

AMC754

Intel Xeon D-15xx Processor AMC



AMC754

Key Features

- Processor AMC Intel® 5th Generation Xeon D-1539, D-1548 or D-1577 (Broadwell) SoC
- Dual PCIe Gen3 x4 or single PCIe x8 on Ports 4-11 (AMC.1)
- GbE to Ports 0 and 1 (AMC.2) and SATA to Ports 2 and 3 (AMC.3)
- 10GBASE-T to the front panel
- Video output via micro HDMI connector
- Single module, mid-size (option for full-size) per AMC.0
- 16 GB of DDR4 memory with ECC
- 64 GB of Flash memory
- TPM (optional)

Benefits

- Efficient SoC design with integrated PCH technology
- Lower power consumption and cost-effective for high performance
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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AdvancedMC™



AMC754

The AMC754 is a Processor AMC in a single module, mid-size, based on the Intel® 5th generation Xeon 4-core, 8-core or 16-core Processors (Broadwell). The efficient SoC design has low power consumption and integrated PCH technology. The module follows the AMC.1, AMC.2 and the AMC.3 specifications.

The module provides dual PCIe Gen3 x4 or single x8 on Ports 4-11 per AMC.1, GbE on Ports 0 and 1 per AMC.2, and SATA on Ports 2 and 3 per AMC.3. It also provides 100 Mbit/1GbE/10GbE to the front panel (the module can auto-negotiate down to 100 Mbit Ethernet but not 10 Mbit).

The AMC754 provides 16 GB of DDR4 memory with ECC and 64 GB of Flash for the OS. The BIOS allows booting from onboard Flash, offboard SATA, PXE boot and USB. There are dual USB for extended storage or peripherals.

Linux OS is standard on the AMC754, consult VadaTech for other options.

See [Solution Brief](#) for an overview of a 56 GSPS digitizer with IRIGB/GPS timestamping.



Figure 1: AMC754

Block Diagram

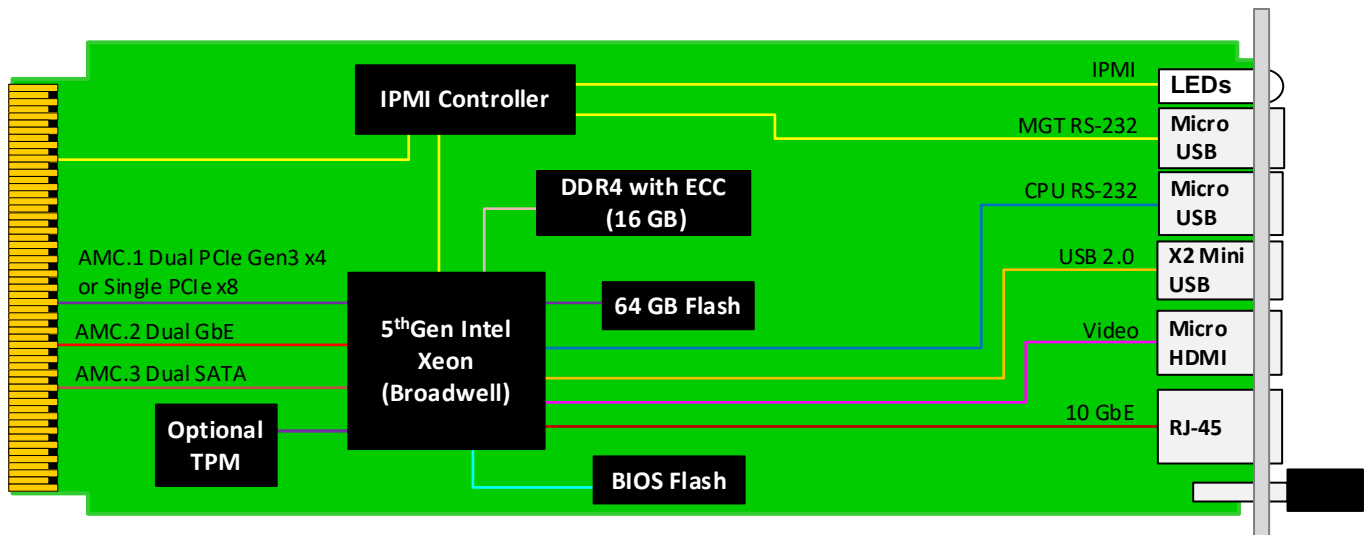


Figure 2: AMC754 Functional Block Diagram

Front Panel

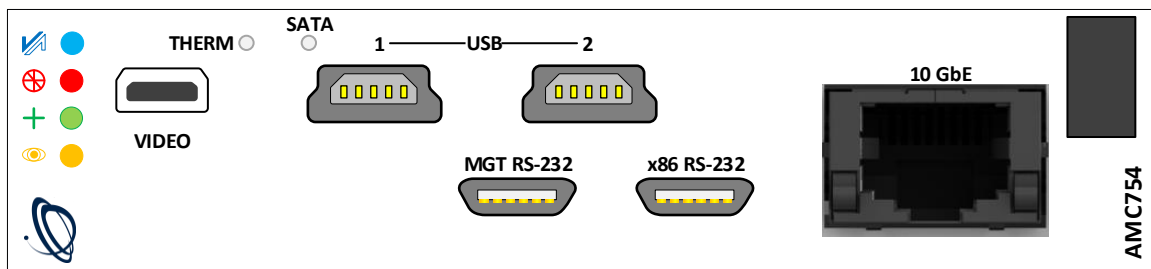


Figure 3: AMC754 Front Panel

Specifications

| | | |
|--------------------------|--|---|
| Architecture | | |
| Physical | Dimensions | Width: 2.89" (73.5 mm) |
| | | Depth: 7.11" (180.6 mm) |
| Type | AMC Processor | Intel® 5th Generation Xeon D-1539, D-1548 or D-1577 |
| Standards | | |
| AMC | Type | AMC.0, AMC.1, AMC.2 and/or AMC.3 |
| Module Management | IPMI | IPMI v2.0 |
| PCIe | Lanes | Single x8 or dual x4 as PCIe Gen3 |
| Configuration | | |
| Power | AMC754 | ~55W |
| Environmental | Temperature | See Ordering Options and Environmental Spec Sheet |
| | | Storage Temperature: -40° to +85°C |
| | Vibration | Operating 9.8 m/s ² (1G), 5-500 Hz |
| | Shock | Operating 325 G/2 ms, 160 G/1 ms |
| | Relative Humidity | 5 to 95% non-condensing |
| Front Panel | Interface Connectors | 1x RJ-45 for 10GbE |
| | | 2x USB for USB |
| | | 2x Micro USB for RS-232 |
| | | 1x Micro HDMI for graphics |
| | LEDs | IPMI, activity and user defined |
| | Mechanical | Hot-swap ejector handle |
| Software Support | Operating System | Linux (consult VadaTech for other options) |
| 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 ISO9001:2015 and AS9100D 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

AMC754 – 00C-DE0-00J

| D = Processor Type | | |
|---|--|---|
| | 0 = Reserved 1 = 8C, 2.0 GHz, 12 MB LLC, Xeon D-1548 2 = 16C, 1.3 GHz, 24 MB LLC, Xeon D-1577 3 = Reserved 4 = Reserved 5 = Reserved 6 = 8C, 1.6 GHz, 12 MB LLC, Xeon D-1539 | |
| E = TPM | | |
| | 0 = No TPM 1 = TPM | |
| C = Front Panel Size | | J = Temperature Range and Coating* |
| 1 = Reserved 2 = Mid-size 3 = Full-size 4 = Reserved 5 = Mid-size, MTCA.1/4 6 = Full-size, MTCA.1/4 7 = Extended (8 HP), MTCA.1/4 | | 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 = Reserved 7 = Reserved |

Related Products

UTC004



- Unified 1 GHz quad-core CPU for MCMC, Shelf Manager, Clocking, and Fabric management
- Automatic fail-over with redundant UTC004s
- Full Layer 2 or 3 managed Ethernet switches

UTC020



- Single module, full-size per AMC.0
- Dual -36V DC to -75V DC input, 936W (available in 468W)
- Hot swappable with support for power module redundancy

VT853



- MicroTCA 1U 19" rack mount chassis platform
- Six mid-size AMC slots per 1U Carrier or two double module mid-size with two mid-size AMC slots
- Front to back cooling

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, Wenhui 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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