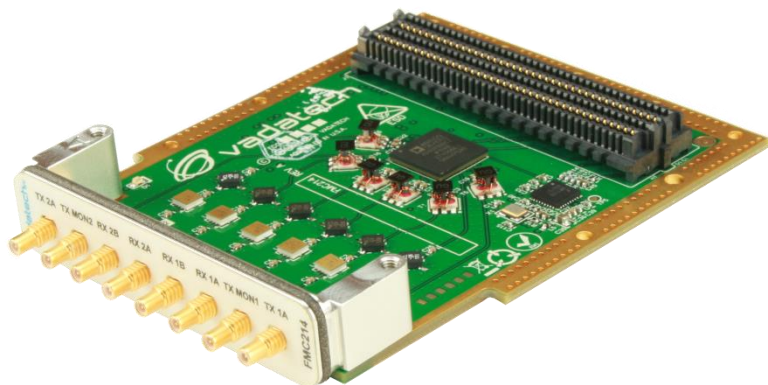


## FMC 70 MHz to 6 GHz Dual Versatile Wideband Transceiver – FMC214

70 MHz to 6 GHz, RF Synthesizer



### KEY FEATURES

- FPGA Mezzanine Card (FMC) per VITA 57
- Conduction cooled compatible
- Dual complete transceiver signal chain solution
- Frequency range 70 MHz to 6 GHz
- Instantaneous bandwidth from 200 kHz to 56 MHz
- Multiplexed 2x RF inputs on each RF channel
- Time Domain Duplex (TDD) and Frequency Domain Duplex (FDD) compatible
- On-board clocking or external clock with multi-card synchronization capability
- LVDS 2.5V I/O signalling
- SPI and parallel CMOS controlled buses
- Low Pin Count (LPC) 160-pin connector

### Benefits of Choosing VadaTech

- Ideal for LTE and SDR applications with wideband range versatility
- Array of FMC's and FMC carriers available from VadaTech
- 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 FMC214 is a FPGA Mezzanine Card (FMC) per VITA 57.1 standard, offering small footprint and low power dual fully featured wideband Rx/Tx channels.

The FMC214 combines RF front end, frequency synthesizers for Rx and for Tx, mixed-signal baseband section and flexible digital interface to host processor through the LPC connector. The FMC214 operates within the 70 MHz to 6.0 GHz frequency range, covering most licensed and unlicensed bands, and provides an instantaneous bandwidth programmable from 200 KHz to 56 MHz. The clocking is via the FMC connector or an internal clock. It's features make the FMC214 an ideal choice for the development and/or deployment of advanced RF solutions.

*VadaTech can modify this product to meet special customer requirements. Contact us to discuss your application.*

# FMC 70 MHz to 6 GHz Dual Versatile Wideband Transceiver – FMC214

## INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and  $\mu$ TCA 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.

## BLOCK DIAGRAM

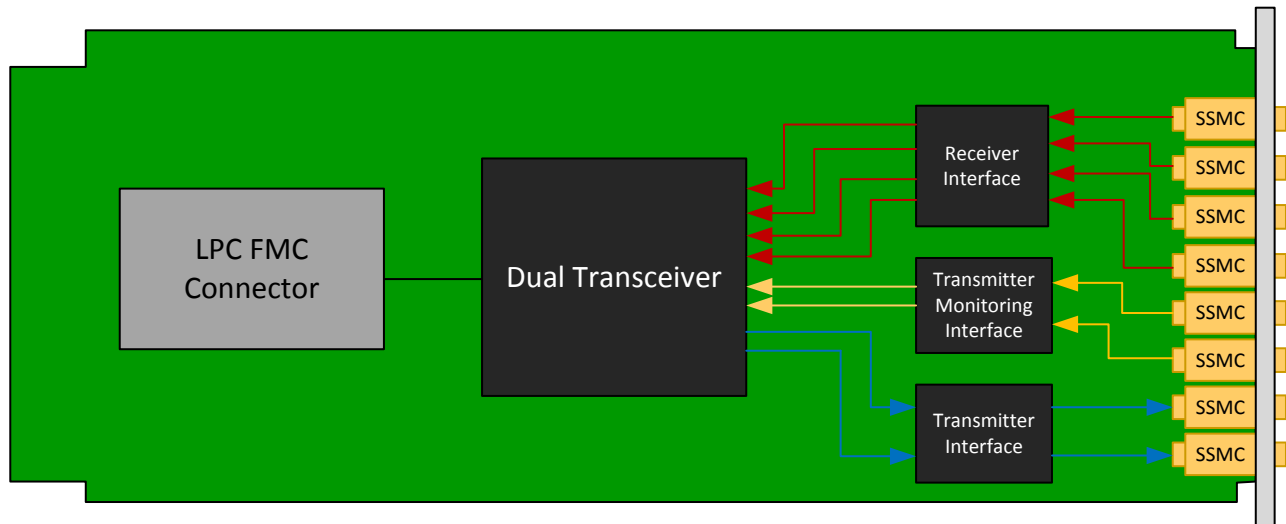


Figure 1: Block Diagram

# FMC 70 MHz to 6 GHz Dual Versatile Wideband Transceiver – FMC214

## SPECIFICATIONS

Architecture		
Physical	Dimensions	Single module
		Width 2.71" (69 mm)
		Depth 3.01" (76.5 mm)
Type	FMC	Dual wideband transceiver
		FMC connector
Standards		
FMC	VITA 57	ANSI/VITA 57.1-2008
Configuration		
Power	FMC214	2W
Environmental	Temperature	Operating Temperature: -5° to 55° C (air flow requirements >400 LFM))
		Storage Temperature: -40° to +85° C
	Vibration	1G, 5 to 500 Hz on each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95 percent, non-condensing
Front Panel	Interface Connectors	8x SSMC Front Panel Connector
	LEDs	Status
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
Other		
MTFB	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 ISO9001:2000 and AS9100B:2004 standards	
Warranty	Two (2) years	
Trademarks and Disclaimer	The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice	

# FMC 70 MHz to 6 GHz Dual Versatile Wideband Transceiver – FMC214

## ORDERING OPTIONS

FMC214 – 000 – 000 – 0HJ

### H = Operating Temperature

0 = Commercial

1 = Industrial

### J = Conformal Coating

0 = None

1 = Humiseal 1A33 Polyurethane

2 = Humiseal 1B31 Acrylic

## RELATED PRODUCTS



AMC515 Virtex-7  
FPGA



FMC108 Dual  
QSFP+ FMC



FMC223 Dual  
14-bit D/A

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