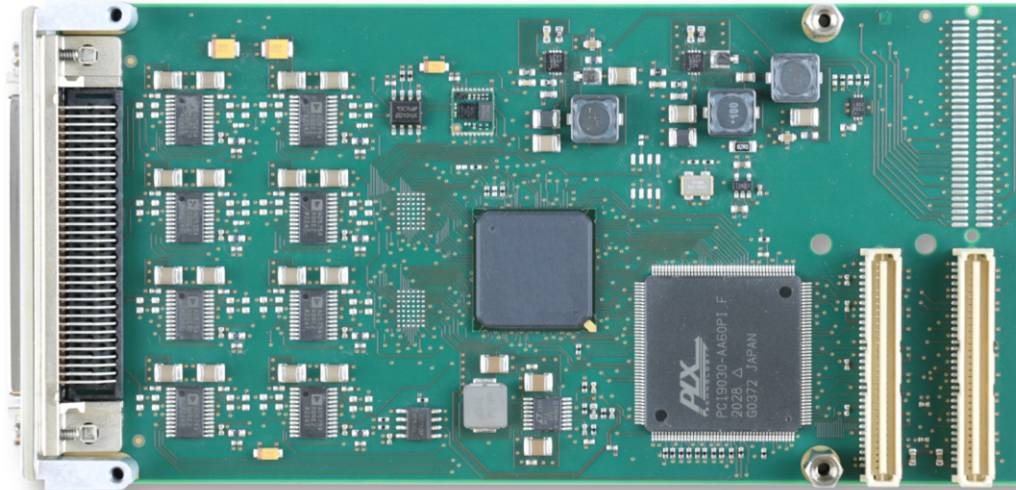


## TPMC553 32 /16 Channels of 16 bit D/A



TPMC553-10R

### 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,  $\pm 5V$ ,  $\pm 10V$  or  $\pm 10.8V$ . The output voltage range can be individually set per channel. The conversion time is typ. 10  $\mu s$  and the DAC outputs are capable to drive a load of 2k $\Omega$ , with a capacitance up to 4000pF.

Beside of an individual channel update, the double buffered DACs allow simultaneous update of all channels.

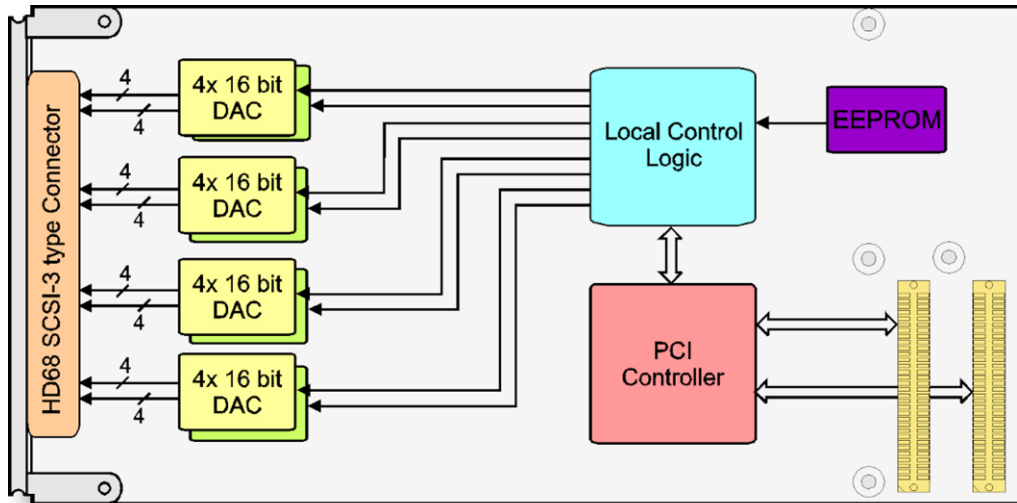
Additionally a sequencer on the TPMC553 allows to periodically update enabled channels with a sequence timer range that extends from 10 $\mu s$  to 167s.

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

Software Support (TDRV016-SW-xx) is available for different operating systems.

### Technical Information

- Form Factor: Standard single-width 32 bit PMC module conforming to IEEE 1386/1386.1
  - 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,  $\pm 5V$ ,  $\pm 10V$ ,  $\pm 10.8V$
  - Conversion time: typ.10 $\mu s$
  - Up to 2k $\Omega$  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 G<sub>B</sub> 20°C)
  - TPMC553-10R: 683000 h
  - TPMC553-11R: 689000 h



Block Diagram

## Order Information

### RoHS Compliant

**TPMC553-10R** 32 Channel 16 bit D/A, sequencer, simultaneous update, progr. Vout, HD68  
**TPMC553-11R** 16 Channel 16 bit D/A, sequencer, simultaneous update, progr. Vout, HD68

For the availability of non-RoHS compliant (lead solder) products please contact TEWS.

### Software

**TDRV016-SW-25** Integrity Software Support  
**TDRV016-SW-42** VxWorks Software Support (Legacy and VxBus-Enabled Software Support)  
**TDRV016-SW-65** Windows Software Support  
**TDRV016-SW-82** Linux Software Support  
**TDRV016-SW-95** QNX Software Support

For other operating systems please contact TEWS.

### Related Products

**TA304** Cable Kit for Modules with HD68 Connector  
**TPIM002** PIM I/O Module, HD68 connector