PE316ISLBEL

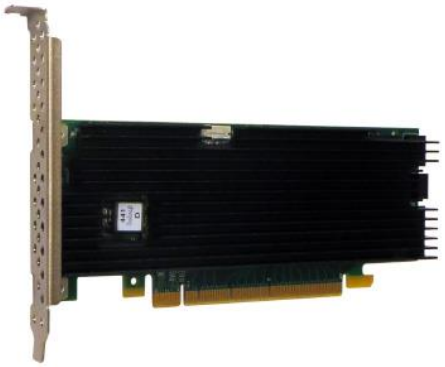
PCIe 3.0 Crypto / Compression LBG Server Adapter / LBG-x LBG-L

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.
Simplest and highly mature architecture leading to highest reliability.

Silicom's LBG-x NS Crypto/ Compression server adapters integrates 100Gbps accelerator. 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 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 X16 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	100Gbps	40Gbps	20Gbps
Compression Deflate	100Gbps	40Gbps	20Gbps
Decompression Deflate	100Gbps	100Gbps	100Gbps
RSA Decrypt 1k-bit	550K Ops/sec	550K Ops/sec	550K Ops/sec
RSA Decrypt 2k-bit	100 Ops/Sec	40 Ops/Sec	20 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:	X16 Lane
PCI Express Voltage	+12V ± 8% +3.3V ± 9% +3.3V AUX ± 9% • There will not be an external Aux power input.
PCI Connector:	Gold Finger: X16
Controllers:	Intel® C628 Chipset Intel® C627 Chipset Intel® C626 Chipset Intel® C625 Chipset
Weight:	170 g (6 oz)
Power Consumption:	For Intel® C628 Chipset: 17.61W : 1.36A at 12V , 0.39A at 3.3V
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.
Operating Systems Support:	
Operating system support:	Linux

Order Information

P/N	Description	Notes
PE316ISLBLL	PCIe Crypto / Compression LBG Server Adapter	Based on Intel® C628 Chipset Gen 3.0 x16
PE316ISLBTL	PCIe Crypto / Compression LBG Server Adapter	Based on Intel® C627 Chipset Gen 3.0 x16
PE316ISLBEL	PCIe Crypto / Compression LBG Server Adapter	Based on Intel® C625 Chipset, Gen 3.0 x16
PE316ISLBML	PCIe Crypto / Compression LBG Server Adapter	Based on Intel® C626 Chipset, Gen 3.0 x16

Model P/N -LP

1V4