FDDI module supports connectivity of Ethernet or Token Ring segments into FDDI networks using translational bridging. Its rich feature set includes support for IP fragmentation, Automatic Packet Recognition and Translation (APaRT), 802.1d spanning tree, and maximum transmission unit (MTU) discovery.

Connectivity to Other Line Card Modules and FDDI Switching
Heterogeneous networking environments can benefit from the ability of Catalyst 5000 Family switches to connect workgroups based on Ethernet, Fast Ethernet, Gigabit Ethernet, or Asynchronous Transfer Mode (ATM) to FDDI-based networking resources.

Features and Benefits

- Supports high-performance translation from Ethernet, Fast Ethernet, Gigabit Ethernet, and ATM to FDDI, as well as connectivity between FDDI modules
- Flexible network management: supports all industry-standard management information bases (MIBs), Simple Network Management Protocol (SNMP) standard network management tools, and station management (SMT) version 7.3.
- Hot-swap capability: FDDI line cards can be removed and replaced without resetting the Catalyst 5000 Family switch or losing connectivity with stations attached to other line cards
- Slot independence: FDDI modules can be inserted into any available slot of a Catalyst 5000 Family switch (except the Supervisor module slot), giving network administrators configuration flexibility
- Software upgrade ready: no added hardware needed to support future Cisco software enhancements
- Variety of media options: supports a variety of connectors and media types; allows the FDDI line card to be used in various wiring/connector plans within either FDDI- or copper distributed data interface (CDDI)-based networks
- Supports spanning-tree algorithm on physical LANs for fault-tolerant connectivity
- Supports Cisco Discovery Protocol
- Power-up diagnostics, allowing confirmation of system status

FDDI Module Specifications

FDDI Module Features and Specifications

Network Management Support

- Cisco Discovery Protocol

- SNMP MIB II (RFC 1213)
- FDDI MIB (RFC 1512)
- Interface extensions MIB (RFC 1573)
- 802.1D spanning tree MIB
- Bridging MIB (RFC 1493)
- FDDI SMT 7.3
- Cisco WorkGroup MIB
- CiscoWorks for Switch Internetworks (CWSI) application

Frame Processing

- Fragmentation (RFC 791)
- Translation (802.1h, 802.1i)
- APaRT

Dimensions (h x w x d)

- 1.25 x 15.5 x 16.5 in. (3.1 x 49.1 x 52.3 cm)

Environmental Conditions

- Operating temperature: 32 to 104 F (0 to 40 C)
- Storage temperature: -40 to 167 F (-40 to 75 C)
- Relative humidity: 10% to 90%, noncondensing
- Storage altitude: 40,000' (12,192 m)

Safety Certifications

- UL 1950 (USA)
- EN 60950 (1993 Europe)
- CSA-C22.2 No. 950-93 (Canada)

Electromagnetic Emissions Certifications

- FCC Class A (Part 15)
- EN 55022 Class B on shielded UTP
- VDE B
- VCCI Class 1
- CE Mark

Maximum Station-to-Station Cabling Distance

- Category 5 UTP-based module: 328' (100 m)
- 62.5/125-micron multimode fiber-based module: 1.2 miles (2 km)
- Single-mode, fiber-based module: 18 miles (30 km)

LED Indicators

- Line Card Status: green (diagnostics passed)/red (diagnostics failed)/orange (line card disabled)
- Ring Op LED: green (primary ring operational)/orange (secondary ring operational and primary ring not operational)/off (both rings nonoperational)
- Thru LED: green (FDDI/CDDI A and B port connected to the primary and secondary ring)/off (non-thru mode)
- Wrap A LED: green (FDDI/CDDI A port connected to the ring, B port isolated)/off (Nonwrap A condition)
- Wrap B LED: green (FDDI/CDDI B port connected to the ring, A port isolated)/off (Nonwrap B condition)



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