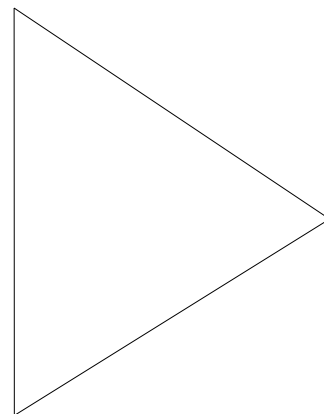
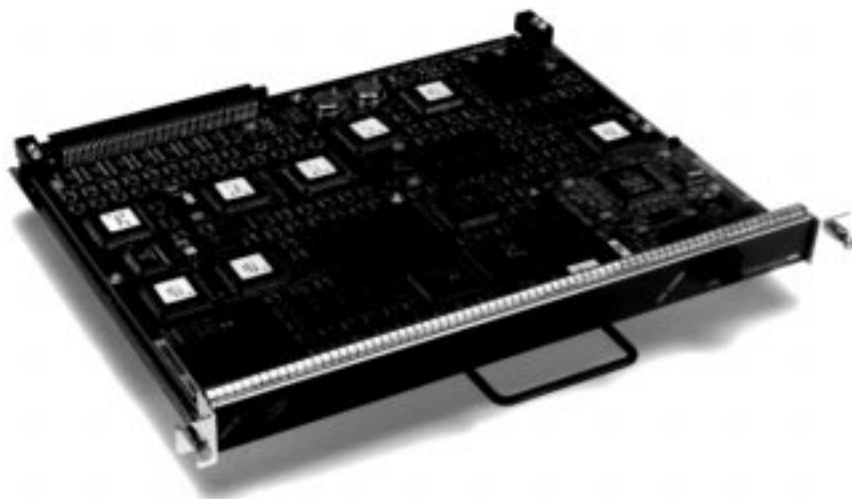


Data Sheet



ATM Interface Processor for the Cisco 7000 Router Family

The Cisco Systems ATM Interface Processor (AIP) for the Cisco 7000 family of router platforms, was the industry's first commercially available, standards-based Asynchronous Transfer Mode (ATM) router interface. (The Cisco 7000 family includes the Cisco 7000 and Cisco 7500 series routers.) The dual-RISC and dual-segmentation and reassembly (SAR)-based AIP is installed in more than one thousand Cisco 7000 family routers connecting LAN and WAN internetworks to ATM cell-switching networks. An important part of the CiscoFusion™ architecture, the AIP provides key ATM internetworking services to campus ATM networks that use high-performance platforms such as Cisco's LightStream® 100 switch for workgroup and small campus ATM networks, LightStream 2020 switch for multiservice enterprise ATM switch applications, and Catalyst™ 5000 ATM-capable multilayer LAN switch.



The ATM internetworking services that the AIP supports are included in the Cisco Internetwork Operating System (Cisco IOS™) software for ATM and switching, an advanced infrastructure that binds together all Cisco ATM and LAN switching products to enable the deployment of scalable switched internetworks. These include LAN Emulation and virtual LAN (VLAN) internetworking services, ATM Address Resolution Protocol (ARP) services for Classical IP over ATM as defined in RFC 1577, connectionless services for Switched Multimegabit Data Service (SMDS) and ATM internetworking, and native protocol support via multiprotocol encapsulation as defined in RFC 1483.

The AIP also supports real-time multimedia applications such as desktop videoconferencing and collaborative computing with point-to-multipoint (multicast) signaling, which permits the creation of one-to-many switched virtual connections.

The AIP includes an intelligent traffic management feature that allows bursty traffic to be shaped as it is transmitted into an ATM network—important when using one of the many emerging public ATM networks that require conformance to a traffic contract.

ATM Interface Processor Features

- Single native ATM port with transmission rates up to 155 Mbps over a variety of ATM media interfaces
- Traffic shaping to control bursty data traffic; eight user-definable peak rate queues in addition to user-definable average rate and burst size limits for each virtual connection
- Supports ATM Adaptation Layers (AALs) 3/4 and 5
- Dual RISC and dual-SAR design for high-performance cell and packet processing
- Up to 512 simultaneous packet segmentations or reassemblies

ATM Internetworking Services

- Cisco Internetwork Operating System (Cisco IOS) software for ATM
- ATM Forum LAN Emulation and virtual LAN internetworking services; LAN Emulation Configuration Server (LECS), LAN Emulation Server (LES), Broadcast and Unknown Server (BUS), and LAN Emulation Client (LEC) components; up to 256 VLANs
- ATM ARP server for Classical IP and ARP over ATM support as defined in RFC 1577 and RFC 1755
- Multiprotocol routing over ATM for IP, Novell IPX, DECnet, AppleTalk Phases 1 and 2, CLNS, XNS, and Banyan VINES via multiprotocol encapsulation as defined in RFC 1483
- ATM connectionless services as specified in ITU-T I.364 for SMDS over AAL 3/4; routing per RFC 1209 is included

ATM Connection Types

- Permanent virtual connections (PVCs) and switched virtual connections (SVCs) with idle disconnect
- Virtual channel and virtual path (VCI and VPI) termination
- Standard ATM Forum UNI signaling; point-to-point and point-to-multipoint signaling
- Up to 2048 ATM virtual connections maximum

ATM Media Interface Types

- Complies with ATM Forum, ITU-T, and ETSI specifications
- Can be self-timed from internal clock or network-timed to support isochronous applications
- SONET/SDH STS-3c/STM-1 155-Mbps multimode fiber, SC duplex connector, up to 3 km
- SONET/SDH STS-3c/STM-1, 155-Mbps single-mode fiber, ST connectors, up to 15 km
- DS3 44.736-Mbps coaxial cable, BNC connectors
- E3 34-Mbps coaxial cable, BNC connectors
- TAXI 4B/5B 100-Mbps multimode fiber, MIC connectors, up to 3 km

Additional Features

- Interim Local Management Interface (ILMI) support for address prefix acquisition and ATM service address registration
- Responds to/generates F5 (loopback) Operations and Maintenance (OAM) cells
- Flash EPROM for downloading new software images
- CiscoWorks™ network management integration; traffic shaping setup and PVC establishment through local management console or using Simple Network Management Protocol (SNMP) and CiscoView™
- Three LEDs for quick status checks and problem identification
- Full SNMP agent and support for RFC 1213 interface MIB, the DS3 MIB per RFC 1407, and future support for emerging AToM MIB specifications
- Supports online insertion and removal (OIR) feature, which allows an AIP to be removed or installed without turning off system power

Regulatory Approvals—Safety and EMI/RFI

UL 1950

EN 60950

AS 3260 / AS TS001

AS/NRZ 3548: 1992 Class A

EN 50082-1: 1992

EN 55022: 1987 class B

CSA 22.2-950

EN 41003

FCC Part 15, class A

VCCI Class II

FDA Class 1 laser

CSA 22.2-950

Access Without Compromise, Catalyst, CD-PAC, CiscoFusion, Cisco Internetwork Operating System, Cisco IOS, CiscoView, CiscoWorks, HyperSwitch, LAN²LAN, LAN²LAN Enterprise, LAN²LAN Remote Office, LAN²PC, LightStream, Newport Systems Solutions, PC²LAN/X.25, Point and Click Internetworking, SMARTnet, SynchroniCD, The Cell, The Packet, UniverCD, WNIC, Workgroup Director, Workgroup Stack, and XCI are trademarks, Access by Cisco and Bringing the power of internetworking to everyone are service marks, and Cisco, Cisco Systems, and the Cisco logo are registered trademarks of Cisco Systems, Inc. All other trademarks, service marks, registered trademarks, or registered service marks mentioned in this document are the property of their respective owners.



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