

The Rapid-Technology PMC-Stratix board is a high performance computing subsystem and I/O expansion module for embedded applications in PMC form factor. Based on high performance FPGA technology, the board functionality is completely user defined. Sample applications include telecom data processing, compute intensive DSP co-processing, machine control and I/O interfacing for processor host boards. This PCI 2.2 compliant module supports 64-bit/66MHz down to 32-bit/33MHz Master/Target PCI interfacing. The board comes with the active and physical layer components for System-On-a-Programmable-Chip (SOC) design. Full support for the Altera Nios embedded processor is provided with SOPC Builder compliant components.



Figure 1. Functional Block Diagram

Features

PCI 2.2 32/64-bit 33/66MHz Master/Target

- Industry Standard PLX-9656 Accelerator
- Software Development Tools including API, Object Code Library, Sample Applications, and Drivers are available from PLX, www.plxtech.com

System-On-a-Programmable-Chip (SOC)

- Altera Nios 16/32 bit Embedded Processor Support
- Altera SOPC Builder supported Memories:
 - 8 MByte FLASH for code storage
 - 1 Mbyte SRAM (two banks of 512 Kbytes)
 - 16 Mbytes SDR SDRAM
- RS-232 Serial Port accessible through Front Panel serial port.

User Configurable I/O Pins

- 64 I/O pins on PMC P4 I/O Connector
 - 5V/3.3V translators for FPGA interface
- 90 I/O pins on 2 Headers
 - Accessible from backside of board.
 - 6 Input Clocks (single or differential)
 - 5 Output Clocks (3 single, 2 differential)
 - Populated upon customer request due to PMC height restriction specifications.

Ordering

Ordering Code: PMC-STRATIX1S25C5
 Single Unit Price: \$1995 - Contact us for options.
 Availability: Now

Processing

High Performance Altera Stratix FPGA

- EP1S25F1020C5 device is standard
 - 25,660 Logic Elements
 - 1.9 Mbits On-Chip Memory
 - 10 DSP Blocks, 80 Dedicated Multipliers
 - 6 PLLs
- Board supports all Altera Stratix devices in the 1020 pin FINELINE BGA (EP1S25/30/40/60/80). Contact Rapid-Technology for custom board requirements.

Logic Configuration

- FPGA configured from EPC8/16 Configuration PROM on power up.
- EPC8/16 PROM programming and dynamic FPGA configuration via the Front Panel JTAG connector.
- Rapid-Technology MVDC Download Cable Included.

Power

- PMC connector provides main power and is regulated on board for device operating voltages.
- The board can operate independently by applying power to the PCB power pads. This allows development in the absence of a host board.

Please visit www.rapid-technology.com for more details and contact us at 888.290.4225 or info@rapid-technology.com