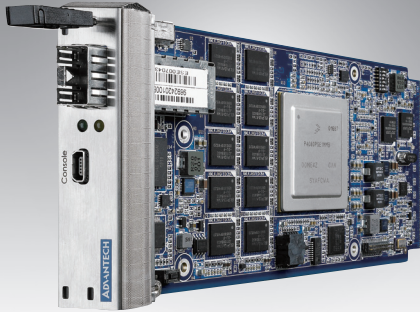


AMC-4201

Advanced Mezzanine Card Freescale QorIQ P4080 AMC

NEW



Features

- Freescale P4080 8 Cores e500-mc PowerPC, up to 1.5 GHz
- DDR3 up to 1333 MHz 8 GB with ECC support
- 4 MB SPI Flash and 2 GB NAND Flash
- One 10 GbE SFP+ port for external access
- AMC.0, AMC.1, AMC.2, and AMC.4 compliant and configurable SERDES channel (SRIO/XAUI/PCIe) support
- Efficient power consumption, typical 32W
- 8 KHz and 19.44 MHz Telecom Clock Sync support

Introduction

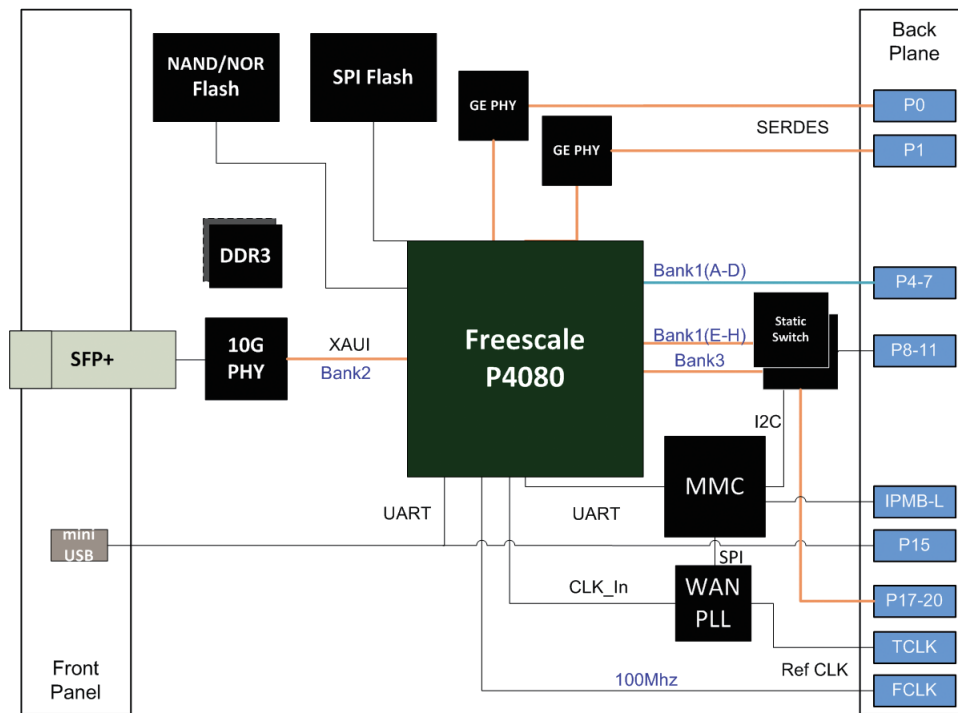
The AMC-4201 is a single-width, mid-size AMC based on the Freescale P4080 processor. It combines eight Power Architecture® e500-mc Cores operating at frequencies up to 1.5 GHz with high-performance, datapath acceleration logic, extensive networking I/O, and peripheral bus interfaces. It combines powerful multi-Core Power Architecture performance with network processing capabilities, and builds on the communications ubiquity of Freescale's QorIQ® product family. AMC-4201 provides 4 and 8 GB build options for onboard DDR3 memory at 1333 MHz with ECC support. One front-panel 10GbE SFP+ connector provides network access in addition to a front panel console and debug port.

The unique SERDES design supports up to four different AMC port configurations for a mix of SRIO, PCIe, XAUI and SGMII channels. This makes the AMC extremely versatile and caters to a wider range of MicroTCA or ATCA Carrier topologies beyond just telecom applications. 4 MB SPI Flash and 2 GB NAND Flash provide onboard options for software and storage. The AMC also provides 8 KHz and 19.44 MHz telecom clock synchronization support.

Main Carrier Board Specifications

Processor system	CPU	Freescale QorIQ P4080 8 Cores e500-mc PowerPC, up to 1.5 GHz		
	Bootloader	U-boot		
Boot Device	SPI Flash	Spansion S25FL032P0XMF1011, 4 MB		
	NAND Flash	Micron MT29F16G08ABABAWP, 2 GB		
Memory	Technology	DDR III with ECC, up to 1333 MHz		
	Max. Capacity	8 GB		
Ethernet	Controller	Netlogic AEL1010		
	Interface	One 10 GbE SFP+ port for external access		
Hardware Monitor	Controller	IPMI v1.5 compatible MMC		
Firmware	Source code	Pigeon Point System-based		
	Update Standard	HPM.1 compliant		
Operation System	Compatibility	Linux		
Form Factor	AMC	Mid-size, single width		
	Interface	AMC.0 compliant and Configurable SERDES channel support: - PCIe: AMC.1 compliant with port 4-7,8-11 - Ethernet: AMC.2 compliant with port 8-11. - SRIO: AMC.4 compliant with port 4-7, 8-11		
Power Consumption	Max	40 W		
	Typical	Less than 32 W		
Physical	Dimension	180.6 mm x 73.5 mm		
Environment	Temperature	Operating	Storage	
		-5 ~ 55° C	-40 ~ 70° C	
	Humidity	IEC60068-2-78 (95%RH @ 40° C)		
	Vibration	IEC60068-2-6 (0.002 G ² /Hz, 1Grms)		
	Shock	IEC60068-2-27 (10 G, 11 ms)		
Regulatory	Altitude	300 m below sea level to 4,000 m above sea level	10,000 above sea level	
	Conformance	UL94V0, FCC Class B, CE, RoHS & WEEE Ready		
Compliance	Standards	PICMG AMC.0, AMC.1, AMC.2, AMC.4, IPMI v1.5, HPM.1, NEBS Level 3		

Block Diagram



Ordering Information

Model number	Configuration
AMC-4201-0XAE	AMC-4201 with P4080-1.5 GHz and 8 GB DDR3-1333 MHz memory
AMC-4201-1XAE	AMC-4201 with P4080-1.5 GHz and 4 GB DDR3-1333 MHz memory

X based on different SerDes configuration

Port	Port Area	The value of X				
		1	2	3	4	5
P4-7	Fat pipe	PClex4 (Gen2)	PClex4 (Gen2)	PClex4 (Gen2)	PClex4 (Gen2)	SRIO (2.5G)
P8-11		4x SGMII	SRIO (2.5G)	PClex4 (Gen2)	XAUI	SRIO (2.5G)