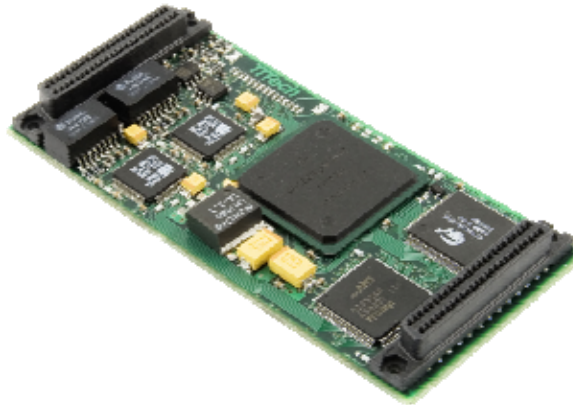


## TTP<sup>IP</sup> Module

*The IndustryPack-Compatible TTP Node*



TTP<sup>IP</sup> Module is an IndustryPack<sup>®</sup>-compatible high-performance prototyping node for TTP<sup>®</sup>. It can be used for fast prototyping, connecting TTP to a PC environment, or as part of a test setup for the verification of a TTP network. TTP<sup>IP</sup> Module can be mounted on carrier boards for PCI, cPCI, or VME, thus supporting different form factors and environments. Full embedded software and tools support is available for the TTP<sup>IP</sup> Module.

### For Distributed Hard Real-Time Systems

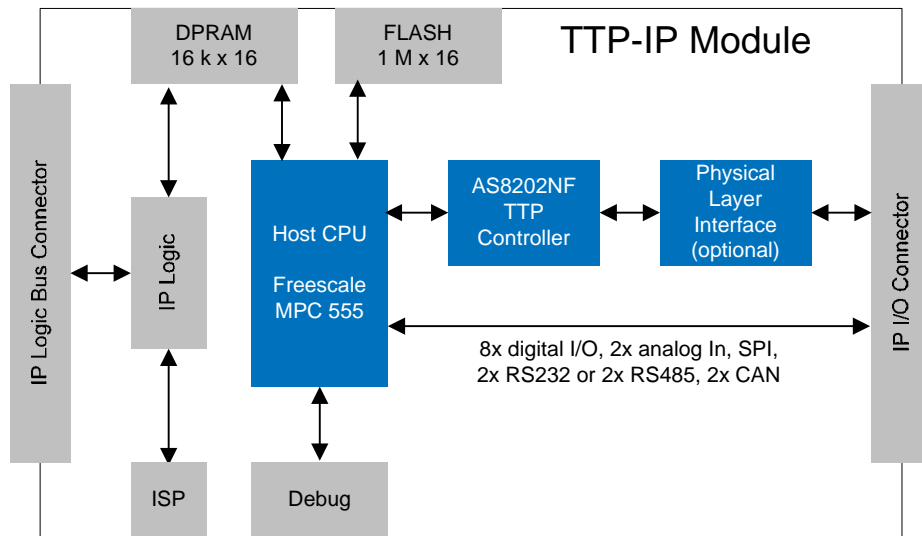
TTP<sup>IP</sup> Module is equipped with a Freescale MPC555 PowerPC<sup>®</sup> and an austriamicrosystems AS8202NF TTP controller and is suitable for distributed hard real-time systems. It supports the fault-tolerant real-time operating system TTP<sup>OS</sup> specifically designed for prototype applications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

### KEY FEATURES/BENEFITS

- IndustryPack compatible module
- PCI, cPCI, and VMED carriers
- Powerful MPC 555 CPU
- Full embedded software support
- Full configuration with TTP<sup>Matlink</sup> and Real-Time Workshop Embedded Code
- Exchangeable physical layer
- Different COM layer options

### Complete TTP Node for IndustryPack Carriers

This board implements a powerful TTP node and can be mounted on mezzanine carriers in conformance with IndustryPack specifications. TTP<sup>IP</sup> 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<sup>IP</sup> Module to customer-specific requirements. The product does not conform to particular environmental standards except operating and storage temperature.



Block diagram of <sup>TTP</sup>IP Module

### General Features

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

### Specifications

- Dimensions: 46 x 99 x 11 (in mm)
- Weight: 38 g
- Operating temperature: -40 °C to +75 °C
- Storage temperature: -55 °C to +150 °C

### I/O Interface

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

### Related Products

<sup>TTP</sup>IP Module can be fully configured with <sup>TTP</sup>Matlink, <sup>TTP</sup>Plan, <sup>TTP</sup>Build and Real-Time Workshop® Embedded Coder. For embedded software either <sup>TTP</sup>Driver/<sup>TTP</sup>TD-COM Layer or <sup>TTP</sup>OS is used.

### Carrier Card Manufacturers

- GE-IP ([www.ge-ip.com](http://www.ge-ip.com))
- Tews Technologies ([www.tews.com](http://www.tews.com))
- Acromag ([www.acromag.com](http://www.acromag.com))
- Alphitech ([www.alphitech.com](http://www.alphitech.com))
- Dyneng ([www.dyneng.com](http://www.dyneng.com))
- Systran ([www.systran.com](http://www.systran.com))
- Dynatem ([www.dynatem.com](http://www.dynatem.com))

TTTech's IP-Module is designed in compliance with VITA 4-1995. Furthermore, TTTech's IP-Module supports access to 8 MHz and 32 MHz IP-interfaces

### Order Number

- H21.01.1: <sup>TTP</sup>IP Module MFM/Manchester

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