

Product Brief
PRX-100 Processor Card

Rev 0.42



Summary:

The JumpGen Systems PRX-100 Processor Card is a high-performance low cost CPU card designed for use in either as a PMC (Monarch or non-Monarch) or XMC form factor in standards compliant deployments; higher performance configurations are available with extended height options. Featuring the next generation Intel SoC processor with clock rate up to 1200 MHz, it can be fitted with up to 2GB of 72-bit wide DDR2 ECC memory running up to 800 MHz and 2-4 GB of onboard bootable SSD.

Features:

<p>Central Processing Units (CPUs)</p>	<p>Intel next-generation System-on-Chip (SoC) processor (3 speeds available)</p> <ul style="list-style-type: none"> • 600MHz, 1066MHz, and 1200MHz speeds available • CPU available with or without “Application Services” acceleration <p>Integrated Memory Controller Hub (MCH)</p> <ul style="list-style-type: none"> • Up to 2GB of DDR2 memory w/ ECC running up to 800MHz <ul style="list-style-type: none"> ○ 800MHz memory for 1066 and 1200MHz CPUs ○ 667MHz memory for 600 MHz CPU • Bus width of x72
<p>I/O Capabilities</p>	<p>PCIe to baseboard</p> <ul style="list-style-type: none"> • x8 in XMC-only configurations • x4 in PMC/XMC shared configurations • Root complex only <p>PCI-X 133 to baseboard</p> <ul style="list-style-type: none"> • Using TSI 384 PCIe to PCI-X bridge • Transparent or Non-Transparent configurations available <p>3 GigE Ports</p> <ul style="list-style-type: none"> • One RJ-45 on Front Panel • Two on Pn4 (PICMG 2.15 configuration) <p>Serial Protocols</p> <p>USB on Pn4 and XMC user-defined pins</p>
<p>Mass Storage</p>	<p>2-4 GB SSD on SATA port</p> <p>SATA to XMC user-defined pins</p>
<p>BIOS support</p>	<p>SSD boot</p> <p>PXE boot</p> <p>serial console redirection</p>

Mechanical	<p>standard PMC or standard XMC form factor:</p> <ul style="list-style-type: none"> • PMC and XMC functions co-exist when using standard height <p>Alternative “tall” form factor:</p> <ul style="list-style-type: none"> • PMC: 15mm stacking connector height • XMC: 12mm stacking connector height <p>1066Mhz and 1200MHz CPUs available only in “tall” form factor</p>
Environmental	<p>Operating temperature range: 0 to 55 °C</p> <p>Humidity: 0 to 95% (non-condensing)</p> <p>Worst-case power consumption: 25-34W, depending on CPU selection</p>

Block Diagram:

