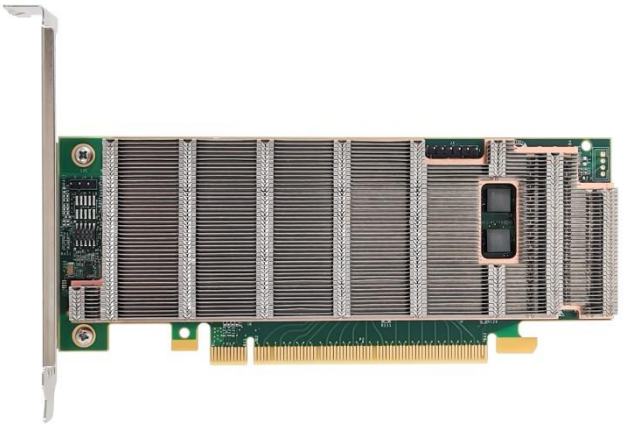
Lisbon P2 ACC100 FEC Accelerator Extended temp

Extended temperature eASIC ACC100 FEC Accelerator P2 Server Adapter Intel® Based

Product Description

Silicom's Lisbon P2 eASIC ACC100 FEC Accelerator Extended temp server adapter is based on the Intel vRAN Dedicated Accelerator ACC100, an Intel® eASIC® Nextreme 3S device. The ACC100 includes 4G (Turbo) and 5G (LDPC) encoding and decoding features all accessible through a PCI Express connection.

The next generation telecom networks (5G) have started hitting the market end of 2018 and will continue to expand worldwide. Beyond just speed improvements, 5G is expected to unleash a massive IoT ecosystem where networks can serve communication needs for billions of connected devices, with the right trade-offs between speed, latency, and cost. 5G technology is driven by some specification requirements: Up to 10Gbps data rate, 1-millisecond latency, up to 100x number of connected devices per unit area (compared with 4G LTE), 100% coverage, etc.)



The PCIe shall be deployed in various Xeon based COTS servers ranging from Dual-Socket Xeon-SP Rackmount implementations, Single Socket Xeon-SP Edge servers through to low core count (LCC) based Xeon-D servers. The commercial solution shall be implemented on the Low Profile Half Length PCI Express x16 Generation 3 Add In Card.

Key Features

- Support eASIC Nextreme-3S family, 35mmx35mm package.
- Supports on board up to 16GBit DDR4 with ECC.
- PCIe Gen3, X16.
- Support PCI Express Base Specification 3.0 (8 GTs)
- Half Length, Low profile height
- Selection of Heat sink types optimized to application power / host server limitation

Technical Specifications

General Technical Specifications Adapters:	
Chip:	eASIC Nextreme-3S family, 35mmx35mm package with 1.0mm ball pitch
FW Flash:	SPI Flash Device
Memory:	Samsung 4GB DDR4 SDRAM 512Mx16 96FBGA. 64bit 2667Mbps DDR-4 with 8-bit ECC. Mfr. P/N K4A8G165WB-BITD
Interface Standard:	PCI-Express Base Specification Revision 3.0 (8 GTs)
Board Size:	Half Length, Low profile height: 167.64 mm X 64.389mm (6600”X 2.535”)
PCI Express Card Type:	X16 Lane
PCI Express Voltage:	+12V +- 8% from PCIe Edge Connector. +3.3V AUX ± 9%
PCIe Connector:	Gold Finger: X16
Power Consumption:	Maximum: 52W Typical: 41W
Sensors:	Temperature Sensor
Debug Connectors:	6-Pin UART interface for MCU 3-Pin Header for I2C measurements MCU Programming Connector
Operating Temperature P1:	0°C – 45°C (32°F – 113°F), ambient temperature, Air flow 500LFM
Operating Temperature P2:	– 20°C to – 55°C (-4°F – 131°F), ambient temperature, Air flow 500LFM
BMC:	MCU, P/N: MIMXRT1064CVL5B
BMC Image:	Silicom image to support board level management
Operation system support:	Linux
Storage:	-40°C–65°C (-40°F–149°F)
Regulation:	Card shall meet CE, FCC Class B, ROHS requirements.
LEDs:	4x Green Color, active when all power on board is Good. 1x Yellow Color, Fault Status indication.

Order Information

P/N	Description	Notes
P3iMB1-M-P1	P3 – PCIe-3, iMB – Intel ACC100, -M for management BMC, -P1 for Passive Heat sink 1	Standard Temp
P3iMB1-M-P2	P3 – PCIe-3, iMB – Intel ACC100, -M for management BMC, -P2 for Active Heat sink 2 (extended temperature).	E-Temp
P3iMB-M-A1	P3 – PCIe-3, iMB – Intel ACC100, -M for management BMC, -A1 for Active Heat sink 1	

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