**KEY FEATURES**

- FPGA Mezzanine Card (FMC) per VITA-57
- Single module
- Dual 10/100/1000 Mbps GbE ports
- Connection via two RJ-45 ports
- LED for Power Fail status
- 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 FMC102 is an FPGA Mezzanine Module per VITA 57 specification. The FMC102 has two GbE PHY which allows 10/100/1000 Mbit to be routed via SERDES to the appropriate FMC pins.
FMC102 – Dual 10/100/1000 GbE FMC Module

BLOCK DIAGRAM

Figure 1: Block Diagram

FRONT PANEL

Figure 2: Front Panel
# SPECIFICATIONS

<table>
<thead>
<tr>
<th>Architecture</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Physical Dimensions</td>
<td>Single module</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>2.71&quot; (69 mm)</td>
<td></td>
</tr>
<tr>
<td>Depth</td>
<td>3.01&quot; (76.5 mm)</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>FMC</td>
<td>10/100/1000 GbE, Single FMC slot</td>
</tr>
<tr>
<td>Standards</td>
<td>FMC</td>
<td>ANSI/VITA 57.1-2008</td>
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</table>

## Configuration

<table>
<thead>
<tr>
<th>Power</th>
<th>FMC102</th>
<th>1 W</th>
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<tbody>
<tr>
<td>Environmental Temperature</td>
<td>Operating Temperature: 0° to 65° C with air flow requirements &gt;400 LFM</td>
<td>Storage Temperature: -40° to +90° C</td>
</tr>
<tr>
<td>Vibration</td>
<td>1G, 5 to 500 Hz each axis</td>
<td></td>
</tr>
<tr>
<td>Shock</td>
<td>30Gs each axis</td>
<td></td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5 to 95 percent, non-condensing</td>
<td></td>
</tr>
<tr>
<td>Front Panel</td>
<td>External Interface</td>
<td>RJ-45 (2x)</td>
</tr>
<tr>
<td>LEDs</td>
<td>Link/Activity, Power Fail</td>
<td></td>
</tr>
<tr>
<td>Conformal Coating</td>
<td>Humiseal 1A33 Polyurethane (Optional)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humiseal 1B31 Acrylic (Optional)</td>
<td></td>
</tr>
</tbody>
</table>

## Other

<table>
<thead>
<tr>
<th>MTBF</th>
<th>MIL Hand book 217-F @ TBD Hrs.</th>
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<tbody>
<tr>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications where applicable</td>
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<tr>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
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<tr>
<td>Warranty</td>
<td>Two (2) years</td>
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### 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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FMC102 – Dual 10/100/1000 GbE FMC Module

ORDERING OPTIONS

FMC102 – 000 – 000 – GHJ

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

H = Temperature Range
0 = Commercial
1 = Industrial

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

AMC515 Virtex-7 FPGA Carrier
FMC108 Two QSFP+ FMC
FMC150 IRIG-B FMC

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