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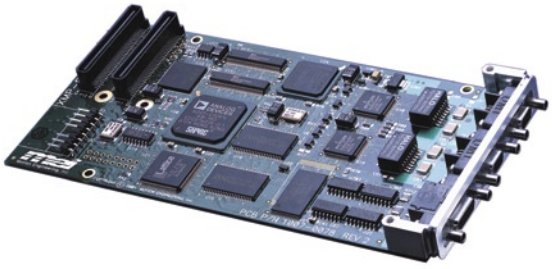
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Find the *Danaher / Kollmorgen / Motion Engineering XMP-SynqNet-PMC* at our website: *Click HERE*

SynqNet™ PLATFORMS

XMP-SynqNet-PMC

Hardware Specification



SynqNet™
www.synqnet.org

Key Features

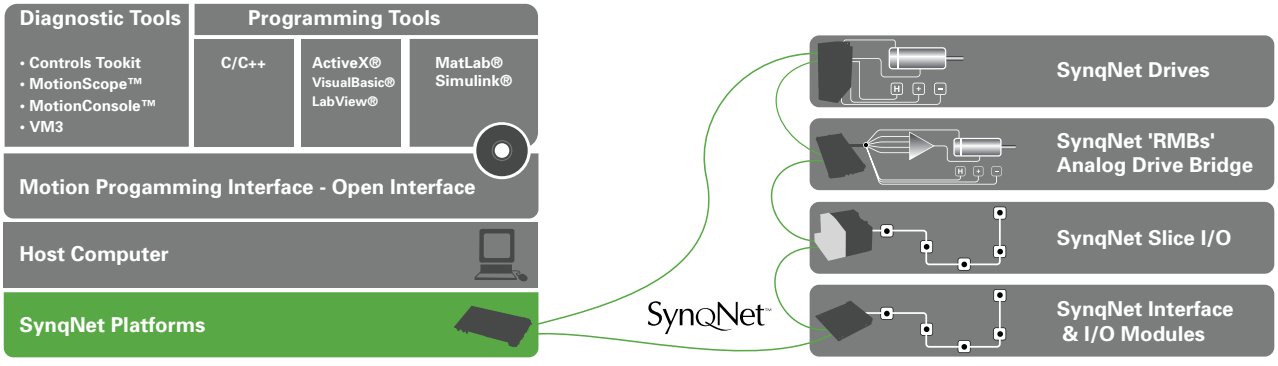
- SynqNet™ network interface provides high-speed synchronous network connection to drives and I/O modules
- Motion control powered by a real-time 32-bit floating point DSP
- Supports up to 32 tightly coordinated axes
- Servo update rates: 20kHz for 4 axes,10kHz for 8 axes
- Programmable with the MPI (C/C++), the MPX (ActiveX®) for programs like VisualBasic® and LabView®, and also Matlab/Simulink®
- Support for Windows XP, Windows NT, Windows 2000, VenturCom, VxWorks and other real-time operating systems

MEI's XMP-SynqNet-PMC is a high performance, compact motion controller that provides a direct connection to SynqNet motion control networks. With it's software-defined capabilities, the XMP-SynqNet-PMC can be readily customized to fit the requirements of the most demanding OEM applications.

SynqNet™ motion control networks provide a 200Mbps synchronous real-time connection between motion controllers and torque drives, stepper drives, and I/O modules. SynqNet™ is the only digital motion control network that offers a dramatic reduction in system wiring coupled with higher performance than conventional analog control systems. The XMP-SynqNet-PMC offers servo update rates up to 20kHz, allowing optimum control of machines requiring high levels of coordination and synchronization between axes.

SynqNet Platforms Product Key

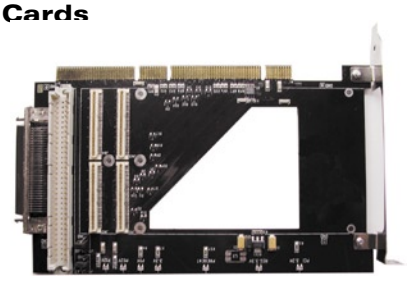
The XMP-SynqNet-PMC is one of several SynqNet controller platform options. All SynqNet controllers can be programmed with the Motion Programming Interface (MPI- C/C++), ActiveX®(MPX), and MatLab/Simulink®. SynqNet controllers work with the entire suite of MEI diagnostic tools, and are compatible with any SynqNet network architecture.



Motion Engineering

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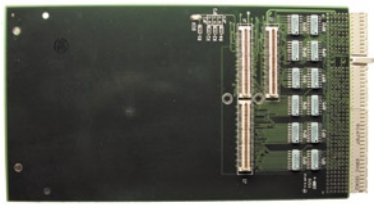
PMC Adapter Cards



PCI to PMC Adapter Card
MEI P/N 8001-0031

Dynamic Engineering
Mfg P/N PCI2PMC

For more information:
www.dyneng.com



CPCI to PMC Adapter Card
Catalyst Enterprises, Inc.
Mfg P/N 384-0040-001

For more information:
www.catalyst-ent.com

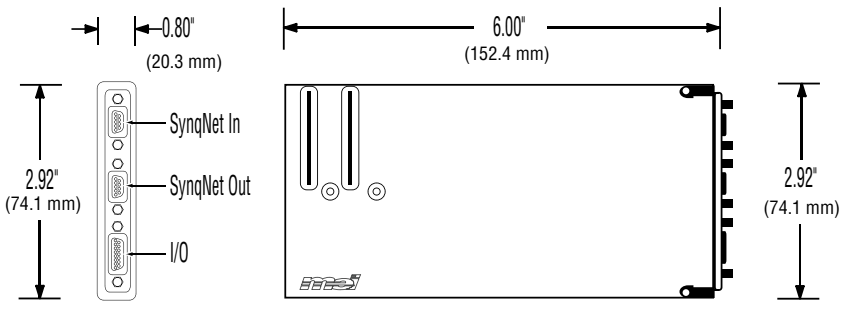
note: ADAPTERS MAY NOT SUPPORT 66MHz PCI BUS

Other Adapter Card Vendors: PMC to 104+ Adapter, Douglas Electronics, http://www.douglas.com
One Stop Systems www.onestopsystems.com

System Specifications

Function	Parameter	Specification
Processor	DSP	Analog Devices SHARC 32-bit floating point
	Speed	40 MHz / 150 MFLOPS
Board Interface	Connectors	Micro-D
	Host Bus	Universal PMC Slot
	Memory Interface	32-bit direct memory map
Servo Loop	Update Rate	User programmable
	4 Axes Update Rate	Max: 20 kHz
	8 Axes Update Rate	Max: 10 kHz
User I/O	Lines	6 + ESTOP
Kinematic Ranges	Position, Velocity, Acceleration, Jerk	32-bit floating point
Environment	Operating Temperature	0-50º C
	Storage Temperature	0-50º C
	Humidity	20-90% RH, non-condensing

Board Dimensions



SynqNet Interface
Pin-out & Connector Information

SynqNet Connector
Molex Inc.
Mfg P/N 83611-9006

SynqNet Mating Connector
Molex Inc.
Mfg P/N 83421-9014

SynqNet IN	
1	Transmit +
2	Unused 1+
3	Ground
4	Unused 2+
5	Receive +
6	Transmit -
7	Unused 1-
8	Unused 2-
9	Receive -

SynqNet OUT	
1	Receive +
2	Unused 1+
3	Ground
4	Unused 2+
5	Transmit +
6	Receive -
7	Unused 1-
8	Unused 2-
9	Transmit -



I/O Connector
Molex Inc.
Mfg P/N 83612-9020

I/O Mating Connector
Molex Inc.
Mfg P/N 83422-9014

For more information:
www.molex.com

I/O	
1	OPTO_A
2	OPTO_B
3	OPTO_C
4	OPTO_D
5	OPTO_E
6	OPTO_F
7	XESTOP
8	GRD
9	OPTO_A_RTN
10	OPTO_B_RTN
11	OPTO_C_RTN
12	OPTO_D_RTN
13	OPTO_E_RTN
14	OPTO_F_RTN
15	XESTOP_RTN

MEI Software Suite



The **MPI** is an object-oriented C/C++ programming interface that helps you build motion code the same way you build your machine. Individual software objects can be created to reflect the hardware components and functionality.

MPX: Develop your own custom motion interface using LabView®, VisualBasic®, Excel®, XML, and other environments that support ActiveX extensions.

MotionConsole: Exercise motors, tune & configure all axes in your system.

MotionScope allows full graphing and analysis of real-time motion data. Position, velocity, and numerous other critical motion parameters are displayed with the click of the mouse. Run all utilities locally or over a TCP/IP connection.

Controls Toolkit: Analyze machine mechanical response, develop notch filters, and custom algorithms to tune and optimize machine performance. Controls Toolkit includes the BodeTool and FilterDesigner.

MechaWare: Use MatLab® & Simulink® with the MEI MechaWare library that allows you to quickly model any system and implement immediately with any SynqNet controller. MechaWare features include: a wide variety of Filters, State Observers, State Feedback, Coordinate Transformations, 64-bit (double precision) calculations with ZMP, Complex gearing, following methods, Gain switching, vibration control, Sophisticated MIMO plant models, easily define gantry control topology, and design your own custom control schemes.

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www.SynqNet.org

Helping you build a better machine, faster.

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