

AM4140



DATA PLANE PROCESSOR AMC BASED ON Freescale™ QorIQ™ TECHNOLOGY

- ▶ high-throughput processing with low latency
- ▶ easy implementation

TECHNICAL INFORMATION

FORM FACTOR		Single width, mid-size module (full size on project request)
CPU AND PCH		Freescale P4040 (on project request) / P4080 @ 1.5GHz
MEMORY		2x 2 GByte and 2x 4 GByte RAM with ECC standard 2x 2 MByte SPI NOR (for Bootloader, fallback configuration) 1x 8 MByte NOR (for VxWorks) 1 GByte NAND Flash standard or not assembled, up to 2 GByte on project request MicroSD card socket
SYSTEM INTERCONNECTION		Port 0: 1x GbE Port 1: 1x GbE (routable to front plate, software selectable, default: port 1, on front only available, if sRIO 3.125G selected on AMC port 4-7) Ports 4-7: sRIO x4 or PCIe x4 Ports 8-11: sRIO x4 or PCIe x4 or XAUI (10 GbE) or 4x SGMII (1 GbE) Port 14: Debug Port15: COM2, 3.3 V TTL FCLKA: bidirectional PCIe clock configuration Power supply: 3.3 V management power, 12 V payload power
FRONT PANEL INTERFACES		1x GbE 1x GbE (routable to Port 1, software selectable, default port 1) COM1, RS232 4x LEDs: control and status, bi-color (red/green LEDs) 3x LEDs: connected to MMC (healthy, hot swap, out of service)
MISCELLANEOUS		Watchdog, timeout 125 ms to 4096 s in 16 steps RTC (not buffered)
SOFTWARE		Bootloader U-Boot IPMI VxWorks BSP WindRiver Linux BSP
COMPLIANCY	MICROTCA PCI EXPRESS® SERIAL RAPID IO AMC IPMI	PICMG MTCA.0 Micro Telecommunications Comp. Architecture R1.0 PCI Express® Base Specification Revision 1.0a sRIO 3.125G, ... PICMG AMC.0: Advanced Mezzanine Card Specification R2.0 PICMG AMC.1: PCI Express® and Advanced Switching R1.0 PICMG AMC.2: Gigabit Ethernet R1.0 PICMG AMC.4: Serial Rapid IO IPMI Intelligent Platform Management Interface Spec. V2.0, 1.5
ENVIRONMENTAL	OPERATING TEMPERATURE HUMIDITY OPERATING VIBRATION (SINUSOIDAL) SHOCK EMC SAFETY	-5 °C to +55 °C Acc. IEC60068-2-1/2 93 % RH at 40 °C, non condensing Acc. IEC60068-2-78 5 Hz to 150 Hz, 1 g Acc. to IEC 60068-2-6 15 g / 11 ms Acc. to IEC 60068-2-27 Immunity: acc. to EN 55024 and 61000-6-2 Emission: acc. to EN 55022, class B and FCC47, part 15, subpart B IEC 60950-1

ORDERING INFORMATION

ARTICLE	DESCRIPTION
AM4140-SA-1.50-8-M-N1	P4080 1.5 GHz 8-Core, 8 GByte RAM with ECC, 1 GByte NAND Flash
AM4140-SA-1.50-4-M-N1	P4080 1.5 GHz 4-Core, 4 GByte RAM with ECC, 1 GByte NAND Flash
VXW-BSP-AM4140-6.9.2	WindRiver VxWorks BSP

Note: All AM4140 boards provide a microSD card socket.

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