AMC902

Analog Filter, Gain Control with Dual Conditioning, AMC

AMC902

Key Features

- Dual analog IF input with programmable attenuator per channel
- Filtered and amplified Analog IF output
- Dual clock input with flexible routing to backplane
- Attenuation configuration via Port 0 (GbE) or front panel serial port
- Single-module mid-size (option for full-size)

Benefits

- Programmable gain/attenuation provides signal conditioning such as may be needed for ADC inputs
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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AMC902

The AMC902 accepts two analog Intermediate Frequency (IF) inputs via SSMC connectors. The analog signals are attenuated, amplified, filtered and amplified again before being output via SSMC. The attenuation is dynamic and user configurable by an onboard management processor, which is accessed through the backplane Port 0 (GbE) or front panel RS-232 interface.

The module has dual front panel clock input via SSMC connectors. The first clock input is LVTTL compatible and the second clock is input as a sinewave. The clocks pass through a MLVDS Cross Bar Switch which can be configured to route the clocks to any combination of TCLKA/TCLKB/TCLKC and TCLKD.

Figure 1: AMC902

Block Diagram
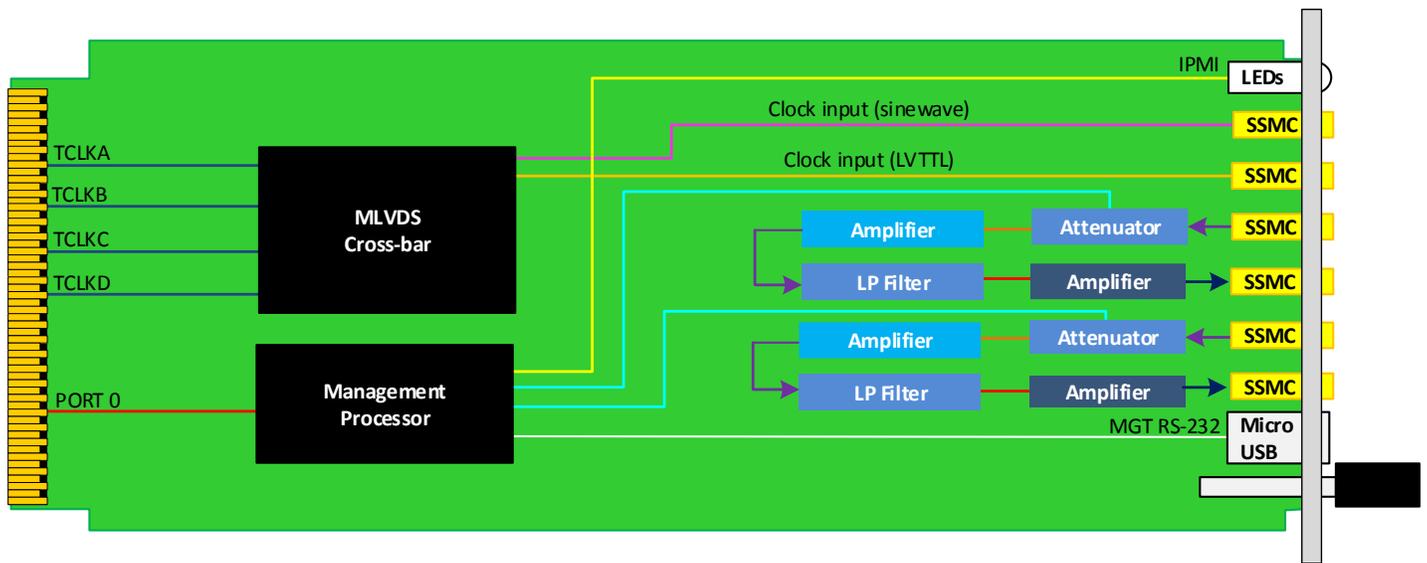
Figure 2: AMC902 Functional Block Diagram

Front Panel
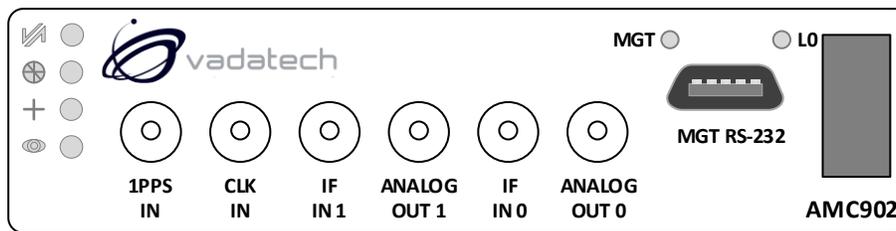
Figure 3: AMC902 Front Panel

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Specifications

Architecture		
Physical	**Dimensions**	Single module, mid-size (full-size option available)
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Type	**AMC Analog**	Dual Analog IF input and output
Configuration		
Power	**AMC902**	4W
Environmental	**Temperature**	See Ordering Options and Environmental Spec Sheet
		Storage Temperature: –40° to +85°C
	Vibration	Operating 9.8 m/s^2 (1G), 5 to 500 Hz
	Shock	Operating 30G on each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	6x SSMC and 1x micro USB
	LEDs	4x IPMI and 2x Status
	Mechanical	Hot swap ejector handle
Software Support	**Operating System**	N/A
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, 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

AMC902 – A0C-000-00J

A = Filter		
0 = Low Pass Filter 1.5 GHz 1 = Reserved 2 = Reserved 3 = Reserved 4 = Reserved 5 = Reserved		

C = Front Panel Size		J = Temperature Range and Coating
1 = Reserved 2 = Mid-size 3 = Full-size		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*

Notes: *Edge of module for conduction-cooled boards (contact VadaTech Sales for details)
For operational reasons VadaTech reserves the right to supply a higher speed FPGA device than specified on any particular order/delivery at no additional cost, unless the customer has entered into a Revision Lock agreement with respect to this product.

Related Products

AMC526

- Dual ADC 12-bit @ 2.6 GSPS (AD9625) in single module, mid-size
- Xilinx Virtex-7 690T FPGA in FFG-1761 package
- Quad bank QDR-II+ memory (576 Mb total) and 1Gb DDR3

AMC527

- Xilinx Virtex-7 690T FPGA in FFG-1761 package
- Quad bank QDR-II+ memory (576 Mb total) and 1 GB DDR3
- Internal, external or backplane clock with on-board wide-band PLL

AMC592

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

Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014

Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhu Street, Neihu District, Taipei 114, Taiwan

Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR

Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

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