



TTP[®]Simulate

The High-Performance TTP Test System



Key Benefits

- ✓ Real-time simulation board
- ✓ Simulation of up to 4 TTP nodes
- ✓ Full tools support
- ✓ Driver support for Windows[®] and Linux
- ✓ PCI form factor
- ✓ IRIG-B time stamping

TTP[®]Simulate is a high-performance test system which enables the simulation of a networked TTP[®] system in real-time. It allows full hardware in the loop verification of a TTP unit. The TTP[®]Simulate PCI card features four embedded Freescale MPC555 PowerPC[®] cores for simulating four TTP nodes. Full tools support is available.

Simulation of a Real-Time TTP System

One or more TTP[®]Simulate cards can be plugged into the PCI sockets of a PC. Every card represents a partial TTP system. TTP[®]Simulate is controlled by the main CPU of the computer in which the card has been deployed. The interface between the embedded CPUs and the main CPU is a dual ported RAM (DPRAM). All messages received are available in the DPRAM. The simulation on the main CPU accesses the DPRAM on the hardware component through the client API and the PCI driver. Thus, a networked TTP real-time system can be simulated without setting it up in expensive flight hardware or customized hardware. This results in considerable cost reductions and shorter development and test cycles.

Embedded Software Package

TTP[®]Simulate includes an embedded software package. The embedded software is executed on the embedded CPUs. It interfaces with the TTP controller and places the data from the TTP bus in the DPRAM. The embedded software is configured using the software tool TTP[®]Simulate Setup. It enables the user to specify which messages will be provided in the DPRAM of the hardware component.

The client API running on the main CPU provides high level access to the DPRAM. The client API is available for Windows[®] and Linux.

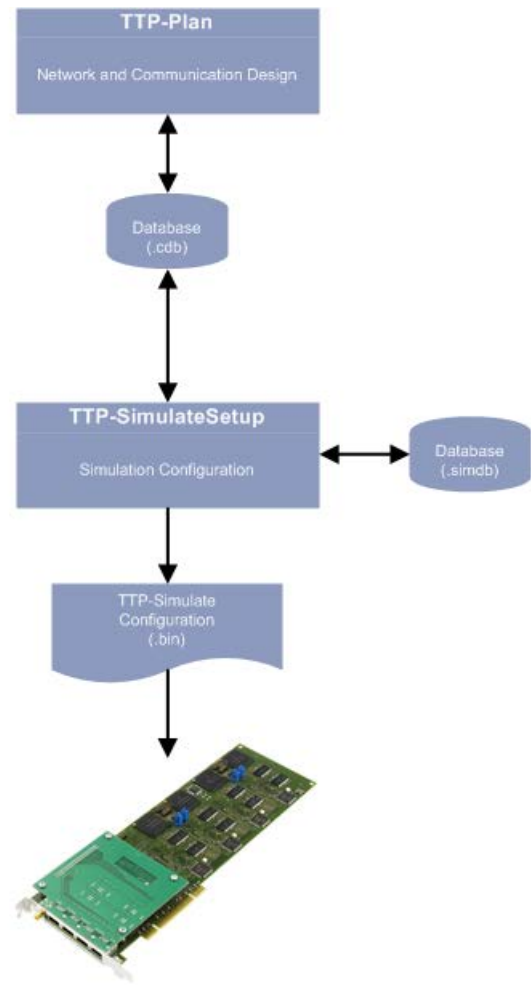


Application Fields

- Technology Evaluation
- Product Testing
- Architecture Development

Related Products

The TTP^{Simulate} Setup tool is needed to configure the TTP^{Simulate} board. The configuration of the network created in TTP^{Plan} serves as an input for the tool. The user provides additional information about his test and simulation setup. Based on the input, TTP^{Simulate} Setup creates the configuration files for the boards.



General Product Features	4 Freescale MPC555 PowerPCs (40 MHz) ams AS8202NF (C2NF) TTP communication controller
Physical Layer	Physical layer board is exchangeable MFM/Manchester on RS 485 physical layer. 4 Mbit for TTP (2 channels) configurable on 2 different external busses (2 RJ45 connectors for each bus).
Additional Interfaces	IRIG-B (B122) interface on SMA connector Serial communication interface onboard On-line debug interface for Freescale MPC555 PowerPC
Environmental Operating Ranges	Operating temperature: 0 °C to +70 °C Storage temperature: -40 °C to +85 °C
Form Factor	Full size PCI card
Order Number	12028: TTP ^{Simulate} PCI incl. 1 single-seat license for TTP ^{Simulate} Setup 12012: TTP ^{Simulate} Setup configuration tool 12020: 1 year software maintenance service for TTP ^{Simulate} Setup



TTTech Europe, Austria (Headquarters)
Phone: +43 1 585 34 34-0

TTTech North America Inc.
Phone: +1 978 933-7979

TTTech Japan
Phone: +81 52 485-5898

TTTech China
Phone: +86 21 5015 2925-0

© TTTech. All rights reserved. All trademarks are the property of their respective holders. To the extent possible under applicable law, TTTech hereby disclaims any and all liability for the content and use of this flyer.

products@tttech.com

www.tttech.com