

**Aumictech**

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Data Sheet

August 15, 2026

CRITICAL I/O

Critical I/O FCA2540-XMC-FF-G Dual Channel 8 Gb/s Fibre Channel XMC with 8-Lane PCIe

Critical I/O Embedded Test Systems. Channels: ** Dual independent, Voltage: ** 3.3 V $\pm$ 10%, Current: ** $\leq$ 30 mA above steady state after 2 microsecond.



MODEL

**Critical I/O
FCA2540-XMC-
FF-G**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

**FCA2540-XMC-
FF-G**

LISTING

<https://aumictechlabs.com/products/fca2540-xmc-ff-g-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Critical I/O FCA2540-XMC-FF-G is a dual-channel Fibre Channel XMC module that delivers 8 Gbps optical connectivity with full protocol offload to dedicated silicon. Built on Silicon Stack architecture, it eliminates host processor overhead and achieves 10 microsecond latency while sustaining 3200 MBytes/sec aggregated throughput across two independent channels. The module connects via 8-lane PCI-Express to the host and presents dual optical LC connectors supporting SFP+ transceivers. Auto-negotiation supports 8 Gbps, 4 Gbps, and 2 Gbps line rates. Each channel delivers 1600 MBytes/sec full-duplex maximum data rate. Protocol support spans SCSI-FCP for storage, and FC-RDMA, FC-FCLP, FC-ASM, FC-AV, and FC-IP for networking and messaging applications. Technical Specifications Host Interface: 8-Lane PCI-Express Fibre Channel Speed: 8 Gbps / 4 Gbps / 2 Gbps (auto-negotiation) Channels: Dual independent Per-

Channel Data Rate: 1600 MBytes/sec (full-duplex) Aggregated Transfer Rate: 3200 MBytes/sec sustained Latency: 10 microseconds Supply Voltage: 3.3 V $\pm$ 10% Maximum Supply Current (per SFP connector): 300 mA In-rush Current: $\leq$ 30 mA above steady state after 2 microseconds Operating Temperature: -10°C to 85°C Form Factor: XMC Cooling: Air cooled Key Features Silicon Stack architecture offloads all protocol processing to dedicated silicon Full-duplex operation on each independent channel Real-time monitoring of optical power, bias current, temperature, and supply voltage (SFF-8472 compliant) SFP+ mechanical and electrical compliance (SFF-8074i MSA) Supports multiple Fibre Channel protocols in single module Typical Applications storage I/O with SCSI-FCP Remote direct memory access (FC-RDMA) networking Fibre Channel messaging and AV applications Embedded processor integration (PowerPC, Intel, DSP) Compatibility & Integration Compatible with adapter boards such as ADPT-XMC2PCIE-A for standard PC deployment Software drivers and libraries support real-time and mainstream OS platforms Mechanical and electrical compliance with SFP+ and SFF-8074i standards

FCA2540XMCFFG Characteristics / Specifications

PARAMETER	VALUE
Model	FCA2540-XMC-FF-G
Instrument Type	Dual channel 8 Gb Fibre Channel XMC adapter
Family	Critical I/O FCA2540 XMC
Channels	2 independent Fibre Channel ports
Line Rate	8 Gb/s Fibre Channel (8GFC)
Speed Negotiation	8/4/2 Gb auto-speed
Duplex	full duplex
Host Bus	PCI Express 8-lane
Mezzanine	XMC, VITA 42
Optics	SFP+ fiber cages (FF fiber build)
Modes	initiator and target
Rugged Grade	G conformal-coat / rugged suffix
Host Platforms	VPX and VME single-board computers with XMC site
Protocol	Fibre Channel SAN / storage
Form Factor	XMC mezzanine
Port Count	dual channel
Lane Count	8-lane PCIe
Media	fiber (FF)
Sibling Pmc	Critical I/O XGE4022-PMC isaseparate PMC Ethernet family
Manufacturer	Critical I/O
Literature	Critical I/O FCA2540 dual 8 Gb Fibre Channel XMC family description; queue FF-G fiber rugged configuration
Use	embedded storage, recorder, and SAN attach
Cooling Class	air- or conduction-cooled XMC envelopes on host SBC
Standard	VITA 42 XMC

FCA2540XMCFFG Specifications

PARAMETER	VALUE
Applications	Embedded 8 Gb Fibre Channel storage and SAN attach on VPX/VME single-board computers via XMC.
Key Features	Dual 8 Gb/s Fibre Channel XMC
Technical Specifications	Model: FCA2540-XMC-FF-G

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes	
From Critical I/O FCA2540 dual 8 Gb/s Fibre Channel XMC family identification (x8 PCIe, dual 8GFC, FF fiber).	

Exact FPGA firmware and SFP+ reach belong on the installed optics and driver release.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.