FMC153 – 8-bit Synchronous NECL Output with Clock

**KEY FEATURES**

- FPGA Mezzanine Card (FMC) per VITA-57
- Single-module
- 8-bit output with NECL signalling and clock
- Status LED
- RoHS compliant

**Benefits of Choosing VadaTech**

- Broad range of single- and dual-site FMC carriers
- All FMC carriers provided with a reference design with VHDL source code and configuration binaries
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

The FMC153 is an FPGA Mezzanine Module per VITA 57 specification. It has 8-bit synchronous output with clock. The output is in NECL signalling. The module has 8 status LEDs.
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**BLOCK DIAGRAM**

![Diagram showing a functional block diagram of FMC153](image)

- **Mezzanine Expansion Connector FMC (VITA-57)**
- **LVDS to NECL (8-bit output with CLK)**
- **Activity/Status LED**
- **I/O**
- **LEDs**

**Figure 1: FMC153 Functional Block Diagram**
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Dimensions</th>
<th>Single FMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Dimensions</td>
<td>Width</td>
<td>2.71&quot; (69 mm)</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>3.01&quot; (76.5 mm)</td>
</tr>
<tr>
<td>Type</td>
<td>FMC</td>
<td>Output 8-bit with clock</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Single FMC</td>
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</table>

<table>
<thead>
<tr>
<th>Standards</th>
<th>FMC</th>
<th>VITA-57</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Output</td>
<td>ANSI/VITA 57.1-2008</td>
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<table>
<thead>
<tr>
<th>Configuration</th>
<th>Power</th>
<th>FMC153</th>
<th>2W</th>
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<tbody>
<tr>
<td>Environmental</td>
<td>Temperature</td>
<td>Operating Temperature: -5°C to 55°C (air flow requirements &gt;200 LFM)</td>
<td></td>
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<tr>
<td></td>
<td>Storage Temperature</td>
<td>-40°C to +85°C</td>
<td></td>
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<tr>
<td></td>
<td>Vibration</td>
<td>1G, 5 to 500 Hz on each axis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shock</td>
<td>30Gs each axis</td>
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<tr>
<td></td>
<td>Relative Humidity</td>
<td>5 to 95 percent, non-condensing</td>
<td></td>
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<tr>
<td>Front Panel</td>
<td>Interface Connectors</td>
<td>Samtec HSEC8-125-01-S-RA-L2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEDs</td>
<td>8x Status</td>
<td></td>
</tr>
<tr>
<td>Conformal Coating</td>
<td>Humiseal 1A33 Polyurethane (Optional)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humiseal 1B31 Acrylic (Optional)</td>
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</table>

<table>
<thead>
<tr>
<th>Other</th>
<th>MTBF</th>
<th>MIL Hand book 217-F @ TBD Hrs</th>
</tr>
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<tr>
<td></td>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications where applicable</td>
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<tr>
<td></td>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
</tr>
<tr>
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<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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ORDERING OPTIONS

FMC153 – 000 – 000 – G0J

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

J = Conformal Coating
0 = Commercial, No coating
1 = Commercial, Humiseal 1A33 Polyurethane
2 = Commercial, Humiseal 1B31 Acrylic
3 = Industrial, No coating
4 = Industrial, Humiseal 1A33 Polyurethane
5 = Industrial, Humiseal 1B31 Acrylic
6 = Reserved
7 = Reserved

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

RELATED PRODUCTS

AMC517 Kintex-7 FPGA
AMC515 Virtex-7 FPGA
FMC210 ADC FMC

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