FMC267

Single DAC with Quad ADC
DC Coupled

Key Features

- DAC based on the Texas Instruments DAC3171 device with 14-bit @ 500 MSPS
- ADC based on the Analog Device AD9268 16-bit @ 125 MSPS
- On board PLL
- FPGA Mezzanine Card (FMC) per VITA 57
- Clock input for synchronization via front or rear

Benefits

- Ideal for communication, Diversity Radio Systems, I/Q demodulation systems
- Compatible with a broad range of Xilinx- and Altera-based FMC/FMC+ carriers from VadaTech and others
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company
The FMC267 is an FMC per VITA 57 specification. The FMC267 has a single DAC3171 Device from Texas Instruments which provides a DAC at 14-bit with 500 MSPS. The front DAC output is DC coupled.

Further, the FMC267 has quad ADC based on Analog Device AD9268 at 16-bit with 125 MSPS. The ADC are DC coupled output.

The module has a clock input via front panel which allows synchronization to an external clock. The FMC267 allows the synchronization clock to also come from the carrier.

The module has 8 SSMC Connectors for its ADC/DAC, clock input and Trigger in/out.
Figure 4: FMC267 Functional Block Diagram
Specifications

Architecture

<table>
<thead>
<tr>
<th>Physical</th>
<th>Dimensions</th>
<th>Single Module</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

Type

| FMC          | Quad ADC with Single DAC |

Standard

| FMC          | Type                | ANSI/VITA 57.4 |

Configuration

<table>
<thead>
<tr>
<th>Power</th>
<th>FMC267</th>
<th>6W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>Temperature</td>
<td>See Ordering Options</td>
</tr>
<tr>
<td></td>
<td>Storage Temperature: -40° to +85°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Altitude</td>
<td>40,000 ft non-operating</td>
</tr>
<tr>
<td></td>
<td>Vibration</td>
<td>Operating 9.8 m/s² (1G), 5-500 Hz</td>
</tr>
<tr>
<td></td>
<td>Shock</td>
<td>Operating 30Gs each axis</td>
</tr>
<tr>
<td></td>
<td>Relative Humidity</td>
<td>5 to 95% non-condensing</td>
</tr>
</tbody>
</table>

Front Panel

| Interface Connectors | 8 SSMC |
| LEDS                | Status |

Software Support

| Operating System   | Agnostic |

Other

| MTBF            | MIL Hand book 217-F@ TBD hrs |
| Certifications  | Designed to meet FCC, CE and UL certifications, where applicable |
| Standards       | VadaTech is certified to both the ISO9001:2015 and AS9100D standards |
| Warranty        | Two (2) years, see VadaTech Terms and Conditions |

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), 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.
Ordering Options

FMC267 – 000-000-00J

J = Temperature Range and Conformal Coating

0 = Commercial (–5°C to +55°C), No coating
1 = Commercial (–5°C to +55°C), Humiseal 1A33 Polyurethane
2 = Commercial (–5°C to +55°C), Humiseal 1B31 Acrylic
3 = Industrial (–20°C to +70°C), No coating
4 = Industrial (–20°C to +70°C), Humiseal 1A33 Polyurethane
5 = Industrial (–20°C to +70°C), Humiseal 1B31 Acrylic
6 = Extended (–40°C to +85°C), Humiseal 1A33 Polyurethane
7 = Extended (–40°C to +85°C), Humiseal 1B31 Acrylic

Notes:
*Conduction cooled; temperature is at edge of module. Consult factory for availability.

Related Products

- AMC592
  - AMC FPGA carrier for FMC per VITA 57
  - Xilinx UltraScale™ XCKU115 FPGA
  - Supported by DAQ Series™ data acquisition software

- FMC214
  - Dual complete transceiver signal chain solution using Analog Devices AD9361 transceiver
  - Frequency range 70 MHz to 6 GHz with instantaneous bandwidth from 200 kHz to 56 MHz
  - MIMO transceiver is Time Domain Duplex (TDD) and Frequency Domain Duplex (FDD) compatible

- VPX592
  - 3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57
  - Xilinx Kintex UltraScale™ XCKU115 FPGA
  - High-performance clock jitter cleaner