fbC4XGg3 Capture Card

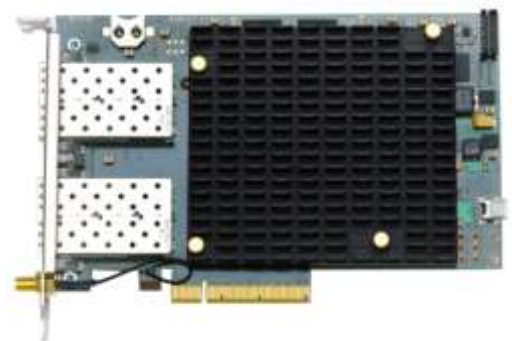## Quad Port SFP+ 10 Gigabit PCI Express Capture Card

Product Description

The Fiberblaze fbC4XGG3 is a 4x10GE capture card that performs at full line rate with zero packet loss, on all four interfaces. Even while providing the full suite of features offered via fbCAPTURE API.

With its PCIe Gen3 support, it is without bottlenecks, and is ideal for interfacing to multiple 10 Gigabit Ethernet links. This can be as individual links or in a load-sharing or redundancy configuration, directly from network taps, via SPAN ports or similar devices.

It is a high performance OEM hardware platform with four SFP+ ports, allowing for optimal flexibility in connectivity. The card allows utilization of the transmission capabilities of these in conjunction with fbCAPTURE features.

The fbC4XGG3 is part of the fbCAPTURE family which provides a powerful and flexible Software API, as well as standard libpcap integration. Through the integration of fbCAPTURE API, applications gain support for all fbCAPTURE cards, covering Ethernet speeds from 1GE to 100GE.

Key Features

- 10 Gbit/s Ethernet, IEEE 802.3

- 4x10GE ports via 4 x SFP+ ports

- Capture at full line rate on all interfaces

- Precision timestamping

- 3.2 nano second resolution

- Micro second latency

- PCIe Gen3, 8 lanes

- fbCAPTURE API

- Hardware filtering and distribution

- Application acceleration and scalability

- 64 logical channels to DMA or egress via Tx

Technical Specifications

Host Interface:	
Physical bus connector:	8-lane PCIe
PCIe bus type:	1-8 lane PCIe Gen1/Gen2/Gen3
On Board Memory:	8 GB (2x4GB 64 bit DDR3)
Performance:	
Capture rate (card internal):	Full line rate
Capture rate (bursts):	Full line rate
Capture rate (sustained):	Full line rate
Transmission rate (inline host DMA):	Full line rate
Transmission rate (inline bypass):	Full line rate
Transmission rate (daisy chain):	Full line rate
General Technical Specifications	
Latency:	Less than 3 μs to host memory Less than 3 μs from host memory to Tx Non-blocking sending, allowing user applications to operate independently
Time Stamping & Sync:	Resolution = 3.2 ns Accuracy down to 20 ns Optional external synchronization via PPS Customization for PTP IEEE 1588-2008 RJ45 Master/slave time sync between multiple cards
Network Interface:	
IEEE standard:	IEEE 802.3 10 Gbit/s Ethernet
Physical interface:	4 x SFP+ ports

Supported SFP+ modules:	Multimode SR (850 nm) Multimode LRM (850 nm) Singlemode LR (1310 nm) Singlemode ER (1310 nm) Singlemode ZR (1310 nm) Direct Attached Copper (Twinax)
Data rate:	4 x 10 Gbit/s
Environment:	
Physical dimensions:	Half length, standard height
PCIe:	111 x 169 mm
Weight:	268g
Operational power consumption:	Less than 39W
Operating temperature:	0 – 55°C, 30 – 130°F
Operating humidity:	20 – 80%
Hardware compliance:	RoHS, CE
Additional Board Support:	fbCAPTURE API On-board temperature sensor 4 Multi-color status LEDs Link and Activity LEDs for each port

Order Information

P/N	Description	Notes
fbC4XGg3	Quad port SFP+ capture card supporting 4x10GE, PCIe Gen3 x8 lanes	RoHS Compliant
fbC4XGg3-SR	Quad port (SR) capture card supporting 4x10GE, PCIe Gen3 x8 lanes	RoHS Compliant
fbC4XGg3-LRM	Quad port (LRM) capture card supporting 4x10GE, PCIe Gen3 x8 lanes	RoHS Compliant
fbC4XGg3-LR	Quad port (LR) capture card supporting 4x10GE, PCIe Gen3 x8 lanes	RoHS Compliant
fbC4XGg3-ER	Quad port (ER) capture card supporting 4x10GE, PCIe Gen3 x8 lanes	RoHS Compliant
fbC4XGg3-ZR	Quad port (ZR) capture card supporting 4x10GE, PCIe Gen3 x8 lanes	RoHS Compliant
fbC4XGg3-DA	Quad port (DA) capture card supporting 4x10GE, PCIe Gen3 x8 lanes	RoHS Compliant

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