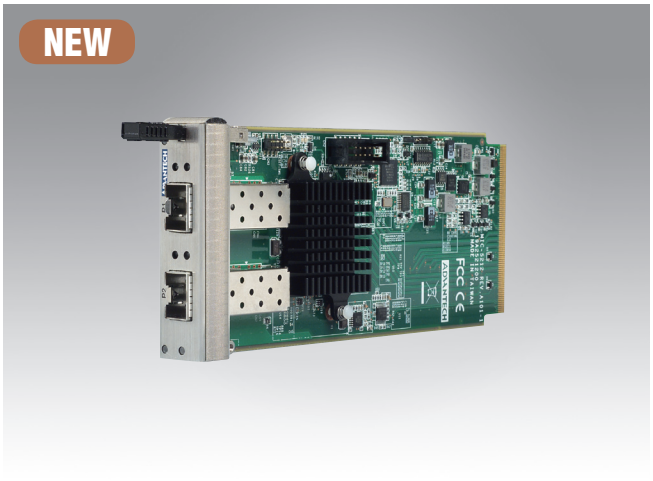
MIC-5212

Advanced Mezzanine Card
Dual 10 Gigabit Ethernet AMC



Features

- Intel® 82599 Dual Port 10 Gigabit Ethernet Controller
- PCIe x8 Gen.2 host interface
- Dual SFP+ connectors
- Compliant with AMC.0 R1.0, AMC.0 R2.0, AMC.1 R2.0 and IPMI v1.5 specifications

Introduction

The MIC-5212 is a low power, dual-port 10 GbE AMC, with SFP+ pluggable modules for multi-mode and single-mode fiber media and is based on the Intel® 82599ES 10 Gigabit Ethernet controller. The AMC provides a high performance PCIe x8 interface at 5 Gb/s per lane at an outstanding low power dissipation of less than 10W. Support for Intel's offloading and platform enhancement features yields maximum network throughput while preserving valuable CPU cycles for application processing.

The MIC-5212 features an Intel®82599 which provides Intel® Virtualization Technology for Connectivity (VT-c) including Virtual Machine Device Queues (VMDq) and PCI-SIG compliant Single Root I/O Virtualization (SR-IOV), helping to reduce I/O bottlenecks, boost throughput, and reduce latency. Where virtualization is required, VMDq improves performance by offloading the data-sorting burden from the virtual machine manager (VMM) to the network controller. The MIC-5212's specialized features include Layer 2 & 3 security with IPSec & LinkSec; VLAN tagging, stripping and packet filtering; and TCP, iSCSI, and Fiber Channel over Ethernet (FCoE) offload.

For a maximum of interoperability, the MIC-5212 supports a PCIex4 (AMC Ports 4..7) or PCIex8 (AMC ports 4..11) host interface. The PCIe reference clock can be supplied over FLCKA or an onboard oscillator for systems which do not supply a PCIe reference clock. The MIC-5212 is compliant with both AMC.0 R1.0 and R2.0 specifications.

Specifications

Controller	Controller	Intel® 82599ES dual 10GbE MAC/PHY	
	Virtualization technologies	VMDq, VMDc, SR-IOV	
	IP	IPv4, IPv6	
	Queues	128RX, 128TX per port	
	Offloading	TCP, UDP, SCTP, FCoE	
	Security acceleration	Linksec IEEE802.1ae (AES-128 Authorization/Encryption) IPSec (AES-128, 1024 SA's)	
IO	SFP+	2 sites with support for presence detect, status and ID EEPROM	
	LEDs	AMC FRU LEDs, Network Link and Activity	
Software	Operating Systems	Linux, Windows	
	Boot	PXE, iSCSI	
Power	Power Consumption	Payload Power (12V)	Management Power (3.3V)
	Does not include FOT transceivers	0.75A max	0.15A max
Environment		Operating	Non-Operating
	Temperature	0 ~ 55° C (32 ~ 131° F)*	-40 ~ 70° C (-40 ~ 158° F)
	Humidity	95 % @ 40° C, non-condensing	95 % @ 60° C, non-condensing
Physical Characteristics	Dimensions (W x D)	180.6 mm x 73.5 mm; mid-size, single-width**	
	Weight	0.124 kg (0.27 lbs)	
Compliance	AMC.0 R1.0, AMC.0 R2.0, AMC.1 R2.0 and IPMI v1.5		

*Note: Operating temperature depends on actual air flow through the AMC slot
**Note: Full-size front panel available on request. Pls contact your Advantech sales representative.

Ordering Information

Model Number	Description
MIC-5212-AE	Mid-size 10GbE AMC with dual SFP+ interfaces