PE3ISLBTL

PCIe 3.0, x8 Crypto / Compression LBG Server Adapter

Product Description

Silicom's LBG-x NS Crypto / Compression server adapters are 3rd generation of Silicom adapters which are based Intel 3rd generation chipset to integrate Intel® QuickAssist Technology.

Silicom's LBG-x NS Crypto / Compression server adapters are optimized to Intel® Architecture provide Data Centers and Cloud applications benefit greatly from the high performance security and compression capabilities, enabling more efficient network and storage architectures.



Servers with Intel® QuickAssist Technology create a new compute paradigm in cloud services. Virtualized machines with virtualized acceleration services allow for network function virtualization as standard practice.
Network elements share the same common standard hardware implementation. True software define network elements run on standard server.

Silicom's LBG-x NS Crypto/ Compression server adapters integrates 100Gbps accelerator and an integrated Intel 4x 10GbE.

Silicom's LBG-x NS Crypto / Compression server adapters Optimized to Intel® Architecture. Simplest and highly mature architecture leading to highest reliability.

Silicom's LBG-x NS Crypto / Compression server adapters uses Intel solution and drivers: Seamless integration with the customer's OS and application.



Key Features

- Intel® QuickAssist Technology for Crypto and Compression
  - Bulk: AES, 3DES, (A) RC4
  - Hash: MD5, SHA-1/2 SHA-3 HMAC
  - Wireless: KASUMI , ZUC, SNOW 3G
  - Public Key – DH, RSA, DSA, EDSA, ECDH
  - Compression/Decompression-Deflate
  - RDMA (iWARP) support per link

- PCI Express X8 lanes
- Support PCI Express Base Specification 3.0 (8 GTs)

System Acceleration Throughput

	INTEL® C628 CHIPSET/ INTEL® C627 CHIPSET	INTEL® C626 CHIPSET	INTEL® C625 CHIPSET
SSL/IPSec	54Gbps (PCIe BW)	40Gbps	20Gbps
Compression Deflate	54Gbps (PCIe BW)	40Gbps	20Gbps
Decompression Deflate	54Gbps (PCIe BW)	54Gbps (PCIe BW)	54Gbps (PCIe BW)
RSA Decrypt 1k-bit	550K Ops/sec	550K Ops/sec	550K Ops/sec
RSA Decrypt 2k-bit	100K Ops/Sec	40K Ops/Sec	20K Ops/Sec
TLS Handshakes ECDH_RSA2K	440K Ops/sec		
TLS Handshakes EDHE+ECDSA	51K Ops/sec		
SSL/IPSec + Compression + PKE	Total 120 Gbps + 100K Ops/sec		

Technical Specifications

General Technical Specifications:	
Interface Standard:	PCI-Express Base Specification Revision 3.0 (8 GTs)
Board Size:	Low profile short add-in card: 167.64 mm X 64.389mm (6.600”X 2.535”)
PCI Express Card Type:	X8 Lane
PCI Express Voltage	+12V ± 8% +3.3V ± 9% There will not be an external Aux power input.
PCI Connector:	Gold Finger: X8
Controllers:	Intel® C628 Chipset Intel® C627 Chipset Intel® C626 Chipset Intel® C625 Chipset
Weight:	170 gr (6.0 oz)
Power Consumption:	PE3ISLBTL – 16.33W PE3ISLBML – 6.97W

	PE3ISLBEL – 4.90W Measure with Intel basic test program
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
Cooling	Heatsink With Integrated Fan. (Stretch-Goal of Fanless Operation, which will require modeling)
Storage:	-40°C–65°C (-40°F–149°F)
Regulation:	Card shall meet CE, FCC Class B, ROHS requirements.
MTBF:	409 years *According to Telcordia SR-332 Issue 3 Environmental condition – GB (Ground, Fixed, Controlled). Ambient temperature – 25°C. Temperature rise of 15°C above the system ambient temperature was assumed for the cards components.
Operating Systems Support:	
Operating system support:	Linux

Order Information

P/N	Description	Notes
PE3ISLBLL	PCIe 3.0, x8 Crypto / Compression LBG Server Adapter	Based on Intel® C628 Chipset Gen 3.0 x8
PE3ISLBTL	PCIe 3.0, x8 Crypto / Compression LBG Server Adapter	Based on Intel® C627 Chipset Gen 3.0 x8
PE3ISLBEL	PCIe 3.0, x8 Crypto / Compression LBG Server Adapter	Based on Intel® C625 Chipset, Gen 3.0 x8
PE3ISLBML	PCIe 3.0, x8 Crypto / Compression LBG Server Adapter	Based on Intel® C626 Chipset, Gen 3.0 x8

Model P/N -LP

1V4