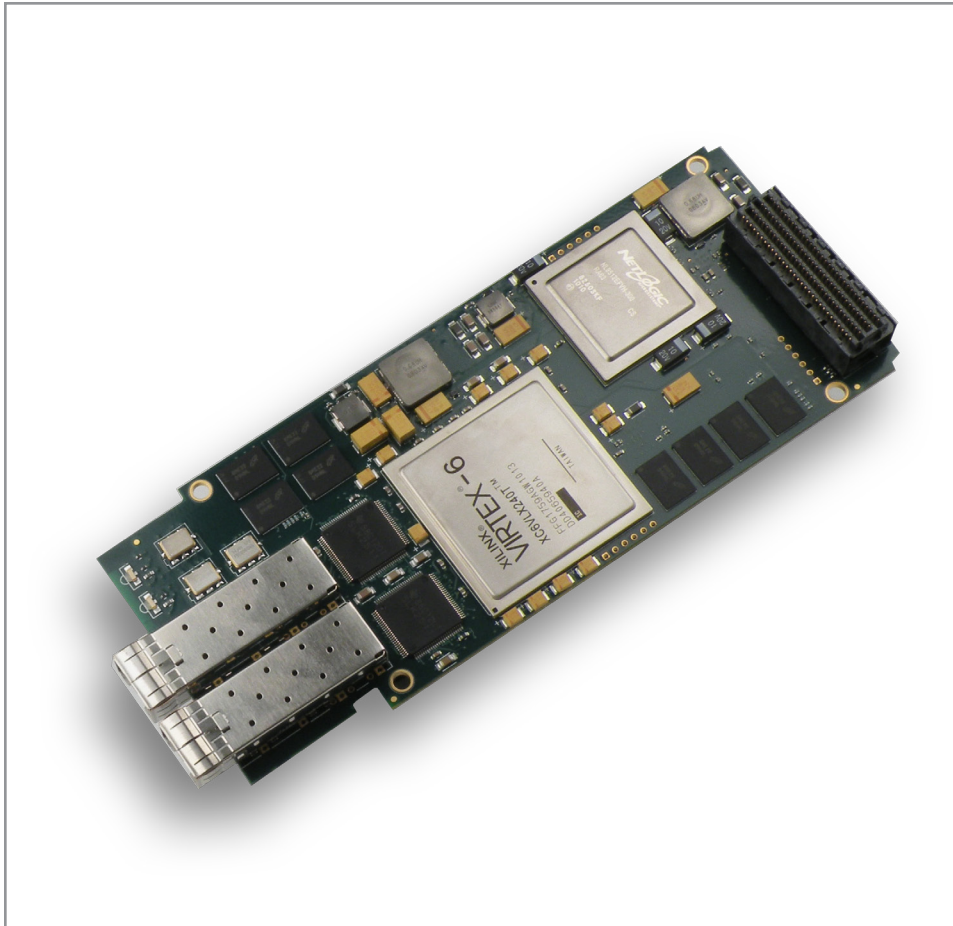


# OCM2.7G

Optical carrier multirate interface for 2.7 Gb/s



## Description

The OCM2.7G is a dual-port mezzanine board that pairs with an AMC main board to support 1GbE (optical or electrical) or OC3/12/48 (STM1/4/16), or both. It is available for a full- or mid-size AMC slot.

Each port provides one SFP to support up to 2.7 Gb/s: 1GbE (optical or electrical) or OC3/12/48 (STM1/4/16) at 1310 nm.

The board has one programmable Xilinx Virtex 6 FPGA and three crystal oscillators (XOs) – one per port and one additional – for internal reference. Each XO is independently configurable to any frequency from 10 to 215 MHz.

The board includes 1 GB of DDR2 DRAM, partitioned into two independent interfaces, for snapshot recording and data buffering. An optional TCAM supports additional data processing.

EDT provides FPGA configuration files to support OC3/12/48/192 (raw, framed, framed and descrambled, header, and payload). Custom configuration files can be requested.

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

## Features

Mezzanine board – pairs with the EDT AMC FX5 main board, which adds DMA, programmable FPGA resources, and memory

Size: Full-size or optional mid-size

Port 0: One SFP for 1GbE (optical or electrical) or OC3/12/48 (STM1/4/16) – 1310 nm

Port 1: One SFP for the same data format options as port 0

FPGAs: One programmable (Xilinx Virtex 6 XC6VLX240T)

DRAM: Two independent 512 MB banks (DDR2) for snapshot recording and data buffering

TCAM: One optional

Clocks: Three XOs (one per port, plus one additional) for internal reference, each independently programmable from 10 to 215 MHz

## Applications

Telecommunications network monitoring

Ethernet monitoring

SONET/SDH to ethernet conversion

# Specifications

Product Type	Optical carrier multirate interface for two ports of 2.7 Gb/s each; it requires an EDT AMC FX main board.																					
FPGA Resources	One programmable FPGA (Xilinx Virtex 6 LXT XC6VLX240T), plus FPGA resources on main board																					
Memory	DRAM (DDR2) TCAM	Two independent banks of 512 MB each (for snapshot recording / data buffering) One optional																				
Clocks	Three internal reference XOs	One per port plus one additional, each independently programmable to any frequency from 10 to 215 MHz																				
Data Rates	Dependent on such factors as data format, main board, and system variables.																					
Data Format (I/O)	<b>Ethernet</b> Port 0: Port 1:	<b>SONET (SDH)</b> OC3/12/48 (STM1/4/16) Same as port 0																				
Transceivers	Two (ports 0 and 1 each have one) are included, supporting data as shown below.																					
	<b>PortS 0, 1 (1 SFP each)</b>	<table border="1"> <thead> <tr> <th></th> <th><b>ELECTRICAL</b></th> <th><b>OPTICAL</b></th> </tr> </thead> <tbody> <tr> <td></td> <td><b>1GbE</b></td> <td><b>1GbE or OC3/12/48 (STM1/4/16)</b></td> </tr> <tr> <td>Output power</td> <td>–</td> <td>–9.5 to –3 dBm</td> </tr> <tr> <td>Center wavelength</td> <td>–</td> <td>1270 to 1360 nm</td> </tr> <tr> <td>Sensitivity</td> <td>–</td> <td>–18 dBm</td> </tr> <tr> <td>Maximum input power</td> <td>–</td> <td>0 dBm</td> </tr> <tr> <td>Connector</td> <td>RJ45</td> <td>LC</td> </tr> </tbody> </table>		<b>ELECTRICAL</b>	<b>OPTICAL</b>		<b>1GbE</b>	<b>1GbE or OC3/12/48 (STM1/4/16)</b>	Output power	–	–9.5 to –3 dBm	Center wavelength	–	1270 to 1360 nm	Sensitivity	–	–18 dBm	Maximum input power	–	0 dBm	Connector	RJ45
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Connectors	One RJ45 or LC on each transceiver as shown above																					
Cabling	Consult EDT for purchase options.																					
Physical	Weight Dimensions – full-size board pair Dimensions – mid-size board pair	8.4 oz. typical (with a main board) 7.25 x 2.875 x 1.25 in. (with a main board) 7.25 x 2.875 x 0.75 in. (with a main board)																				
Environmental	Temperature (operating / non-operating) Humidity (operating / non-operating)	0° to 40° C / –40° to 70° C 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: AMC FX5
- Size: **Full** or mid
- Memory – TCAM: **0** / 1
- Transceivers: [options above]

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