Odin TeleSystems Inc.

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The Godar-2-PCIe is a dual OC-3/STM-1 SONET/SDH network interface highly suitable for analysis applications as well as emulation applications in a PCIe PC host system.

Godar-2-PCIe is equipped with two OC-3/STM-1 SONET/SDH network interfaces (working/protect).

The Mapper Subsystem of Godar-2-PCIe is used to map and demap T1 and E1 signals to/from SONET/SDH tributaries. The board supports bit-asynchronous and byte-synchronous mapping/demapping of an STS-6/2xSTM-1 worth of T1 or E1 tributaries. This translates to 168 T1s or 126 E1s. The selection of T1 or E1 can be controlled on a per STS-1/STM-0 basis and the selection of bit-asynchronous or byte-synchronous can be controlled on a per-tributary basis.

Godar-2-PCIe seamlessly transfers the mapped E1 or T1 signals to and from the host PC over the PCIe interface using a zero-copy DMA method.

This board is a member of the Odin Telecom Frameworks (OTX) product family. OTX is an industry award-winning platform for various telephony adapter boards.

Godar-2-PCIe
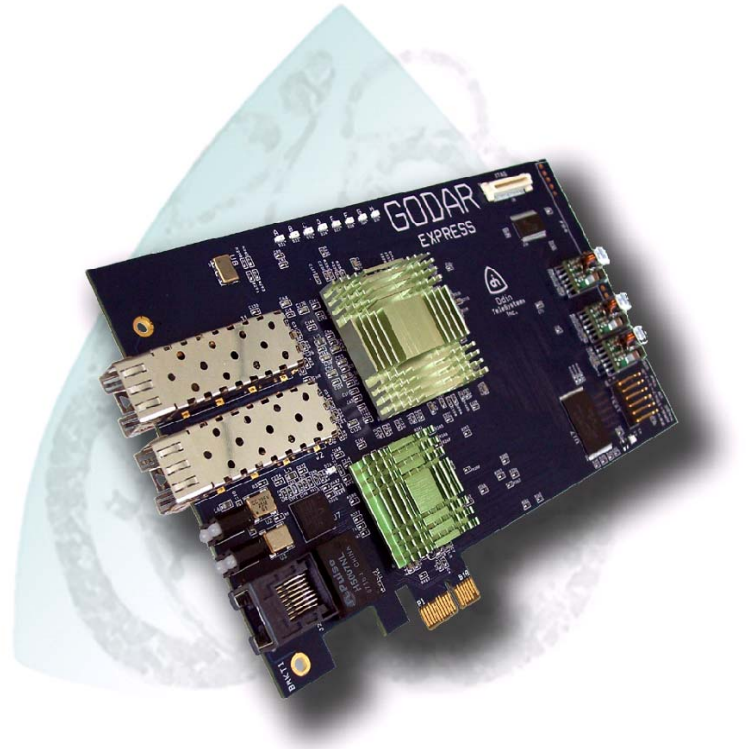
Godar-2-PCIe Adapter for demanding OC-3/STM-1 communication applications

Feature Highlights

- 2 OC-3/STM-1 SONET/SDH framers (working and protection).

- Complete SONET/SDH front end with T1/E1, DS3/E3 framers/mappers/multiplexers.

- 168 T1/126 E1 framers.

- Tributary path processor for 168 VT1.5/TU-11s or 126 VT2/TU-12s.

- 6 M13 multiplexers, including support for G.747 multiplexing.

- High order path processor for a SONET STS-3 or an SDH STM-1.

- Supports advanced test features including programmable pattern generation and detection for up to 64 byte sequences.

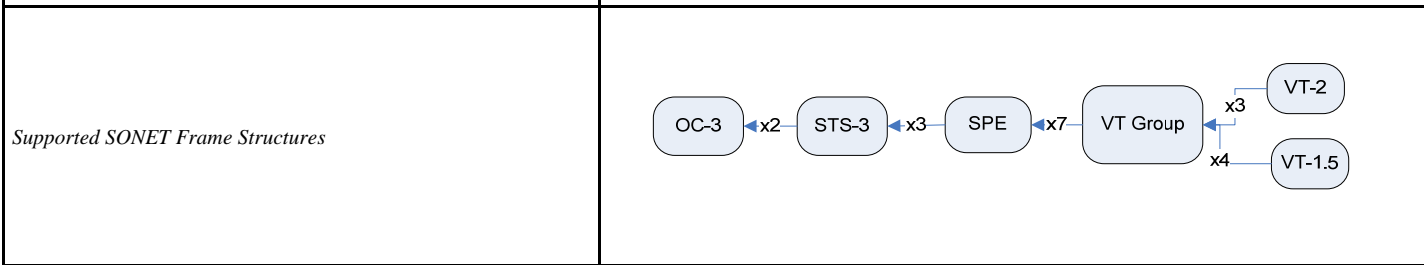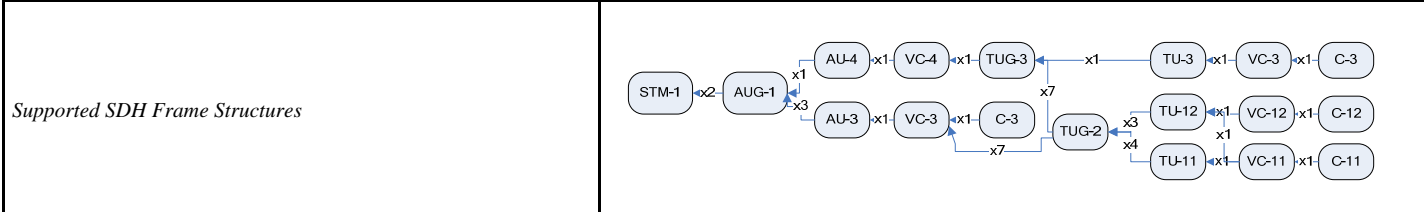- Byte synchronous and bit asynchronous mapper for 168 VT1.5/TU-11s or 126 VT2/TU-12s.

Godar-2-PCIe Product Brief

Software Support

Includes the OTX software driver, the OTX software development kits (SDKs), as well as a variety of host demo applications	The OTX driver is available for Windows XP, Windows 2003 Server, Windows 2008 Server, Windows 7, and Linux operating systems.

Technical Specifications

Board Specification	• Half-size PCI-Express board
Host Bus Interface	• Supports PCI Express v1.1 (single lane) • Zero-copy DMA
Network Interfaces	• 2 OC-3/STM-1 SONET/SDH interfaces
Ethernet (future)	• 1 Gb Ethernet interface
Supported SDH Frame Structures	
Supported SONET Frame Structures	
Mapper Features	• Byte Synchronous • Bit Asynchronous
Connector	• 2 Small Form-Factor Pluggable (SFP) receptacles
Line Events	• Accumulates the following events: line code violation (LCV), parity error (PERR), path parity error (CPERR), remote error indication (REI, previously referred to as FEBE), excess zeros (EXZS), and framing bit error (FERR).
Pseudo-Random Sequence Generator/Detector	• Generates any pseudo-random pattern up to $2^{32}-1$ bits in length or any user programmable bit pattern from 1 to 32 bits in length. • Can insert single bit errors or a bit error rate between 10^{-1} to 10^{-7}
Power Requirements/Environmental Data	• Power consumption: TBD • Temperature: operating, 0^oC to $+50^o$C; non-operating, -40^oC to $+60^o$ C • Humidity: operating, 5% to 80% RH (%relative humidity) at up to $+30^o$C, and 5% to 30% RH above $+30^o$ C up to $+50^o$C non-condensing; non-operating, 5% to 80% RH at up to $+30^o$ C, and 5% to 30% RH above $+30^o$C up to $+50^o$C non-condensing • Altitude: operating, up to 4,600 meters (15,333 feet); non-operating, up to 12,192 meters 50,000 feet)

Ordering Information

Product Name/Product Category	Godar-2-PCIe/HAA-1092-1	Two optical interfaces
	Godar-1-PCIe/HAA-1091-1	One optical interface

Contact Information

For more information on the Godar-2-PCI-Express products, please contact:	Odin TeleSystems Inc. 800 E. Campbell Road, Suite 334 Richardson, TX 75081-1873 USA	Tel: +1-972-664-0100 Tel: 1-888-ODINTSM Fax: +1-972-664-0855 Email: info@odinTS.com Web: www.odinTS.com