



Product Brief
PRX-100 PrPMC or PrXMC
Processor Card
Rev. 0.5

Summary:

The JumpGen Systems PRX-100 Processor Card is a high-performance low cost CPU card designed for use in either PMC (Monarch or non-Monarch) or XMC form factor standards compliant deployments; higher performance configurations are available with extended height options. Featuring the Intel® EP80579 Integrated Processor with Intel® QuickAssist Technology and clock rates up to 1200 MHz, the PRX-100 can be fitted with up to 2GB of 72-bit wide DDR2 ECC memory running up to 800 MHz and up to 8 GB of onboard bootable SSD.

The PRX-100 may be deployed with 600 MHz, 1.066 GHz, or 1.2 GHz processors to serve as co-processor or host processor for embedded communication applications. The Intel EP80579 is available with integrated accelerators that support Intel QuickAssist Technology through software packages provided by Intel. The software drivers enable acceleration of cryptographic and packet processing for VPN/firewall and unified threat management, wireless and WIMAX access applications, and SMB and home network attached storage applications.

Features:

Central Processing Units (CPUs)	<p>Intel® EP80579 Integrated Processor</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
I/O Capabilities	<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 5) <p>Serial Protocols</p> <p>USB on Pn4 and XMC user-defined pins</p>
Mass Storage	<p>Up to 8 GB SSD on SATA port</p> <p>SATA to XMC user-defined pins</p>

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

Block Diagram:

