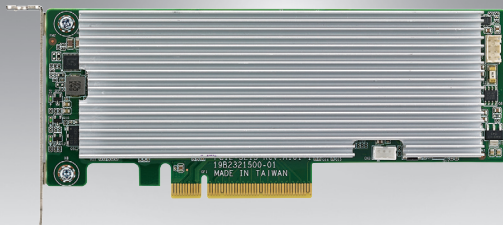


PCIE-3020

Dual / Single Intel® QuickAssist Acceleration Card

NEW



Features

- One or two Intel® QuickAssist Accelerators based on the Intel® Communications Chipset 8950 & 8925 previously codenamed "Coletto Creek"
- Compression, Crypto, Security Offload and Acceleration
- IPsec and SSL Acceleration including AES, 3DES, Kasumi and SNOW
- Two devices provide over 300k RSA decrypt ops per card
- Compression/Decompression with 40Gbps Compression offload (LZS, Deflate) per card
- PCIe gen. 3 x8 host interface
- Onboard Gen.3 PCIe switch
- Half-height, half-length PCIe form factor



Introduction

Advantech's PCIE-3020 is a half-height, half-length PCI Express adapter supporting hardware acceleration for Intel® QuickAssist Technology. In the highest performance SKU, two Intel® Communications Chipset 8950 onboard accelerator devices are complemented by a PCI Express gen. 3 switch to fully utilize the bandwidth offered by the latest Intel® Xeon® E5 processor family. Packaged in a standard half-height, half-length PCIe form factor, the PCIE-3020 is a perfect fit for hardware acceleration and offloading in high performance, high density throughput servers and appliances.

Offering acceleration for common security and crypto offloads such as AES, 3DES, Kasumi and SNOW, the PCIE-3020 can supplement the CPU throughput for the termination of standard security protocols such as IPsec and SSL, freeing up valuable cores and CPU cycles for application processing. With 50Gbps bulk crypto throughput and 165k RSA decrypt ops per accelerator device, the PCIE-3020 with more than 300k RSA decrypt ops offers best-in-class performance per watt at an outstanding price-performance ratio. Complemented with 20Gbps compression offload (LZS, Deflate) and even higher decompression offload per accelerator device, the PCIE-3020 can also be of great benefit in storage applications. Ultimately, the PCIE-3020 supports simultaneous crypto and compression offloading, making it an ideal choice for demanding applications such as WAN and traffic optimization, secure storage and secure web servers. Two price / performance optimized variants of the card are available supporting one Intel® DH8950 and one Intel® DH8925 PCH device providing scalability of Intel® QuickAssist offload capability.

Fully supported by Intel® QuickAssist Libraries and the Intel® Data Plane Development Kit (DPDK), customers can use application software without modifications across Intel® platforms with and without Intel® QuickAssist hardware acceleration minimizing time-to-market, total cost of ownership and resource investment.

Complementing Advantech's offering of standard blades, servers and appliances with built-in and scalable Intel® QuickAssist offload, the PCIE-3020 rounds up the portfolio by bringing Intel® QuickAssist offload to white-box servers and proprietary platforms. Through Advantech's Customized COTS framework and services, the PCIE-3020 can be easily tailored to meet customer requirements, both in terms of standard PCIe form factor cards with different accelerator configurations or integrated with Ethernet controller silicon on both standard and proprietary form factor cards. Contact your Advantech representative to learn more about Advantech's standard PCIe adapters, networking platforms or professional customization services.

Specifications

Accelerator	Chipset	2 x Intel® Communications Chipset 8950	1 x Intel® Communications Chipset 8950	1 x Intel® Communications Chipset 8925
PCIexpress	Host Interface	PCIe gen. 3 x8 (8Gbps/lane)		
	Onboard switch	PLX PEX8747		
Software	Intel® DPDK	Version 1.0 or higher		
Power Requirement	Configuration	2 x Intel® Communications Chipset 8950	1 x Intel® Communications Chipset 8950	1 x Intel® Communications Chipset 8925
	Consumption	50W (typical)	30W (typical)	27W (typical)
Physical Characteristics	PCB Dimensions	Half height, low profile PCIe		
	Weight	0.37 kg	0.35 kg	0.35 kg
Environment	Temperature	Operating 0 - 40° C (32 ~ 131° F)		Non-operating - 40 ~ 70° C (-40 ~ 158° F)
	Humidity	5 to 93% @ 40° C (non condensing)		95% @ 40° C (non-condensing)
	Shock	4 G each axis		20 G each axis
	Vibration (5 - 500 Hz)	0.5 Grms		2.16 Grms, 30 mins each axis
	Compliance	Environment	ETSI EN300019-2-1 Class1.2, EN300019-2-2 Class 2.3	
	PCI SIG	PCI Express CEM Specification Rev. 2.0		

Ordering Information

Model Number	Configuration
PCIE-3020NA-00A1E	Dual Intel® QuickAssist Acceleration Adapter with Intel® DH8950 and active heatsink
PCIE-3020NP-01A1E	Dual Intel® QuickAssist Acceleration Adapter with Intel® DH8950 and passive heatsink
PCIE-3020NP-02A1E	Single Intel® QuickAssist Acceleration Adapter with Intel® DH8950 and passive heatsink
PCIE-3020NP-03A1E	Single Intel® QuickAssist Acceleration Adapter with Intel® DH8925 and passive heatsink