The AMC754 is a Processor AMC in a single module, mid-size based on the Intel® 5th generation Xeon 8-core D-1548, 4-core D-1520 Processor or 16 core D-1577 (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 / 1 GbE / 10 GbE 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 32 GB of Flash for the OS. The BIOS allows booting from on board Flash, off-board 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.
AMC754 – Intel® Xeon® D-15xx, Processor AMC

BLOCK DIAGRAM

- IPMI Controller
- AMC.1 Dual PCIe Gen3 x4 or Single PCIe x8
- AMC.2 Dual GbE
- AMC.3 Dual SATA
- Optional TPM
- 5thGen Intel Xeon D-1548, D-1520 or D-1577 (4, 8, 16 Cores)
- DDR4 with ECC (16 GB)
- 32 GB Flash
- BIOS Flash
- IPMI
- LED
- RS-232
- Dual Mini USB
- RJ-45
- USB 2.0
- Video
- Micro HDMI
- 10 GbE
- RJ-45

FRONT PANEL

- 10 GbE
- VIDEO
- MGT RS-232
- x86 RS-232
- USB 1, 2
# SPECIFICATIONS

## Architecture

<table>
<thead>
<tr>
<th>Physical</th>
<th>Dimensions</th>
<th>Single module, Mid-size (Full-size options)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width: 2.89 in. (73.5 mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depth: 7.11 in. (180.6 mm)</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>AMC Processor</td>
<td>Intel® 5th Generation Xeon D-1548, D-1520 or D-1577</td>
</tr>
</tbody>
</table>

## Standards

<table>
<thead>
<tr>
<th>AMC</th>
<th>Type</th>
<th>AMC.1, AMC.2 and/or AMC.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Management</td>
<td>IPMI</td>
<td>IPMI Version 2.0</td>
</tr>
<tr>
<td>PCIe</td>
<td>Lanes</td>
<td>Dual x4 or single x8 as PCIe Gen3</td>
</tr>
</tbody>
</table>

## Configuration

<table>
<thead>
<tr>
<th>Power</th>
<th>AMC754</th>
<th>~ 55 Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>Temperature</td>
<td>Operating Temperature: -5°C to 45°C (55°C for limited time, performance restrictions may apply), industrial version also available (See environmental spec sheet)</td>
</tr>
<tr>
<td>Vibration</td>
<td>Operating 9.8 m/s² (1 G), 5-500 Hz</td>
<td></td>
</tr>
<tr>
<td>Shock</td>
<td>Operating 325 G / 2 ms, 160 G / 1 ms</td>
<td></td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5 to 95 percent, non-condensing</td>
<td></td>
</tr>
</tbody>
</table>

## Front Panel

<table>
<thead>
<tr>
<th>I/O</th>
<th>Single 10 GbE via RJ-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual USB via mini USB</td>
<td></td>
</tr>
<tr>
<td>Graphics output via micro HDMI port</td>
<td></td>
</tr>
<tr>
<td>Dual RS-232 via micro USB</td>
<td></td>
</tr>
<tr>
<td>Mechanical</td>
<td>Hot Swap Ejector Handle</td>
</tr>
</tbody>
</table>

## Software Support

<table>
<thead>
<tr>
<th>Operating Systems</th>
<th>Linux, VxWorks and Windows</th>
</tr>
</thead>
</table>

## Other

<table>
<thead>
<tr>
<th>MTBF</th>
<th>Per MIL-217F Handbook &gt; TBD Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications where applicable</td>
</tr>
<tr>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
</tr>
<tr>
<td>Compliance</td>
<td>RoHS and NEBS</td>
</tr>
<tr>
<td>Warranty</td>
<td>Two (2) years</td>
</tr>
</tbody>
</table>

## 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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AMC754 – Intel® Xeon® D-15xx, Processor AMC

ORDERING OPTIONS

AMC754 – 00C – DE0 – 00J

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

D = Processor Type
0 = 4C, 2.2 GHz, 6 MB LLC, Xeon D-1520
1 = 8C, 2.5 GHz, 12 MB LLC, Xeon D-1548
2 = 16C, 1.3 GHz, 24 MB LLC, Xeon D-1577

E = TPM
0 = None
1 = Installed

J = Temperature Range and Coating
0 = Commercial, No coating
1 = Commercial, Humiseal 1A33 Polyurethane
2 = Commercial, Humiseal 1B31 Acrylic
3 = Industrial, No coating
4 = Industrial, Humiseal 1A33 Polyurethane
5 = Industrial, Humiseal 1B31 Acrylic
6 = Reserved
7 = Reserved

RELATED PRODUCTS

VT853 μTCA 1U Chassis with 6 AMC slots
UTC004 MCH for μTCA Chassis (3rd generation)
UTC020 Power Module for μTCA Chassis

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