

RPE-110

PCI Express Broadcom XLP4xx Packet Processor Card

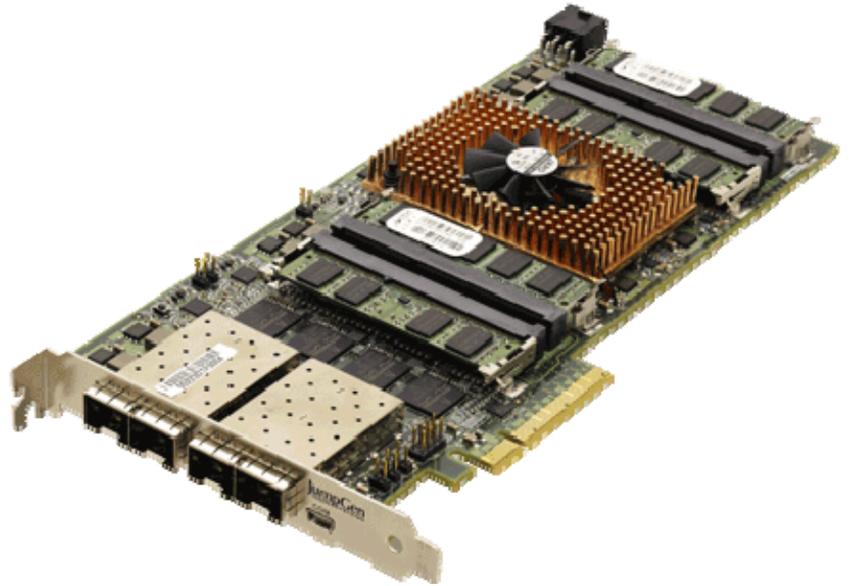
SUMMARY

The PARPRO Embedded System's RPE-110 features the Broadcom XLP4xx series processor with up to 1.2GHz core frequency.



The RPE-110 can be delivered with up to 16GB of quad-channel 72-bit wide DDR3 ECC memory running at 1600MT/s. Four SFP/SFP+ interfaces, each individually configurable for 1GigE SFP or 10GigE SFP+, are provided on the front panel.

Refer to the block diagram for detail.



APPLICATIONS

Packet Processing

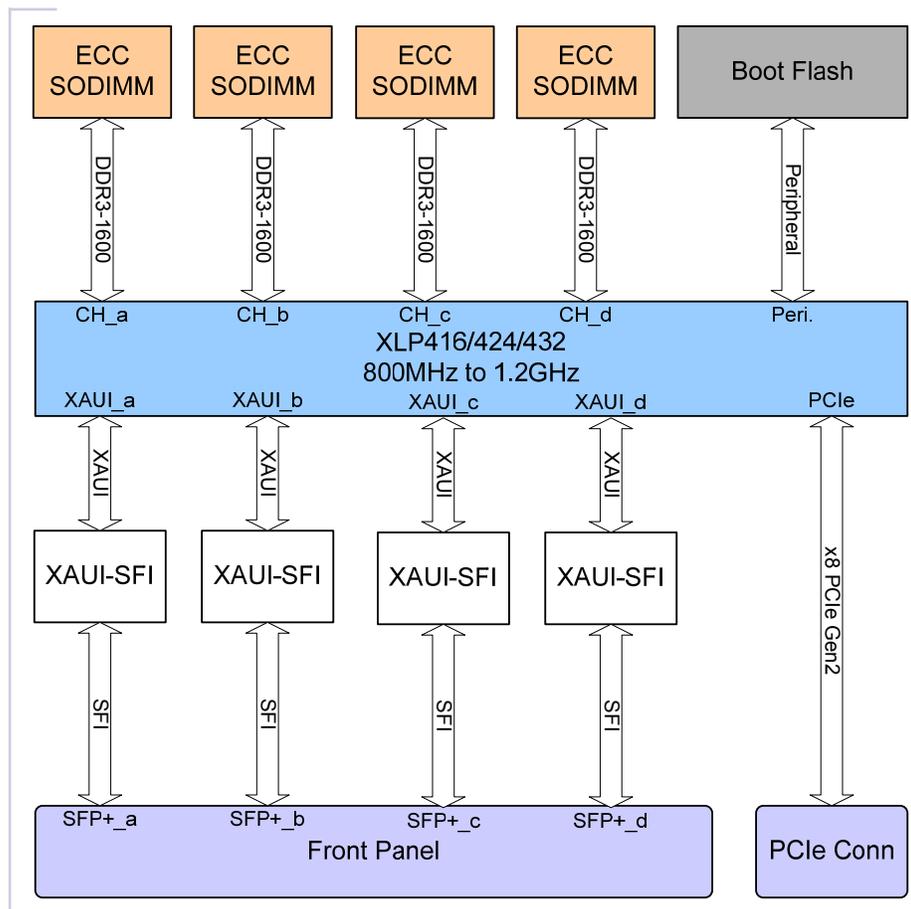
Deep Packet Inspection

Data Security

Load Balancing



BLOCK DIAGRAM



▶ RPE-110

▶ FEATURES

Network Processing Units (NPUs)	<p>Broadcom XLP416, XLP424, or XLP432</p> <ul style="list-style-type: none"> • 2-8 cores – each quad-issue, 4-way simultaneous multi-threaded • 64-bit MIPS64 Release-II ISA with enhanced instructions • 64KB L1-I Cache per core • 32KB L1-D Cache per core • 512KB L2 Cache per core • Up to 8MB L3 Cache (shared) • Out-of-order processing • IEEE754-compliant floating point unit per core • 800 MHz – 1.6 GHz core frequency <p>Accelerator Engines</p> <ul style="list-style-type: none"> • Up to 40Gbps bulk encryption/decryption • Up to 30K RSA key exchanges per second • Up to 10Gbps bulk compression/decompression <p>IEEE1588v2 PTP controller</p>
Memory	Up to 16GB of DDR3 memory w/ ECC on quad-channel x72 bus DDR3 clock rate up to 1600MT/s
I/O Capabilities	<p>Four front panel SFP/SFP+ 1/10GigE sites</p> <ul style="list-style-type: none"> • Each site configurable individually for 1G SFP or 10G SFP+ operation <p>PCI Express Gen 2 x8 to base board</p>
Software	<p>Broadcom Microsystems XLP SDK</p> <ul style="list-style-type: none"> • Linux Distribution • Lightweight fast path executive • Debug and development tools • Example software and benchmark code <p>Other Linux distributions supported, contact your sales representative for details</p>
Mechanical	<p>Standard single-slot PCI Express card form factor</p> <ul style="list-style-type: none"> • Three-quarters Length • Full Height <p>Operating temp range: 0 to 35 °C Ambient, assuming 20°C rise inside chassis Humidity: 0 to 95% (non-condensing) Typical power consumption: 20-100W, depending on XLP4xx and speed selection</p>
Regulatory	<p>Designed and manufactured to meet the following requirements: FCC Class A / CE / IEC 60950 / NEBS Level 1 Company will get certifications as required to meet specific customer requirements</p>

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