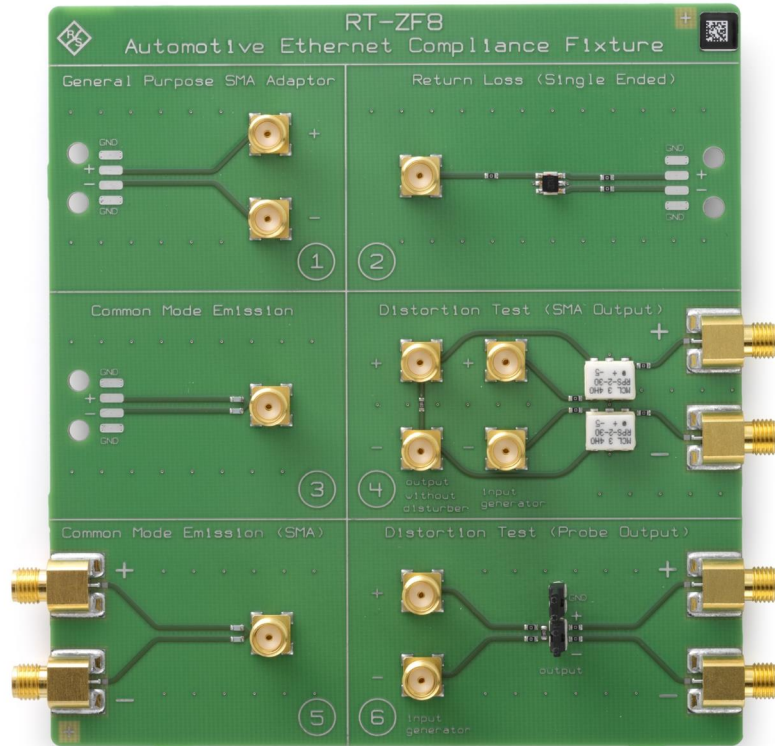


# R&S<sup>®</sup> RT-ZF8

## Automotive Ethernet Compliance Fixture

### Manual



1801421002

This manual describes the R&S RT-ZF8 Automotive Ethernet Compliance Test Fixture Set (1801.3694.02).

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Trade names are trademarks of the owners.

Throughout this manual, products from Rohde & Schwarz are indicated without the ® symbol , e.g. R&S®RT-ZF8 is indicated as R&S RT-ZF8.

# 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 interface that are designed according to 100BASE-T1 IEEE Std 802.3bw™-2015 (Amendment to IEEE Std 802.3™-2015), 1000BASE-T1 (IEEE Std 802.3bp™-2016).

## 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-ZF8 automotive Ethernet compliance fixture is a product for testing of the 100BASE-T1 and 1000BASE-T1 standards.

It is used in combination with:

- R&S RTO/R&S RTP oscilloscope
- 100BASE-T1: R&S RTO-K24 (1329.7483.02), R&S RTP-K24 (1800.6531.02)
- 1000BASE-T1: R&S RTO-K87 (1337.8591.02), R&S RTP-K87 (1800.6554.02)
- R&S ScopeSuite software

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

### 2.1 Deliveries

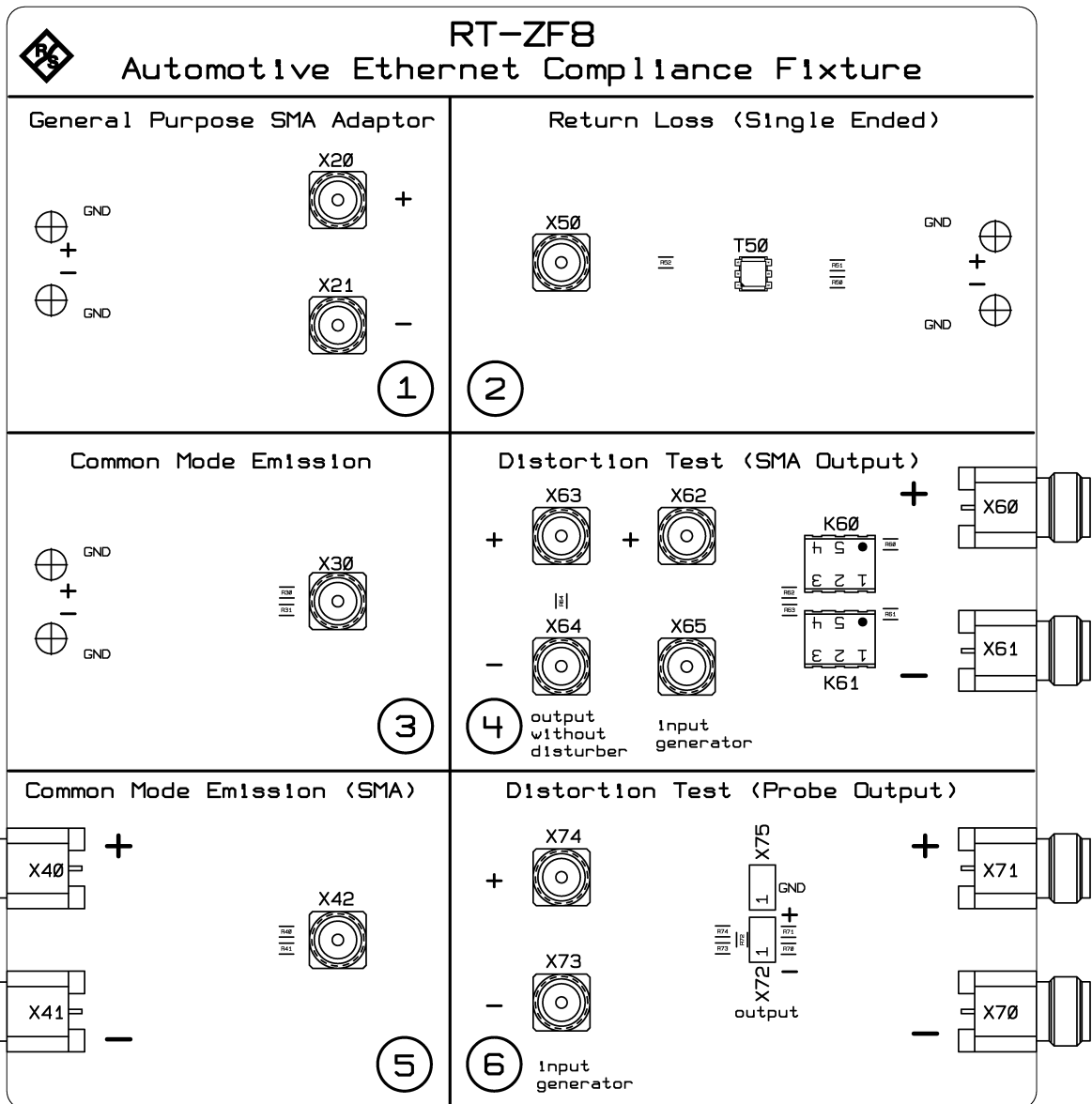
The R&S RT-ZF8 delivery package contains the following items:

- R&S RT-ZF8 test board
- Manual

### 2.2 Board Description

The R&S RT-ZF8 automotive Ethernet compliance fixture has six labeled sections, which are designed for specific test cases.

For more information about the compliance tests, refer to the "R&S®RTO, R&S®RTP Ethernet Compliance Tests, Test Procedures Manual".



**X40, X41, X60, X61, X70, X71**

Connectors for the Ethernet device under test (DUT).

**X50**

Connectors for a vector network analyzer.

**X20, X21, X30, X42**

Connectors for a vector network analyzer or an oscilloscope.

**X62, X65, X73, X74**

Connectors for an arbitrary waveform generator.

**X63, X64**

Connectors for an oscilloscope.

**X72, X75**

Connectors for an oscilloscope with a probe.

**General Purpose SMA Adaptor**

This section of the board can be used for several compliance test cases, including the Common Mode Conversion Tests. It allows you to change from twisted-pair cables to SMA ones.

## 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".