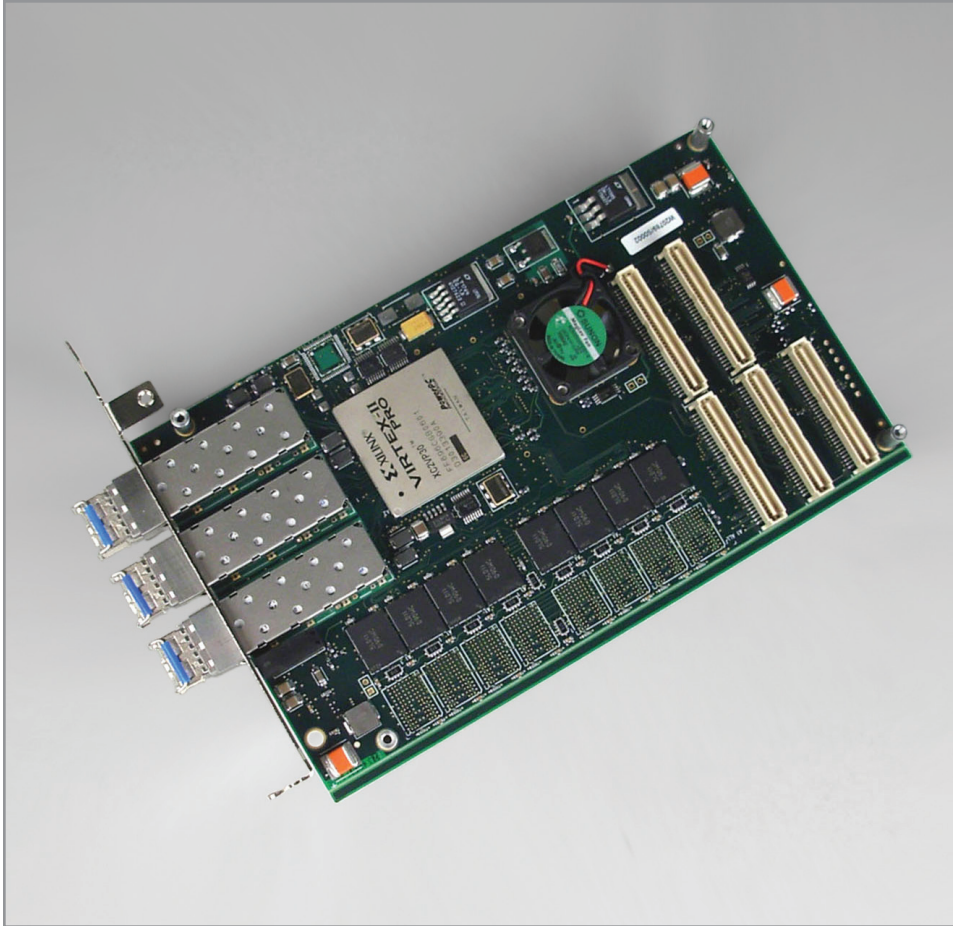


3x3G

Three-port interface for up to 3 Gb/s serial data or 1 GbE per port



Description

The 3x3G is a mezzanine board that pairs with a PCI / PCIe main board to support three ports – each providing one 3Gb/s Xilinx RocketIO transceiver for serial data, and one SFP for either an electrical RJ45 1GbE (1000 BASE-T) ethernet adapter or an optical LC.

Four additional RocketIO transceivers connect to an internal 40-pin connector. Two quad-frequency oscillators allow for two independent data rates over the three ports.

EDT provides FPGA configuration files so you can output and acquire data using 8b/10b encoding. 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: Three optional SFPs (one per port), each supporting either 1GbE (electrical or optical) or up to 3 Gb/s serial data – 1310 or 850 nm

Encoding: 8b/10b (other options may be available on request)

FPGA: One programmable Xilinx Virtex II Pro XC2VP7/30

DRAM: Up to 2 GB (DDR) for snapshot recording and data buffering

Applications

High-bandwidth optical link

Ethernet monitoring

Fast serial interfaces for cameras and other devices

Specifications

Product Type	Three-port interface for up to 3 Gb/s serial data or 1GbE per port; it requires an EDT PCI / PCIe main board.		
FPGA Resources	One programmable FPGA (Xilinx Virtex II Pro XC2VP7 or optional 30), plus FPGA resources on main board		
Memory	DRAM (DDR) for snapshot recording / data buffering 0 or optional 512 MB or 2 GB; 2 GB is needed for snapshot recording at rates of 1.8 Gb/s or faster with PCI SS or PCI GS main board		
Clocks	Two independent XOs for setting reference clock (106.25, 124, 125, or 152.25 MHz); custom frequencies are possible		
Data Rates	Dependent on such factors as data format, main board, and system variables.		
Data Format (I/O)	Ports 0, 1, and 2 Each port supports serial data up to 3 Gb/s with 8b/10b encoding, including 1GbE (1000 BASE-T or -X); other encoding options can be requested		
Transceivers	Three (ports 0, 1, and 2 each have an optional SFP) are available, supporting data as shown below.		
	PortS 0, 1, 2 (1 SFP each, optional)	ELECTRICAL	OPTICAL
		1GbE	1GbE or serial data up to 3Gb/s
	Output power	–	1310 nm 850 nm -9.5 to -3 dBm -9 to -2.5 dBm
	Center wavelength	–	1270 to 1360 nm 830 to 860 nm
	Sensitivity	–	-18 dBm -18 dBm
Maximum input power	–	0 dBm 0 dBm	
Connectors	RJ45	LC	LC
Connectors	One RJ45 or LC on each transceiver as shown above One 40-pin Q-strip socket		
Cabling	Consult EDT for purchase options.		
Physical	Weight	6.8 oz. typical (with all three SFPs)	
	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 / GS or PCIe8 LX / FX / SX
- FPGA: XC2VP7 / 30
- Memory - DRAM: **0** / 512 MB / 2 GB
- Transceivers: 0, 1, 2, or 3 [options above]

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



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