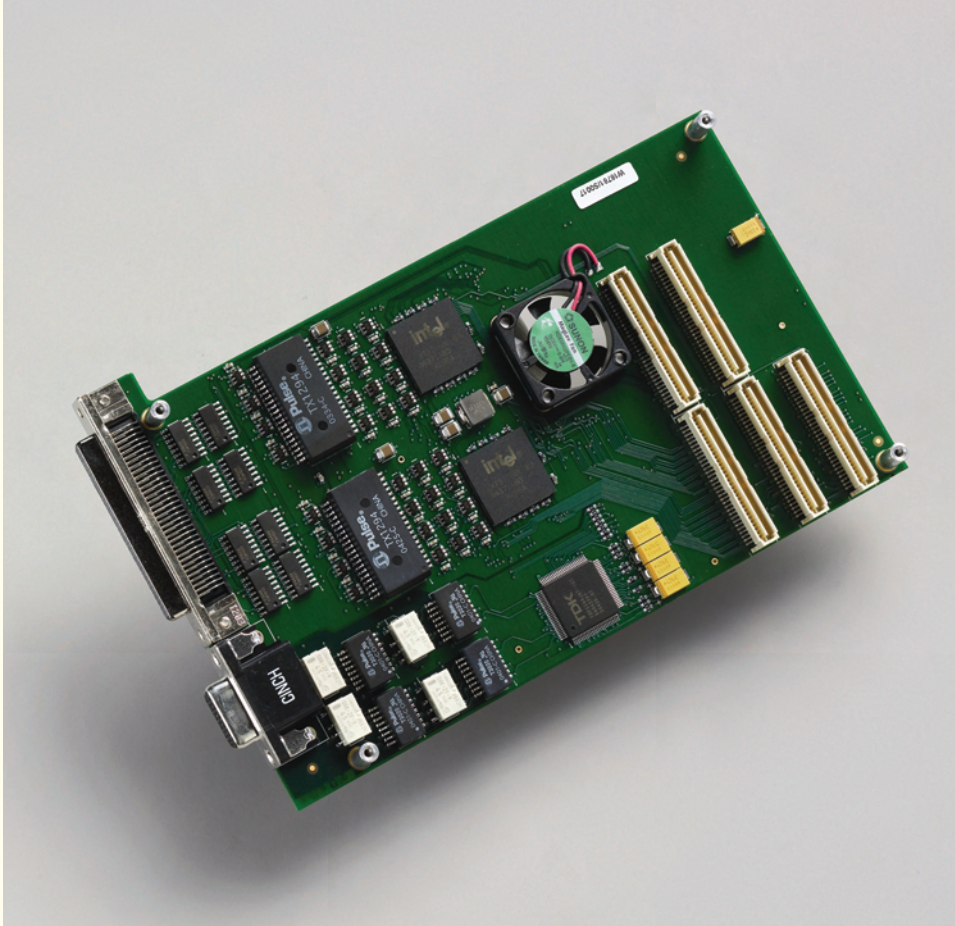


# Combo 3

Interface for E3/T3 with ECL/LVDS/RS422 option



## Description

The Combo 3 is a mezzanine board that pairs with an EDT main board (for PCI or PCI Express) to accept E3/T3 signals, with an option for ECL, LVDS, or RS422. It processes communications serial data to support complex, user-defined applications.

EDT provides FPGA configuration files to support raw, framed, framed and descrambled, header, or payload data. Custom configuration files can be requested.

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

## Applications

Telemetry receiver and transmitter

Communications monitoring  
(serial data)

Satellite ground station support

## Features

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

I/O: Electronically selected, not jumpered

One standard data format: Four channels E3/T3

One optional data format: Sixteen channels ECL, LVDS, or RS422

## Specifications

<b>Product Type</b>	Combo 3 is a mezzanine board for E3/T3 with an option for ECL, LVDS, or RS422; it requires a main board.			
<b>FPGAs and Memory</b>	Programmable FPGA and memory resources are provided by the main board.			
<b>Data Rates</b>	Data rates are dependent on data format and main board.			
<b>Data Format (I/O)</b>	One standard format (E3/T3) plus one optional format (LVDS, RS422, or ECL) are available, as shown below.			
	<b>Standard</b>	<b>E3/T3</b>		
	Channels	4		
	Transformer coupled	Yes		
	Compliance	ANSI T1.102-1993, Telcordia GR-499-CORE, G.823 (jitter tolerance)		
	MB/s	Up to 51.84 (with 75- $\Omega$ coaxial cable over 1100 feet)		
	Encoder/decoder	HDB3 or B3ZS		
	Jitter attenuation	Select on transmit or receive		
	<b>Optional (select one):</b>	<b>ECL</b>	<b>LVDS</b>	<b>RS422</b>
	Channels (bidirectional)	16, in groups of 4	16, in groups of 4	16, in groups of four
	Termination (differential)	50 $\Omega$ to -2 V DC	100 $\Omega$	100 $\Omega$
<b>Connectors</b>	One 15-pin D One 68-pin AMP			
<b>Cabling</b>	Consult EDT for purchase options.			
<b>Physical</b>	<b>Weight</b>	3.8 oz. typical		
	<b>Dimensions</b>	6.6 x 4.2 x 0.5 in. (with a main board)		
<b>Environmental</b>	<b>Temperature</b>	Operating 0° to 40° C Non-operating -40° to 70° C		
	<b>Humidity</b>	Operating 1% to 90%, non-condensing at 40° C Non-operating 95%, non-condensing at 45° C		
<b>System and Software</b>	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

**Engineering Design Team (EDT), Inc.**  
1400 NW Compton Drive, Suite 315  
Beaverton, Oregon 97006  
800-435-4320 / 503-690-1234 (phone)  
503-690-1243 (fax)  
www.edt.com

## Ordering Options

- Main board: PCI SS / PCI GS / PCIe8 LX  
- I/O (optional): ECL / LVDS / RS422

For more options, see main board detail.  
**Ask** about custom options.