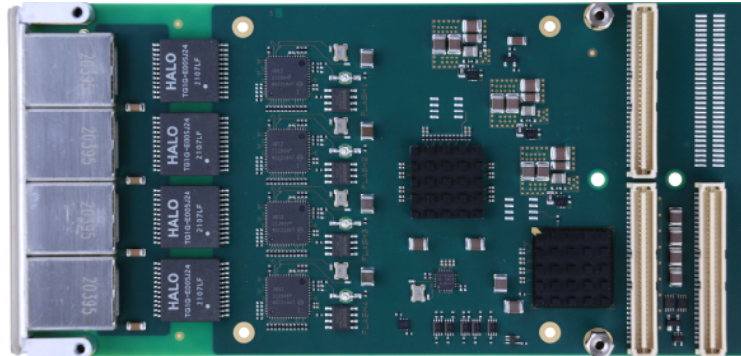
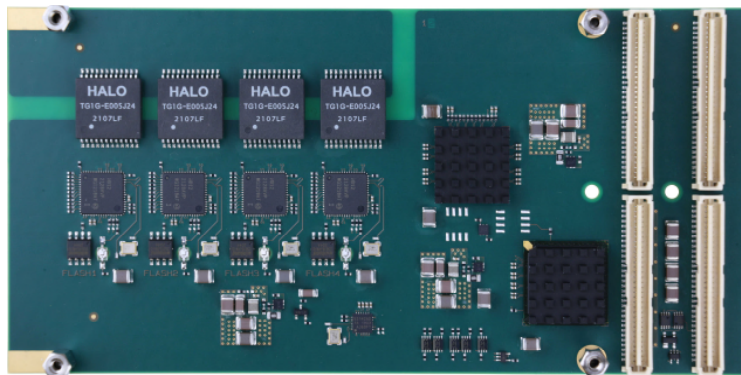


## TPMC895 Dual/Four Channel 10/100/1000 Mbit/s Ethernet



TPMC895-10R



TPMC895-11R

### Application Information

The TPMC895 is a PCI Mezzanine Card (PMC) compatible module providing a dual or four channel Ethernet 10Base-T / 100Base-TX / 1000Base-T interface.

A transparent 64 bit, up to 133 MHz PCI-X/PCI to PCIe Bridge and a PCIe Switch provide access to the Intel I210IT Gigabit Ethernet controllers. Each Ethernet interface supports 10, 100 and 1000 Mbit/s transmission rates and is equipped with a 16 Mbit Serial Flash to support PXE and iSCSI boot.

The two/four Ethernet interfaces of the TPMC895 are capable of performing an auto negotiation algorithm which allows both link-partners to determine the best link-parameters. The TPMC895 supports IEEE 1588/802.1AS Precision Time Protocol (PTP) and IEEE 802.1Qav Audio/Video Bridging (AVB) traffic shaping (with software extensions).

The TPMC895-10R provides four 10/100/1000 Mbit/s Ethernet connections via front panel RJ45 connectors.

The TPMC895-11R routes four Ethernet ports to the Back I/O P14 connector without any RJ45 connector at the front.

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The TPMC895-20R provides two 10/100/1000 Mbit/s Ethernet connections via front panel RJ45 connectors.

The TPMC895-21R routes two Ethernet ports to the Back I/O P14 connector without any RJ45 connector at the front.

The TPMC895-30R is a TPMC895-10R with an additional Back I/O P14 connector for IEEE 1588 auxiliary device connections.

All ports are galvanically isolated from the Ethernet controllers and LEDs on the board indicate the different network activities.

The module meets the requirements to operate in extended temperature range from -40°C to +85°C.

### Software Support:

- Software support for Intel I210IT at [www.intel.com](http://www.intel.com)
- For operating systems not supported by Intel, please contact TEWS.

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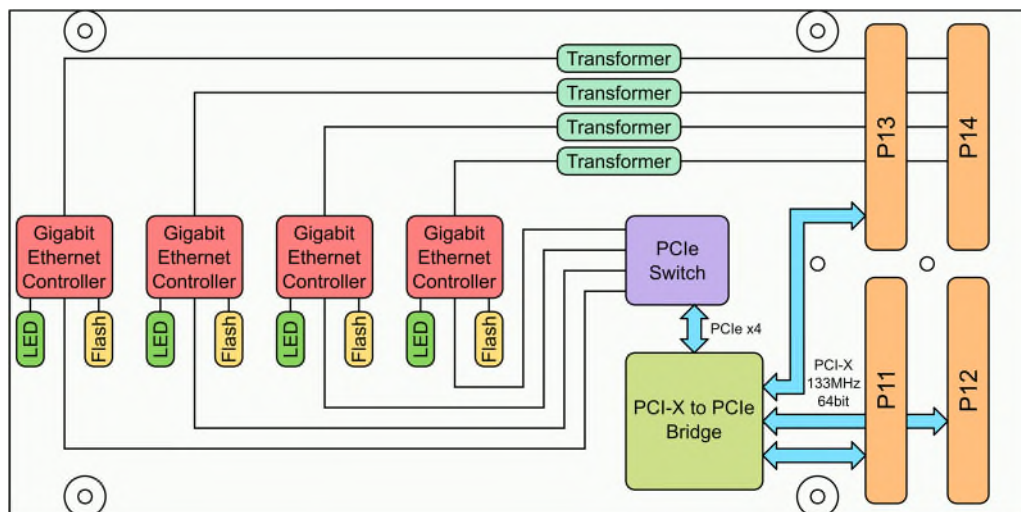
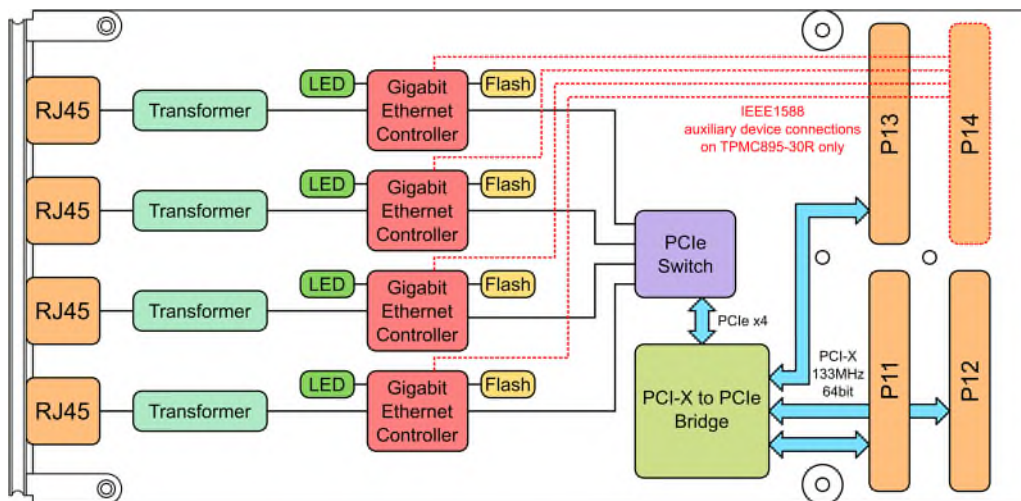
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E-Mail: [info@tews.com](mailto:info@tews.com) [www.tews.com](http://www.tews.com)

## The Embedded I/O Company

### Technical Information

- Form Factor: Standard single-width 64 bit PMC module conforming to IEEE P1386/P1386.1
  - Board size: 149 mm x 74 mm
- PCI 3.0 (up to 66 MHz) and PCI-X 2.0a (up to 133 MHz) compliant interface
- 3.3V PCI signaling with 5V I/O tolerance
- Two/Four Intel I210IT Gigabit Ethernet controllers
- Two/Four RJ45 connectors or Back I/O P14 connector
- 1000Base-T
- 100Base-TX
- 10Base-T
- IEEE 1588/802.1AS Precision Time Protocol (PTP)
  - V1 and V2 PTP frame format
  - TPMC895-30R with auxiliary device support via Back I/O P14 connector
- IEEE 802.1Qav Audio/Video Bridging (AVB) traffic shaper (with software extensions)
- 16 Mbit serial flash for every channel storing configuration data and providing memory for Boot ROM
- Operating temperature -40°C to +85°C, constant airflow of 2m/s is required
- MTBF (MIL-HDBK217F/FN2 G<sub>B</sub> 20°C)
  - TPMC895-10R: 427000 h
  - TPMC895-11R: 587000 h
  - TPMC895-20R: 593000 h
  - TPMC895-21R: 679000 h
  - TPMC895-30R: 389000 h



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### Order Information

#### RoHS Compliant

<b>TPMC895-10R</b>	Four Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, RJ45
<b>TPMC895-11R</b>	Four Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, P14 Back I/O
<b>TPMC895-20R</b>	Two Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, RJ45
<b>TPMC895-21R</b>	Two Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, P14 Back I/O
<b>TPMC895-30R</b>	Four Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, RJ45, IEEE 1588 auxiliary devices via P14

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

#### Documentation

<b>TPMC895-DOC</b>	User Manual
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#### Related Products

<b>TPIM006</b>	PIM for four Channel 10/100/1000 Mbit/s Ethernet PMCs, RJ45
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