The FMC222 is an FPGA Mezzanine Module per VITA 57 specification. The FMC222 has dual DAC 14-bit at 2.5 GSPS.

The DAC converter utilizes the Analog Devices AD9739.

The FMC222 is designed for synthesizing of broadband signals, with enhanced linearity and band flatness performances. The two DAC are cable of synchronization with incoming data between the two.

The analog output can be programmed for +/- 1V.
FMC222 – FMC High-speed Dual DAC 14-bit at 2.5 GSPS Module

BLOCK DIAGRAM

FMC222

AD9739
14-bit @ 2.5GSPS

RF PLL Synthesizer

MUX

10MHz Input

General Purpose I/O

Trig In

Trig Out

Analogue Out

MMCX

MMCX

MMCX

MMCX

LED

Mezzanine Expansion Connector
FMC (VITA-57)

FRONT PANEL

Doc No. 4FM737-12 Rev 01

www.vadatech.com

vadatech

T H E  P O W E R  O F  V I S I O N

info@vadatech.com
FMC222 – FMC High-speed Dual DAC 14-bit at 2.5 GSPS Module

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Architecture</th>
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<tbody>
<tr>
<td>Physical</td>
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<tr>
<td>Dimensions</td>
<td>Single module</td>
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<tr>
<td>Width</td>
<td>2.71&quot; (69 mm)</td>
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<tr>
<td>Depth</td>
<td>3.01&quot; (76.5 mm)</td>
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<tr>
<td>Type</td>
<td>FMC</td>
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<tr>
<td></td>
<td>Dual DAC (AD9739)</td>
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<td></td>
<td>Single FMC slot</td>
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<tr>
<td>Standards</td>
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<tr>
<td>FMC</td>
<td>VITA-57</td>
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<td>ANSI/VITA 57.1-2008</td>
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<tr>
<th>Configuration</th>
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<tr>
<td>Power</td>
<td>FMC222</td>
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<tr>
<td></td>
<td>6 W</td>
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<tr>
<td>Environmental</td>
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</tr>
<tr>
<td>Temperature</td>
<td>Operating Temperature: -5° to 55° C (air flow requirements &gt;400 LFM))</td>
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<td>Storage Temperature: -40° to +85° C</td>
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<tr>
<td>Vibration</td>
<td>1G, 5 to 500 Hz on each axis</td>
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<tr>
<td>Shock</td>
<td>30Gs each axis</td>
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<tr>
<td>Relative Humidity</td>
<td>5 to 95 percent, non-condensing</td>
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<td>Front Panel</td>
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<td>Interface Connectors</td>
<td>MMCX</td>
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<td>LEDs</td>
<td>Status</td>
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<td>Conformal Coating</td>
<td>Humiseal 1A33 Polyurethane (Optional)</td>
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<td></td>
<td>Humiseal 1B31 Acrylic (Optional)</td>
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<tr>
<td>MTBF</td>
<td>MIL Hand book 217-F @ TBD Hrs</td>
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<td>Certifications</td>
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<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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FMC222 – FMC High-speed Dual DAC 14-bit at 2.5 GSPS Module

ORDERING OPTIONS

FMC222 – AB0 – D00 – GHJ

A = RF PLL Synthesizer*
0 = 1.8 GHz for sampling at 1.8 GSPS
1 = 2.5 GHz for sampling at 2.5 GSPS
2 = 1.28 GHz for sampling at 1.28 GSPS
3 = 2.0 GHz for sampling at 2.0 GSPS

B = Input Clock
0 = 10 MHz
1 = 100 MHz

D = Input Impedance
0 = 75Ω Input Impedance
1 = 50Ω Input Impedance

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

H = Operating Temperature
0 = Commercial
1 = Industrial

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

* Contact VadaTech for more information on other PLL synthesizer frequencies and input clocks
** For use with carriers that require higher mating clearance, such as VadaTech AMC595. Requires full size AMC.

RELATED PRODUCTS

AMC515 Virtex-7 FPGA
AMC530 Altera FPGA
FMC210 ADC 10-bit 2.6 GSPS

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