



### fb4G@V6130 FPGA Card

#### Quad Port SFP Gigabit Ethernet PCI Express FPGA Card

##### Product Description

The fb4G@V6130 is a high performance OEM hardware platform for 1G Ethernet with quad port SFP network interface.

The standard configuration is based on Xilinx Virtex6 LX130T FPGA. The card is also offered with a variety of different FPGAs to provide flexibility for the intended application.

As an optional feature, the card can be fitted with two SATA connectors which can provide connectivity to a wide range of standard storage devices directly to the FPGA card.

##### Key Features

###### Host Interface:

- Physical bus connector: 8-lane PCIe
- PCIe bus type: 1-8 lane PCIe Gen1/Gen2

###### Network Interface:

- IEEE standard: IEEE 802.3 1 Gbit/s Ethernet
- Physical interface: 4 SFP ports.
- Supported SFP modules: Multimode SR (850 nm), singlemode LR (1310 nm), multimode LRM (1310 nm), singlemode ER (1550 nm) or Direct Attached Copper (Twinax)
- Data rate: 4 x 1 Gbit/s

###### Configuration:

- 16 bit fast parallel programming interface from supporting preprogrammed controller
- Configuration flash supports two boot images with automatic fallback to fail safe image if first image fails
- Support for encrypted FPGA bit file (optional)
- Upload of FPGA configuration to flash via PCIe



## Technical Specifications

General Technical Specifications	
<b>On Board Memory:</b>	2 x 64 bit DDR3@1066MT/s 2GB (total 4GB memory) 1 MB user configurable space in flash for permanent storage
<b>On Boar Clocks:</b>	PCIe clock: 100MHz 25 MHz oscillator 125 MHz oscillator 150 MHz oscillator for SATA connector (optional)
<b>FPGA:</b>	fb4G@V6130: Xilinx Virtex6 LX130T-2 fb4G@V6240: Xilinx Virtex6 LX240T-2 Xilinx Virtex6 LX365T (optional) Xilinx Virtex6 LX195T (optional) Xilinx Virtex6 SX315T (optional) Xilinx Virtex6 SX475T (optional)
Environment:	
<b>Physical dimensions:</b>	half length, standard height PCIe
<b>Power consumption:</b>	less than 7 Watts with uninitialized FPGA
<b>Operating temperature:</b>	0 – 55 °C, 32 – 131 °F
<b>Operating humidity:</b>	20 – 80%
<b>Hardware compliance:</b>	RoHS, CE
<b>Passive cooling:</b>	no on-board fan required
<b>Active cooling:</b>	optional
<b>Additional Board Support:</b>	On board temperature sensor Board status LED 3 user configurable dual color LED FPGA controlled Link and Activity LED for each port PPS clock synchronization connector 2 x SATA connector (optional)
<b>Additional Intellectual Property Support:</b>	Flash configuration I/F DDR3 memory controller 8 lane PCIe MDIO controller (optional)

	<p>Ethernet MAC (optional)</p> <p>I2C controller (optional)</p> <p>SPI master I/F (optional)</p> <p>TCP-offload engine (optional)</p>
--	---

### Order Information

P/N	Description	Notes
<b>fb4G@V6130</b>	Quad port SFP card supporting 1G Ethernet, PCIe Gen2 x8 lanes	RoHS Compliant

1V0