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THE POWER OF VISION

MRT523 – MicroTCA.4 RTM for AMC523, 12 Ch ADC 16-bit @ 125 MSPS

MTCA.4 RTM for AMC523

KEY FEATURES

- MicroTCA.4 RTM for the AMC523
- Double module, mid-size (full-size optional)
- Twelve channel ADC 16-bit @ 125 MSPS utilizing AD9653 device routed to AMC523
- Two analog outputs from AMC523's DACs Mezzanine
- ADC and DAC signal routed through a mezzanine

Benefits of Choosing VadaTech

- Expertise in RTM and MTCA.4 board design
- Full ecosystem of MicroTCA.4 AMCs, PMs, MCH, RTMs, chassis, and application-ready systems
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- AS9100 and ISO9001 certified company

The MRT523 is a Rear Transition Module (RTM) for VadaTech's AMC523. The MRT523 accepts a mezzanine card (sold separately) to provide the ADC, DAC and Clock I/Os.

The MRT523 provides three quad channel ADCs (AD9653) on board to provide a total of 12 channels ADC 16-bit @ 125 MSPS. The ADC accept input voltage of +/–1 V, DC coupled, 100 ohm load. There are also dual DAC outputs with routing to the AMC523 where the DAC ICs reside. The ADCs, DAC and Clocks signals to the mezzanine are provided through five 20-pin ZIF connectors on-board the MRT523.

Refer to the mezzanine card datasheets (MZ523x for VadaTech versions) for available I/O channels and signal conditioning options. If you are using a custom or third party mezzanine, ensure that the analog inputs are within +/–1 V.

VadaTech offers a wide range of MicroTCA.4 products, including full systems. Contact your local salesperson or representative for details.

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BLOCK DIAGRAM

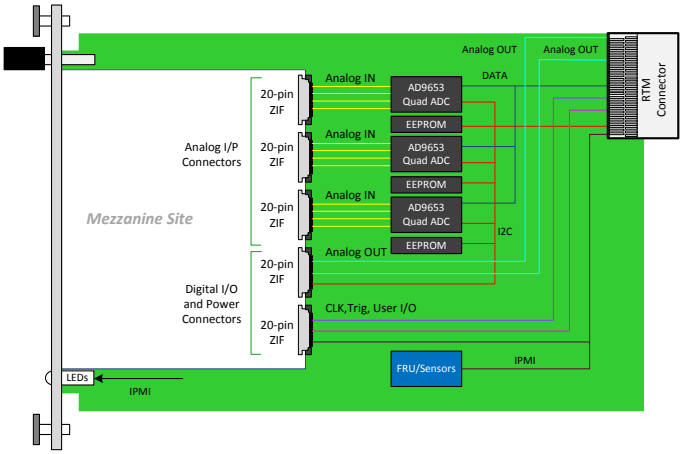

Figure 1 (left): MRT523 Block Diagram

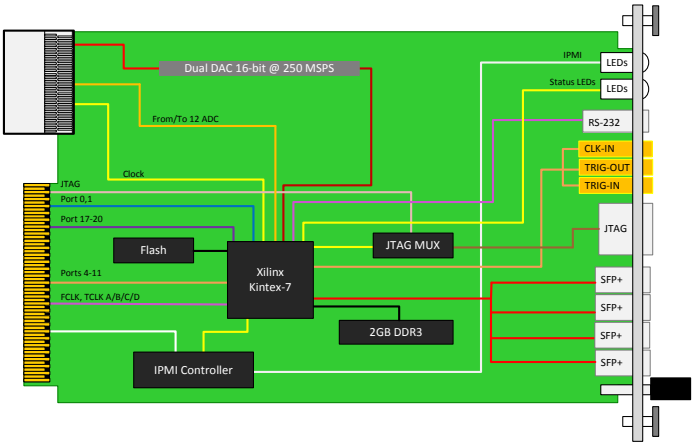

Figure 2 (right): AMC523 Block Diagram (sold separately)

SPECIFICATIONS

Architecture		
Physical	Dimensions	Double module, mid-size with full-size option
		Width 5.85" (148.5 mm)
	Weight	0.3 lb (136 g)
		Depth 7.18" (182.6 mm)
Type	AMC RTM	Routes 10 analog inputs and 2 analog outputs between the mezzanine and the AMC523 via RTM connector
		Single Mezzanine Card Slot
Standards		
MTCA	Type	MTCA.4 RTM
Module Management	IPMI	IPMI version 2.0
Configuration		
Power	MRT523	Estimated 1 W, application specific
Environmental	Temperature	Operating Temperature: -5° to 55° C (air flow requirements >200 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	Five 20-pin ZIF connectors on board
		RTM connector to route signals to AMC523
	LEDs	IPMI Management Control
	Mechanical	Hot Swap Ejector Handle
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 ISO9001:2000 and AS9100B:2004 standards	
Warranty	Two (2) years	

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

MRT523 – A0C – 000 – 00J

A = I/O Mezzanine
0 = MZ523A (Programmable Gain)
1 = MZ523B (Passive Pass-through)
2 = No Mezzanine

C = Front Panel
1 = Reserved
2 = Reserved
3 = Reserved
4 = Reserved
5 = Mid-size, MTCA.4 (captive screws)
6 = Full-size, MTCA.4 (captive screws)

* Edge of module of Conduction cooled boards

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

RELATED PRODUCTS

AMC523
DAC Converter

VT811 MTCA.4
Chassis

UTC018 1000W
Power Module

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