PE3iSCO - Silicom’s HW Accelerator sku3 Crypto Compression PCI E G3 Server Adapter ColetoCreek SKU3 / SKU2

Description

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

Silicom’s Coleto Creek PCI Express Server adapters support Intel QuickAssist Technology for Hardware Crypto and Compression accelerator engines.

The Silicom’s Coleto Creek PCI Express Server adapters are optimized to Intel Architecture (IA) support.

The Silicom’s Coleto 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-Stac)
• 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:**

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

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## Operating Systems Support

Operating system support: Linux

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## PE3iSCO2/3: General Technical Specifications

### Interface Standard:
PCI-Express Base Specification Revision 3.0 (8 GTs)

### Board Size:
Low profile short add-in card: 167.64mm X 68.91mm (6.60” X 2.713”)

### PCI Express Card Type:
x8 Lane

### PCI Express Voltage:
+12V +- 8%

### 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:
FCC Part 15, Subpart B Class A
Conducted Emissions
Radiated Emissions
Conducted Emissions
Radiated Emissions
Immunity for ITE Amendment A1: 2001
CE EN 61000-3-2 2000, Class A
Harmonic Current Emissions
Voltage Fluctuations and Flicker
CE IEC 61000-4-2: 1995
ESD Air Discharge 8kV, Contact Discharge 4kV.
CE IEC 61000-4-3:1995
Radiated Immunity (80-1000Mhz), 3V/m 80% A.M. by 1kHz
CE IEC 61000-4-4:1995
EFT/B: Immunity to electrical fast transients 1kV Power Leads, 0.5Kv Signals Leads
CE IEC 61000-4-5:1995
Immunity to conductive surges COM Mode; 2kV, Dif. Mode 1kV
CE IEC 61000-4-6:1996
Conducted immunity (0.15-80 MHz) 3VRMS 80% A.M.
By 1kHz
CE IEC 61000-4-11:1994
Voltage Dips and Short Interruptions
V reduc >95%, 30% >95% Duration 0.5per, 25per, 250per

Order Information

<table>
<thead>
<tr>
<th>P/N</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE3ISCO2</td>
<td>Dual HW Accelerator sku2 Crypto Compression PCI E G3 Server Adapter</td>
<td>Gen 3.0 X8, Based on Intel Coleco Creek SKU2, DH8950CL Low-Profile, RoHS compliant</td>
</tr>
<tr>
<td>PE3ISCO3</td>
<td>Dual HW Accelerator sku3 Crypto Compression PCI E G3 Server Adapter</td>
<td>Gen 3.0 X8, Based on Intel Coleco Creek SKU3, DH8955CL Low-Profile, RoHS compliant</td>
</tr>
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</table>

Model P/N -LP : Assemble low profile metal bracket

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