R&S®Cable Rider ZPH Cable and Antenna Analyzer

Learn more about reflection measurements here

Brochure | Data sheet | Fact sheet | Video

Save time in the field

The R&S®Cable Rider ZPH is a cable and antenna analyzer that is available in two models. The one-port model has all the essential basic measurement capabilities required for installing and maintaining antenna systems in the field. Its unique features ensure fast and efficient cable and antenna measurements. The two-port model offers more functionality and can perform spectrum analysis (R&S®ZPH-K1 option). It has an independent tracking source plus an integrated bias tee. All these add-ons make the R&S®Cable Rider ZPH the perfect field installation and maintenance tool.

Model overview

Model	Frequency range	Frequency extension	Measurement speed	Data points	Measurement mode (standard)	Measurement mode (optional)
R&S®ZPH one-port model (model .02)	2 MHz to 3 GHz	up to 4 GHz (R&S®ZPH-B4 option)	0.3 ms/point	101 to 2501	DTF, return loss, VSWR, one-port cable loss, Smith chart, phase	power meter, power measurement with power sensor, pulse measurement
R&S®ZPH two-port model (model .12)	► CAT mode: 2 MHz to 3 GHz ► spectrum mode: 5 kHz to 3 GHz				DTF, return loss, VSWR, one-port cable loss, Smith chart, phase, S_{21}	power meter, power measurement with power sensor, pulse measurement, spectrum analysis, interference analysis, AM/FM/ASK/FSK modulation analysis

Important facts

Specification	R&S®ZPH	Why this is important
Measurement speed	0.3 ms/point	Total overall test time is an important parameter impacted greatly by measurement speed. Faster measurement time per point increases overall throughput. This is especially important if hand-tuning of devices (antennas, resonators) is required.
Battery operation time	up to 6.5 h/9 h (mode dependent)	The advantages of having a long-lasting battery are obvious – no need to bring an extra battery with additional weight when climbing up a mast or tower, no dead batteries during measurement.
Automatic calibration unit	● [1]	With little or no VNA experience, users can make a valid calibration and accurate measurements. An auto-cal unit also eliminates the need to deal with individual open, short, match and through calibration standards. Auto-cal based calibrations can be performed in the field or the lab to ensure consistent and reliable results.
Capacitive touchscreen with gesture support	●	Intuitive (smartphone-like) operation. Allows faster measurement setup and configuration. Ability to pinch and zoom to set span.

[1] With R&S®ZN-Z103 calibration unit.

Scope of delivery

► Power cord
► Lithium-ion battery pack
► 3 year warranty (one year for battery and accessories)

Recommended options/accessories

Description	Type
Frequency upgrade (3 GHz to 4 GHz)	R&S®ZPH-B4
Spectrum analyzer preamplifier (requires R&S®ZPH-K1)	R&S®ZPH-B22
Calibration unit, one-port, 2 MHz to 4 GHz	R&S®ZN-Z103
Combined open/short/50 Ω load calibration standard, for calibrating VSWR and DTF measurements, DC to 3.6 GHz	R&S®FSH-Z29
Soft carrying bag	R&S®HA-Z220
Rainproof carrying holster	R&S®HA-Z322

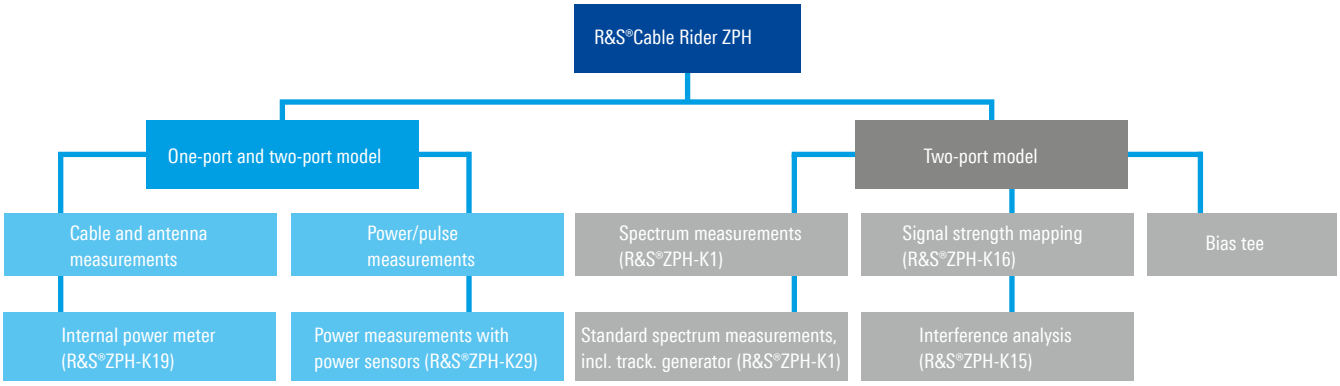
USB | Mini USB | TCP/IP | micro SD card | Screen 7" | Touchscreen

The perfect choice for:	
Installation and maintenance of AM/FM radio stations	Spectrum clearance/interference hunting [1]
RF cable testing	Antenna measurement

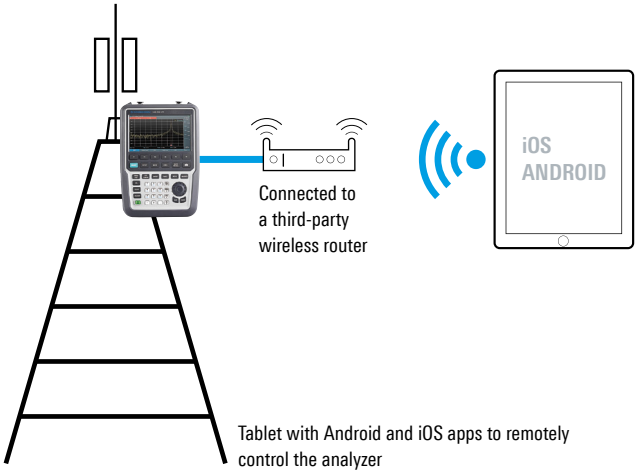
[1] Only with two-port model.

Your benefit	Features
Hybrid operation	Large keypads and sensitive capacitive touchscreen
Make the right measurement right away	Wizard function, settings preconfigured in advance
One-step calibration	No toggling between O/S/L standards with the R&S®ZN-Z103 automatic calibration unit
Shortest test time	Fastest measurement speed (0.3 ms/point), short boot and warm-up times
Work under bright or dim conditions	Non-reflective display with adjustable backlight, illuminated keypad
Buy what you need when you need it	Upgrade via keycode, no downtime, no recalibration required
Simple wireless remote operation	Free downloadable Android/iOS apps (third-party wireless router required)

More functions



Remote wireless control apps



Tablet with Android and iOS apps to remotely control the analyzer

One-step calibration with automatic calibration unit (R&S®ZN-Z103)

Combined OSL calibration kit (R&S®FSH-Z29)