



SCRAMNet GT200

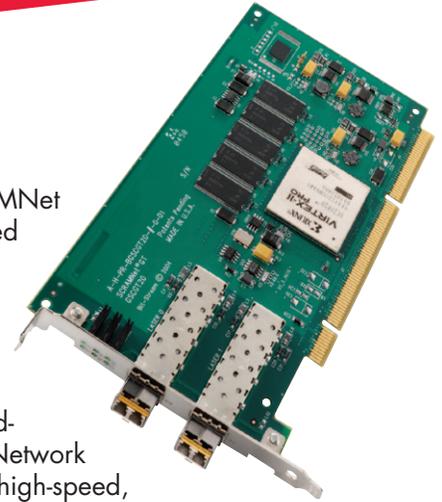
- ◆ 210+ MB/s data throughput for large data transfers
- ◆ Sub microsecond system latency ensures on-time performance
- ◆ 128 MB memory for robust host platforms
- ◆ Optional transceiver provides redundant capability

Boards are available with shortwave, multi-mode transceivers for connections up to 250 meters and longwave, single-mode transceivers for connections up to 10 kilometers.

SCRAMNet GT200 is currently available in PCI and PMC form factors. Rugged versions, including a conduction-cooled PMC card are also available.

Operating system support includes Linux[®], Windows[®], VxWorks[®], Solaris[™], RTX[®], IRIX[®], MATLAB[®] and LabVIEW[®].

For nearly two decades, SCRAMNet Network products have provided an ideal data communications solution for simulation, virtual reality and other real-time applications with critical performance requirements. Based upon a replicated shared-memory concept, SCRAMNet Network products are optimized for the high-speed, ultra-low-latency transfer of data among many computing platforms that are all solving portions of the same real-time problem. Their simplicity and speed are ideally suited for applications requiring a high degree of synchronization and control.



Now you can experience SCRAMNet GT200, the next generation in real-time control and data networking systems. SCRAMNet GT200 provides the same pinpoint accuracy as previous generations of SCRAMNet products, but with more memory and bandwidth to handle your most demanding data throughput requirements. With SCRAMNet GT200 control and data networks combine into a single, high-speed, low-latency data link with industry leading features; shared memory 128 MB, data transfers at 2.5 Gbit/s, and data throughputs exceeding 210 MB/s. SCRAMNet GT200 is able to handle network control functions and network data streams simultaneously, thereby eliminating the need for multiple networks in the same real-time system.

SCRAMNet GT200 was designed to operate at 2.5 Gbit/s using industry standard SFP transceivers.

Learn More

Sales Info: cwcdefense.com/sales

Sales Email: defensesales@curtisswright.com

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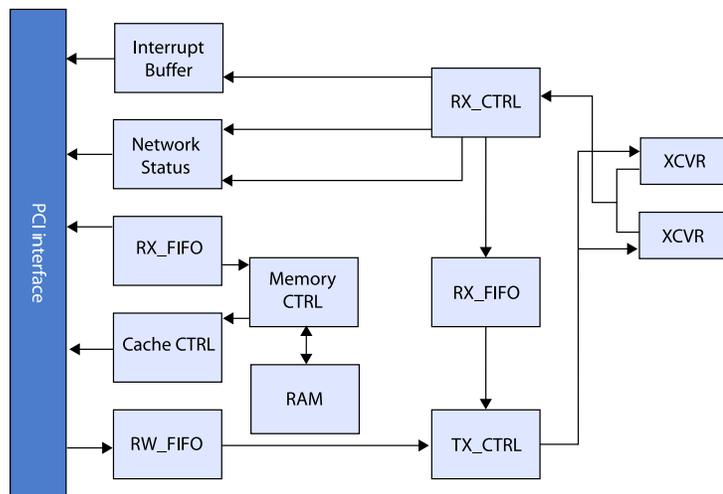


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SCRAMNet GT200 is ideally suited for applications with critical control loop timing requirements, such as simulation systems. Each SCRAMNet GT200 node provides the high-speed transfer of data between the control and feedback systems that may be running on many dissimilar computers in the system. Typical simulation systems include:

- ◆ Aircraft simulators
- ◆ Missile simulators
- ◆ Power generation plant simulators
- ◆ Ship simulators
- ◆ Land vehicle simulators
- ◆ Mission planning simulators
- ◆ Force-level training simulators
- ◆ Virtual reality systems
- ◆ Location-based entertainment systems

Figure 1: SCRAMNet Block Diagram



Features and Benefits

SCRAMNet GT200 dual-port memory appears on the host bus as additional host memory. The host reads and writes data through one port while the network writes data to memory through a second port. Data written to memory by the host is automatically transmitted by the hardware to all nodes on the network. Insertion and transmit/receive FIFOs buffer the data flow to avoid the data collisions often encountered in standard networks.

The SCRAMNet GT200 ring topology can be expanded up to 256 nodes to create a powerful multi-processor computing system, with complete host-processor and operating system independence at each node.

- ◆ High-bandwidth coupled with ultra-low node latency provides a single network solution for high-speed data and real-time control.
- ◆ Hardware-based broadcast communications scheme means all nodes are automatically updated with each change to shared memory.
- ◆ Large on-board memory provides ample shared memory space to utilize the power of today's host computer platforms.
- ◆ Single-fiber connections and SFP transceivers allow for ample and flexible cabling design.
- ◆ Optional second transceiver ensures reliable system performance when fiber or connectors fail.
- ◆ Transceivers can be "mixed and matched" to provide short-wave and long link connections with a single card.
- ◆ A wide variety of different computer systems, bus architectures and operating systems can be connected with SCRAMNet GT200. The network will function like a single multi-processor system, regardless of the computing platforms used.
- ◆ Lightweight API minimizes system overhead and allows host processor to be devoted to application-specific tasks.
- ◆ Compact and powerful API function calls simplify application programming and reduce development costs.
- ◆ Address-specific interrupts provide more flexibility in programming, while giving better response to individual data and network requirements.