TPMC553  32/16 Channels of 16 bit D/A

Application Information

The TPMC553 is a standard single-wide 32 bit PMC module and provides 32/16 channels of 16 bit analog outputs. All signals are accessible through a HD68 SCSI-3 type front I/O connector.

The software selectable output voltage ranges are 0-5V, 0-10V, 0-10.8V, ±5V, ±10V or ±10.8V. The output voltage range can be individually set per channel. The conversion time is typ. 10 µs and the DAC outputs are capable to drive a load of 2kΩ, with a capacitance up to 4000pF.

Beside of an individual channel update, the double buffered DACs allow simultaneous update of all channels. Additionally a sequencer on the TPMC553 allows to periodically update enabled channels with a sequence timer range that extends from 10µs to 167s.

Each TPMC553 is factory calibrated. The calibration information is stored in an on board serial EEPROM unique to each PMC module.

For First-Time-Buyers the engineering documentation TPMC553-ED is recommended. The engineering documentation includes TPMC553-DOC, schematics and data sheets of the TPMC553.

Technical Information

- Form Factor: Standard single-width 32 bit PMC module conforming to IEEE P1386.1
- Board size: 149 mm x 74 mm
- Target Chip: PCI9030 (PLX Technology)
- PCI 2.1 compliant interface
- PCI I/O signaling voltage 5V or 3.3V
- 32/16 channels single-ended 16 bit analog output
- Programmable output voltage: 0-5V, 0-10V, 0-10.8V, ±5V, ±10V, ±10.8V
- Conversion time: typ.10µs
- Up to 2kΩ resistive, 4000pF capacitive load
- Overcurrent protection
- Individual channel update, simultaneous update of all channels or sequencer mode
- Factory calibration data stored in EEPROM
- Operating temperature -40°C to +85°C
- MTBF (MIL-HDBK217F/FN2 GB 20°C):
  - TPMC553-10x: 683000 h
  - TPMC553-11x: 689000 h
# Order Information

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<tr>
<th>RoHS Compliant</th>
<th>Software</th>
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<td>TPMC553-10R</td>
<td>TPMC553-SW-25</td>
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<td>TPMC553-11R</td>
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<td>32 Channels of 16 bit D/A</td>
<td>Integrity Software Support</td>
<td>None RoHS compliant version of TPMC553-10R</td>
<td>User Manual</td>
<td>Cable Kit for modules with HD68 connector</td>
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<td>16 Channels of 16 bit D/A</td>
<td>VxWorks Software Support (Legacy and VxBus-Enabled Software Support)</td>
<td>None RoHS compliant version of TPMC553-11R</td>
<td>Engineering documentation (TPMC553-DOC, Schematics, Assembly Drawing, Data Sheets)</td>
<td>PIM I/O Module with HD68 SCSI-3 type connector</td>
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