



R&S® RTP-K101: COMPLIANCE TEST FOR USB 3.2 GEN 1&2

For R&S® RTP oscilloscopes

The perfect choice for

TX compliance	Precompliance testing
Signal integrity debugging	Protocol debugging

Rohde & Schwarz offers an automated compliance test solution for USB 2.0 and USB 3.2 Gen1 and Gen 2 interfaces in line with USB-IF test specifications. The test wizard of the R&S®ScopeSuite compliance test software guides you via illustrated step-by-step instructions and produces a configurable test report.



Your benefit	Features
Complete test solution	<ul style="list-style-type: none"> ▶ Integrated generator option to toggle compliance pattern of the DUT ▶ Channel embedding for long channel tests without additional options ▶ R&S®RT-ZB2 test fixture for USB 3.2 Gen1 precompliance
Easy to use	<ul style="list-style-type: none"> ▶ Predefined, automated test steps ▶ Step-by-step test wizard
Clear and comprehensive test documentation	<ul style="list-style-type: none"> ▶ R&S®ScopeSuite produces a customizable report of the test results, which can include numerical result data and oscilloscope screenshots – depending on the user's preferences. The available output formats are PDF, DOC and HTML



For more information, visit
www.rohde-schwarz.com/product/sw_rtx-k21

Signal integrity debugging – jitter and noise analysis



Gain more insights into your design

- ▶ Calculation of common jitter and noise components
- ▶ Highly accurate results thanks to signal model based approach
- ▶ Display of step response, BER bathtub curves
- ▶ Synthetic eyes with deterministic jitter and noise
- ▶ Display of jitter and noise components as histogram, track or in spectrum view

Protocol triggering and decoding



USB 2.0 / 3.2 Gen 1 and 2

- ▶ Bus setup within seconds
- ▶ Color-coded protocol elements
- ▶ Strong triggering capabilities on various protocol elements
- ▶ Powerful search, navigate recorded acquisitions

Model configuration information

Designation	Type
16 GHz oscilloscope For USB 3.2 Gen 2	R&S®RTP-164
Compliance test for USB 3.2 Gen 1 and 2	R&S®RTP-K101 ¹⁾
Arbitrary waveform generator For toggling compliance pattern	R&S®RTP-B6
16 GHz differential pulse source For channel deskewing	R&S®RTP-B7
Precision BNC to SMA adapter For cable connection	R&S®RTP-ZA16
Matched pair SMA cable for TDR measurements For differential signals	R&S®RTP-ZA17
Compliance test fixture Order from www.usb.org/estore	

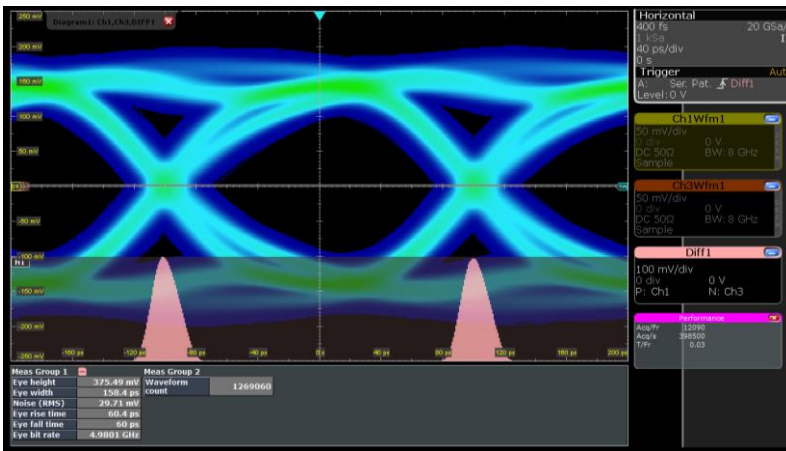
Recommended extras

Designation	Type
Signal integrity debug bundle	R&S®RTP-SIBNDL ²⁾
Jitter and noise decomposition	R&S®RTP-K134
USB 1.0/1.1/2.0/HSIC triggering and decoding	R&S®RTP-K60
USB 3.1 Gen 1 triggering and decoding	R&S®RTP-K61
USB 3.1 Gen 2 triggering and decoding	R&S®RTP-K62
USB power delivery triggering and decoding	R&S®RTP-K63

¹⁾ Includes R&S®RTP-K21 USB2.0 compliance test

²⁾ Includes basic jitter analysis, zone trigger, 16 Gbps serial pattern trigger with HW CDR, deembedding option with HW acceleration

Signal integrity debugging – eye diagram



Fast eye diagram analysis

- ▶ Real-time 16 Gbps serial pattern trigger with HW CDR
- ▶ Real-time mask and histogram
- ▶ Real-time deembedding
- ▶ Real-time differential signal math