**FMC106 – FMC Dual 10 GbE with XAUI Interface**

**KEY FEATURES**
- FPGA Mezzanine Card (FMC) per VITA-57
- Single module
- Dual 1GbE/10GbE via SFP+
- XAUI interface to the FMC at 10GbE speed
- RoHS compliant

**Benefits of Choosing VadaTech**
- Array of FMC's and FMC carriers available from VadaTech
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full ecosystem of front and rear boards, enclosures, specialty modules, and test/dev products from one source
- AS9100 and ISO9001 certified company

The FMC106 is an FPGA Mezzanine Module per VITA 57 specification. The FMC106 has Dual 1Gbe/10GbE interface via SFP+ which allows for 1GbE/10GbE to be routed to appropriate FMC pins.

**Note:** The Carrier must have no component on the top side for 46 mm for this module to fit property. All VadaTech FMC Carriers provide this clearance.
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BLOCK DIAGRAM

FRONT PANEL
FMC106 – FMC Dual 10 GbE with XAUI Interface

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Dimensions</th>
<th>Single module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Width: 2.71” (69 mm)</td>
<td>Depth: 3.011” (76.5 mm)</td>
</tr>
<tr>
<td>Type</td>
<td>FMC</td>
<td>Two port 10 GbE</td>
</tr>
<tr>
<td></td>
<td>Single FMC slot</td>
<td></td>
</tr>
</tbody>
</table>

| Standards    | VITA57     | ANSI/VITA 57.1-2008 |

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Power</th>
<th>FMC106</th>
<th>GbE/10 GbE module dependant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>Temperature</td>
<td>Operating temperature: –5° to 55° C (air flow requirement of &gt;400 LFM, industrial versions also available (See environmental spec sheet))</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage temperature: –40° to +85° C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vibration</td>
<td>Operating 9.8 m/s² (1G), 5 to 500 Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shock</td>
<td>30Gs on each axis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relative Humidity</td>
<td>5 to 95 percent, non-condensing</td>
<td></td>
</tr>
</tbody>
</table>

| Front Panel | Interface Connectors | Dual SFP/SFP+ connectors |
|            | LEDs | Signal Detect, Transmit ACT, Receive ACT, Present and User define |

<table>
<thead>
<tr>
<th>Other</th>
<th>MTBF</th>
<th>MIL Handbook 217-F@TBD Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications where applicable</td>
</tr>
<tr>
<td></td>
<td>Compliance</td>
<td>PICMG 3.0 Rev 3.0, RoHS 2 and NEBS Level 3</td>
</tr>
<tr>
<td></td>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
</tr>
<tr>
<td></td>
<td>Warranty</td>
<td>Two (2) years</td>
</tr>
</tbody>
</table>

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and µTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTM), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

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ORDERING OPTIONS

**FMC106 – AB0 – 000 – GHJ**

A = SFP/SFP+ Transceiver First Port
- 0 = None
- 1 = 10GBASE-SR
- 2 = Reserved
- 3 = 10GBASE-LRM
- 4 = 10GBASE-LR
- 5 = Copper 1000Base-TX
- 6 = Fiber 1GbE SX
- 7 = Fiber 1GbE LX

B = SFP/SFP+ Transceiver Second Port
- 0 = None
- 1 = 10GBASE-SR
- 2 = Reserved
- 3 = 10GBASE-LRM
- 4 = 10GBASE-LR
- 5 = Copper 1000Base-TX
- 6 = Fiber 1GbE SX
- 7 = Fiber 1GbE LX

G = FMC Board Spacing
- 0 = 10 mm (per VITA-57 specification)
- 1 = 17.5 mm *

H = Operating Temperature
- 0 = Commercial (-5° to +55° C)
- 1 = Industrial (-20° to +70° C)

J = Conformal Coating
- 0 = None
- 1 = Humiseal 1A33 Polyurethane
- 2 = Humiseal 1B31 Acrylic

* For use with carriers that require higher mating clearance, such as VadaTech AMC595. Requires full size AMC.

RELATED PRODUCTS

VT841 1U
Chassis Platform

UTC004 Gen 3
MCH

AMC532
FPGA AMC Carrier for FMC

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