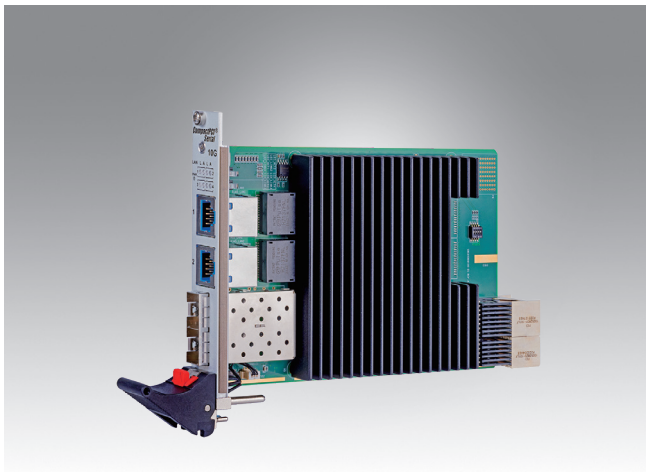


# MIC-3861

## 3U CompactPCI® Serial Quad Ports 10 Gigabit Ethernet Board with Intel® X710 TM4/AT2



### Features

- 3U CompactPCI® Serial 4HP height 10Gbps networking card
- 2 x 10GbE SFP+ plus 2\* 10GbE RJ45 ports with Intel® X710-TM4
- 2 x 10GbE M12 X-code ports with Intel® X710-AT2
- Supports virtualization (SR-IOV): up to 128 virtual functions
- PICMG CompactPCI Serial (CPCI-S.0 R2.0) compliant

Compliant with  
EN 50121-3-2

Compliant with  
EN 50121-4

Compliant with  
EN 50155

CE FCC



### Introduction

The MIC-3861, a standard 3U CPCI-serial peripheral board, features an Intel® Ethernet Controller X710-TM4, providing dual SFP+ fiber ports and dual copper ports in RJ45 connectors. An alternative configuration supports an Ethernet controller X710-AT2 with dual X-code M12 connectors. Known for its high performance, low latency, and reliability, the Intel® X710 series Ethernet NIC supports backward compatibility to 5Gbps, 2.5Gbps, 1Gbps, and 100Mbps speeds, delivering 10 GBase-T connectivity through 100 meters of Cat 6a cable and 5 GBase-T / 2.5GBase-T/ 1GBase-T / 100Base-TX through 100 meters of Cat 5e or better cabling.

The MIC-3861 utilizes PCI Express® 3.0 (up to 8GT/s) and supports x1, x4, and x8 link widths. Maximum PCIe data transfer rates for Gen3 (8 GT/s) depend on the CPU card and backplane slot. For optimal performance across all 10GbE ports, a PCI Express® Gen3 x8 connection from P1/P2 (CompactPCI® Serial fat pipe slot) is recommended for X710-TM4, and at least a PCI Express® Gen3 x4 from a P1-enabled backplane slot for X710-AT2. P6, unassembled by default, can be added for mechanical stability upon request.

The MIC-3861 meets EN50155, EN50121-3-2, EN50121-4, and EN-60601 standards, making it ideal for mission-critical applications in transportation, IEM, medical, and other fields due to its robust mechanical, EMC, safety, and environmental capabilities.

### Specifications

Ethernet Controller		Intel® Ethernet Controller X710-TM4	Intel® Ethernet Controller X710-AT2
		<ul style="list-style-type: none"><li>▪ Intel® Ethernet 700 Series architecture</li><li>▪ IEEE* 802.3 and NBASE-T* compliance</li><li>▪ Link speed: 1/2.5/5/10GBASE-T, 100BASE-TX</li></ul>	
Backplane Interface		Upstream PCIe Gen3 x8 from backplane to P1/P2	Upstream PCIe Gen3 x4 from backplane to P1
Front Panel		Dual SFP+ fiber ports, dual RJ45 copper ports	Dual X-code M12 or RJ45 copper ports
		LED indicators: PWR: Green, on; ACT: Green, blinking (data transfer activity) LNK: Green, on (10Gbps), Orange (5/2.5/1 Gbps (speed link))	
Dimension		3U/4HP, 100 mm x 160 mm Weight: 200 g	
Power Consumption		12V/16Watts	
OS Support		Windows 10 (64bit),Windows 11 (64bit), Linux: Ubuntu 22.04 x64, CentOS Stream 9	
Dielectric Withstanding Voltage			
Environment		Operating	Non-Operating
	Temperature	0 ~ 70 °C (-32 ~ 158 °F)	-40 ~ 85 °C (-40 ~ 185 °F)
	Humidity	95% @ 40 °C, non-condensing	95% @ 60 °C, non-condensing
	Vibration (5~500 Hz)	2Grms, random (5 Hz ~ 500 Hz)	
	Shock	10G, 11ms, each axis three times during operation mode	
	Note: 1. Operation wide temperature is per request; 2. Forced airflow is required 3. Mechanical test refers to IEC60068-2		
Regulatory		CE, FCC, UKCA, RoHS	
Compliance		PICMG® CompactPCI® Serial	

## Ordering Information

Part Number	Description	Front Panel			Others	
		RJ45	SFP+	M12 X-code	LAN Chip	Width
MIC-3861-A1S1	3U CPCI-S dual SFP+ fiber & dual RJ45 10GbE Base-T Ethernet card	2	2	-	X710-TM4	4HP
MIC-3861-B1S1	3U CPCI-S dual M12 X-code 10GbE Base-T port Ethernet card	-	-	2	X710-AT2	4HP
MIC-3861-C1S1	3U CPCI-S dual RJ45 10GbE Base-T port Ethernet card	2	-	-	X710-AT2	4HP

Note

1. Dual SFP+ & dual M12 10GbE ports with X710-TM4 feature is available on request

2. Dual Base-T ports can be switchable to rear backplane on request

## Related Products

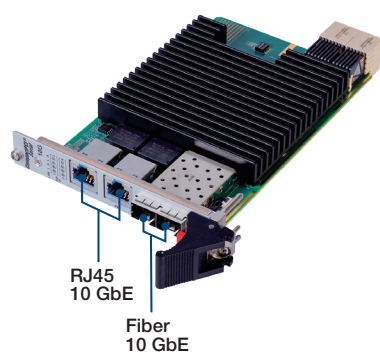
Recommended CPU Board	Description
MIC-330 Series	3U CPCI-Serial Intel® 9th Gen. processor blade
MIC-330V2 Series	3U CPCI-Serial Intel® 11th Gen. processor blade

Recommended Chassis & Power	Description
MIC-300A series	3U CPCI-Serial 84HP/44HP width, 3U/4U height chassis, with 8 slots backplane & mini fan
MIC-3890	3U CPCI-Serial DC-DC power module, 110V in/ 12V&5V output, 250W
XMIC330-HAC300S	3U CPCI-Serial AC-DC power module, 12V&5V output, 300W

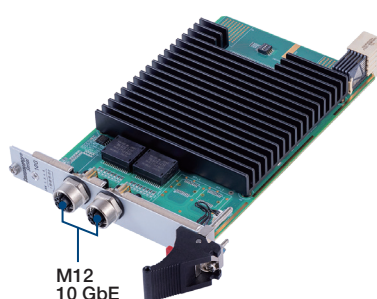
Recommended Optical SFP+ Transceiver Peripherals	Description
SFP-XMM-LCI-400	SFP+ 10G-SR-IT, 850nm, MM, 400m, -40~85 °C, multi-mode
SFP-XSM-LCI-10K	SFP+ 10G-LR-IT, 1310nm, SM, 10km, -40~85 °C, single-mode
SFP-XSM-LCI-20K	SFP+ 10G-ELR-IT, 1310nm, SM, 20km, -40~85 °C, single-mode
SFP-XSM5-LCI-40K	SFP+ 10G-ER40-IT, 1550nm, SM, 40km, -40~85 °C, single-mode
SFP-XSM-LCI-80K	SFP+ 10G-ZR, 1550nm, SM, 80km, -40~85 °C, single-mode
968AD00409	SFP+ 10G, 1310nm DFB SM, 10km, 0~70 °C, XCVR W/DDM, single-mode

## Product Photo

**MIC-3861-A1S1**



**MIC-3861-B1S1**



**On Request**

