

<http://www.SynqNet.org>

SynqNet Developer Kits Includes:

- **Three Developer Options** – SynqNet Interface for: Remote Motion Block, I/O Interface, or Drive Integration
- Schematics
- Programmable Image(s)
- Bill of Materials
- SynqNet On-Site Training Program
- Design review
- Prototype integration into network
- Performance and interoperability testing

Customize & Differentiate Your Products

The SynqNet™ Developers kit contains everything you need to successfully design a SynqNet interface into a drive, I/O block, or custom network node. Support is provided for servo and stepper drives, I/O, and feedback devices, in single and multiple axis configurations. Developing integrated SynqNet products provides a cost effective way to benefit from SynqNet's unique features and adds value to new or existing products.

All-Digital Network Performance

SynqNet is a high performance network technology designed by Motion Engineering, Inc. based on IEEE 802.3 (100BaseT) to simplify machine development and manufacture, and lower the cost of in-field support and upgrade. SynqNet replaces the noise-prone analog drive - motion controller interface ($\pm 10V$ + Encoder) with a real-time digital network that brings additional diagnostic, performance and reliability benefits to a machine. SynqNet supports native I/O solutions for convenient integration with motion programming and other system APIs.

Which Developer Kit?

Choosing the right package is easy:

Motion Block Kit

- Motion Blocks allow for analog device integration on a SynqNet network.
- Example: Interface device to a $\pm 10V$ drive/amplifier or pulse drive on a SynqNet network.

I/O Module Kit

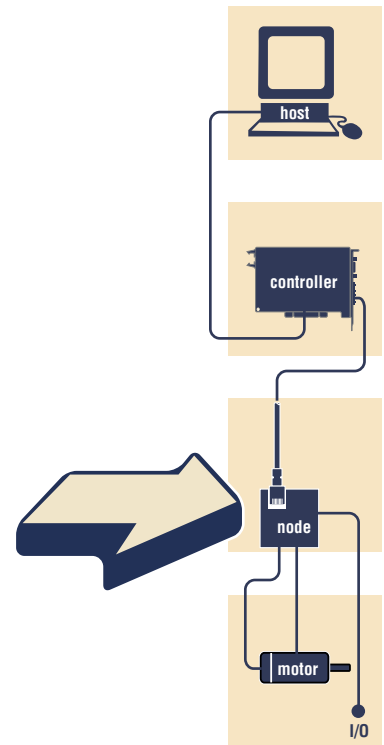
- I/O modules support analog or digital input/output up to 256 nodes per SynqNet Network.
- Example: Custom I/O module to support digital I/O over a SynqNet network.

Drive Integration Kit

- Servo or stepper drive support for full integration and customization of drive design to “plug-n-play” on SynqNet network.
- Example: Integrate SynqNet into your existing drive, adding network functionality to a new or existing product line.

With all Developer Kits, SynqNet offers:

- Device configuration through the network, from one centralized PC. A server can also access the SynqNet host over a TCP/IP network for remote configuration.
- Eliminates discrete wiring: Connecting SynqNet nodes only require plugging a single connector (CAT5 cable with RJ45's or custom connectors) into the SynqNet network interface on each node.
- Machines designed with SynqNet are lower cost, easier to build, more reliable, and easier to troubleshoot than machines designed with analog motion control systems.



SynqNet Motion Block



SynqNet Motion Block Developers Kit

Motion I/O development and integration program.

SynqNet Reference Design Package

- Technical introduction to SynqNet
- SynqNet Node Identification Specification
- SynqNet Node Module Specification
- Reference schematic for SynqNet Motion Block
- Reference Bill of Materials (BOM)
- Standard FPGA binary image (boot and run-time)
- Standard CPLD binary image
- Software API & utilities for verification and debugging
- Technology cross license agreement



Design Engineering Support

All support is provided at one of MEI's facilities in California or England.

- Training session , 1day overview of SynqNet, MPI, reference design review
- Customer schematic review session (video conference optional)
- PCB design layout review (email Gerber files, video conference)
- Checkout & software integration – 2 days at MEI

Interoperability & Software Drivers

- Driver development & software integration of partner SynqNet Node into MEI's Motion Library
- MEI Motion Utility Integration for Windows point & click accessibility
- Interoperability conformance testing performed on single product

Ongoing Support

- 3 months telephone & email support after issuance of conformance

SynqNet.org Marketing

- Product information, images, and press releases placed on www.SynqNet.org.



SynqNet General I/O



SynqNet I/O Developers Kit

Generic I/O development & integration program

SynqNet Reference Design Package

- Technical introduction to SynqNet
- SynqNet Node Identification Specification
- SynqNet Node Module Specification
- Reference Schematic for SynqNet I/O Node
- Reference Bill of Materials (BOM)
- Standard FPGA binary image (boot and run-time)
- Standard CPLD binary image
- Software API & Utilities for verification and debugging
- Technology cross license agreement



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Interoperability & Software Drivers

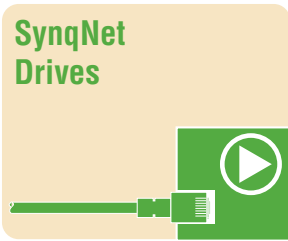
- Driver development & software integration of partner SynqNet node into MEI's Motion Library
- MEI Motion Utility Integration for Windows point & click accessibility
- Interoperability conformance testing performed on single product

Ongoing Support

- 3 months telephone & email support after issuance of conformance

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SynqNet Drive Integration Program

Servo or stepper drive development and integration program

SynqNet Reference Design Package

- Technical introduction to SynqNet
- SynqNet Drive Interface Specification
- SynqNet Node Identification Specification
- SynqNet Node Module Specification
- Reference Schematic for SynqNet Node
- Reference Bill of Materials (BOM)
- Standard FPGA binary image (boot and run-time)
- Standard CPLD binary image
- Software API & Utilities for verification and debugging
- Technology cross license agreement



Design Engineering Support

All support is provided at one of MEI's facilities in California or England.

- Training session , 2 day overview of SynqNet, MPI, reference design review
- Customer schematic review session (video conference optional)
- PCB design layout review (email Gerber files, video conference)
- Checkout & software integration - 1 week at MEI

Interoperability & Software Integration

- Driver development & software integration of partner SynqNet node into MEI's Motion Library
- MEI Motion Utility Integration for Windows point & click accessibility
- Interoperability conformance testing performed on single product

Ongoing Support

- 3 months telephone & email support after issuance of conformance

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Online 24/7 Support



Access MEI technical documentation at <http://support.motioneng.com>. The online system features up-to-date documentation, dynamic hyperlinks, complete search functionality, sample code for easy copy and paste usage, and print friendly PDF documentation. For in-depth information on SynqNet, supporting software, hardware, sample applications, general definitions and much more, information is only a click away.

<http://support.motioneng.com>

Official SynqNet Website

<http://www.synqnet.org>

Ongoing Support

MEI's world-class products are designed to meet the requirements of top OEM machine builders worldwide. Our knowledgeable staff of application engineers and product managers understand your success reflects on our success. In addition, a global network of MEI Value Added Resellers are available to assist with special requirements and customization. All SynqNet Developer Kits include 3 months of telephone and E-mail support after issuance of confirmation. Extended support options are also available depending on project requirements.



ISO 9001:2000

As a leader in high performance motion control, we strive to exceed customer expectations by constantly raising our quality objectives and refining our processes. Our world-class manufacturing environment ensures our OEM customers of the quality, reliability, and consistency in every product shipped. MEI's processes and business systems are ISO9001:2000 certified.





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