MiTAC OCP Purley Server

E7278P

V0.1

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Scope

This document defines the technical specifications for the E7278P used in Open Compute Project Open Rack V2.
Overview

MiTAC E7278P is a Mother Board that follows “Facebook 2S Socket Tioga Pass Rev1.0” specification with these variances:

1. Support 8 DIMM slots per processor on top side.
2. Choose TI VRD as on board VR devices for highest efficiency.
3. Single sided Mother Board design only.
2. Physical Specifications

2.1 Block Diagram

Version 0.10

Notes: PCIe Uplink x8 share with Mezz conn B

TPM combined to a header
2.2 Placement and Form Factor

Board outline dimension is fully compliant to Tioga Pass board.

2.3 PCB Stack-Up

Following PCB stack up should be followed for motherboard design with PCB fab vendors. In order to fine tune the impedance based on the impedance control table below before starting PCB design.

<table>
<thead>
<tr>
<th>Material</th>
<th>Stack up</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of layer</td>
<td>Layer Type</td>
</tr>
<tr>
<td>L1</td>
<td>TOP</td>
</tr>
<tr>
<td>L2</td>
<td>GND</td>
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<tr>
<td>L3</td>
<td>IN1</td>
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<tr>
<td>L4</td>
<td>IN2</td>
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<td>GND</td>
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<td>L12</td>
<td>BOT</td>
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<tr>
<td>SM</td>
<td></td>
</tr>
<tr>
<td>2.0mil±10%</td>
<td>Total</td>
</tr>
<tr>
<td>2.0mil±10%</td>
<td>Total</td>
</tr>
</tbody>
</table>
2.4 DIMM slot
3. BIOS

The E7278P BIOS is based on uEFI v2.3.1 specification. It supports uEFI and legacy modes for different OS.

Both Skylake and Cascade processors are supported and validated on the same Mother Board.

Redfish V1.0 is supported.
4. BMC

E7278P uses an ASPEED® AST2500 BMC as platform management services and interfaces with hardware, BIOS, Intel® SPS firmware.

BMC firmware is based on AMI® RR11.6 code.