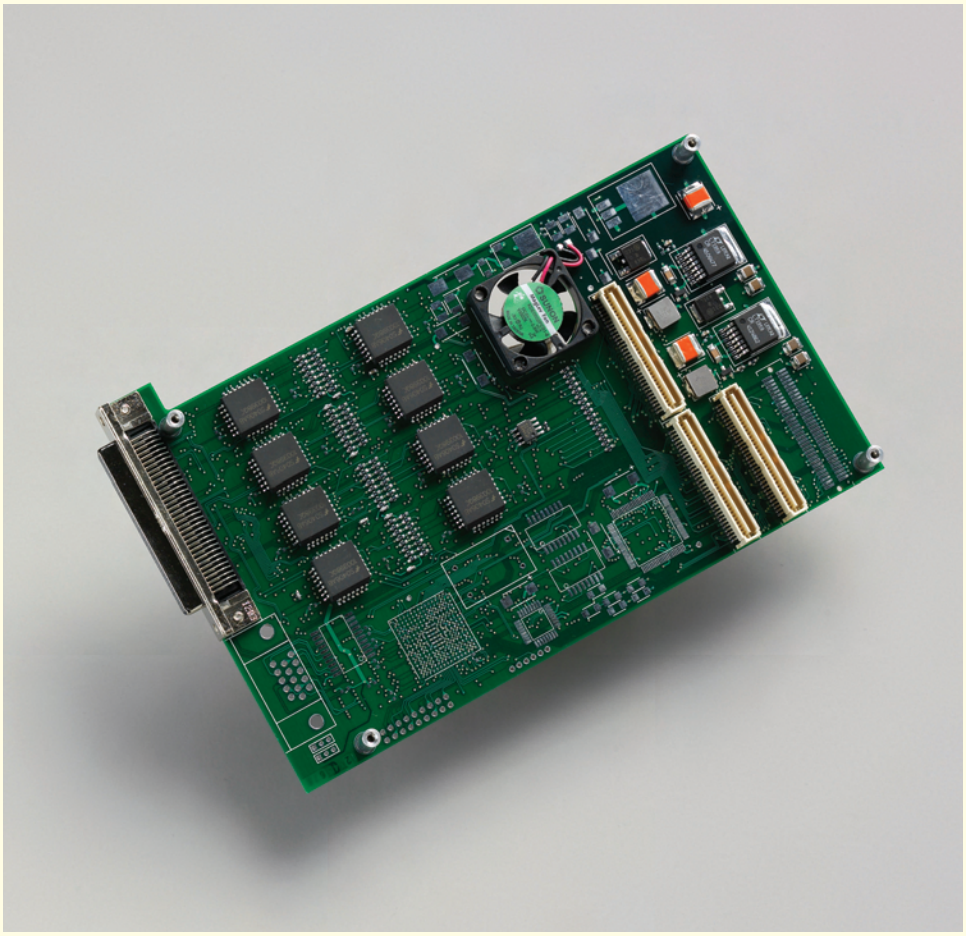
edt
a HEICO company

ECL/LVDS-E/RS422-E

Interface for ECL, LVDS, or RS422, with E1/T1 option



Features

Mezzanine board – pairs with an EDT main board (in a PCI, PCI-X, or PCIe bus), which adds high-speed DMA, programmable FPGA resources, and memory

Clock: One external LVDS (input only)

I/O: ECL, LVDS, or RS422, with E1/T1 option

Description

The ECL/LVDS-E/RS422-E is a mezzanine board that pairs with an EDT main board (for PCI or PCI Express) for high-speed data transfer. This "E-series" board supports thirty-two ECL, LVDS, or RS422 inputs or outputs in groups of four, with an E1/T1 option.

Each channel inputs or outputs a signal on the edge of the associated clock, and the data is stored in or sent from host memory via DMA for a simple, flexible data transfer solution.

Also available is an earlier "non-E" LVDS/RS422 board (identifiable by the absence of a fan), which does not support ECL or E1/T1 and works only with a PCI SS or PCI GS main board. Applications designed for this "non-E" board require different configuration files and minor program changes to work with the "E" board, as detailed in the manual.

EDT provides FPGA configuration files for all channels. Custom configuration files can be requested.

The main board supplies high-speed DMA, plus additional memory and programmable FPGA resources.

Applications

Telemetry receiver and transmitter

Communications monitoring (serial data)

Satellite ground station support

Specifications

Product Type	ECL/LVDS-E/RS422-E is a mezzanine board for ECL, LVDS, or RS422, with optional E1/T1; it requires a main board.			
FPGAs and Memory	Programmable FPGA and memory resources are provided by the main board.			
Clocks	One external LVDS (input only)			
Data Rates	Data rates are dependent on data format and main board.			
Data Format (I/O)	Sixteen channels are available, supporting the data formats and specifications shown below.			
	Standard I/O (select one):	**ECL**	**LVDS**	**RS422**
	Channels (I/O in groups of 4)	Up to 16	Up to 16	Up to 16
	Termination (differential)	50 Ω to -2 V DC	100 Ω line to line	100 Ω line to line
	Output jitter compliance	Yes	Yes	Yes
	Optional I/O (add to above selection if desired):	**E1/T1**		
	Channels (I/O in groups of 4)	Up to 16		
	Transformer coupled	Yes		
	Compliance	G.703, T1.102 (waveforms)		
	MB/s	2.048 (E1 / 1.544 (T1)		
	Encoder/decoder	HDB3 or B8ZS		
	Jitter attenuation	Yes		
	Transmit return loss	Exceeds ETSI ETS 300166		
Connectors	One 68-pin AMP (SCSI 2-type) for ECL, LVDS, or RS422 One 15-pin D for E1/T1 option			
Cabling	Consult EDT for purchase options.			
Physical	Weight	3.3 oz typical		
	Dimensions	6.6 x 4.2 x 0.5 in. (with a main board)		
Environmental	Temperature	Operating 0° to 40° C Non-operating -40° to 70° C		
	Humidity	Operating 1% to 90%, non-condensing at 40° C Non-operating 95%, non-condensing at 45° C		
System and Software	For details on system requirements and EDT-provided software driver packages, see specifications for your EDT main board			

Support

EDT offers engineer-to-engineer customer support, from phone consultation to custom design of hardware, firmware, and software. Contact us for options and details.

Contact

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503-690-1243 (fax)
www.edt.com

Ordering Options

- Main board: PCI SS / PCI GS / PCIe8 LX
- I/O: ECL / LVDS / RS422, plus optional E1/T1

For more options, see main board datasheet.
Ask about custom options.