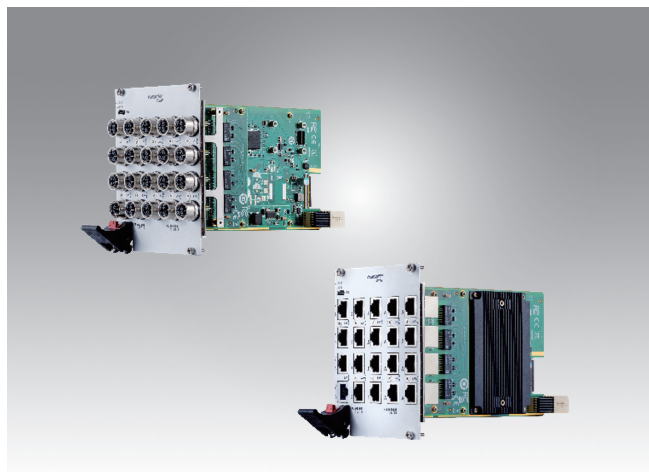


MIC-3850 Series

Industrial L2 Full Gigabit Modular Switch Card with 4 x 10G Base-T managed Ethernet



Features

- 3U Height CompactPCI Serial form factor
- Up to 22 Gigabit ports and 4 10G Base-T ports
- Redundancy: X-Ring Pro, X-Chain
- DHCP option 82 for flexible host configuration
- Security: 802.1X (port-based, MD5/PEAP encryption), RADIUS
- Management: SNMP v1/v2c/v3, WEB, Telnet, standard MIB, private MIB
- Wide operating temperature range of -40~70°C
- Designed to meet EN50121-4 and EN50155
- PICMG CompactPCI Serial(CPCI-S.0 R2.0) compliant

Introduction

The MIC-3850 is a 3U managed Ethernet Switch card following the CompactPCI Serial form factor. It offers up to 22 Gigabit and 4 10G Base-T ports, with 19 Gigabit and 1 10G port on RJ-45/X-code M12 front connectors. The remaining 3 Gigabit and 3 10G ports are for backplane communication via the CompactPCI Serial P6 connector.

The CompactPCI® Serial backplane connector P1 provides the +12V power supply. Additionally, one console port in RS232 mode connects to a USB Type-C front panel connector for debugging purposes.

The MIC-3850, on a suitable CompactPCI® Serial backplane, can cascade into a switch fabric with scalable GbE and 10G ports, with or without a CPU card. It also includes a reserved pin header to support a Wi-Fi Dual-Band Access Point Embedded Module. When combined with a CompactPCI® Serial CPU or GPU board, it forms a high-performance router system.

The MIC-3850 is designed to meet EN50155 and EN50121-4, delivering robust mechanical, EMC, safety, and environmental performance. It is especially suited for harsh environments such as railways.

Specifications

Interface	<ul style="list-style-type: none">▪ Ethernet Port: Total up to 22 x GbE ports and 4 x 10G ports are in use on-board<ul style="list-style-type: none">– Up to 19 x GbE ports and 1x 10G port connected to front panel connectors, M12 or RJ-45 interface available– Another 3 x GbE ports and 3 x 10G ports are available to backplane via CompactPCI serial con. P6– The number of GbE ports and 10G Base-T ports are scalable▪ Console Port: USB type C (UART)▪ Power Connection: The CompactPCI® Serial backplane connector P1
Front Panel	<ul style="list-style-type: none">▪ Up to 19 x GbE ports and 1x 1/10G port connected to front panel connectors, M12 or RJ-45 interface available▪ The number of GbE ports and 10G Base-T ports are scalable▪ 1 x USB Type C port for console
LED Display	<ul style="list-style-type: none">▪ System LEDs: PWR indicates Power LED, green is power on, yellow on is power off.▪ Port LEDs: LAN link/activity LEDs:<ul style="list-style-type: none">– LAN Link:<ul style="list-style-type: none">GbE LAN LED: 100M speed: yellow; 1000M speed: green; others: off10GbE LAN LED: 1000M speed: yellow; 10G speed: green; others: off– LAN Activity: green blinking▪ PoE LEDs on XTM board:<ul style="list-style-type: none">– PoE on: green– PoE off: off
Switch Properties	<ul style="list-style-type: none">▪ DRAM: 1024MB▪ Flash: 64MB▪ Max. IGMP group: 1024▪ Max static VLANs: 256▪ VLAN ID range: 1-4094▪ MAC table: 16K▪ Jumbo frame: 12KB▪ Packet buffer: 12Mbits▪ Max priority queues: 8
L2 Features	<ul style="list-style-type: none">▪ Link aggregate: static trunk, 802.3ad LACP▪ VLAN: IEEE 802.1Q tag-based, 802.1ad VLAN stacking, GVRP, GMRP, private VLAN▪ Port mirroring: per port, multi-source port▪ IP multicast: IGMP snooping v1/v2/v3, MLD snooping▪ Redundancy: IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP

Specifications (Cont.)

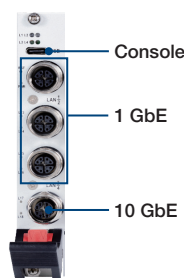
QoS	<ul style="list-style-type: none">▪ Priority queue: scheduling WRR (weighted round robin), SP (strict priority)▪ Class of service: IEEE 802.1p based CoS, IP TOS, DSCP, port priority▪ Rate limit: ingress/egress rate limit	
Security	<ul style="list-style-type: none">▪ Loop detection: port-based detection/prevention▪ Storm control: broadcast, unknown multicast, unknown unicast▪ Port security: static MAC, MAC violation notice▪ Authentication: 802.1x (port-based), 802.1x (MAC-based), RADIUS, TACACS+▪ Account manager: multiple account▪ IP security: IP source guard, DHCP snooping, ARP spoofing▪ ACL: L2, L3 access control list, permit/deny/redirect	
Management	<ul style="list-style-type: none">▪ DHCP: client, server▪ Config & access: IPv4/IPv6, SNMP v1/v2/v3, WEB GUI, Telnet, RMON, SSH 2.0, SSL(TLSv1) Standard MIB, private MIB▪ Upgrade/backup: TFTP, HTTP, SFTP; firmware dual image▪ Others: SNTP/NTP client, DNS client, syslog	
On-Board Features	<ul style="list-style-type: none">▪ Reserve PoE function on XTM-board by request, support IEEE 802.3 af/at mode▪ Reserve WIFI function on XTM I/O board by request	
Power Consumption	<ul style="list-style-type: none">▪ MIC-3850-B1S1: 15W▪ MIC-3850-B3D1/MIC-3850-A3D1: 18W	
Dimension	<ul style="list-style-type: none">▪ Up to 3U/20HP, 100x160mm▪ Weight: MIC-3850-B1S1, 380g MIC-3850-B3D1/MIC-3850-A3D1, 650g	
Switch Standards	<ul style="list-style-type: none">▪ IEEE 802.3 for 10BaseT▪ IEEE 802.3u for 100BaseT(X)▪ IEEE 802.3ab for 1000BaseT(X)▪ IEEE 802.3an for 10GBaseT(X)▪ IEEE 802.3x for flow control▪ IEEE 802.1D-2004 for spanning tree protocol▪ IEEE 802.1w for rapid spanning tree protocol▪ IEEE 802.1s for multiple spanning tree protocol▪ IEEE 802.1p for class of service▪ IEEE 802.1Q for VLAN tagging▪ IEEE 802.1X for authentication▪ IEEE 802.3ad for port trunk with LACP	
Environment	Operating	Non-Operating
	Temperature	-40~70°C (-40 ~ 158°F) supported based on standard 3U chassis with forced airflow -40 ~ 85°C (-40 ~ 176°F)
	Humidity	95% @ 40°C, non-condensing 95% @ 60°C, non-condensing
	Vibration	2G rms

Ordering Information

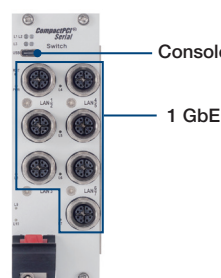
Part Number	Width	Ports	GbE Ports		10 GbE Ports	
			Front Panel	To Rear Backplane P6	Front Panel	To Rear Backplane P6
MIC-3850-B1S1	4HP	M12	3	3	1	3
MIC-3850-B3D1	8HP	M12	7	3	0	0
MIC-3850-A3D1	8HP	RJ45	7	3	0	0

Product Pictures

MIC-3850-B1S1



MIC-3850-B3D1



MIC-3850-A3D1



On Request

