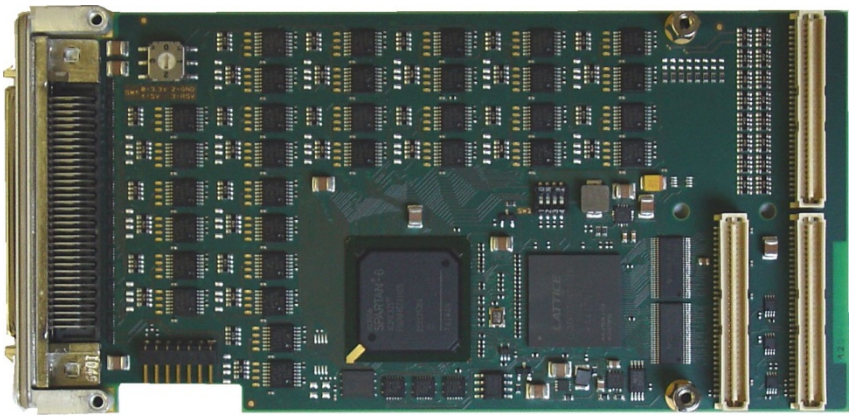
TPMC634 Re-Configurable FPGA with 64 TTL I/O / 32 Diff. I/O



Application Information

The TPMC634 is a standard single-width PMC module providing a user configurable Xilinx XC6SLX25 Spartan-6 FPGA.

The TPMC634-10R provides 64 ESD-protected TTL lines using TTL compatible buffers. The TPMC634-11R provides 32 differential I/O lines using ESD-protected EIA-422 / EIA-485 compatible line transceivers. The TPMC634-12R provides a mix of 16 differential EIA-422 / EIA-485 I/O lines and 32 TTL I/O lines. The TPMC634-13R provides 32 differential I/O lines using M-LVDS line transceivers. The TPMC634-14R provides a mix of 16 differential M-LVDS I/O lines and 32 TTL I/O lines.

All I/O lines are individually programmable as input or output. The receivers are always enabled. This allows reading the state of each I/O line at any time (monitoring I/O lines configured as outputs).

Each TTL I/O line has an on-board pull resistor to a common/shared reference. The pull resistor reference is configurable by an on-board rotary switch to 3.3V, 5V or GND. The differential I/O lines have on-board termination resistors.

The User FPGA is auto-configurable by an on-board serial SPI Flash. Both the User FPGA and the SPI flash for User FPGA configuration are in-system-programmable via the PCI bus. An on-board JTAG header provides access to the user FPGA JTAG port.

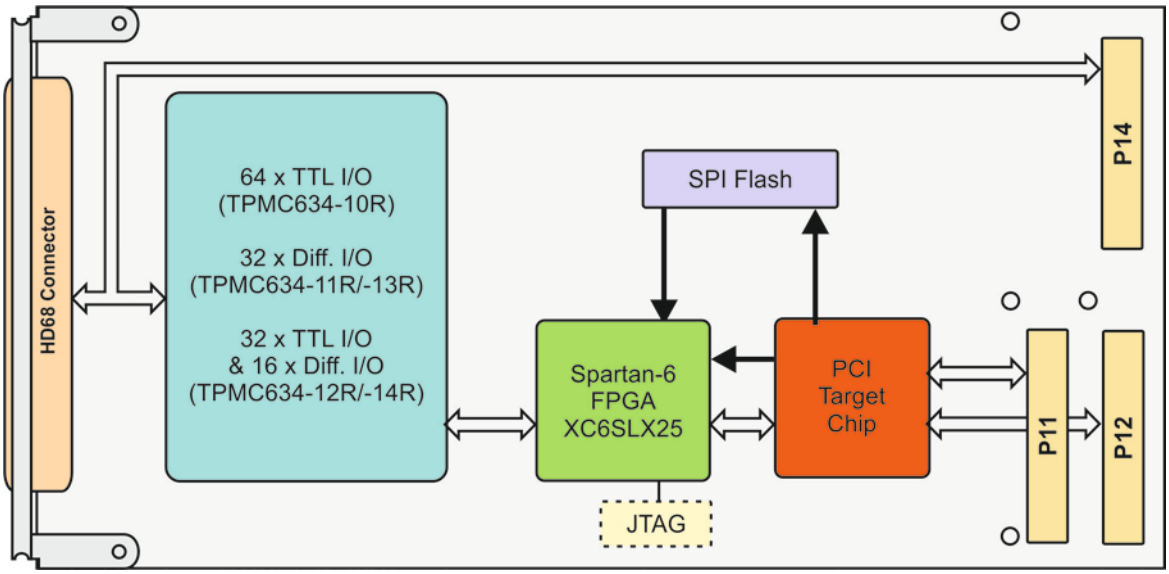
PCI configuration space parameters are configurable by an on-board serial EEPROM.

Technical Information

- Standard single-width 32 bit 33 MHz PCI PMC Module conforming to IEEE P1386.1
- PCI 3.0 compatible Interface
- Universal PCI Signaling Voltage
- Xilinx XC6SLX25 Spartan-6 User FPGA accessible on Local Address/Data Bus
- PCI to Local Bus Interface is handled by the PCI Target Chip
- Programmable EEPROM for PCI Configuration Space Parameters
- In-System-Programmable SPI Flash for User FPGA Configuration
- User FPGA directly In-System-Programmable by Software
- Baud Rate Oscillator available at User FPGA Pin
- I/O options:
  - 64 TTL I/O (-10R)
  - 32 diff. EIA-422 / EIA-485 I/O (-11R)
  - 16 diff. EIA-422 / EIA-485 I/O and 32 TTL I/O (-12R)
  - 32 diff. M-LVDS I/O (-13R)
  - 16 diff. M-LVDS I/O and 32 TTL I/O (-14R)
- 64 I/O lines accessible on both HD68 Front Connector and P14 Rear Connector
- Operating Temperature -40°C to +85°C

Issue 1.0.3
2018-04-26

TEWS TECHNOLOGIES GmbH
Am Bahnhof 7 25469 Halstenbek, Germany
Phone: +49 (0) 4101 4058 0 Fax: +49 (0) 4101 4058 19
e-mail: info@tews.com www.tews.com



Order Information

RoHS Compliant

TPMC634-10R	Re-Configurable FPGA with 64 TTL I/O
TPMC634-11R	Re-Configurable FPGA with 32 Differential EIA-422 / EIA-485 I/O
TPMC634-12R	Re-Configurable FPGA with 16 Differential EIA-422 / EIA-485 I/O and 32 TTL I/O
TPMC634-13R	Re-Configurable FPGA with 32 Differential M-LVDS I/O
TPMC634-14R	Re-Configurable FPGA with 16 Differential M-LVDS I/O and 32 TTL I/O

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

Documentation

TPMC634-DOC	User Manual

Software

TDRV018-SW-25	Integrity Software Support
TDRV018-SW-42	VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TDRV018-SW-65	Windows Software Support
TDRV018-SW-82	Linux Software Support
TDRV018-SW-95	QNX Software Support

Related Products

TA304	Cable Kit for Modules with HD68 SCSI-3 type connector
TPIM003	PIM I/O Module with HD68 SCSI-3 type connector and special pin assignment

TEWS TECHNOLOGIES GmbH
Am Bahnhof 7 25469 Halstenbek, Germany
Phone: +49 (0) 4101 4058 0 Fax: +49 (0) 4101 4058 19
e-mail: info@tews.com www.tews.com