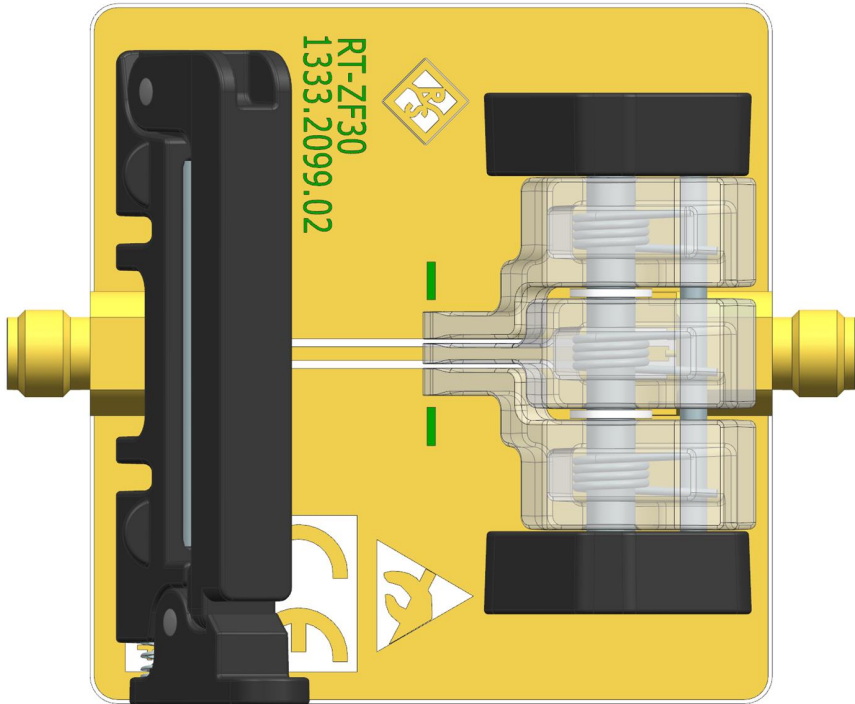


R&S[®]RT-ZF30 Probe Test Fixture Manual



1801455502
Version 02

ROHDE & SCHWARZ
Make ideas real



This manual describes the R&S RT-ZF30 test fixture (1333.2099.02).

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Mühlhofstr. 15, 81671 München, Germany

Phone: +49 89 41 29 - 0

Email: info@rohde-schwarz.com

Internet: www.rohde-schwarz.com

Subject to change – data without tolerance limits is not binding.

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1801.4555.02 | Version 02 | R&S®RT-ZF30

Throughout this manual, products from Rohde & Schwarz are indicated without the ® symbol, e.g. R&S®RT-ZF30 is indicated as R&S RT-ZF30.

1 Safety information

The product documentation helps you to use the product safely and efficiently. Keep the product documentation nearby and offer it to other users.

Safety information warns you about the potential dangers and gives instructions how to prevent personal injuries or damage caused by dangerous situations. Throughout the documentation, safety instructions are provided when you need to take care during setup or operation.

Intended use

The equipment under test (EUT) is intended to be used at laboratory or test and measurement areas. These areas are used for analysis, testing and servicing and where equipment is operated by trained personnel.

Operating site

Only use the product indoors, and keep it dry. The product has no casing and is sensitive to moisture and humidity.

The product is suitable for pollution degree 2 environments where nonconductive contamination can occur. For more information on environmental conditions such as ambient temperature, see the specifications.

Preventing electrostatic discharge (ESD)

Electrostatic discharge can damage the electronic components of the product and the device under test (DUT).

The product is sensitive to electrostatic discharge (ESD) because of open modules. Protect the work area against electrostatic discharge to avoid damage to electronic components. Always work at a static-approved workstation.

- ▶ Electrostatic discharge is most likely to occur when you connect or disconnect a DUT. Ground yourself to prevent electrostatic discharge damage:
 - a) Use a wrist strap and cord to connect yourself to ground.
 - b) Use a conductive floor mat and heel strap combination.

Disposal



In line with EN 50419, the product cannot be disposed of in the normal household waste. Even disposal via the municipal collection points for waste electrical and electronic equipment is not permitted.

Rohde & Schwarz has developed a disposal concept for the ecofriendly disposal or recycling of waste material. Rohde & Schwarz fully assumes its obligation as a producer to take back and dispose of electrical and electronic waste. Contact your local service representative to dispose of the product.

2 Product description

The R&S RT-ZF30 probe test fixture is a product for characterization and deskewing of R&S probes.

It is used in combination with:

- R&S RTO/RTO6/RTP oscilloscope
- Pulse source: R&S RTO-B7 (1333.2030.02), R&S RTP-B7 (1333.2001.02), R&S RTO6-B7 (1801.6764.02)
- Deembedding: R&S RTO-K121 (1326.3058.02), R&S RTP-K121 (1326.3064.02), R&S RTO6-K121 (1801.6887.02)

For data, see the "R&S RT-ZFxx Oscilloscope Test Fixtures - Specifications" at www.rohde-schwarz.com/brochure-datasheet/rto.

2.1 Deliveries

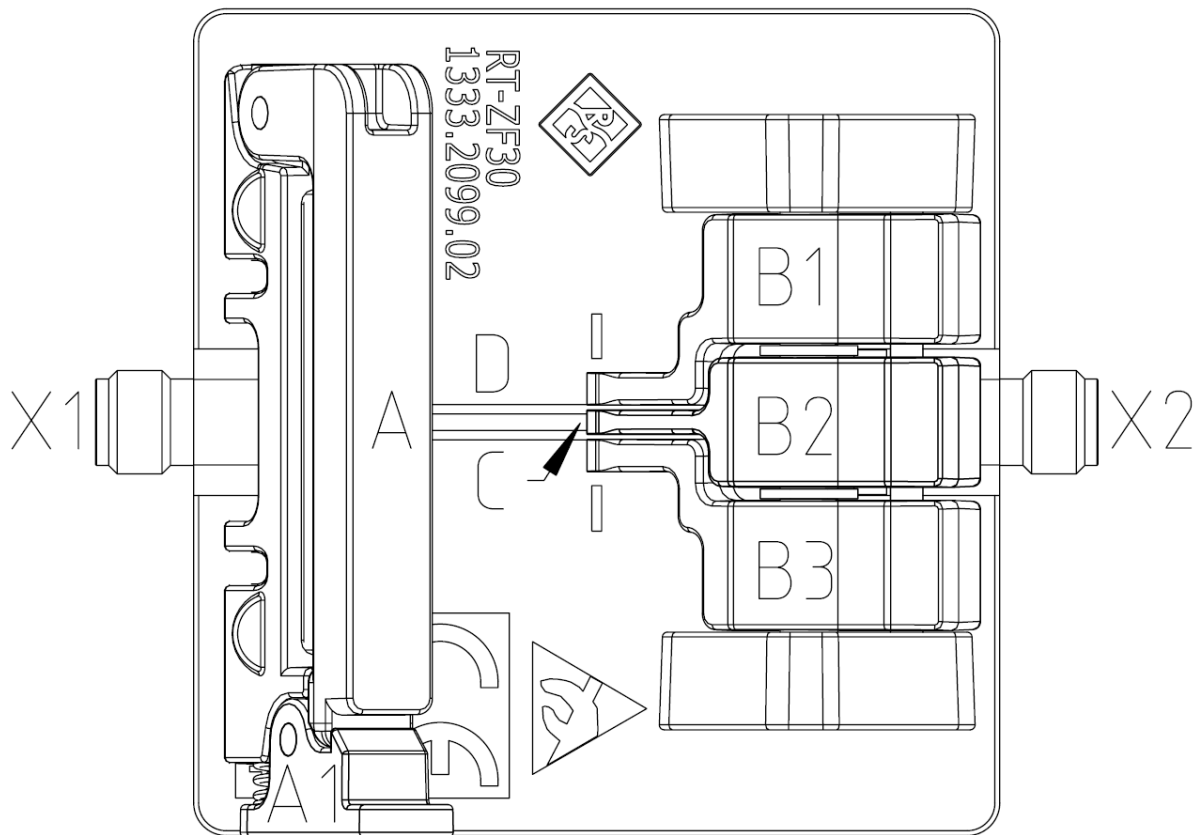
The R&S RT-ZF30 delivery package contains the following items:

- R&S RT-ZF30 test fixture
- SMA male-male adaptor
- Manual

The R&S RT-ZF30 can be stored in the R&S RTO/RTO6/RTP-B7 accessory case.

2.2 Board description

The R&S RT-ZF30 probe test fixture has the following elements:



X1, X2

RPC-2.92 connectors for source and termination.

A, A1

A is a strain relief. A1 is the release lever for the strain relief.

B

Clamping rocker. B1 and B3 to GND. B2 center contact.

C

Center contact.

D

Ground plane.

3 Connecting the fixture

Basic instructions

Use the fixture carefully to prevent damage:

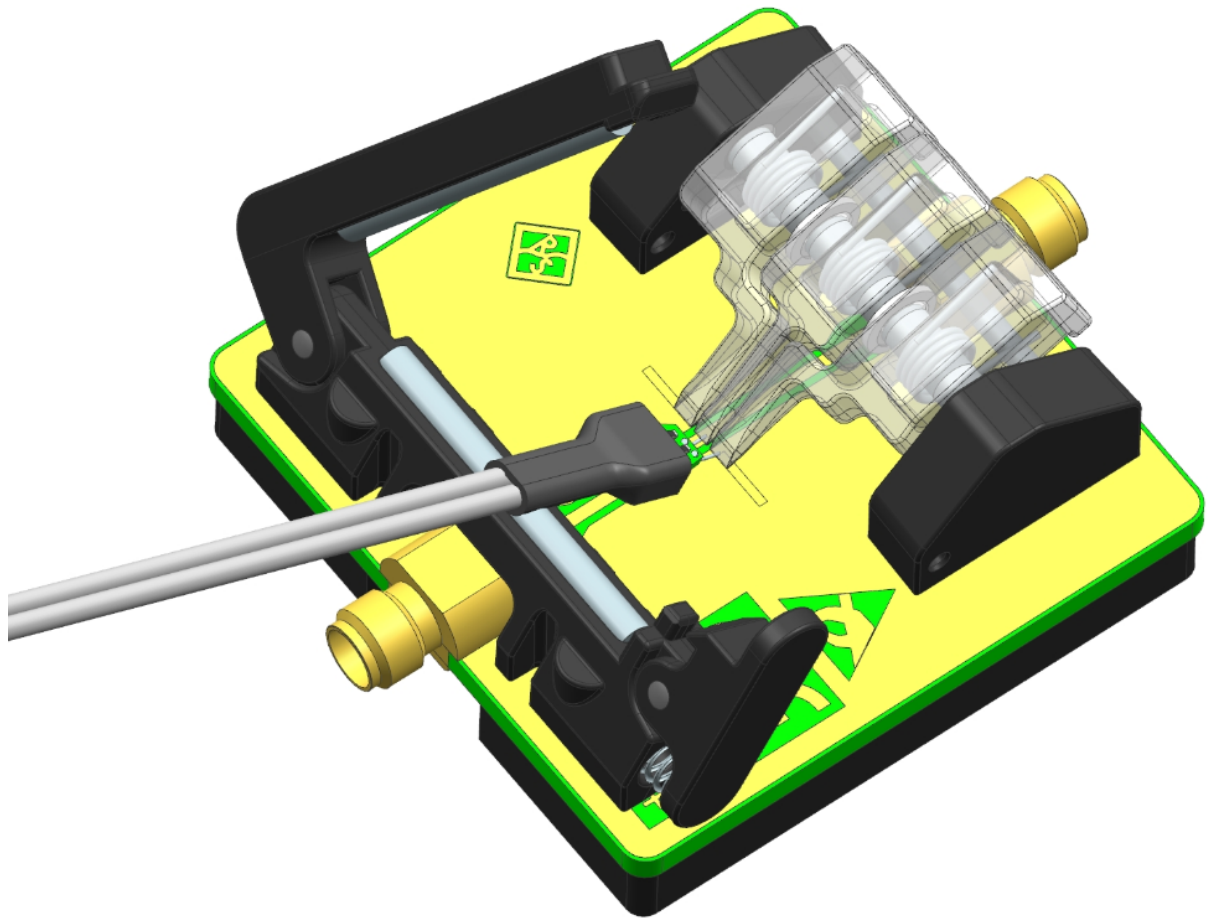
- Always use a cable to connect the fixture to a source. Never connect the fixture directly to the source to avoid mechanical stress and strain to the connectors.
- When connecting a probe to the fixture, avoid excessive mechanical stress to the golden surface.
- Handle RF connectors with care and ensure that the connector is clean and undamaged.
- For maximum measurement accuracy, always use a torque wrench (0.9 Nm) to connect cables to the fixture.

For use with the R&S RTO/RTO6/RTP-K121 deembedding base option

1. Follow the instruction of the software for connecting the fixture to the oscilloscope.
2. Connect the probe to the fixture:
 - For single ended probes: connect the positive pin to center contact and the ground pin to ground plane left or right next to the center contact.
 - For differential probes: connect the positive pin to center contact and the negative pin to ground plane left or right next to the center contact.

For solder-in tips (e.g. R&S RT-ZMA10)

- ▶ Use the clamping rocker for connecting to the contacts. Use the strain relief clamp to secure the position.



For probes with a browser tip

- ▶ We recommend using a probe positioner, e.g. R&S RT-ZAP, for reliable results. Always connect the probe to the midpoint of the fixture.

4 Contacting customer support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz product, contact our customer support center. A team of highly qualified engineers provides support and works with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz products.

Contact information

Contact our customer support center at www.rohde-schwarz.com/support, or follow this QR code:



Figure 4-1: QR code to the Rohde & Schwarz support page