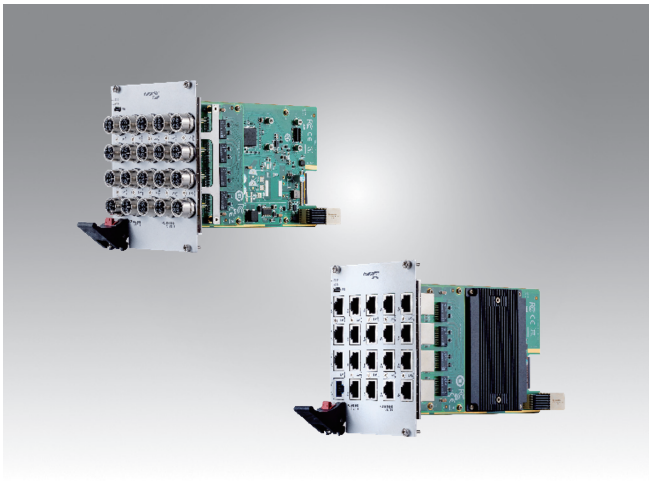
MIC-3850 Series

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



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 which followed CompactPCI Serial form factor. It provides up to 22 Gigabit ports and 4 10G Base-T ports totally, with up to 19 Gigabit ports and 1x 10G port is connected to RJ-45/X-code M12 front panel connectors, another 3 Gigabit ports and 3 10G ports are available for backplane communication via the CompactPCI Serial connector P6.

The CompactPCI® Serial backplane connector P1 is populated anyway, for +12V power supply. Also 1 console port with RS232 mode is connected to USB type C front panel connector for debug service.

MIC-3850 on a suitable CompactPCI® Serial backplane can be cascaded to a switch fabric with a scalable number of GbE ports and 10G Base-T ports, with or w/o a CPU card on the backplane system slot. And also MIC-3850 reserved pin header to support Wi-Fi Dual Band Access Point Embedded Module, When completed with a CompactPCI® Serial CPU board/GPU board, a high performance router system can be configured.

MIC-3850 Ethernet switch provides latest features such as 802.1 Audio Video Bridging(AVB/TSN) and Quality of Service(QoS) support.

MIC-3850 is designed to meet EN50155 and EN50121-4, with its high capabilities on mechanical, EMC, safety and wide range of environment requirements; it is especially suited for applications in harsh environment like Railway etc.

Specifications

Interface	▪ Ethernet Port: Total up to of 22 x GbE ports and 4 x 10G ports are in use on-board – with 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	▪ 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	▪ System LEDs: PWR indicates Power LED, Green is power on, yellow on is power off. ▪ Port LEDs: LAN Link/Activity LEDs: – LAN Link: GbE LAN LED: 100M speed: Yellow; 1000M speed: Green; Others: off 10GbE LAN LED: 1000M speed: Yellow; 10G speed: Green; Others: off – LAN Activity: Green Blink ▪ PoE LEDs on XTM board: – PoE On: Green – PoE Off: Off
Switch Properties	▪ DRAM: 2048MB ▪ 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

Specifications (Cont.)

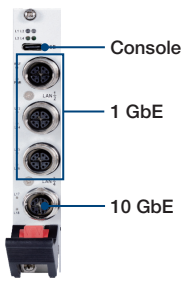
L2 Features	▪ Link Aggregate: Static Trunk, 802.3ad LACP ▪ VLAN: IEEE 802.1Q Tag-based, 802.1ad VLAN stacking, GVRP, GMRP, Private VLAN ▪ Port mirroring: Per port, Multi-source port ▪ IP multicast: IGMP Snooping v1/v2/v3, MLD Snooping ▪ Redundancy: IEEE 802.1D-STP, IEEE 802.1s-MSTP,IEEE 802.1w-RSTP		
QoS	▪ 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	▪ 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	▪ 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	▪ 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		
Dimension	▪ Up to 3U/20HP, 100x160mm ▪ Weight: TBD		
Switch Standards	▪ 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



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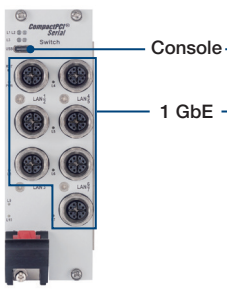

MIC-3850-A3D1

On Request