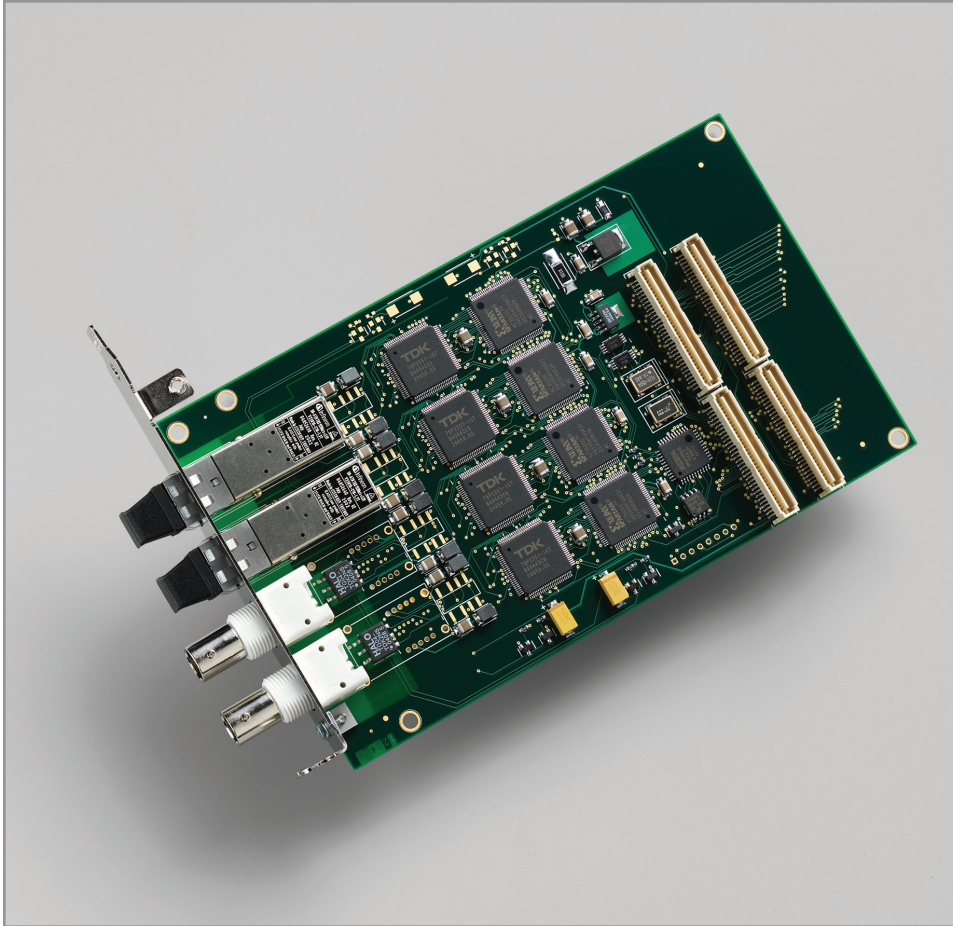


HRC

High-rate communication interface for E4 / STS3 / OC3 (STM1)



Description

The HRC is a mezzanine board that pairs with a PCI main board to provide fast data transfer. It accepts both electrical signals (E4 or STS3) and optical signals (OC3/STM1) in various combinations.

The board has four connector slots; each supports either an electrical BNC 75-ohm CMI coaxial interface, or an optical LC 1310 nm NRZ single-mode transceiver. The BNCs can be set by programmable control as either input or output; if bidirectional operation is required, a maximum of two ports will be usable.

EDT provides FPGA configuration files to support framing and descrambling for OC3/STM1 framed data. Custom configuration files can be requested.

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

Features

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

Ports 0, 1, 2, 3 each support electrical (E4 or STS3) or optical (OC3/STM1):

- Electrical via unidirectional BNCs (75-ohm CMI coaxial G.703)
- Optical via bidirectional LCs (1310 nm NRZ single-mode SFF)

Applications

Telecommunications network monitoring

Telecommunications data recording

Specifications

Product Type	High-rate communication mezzanine board for OC3 (STM1), STS3, or E4; it requires an EDT PCI main board.				
FPGAs and Memory	Programmable FPGA and memory resources are provided by the main board.				
Data Rates	Dependent on such factors as data format, main board, and system variables.				
Data Format (I/O)	Ports 0, 1, 2, 3 Any combination below of electrical (STS3 or E4), optical (OC3/STM1), or both				
Transceivers	Four (ports 0, 1, 2, and 3 each have one) are available, supporting data as shown below.				
	Ports 0, 1, 2, 3 (each can be either electrical or optical)	ELECTRICAL	OPTICAL		
			75 ohm	E4 or STS3	OC3/STM1
		Output power	–	1310 nm	
		Center wavelength	–	–15.0 to –8.0 dBm	
		Maximum sensitivity (average power)	–	1260 to 1360 nm	
Minimum saturation (average power)		–	–29.0 dBm		
Connector	BNC, unidirectional (CMI coaxial G.703)	–	–0.80 dBm		
Connectors	Four, as shown above, in any of these combinations:				
	Connector Type	Combination 1	Combination 2	Combination 3	
	BNC	Four	Three	Two	
	LC	–	One	Two	
				Combination 4	
				–	
				Four	
Cabling	Consult EDT for purchase options.				
Physical	Weight	3.5 oz. typical			
	Dimensions	6.6 x 4.2 x 0.75 in. (with a main board)			
Environmental	Temperature (operating / non-operating)	0° to 40° C / –40° to 70° C			
	Humidity (operating / non-operating)	1% to 90%, non-condensing at 40° C / 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.				

Ordering Options

- Main board: PCI SS / PCI GS
- Transceivers: 4 [options above]
- Connectors: 4 [options above]

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

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