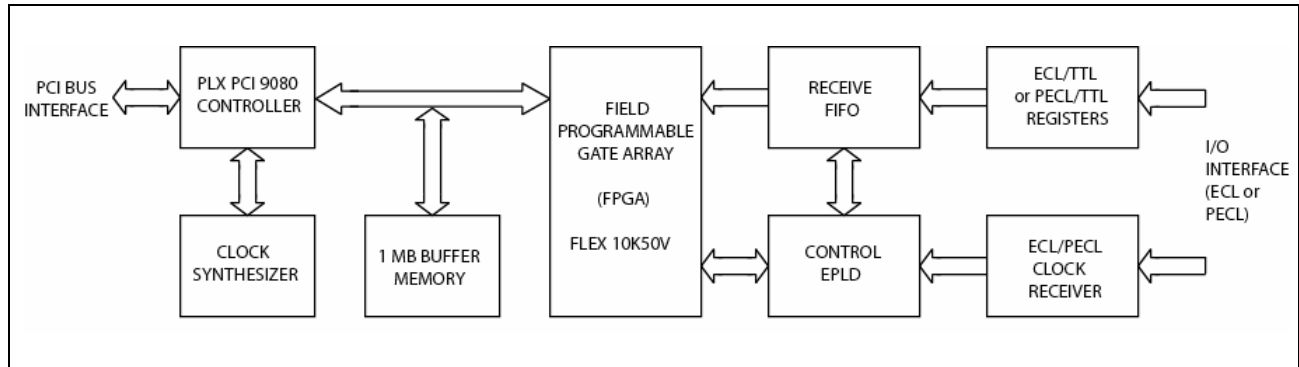


FastPMCs / Parallel Transfer FPMC-PEI32



FPMC-PEI32 Block Diagram

Tekmicro's FPMC-PEI32 provides a flexible and high performance I/O solution when a simple parallel ECL/PECL input stream or a more complex data deformatting function is required. With 32 data bits, a data valid strobe, and 3 other control bits, the FPMC-PEI32 interfaces easily to cameras, tape drives and many other ECL/PECL interfaced systems. Cabling is made simple and easy with industry standard 80-pin ribbon. For users requiring 8 or 16-bit buses, the FPMC-PEI16 can be ordered to reduce power requirements. The FPMC-PEI16 and FPMC-PEI32 are designed to effortlessly connect to the FPMC-PEO32.

The FPMC-PEI32 uses a customizable FPGA device to implement both simple and complex data streaming functions. The standard FPGA program supports raw output.

The physical interface uses ECL 10H signal levels and differential signaling, allowing for excellent noise immunity using twisted pair cabling. The FPMC-PEI32 is available with signal levels referenced to either VCC or ground to support both ECL and PECL external interfaces.

Like all Tekmicro FastPMC products, the FPMC-PEI32 is sold with a 30-day satisfaction guarantee and a 1 year limited warranty.

Feature	Benefit
Fully compliant with PCI 2.1 specification	Interoperable with all PMC carriers
PLX 9080 PCI interface	High performance 32-bit 33 MHz PCI interface, supports 132 MB/s burst throughput using integrated DMA controllers
ECL and PECL options available	Supports both 5V and ground referenced ECL 10H signaling.
Onboard clock synthesizer	Supports exact generation of arbitrary output clock frequencies to match interface requirements
1 MB buffer memory	Allows zero wait state DMA block transfers for many applications.
Free demo logic programs and software available	Rapid "drop-in" integration into your application
Supported by Tekmicro Captor CORE drivers	<i>Instant Integration</i> with RACEway and MC/OS using PowerRACE carrier card

FastPMCs / Parallel Transfer

FPMC-PEI32

Specifications

I/O Interface	Motorola 10H605 or equivalent
Word Width	1 to 32 bits, software selectable
Clock Rate	DC to 50 MHz
Data Rate	Up to full PCI bandwidth of 132 MB/s
Bus Interface	32-bit, 33 MHz PCI 2.1
Bus Throughput	132 MB/s
Mechanical	Single-wide PMC module
FPGA Logic Capacity	36K to 116K gates
Memory Capacity	1 MB buffer memory, 256K x 32
Interrupt Support	Programmable through FPGA
DMA Support	Two integrated linked-list DMA controllers
Power Requirements	+5 Volts, 1500 mA
Operating Temperature	0 to +55 degrees C -40 to +70 degrees C available by special order
Storage Temperature	-40 to +85 degrees C

I/O Signals:
DATA[31:0]+
DATA[31:0]-
CLK+
CLK-
DVALID+
DVALID-
SYNC+
SYNC-

Ordering Information

FPMC-PEI32-E	FastPMC I/O Module, 1-32 bit Parallel ECL input
FPMC-PEI32-P	FastPMC I/O Module, 1-32 bit Parallel PECL input

All models include ANSI C demonstration software and VxWorks drivers at no additional cost. Development of new custom logic programs requires Altera's MAX+Plus II software.

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