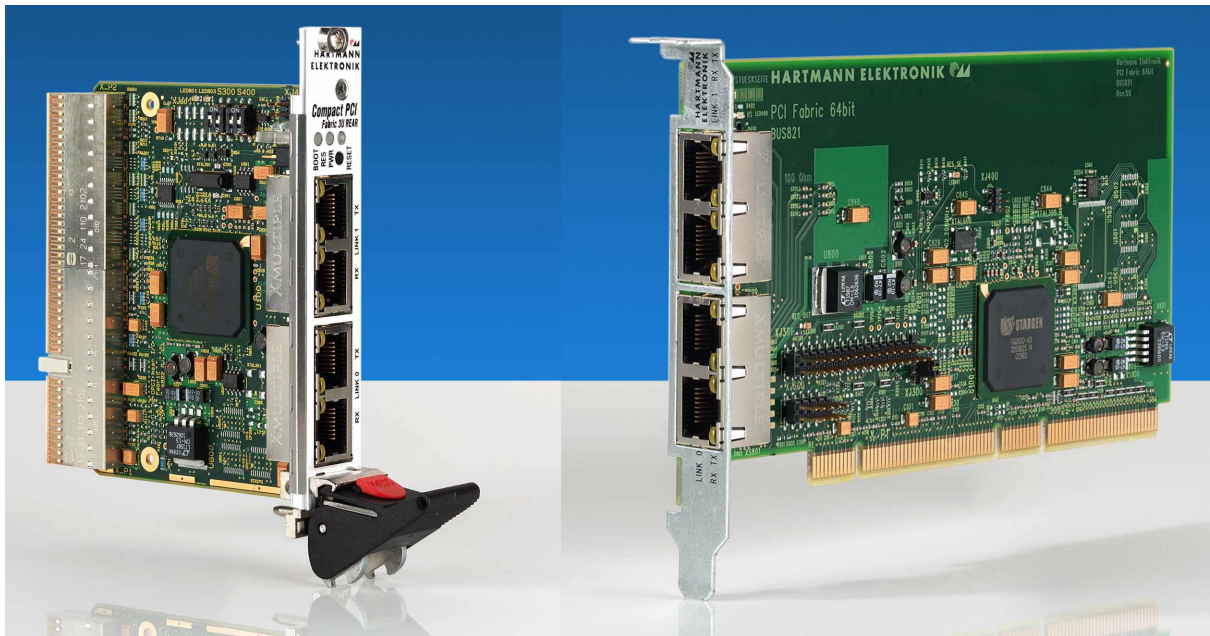




ROHDE & SCHWARZ

USER MANUAL



PCI to CompactPCI Interface Kit

R&S®TS-PSC0

User Manual

for ROHDE & SCHWARZ PCI to CompactPCI Interface Kit R&S TS-PSC0

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Safety Instructions



Attention!
Electrostatic
sensitive devi-
ces require
special care



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with the production sites as listed in the annex

for the scope

Design and Development, Production, Sales, Services of Electronic-Measurement
and Communication-Equipment and Systems

has implemented and maintains a

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An audit, documented in a report, has verified that this
quality management system fulfills the requirements
of the following standard:

DIN EN ISO 9001 : 2000

December 2000 edition

**The quality management system
of the sites marked with (*) in the annex fulfills the requirements
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This certificate is valid until	2008-01-23
Certificate Registration No.	001954 QM/ST
Frankfurt am Main	2005-01-24

This certificate is based on a quality audit in cooperation with the CETECOM ICT Services GmbH as
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It was verified by the Notified Body that the supplementary requirements of the Annex V of the
European Council Directive 99/5/EC are fulfilled.

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Appendix to Certificate Registration No.: 001954 QM/ST

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The international and German Road Traffic Law
was audited regarding the following approval objects:

No.: 22 Electrical/Electronic Sub Assembly



Annex to Certificate Registration No.: 001954 QM ST

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Rohde & Schwarz FTK GmbH Wendenschloßstrasse 168 D-12557 Berlin	Design and Development, Production and Sale of Communication Equipment, Installations and systems
Rohde & Schwarz GmbH & Co. KG Kaikenrieder Strasse 27 D-94244 Teisnach	Design and Development, Production, Sales, Services of Electronic-Measurement and Communication-Equipment and Systems
Rohde & Schwarz závod Vimperk s.r.o. Spidrova 49 CZE-38501 Vimperk Tschechische Republik	Design and Development, Production, Sales, Services of Electronic-Measurement and Communication-Equipment and Systems
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If you have any technical queries about this Rohde & Schwarz equipment, our Hotline at the Support Center of Rohde & Schwarz Sales-GmbH will be glad to help.

Our team will discuss your queries and look for solutions to your problems.

The Hotline is open Mondays to Fridays from 08.00 to 17.00 hrs.

For queries outside office hours, you can leave a message or send a note via fax or email. We will then get back to you as soon as possible.



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1 Applications

1.1 General

This manual describes the function and operation of the PCI to CompactPCI Interface Kit R&S TS-PSC0 for use in the test system Versatile Platform R&S CompactTSVP.

The ROHDE & SCHWARZ PCI to CompactPCI Interface Kit module R&S TS-PSC0 is an add-on module for the universal production test platform R&S CompactTSVP (Test System Versatile Platform).

The R&S TS-PSC0 module permits control of the R&S CompactTSVP with an external PC instead of other system controllers that are used. A PCI bridge module (root module) is used for this purpose in the external PC. It is connected by two cables with a second bridge module (leaf module) in R&S CompactTSVP.

This expands the PCI bus of the external PC beyond the limits of the computer with the CompactPCI and PXI modules of R&S CompactTSVP.

The R&S TS-PSC0 module can only be used in the R&S CompactTSVP (TSVP = Test System Versatile Platform).

1.2 Additional documentation

Extensive manufacturer documentation for PCI to CompactPCI Interface Kit R&S TS-PSC0 resides in directory `..\GTSL\Documentation\System Controller` under filename [User Manual StarFabric.pdf](#). You can find additional information here on block circuit figures, layout and a functional description.

The following documentation sources must also be observed:

- Operating Manual for Production Test Platform R&S CompactTSVP TS-PCA3
- PC documentation



2 View

Figure 2-1 shows the root module of the PCI to CompactPCI Interface Kit R&S TS-PSC0. This module is inserted into the external PC.

Figure 2-2 shows the leaf module of the PCI to CompactPCI Interface Kit R&S TS-PSC0. This module is inserted into the R&S CompactTSVP.



Figure 2-1 View of the R&S TS-PSC0 Root Module



Figure 2-2 View of the R&S TS-PSC0 Leaf Module

3 Commissioning

3.1 Installation in the host PC (root module)

3.1.1 Configuration of the PCI card

The PCI card is configured as a root card with activated bridge function (transparent mode). This configuration is set before the unit leaves the factory.

3.1.2 Installation of PCI card in the Host PC

After the card is configured as the root it can be installed in the Host PC. During the start process of the Host PC after the Root card is installed, Windows Plug&Play detects the card as “Other PCI bridge device” and prompts for driver installation. The installation of the driver can be ignored with no adverse affect on functionality. There is only one “unidentified bridge manager” in the Windows Device Manager. The Host PC must now be shut down again so the network can be set up.

3.2 Installation in R&S CompactTSVP

3.2.1 Configuration of the CompactPCI card

The CompactPCI card is configured as a leaf card with activated bridge function (transparent mode). This configuration is set before the unit leaves the factory.

3.2.2 Installation of the CompactPCI card in the R&S CompactTSVP

To install the CompactPCI card, follow these steps:

- Shut down and turn off the R&S CompactTSVP.
- If necessary, remove the CPU from system slot 1 on the front of the R&S CompactTSVP.

**CAUTION!**

The module must only be operated if no CPU is inserted in system slot 1 on the front side of the R&S CompactTSVP!

- If necessary, remove the rear I/O module from slot 1 on the back of the R&S CompactTSVP.

**CAUTION!**

**Check the backplane connectors for bent pins! Any bent pins must be straightened!
Failure to do this may permanently damage the backplane!**

- Applying moderate pressure, insert the CompactPCI card in slot 1 on the back of the R&S CompactTSVP.

**CAUTION!**

Use both hands to guide the module and carefully plug it into the backplane connectors.

- The module is correctly located when a distinct 'stop' can be felt.
- Tighten the top and bottom screws on the front panel of the plug-in module.

3.3 Layout of the StarFabric network

3.3.1 Wiring

The two “The Bridge” modules (root and leaf) are connected together to set up the StarFabric network. Make certain the transmitter and receiver connections (TX and RX) are connected with each other criss-cross:

- TX on Host PC → RX on R&S CompactTSVP
- RX on Host PC → TX on R&S CompactTSVP

It makes no difference whether the connection pairs Link 0 or Link 1 are used for the connection.



Figure 3-1 Wiring of modules

3.3.2 Placing the system in operation for the first time



CAUTION!

When placing the system in operation for the first time, make certain the R&S CompactTSVP is turned on before the Host PC. Otherwise the BIOS of the Host PC will not be able to detect the PCI modules in the R&S CompactTSVP.

When turning on the Host PC, the yellow link LEDs of the sockets that are being used on the root module must be permanently lit.

After the Host PC has booted, Windows automatically detects the modules installed in the R&S CompactTSVP. It may be necessary to install drivers for these modules. Windows also detects the CompactPCI “The Bridge” card. No driver needs to be installed for this card (see Section 3.1.2).

Extensive manufacturer documentation for PCI to CompactPCI Interface Kit R&S TS-PSC0 resides in directory ..\GTSL\Documentation\System Controller under filename [User Manual StarFabric.pdf](#). You can find additional information on the configuration of modules, installation and functions of the LEDs.