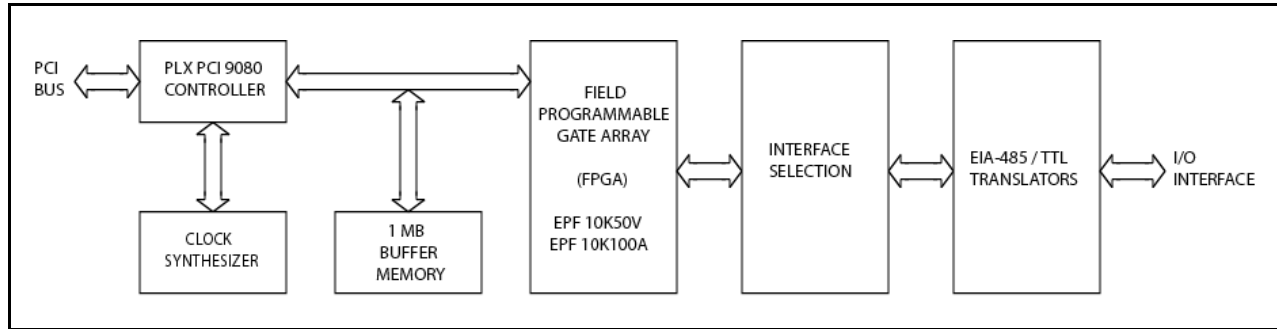


FastPMCs / Customizable FPMC-DFLEX64



FPMC-DFLEX64 Block Diagram

Tekmicro's FastPMC FPMC-DFLEX64 module is recommended when application-specific control functions in a PMC form factor are required since the product provides a highly flexible solution with in-system-programmable logic resources to adapt to any application.

The FPMC-DFLEX64 is the tool that can drastically reduce the card count of a system. With a variety of options for the setup of the module interface and the flexibility of FPGA controlled pins, the FPMC-DFLEX64 can fit into many of today's systems replacing several bulkier cards while providing advanced control features. Using industry standard SCSI 68-pin connectors, the FPMC-DFLEX64 provides an easy cabling solution for system designers. For users who just want the EIA-485 interface and are willing to give up some flexibility to gain FIFO buffering and increased performance, the FPMC-PDIO32 may be a better solution.

The FPMC-DFLEX64 implements up to 32 EIA-485 I/O signals or 64 TTL I/O signals.

The in-system-programmable FPGA has direct access to all 64 I/O lines, allowing implementation of virtually any control or interface function within the gate count of the FPGA. Typical applications include pattern generators, pulse measurements and application-specific serial interfaces.

Like all Tekmicro's FastPMC products, the FPMC-DFLEX64 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
SCSI-II-type connector	Cables widely available using 25 mil pitch ribbon cable
User configurable terminations	Module may be used at cable endpoint or in multidrop EIA-485 configuration
1 MB memory	Allows zero wait state DMA block transfers; supports custom applications which require lookup or temporary memory
Free demonstration logic programs and software available from Tekmicro	Rapid "drop-in" integration into your application
Supported by tekDX client-server architecture	<i>Instant Integration</i> with RACEway and MC/OS using PowerRACE carrier card



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Specifications

I/O Interface	Up to 32 EIA-485 I/O pairs Up to 64 TTL I/O signals
Bus Interface	32-bit, 33 MHz PCI 2.1
Bus Throughput	132 MB/s
Mechanical	Single-wide PMC module
FPGA Logic Capacity	36K to 118K 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, 900 mA
Operating Temperature	0 to +55 degrees C
Storage Temperature	-40 to +85 degrees C

Ordering Information

FPMC-DFLEX64	FastPMC Programmable FPGA I/O module
Add -F100-1	Replace 10K50V FPGA with 10K100A-1
Add -F100-3	Replace 10K50V FPGA with 10K100A-3
Add -NOTTL	Delete TTL interface (required for full EIA-485 compatibility)
Add -TTL	Remove EIA-485 terminator networks (needed for 64 independent TTL lines)

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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I/O Pinout:

1	A1
2	B1
3	A2
4	B2
5	A3
6	B3
7	A4
8	B4
9	A5
10	B5
11	A6
12	B6
13	A7
14	B7
15	A8
16	B8
17	A9
18	B9
19	A10
20	B10
21	A11
22	B11
23	A12
24	B12
25	A13
26	B13
27	A14
28	B14
29	A15
30	B15
31	A16
32	B16
33	A17
34	B17
35	A18
36	B18
37	A19
38	B19
39	A20
40	B20

• • •

61	A31
62	B31
63	A32
64	B32
65	GND
66	GND
67	N/C
68	N/C