



PE3IS4CO3

Silicom's Quad HW Accelerator sku3 Crypto Compression PCI E G3 Server Adapter Intel® Based

Product Description

Silicom's HW Accelerator Crypto Compression PCI Express Server adapters are based on-chip HW accelerator Intel Coletto Creek communication controller.

Silicom's Coletto Creek PCI Express Server adapters support Intel QuickAssist Technology for Hardware Crypto and Compression accelerator engines. The Silicom's Coletto Creek Encryption Acceleration Cards are optimized to Intel Architecture (IA) support.

The Silicom's Coletto Creek PCI Express Server adapters are based on Intel production process that provides the best industry performance, power and cost.



Key Features

Performance Features:

- Intel® QuickAssist Accelerator
- Symmetric Cryptographic Functions
 - Cipher Operations
 - Hash/Authenticate Operation
 - Cipher-Hash Combined Operation
 - Key Derivation Operation
 - Random Number Generation
- Public Key Functions
 - RSA Operation
 - Diffie-Helman Operation
 - Digital Signature Standard Operation
 - Key Derivation Operation
 - Elliptic Curve Cryptography: ECDSA* and ECDH*
 - Random Number Generation and Prime Number Testing



- Compression/Decompression
 - Deflate (Lempel-Ziv 77-Stack)
- Support for 32 SR-IOV Virtual functions

Common Key features:

- PCI Express X8 lanes
- Support PCI Express Base Specification 3.0 (8 GTs)
- High performance, reliability, and low power use in Intel (sku2) DH8950CL / (sku3) DH8955CL PCH controller

Technical Specifications

Coleto Creek SKU2 / SKU3 performance per a single controller:

Coleto Creek chip	Sku2	Sku3
Intel® Quick Assist Technology Capability	50Gbps	*50Gbps
IPSec	43Gbps	*43Gbps
SSL	50Gbps	*50Gbps
Compression	20G	*23G
Kasumi/ Snow3G	30Gbps	*30Gbps
RSA Decrypt 1k-bit	165K (ops/sec)	190K (ops/sec)
RSA Decrypt 2k-bit	35K (ops/sec)	40K (ops/sec)

*x8/ Gen3 card level will limit the IO performance to 54Gbps

Operating Systems Support

Operating system support:	Linux
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General Technical Specifications

Interface Standard:	PCI-Express Base Specification Revision 3.0 (8 GTs)
Board Size:	Low profile long add-in card: 311.99mm X 68.91mm (12.283"X 2.713")
PCI Express Card Type:	x8 Lane

PCI Express Voltage:	+12V +- 8% and external 3x2 connector
PCI Connector:	Gold Finger: X8
Controller:	Sku2: Intel DH8950CL Sku3: Intel DH8955CL
Holder:	Metal Bracket: Full Height and Low Height
Operating Humidity:	0%–90%, non-condensing
Operating Temperature:	0°C – 45°C (32°F – 113°F) Air flow requirement for this adapter is 200 LFM
Storage:	-40°C–65°C (-40°F–149°F)
EMC Certifications:	<p>FCC Part 15, Subpart B Class A</p> <p>Conducted Emissions</p> <p>Radiated Emissions</p> <p>CE EN 55022: 1998 Class A Amendments A1: 2000; A2: 2003</p> <p>Conducted Emissions</p> <p>Radiated Emissions</p> <p>CE EN 55024: 1998 Amendments A1: 2000; A2: 2003</p> <p>Immunity for ITE Amendment A1: 2001</p> <p>CE EN 61000-3-2 2000, Class A</p> <p>Harmonic Current Emissions</p> <p>CE EN 61000 3-3 1995, Amendment A1: 2001</p> <p>Voltage Fluctuations and Flicker</p> <p>CE IEC 6100-4-2: 1995</p> <p>ESD Air Discharge 8kV. Contact Discharge 4kV.</p> <p>CE IEC 6100-4-3:1995</p> <p>Radiated Immunity (80-1000Mhz), 3V/m 80% A.M. by 1kHz</p> <p>CE IEC 6100-4-4:1995</p> <p>EFT/B: Immunity to electrical fast transients 1kV Power Leads, 0.5Kv Signals Leads</p> <p>CE IEC 6100-4-5:1995</p> <p>Immunity to conductive surges COM Mode; 2kV, Dif. Mode 1kV</p> <p>CE IEC 6100-4-6:1996</p> <p>Conducted immunity (0.15-80 MHz) 3VRMS 80% A.M. By 1kHz</p> <p>CE IEC 6100-4-11:1994</p> <p>Voltage Dips and Short Interruptions</p> <p>V reduc >95%, 30% >95% Duration 0.5per, 25per, 250per</p>

Order Information

P/N	Description	Notes
PE3IS4CO2	Quad HW Accelerator sku2 Crypto Compression PCI E G3 Server Adapter	Gen 3.0 X8, Based on Intel Coleco Creek SKU2 DH8950CL, Low-Profile, RoHS compliant
PE3IS4CO3	Quad HW Accelerator sku3 Crypto Compression PCI E G3 Server Adapter	Gen 3.0 X8, Based on Intel Coleco Creek SKU3 DH8955CL, Low-Profile, RoHS compliant

Model P/N -LP

1V5