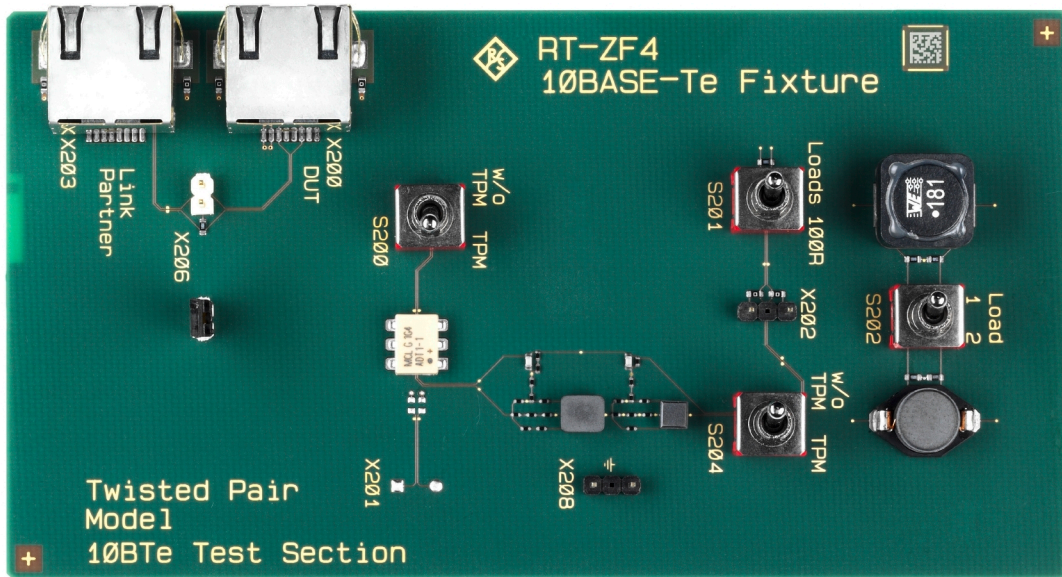


R&S[®] RT-ZF4 10BASE-Te Fixture Manual



1333230102

This manual describes the R&S RT-ZF4 10BASE-Te fixture (1333.0880.02) for 10BASE-Te compliance tests.

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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 a signal quality test and development board, indented 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.

Installation

Connect only Ethernet devices with RJ-45 interface that are designed according to IEEE802.3 10BASE-Te.

2 Product Description

The R&S RT-ZF4 test fixture is a product designed for compliance testing of the 10BASE-Te energy-efficient Ethernet (EEE) protocol variant.

It is used in combination with:

- R&S RTO/R&S RTP oscilloscope
- EEE: R&S RTO-K86 (1333.1992.02), R&S RTP-K86 (1337.8833.02): requires R&S RTO/R&S RTP-K22
- R&S ScopeSuite software

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-ZF4 delivery package contains the following items:

- R&S RT-ZF4 test board
- Manual

2.2 Board Description

The R&S RT-ZF4 10Base-Te fixture replaces the "Twisted Pair Model" section of the R&S RT-ZF2 Ethernet test fixture when performing 10Base-Te compliance tests because the twisted-pair models of 10BASE-T and 10BASE-Te are different.

S201

Switches between resistive and inductive load.

S202

Switches between two different inductive loads. Set S201 to inductive load to use the effect of S202.

S200 and S204

Switch the "Twisted Pair Model" (TPM) circuit on and off.

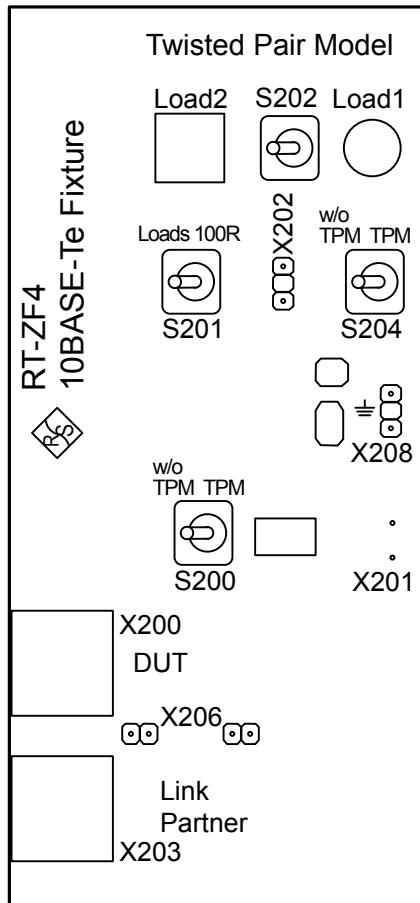


Figure 2-1: R&S RT-ZF4 10Base-Te fixture

X202

Connector for the differential probe.

X203, X206

X203 is the connector for the link partner. The X206 jumper switches the link partner on or off.

- Left position: Link partner is connected.
- Right position: Link partner is disconnected.

X208

Pins for ground connection.

3 Connecting the Board

The appropriate DUT and probe connection depends on the test case. The R&S ScopeSuite software provides a step-by-step guide that shows the required setup for each test case.

The test preparation and measurements of the test cases are described in the "R&S®RTO, R&S®RTP Ethernet Compliance Tests, Test Procedures Manual".