



Product Brief
R7E-100 PCI Express NetLogic XLR
Packet Processor Card

Rev 0.8



Order Code:

900-022-601	Netlogic XLR732 PCI Express board with 1.0GHz processor and 4G of DDR2
900-022-602	Netlogic XLR732 PCI Express board with 1.0GHz processor and 8G of DDR2

Summary:

The JumpGen Systems R7E-100 Accelerator Card is a high-performance network processor PCI Express card designed for use in PCI Express compliant systems. The R7E-100 is a 75W single slot PCI Express card featuring the latest NetLogic XLR732 eight core processor or XLR716 quad core processor with up to a 1.2GHz clock rate. The R7E-100 can be delivered with up to 8GB of dual-channel 72-bit wide DDR2 ECC memory running at 800 MHz. The NetLogic XLR732 and NetLogic XLR716 are multi-core, multi-threaded MIPS64® processors with a rich set of Integrated I/O.

The NetLogic XLR732 also provides up to 10 Gbps of bulk encryption (DES / 3DES, AES 128/192/256, ARC4 and others) via 4 high-speed crypto cores and integrated security acceleration (RSA / DH Exponentiation for SSL / IPsec). The NetLogic XLR716 provides up to 5 Gbps of bulk encryption. This makes the R7E-100 ideal for security applications in wireless and wireline access points, switches and routers, radio network controllers, media gateways and video processing applications.

The R7E-100 will support the following configuration build options

- 1) Processor Options
 - a. XLR732 or XLR716
 - b. CPU core speeds of 800MHz, 950MHz, 1.0GHz, 1.2GHz

Features:

Network Processing Units (NPU's)	<p>NetLogic XLR732 Processor Family featuring eight 64 bit Processing Cores</p> <ul style="list-style-type: none"> • Up to 1.2 GHz with 2MB L2 cache • Up to 8GB of DDR2 memory w/ ECC on dual-channel x72 bus per XLR732 • Autonomous Security Acceleration Engine® (SAE) @ 10 Gbps <p>NetLogic XLR716 Processor Family featuring four 64 bit Processing Cores</p> <ul style="list-style-type: none"> • Up to 1.2 GHz with 1MB L2 cache • Up to 8GB of DDR2 memory w/ ECC on dual-channel x72 bus per XLR732 • Autonomous Security Acceleration Engine® (SAE) @ 5 Gbps
I/O Capabilities	<p>Dual front panel SFP+ 10GigE sites</p> <p>Dual front panel SFP 1GigE sites</p> <p>PCI Express x4 to base board</p> <p>16MByte of NOR Flash for code and data storage</p>
Mechanical	Standard single-slot PCI Express card form factor
Environmental	<p>Operating temperature range: 0 to 35 °C Ambient, assuming 20 °C rise for chassis</p> <p>Humidity: 0 to 95% (non-condensing)</p> <p>Typical power consumption: 60W</p> <p>Worst-case power consumption: 75W w/ 1.2GHz NetLogic CPU</p>
Regulatory	<p>Designed and manufactured to meet the following requirements:</p> <p>FCC Class A / CE / IEC 60950 / NEBS Level 3</p> <p>Company will get certifications as required to meet specific customer requirements</p>

Block Diagram:

