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Combo2

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EDT Combo2 Mezzanine Board

Features

- 16 E1/T1 line interfaces
- Four E3/T3 line interfaces
- 16 LVDS (TIA644 standard) or RS422 differential inputs/outputs
- Large Xilinx FPGA
- Two large synchronous static memory banks (PCI SS) or one memory bank up to 1 GB (PCI GS)
- LVDS External clock that can be used to synchronize the output data
- 16 independent DMA channels to host memory
- Fast transfers using a 66 MHz 32-bit PCI

Applications

- Telecommunications network monitoring
- Satellite data processing
- Telecommunications switching

Description

The Combo2 is a mezzanine board for the PCI SS, PCI GS, or PCIe8 LX main board, and provides multiple telecommunication and LVDS or RS422 interfaces that can be used for complex, user-defined telecommunications applications. A large Xilinx Virtex™-E (PCI SS) or Virtex™-II Pro (PCI GS) FPGA and associated memory allows the user to process large amount of telecommunications serial or LVDS/RS422 data. The high-speed 16-channel DMA controller allows flexible access to host memory.

Specifications

PCI / PCI Express Bus Compliance	
	See specifications for the main board you are using
External Connectors	High-density 68-pin AMP™ connector (part number 787169-7) High-density 15-pin AMP™ receptacle (part number 748390-5)
User Interface Xilinx	PCI SS: XCV1000E or optional XCV600E, XCV2000E PCI GS: XC2VP50 or optional XC2VP70

	User definable LED Debug connector, 20-pin .100" x .100" square pins, two rows
Local Memory	**PCI SS:** Two 256K x 36-bit word synchronous static RAM or optional no RAM, 512K x 36-bit word RAM, or 1M x 36-bit word RAM **PCI GS:** 1M x 36-bit word synchronous static RAM or optional 2M x 36-bit word RAM (with XC2VP70)
Dynamic Memory	**PCI GS:** 200-pin SODIMM socket for optional DDR memory module. Up to 1 gigabyte.
LVDS/RS422	• 16 differential LVDS or RS422 signals; input or output in groups of four • Standard LVDS (TIA644) or RS422 signal levels, terminated with 100 ohm line to line.
E3/T3	• Transformer coupled • Four independent E3/T3 interfaces • Jumpers select input/output or both on eight differential connector pins • 75-ohm coaxial cable over 1100 feet at speeds up to 51.84 MB per second • Compliant with ANSI T1.102-1993, Telcordia GR-499-CORE and G.823 for jitter tolerance • B3ZS or HDB3 encoder/decoder
E1/T1	• 16 independent input/output E1/T1 interfaces • Jumpers select input/output or both on 16 differential connector pins • 1.544 MB per second (T1), 2.048 MB per second (E1) • Waveforms meet G.703 and T1.102 specifications • Exceeds transmit return loss specification ETSI ETS-300166 • Jitter attenuation • Transmit return loss exceeds ETSI ETS 300166 • HDB3 or B8Zs encoder/decoder • Analog/Digital and remote loopback

Physical

Number of Slots	1
Dimensions	4.2" x 6.6"

Environmental

Temperature	Operating: 0° to 44° C Non-operating: -40° to 70° C Heat Output: TBD
Humidity	Operating: 1% to 90% non-condensing at 40° C Non-operating: 95% non-condensing at 45° C
Power	2 amps at 5V

Software

Device Drivers for Sun Solaris (Intel and SPARC platform), Windows, and Linux are included with purchase of the board. Drivers for VxWorks and MacOS are available on request.

Support

EDT provides several levels of customer support, from phone consultation to custom design of hardware, firmware, or software, at hourly rates. Technical support is also provided though the Support section of this web site.

Third-party support

Technisys, Inc. provides a family of interface panels designed to provide an easy and economical method of interfacing to the EDT Combo 2 and other EDT products. See their web site, www.tsys-inc.com

Ordering

Ordering options are listed below. To order, contact our sales department or

your distributor. Be sure to specify which cable will be needed (if any).

PCI SS Combo 2

> Signal option: LVDS or RS422
> PCI SS Main board Xilinx option: XCV600E or XCV2000E
> PCI SS Main board static memory option: no RAM, 512K x 36-bit word RAM, or 1M x 36-bit word RAM

PCI GS Combo 2

> Signal option: LVDS or RS422
> PCI GS Main board Xilinx option: XC2VP70
> PCI GS Main board static memory options: 1M x 36-bit word RAM (XC2VP50) or 2M x 36-bit word RAM (XC2V70)
> PCI GS Main board dynamic memory option: 1 gigabyte DDR RAM

PCIe8 LX Combo 2

> Call

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