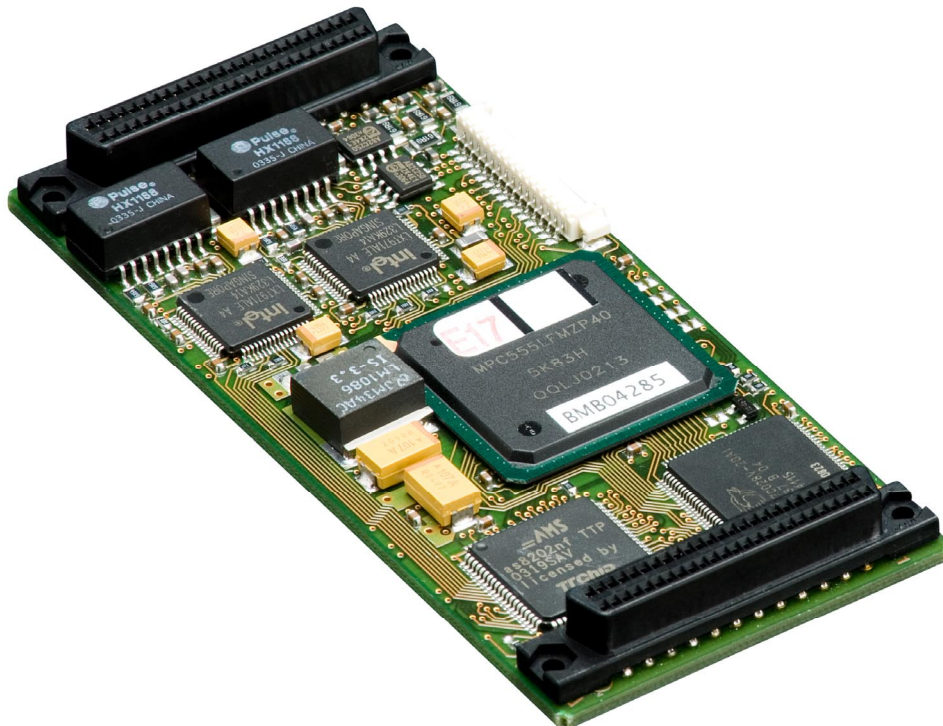


TTTech High-Performance IP Module



TTP IP Module – The IndustryPack-Compatible TTP Node

TTP IP Module is an IndustryPack®-compatible high-performance prototyping node for the Time-Triggered Protocol (TTP®). It is equipped with a Freescale MPC555 PowerPC® and austriamicrosystems AS8202NF TTP controller and suitable for distributed hard real-time systems. It supports the fault-tolerant real-time operating system TTP OS which is based on OSEKtime and specifically designed for prototype applications based on time-triggered technology. In addition, TTP IP Module works with tools such as TTP Matlink and Real-Time Workshop® Embedded Coder and supports rapid application development with automatic code generation for TTP IP Module. The application area of TTP IP Module covers automated control of mobile systems and industrial control.

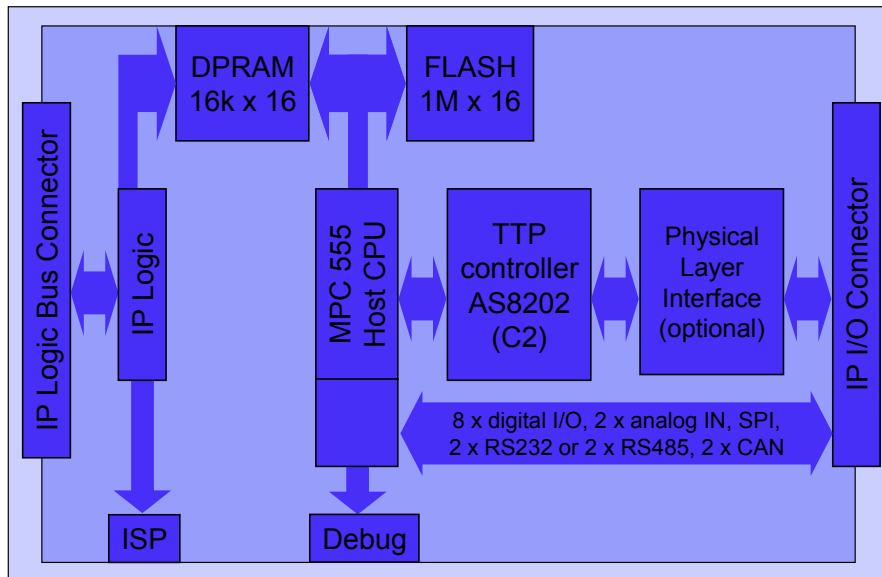
Complete TTP Node for Use with IndustryPack-Compatible Carrier Cards

This board implements a powerful TTP node and can be mounted on mezzanine carriers in conformance with IndustryPack specifications. TTP IP Module is used with IP carrier cards for Standard PCI or Compact PCI systems. It is a high-performance solution for distributed real-time systems and supports various interfaces, which are mapped to the I/O interface. The exchangeable physical layer provides the flexibility to adapt TTP IP Module to customer-specific demands. The product does not conform to specific environmental standards except operating and storage temperature.

Powerful CPU and Dual Ported RAM Interface

The powerful host CPU Freescale MPC555 PowerPC with an additional on-chip FPU (floating point unit) makes TTP IP Module well-suited for simulation purposes, e.g. to execute automatically generated code from tools like Real-Time Workshop® Embedded Coder from The MathWorks. A 128 Kbyte Dual Ported RAM connects the host CPU with the IP Logic interface. Both, the CPU and the IP Logic interface, can read from and write to this memory. Simultaneous 8 and 16 bit access is possible.

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Block diagram of TTP IP Module

General features

- IP interface for high-speed access (8 and 32 MHz)
- Standard PCI or Compact PCI carrier boards available
- 128 Kbyte DP-RAM interface
- 25 Mbit/s MII Physical Layer
- Exchangeable RS485 physical layer for MFM/Manchester signal coding
- 100BaseTX for MII and RS 485 for MFM/Manchester included

Specifications

- Dimensions (mm): 46 x 99 x 11
- Weight: 38 g
- Operating temperature: 0 °C – +70 °C
- Storage temperature: -40 °C – +85 °C

I/O Interface

- 8 digital I/O (0 to 5V)
- 2 analog inputs (0 to 5V; 10bit)
- SPI interface
- 2 RS232 or 2 RS485
- 2 CAN

Carrier card manufacturers

- GE FANUC (www.gefanuc.com)
- Tews Technologies (www.tews.com)
- Acromag (www.acromag.com)
- Alphitech (www.alphitech.com)
- Dyneng (www.dyneng.com)
- Systran (www.systran.com)
- Dynatem (www.dynatem.com)

TTTech's IP-Module is designed in compliance with VITA 4-1995.

Furthermore TTTech's IP-Module supports access to 8MHz and 32MHz IP-interfaces

Host CPU

- Freescale PowerPC MPC555 running at 40 MHz
- PowerPC Core with Floating Point Unit
- 128 Kbyte DPRAM (64k x 16) plus 26 Kbyte internal static RAM
- 2 Mbyte (1M x 16) Flash plus 448 Kbyte internal Flash Memory

Subject to changes and corrections.

For further information, including price and availability, contact products@tttech.com.

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