

MiLAN[™]
TECHNOLOGY

*MiLAN Technology...
networking for you*

wireless 

switching 

media
conversion 

print servers 

networking
solutions
guide

fall 2005

Expand your network – without wires – at speeds up to 54 Mbps!

Introducing MiLAN's new enterprise-class 802.11g Wireless Access Point/Bridge and Adapters – Providing superior security and management features that are needed for demanding enterprise environments. MiLAN's new ShAir AccessG Pro Access Point and ShAir Access54 wireless client adapters will provide secure convergence delivery of Voice, Video, and Data in your network.



ShAir AccessG Pro Wireless Access Point / Bridge
MIL-W2332G

**New
802.11g
Wireless
Products!**

Advanced Features:

- IEEE 802.11g 54Mbps performance backwards compatible with IEEE 802.11b
- Built in DHCP Client and Server, SYS LOG, WDS
- Robust security including the new WPA, up to 128-bit WEP encryption, 802.1x authentication and dynamic key management, and disabled SSID broadcast (EAP-TLS, EAP-TTLS, PEAP, EAP-MP5)
- Simplify wireless connections with built-in configuration and site manager utility plus support for SNMP v1 / v2
- Layer 2 through 4 ACLs to permit and deny access
- Antenna alignment tool to fine tune building to building bridge connections
- Wireless client isolation ideal for Hot Spot applications



ShAir Access54 Wireless CardBus Adapter
MIL-W2731G



ShAir Access54 Wireless USB Adapter
MIL-W2831G



ShAir Access54 Wireless PCI Adapter
MIL-W2631G

See page 2 for ordering information.



NOTE: MiLAN products are used in networks throughout the world. Accordingly, we provide power supplies based on regional standards. When ordering, please append the appropriate product model numbers with either "US" (United States), "UK" (United Kingdom) or "EU" (European Union) designations. If you have more specific country requirements, please ask. It is highly likely we can accommodate you.

wireless

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switching

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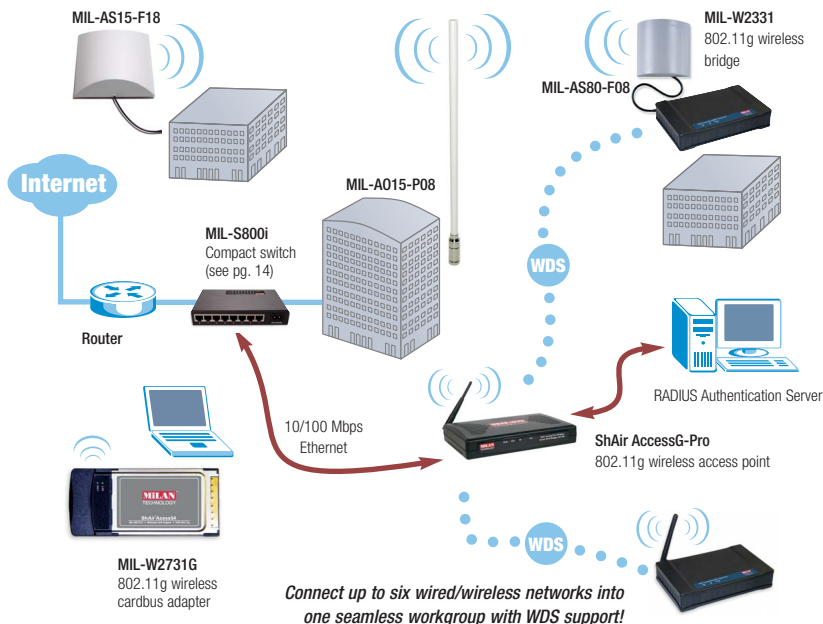


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wireless solutions

MiLAN makes wireless networking simple! Visit www.milan.com for our easy-to-use online Wireless Networking Solution Finder, terminology glossary, white papers and more.



NOTE: See pg. 18 for Power over Ethernet solutions.

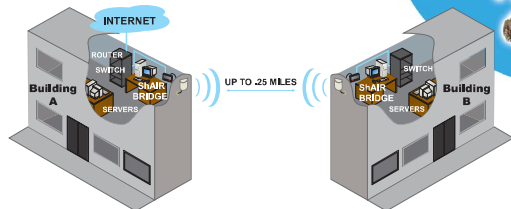
Everything you need to connect two buildings – without wires!

MiLAN's ShAir AccessG™ Wireless Building-to-Building Bridge Kit is the easiest and most affordable way to start bridging multiple buildings together at an amazing speed of 54Mbps – all without wires. Experience throughput several times faster than E1/T1, up to 54Mbps with no monthly leased line charges.

Includes:

- (2) MIL-W2331G Wireless Bridges
- (2) MIL-AS80-F08 Antenna Extension Kits
- (2) 6 meter LMR-400 Cables
- (2) Antenna Mounting Kits
- (2) Surge Arrestors

Complete Wireless Kit!



802.11g wireless bridge kit

ShAirAccessG Wireless Building-to-Building Bridge Kit

MIL-WBGK



ShAir AccessG-Pro Wireless Access Point

Enable enterprise class network environments with secure robust wireless connectivity

Designed to connect Local Area Networks, the new ShAir AccessG-Pro 802.11g Wireless Bridge delivers high data rate, and allows personnel in a corporate campus environment to access all local and remote network resources.

With flexible management features the W2332G ShAir AccessG-Pro supports advanced wireless security features including 64-bit or 128-bit key WEP wireless data encryption, 802.1x, the new Wi-Fi Protected Access (WPA), disabled SSID broadcast, wireless client isolation, and MAC address filtering to block unauthorized wireless clients.

MILAN's new ShAir AccessG Pro offers the ultimate flexibility in deploying wireless capability in today's networks. **Compliant with IEEE Std. 802.3af Power over Ethernet Power Device**, the ShAir AccessG Pro can be directly powered up from a PoE Hub or Switch.



802.11g wireless access point

ShAirAccessG-Pro 802.11g Wireless Bridge / Access Point

MIL-W2332G

ShAir Access54 Wireless Adapters

MiLAN offers the most cost-effective wireless solutions – for desktop and notebook computers

By taking advantage of the new IEEE 802.11g wireless standard, you'll be moving data and digital multimedia files on your wireless networks at a blazing fast 54 Mbps. All ShAIR Access54 adapters are also backwards-compatible with the older IEEE 802.11b standard for even greater versatility and flexibility.

To protect your valuable data and privacy, each ShAIR Access54 is equipped with the highest wireless security technology available. In addition to supporting both 64-bit and 128-bit WEP (Wired Equivalent Privacy) encryption, ShAIR Access54 adapters now support WPA (Wi-Fi Protected Access) and IEEE802.1x RADIUS Authentication.



802.11g wireless adapters

ShAirAccess54 Wireless CardBus Adapter

MIL-W2732G

ShAirAccess54 Wireless PCI Adapter

MIL-W2631G

ShAirAccess54 Wireless USB 2.0 Adapter

MIL-W2831G

ShAir AccessG™ Wireless Bridge / Access Point

High-speed 802.11g (54 Mbps) wireless bridge / AP with RADIUS authentication support

Share your high-speed Internet connection or network resources wirelessly at speeds up to 54 Mbps! Authenticate authorized users with IEEE 802.1x services and your RADIUS server. Protect your wireless network with the latest WiFi Protected Access (WPA) support, using TKIP and PreShared Key methods.

And with Wireless Distribution System (WDS) support the ShAir AccessG bridge enables you to connect up to

six wired/wireless networks into one seamless workgroup.

- Simplified configuration and management via any Web browser.
- Built-in support for Wireless Distribution System (WDS)
- Enterprise-level 802.1x RADIUS Authentication security
- Control client access via Access Control List (ACL)

802.11g wireless bridge

ShAirAccessG Wireless Bridge / Access Point

MIL-W2331G



When used in conjunction with MILAN's EmPowered Power over Ethernet solutions (see page 18), the ShAir AccessG AP/Bridge can be deployed in places where power sources are not readily available (e.g. ceiling and rooftops), and an additional savings on electrical and installation costs can be achieved.



ShAir Bridge™ Antenna Extensions

Indoor/outdoor antenna kits include high-quality antenna, mount, cable and lightning arrestor

MiLAN's ShAir Bridge antenna extension kits provide rugged, flexible and cost-effective solutions for tough distance connections. ShAir Bridge uses high gain directional or omni directional antennas both indoor and outdoor for linking building to building across cities, campuses, warehouses, and workgroups. Six-meter high-quality, low loss LMR-400 cable is provided.



outdoor antenna kits

Pole-mount Omni Directional 8dBi gain -vertical beam width 15 degrees	MIL-AO15-P08
Pole or wall-mount Directional 8.5dBi gain -V/H beam width 80 degrees	MIL-AS80-F08
Pole or wall-mount Directional 14dBi gain -V/H beam width 30 degrees	MIL-AS30-F14
Pole-mount Yagi Directional 18dBi gain -V/H beam width 15 degrees	MIL-AS15-P18
Pole or wall-mount flat panel 18dBi gain -V/H beam width 15 degrees	MIL-AS15-F18

indoor antenna kits

Indoor omni ceiling/wall/desk wireless antenna extension -4dBi	MIL-AO40-F04
Indoor ceiling/wall/desk wireless antenna extension -6dBi	MIL-AS80-F06



ShAir Bridge™

Flexible 802.11b wireless bridging

Extend your network without adding costly lines or cables! ShAir Bridge enhances and extends connectivity within buildings in wireless client/server AP mode with professional wireless security. In wireless "bridge mode", ShAir Bridge links users to network resources quickly and affordably. ShAir Bridge uses extended optional antennas both indoor and outdoor for linking building to building across cities, campuses, warehouses, and workgroups.

802.11b wireless bridge

ShAir Bridge/AP Multipoint or Point to Point	MIL-W1600
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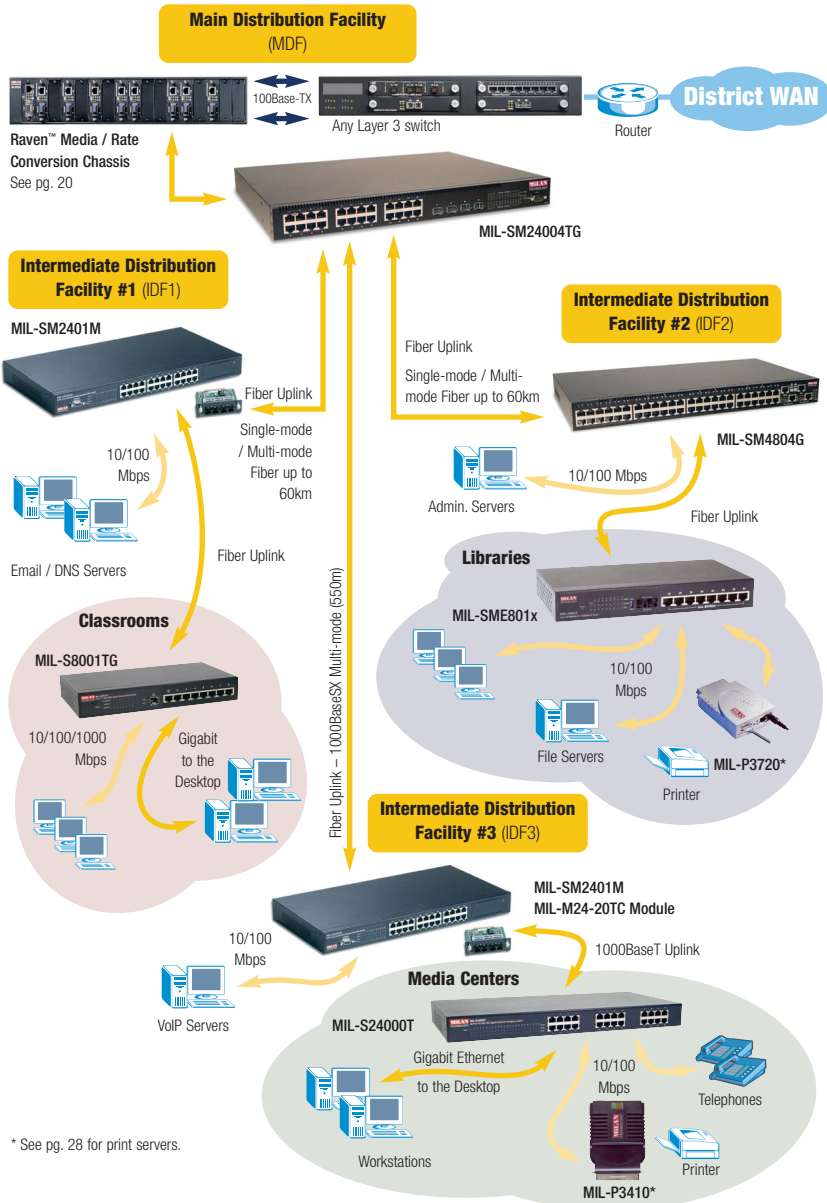
switching solutions

Turn to MiLAN for the best value and flexibility! Call 1-800-GO MILAN today for professional assistance or visit www.milan.com for our easy-to-use online Networking Solution Finder.

Sample Educational Campus Network Topology

MiLAN managed switches can be deployed in a variety of network configurations. This diagram shows the MIL-SM2401M and MIL-SME801x switches can be connected to a high-density wiring closet application of a typical MDF. In this application, traffic is forwarded to the network core over single-mode or multi-mode Gigabit fiber links.

The typical MDF is a wiring closet that consists of a backbone-type router / switch with minimum Layer 3 capability.



* See pg. 28 for print servers.



SM24004TG Multi-Layer Gigabit Ethernet Switch

The highest performance enterprise level switching architecture on the market

MILAN's new SM2400TG is a 24-port Multi-Layer Gigabit Ethernet standalone switch with 24 10/100/1000 Base-T ports and 4 gigabit combo ports which include both RJ-45 and SFP module slots.

The SM2400TG provides comprehensive network management functions such as Spanning Tree protocol for standard bridging, GVRP for VLAN configuration. SNMP, RMON and Web management are also standard features.

Implement superior fault tolerance with Spanning Tree path redundancy while preventing undesirable loops in the network. In addition, the SM24004TG delivers improved performance with Fast Mode Spanning Tree, IEEE802.1s (Multiple Spanning Tree)* and IEEE802.1w (Rapid Spanning Tree) implementation.

* Future software release



MIL-SM24004TG

Complete set of standard switching features, plus ...

- Link aggregation with Cisco EtherChannel support
- Up to 255 802.1Q tagged, port-based VLAN groups
- 802.1p based CoS with 8 priority queues per port
- Comprehensive management via Cisco-like Command Line Interface, Telnet, or embedded web-based management
- Supports configuration download/upload via TFTP
- Extensive security features
- And much more!

24-port layer 2 managed switch

24-port 10/100/100 switch with 4 Gigabit combo ports (RJ45/SFP)

MIL-SM24004TG

MIL-SM4804G Multi-Layer Fast Ethernet Stackable Managed Switch

48-port 10/100BASE-T switch with 2 Gigabit combo ports (RJ-45/SFP) for Gigabit uplink and two 1Gbps stacking ports

MILAN's new SM4804G is a stackable switch with 48 Auto-MDI/X 10/100 Mbps ports, 2 Gigabit combo ports (RJ-45/SFP) and 2 built-in stacking ports. With the capability of up to 4 stacking units, it is loaded with features such as VLANs, GVRP and IGMP, thus providing an easy-to-configure and easy-to-manage network environment.

The SM4804G is well suited for cost-sensitive medium to large networks and administrators looking to strengthen their primary network connection. The stacking ports can also be used as normal Gigabit uplink ports in standalone mode. This switch can be managed either by in-band management via the network station remotely or out-of-band management via the console port (RS232) locally.

Layer 2 features include:

- Full duplex mode on port 49 and 50 when working at Gigabit speed
- Stack up to 4 units with RJ-45 cables via front panel stacking interface
- Store-and-forward forwarding with HOL (Head of Line) blocking prevention
- Port mirroring, link aggregation, and VLAN support
- And much more!



MIL-SM4804G

48-port layer 2+ managed stacking switch

48-port 10/100 Mbps switch with 2 Gigabit combo ports (RJ45/SFP) and 2 1Gbps stacking ports

MIL-SM4804G

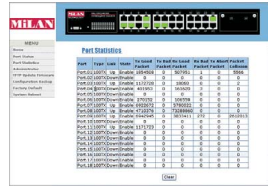
SM2401M Series Managed L2+ Switches

24-port 10/100 Mbps Layer 2+ managed switch with dual-port modules

The MIL-SM2401M Series is MILAN's most powerful, flexible line of Layer 2 management switches. Tailor this switch's hardware to precisely match your network needs – today and in the future.

The MIL-SM2401M switch is designed on the next generation networking ASIC architecture that sports a 8.8Gbps non-blocking backplane speed to assure rapid packet delivery, while its robust MAC address table provides swift address lookup and packet forwarding. Choose telnet, SNMP or web browser interfaces over in-band Ethernet or out-of-band serial communications.

- Base configuration includes 24-port 10/100 switch and 1 dual-port module slot.
- Eight different modules available for Gigabit or Fast Ethernet, copper or fiber.
- Built-in **DHCP Client** automatically acquires IP address for easy deployment.
- Built-in **IEEE802.1X Authentication** using a centralized RADIUS server.
- Advanced software features ideal for sophisticated measured Ethernet service, including multi-tenant unit (MTU) installations.
- Limit network bandwidth with built-in **Bandwidth Provisioning**.
- Quality of Service (QoS) based on IEEE802.1p Values and Class of Service (CoS).
- Supports IGMP Snooping and Query Modes.
- Prevent unauthorized access to switch management with **Secure VLAN**.



Graphically monitor the MIL-SM2401M at-a-glance with real-time port status and statistics using any industry standard web browser.



layer 2+ managed switch base unit

24-port 10/100 Mbps managed switch with 1 available Dual-Module slot	MIL-SM2401M
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uplink modules

2-port 100BASE-FX multimode (2km) fiber module with SC connectors	MIL-M24-02SC
2-port 100BASE-FX multimode (2km) fiber module with ST connectors	MIL-M24-02ST
2-port 100BASE-FX singlemode (60km) fiber module with SC connector	MIL-M24-02SC-60
2-port 1000BASE-SX multimode (550m) fiber module with SC connectors	MIL-M24-20SC
2-port 1000BASE-LX singlemode (15km) fiber module with SC connectors	MIL-M24-20SC-15
1-port 10/100/1000BASE-X copper (RJ-45) and 1-port 1000BaseSX multimode (550m) fiber with SC connector	MIL-M24-20TC
2-port 1000BASE-T copper module with RJ-45 connectors	MIL-M24-02T

gbic modules

2-bay Gigabit Ethernet Interface Converter: GBIC bay	MIL-M24-20GB
1000BASE-SX (LC type connector) SFP module, 550m	MIL-SFP-SX
1000BASE-LX (LC type connector) SFP module, 10km	MIL-SFP-LX10



SME801 Series Managed L2+ Switches

8-port 10/100 Mbps Enhanced Layer 2 managed switches with Fast Ethernet and Gigabit fiber uplinks

The MIL-SME801P switch is MiLAN's most powerful, flexible line of Layer 2 management switches designed specifically for enterprise or campus types of applications. Select from 3 different factory-configured fiber uplinks to precisely match your network needs – today and in the future.

- Depending on your network infrastructure, the SME801's fiber port can be factory configured to be Fast Ethernet or Gigabit fiber connections with a Multi-mode SC or ST connector (up to 2km), or a Single-mode SC connector that supports up to a 60km fiber connection (up to 10km with Gigabit).
- Secure your network with built-in IEEE802.1X Authentication using a centralized RADIUS server.
- Deploy multimedia services (voice, video, audio, telephony) throughout your network with multi-service technologies: IP multicast with IGMP, multiple priority queues, and 256 VLANs.
- Manage your network bandwidth with MiLAN's per-port Bandwidth Provisioning. This advanced software feature is ideal for sophisticated measured Ethernet service, including multi-tenant unit (MTU) installations.

Additionally, the MIL-SME801P switch is designed on the next generation networking ASIC architecture that sports a 3.6 Gbps non-blocking back-plane speed to assure rapid packet delivery, while its robust 8000 MAC address table provides swift address lookup and packet forwarding. Choose Telnet, SNMP or web browser interfaces over in-band Ethernet or out-of-band serial communications.



MIL-SME801x Series

- Supports **IEEE 802.1x RADIUS** Authentication
- Limit network bandwidth with built-in **Bandwidth Provisioning**
- Quality of Service (QoS) based on IEEE802.1p Values and Class of Service (CoS)
- Supports IGMP Snooping and Query Modes
- Wired speed non-blocking architecture
- Gigabit Fiber Uplink Port (SME801G only)
- Prevent unauthorized access to switch management with **Secure VLAN**
- Built-in **DHCP Client** automatically acquires IP address for easy deployment

layer 2+ managed switches with fiber

8-port 10/100 L2 managed switch with 1 built-in 100BaseFX Multimode Fiber Port with ST Connector (max. 2km)	MIL-SME801PST
8-port 10/100 L2 managed switch with 1 built-in 100BaseFX Multimode Fiber Port with SC Connector (max. 2km)	MIL-SME801PSC
8-port 10/100 L2 managed switch with 1 built-in 100BaseFX Singlemode Fiber Port with SC Connector (max. 15km)	MIL-SME801PSC-15
8-port 10/100 L2 managed switch with 1 built-in 100BaseFX Singlemode Fiber Port with SC Connector (max. 30km)	MIL-SME801PSC-30
8-port 10/100 L2 managed switch with 1 built-in 100BaseFX Singlemode Fiber Port with SC Connector (max. 60km)	MIL-SME801PSC-60
8-port 10/100 L2+ managed switch with 1 built-in 1000BaseSX Multimode Fiber Port with SC Connector (max. 550m)	MIL-SME801GSX
8-port 10/100 L2+ managed switch with 1 built-in 1000BaseLX Singlemode Fiber Port with SC Connector (max. 10km)	MIL-SME801GLX-10

SM800 and SM801 Series Managed Switches

8-port 10/100 Mbps Layer 2 managed switches and 9-port 10/100 Mbps managed switches with fiber uplinks

Manage your workgroup with MILAN'S desktop switches. The MIL-SM800 includes eight RJ-45 10/100 Mbps ports. The MIL-SM801 series switches include eight RJ-45 10/100 Mbps ports and one fixed fiber port. Both solutions offer compact desktop design and a comprehensive feature set.

A non-blocking 1.8Gbps architecture assures rapid packet delivery, while an 8K MAC address table provides swift lookup and packet forwarding. Automatic cable detection adjusts 10/100BASE-TX ports to straight-through or crossover cables during install. Fiber connector options include SC, ST, MTRJ and VF-45, with five different options of single-mode and multi-mode.

Web-based, Telnet, SNMP, and Console port management interfaces provide control settings for VLANs, Trunking, Port Disable/Enable, Port speed and Port Diagnostics support. Access can be restricted to Telnet and Web-based management by IP address. The SM-801 switches are housed in a sturdy metal enclosure with secure wall mounts, internal power supply, and store-and-forward architecture.

MILAN's MIL-SM800 offers all of the features of the MIL-SM801 series without the fiber port.

The MIL-808G series of managed switches offer 8 100BASE-FX ports and one GBIC bay.



- VLAN Group support
- Trunking up to 4 ports
- Full/Half Duplex Flow Control
- SNMP and web-based Management
- Packet Statistics
- All RJ-45 ports autosensing 10/100 Mbps
- Automatic MDI/MDIX crossover
- Half-duplex and full-duplex supported
- 4MB memory buffer sharing
- Store-and-forward switching architecture
- 8KB entry MAC address table
- Non-blocking configuration (1.8Gbps Backplane)
- Remote and local management – web-based, SNMP, Console and Telnet
- Support for port VLAN
- Overlapping VLAN's supported
- Port Configuration Management
- 19" rack mount brackets included



8-port managed switch

8-port 10/100BASE-TX MIL-SM800P

9-port managed switches with fiber

8-port 10/100BASE-TX + 1-port 100BASE-FX ST MMF (2km)	MIL-SM801PST
8-port 10/100BASE-TX + 1-port 100BASE-FX SC MMF (2km)	MIL-SM801PSC
8-port 10/100BASE-TX + 1-port 100BASE-FX SC SMF (15km)	MIL-SM801PSC-15
8-port 10/100BASE-TX + 1-port 100BASE-FX MT MMF (2km)	MIL-SM801PMT
8-port 10/100BASE-TX + 1-port 100BASE-FX VF MMF (2km)	MIL-SM801PVF
8-port 10/100BASE-TX + 1-port 100BASE-SX MMF	MIL-SM801G
8-port 100BASE-FX MMF (ST) + 1-port GBIC*	MIL-SM808GST
8-port 100BASE-FX MMF (SC) + 1-port GBIC*	MIL-SM808GSC
8-port 100BASE-FX SMF (SC-15) + 1-port GBIC* (15km)	MIL-SM808GSC-15
8-port 100BASE-FX SMF (SC-60) + 1-port GBIC* (60km)	MIL-SM808GSC-60

accessories

Rack mount bracket for MIL-SM800, SM801 MIL-RMS801

*See page 17 for GBIC modules.



The Smart Choice for Flexible, Gigabit Ethernet!

8-Port Gigabit Ethernet smart switch with Mini-GBIC uplink module slot

With Gigabit Ethernet rapidly becoming the de facto standard, MILAN Technology is proud to introduce our new 8-Port Gigabit Ethernet switch. The new MIL-S8001TG will transform your current Fast Ethernet network into a blazing fast Gigabit Ethernet network that runs at 1000 Mbps!

The MIL-S8001TG is a hard-working switch that delivers exceptional performance. Right out of the box, the MIL-S8001TG gives you eight 10/100/1000 Gigabit Ethernet ports and a Mini-GBIC slot that will interface with any industry-standard Small-Form-Pluggable Gigabit Ethernet Interface transceivers. The addition of the Mini-GBIC slot allows for flexible Gigabit fiber deployment by converging it with cost-effective Gigabit copper connectivity. Imagine transferring data/voice/multimedia files across your network at 2 Gbps full duplex per port, the waiting game is over.

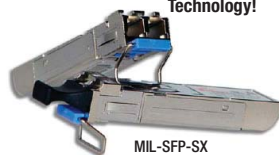
Like all MILAN unmanaged switches, the MIL-S8001TG is completely plug-and-play; no configuration is required for basic operation. Advanced configurations can be accessed through MILAN's easy to use menu-driven management system.

Advanced Features

- Console-Managed. All advanced features are accessible from an easy-to use console interface. No cryptic command line commands or third party network management applications required
- VLAN. Supports 4K 802.1Q tagged-based VLANs plus port-based VLANs
- Quality of Service (QoS). 802.1p/TOS support efficiently control network resources by classifying traffic and prioritizing network traffic flows
- Supports Broadcast Storm Filtering that eliminates unnecessary network traffic
- Increase network performance with 9.5KB Jumbo Frame support

- Converge copper and fiber Gigabit Ethernet in one small footprint
- SMART features include Console Management, 4K VLANs, QoS, and Broadcast Storm Filtering
- Full wire speed reception and transmission with 16 Gbps backplane speed
- Rugged metal chassis with internal power supply

Utilizes Mini-GBIC Technology!



MIL-SFP-SX
MIL-SFP-LX10



MIL-S8001TG

8-port +1 mini-gbic gigabit ethernet switch

8-Port Gigabit Ethernet smart switch with Mini-GBIC uplink slot MIL-S8001TG

sfp mini-gbics

1000BaseSX (LC type connector) SFP module, 550m	MIL-SFP-SX
1000BaseLX (LC type connector) SFP module, 10km	MIL-SFP-LX10

Gigabit Ethernet Switches

Deliver Gigabit Ethernet over existing copper cabling with these 10/100/1000 Mbps switches

MiLAN Gigabit Ethernet switches deliver exceptional performance, with up to 24 10/100/1000 Mbps Gigabit Ethernet ports. Best yet, they are compatible with your existing copper wiring – soon you will be delivering Gigabit speeds to the desktop without the added expense of new premise wiring.

The S5000T and S8000T take up as little desk space as your telephone, and are ideal for small workgroups demanding high performance.

The S16000T and S24000T can mount in any 19" rack – perfect for larger high-speed networking environments.

Imagine transferring data/voice/multimedia files across your network at 2 Gbps full wire speed per port – no more waiting game! Whether you need 10BaseT, 100BaseTX or 1000BaseT, these switches are ready to run right out of the box with your existing cabling infrastructure.

MiLAN once again delivers the highest performance switch in its class. A single integrated switch engine automatically filters and forwards traffic at full line rate for all ports simultaneously.

- Compatible with any computer that has an Ethernet port
- Supports IEEE802.3x Flow Control for full duplex
- Uplink from any port with Auto-MDI/MDIX support
- Rugged metal chassis with internal auto-switching power supply
- Rack-mountable 1U 16 and 24-port models
- Space-saving 5 and 8-port desktop models
- Multi-layer filtering and forwarding with integrated address Look-Up Engine



MIL-S8000G



MIL-S5000T
MIL-S8000T



MIL-S16000T & MIL-S24000T

5-port gigabit ethernet switches

5-port 10/100/1000 Mbps workgroup switch MIL-S5000T

8-port gigabit ethernet switches

8-port 10/100/1000 Mbps switch (Console light managed) MIL-S8000G

8-port 10/100/1000 Mbps workgroup switch MIL-S8000T

16-port gigabit ethernet switches

16-port 10/100/1000 Mbps workgroup switch MIL-S16000T

24-port gigabit ethernet switches

24-port 10/100/1000 Mbps workgroup switch MIL-S24000T

S500 and S800 Series Compact 10/100 Mbps Unmanaged Switches

5 and 8-port 10/100 Mbps unmanaged switches with space-saving design

Seamlessly integrating with existing networks via autosensing 10 Mbps and 100 Mbps connections, these switches combine performance and functionality in a space-saving desktop design.

A full complement of LED indicators provide port status information for simple installation and troubleshooting. Each port is capable of operating at full or half duplex, allowing up to 200 Mbps for end users. Flow control/back pressure helps minimize packet loss and maximize network performance.

- Rugged metal enclosures for deployment in various environments
- Space-saving design with optional rack-mounting brackets
- Full wire speed switching on all ports half and full duplex
- Automatic MAC address learning and aging
- Store-and-forward switching mode

MIL-S500
MIL-S800



MIL-S800i

5 and 8-port compact switches

5-port 10/100BASE-TX Micro Switch	MIL-S500
8-port 10/100BASE-TX Switch	MIL-S800
8-port 10/100BASE-TX Micro Switch with internal power	MIL-S800i
Rack-mounting bracket for MIL-S500 and MIL-S800	MIL-BRSW

S1600S and S2400S Compact Switches

Space-saving unmanaged 16 and 24-port 10/100 Mbps switches

The MIL-S1600S 16-port and MIL-S2400S 24-port 10/100 Mbps unmanaged switches are the perfect solution for small offices and corporate workgroups. Both come in a compact 10" design to conserve space, have internal power supplies, and no FANs, making these switches ideal for "quiet zones". Each port on these switches supports MDIX therefore no cross-over cables are required – any port can uplink. With low latency and error-free performance, MILAN's MIL-S1600S and MIL-S2400S switches are just what you need to boost network performance and reliability.

- 8K auto-learning MAC address table
- Store-and-forward technology
- Non-blocking, full wire speed data transfer
- Auto-MDI/MDIX on every port
- Silent operation – no fans
- Internal power
- Compact design – only 10"



MIL-S1600S
MIL-S2400S

16 and 24-port compact 10/100 switches

16-port 10/100 Mbps Ethernet Switch	MIL-S1600S
24-port 10/100 Mbps Ethernet Switch	MIL-S2400S

S501 and S801 Series 10/100 Mbps Unmanaged Switches with Built-in Fiber

6 and 9-port 10/100 Mbps unmanaged switches combine copper and fiber in a compact chassis

MILAN's MIL-S501 and MIL-S801 unmanaged switches are the ideal way to alleviate network bottlenecks in workgroup environments. Combining copper and fiber ports in the same chassis provides an inexpensive solution for segmenting LANs or easily interconnecting between buildings in a campus or industrial environment.

Each switch operates at wire speed with automatic MAC address learning and aging, requiring no user configuration. All ports running at 100 Mbps are capable of operating in either half or full duplex mode, providing 200 Mbps of bandwidth for end users. Flow control minimizes packet loss while all copper ports autonegotiate for speed, making it easy and simple to connect into a wide range of networks.

Select from various fiber options to meet your network needs – from across campus to across town.



MIL-S501SC

- Built-in fiber port connects distant networks
- Provides high-performance devices with their own dedicated segments
- Store-and-forward switching architecture with filter and forwarding rates at wire speeds
- All TX ports autonegotiate for speed and duplex
- Internal power (MIL-S801 only)

6-port switches with fiber

5-port 10/100BASE-TX + 1-port 100BASE-FX ST MMF 2km	MIL-S501ST
5-port 10/100BASE-TX + 1-port 100BASE-FX SC MMF 2km	MIL-S501SC
5-port 10/100BASE-TX + 1-port 100BASE-FX SC SMF 15km	MIL-S501SC-15
5-port 10/100BASE-TX + 1-port 100BASE-FX SC SMF 40km	MIL-S501SC-40
5-port 10/100BASE-TX + 1-port 100BASE-FX SC SMF 60km	MIL-S501SC-60
5-port 10/100BASE-TX + 1-port 100BASE-FX MT MMF 2km	MIL-S501MT
5-port 10/100BASE-TX + 1-port 100BASE-FX VF MMF 2km	MIL-S501VF

9-port switches with fiber

8-port 10/100BASE-TX + 1-port 100BASE-FX ST MMF 2km	MIL-S801ST
8-port 10/100BASE-TX + 1-port 100BASE-FX SC MMF 2km	MIL-S801SC
8-port 10/100BASE-TX + 1-port 100BASE-FX SC SMF 60km	MIL-S801SC-60
8-port 10/100BASE-TX + 1-port 100BASE-FX MT MMF 2km	MIL-S801MT
8-port 10/100BASE-TX + 1-port 100BASE-FX VF MMF 2km	MIL-S801VF

accessories

Mounting bracket for MIL-S501	MIL-BRSW
Rack mount bracket for MIL-S801	MIL-RMS801
Wall mount bracket for MIL-S801	MIL-BRSM801W

S1600 and S2400 Unmanaged Switches and Optional Fiber Uplink Modules

16 and 24-port 10/100 Mbps unmanaged switches with module slots for optional fiber uplinks

MILAN's MIL-S1600 and MIL-S2400 10/100BASE-TX switches with optional 100BASE-FX Modules provide unmanaged flexible and powerful media switching. Error-free performance is provided via an advanced store-and-forward architecture, while automatic MDI/MDIX cable detection and correction adjusts for straight-through or crossover cables to ease install.

Full-duplex flow control and half-duplex back pressure eliminate packet transmission congestion on busy ports. Front-panel accessible fiber port is available in either multimode or single mode models and a variety of connector types for extending network distances up to 60 km.

- Auto Detection MDI/MDI-X
- Conforms to IEEE standards
- Auto-sensing speed and duplex
- Optional fiber module-MMF, SMF
- Flow control
- Store-and-forward switching architecture
- Full wire speed forwarding rate
- 4K-entry MAC address table
- 19" standard rack-mount size
- Rack mount bracket included



MIL-S1600
MIL-S2400

unmanaged 10/100 switches

16-port 10/100BASE-TX switch with module slot	MIL-S1600
24-port 10/100BASE-TX switch with module slot	MIL-S2400

fiber modules

SC Multimode module for MIL-S1600 and MIL-S2400	MIL-L1624SC
ST Multimode module for MIL-S1600 and MIL-S2400	MIL-L1624ST
SC Singlemode module to 60km for MIL-S1600 and MIL-S2400	MIL-L1624SC-60
VF-45 Multimode module for MIL-S1600 and MIL-S2400	MIL-L1624VF



GBIC Transceiver modules

Industry standard modules reduce cost of ownership, combining performance and flexibility

MiLAN's new line of **Standard GBIC** and **Small Form Factor Pluggable (SFP) GBIC** transceiver modules are the perfect solution for connecting enterprise Gigabit Ethernet Switches that provide flexible, high performance Copper and Fiber connectivity in Corporate, Metro, Campus backbone, MxJ and workgroup switching infrastructures.

Compatible with Gigabit Ethernet networking equipment that support the industry standard SFP and GBIC interface, network managers can inventory a 1000BaseSX or a 1000BaseLX GBIC and use these Gigabit Ethernet modules across a multi-vendor, multi-product network. Simplified installation means they are ideal for end users and technicians.

Low cost of ownership – MiLAN's SFP/GBIC modules offer the greatest flexibility and value. Depending on your existing network infrastructure, each GBIC interface on your switches can be configured with a SX or LX GBIC module in standard or small-form-factor pluggable format. This flexibility in system configuration further reduces acquisition costs by allowing you to purchase only what you need when you need it.

Comprehensive range – MiLAN provides standard multi-mode SX and single-mode LX GBICs for connections up to 10km.



MIL-GBIC-SX
MIL-GBIC-LX10



MIL-SFP-SX
MIL-SFP-LX10

standard gbic modules

1000BaseSX (multi-mode SC type connector) GBIC module, 550m, 3.3v / 5v	MIL-GBIC-SX
1000BaseLX (single-mode SC type connector) GBIC module, 10km, 3.3v / 5v	MIL-GBIC-LX10

sfp gbic modules

1000BaseSX (multi-mode LC type connector) SFP module, 550m, (mini GBIC) 3.3v	MIL-SFP-SX
1000BaseLX (single-mode LC type connector) SFP module, 10km, (mini GBIC) 3.3v	MIL-SFP-LX10

NOTE: For MIL-SM808G, use MIL-GBIC-SX or MIL-GBIC-LX10.
For MIL-SM2401M with MIL-M24-20GB, use MIL-SFP-SX or MIL-SFP-LX10.

MiLAN GBICs have been tested as compatible with all major network equipment manufacturers.

Brand Name	Model No.
Cisco	Trident 12000GSR Catalyst 2950, 3524, 3548, 3550, 4003, 5509, 6509, 6513
Extreme	Summit 11, 5i, 7i, 48i, 48si, 24e2 BlackDiamond 6808, 6816
Foundry	BigIron 4000, FastIron 4802, FastIron Edge 2402 Premium, 9604 Premium
AVAYA	P580, P882, P332GT-ML, P334T-ML
Alcatel	OmniStock 6024, 6124, 6148; OmniCore 5052
RiverStone	RS-3000, 8600, RS-38000
Enterasys	Matrix E1; X-Pedition ER-16
RedBack	SmartEdge 800
D-Link	DES-3208TG, 3226; DES-3326

EmPowered™ Ethernet

Power over Ethernet injection and splitting solutions

MiLAN's new EmPowered Ethernet™ Series Power over Ethernet (PoE) solutions deliver unified supply of data, voice, and video as well as electrical power through a single source by sending power over standard Category 5 and above twisted pair cables. Power over Ethernet simplifies installation and eliminates the need to run separate power cords and LAN cables to each Access Point or port locations.

MiLAN's new PoE products provide organizations with affordable, easy-to-use solutions that enable them to migrate their network infrastructure to support a growing number of advanced cost-saving, performance enhancing applications, such as streamlining wireless, VOIP, Network IP camera deployments, and centralized power backup solutions.

- **Legacy Installation** – ensures safe delivery of power to existing legacy devices as well as power-enabled terminals
- **Cabling Infrastructure Preservation** – avoids altering existing wiring and does not damage cabling infrastructure already in place
- **Data Integrity** – Power delivery over Ethernet cables does not cause data degradation or loss of data integrity



MIL-L800i
Eight Port PoE Injector Hub



MIL-L100i
Single Port PoE Injector



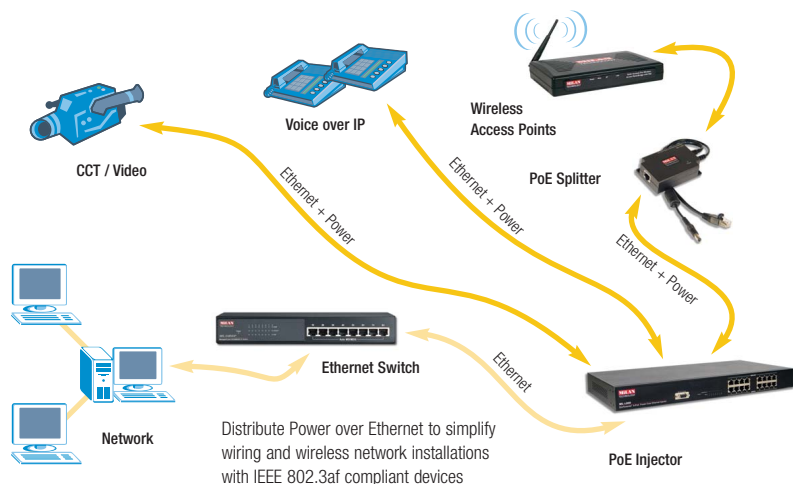
MIL-L100s
Single Port Dual Voltage Splitter

poe injectors

1-port Power over Ethernet injector	MIL-L100i
8-port Power over Ethernet injector hub	MIL-L800i

poe splitters

1-port Dual Voltage Power over Ethernet Power / Data Splitter (5v / 12v)	MIL-L100s
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media conversion solutions

Visit www.milan.com for our easy-to-use online Media/Rate Converter Solution Finder or call 1-800-GO MILAN for professional assistance with your specific needs.

MILAN offers a comprehensive line of media / rate conversion solutions to help you simplify your wiring closet and maximize your networking investment.

Select from the Raven™ Series of standalone and module-based conversion chassis systems for ultimate flexibility and superior ease of use.



Simplify power and cabling with our convenient rack-mount assembly for standalone converters.



MIL-SM801P

100Base-FX



MIL-RSC3112
Standalone Converter

100Base-TX

Any Layer 3 switch with copper ports



MIL-RCM16
Conversion Chassis

100Base-TX



To remote networks from 2km to 60km away



MIL-SM801G



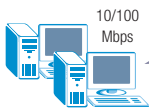
MIL-SM2401M



MIL-SM801P



MIL-S500



10/100 Mbps



10/100 Mbps



10/100 Mbps

1000Base-SX

100Base-FX

100Base-FX

Raven™ Series Managed Media and Rate Converter Chassis Systems

Modular conversion system for fiber connections in wiring closets delivers excellent value

The Raven Series modular conversion system is an excellent value for fiber connections in wiring closets – whether the main or an intermediate distribution point. The chassis acts like an intelligent patch panel. The 19", 3U high chassis allows you to convert UTP ports on high-end switches into fiber ports. You can mix and match fiber types and speeds within the chassis, a level of flexibility not afforded to you by switch vendors.

When you replace your switch with a newer model, you save the cost of fiber once again since it is already there in the Raven media conversion chassis.

The Raven series is designed with ease of use in mind. The UTP port will auto-detect the cabling type (cross over or straight through), the polarity of the pins, the speed of the port and the mode of the port without any user intervention. No more concerns about what type of device the converter is connecting – whether switch or server. The broad range of media for the fiber port delivers optimal flexibility in designing the network, and upgrading the network in the future.

Raven managed converters have been designed with diagnostic functions as well. The LinkSentry™ feature allows for passing through physical layer failures from one media to the other. This allows for a higher reliability in your network by making all components aware of network failures as they occur. The management system sends traps when link failures are seen on the ports.

The ease of use, flexibility in network design, advanced diagnostic capabilities and management features make the Raven series of modular converters the optimal conversion product for your network.

- 16-slot rack-mount management chassis
- Hot-swappable modules
- Fully manageable via management module
- SNMP, Telnet, Console and Web-based GUI management support
- SNMP traps on module status change, port link state change, cold/warm boot
- Dual redundant power supply, hot swappable (AC or DC)
- Out of band management through serial DB-9 port
- 10-slot rack-mount unmanaged chassis for standalone Raven Media/Rate Converters



raven chassis systems

16 slot management chassis with single 100-240VAC power supply, for use with Raven converter modules	MIL-RCM16A
16 slot management chassis with single -48 VDC power supply, for use with Raven converter modules	MIL-RCM16D
10 slot unmanaged chassis for use with standalone Raven Converters	MIL-RCS10

accessories

100 – 240 VAC power supply for MIL-RCM16A	MIL-RCM-ACPS
-48 VDC power supply for MIL-RCM16D	MIL-RCM-DCPS

Raven™ Series Advanced Media and Rate Converters

Standalone converters and converter modules for Raven conversion chassis systems

MILAN's Raven series of conversion solutions offers connectivity for a broad range of environments. Whether connecting two remote locations, or solving a difficult wiring closet issue, Raven products will meet your needs.

Our standalone converters are ideal for remote locations requiring a single, cost-effective fiber link. Both the standalone converters and modules may be consolidated into 19" rack systems, allowing for utilization of a common product in the main or intermediate distribution frame and at the remote location. For those needing visibility into how their network is operating, Raven products provide a managed media conversion system.

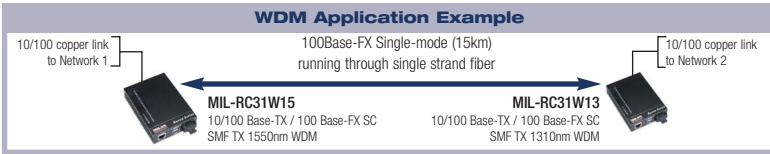
- 10/100 Mbps to 100 Mbps, or 100/1000 Mbps to 1000 Mbps Ethernet
- Extends Network Distances up to 60 km
- Bi-Directional WDM Single Fiber Models
- Chassis-based or Standalone Models
- Auto MDI/MDX, Auto-Negotiation, and LinkSentry™ pass-through diagnostics
- SNMP, Console and Web-based Management



MIL-RC3113
MIL-RC3112
Standalone converters, suitable for use with MIL-RCS-10 chassis system



MIL-RC3413
Converter module for use with MIL-RCS-16 chassis systems



raven standalone converters

10/100BASE-TX / 100BASE-FX ST MMF 2km	MIL-RC3112
10/100BASE-TX / 100BASE-FX SC MMF 2km	MIL-RC3113
10/100BASE-TX / 100BASE-FX SC SMF 15km	MIL-RC3113-15
10/100BASE-TX / 100BASE-FX SC SMF 30km	MIL-RC3113-30
10/100BASE-TX / 100BASE-FX SC SMF 60km	MIL-RC3113-60
100/1000BASE-TX / 1000BASE-SX SC MMF 550m	MIL-RC6113SX
100/1000BASE-TX / 1000BASE-LX SC SMF 10km	MIL-RC6113LX
10/100BASE-TX / 100BASE-FX SC SMF TX 1310nm WDM* 15km	MIL-RC31W13
10/100BASE-TX / 100BASE-FX SC SMF TX 1550nm WDM* 15km	MIL-RC31W15

* For WDM connections MIL-RC31W13 requires MIL-RC31W15 at opposite end.

raven converter modules

10/100BASE-TX / 100BASE-FX ST MMF 2km	MIL-RC3412
10/100BASE-TX / 100BASE-FX SC MMF 2km	MIL-RC3413
10/100BASE-TX / 100BASE-FX SC SMF 15km	MIL-RC3413-15
10/100BASE-TX / 100BASE-FX SC SMF 30km	MIL-RC3413-30
10/100BASE-TX / 100BASE-FX SC SMF 60km	MIL-RC3413-60
100/1000BASE-TX / 1000BASE-SX SC MMF 550m	MIL-RC6413SX
100/1000BASE-TX / 1000BASE-LX SC SMF 10km	MIL-RC6413LX
10/100BASE-TX / 100BASE-FX SC SMF TX 1310nm WDM** 15km	MIL-RC34W13
10/100BASE-TX / 100BASE-FX SC SMF TX 1550nm WDM** 15km	MIL-RC34W15

** For WDM connections MIL-RC34W13 requires MIL-RC34W15 at opposite end.



9000 Series Chassis-based Conversion Systems

Easily connect UTP and fiber at Ethernet, Fast Ethernet, and Gigabit speeds

MiLAN's MIL-9100 and MIL-9200 series media conversion systems provide a compact and powerful way to connect UTP and fiber at Ethernet, Fast Ethernet, and Gigabit speeds. The MIL-9100 and MIL-9200 Systems enhance the performance and longevity of hubs, switches, and routers by simply and affordably combining the speed of fiber with the ease of copper.

The MIL-9100 is a 1U 19" rack-mountable unit allowing you to mix and match up to 8 system modules for converting Unshielded Twisted Pair to fiber. Fiber connection options include SC, ST and MT-RJ in either Single-mode or Multi-mode. Other module options include UTP to BNC and fault tolerant transceivers.

The MIL-9200 Series provides the same degree of flexibility in a 2U 19" rack mountable unit with slots for up to 16 modules.

MiLAN's optional Fast Manage™ SNMP management software provides simple configuration of individual modules in the chassis. With a designated master unit, up to four additional systems can be daisy-chained in a single rack. All MIL-9100 and MIL-9200's come with a hot-swappable power supply, and support an additional load-balancing redundant power supply.

MiLAN conversion chassis systems deliver maximum design dexterity for media conversion when and where your network requires.

- Combine UTP and Fiber at various speeds
- Combine Media Converters, Rate Converters, and Fault-tolerant Transceivers
- Available in 110/220 VAC and -48 VDC
- SNMP modules simplify management



MIL-9100
8-bay conversion chassis
(modules sold separately)



MIL-9200
16-bay conversion chassis
(modules sold separately)

eight-bay chassis

8-bay Media Conversion Chassis with 110/220 VAC Power Supply	MIL-9100X
Additional 110 / 220 VAC Redundant Power Supply for 9100X	MIL-9000PSAC
8-bay Media Conversion Chassis with -48 VDC Power Supply	MIL-9100XDC
Additional -48 VDC Redundant Power Supply for 9100XDC	MIL-9000PSDC

sixteen-bay chassis

16-bay Media Conversion Chassis with 110/220 VAC Power Supply	MIL-9200X
Additional 110 / 220 VAC Redundant Power Supply for 9200X	MIL-9002PSAC
16-bay Media Conversion Chassis with -48 VDC Power Supply	MIL-9200XDC
Additional -48 VDC Redundant Power Supply for 9200XDC	MIL-9002PSDC

snmp management modules

Master SNMP Module for 9100X	MIL-4650
Slave SNMP Module for 9100X	MIL-4655
Master SNMP Module for 9200X	MIL-4750
Slave SNMP Module for 9200X	MIL-4755

See page 23 for Gigabit Ethernet (copper to fiber) conversion modules.

See page 24 for Fast Ethernet conversion modules.

See page 25 for Fast Ethernet / Ethernet rate conversion modules.

See page 26 for 10 Mbps Ethernet conversion modules.

C6000 Series Gigabit Ethernet Media Converters

Standalone and module-based copper to fiber conversion systems

MiLAN's Gigabit Ethernet Converters provide an ideal solution for converting UTP to Fiber and Multi-mode Fiber to Single-mode, either within the MIL-9100 and MIL-9200 chassis or as standalone units. When used within our eight-slot MIL-9100 and sixteen-slot MIL-9200 Media Conversion Systems, the Gigabit Ethernet modules are completely hot-swappable. An optional SNMP management module allows for monitoring or configuration of modules on an individual basis, allowing system administrators to remotely verify link and status information.

- Convert UTP to Multi-mode or single-mode Fiber
- Optional connectors types-SC, MT-RJ or LC
- Extend network length up to 70km



MIL-C6000 Series
Gigabit Ethernet media converters
Standalone and 9100/9200 modules

gigabit modules*

1000BASE-TX to 1000BASE-SX SC MMF 220m	MIL-C6413SX
1000BASE-TX to 1000BASE-LX SC SMF 5km	MIL-C6413LX-5
1000BASE-TX to 1000BASE-LX SC SMF 20km	MIL-C6413LX-20
1000BASE-TX to 1000BASE-LX SC SMF 50km	MIL-C6413LX-50
1000BASE-TX to 1000BASE-LX SC SMF 70km	MIL-C6413LX-70
1000BASE-TX to 1000BASE-LX MT-RJ SMF 10km	MIL-C6414LX-10
1000BASE-TX to 1000BASE-LX (LC) SMF 50km	MIL-C6416LX-50
1000BASE-SX SC MMF 220M to 1000BASE-LX SC SMF 10km	MIL-1225LSRM

* For use with MIL-9000 Series conversion chassis systems (See pg. 22)

gigabit standalone**

1000BASE-TX to 1000BASE-SX SC MMF 220m	MIL-C6113SX
1000BASE-TX to 1000BASE-LX SC SMF 5km	MIL-C6113LX-5
1000BASE-TX to 1000BASE-LX SC SMF 20km	MIL-C6113LX-20
1000BASE-TX to 1000BASE-LX SC SMF 50km	MIL-C6113LX-50
1000BASE-TX to 1000BASE-LX SC SMF 70km	MIL-C6113LX-70
1000BASE-TX to 1000BASE-LX MT-RJ SMF 10km	MIL-C6114LX-10
1000BASE-TX to 1000BASE-LX (LC) SMF 50km	MIL-C6116LX-50
1000BASE-SX SC MMF 220M to 1000BASE-LX SC SMF 10km	MIL-1225LS

** See pg. 26 for standalone converter rack-mount assemblies.

accessories

Rackmount for 1225LS Converters	MIL-RM3U
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C2000 Series Fast Ethernet Media Converters

Standalone and module-based 100Base-TX to 100Base-FX conversion systems

MiLAN 's Fast Ethernet Media Converters maximize connectivity options for legacy networks by converting 100BASE-TX to Fiber or Multi-mode Fiber to Single-mode. When used within our MIL-9100 and MIL- 9200 Media Conversion Systems, the modules are hot-swappable, eliminating the need for powering down during insertion or removal.

- Convert media from 100BASE-TX to Multi-mode or Single-mode fiber
- Link Sentry™ Monitors link signal status

MIL-C2000 Series
Fast Ethernet media converters
Standalone and 9100/9200 modules



fast ethernet modules*

100BASE-TX to 100BASE-FX ST MMF 2km	MIL-C2412
100BASE-TX to 100BASE-FX SC MMF 2km	MIL-C2413
100BASE-TX to 100BASE-FX SC SMF 15km	MIL-C2413-15
100BASE-TX to 100BASE-FX SC SMF 40km	MIL-C2413-40
100BASE-TX to 100BASE-FX SC SMF 60km	MIL-C2413-60
100BASE-TX to 100BASE-FX SC SMF 100km	MIL-C2413-100
100BASE-TX to 100BASE-FX MT-RJ MMF 2km	MIL-C2414
100BASE-TX to 100BASE-FX MT-RJ SMF 15km	MIL-C2414-15
100BASE-TX to 100BASE-FX ST MMF <i>ClassicConverter™</i>	MIL-C102RM
100BASE-TX to 100BASE-FX SC MMF <i>ClassicConverter™</i>	MIL-C103RM
100 Mbps UTP Redundant Transceiver Module (3 Port)	MIL-240TRM
100/155 Mbps Multi-Mode Fiber SC to Single-Mode SC Converter	MIL-225CRM

* For use with MIL-9000 Series conversion chassis systems (See pg. 22)

fast ethernet standalone

100BASE-TX to 100BASE-FX ST MMF 2km	MIL-C2112US
100BASE-TX to 100BASE-FX SC MMF 2km	MIL-C2113US
100BASE-TX to 100BASE-FX SC SMF 15km	MIL-C2113-15
100BASE-TX to 100BASE-FX SC SMF 40km	MIL-C2113-40
100BASE-TX to 100BASE-FX SC SMF 60km	MIL-C2113-60
100BASE-TX to 100BASE-FX SC SMF 100km	MIL-C2113-100
100BASE-TX to 100BASE-FX MT-RJ MMF 2km	MIL-C2114US
100BASE-TX to 100BASE-FX MT-RJ SMF 15km	MIL-C2114-15
100/155 Mbps Multi-Mode Fiber SC to Single-Mode SC Converter	MIL-225C

accessories

Rackmount for up to six C211x Series, 102, 103, 185C, or 195C converters	MIL-RMFE
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S3000 Series Fast Ethernet Media / Rate Converters

Standalone and module-based 10/100Base-TX conversion systems

MiLAN's Fast Ethernet/Ethernet media and rate converters translate 10/100 Mbps UTP to 100 Mbps fiber and 10 Mbps UTP to 100 Mbps UTP.

Support for auto-negotiation (speed and duplex mode) on a per-port basis provides an ideal way to convert your legacy networks to higher speeds.

All models include 8,192 MAC Address table for swift lookup and packet forwarding via store-and-forward architecture.

- Convert Ethernet or Fast Ethernet UTP to Fiber
- Extend Network Distances to 100km
- Multiple Connector Types, SC, ST or MT-RJ
- Chassis-based or standalone models



MIL-S3000 Series
Fast Ethernet to Ethernet media/rate converters
Standalone and 9100/9200 modules

fast ethernet / ethernet modules*

10/100BASE-TX 2-Port UTP Switch	MIL-S3410
10/100BASE-TX to 100BASE-FX ST MMF 2km	MIL-S3412
10/100BASE-TX to 100BASE-FX SC MMF 2km	MIL-S3413
10/100BASE-TX to 100BASE-FX SC SMF 15km	MIL-S3413-15
10/100BASE-TX to 100BASE-FX SC SMF 40km	MIL-S3413-40
10/100BASE-TX to 100BASE-FX SC SMF 60km	MIL-S3413-60
10/100BASE-TX to 100BASE-FX SC SMF 100km	MIL-S3413-100
10/100BASE-TX to 100BASE-FX MT-RJ MMF 2km	MIL-S3414
10/100BASE-TX to 100BASE-FX MT-RJ SMF 15km	MIL-S3414-15

* For use with MIL-9000 Series conversion chassis systems (See pg. 22)

fast ethernet / ethernet standalone**

10/100 Mbps 2-Port UTP Switch	MIL-S3110
10/100BASE-TX to 100BASE-FX ST MMF 2km	MIL-S3112
10/100BASE-TX to 100BASE-FX SC MMF 2km	MIL-S3113
10/100BASE-TX to 100BASE-FX SC SMF 15km	MIL-S3113-15
10/100BASE-TX to 100BASE-FX SC SMF 40km	MIL-S3113-40
10/100BASE-TX to 100BASE-FX SC SMF 60km	MIL-S3113-60
10/100BASE-TX to 100BASE-FX SC SMF 100km	MIL-S3113-100
10/100BASE-TX to 100BASE-FX MT-RJ MMF 2km	MIL-S3114
10/100BASE-TX to 100BASE-FX MT-RJ SMF 15km	MIL-S3114-15

** See pg. 26 for standalone converter rack-mount assemblies.

Fiber Twist™ 10 Mbps Ethernet Media Converters

Standalone and module-based 10 Mbps Ethernet media conversion systems

MiLAN's Ethernet media converters offer connectivity options for legacy networks by converting 10BASE-T to Fiber or 10BASE-T to 10BASE2. Fiber distances in Multi-mode extend up to 2km and in Single-mode up to 15km.

A standard MDI/MDI-X crossover switch on the modules allows simple and fast connection to a PC, hub, or switch. When used within our MIL-9100 and MIL-9200 Media Conversion Systems, the Ethernet modules are completely hot-swappable, eliminating the need for powering down during insertion or removal. An optional SNMP management module allows for monitoring or configuration of other modules on an individual basis, allowing system administrators to remotely verify link and status information.

- Converts from 10BASE-TX to Multi-mode or Single-mode Fiber
- Select from SC or ST Fiber connectivity options
- Hot-swap modules from chassis systems without powering down
- Monitor status of link signals with MILAN LinkSentry™



MIL-140T

ethernet modules*

10BASE-T to 10BASE2 (Coax)	MIL-C1411
10 Mbps Half/Full-Duplex Multi-Mode Fiber SC to UTP	MIL-140CRM
10 Mbps Half/Full-Duplex Multi-Mode Fiber ST to UTP	MIL-140TRM
10 Mbps Half/Full-Duplex Single-Mode (15km) Fiber ST to UTP	MIL-170TRM

* For use with MIL-9000 Series conversion chassis systems (See pg. 22)

ethernet standalone

10BASE-T to 10BASE2 (Coax)	MIL-C1111
10 Mbps Half/Full Duplex Multi-Mode Fiber SC to UTP	MIL-140C
10 Mbps Half/Full Duplex Multi-Mode Fiber ST to UTP	MIL-140T
10 Mbps Half/Full-Duplex Single-Mode (15km) Fiber ST to UTP	MIL-170T

RME Series Rack-Mount Assemblies

Organize your wiring closet by effectively securing standalone media converters

MiLAN 19-inch rack-mount assemblies organize your wiring closet and protect your network hardware investments. The metal chassis holds up to 6 units in an easily accessible diagonal configuration.

All models include 110 and 200 VAC power supplies in both 2U and 3U 19" racks



mounting brackets

Mounting bracket for the MIL-S500, MIL-S501, and MIL-S800 Switches	MIL-BRSW
Mounting bracket for standalone media converters	MIL-BRMC
For 140C, 140T, 170T Converters (110 VAC)	MIL-RME10
For 140C, 140T, 170T Converters (220 VAC)	MIL-RME20
For C211X Series 102, 103, C1111, 185C, & 195C Converters	MIL-RMFE
For 3200X Series, 4200R Series, 3100CX Series & 4700H Series	MIL-RMEX
For 225C/1225SX/1240LX Transceivers and 240/250/1225LS Converters	MIL-RM3U



Fast Ethernet and Gigabit Ethernet Fault Tolerant Transceivers

Protect your networking investment with an added level of redundancy

MiLAN Fast Ethernet and Gigabit Ethernet Fault Tolerant transceivers significantly reduce network downtime and add a new level of redundancy to mission critical applications. These affordable compact systems are ideal for establishing redundant links to servers, routers, media converters, switches, hubs, or workstations. Designed for mission critical environments in the financial, e-Commerce, and healthcare industries, they are available in UTP, SC or ST Fiber.



MIL-240TX

Fast Ethernet – MiLAN Fast Ethernet transceivers feature a direct connect 40-pin MII interface for quick and easy connection of workstations, PCs and other communications devices to Fast Ethernet. They support both 10 and 100 Mbps connections (MIL-100TX) and allow you to convert Multi-mode Fiber, Single-mode Fiber and UTP to MII through a design that eliminates the need for drop cables and blocked I/O ports.

fast ethernet / gigabit ethernet fault tolerant

100 Mbps UTP Redundant (3 Port)	MIL-240TX
100 Mbps Half/Full-Duplex MMF SC Redundant (3 Port)	MIL-240FXC
100 Mbps Half/Full-Duplex MMF ST Redundant (3 Port)	MIL-240FXT
1000 Mbps Short Wavelength Fiber (SC) Redundant (3 Port)	MIL-1240SX
1000 Mbps Short to Long Wavelength Fiber SC Redundant (3 Port)	MIL-1240LX
Rackmount for 225C/1225SX/1240LX	MIL-RM3U

fast ethernet

10/100 Mbps UTP to MII	MIL-100TX
100 Mbps Half/Full-Duplex Multi-Mode Fiber (SC) to MII	MIL-100FXC
100 Mbps Half/Full-Duplex Multi-Mode Fiber (ST) to MII	MIL-100FXT
100 Mbps Half/Full-Duplex Single-Mode Fiber (SC) to MII	MIL-110FXC
100 Mbps MMF SC Tap (4 Port)	MIL-250FXC
100 Mbps UTP Tap (4 Port)	MIL-250TX

10 Mbps Ethernet Transceivers

Easily connect workstations, PCs and other communications devices to Ethernet

MiLAN Ethernet transceivers feature a direct connect 15-pin AUI interface for quick and easy connection. They allow conversion from Multi-mode Fiber, Thin-Coax and UTP to AUI through a design that eliminates the need for drop cables and blocked I/O ports. MiLAN's Ethernet transceivers provide flexibility across multiple LAN segments and support Fiber runs of up to 15km. with a wide variety of network interfaces and low power consumption



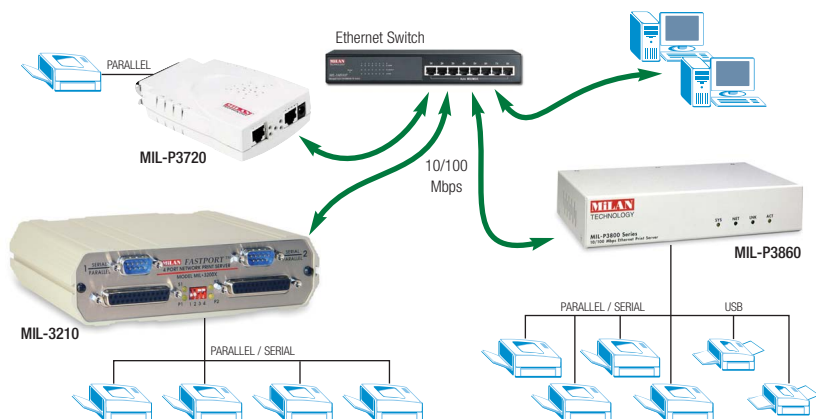
MIL-02F

ethernet

10 Mbps Half/Full-Duplex Multi-Mode Fiber (ST) to AUI	MIL-02F
10 Mbps Half/Full-Duplex Multi-Mode Fiber (SC) to AUI	MIL-02FSC
10 Mbps Half/Full-Duplex Single-Mode Fiber (ST) to AUI	MIL-03F
10 Mbps Half/Full-Duplex Single-Mode Fiber (SC) to AUI	MIL-03FSC
10 Mbps Thin-Coax to AUI	MIL-05T
10 Mbps UTP to AUI	MIL-10P

print server solutions

Whether you're connecting one legacy printer or several different printers with various connector types, MiLAN has the solution for your workgroup.



FastPort™ Direct Connect for Ethernet and Modular Ethernet Print Servers

Easily and cost-effectively share printers throughout your workgroup

MiLAN's Ethernet and Fast Ethernet direct connect print servers provide printer sharing for all major operating systems and protocols. Compact enough to connect directly to the parallel port of your printer, 10/100 Mbps units can be managed in multiple ways via SNMP Fast Manage™, Telnet, Windows Printer Wizard, or Web Management. The powerful MIL-P3720 provides maximum throughput for high-speed printers/plotters and enables direct remote printing over the Internet via Internet Printing Protocol (IPP). These Class B print servers are ideal for use in the home or office.

Direct Connect Ethernet Features:

- Directly connects to inkjet, laser, and legacy printers for shared network printing
- Easily installed in peer networks and SOHO
- Flash upgrades across the network or via serial port for MIL-P3720



MIL-3410X

fastport direct connect print servers

10/100 Mbps 2-Port UTP Direct Connect Print Server (1 Parallel and 1 Serial)	MIL-P3720
10 Mbps UTP Direct Connect Print Server (1 Parallel port)	MIL-3410X

fastport 10 mbps print servers

10 Mbps UTP Multi-protocol Modular Print Server	MIL-3210X
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FastPort™ multi-port Fast Ethernet Print Servers

Easily and cost-effectively share printers throughout your workgroup

MILAN's MIL-3800 series enterprise print servers provide high-end throughput via parallel, serial, or USB Ports for simultaneously sharing multiple printers. The MIL-3800 is managed via SNMP Fast Manage, Telnet, Windows Printer Wizard, or the embedded Web Server. All MIL-3800's come with a high performance RISC processor and support IPP (Internet Printing Protocol). The MIL-U3860 supports USB printers directly. Internet Printing Protocol enables directed remote printing over the Internet from Windows 95, 98, 2000, and XP.

Fast Ethernet Multi-port Features:

- Standard configuration includes one to four parallel ports and two standard serial ports for legacy connections
- Easily installed across the enterprise
- Flash upgrades across the network or via serial ports



MIL-P3800
MIL-U3860

fastport 10/100 mbps multi-port print servers

10/100 UTP 3-Port Multi-protocol Print Server (1 Parallel - 2 Serial Desktop)

MIL-P3830



sales support

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Phone 408-744-2775
Toll Free 800-466-4526

technical support

For technical assistance or configuration questions regarding MiLAN products.

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