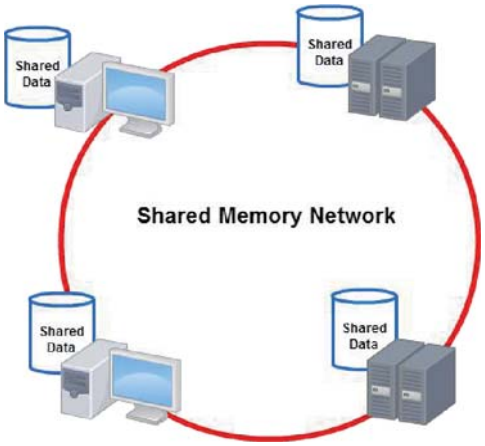
New Product

Avionics Interface Technologies

Shared Memory Network Interfaces

OVERVIEW

AIT's Shared Memory Network (SMN) interface modules provide host systems with an interface to a high speed (2.125 Gbps) optical data network which can be used to share data, in real-time, between multiple distributed systems. The optical, ring-based, network allows data to be shared with deterministic timing and at high data rates to support a wide variety of distributed, real-time, hardware-in-the loop testing and simulation scenarios. Both single-mode (1310nm) and muti-mode (850nm) optical network interfaces are supported by use of a Small Form Factor Pluggable (SFP) transceiver allowing connection lengths up to 10km.



KEY FEATURES

- 2.125 Gbps Optical loop network
- Single-mode and Multi-mode optical interfaces supported
- 256 Mbytes onboard shared memory
- Up to 256 Shared Memory Network nodes supported
- Up to 200 MByte/s sustained data rates
- Maximum 500nS latency through nodes
- Less than 1 uS Transmit and Receive latency
- Network interrupts supported

Available in XMC, PXI Express, PCI Express, and PCI form factors
Software Drivers available for Windows (7/8), Linux, LabVIEW Real-Time, and VxWorks

FLEXIBLE HARDWARE OPTIONS

The AIT SMN modules are available in several hardware form factors to support a wide range of system configurations. All SMN hardware solutions are based on a common XMC module, the XMC-SMN. Adaptations to PXI Express, PCI Express, and PCI are achieved by mating the XMC-SMN to carrier (adapter) modules. The XMC-SMN provides a x4 lane PCI Express interface to the host system. The SMN modules utilize an FPGA based architecture positioning the hardware to be scalable and supportable over long program lifetimes. All AIT hardware products and designed and manufactured in accordance with AS9100 Rev C and ISO 9001:2008 compliant processes.

COMPLETE SOFTWARE SUPPORT

All AIT SMN modules are provided with a full set of software drivers and an intuitive high level C API including complete documentation and sample application source code. Additionally, software utilities are provided to support field upgrades of the onboard firmware and to allow all statically configured parameters (such as Node ID) to be programmed into non-volatile onboard flash memory. Software Drivers

XMC-SMN ORDERING INFORMATION

XMC

Shared memory network interface module for PXI Express

PXIe-SMN

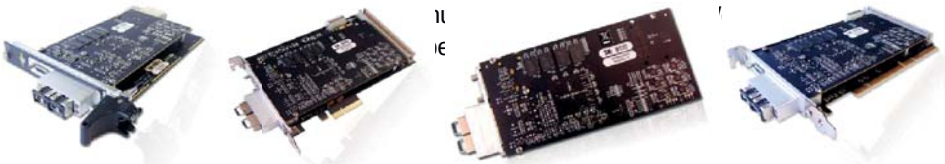
Shared memory network interface module for PCI Express (x4)

PCIe-SMN

Shared memory network interface module for PCI

PCI-SMN

For Single-mode fibre interface options add **-SM**



PXIe-SMN PCIe-SMN XMC-SMN PCI-SMN

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