

ROHDE & SCHWARZ

Nordic Demo Sales Campaign Catalog 2021 Winter



ROHDE & SCHWARZ

Make ideas real



**NORDIC DEMO SALES CAMPAIGN 2021 WINTER**

We have collected all our demo instruments from our neighboring countries in one great campaign to offer you an even wider product portfolio.

The number of the devices on sale is limited and most of them are available only one piece. You have to be quick to get the device at this price.

Please note – first come, first served!

Warranty:

If warranty is not mentioned, you may purchase it on request.

Calibration:

Calibration is not included. Price for calibration will be given upon request for quotation.

We grant a 10 % discount on the following service contracts:

- Extended warranty
- Extended warranty and Calibration coverage
- Extended warranty & Accredited calibration coverage

on purchase of a demo unit.

For more information visit our website

[Services | absolute reliability and precision | Rohde & Schwarz \(rohde-schwarz.com\)](https://www.rohde-schwarz.com/services)

For 'Terms and conditions' see the last page.

This campaign is valid until 31st of January 2022.

Contact your local Rohde & Schwarz office to check availability.

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1 Oscilloscopes

1.1

R&S®RTB2004 Digital 4 channel oscilloscope



Key facts:

- ▶ Bandwidth: 70 MHz to 300 MHz
- ▶ Sample rate: up to 2.5 Gsample/s
- ▶ Memory depth: up to 20 Msample
- ▶ ADC resolution: 10 bit
- ▶ Display: 10.1" capacitive touchscreen

Alternative 1

3 150 €

Serial number:

- ▶ 620-109010

~~5 250 €~~

Options included:

- ▶ R&S®RTB-B243: 300 MHz Bandwidth upgrade for the R&S®RTB2004 (SL)
- ▶ R&S®RTB-PK1: Application bundle (R&S®RTB-K1, K2, K3, K15, K36 and B6 (SL)

-40%

Warranty: April 2022

Alternative 2

2 760 €

Serial number:

- ▶ 620-113509

~~3 940 €~~

Options included:

- ▶ R&S®RTB-B243

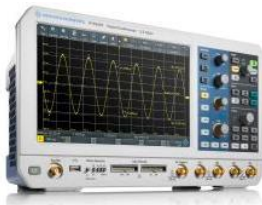
-30%

Warranty: January 2024

1.2

R&S®RTB2K-COM4

2 741 €



Key facts:

- ▶ bandwidth 300 MHz with option
- ▶ sampling rate up to 2,5 GSa/s, sample

~~3 655 €~~

-25%

Serial number:

- ▶ 604-200387
- ▶ 604-200426

Options included:

- ▶ R&S®RTB-B243: 300 MHz Bandwidth upgrade
- ▶ R&S®RTB-B1: Mixed Signal Option R&S®RTB-PK1: Application bundle (R&S®RTB-K1, K2, K3, K15, K36 and B6 (SL))
- ▶ R&S®RTB-Z1: Front Cover
- ▶ R&S®RTB-Z3: Protection and Transportation Case

Warranty: February 2024

1.3

R&S®RTH1004 Scope Rider handheld digital oscilloscope, 4 channels

6 200 €



Key facts:

- ▶ Bandwidth: 500 MHz
- ▶ Sample rate: up to 5 Gsample/s
- ▶ Memory depth: up to 500 ksample, 50 Msample segmented memory
- ▶ ADC resolution: 10-bit
- ▶ Isolated channels (CAT IV 600 V (RMS) / CAT III 1000 V (RMS))
- ▶ Integrated multimeter or multimeter mode

~~10 300 €~~

-40%

Serial number:

- ▶ 620-104243

Options included:

- ▶ R&S®RTH-B244 500MHz bandwidth
- ▶ R&S®RTH-PK1 Application bundle (contains R&S®RTH-K1, K2, K3, K9, K10, K15, K18, K19, K33, K34 and K201)

Warranty: September 2022

1.4

R&S®RTA4004 Digital oscilloscope

3 492 €



Key facts:

- ▶ Bandwidth: 200 MHz. Upgradable up to 1 GHz.
- ▶ Sample rate: up to 5 Gsample/s
- ▶ Memory depth: up to 1 Gsample
- ▶ ADC resolution: 10-bit
- ▶ Display: 10.1" capacitive touchscreen

~~8 730 €~~

-60%

Serial number:

- ▶ 607-101341

Options included:

- ▶ R&S®RTA-PK1 Application bundle, which contains triggering and decoding I2C/SPI (R&S®RTA-K1), UART/RS-232/RS-422/RS-485 (R&S®RTA-K2) and CAN/LIN (R&S®RTA-K3), I2S (R&S®RTA-K5), MIL-1553 (R&S®RTA-K6), ARINC429 (R&S®RTA-K7), spectrum analysis and spectrogram (R&S®RTA-K37), power analysis (R&S®RTA-K31), frequency response analysis (R&S®RTA-K36), arbitrary generator (R&S®RTA-B6) for R&S®RTA4000 models.

1.5

R&S®RTO2044 Digital oscilloscope



Key facts:

- ▶ 4 GHz bandwidth,
- ▶ Sampling rate 20GSa/s
- ▶ Sampling memory 50MSa per channel / max. 200MSa (1 channel),
- ▶ Four 500MHz passive voltage probes

Alternative 1

19 261 €

Serial number:

- ▶ 604-320009

~~50 275 €~~

-60%

Options included:

- ▶ R&S®RTP-Z1 Front cover
- ▶ R&S®RTO-B6 Arbitrary Waveform Generator, 2 analog & 8 digital channels
- ▶ R&S®RTO-K12 Jitter analysis (incl. automated measurements for jitter characterization; SW clock data recovery; track graph of measurements; wizard tool)
- ▶ R&S®RTO-K13 Clock data recovery; HW based; for NRZ serial data up to 5.0 Gbps; first and second order PLL
- ▶ R&S®RTO-K18 Multi-channel spectrum analysis function with spectrogram and peak-list display
- ▶ RT-ZZ80 transmission line probe, 8 GHz, Input impedance 500 Ohm (2 pieces)

Warranty: April 2022

Alternative 2

27 300 €

Serial number:

▶ 615-330075

~~40 024 €~~

Options included:

- ▶ R&S®RTP-Z1 Front cover
- ▶ R&S®RTO-B1E Digital extension port
- ▶ R&S®RTO-B6 Arbitrary waveform generator, 2 analog & 8 digital channels

-30%

Warranty: 12 months

1.6

R&S®RTP164 - High-performance oscilloscope



Key facts:

- ▶ 16 GHz bandwidth
- ▶ 40/20 GSa/s sampling rate
- ▶ 4 channels

Alternative 1

102 500 €

Serial number:

▶ 620-103158

~~157 650 €~~

Options included:

- ▶ R&S®RTP-B1 Mixed signal 400MHz, 5Gsa/s, 16 channels, 200MSa/chan. (SL)
- ▶ R&S®RTP-B21 Adapter for rear option slots of R&S®RTP oscilloscope
- ▶ R&S®RTP-B6 Arbitrary Waveform Generator, 2 analog & 8 digital channels
- ▶ R&S®RTP-B7 Differential 16 GHz pulse source for R&S®RTP

-35%

Warranty: November 2023

Alternative 2

91 380 €

Serial numbers:

▶ 607-103162

~~152 300 €~~

Options included:

- ▶ R&S®RTP-B7 Differential 16 GHz pulse source for R&S®RTP
- ▶ R&S®RTP-B6 Arbitrary Waveform Generator, 2 analog & 8 digital channels
- ▶ R&S®RTP-B21 Adapter for rear option slots of R&S®RTP oscilloscope
- ▶ R&S®RT-ZA17 Matched pair SMA cable for TDR measurement

-40%

Warranty: November 2023

1.7

R&S®RTM3004 digital oscilloscope, 4 channels



Key facts:

- ▶ Up to 1 GHz bandwidth (option)
- ▶ Sampling rate up to 5 GSa/s
- ▶ Sample memory up to 100MSa
- ▶ ADC resolution 10 bit
- ▶ 10" capacitive touch
- ▶ 4*passive 500 MHz probes

Alternative 1

6 188 €

Serial number:

- ▶ 604-104662

8 250 €

-25%

Options included:

- ▶ R&S®R&S®RTB-Z1: Front cover
- ▶ R&S®RTB-Z3: Transport case
- ▶ R&S®RTM-B243: 350 MHz Bandwidth upgrade for the R&S®RTM3004

Warranty: November 2023

Alternative 2

8 288 €

Serial number:

- ▶ 604-104653

11 050 €

-25%

Options included:

- ▶ R&S®R&S®RTB-Z1: Front cover
- ▶ R&S®RTB-Z3: Transport case
- ▶ R&S®RTM-B245: 500 MHz Bandwidth upgrade for the R&S®RTM3004

Warranty: November 2023

Alternative 3

8 500 €

Serial number:

- ▶ 620-101093

17 000 €

-50%

Options included:

- ▶ R&S®R&S®RTB-Z1: Front cover
- ▶ R&S®RTB-Z3: Transport case
- ▶ R&S®RTM-B2410: 1 GHz Bandwidth upgrade for the R&S®RTM3004
- ▶ R&S®RTM-PK1: Application Bundle (SL) (contains R&S®RTM-K1, 2, 3, 5, 6, 7, 15, 18 and 31 as well as R&S®RTM-B6)

2 Oscilloscopes Accessories & Probes

- | | | |
|---|--|--|
| 2.1 | R&S®RT-ZA15 External attenuator | 510 € |
|  | <p>Key facts:</p> <ul style="list-style-type: none"> ▶ Ext. attenuator 10:1, 2.0 GHz, 1.3pf, 60 VDC, 42 VACpeak, for R&S®RT-ZD10/20/30 (accessory) <p>Serial number:</p> <ul style="list-style-type: none"> ▶ 620-101473 ▶ 620-101472 | <p>1 020 €</p> <p>-50%</p> |
| 2.2 | R&S®RT-ZA17 Matched pair SMA cable | 1 500 € |
| | <p>Key facts:</p> <ul style="list-style-type: none"> ▶ (18 GHz, <10 ps skew, 1m, m/m) for TDR measurement <p>Serial number:</p> <ul style="list-style-type: none"> ▶ 620-101341 | <p>2 100 €</p> <p>-30%</p> |
| 2.3 | R&S®RT-ZD01 High voltage differential probe | 600 € |
|  | <p>Key facts:</p> <ul style="list-style-type: none"> ▶ Input impedance 8 MΩ 3,5 pF ▶ Bandwidth 100 MHz ▶ Rise time < 3.5 ns ▶ Max. Input Voltage 1000 V (RMS), CAT III ▶ Attenuation 100 : 1 or 1000 : 1 <p>Serial number:</p> <ul style="list-style-type: none"> ▶ 620-101368 | <p>1500 €</p> <p>-60%</p> |
| 2.4 | R&S®RT-ZHD07 High voltage differential probe | 1 200 € |
|  | <p>Key facts:</p> <ul style="list-style-type: none"> ▶ 200 MHz high voltage differential probe ▶ 750 Vpk, 300 V CAT III, 250:1/25:1, 5 MOhm 2,0 pF (differential) ▶ Including accessories (soft bag, R&S®RT-ZA22 safety test leads, R&S®RT-ZA24 accessory set) <p>Serial numbers:</p> <ul style="list-style-type: none"> ▶ 620-101048 | <p>2 200 €</p> <p>-45%</p> |

2.5



R&S®RT-ZPR20 Power rail probe

1 600 €

Key facts:

- ▶ High bandwidth: 2 GHz or 4 GHz
- ▶ High offset compensation range: +/-60 V
- ▶ High sensitivity with 1:1 attenuation ratio
- ▶ Very low added noise
- ▶ Integrated high precision DC voltmeter

~~2 860 €~~

-45%

Serial number:

- ▶ 615-101434

2.6



R&S®RT-ZPR40 Power rail probe

2 872 €

Key facts:

- ▶ Bandwidth: DC to 4.0 GHz for R&S RT-ZPR40
- ▶ Extremely low noise, only 10 % additional to your scope noise
- ▶ Dynamic range: ± 850 mV
- ▶ High offset capability: ± 60 V
- ▶ Maximum non-destructive input voltage: ± 60 V DC or ± 5 V AC (peak) between center conductor and ground
- ▶ AC coupling with low-frequency cutoff at 10 Hz
- ▶ DC input resistance: 50 kOhm
- ▶ Extremely low zero and gain errors over temperature
- ▶ R&S ProbeMeter with dynamic range ± 60 V and measurement error < 0.1 %
- ▶ Rohde & Schwarz probe interface

~~4 103 €~~

-30%

Serial number:

- ▶ 607-101446

2.7

R&S®RT-ZM160 Probe amplifier module



Key facts:

- ▶ Bandwidth: 16 GHz
- ▶ Dynamic range: with 10:1 attenuation: ± 2.5 V;
with 2:1 attenuation: ± 0.5 V
- ▶ Rise time: R&S®RT-ZM160: < 28 ps
- ▶ Operating voltage window: ± 5 V plus DC offset voltage
- ▶ DC offset voltage: ± 16 V in all operating modes
- ▶ Input resistance: 400 k Ω in differential mode, 200 k Ω in single-ended mode
- ▶ Additional features: integrated high-precision voltmeter and micro button for convenient instrument control

Alternative 1

11 450 €

Serial number:

- ▶ 620-120095

~~17 600 €~~

Options included:

- ▶ No options included

-35%

Alternative 2

12 120 €

Serial number:

- ▶ 607-101383
- ▶ 620-101349

~~20 200 €~~

Options included:

- ▶ R&S®RT-ZMA12 square-pin probe tip module
- ▶ R&S®RT-ZMA10 solder-in probe tip module
- ▶ R&S®RT-ZMA15 quick-connect probe tip module

-40%

Alternative 3

13 976 €

Serial number:

- ▶ 607-120017

~~19 965 €~~

Options included:

- ▶ R&S®RT-ZMA10 solder-in probe tip module (serial number 607-101947)
- ▶ R&S®RT-ZMA14 Flex connect solder-in probe tip module (serial number 607-101225)

-30%

2.8

R&S®RT-ZMA14 solder-in flex connect probe tip module

1 155 €



Key facts:

- ▶ The R&S®RT-ZMA14 solder-in flex connect probe tip module is ideal for contacting test points with narrow probing pitches. The module comes with 10 solder-in probe tips to prepare connections to multiple test points. The probe tip module supports multimode measurements.

~~1 650 €~~

-30%

Serial number:

- ▶ 607-101196

2.9

PROBEKIT

2 500 €

Key facts:

Packet Micro 20 GHz Handheld Probe Kit including:

- ▶ DP-SS-201510: 20 GHz D-Probe (1.0 mm pitch) Qty. 2
- ▶ DP-Hand01: Probe handheld browser Qty. 2
- ▶ 20 GHz D-Probe with 0.5 mm pitch Qty. 1
- ▶ Transport case Qty. 1

~~3 300 €~~

-25%

Serial number:

- ▶ 620-101628

2.10

R&S®RT-ZMA30 SMA module

2 300 €

Key facts:

- ▶ 16 GHz browser module, variable span 0.5 mm - 8 mm, spring-loaded

~~3 300 €~~

-30%

Serial number:

- ▶ 620-101646

2.11

R&S®RT-ZMA40 SMA module

2 470 €



Key facts:

- ▶ 16 GHz SMA module, 2.92 mm/3.5 mm/SMA, 100 Ohm diff., DC-termination, MultiMode compatible

~~4 120 €~~

-40%

Serial number:

- ▶ 620-100674
- ▶ 620-100673
- ▶ 620-100745
- ▶ 607-100787

2.12

R&S®RT-ZVC02 Multi-channel power probe for Oscilloscopes



Key facts:

- ▶ Multi-channel power probe
- ▶ Version for R&S oscilloscopes (RTE, RTO)
- ▶ 2 current-and 2 voltage channels
- ▶ 5 MSa/s sampling rate
- ▶ 18 bit resolution

Alternative 1

2 000 €

Serial number:

4 600 €

- ▶ 615-101374

-55%

Alternative 2

2 300 €

Serial number:

4 600 €

- ▶ 620-101360
- ▶ 620-101038

-50%

2.13

R&S®RT-ZVC04A Multi-channel power probe

3 489 €

Key facts:

- ▶ Up to 4 high-sensitivity voltage and current channels
- ▶ 18-bit ADC at 5 Msample/s (for each channel)
- ▶ 1 MHz bandwidth with flexible filtering options
- ▶ Several current ranges from 4.5 uA to 10 A with internal shunt
- ▶ Flexible connectivity options for every application

8 690 €

-60%



Serial number:

- ▶ 607-101135

2.14



R&S@RT-ZS30 Active voltage probe

Key facts:

- ▶ 3.0 GHz, active, 1 MΩ || 0.8 pF,
- ▶ R&S@ProbeMeter
- ▶ Micro button functionality
- ▶ Exceptionally low offset and gain errors

Alternative 1

2 000 €

Serial number:

- ▶ 604-101961

~~4 560 €~~

-55%

Alternative 2

1 630 €

Serial number:

- ▶ 620-101349

~~4 650 €~~

-65%

2.15



R&S@RT-ZS60 Active voltage probe

4 670 €

Key facts:

- ▶ 6.0GHz voltage probe, active, single-ended, 1MΩ, 0.3pF, ProbeMeter, microbutton, 1.2m cable, including accessories (accessory)

~~6 220 €~~

-25%

Serial number:

- ▶ 620-102240
- ▶ 620-102237

2.16



R&S@RT-ZD20 Active differential probe

Alternative 1

2 550 €

Key facts:

- ▶ 1,5 GHz voltage probe, active, differential, 1 MΩ, 0.5 pF, ProbeMeter, Micro button, 1,2 m cable

~~5 100 €~~

-50%

Serial numbers:

- ▶ 607-211894

2.17



R&S®RT-ZD30 Active differential probe

Key facts:

- ▶ 3.0 GHz voltage probe, active, differential, 1 MOhm, 0.5 pF, ProbeMeter, Micro button, 1.2 m cable

Alternative 1

4 575 €

Serial number:

- ▶ 604-202477

~~6 150 €~~

-25%

Alternative 2

4 360 €

Serial number:

- ▶ 620-202568
- ▶ 620-202567

~~6 150 €~~

-30%

Alternative 3

3 100 €

Serial number:

- ▶ 620-101820

~~6 150 €~~

-50%

2.18



R&S®RT-ZD40 Active differential probe

Key facts:

- ▶ The R&S RT-ZD40 is a differential probe with high input impedance. It is used for differential voltage measurements from DC to 4.5 GHz.

Alternative 1

5 300 €

Serial number:

- ▶ 620-212881

~~7 100 €~~

-25%

Alternative 2

4 300 €

Serial number:

- ▶ 620-212290

~~7 100 €~~

-40%

2.19



R&S@RT-ZC30 Current probe

2 500 €

Key facts:

- ▶ DC to 120 MHz bandwidth
- ▶ maximum currents of 150 A (RMS)/300 A (Vp) with low inherent noise, for applications up to measurement category CAT III

4 290 €

-40%

Serial number:

- ▶ 604-101183

2.20



R&S@RT-ZA13 Power supply for probes

200 €

Key facts:

- ▶ Power supply for R&S@RT-C10/20/30 probes, +/-12V DC, +/-2.5A

980 €

-80%

Serial number:

- ▶ 604-102639

2.21



R&S@RT-ZF2 Ethernet compliance test fixture set

1 100 €

Key facts:

- ▶ Incl. signal quality board; load board; 1.3 m USB 2.0 A to B cable (2); 20 cm USB 2.0 A to B cable (2); USB A to mini adapter; USB A to micro B adapter; 1.0 m SMA cable (2); carrying case; operating manual

2 376 €

-50%

Serial number:

- ▶ 615-101196

2.22



R&S@RT-ZF30 Probe test fixture

1 000 €

Key facts:

- ▶ Characterization and deskewing of R&S probes

2 850 €

-65%

Serial number:

- ▶ 615-100845
- ▶ 620-100846
- ▶ 620-100847

2.23



R&S@RT-ZC10B Current probe

2 560 €

Key facts:

- ▶ 10 MHz current probe, AC/DC, 150 Arms, V/A, 300 A Peak, 20 mm diameter
- ▶ R&S Probe Interface for Probe
- ▶ Recognition and Power Supply

~~5 120 €~~

-50%

Serial number:

- ▶ 620-101596
- ▶ 620-101597

2.24



R&S@HZ-15 Probe set

Key facts:

- ▶ E and H near-field emission measurements with test receivers, spectrum analyzers and oscilloscopes

Alternative 1

1 540 €

Serial number:

- ▶ 620-103269
- ▶ 620-103867
- ▶ 607-103550

~~2 050 €~~

-25%

Alternative 2

1 880 €

Serial number:

- ▶ 604-103989
- ▶ 604-103989

~~2 210 €~~

-15%

2.25

R&S®RT-ZC20B Current Probe



Key facts:

- ▶ Highly accurate current detection.
- ▶ Easy current measurement without interrupting the electric circuit.
- ▶ Broadband frequency characteristics DC to 100 MHz
- ▶ Permits measurement of low current levels.
- ▶ Easy protection function to avoid self-heating during excessive input.
- ▶ Unique thin film Hall effect element.
- ▶ Rohde & Schwarz probe interface: Powered by the oscilloscope, no need for an additional power supply. Remotely controlled by the oscilloscope.

Alternative 1

3 150 €

Serial numbers:

- ▶ 620-101512

~~4 500 €~~

-30%

Alternative 1

3 450 €

Serial numbers:

- ▶ 607-102402
- ▶ 607-102403

~~4 300 €~~

-20%

2.26

R&S®RTP-B7 Pulse source

5 483 €

Key facts:

- ▶ Requires an RTP Oscilloscope
- ▶ Differential 16 GHz pulse source for R&S & RTP High-Performance Oscilloscope

~~7 300 €~~

-25%

Serial number:

- ▶ 615-101575

2.27

R&S®RTP-Z4 Transit case with wheels

547 €

Key fact:

- ▶ Hard case for RTP and accessories

~~2 211 €~~

Serial number:

- ▶ 604-80238

-75%



3 Signal & Spectrum Analysis

3.1

R&S®FPH handheld spectrum analyzer



Key facts:

- ▶ Handheld Spectrum Analyzer.
- ▶ Performance: excellent displayed average noise level (DANL)
- ▶ Portability: lightweight (2.5 kg) and battery lasts for a day's work
- ▶ User experience redefined thanks to multi-touch interface

Alternative 1

- ▶ 5kHz-2GHz, upgradable to 4 GHz

Serial number:

- ▶ 620-102113

Options included:

- ▶ R&S®HA-Z220: Soft carrying bag

3 030 €

~~4 660 €~~

-35%

Alternative 2

- ▶ 5kHz-6GHz, upgradable to 8 GHz

Serial number:

- ▶ 620-100414

Options included:

- ▶ R&S®HA-Z220: Soft carrying bag

4 800 €

~~7 400 €~~

-35%

Alternative 3: R&S®FPH-COM1

9 808 €

- ▶ 5kHz-4GHz

~~11 480 €~~

Serial number:

- ▶ 604-103490

-20%

Options included:

- ▶ R&S®FPH-B22 Spectrum Analyzer Preamplifier
- ▶ R&S®FPH-K43 Receiver Mode
- ▶ R&S®FPH-K15 Interference Analysis
- ▶ R&S®FPH-K16 Signal Strength Mapping Measurement Application
- ▶ R&S®FPH-K7 Modulation Analysis
- ▶ R&S®FPH-K9 Power Sensor, Soft carrying bag Support
- ▶ R&S®FPH-K19 Channel Power Meter
- ▶ R&S®FPH-K29 Pulse Measurements with Power Sensor
- ▶ R&S®HA-Z220 Soft carrying bag.

Warranty: June 2023

Alternative 4

10 000 €

- ▶ FPH .26 model
- ▶ 5kHz – 26.5Ghz (Upgradeable to 31Ghz)

~~18 460 €~~

Serial number:

- ▶ 615-103008

-45%

3.2



R&S®FPL1003 Spectrum analyzer

10 515 €

Key facts

- ▶ Frequency range 5 kHz to 3 GHz
- ▶ SSB phase noise: typ. -108 dBc (1 Hz) at 10 kHz (1 GHz carrier) offset
- ▶ DANL with preamplifier: typ. -166 dBm from 10 MHz to 2 GHz
- ▶ Lightweight with small footprint
- ▶ 40 MHz analysis bandwidth (option)

~~14 020 €~~

-25%

Serial number:

- ▶ 604-102172

Options included:

- ▶ R&S®FPL1-B9 internal generator
- ▶ R&S®FPL1-Z2 transporting case

Warranty: April 2024

3.3

R&S®FPL1007 Signal and spectrum analyzer

15 100 €



Key facts:

- ▶ Spectrum analyzer 5 kHz to 7,5 GHz
- ▶ -148 dBm to +30 dBm
- ▶ Resolution bandwidth 1 Hz to 10 MHz
- ▶ 10.1 in multi-touch screen
- ▶ Optionally highly accurate power measurement with power sensors and analysis of analog and digitally modulated signals, EMI measurements.

~~20 100 €~~

-25%

Serial number:

- ▶ 620-100993

Options included:

- ▶ R&S®FPL1-B31 Battery pack with control
- ▶ R&S®FPL1-B4 OCXO Frequency reference
- ▶ R&S®FPL1-B5 Additional interfaces
- ▶ R&S®FPL1-B9 Tracking Generator

Warranty: January 2024

3.4

R&S®FSV7 Spectrum analyzer

15 800 €

- ▶ Frequency range up to 7 GHz
- ▶ Up to 160 MHz signal analysis bandwidth
- ▶ Convenient, intuitive operation with touchscreen-based user interface
- ▶ 0.4 dB level measurement uncertainty up to 7 GHz
- ▶ Low displayed average noise level (DANL) (e.g. typ. –165 dBm (1 Hz))
- ▶ High third-order intercept (TOI) (e.g. typ. 18 dBm)
- ▶ Very low phase noise (e.g. typ. –110 dBc (1 Hz) at 1 GHz and 10 kHz offset)
- ▶ General-purpose measurement applications for phase noise, noise figure, vector signal analysis, analog demodulation, EMI diagnostics
- ▶ Wireless measurement applications for 5G NR, LTE (including LTE-Advanced), WLAN (including IEEE802.11ac), WCDMA/HSPA+, TD-SCDMA, GSM/EDGE, CDMA2000®/1xEV-DO, Bluetooth®

~~105 400 €~~

-85%

Options included:

- ▶ R&S®FSV-K144 NR 5G Downlink Measurements
- ▶ R&S®FSV-K104 EUTRA / LTE TDD DOWNLINK
- ▶ R&S®FSV-K106 EUTRA/LTE NB-IOT DL
- ▶ R&S®FSV-K10 GSM/EDGE ANALYSIS
- ▶ R&S®FSV-K72 3GPP-FDD BS ANALYSIS
- ▶ R&S®FSV-K82 CDMA2000 BS-ANALYSE
- ▶ R&S®FSV-K100 LTE BS
- ▶ R&S®FSV-B29 FREQUENCY EXTENSION 20Hz
- ▶ R&S®FSV-B70 40MHZ ANALYSIS BANDWIDTH

Warranty: October 2022

3.5

R&S®FSVA3013 Signal and spectrum analyzer

65 217 €



Key facts:

- ▶ Frequency range from 10 Hz to 13.6 GHz
- ▶ Analysis bandwidth up to 400 MHz
- ▶ SSB phase noise at 10 kHz offset (1 GHz): –120 dBc/Hz
- ▶ GUI with multi-touch, SCPI recorder and event based actions
- ▶ Options available for analog and digital signal analysis, including 5G NR
- ▶ 10Gbit/s LAN interface for faster data transfer (option)

~~93 489 €~~

-30%

Serial number:

- ▶ 607-101200

Options included:

- ▶ R&S®FSV3-B4 OCXO, Precision frequency reference
- ▶ R&S®FSV3-B24 RF-Preamplifier, 30 dB, 10 MHz to 13.6 GHz
- ▶ R&S®FSV3-B114 Enhanced Computing Power
- ▶ R&S®FSV3-B400 400 MHz signal analysis bandwidth extension

3.6

R&S®FSVA3030 - Signal and spectrum analyzer

52 850 €



Key facts:

- ▶ Frequency range from 10 Hz to 30 GHz
- ▶ Analysis bandwidth up to 400 MHz
- ▶ SSB phase noise at 10 kHz offset (1 GHz): -120 dBc/Hz
- ▶ GUI with multi-touch, SCPI recorder and event based actions
- ▶ Options for analog and digital signal analysis, including 5G NR
- ▶ 10Gbit/s LAN interface for faster data transfer (option)

~~81 300 €~~

-35%

Serial number:

- ▶ 620-100900

Options included:

- ▶ R&S®FSV3-B1: Side carrying handles
- ▶ R&S®FSV3-B114: Enhanced Computing Power
- ▶ R&S®FSV3-B200: 200 MHz signal analyses bandwidth extension
- ▶ R&S®FSV3-B24: RF-Preamplifier, 30 dB, 10 MHz to 30 GHz
- ▶ R&S®FSV3-B4: OCXO frequency reference (HW opt)

Warranty: May 2022

3.7

R&S®FSVA3044 - Signal and spectrum analyzer

93 500 €



Key facts:

- ▶ Frequency range from 10 to 44 GHz
- ▶ Analysis bandwidth up to 1 GHz
- ▶ SSB phase noise at 10 kHz offset (1 GHz): -127 dBc/Hz
- ▶ GUI with multi-touch, SCPI recorder and event based actions
- ▶ Options for analog and digital signal analysis, including 5G NR

~~133 500 €~~

-35%

Serial number:

- ▶ 620-101042

Options included:

- ▶ R&S®FSV3-B1 Side carrying handles
- ▶ R&S®FSV3-B1000 1 GHz analysis bandwidth
- ▶ R&S®FSV3-B114 Enhanced Computing Power
- ▶ R&S®FSV3-B24 RF-Preamplifier, 30 dB, 10 MHz to 30 GHz
- ▶ R&S®FSV3-B5 Additional interfaces

Warranty: November 2023

3.8

R&S®FSV3044 Signal and spectrum analyzer

62 350 €



Key facts:

- ▶ Frequency range from 10 Hz to 44 GHz
- ▶ Analysis bandwidth up to 400 MHz
- ▶ SSB phase noise at 10 kHz offset (1 GHz): -120 dBc/Hz
- ▶ GUI with multi-touch, SCPI recorder and event based actions
- ▶ Options for analog and digital signal analysis, including 5G NR
- ▶ 10Gbit/s LAN interface for faster data transfer (option)

~~95 900 €~~

-35%

Serial number:

- ▶ 620-101001

Options included:

- ▶ R&S®FSV3-B1: Side carrying handles
- ▶ R&S®FSV3-B114: Enhanced Computing Power
- ▶ R&S®FSV3-B200: 200 MHz signal analyses bandwidth extension
- ▶ R&S®FSV3-B24: RF-Preamplifier, 30 dB, 10 MHz to 30 GHz
- ▶ R&S®FSV3-B28V

Warranty: August 2022

3.9



R&S®FSW26 Signal Analyzer 26.5 GHz

47 500 €

Key facts:

- ▶ Unparalleled low phase noise and best sensitivity on the market
- ▶ 8.3 GHz internal analysis bandwidth
- ▶ 800 MHz real-time analysis bandwidth
- ▶ SCPI recorder simplifies code generation
- ▶ New flat Windows 10 design and multitouch gesture support

~~95 000 €~~

-50%

Serial number:

- ▶ 620-101794

Options included:

- ▶ R&S®FSW-B3 Audio demodulator
- ▶ R&S®FSW-B21 LO/IF connections for external mixers
- ▶ R&S®FSW-B24 RF preamplifier, 100 kHz to 26.5 GHz
- ▶ R&S®FSW-K30 Noise figure measurements
- ▶ R&S®FSW-K40 Phase noise measurements

Warranty: October 2022

3.10



R&S®FSW43 Signal and spectrum analyzer

155 700 €

Key facts:

- ▶ Unparalleled low phase noise and best sensitivity on the market
- ▶ 8.3 GHz internal analysis bandwidth
- ▶ 800 MHz real-time analysis bandwidth
- ▶ SCPI recorder simplifies code generation
- ▶ New flat Windows 10 design and multitouch gesture support

~~222 500 €~~

-30%

Serial number:

- ▶ 620-101575

Options included:

- ▶ R&S®FSW-B8 Resolution bandwidth >10 MHz
- ▶ R&S®FSW-B24 RF preamplifier, 100 kHz to 50 GHz
- ▶ R&S®FSW-B4001 4400 MHz analysis bandwidth

Warranty: June 2023

3.11

R&S®FSW50 Signal and spectrum analyzer

133 770 €



Key facts:

- ▶ Frequency range: 2 Hz to 50 GHz
- ▶ Unparalleled low phase noise and best sensitivity on the market
- ▶ 8.3 GHz internal analysis bandwidth
- ▶ 800 MHz real-time analysis bandwidth
- ▶ SCPI recorder simplifies code generation
- ▶ New flat Windows 10 design and multitouch gesture support

~~190 674 €~~

-30%

Serial number:

- ▶ 607-101297

Options included:

- ▶ R&S®FSW-B8 Resolution bandwidth >10 MHz
- ▶ R&S®FSW-B24 RF preamplifier, 100 kHz to 50 GHz
- ▶ R&S®FSW-B18 Spare solid state drive (removable hard drive)
- ▶ R&S®FSW-B4 OCXO precision frequency reference
- ▶ R&S®FSW-B1200 1200 MHz analysis bandwidth

3.12

R&S®FSWP26 Phase noise analyzer

179 200 €



Key facts:

- ▶ High end signal and spectrum analyzer and phase noise tester in one box
- ▶ Very high sensitivity for phase noise measurements even on pulsed signals through cross correlation with unrivaled performance close to carrier
- ▶ Frequency range from 1 MHz up to 50 GHz, 500 GHz with external mixers
- ▶ Internal source for measuring residual phase noise, also on pulsed signals
- ▶ Simultaneous measurement of phase noise and amplitude noise

~~239 000 €~~

-25%

Serial number:

- ▶ 620-101688

Options included:

- ▶ R&S®FSWP-B1 Spectrum analyzer 26 GHz
- ▶ R&S®FSWP-B21 Support for ext.mixers
- ▶ R&S®FSWP-B24 RF preamplifier, 100 kHz to 50 GHz
- ▶ R&S®FSWP-B320 320 MHz demodulation bw
- ▶ R&S®FSWP-B4 OCXO precision frequency reference
- ▶ R&S®FSWP-B60 Cross correlation 26Ghz
- ▶ R&S®FSWP-B64 Additive phase noise

Warranty: February 2024

3.13

R&S®EVSG1000 VHF/UHF Airnav/Com Analyzer

10 513 €



Key facts:

- ▶ High-precision analysis of ILS, VOR and marker beacon ground systems (in line with ICAO Doc 8071 and ICAO Annex 10)
- ▶ Analysis of air traffic control communications (ATC COM) signals

~~15 598 €~~

-30%

Serial number:

- ▶ 615-100784

Options included:

- ▶ R&S® B2 Battery management
- ▶ R&S® B3 Battery pack

4 Signal & Spectrum Analysis Accessories

- 4.1 R&S®HAZ350 Logarithmic-Periodic OEM antenna 460 €**

Key facts:

 - ▶ Frequency range 700 MHz to 4 GHz (accessory)

Serial number:

 - ▶ 620-206601

920 €

-50%
- 4.2 R&S®FS-SNS40 Smart noise source 3 800 €**



Key facts:

 - ▶ Frequency range up to 40 GHz
 - ▶ Supported by the R&S®FSW, R&S®FSV3000, R&S®FSVA3000 signal and spectrum analyzers and the R&S®FSWP phase noise analyzer and VCO tester
 - ▶ Automatic loading of ENR table
 - ▶ ENR uncertainty and reflection coefficients table for automatic uncertainty calculation
 - ▶ Automatic temperature readout for improved accuracy

Serial number:

 - ▶ 607-114008
 - ▶ 620-114004

5 450 €

-30%
- 4.3 R&S®FSH-Z28 Calibration kit 700 €**



Key facts:

 - ▶ Combined Open / Short / 50 Ω Load Calibration Standard
 - ▶ DC to 8 GHz for R&S®FSH4 / R&S®FSH8

Serial number:

 - ▶ 615-104270
 - ▶ 620-102682
 - ▶ 620-102749

1 000 €

-30%

4.4



R&S@ZN-Z135 Calibration kit

1 642 €

Key facts:

- ▶ Calibration kit, 50 Ohm, 3.5mm (f), 0 Hz to 26.5 GHz

~~2 189 €~~

Serial number:

- ▶ 604-101047

-25%

4.5



R&S@ZN-Z170 Calibration kit N (f)

1 378 €

Key facts:

- ▶ Open, Short, Match, Through as compact unit
- ▶ 18GHz version
- ▶ Female-female through for non-insertable devices

~~1 969 €~~

-30%

Serial number:

- ▶ 615-101402

4.6



R&S@FS-Z60 Harmonic mixer 40-60 GHz

Key facts:

- ▶ Extend the frequency range of Rohde & Schwarz analyzers
- ▶ Low conversion loss
- ▶ High 1 dB compression point
- ▶ High LO frequency range
- ▶ No biasing required
- ▶ Conversion loss data provided in file format
- ▶ Frequency range 40 GHz to 60 GHz

1 700 €

~~4 200 €~~

-60%

Serial number:

- ▶ 620-100174

Serial number:

- ▶ 620-101007

4 200 €

~~6 600 €~~

-35%

4.7



R&S®FS-Z90 Harmonic mixer 60 – 90 GHz

4 800 €

Key facts:

- ▶ Extend the frequency range of Rohde & Schwarz analyzers
- ▶ Low conversion loss
- ▶ High 1 dB compression point
- ▶ High LO frequency range
- ▶ No biasing required
- ▶ Conversion loss data provided in file format
- ▶ Frequency range 60 GHz to 90 GHz

~~7 350 €~~

-35%

Serial number:

- ▶ 620-101650

4.8



R&S®FS-Z110 Harmonic mixer 75 – 100 GHz

5 060 €

Key facts:

- ▶ with separate IF and LO ports (three-port-mixer)
- ▶ 5 GHz bandwidth;
- ▶ for spectrum analyzers with option B21 (accessory)

~~7 800 €~~

-35%

Serial number:

- ▶ 620-101625

4.9

R&S®TC-TA85CP Cross-polarized Vivaldi test antenna

6 500 €

Key facts:

- ▶ 4 GHz to 85 GHz, MMPX connector

~~8 700 €~~

-25%

Serial number:

- ▶ 620-101124

4.10

R&S®TS-F24-V3 Cross-polarized Vivaldi antenna

520 €

Key facts:

- ▶ Frequency range: 2.4-6 GHz

~~690 €~~

-25%

Serial number:

- ▶ 620-101467

5 Network Analysis

5.1

R&S®ZVA24 Vector Network Analyzer

71 636 €



Key facts:

- ▶ Frequency range: 10 MHz to 24 GHz
- ▶ Number of test ports: 4
- ▶ High output power typ. > 18 dBm
- ▶ Wide dynamic range typ. > 140 dB
- ▶ High measurement speed < 3.5 µs per test point
- ▶ Wide IF bandwidth: 1/5/30 MHz
- ▶ Pulse profile measurements with 12.5 ns resolution
- ▶ Linear and nonlinear amplifier and mixer measurements
- ▶ Noise figure measurements
- ▶ True differential measurements for reliable characterization of active devices with balanced ports
- ▶ Versatile calibration techniques: TOSM, TRL/LRL, TOM, TRM, TNA, UOSM
- ▶ SupportS automatic calibration units
- ▶ Phase and group delay measurements on mixers with and without LO access

~~179 091 €~~

-60%

Serial number:

- ▶ 607-100704

Options included:

- ▶ R&S®ZVA24-B31 Receiver step attenuator port 1 mechanical, 35 dB in 5-dB-steps 24 GHz
- ▶ R&S®ZVA24-B32 Receiver step attenuator port 2 mechanical, 35 dB in 5-dB-steps, 24 GHz
- ▶ R&S®ZVA24-B33 Receiver step attenuator port 3, mechanical, 35 dB in 5-dB-steps, 24 GHz
- ▶ R&S®ZVA24-B34 Receiver step attenuator port 4 mechanical, 35 dB in 5-dB-steps, 24 GHz
- ▶ R&S®ZVA24-B24 Generator step attenuator port 4 mechanical, 70 dB in 10-dB-steps 24 GHz
- ▶ R&S®ZVA24-B23 Generator step attenuator port 3 mechanical, 70 dB in 10-dB-steps, 24 GHz
- ▶ R&S®ZVA24-B22 Generator step attenuator port 2 mechanical, 70 dB in 10-dB-steps 24 GHz
- ▶ R&S®ZVA24-B21 Generator step attenuator port 1, mechanical, 70 dB in 10-dB-steps, 24 GHz
- ▶ R&S®ZVA24-B16 Direct access to the R&S®ZVA internal generators and receivers for all ports of the analyzer
- ▶ R&S®ZVA-B7 Measurements on pulsed signals. Pulse Profile, Recording time up to 25ms, up to 30MHz bandwidth. For ZVA with 4 test ports, incl. ZVA-K7

5.2

R&S®ZNL3 Network Analyzer, 5 kHz to 3 GHz, 2 ports



Alternative 1

12 650 €

Key facts:

- ▶ Vector-Network Analyzer, 2 ports
- ▶ 5 kHz to 3 GHz, N(f) connectors
- ▶ Combined Network and Spectrum Analyzer

~~25 300 €~~

-50%

Serial number:

- ▶ 620-101358

Options included:

- ▶ R&S®FPL1-B4: OCXO frequency reference (HW opt.)
- ▶ R&S®FPL1-B5: Additional interfaces (plug-in unit) (HW opt.)
- ▶ R&S®ZNL3-B1: Spectrum analysis function up to 3 GHz
- ▶ R&S®ZNL3-B22: Extended power range down to -40 dBm
- ▶ R&S®ZNL3-B32: Receiver step att., port 2, elect., 30 dB, 10 dB steps

5.3

R&S®ZNB20 Vector network analyzer



Key facts:

- ▶ 4 ports, 100kHz - 20GHz, PC3.5 connectors
- ▶ Wide dynamic range of up to 140 dB
- ▶ Short sweep times, e.g. 4 ms for 401 points
- ▶ High temperature stability of typ. 0.01 dB/°C

Alternative 1

59 536 €

Serial number:

- ▶ 607-102062

~~85 052 €~~

Options included:

- ▶ R&S®ZNB20-B2 Second Internal Generator for Four-Port R&S®ZNB20
- ▶ R&S®ZNB20-B24 Extended Power Range for Four-Port R&S®ZNB20

-30%

Alternative 2

46 200 €

Serial number:

- ▶ 620-102447

~~71 100 €~~

Warranty: July 2023

-35%

5.4

R&S®ZNLE6 Vector network analyzer

14 175 €



Key facts:

- ▶ Broad frequency range: from 1MHz to 6GHz
- ▶ Ideal for production and education
- ▶ Intuitive to configure, intuitive to use
- ▶ Performant and cost-efficient

~~18 370 €~~

-25%

Serial number:

- ▶ 604-101662

Options included:

- ▶ R&S®ZV-Z135 calibration kit
- ▶ R&S®ZV-Z192 cables (2 pieces)

Warranty: September 2023

5.5

R&S®ZNL6 Vector network and spectrum analyzer

26 541 €



Key facts:

- ▶ 3 instruments in 1: Vector network analysis, spectrum analysis and power meter
- ▶ Frequency range from 5 kHz to 6 GHz
- ▶ MultiView provides a convenient overview of all active modes
- ▶ Two-port vector network analyzer for bidirectional measurements
- ▶ Wide dynamic range of typ. 130 dB

~~41 001 €~~

-35%

Serial number:

- ▶ 607-101421

Options included:

- ▶ R&S®ZNL6-B1 Spectrum analysis function up to 6 GHz
- ▶ R&S®ZNL6-B31 Receiver step attenuator for R&S®ZNL6 port 1
- ▶ R&S®FPL1-B31 Li-Ion battery pack
- ▶ R&S®ZNL6-B22 Extended power range for R&S®ZNL6
- ▶ R&S®ZNL6-B32 Receiver step attenuator for R&S®ZNL6 port 2
- ▶ R&S®FPL1-B5 (x 2) Additional interfaces
- ▶ R&S®FPL1-B10 GPIB interface
- ▶ R&S®FPL1-B4 OCXO accurate reference frequency
- ▶ R&S®FPL1-B30 DC Power supply for 12/24 V supply
- ▶ R&S®FPL1-B40 40 MHz analysis bandwidth

5.6

R&S®ZND Vector network analyzer

12 000 €

Key facts:

~~16 000 €~~



- ▶ 100 kHz to 4.5 GHz unidirectional 2 port VNA
- ▶ Frequency range can be extended to 8.5 GHz
- ▶ Test set can be expanded for bidirectional measurements
- ▶ Simple touchscreen operation
- ▶ Solid RF performance

-25%

Serial number:

- ▶ 620-102364

Options included:

- ▶ No options included

Warranty: February 2024

5.7

R&S®ZNH26 Handheld vector network analyzer

23 100 €



- ▶ Frequency range from 30 kHz to 4/8/18/26.5 GHz
- ▶ One-port cable and antenna measurement with basic instrument
- ▶ S-parameter (S11, S12, S21, S22) measurement with basic instrument
- ▶ 100 dB (typ.) dynamic range for filter and antenna isolation measurements
- ▶ Non-reflective display, small form factor, ruggedized housing (IP51)

~~33 000 €~~

-30%

Serial number:

- ▶ 607-100315

Warranty: 12 months

5.8

R&S®ZNA26 Vector Network Analyzer

96 500 €



Key facts:

- ▶ 10 MHz to 26 GHz
- ▶ Four port models
- ▶ Excellent RF-performance
- ▶ Up to four integrated sources
- ▶ Unique and intuitive touch-only operation

~~193 000 €~~

-50%

Serial number:

- ▶ 620-101220

Options included:

- ▶ R&S®ZNA-B26 Direct IF access
- ▶ R&S®ZNA-B4 Precision frequency reference
- ▶ R&S®ZNA-B5 2nd internal LO source
- ▶ R&S®ZNA-B91 Trigger and control I/O board
- ▶ R&S®ZNA26-B16 Direct source/receiver access
- ▶ R&S®ZNA26-B21 Source step att., port 1, 70 dB
- ▶ R&S®ZNA26-B23 Source step att., port 3, 70 dB
- ▶ R&S®ZNA26-B3 3rd and 4th internal source
- ▶ R&S®ZNA26-B32 Receiver step att., port 2, 35 dB
- ▶ R&S®ZNA26-B34 Receiver step att., port 4, 35 dB
- ▶ R&S®ZNA26-B41 Internal pulse modulator, port 1
- ▶ R&S®ZNA26-B42 Internal pulse modulator, port 2
- ▶ R&S®ZNA26-B43 Internal pulse modulator, port 3
- ▶ R&S®ZNA26-B44 Internal pulse modulator, port 4
- ▶ R&S®ZNA26-M10A Coupler R&S®ZNA26
- ▶ R&S®ZNA26-M10S Coupler R&S®ZNA26 (standard version)
- ▶ R&S®ZNA26-Z9 Cable set

5.9

R&S®ZNA43 Vector Network Analyzer

125 800 €



Key facts:

- ▶ 10 MHz to 43 GHz
- ▶ Four port models
- ▶ Excellent RF-performance
- ▶ Up to four integrated sources
- ▶ Unique and intuitive touch-only operation

~~251 500 €~~

-50%

Serial number:

- ▶ 620-101237

Options included:

- ▶ R&S®ZNA
- ▶ R&S®ZNA-B26 Direct IF access
- ▶ R&S®ZNA-B4 Precision frequency reference
- ▶ R&S®ZNA-B5 2nd internal LO source
- ▶ R&S®ZNA-B91 Trigger and control I/O board
- ▶ R&S®ZNA4P-M20B Front panel R&S®ZNA (4 ports)
- ▶ R&S®ZNA43-B16 Direct source/receiver access
- ▶ R&S®ZNA43-B21 Source step att., port 1, 70 dB
- ▶ R&S®ZNA43-B23 Source step att., port 3, 70 dB
- ▶ R&S®ZNA43-B3 3rd and 4th internal source
- ▶ R&S®ZNA43-B32 Receiver step att., port 2, 35 dB
- ▶ R&S®ZNA43-B34 Receiver step att., port 4, 35 dB
- ▶ R&S®ZNA43-B41 Internal pulse modulator, port 1
- ▶ R&S®ZNA43-B42 Internal pulse modulator, port 2
- ▶ R&S®ZNA43-B43 Internal pulse modulator, port 3
- ▶ R&S®ZNA43-B44 Internal pulse modulator, port 4
- ▶ R&S®ZNA43-M10A Coupler
- ▶ R&S®ZNA43-M10S Coupler

5.10

R&S®HM6050-2D Line impedance stabilization network

600 €



Key facts:

- ▶ Single-phase V-network to measure line-conducted interfaces from 10 kHz to 30 MHz (based on CISPR 16¹⁾)
- ▶ Selectable transient limiter
- ▶ Artificial hand connector

~~1 200 €~~

-50%

Serial number:

- ▶ 604-101727

6 Network Analysis Accessories

- | | | |
|---|--|--------------------|
| 6.1 | R&S®ZN-Z103 Calibration unit | 450 € |
|  | Key facts:
▶ Calibration Unit 1-Port 2MHz - 4GHz

Serial number:
▶ 620-101506
▶ 615-101745 | 750 € |
| | | -40% |
| 6.2 | R&S®ZN-Z150 Calibration Unit | 1 230 € |
|  | Key facts:
▶ 50 Ohm, 5 kHz to 6 GHz, 2 ports, N (f) for R&S®ZVA/T, ZNB/T, ZNC, ZND, ZNL, ZNLE

Serial number:
▶ 620-100769
▶ 620-100770 | 2 050 € |
| | | -40% |
| 6.3 | R&S®ZN-Z151 Calibration Unit | 3 120 € |
|  | Key facts:
▶ Calibration unit 50 Ohm
▶ 100kHz to 8.5GHz, 2 ports, SMA(f)
▶ for R&S®ZVA/B/T and R&S®ZNB/BT/C (accessory)

Serial number:
▶ 620-101639 | 4 200 € |
| | | -25% |
| 6.4 | R&S®ZV-Z135 Calibration kit, 3.5mm (f) | 1 100 € |
|  | Key facts:
▶ 0 Hz – 15 GHz
▶ Open, Short, Match, Through combination

Serial number:
▶ 620-103178
▶ 620-103308
▶ 620-102007 | 1 830 € |
| | | -40% |

6.5	R&S®ZV-Z170 Calibration kit (f)	1 032 €
	Key facts: ► Calibration kit, 50 Ohm, N(f), 0 Hz to 9 GHz	1 474 €
	Serial number: ► 604-102869	-30%
6.6	R&S®ZV-Z335 T-Checker	1 986 €
	Key facts: ► Impedance: 50 Ω ► Frequency range: 45 MHz to 26.5 GHz ► Connector type: 3.5 mm, female and male ► Pin depth: 0 mm to - 0.035 mm	3 971 €
	Serial number: ► 607-100915 ► 620-100914	-50%
6.7	R&S®ZV-Z370 T-Checker	1 777 €
	Key facts: ► Impedance: 50 Ω ► Frequency range: 45 MHz to 18 GHz ► Connector type: type N, female and mal ► Pin depth: 5.22 mm to 5.26 mm (female), - 5.28 mm to - 5.32 mm (male)	3 553 €
	Serial number: ► 607-101063	-50%
6.8	R&S®ZN-Z15 RFFE Interface (external)	2 500 €
	Key facts: ► External RFFE GPIO Interface (MIPI) for R&S®ZNBT including Voltage/ Current measurements. (hardware option) ► DUT control cable R&S®ZN-Z25 included.	4 200 €
	Serial number: ► 620-101234	-40%

6.9	R&S®ZN-Z51 Calibration unit	6 452 €
	Key facts: ▶ 300 kHz - 8 GHz ▶ 4 ports; 3.5 mm (f)	8 602 €
	Serial number: ▶ 604-101724	-25%
6.10	R&S®ZV-Z51 Calibration unit	1 800 €
	Key facts: ▶ 300 kHz - 8 GHz ▶ 4 ports; 3.5 mm (f)	7 430 €
	Serial number: ▶ 620-100024	-75%
6.11	R&S®ZN-Z52 Calibration unit	11 900 €
	Key facts: ▶ 50 Ohms 100 kHz to 26.5 GHz, 4 ports, 3.5 mm (f) for R&S®ZVA/T, ZNB/T, ZNC, ZND, ZNL	19 900 €
	Serial number: ▶ 620-100777 ▶ 620-100776	-40%
6.12	R&S®ZV-Z52 Calibration unit	10 775 €
	Key facts: ▶ Calibration unit, 10 MHz - 24 GHz, ▶ 4 ports, 3.5mm (f)	19 590 €
	Serial numbers: ▶ 607-100806 ▶ 607-100821	-45%
6.13	R&S®ZN-Z50 Calibration unit	5 400 €
	Key facts: ▶ 50 Ohms 9 kHz to 9 GHz, 2 ports, 3.5 mm (f) for R&S®ZVA/T, ZNB/T, ZNC, ZND, ZNL	9 020 €
	Serial number: ▶ 620-100831	-40%

7 Function & Signal Generators

7.1

R&S®AFQ100A I/Q Modulation Generator

4 200 €



Key facts:

- ▶ Outstanding signal quality
- ▶ Tailored to digital communications systems
- ▶ Excellent spurious-free dynamic range (SFDR) of typ. 83 dBc
- ▶ Long signal duration of up to 1 Gsample

Serial number:

- ▶ 620-100193

Options included:

- ▶ R&S®AFQ-B11 Waveform Memory 1 Gsample
- ▶ R&S®AFQ-B18 Digital I/Q Output

~~42 000 €~~

-90%

7.2

R&S®HMF2525 Arbitrary function generator

500 €



Key facts:

- ▶ Frequency range: 10 µHz to 25MHz
- ▶ Triangle waveforms up to 10 MHz
- ▶ Output voltage: 5 mV to 10 V (Vpp) (into 50 Ω)
- ▶ Total harmonic distortion of 0.04 % (f < 100 kHz)
- ▶ Waveforms: sine, square, triangle/ramp, pulse, arbitrary (incl. predefined waveforms such as white/pink noise, cardinal sine, exponential rise/fall)
- ▶ Modulation modes: AM, FM, pulse, PWM, FSK (internal and external)

Serial number:

- ▶ 604-102049

~~1 650 €~~

-70%

7.3

R&S®SMB100B RF Signal generator

14 058 €



Key facts:

- ▶ SCPI macro recorder and code generator for generating executable remote control code from manual operating steps (for MATLAB®, CVI, etc.)
- ▶ Frequency range from 8 kHz to up to 6 GHz
- ▶ Excellent SSB phase noise of -134 dBc (meas.) at 1 GHz, 20 kHz offset
- ▶ Low wideband noise. For frequencies between 15 MHz and 6 GHz and 30 MHz offset, < 153 dBc (typ.)
- ▶ Ultra high output power of 34 dBm (meas.) for 1 GHz (option)
- ▶ Compact rack with a height of 2 U and a ¾ 19" width
- ▶ Pulse train generation (option)
- ▶ 5" Graphical User Interface with touchscreen

~~18 744 €~~

-25%

Serial number:

- ▶ 604-102671

Options included:

- ▶ R&S®SMBB-B106 Frequency option 8kHz to 6GHz

Warranty: November 2023

7.4

R&S®EX-IQ-BOX - Digital signal interface module

1 800 €



Key facts:

- ▶ Conversion of digital I/Q signals to and from the device under test
- ▶ Flexible user-defined digital I/Q interface settings

~~8 950 €~~

-80%

Serial numbers:

- ▶ 620-102677
- ▶ 620-102676

7.5

R&S®SMBV100B Vector signal generator

13 400 €



Key facts:

- ▶ Frequency range from 8 kHz to 3 GHz or 6 GHz
- ▶ Ultra high output power up to +34 dBm
- ▶ 500 MHz modulation bandwidth with perfect accuracy
- ▶ Signal generation for all major digital communication standard incl. 5G NR, LTE and WLAN
- ▶ GNSS simulator with GPS, Glonass, Galileo, BeiDou and QZSS/SBAS

~~24 350 €~~

-45%

Serial numbers:

- ▶ 620-101118

Options included:

- ▶ R&S®SMBVB-B103: Frequency range 8 kHz to 3 GHz (HW opt.)

Warranty: March 2022

7.6

R&S®SMCV100B Vector Signal Generator



Key facts:

- ▶ Multi-standard platform for broadcast, navigation, cellular and wireless applications
- ▶ Full software option defined vector signal generator with 5" touchscreen
- ▶ Modern RF signal generation concept from 4 kHz up to 7.125 GHz (option)
- ▶ High output power up to +25 dBm (option)
- ▶ Modulation bandwidth up to 240 MHz (option)

Alternative 1

4 900 €

Serial number:

~~7 000 €~~

- ▶ 607-101406
- ▶ 620-103047

-30%

Options included:

- ▶ R&S®SMCVB-B103 option (mandatory) with frequency 4 kHz to 3 GHz

Warranty:

- ▶ Serial number 607-101406: June 2023
- ▶ Serial number 620-103047: September 2023

Alternative 2

5 775 €

Serial number:

~~7 700 €~~

- ▶ 604-103040
- ▶ 604-103041

-25%

Options included:

- ▶ R&S®SMCVB-B103 option (mandatory) with frequency 4 kHz to 3 GHz

Warranty: September 2023

7.7

R&S®SMA100B RF and microwave signal generator

39 850 €



Key facts:

- ▶ Frequency range from 8 kHz to 20/67 GHz
- ▶ Excellent SSB phase noise of –152 dBc (typ.) at 1 GHz and –132 dBc (typ.) at 10 GHz, each at 10 kHz offset
- ▶ Virtually no wideband noise (–162 dBc (meas.) at 10 GHz and 30 MHz offset)
- ▶ Maximum output power exceeds 30 dBm across wide frequency ranges
- ▶ Exceptionally low harmonics
- ▶ State-of-the-art GUI with touch display

~~56 900 €~~

-30%

Serial number:

- ▶ 620-102223

Options included:

- ▶ R&S®SMAB-B120 Frequency range: 8 kHz to 20 GHz
- ▶ R&S®SMAB-B29 Differential clock synthesizer
- ▶ R&S®SMAB-B711 Ultra low phase noise
- ▶ R&S®SMAB-B86 Remote control GPIB/USB
- ▶ R&S®SMAB-B93 Height unit 3 HU

Warranty: March 2022

7.8

R&S®SMW200A Vector signal generator



Key facts:

- ▶ Options for all important digital communications standards
- ▶ Intuitive operation via touchscreen with block diagram as key element
- ▶ Optional integrated fading simulator with up to 200 MHz bandwidth
- ▶ Support of all key MIMO modes including 3x3, 4x4, 8x4, 4x8 and 4x2x2

Alternative 1

73 000 €

Key fact:

- ▶ Frequency range from 100 kHz to 31 GHz

Serial number:

- ▶ 620-103457

Options included:

- ▶ R&S®SMW-B9 Wideband baseband generator, 500 MHz, 256 MS
- ▶ R&S®SMW-B13XT Wideband baseband main module, 2 I/Q paths to RF
- ▶ R&S®SMW-B131 Frequency range: 100 kHz to 31.8 GHz for RF path A
- ▶ R&S®SMW-K61 Multi carrier CW signal generation

~~182 600 €~~

-60%



Alternative 2

80 880 €

Key facts:

~~134 800 €~~

- ▶ Two channels up to 6 GHz and two wideband basebands with ARB

-40%

Serial number:

- ▶ 607-103877

Options included:

- ▶ R&S®SMW-B13XT Wideband baseband main module, two I/Q paths to RF
- ▶ R&S®SMW-B106 Frequency 6 GHz, 1st path
- ▶ R&S®SMW-B206 Frequency 6 GHz, 2nd path
- ▶ R&S®SMW-B9 (x2) Wideband Baseband Generator with ARB
- ▶ R&S®SMW-B22 enhanced phase noise & FM/PhiM modulator

Alternative 3

143 781 €

Serial number:

~~222 475 €~~

- ▶ 607-108812

Options included:

-35%

- ▶ R&S®SMW-B1044 100 kHz to 44 GHz
- ▶ R&S®SMW-B13XT Wideband baseband main module, two I/Q paths to RF
- ▶ R&S®SMW-B9 Wideband Baseband Generator with ARB
- ▶ R&S®SMW-B15 Wideband Fading Simulator
- ▶ R&S®SMW-B711 Ultra low phase noise for RF path A

Warranty: 12 months

8 EMC & Field Strength

8.1

R&S®HF907DC Antenna

10 000 €



Key facts:

- ▶ SHF Directional Antenna With Down Converter
- ▶ Frequency range: 7.5 GHz to 18 GHz
- ▶ Extends the frequency range of portable receivers (e.g. R&S®PR100) up to 18 GHz
- ▶ Allows localization of transmitters or interfering sources by utilizing the distinct directional pattern of a log.-periodic antenna.

~~20 537 €~~

-50%

Serial number:

- ▶ 615-101021

9 Broadcasting T&M

9.1

R&S®SFC Compact modulator

4 600 €



Key facts:

- ▶ Compact Modulator
- ▶ Basic instrument
- ▶ Coder option(s) required

~~18 600 €~~

-75%

Serial number:

- ▶ 620-100264

Options included:

- ▶ R&S®SFC-B15: Coder extension
- ▶ R&S®LIB-K70: DVB, ATSC, ISDB-T, Basic TS-library (SL)
- ▶ R&S®SFC-K1: DVB-T DVB-H, realtime coder
- ▶ R&S®SFC-K2: DVB-C ISDB-C, realtime coder
- ▶ R&S®SFC-K16: DVB-T2, realtime coder
- ▶ R&S®SFC-K22: Transport stream player
- ▶ R&S®SFC-K23: Analog TV video generator
- ▶ R&S®SFC-K80: Digital I/Q input
- ▶ R&S®SFC-K40: Noise generator AWGN
- ▶ R&S®SFC-K84: Electronic attenuator, 0 to 110 dB

9.2

R&S®IQR100 IQ recorder

11 000 €



Key facts:

- ▶ Real- time recording and playing of digital I/Q data with a sample rate of up to 99.5 Msample/s or up to 398 Mbyte/s
- ▶ Optional import and export of I/Q data via Ethernet or USB interface

~~26 700 €~~

-60%

Serial number:

- ▶ 615-101170

Options included:

- ▶ R&S®B110 SSD-module

9.3 R&S®EFL-Z100 VHF/UHF directional antenna 850 €

Key facts:

- ▶ EFL-Z100 is a VHF/UHF active directional antenna with an integrated amplifier.
- ▶ Frequency range 100-140/700-800 MHz

~~1 700 €~~

-50%

Serial number:

- ▶ 620-101086

9.4 R&S®EFL340 Portable TV Test Receiver 2 300 €

Key facts:

- ▶ Frequency range from 5 MHz to 2500 MHz
- ▶ MPEG-2 and MPEG-4 decoding
- ▶ Common Interface for encrypted programs

~~7 700 €~~

-70%

Serial number:

- ▶ 620-101358
- ▶ 620-101528

9.5 R&S®DVSG Digital Signal Generator 1 000 €



Key facts:

- ▶ Generator for digital video standards

~~20 000 €~~

Serial number:

- ▶ 615-100522

-95%

Options included:

- ▶ R&S®DSVG-K20 MPEG Transport streams
- ▶ R&S®DVSG-B30 Playing AV signals
- ▶ R&S®DVSG-K10 Generation of AV signals
- ▶ R&S®DVSG-K901

10 Power Supplies

10.1

R&S®HMC8042 Power supply

848 €



Key facts:

- ▶ All channels are galvanically isolated and floating
- ▶ Parallel and serial operation
- ▶ Protective functions to safeguard instrument and DUT
- ▶ Tracking and link functions
- ▶ One analog input for trigger function or channel modulation
- ▶ Remote control via USB interface and LAN
- ▶ Simple operation thanks to the 3.5" QVGA display
- ▶ Thanks to high energy efficiency, power supply is cool and quiet even at maximum load

Serial number:

- ▶ 604-102692

- ▶ **Warranty:** September 2023

~~1 130 €~~

-25%

10.2

R&S®NGM202 Power supply



Key facts:

- ▶ Max. output power: 120 W
- ▶ Voltage per channel: 0 V to 20 V
- ▶ Max. current per channel: 6 A
- ▶ Resolutions down to 1 µV/10 nA
- ▶ 500 ksample/s high-speed data logging

Alternative 1

3 638 €

Serial number:

- ▶ 604-101503

Warranty: September 2023

~~4 850 €~~

-25%

Alternative 2: R&S®NGM-COM2A NGM202

3 800 €

Serial number:

- ▶ 615-101490

Options included:

- ▶ NGM-K102 Wireless LAN remote control
- ▶ NGM-K103 Digital trigger I/O
- ▶ NGM-K104 Digital voltmeter functionality
- ▶ NGM-K106 Battery simulation

Warranty: August 2023

~~5 650 €~~

-35%

11 Meters & Counters

11.1



R&S®NRP8S Three-path diode power sensor

Alternative 1

2 300 €

Key facts:

- ▶ 10MHz to 8GHz, 100pW to 200mW, N(m)

Serial number:

- ▶ 620-105488

Options included:

- ▶ R&S®NRP-ZKU: USB cable(3.0m) for RPxxS/T/A/SN/TN/AN for Laptop/PC (acc.)

-35%

~~3 550 €~~

Alternative 2

2 800 €

Key facts:

- ▶ 10MHz to 8GHz, 100pW to 200mW, N(m)

Serial number:

- ▶ 607- 107731

Options included:

- ▶ R&S®NRP-ZKU: USB cable(3.0m) for RPxxS/T/A/SN/TN/AN for Laptop/PC (acc.)

-30%

~~4 000 €~~

11.2



R&S®NRP-Z11 Three-Path Diode Power Sensors

2 450 €

Key facts:

- ▶ Measurement range: -67 dBm to +23 dBm (200 pW to 200 mW)
- ▶ Frequency range: 10 MHz to 8 GHz
- ▶ N connector
- ▶ Operation with R&S®NRP2 base unit or via USB on a Laptop/PC

3 750 €

-35%

Serial number:

- ▶ 620-110820
- ▶ 620-102351
- ▶ 620-108488

11.3 R&S®NRP-Z21 Three-path diode power sensors 1 800 €



Key facts:

- ▶ Average power sensor for universal use
- ▶ 10 MHz - 18 GHz, 200 pW - 200 mW, N(m)
- ▶ Operation with R&S®NRP2 base unit or via USB on a Laptop/PC

4 500 €

-60%

Serial number:

- ▶ 620-101990
- ▶ 620-101991
- ▶ 620-103177

11.4 R&S®NRP-Z27 Power sensor module 4 680 €



Key facts:

- ▶ Measurement range: -24 dBm to +26 dBm
- ▶ Frequency range: DC to 18 GHz
- ▶ N connector
- ▶ Power sensor with additional RF signal output

9 350 €

-50%

Serial number:

- ▶ 620-100174

11.5 R&S®NRP-Z28 Level Control Sensor 4 100 €



Key facts:

- ▶ Measurement range: -67 dBm to +20 dBm
- ▶ Frequency range: 10 MHz to 18 GHz
- ▶ N connector
- ▶ Integrated one-box solution for classic power splitter/power sensor combination

8 200 €

-50%

Serial number:

- ▶ 620-100135

11.6

R&S®NRP8SN Three-path diode power sensor

3 600 €



Key facts:

- ▶ 3 path diode power sensor LAN,
- ▶ 10MHz to 8GHz, 100pW to 200mW, N(m),
- ▶ LAN operation requires PoE(Power over Ethernet)

~~5 500 €~~

-35%

Serial number:

- ▶ 620-101995

Options included:

- ▶ R&S®NRP-ZKU: USB cable(3.0m) for NRPxxS/T/A/SN/TN/AN for Laptop/PC (acc.)

11.7

R&S®NRP18SN Three-path Diode Power Sensor

2 500 €



Key facts:

- ▶ Frequency range 10Mhz – 18GHz
- ▶ 10 000 triggered measurements/s
- ▶ More than 50 000 readings/s
- ▶ Unprecedented measurement speed and accuracy even at low levels
- ▶ Ideal for universal applications
- ▶ Remote monitoring via LAN over any distance
- ▶ Detachable cables for flexible operation
- ▶ 93 dB dynamic range thanks to innovative three-path concept
- ▶ Built-in trigger I/O port

~~6 094 €~~

-60%

Serial number:

- ▶ 615-101484

11.8

R&S®NRP40S Three-Path diode power sensor

4 900 €



Key facts:

- ▶ 10 000 triggered measurements/s
- ▶ More than 50 000 readings/s
- ▶ Unprecedented measurement speed and accuracy even at low levels
- ▶ Ideal for universal applications
- ▶ Detachable cables for flexible operation
- ▶ 90 dB dynamic range thanks to innovative three-path concept
- ▶ Built-in trigger I/O port

~~7 000 €~~

-30%

Serial number:

- ▶ 620-101252

Options included:

- ▶ R&S®NRP-ZKU: USB-cable

Warranty: March 2022

11.9 R&S®NRP67S Three-Path diode power sensor 10 500 €

Key facts:

- ▶ 50 MHz to 67 GHz
- ▶ 100 pW to 100 mW, 1.85 mm (m)
- ▶ USB sensor cable R&S®NRP-ZKU or power sensor cable R&S®NRP-ZKx required

14 000 €

-25%

Serial number:

- ▶ 620-101021
- ▶ 620-101022

Options included:

- ▶ No options included

11.10 R&S®NRQ6 Frequency selective power sensor 9 050 €



Key facts:

- ▶ Frequency selective power measurements from 50 MHz to 6 GHz
- ▶ Power measurement range: -130 dBm to +20 dBm
- ▶ 100 MHz measurement bandwidth
- ▶ I/Q data capturing for RF vector signal analysis
- ▶ Phase coherent measurements for low-power modulated signals

15 100 €

-40%

Serial number:

- ▶ 615-101495

Options included:

- ▶ R&S®NRQ6-K1: IQ-data interface (SL)

11.11

R&S®HMC8012 Digital multimeter

645 €



Key facts:

- ▶ True RMS measurement, AC, AC + DC
- ▶ Simultaneous display of three measurement functions, e.g. DC + AC + statistics
- ▶ Measurement functions: DCV, DCI, ACV, ACI, frequency, resistance (2- and 4-wire), temperature, capacitance, diode and continuity test
- ▶ Mathematic functions: limit testing, minimum, maximum, average, offset, DC power, calculation of dB and dBm
- ▶ Data logging to internal memory or USB stick

860 €

-25%

Serial number:

- ▶ 604-105628

Warranty: November 2023

11.12

R&S®FSH-Z44 Directional power sensor

1 000 €



Key facts:

- ▶ Simultaneous measurement of output power and matching of transmitter system antennas under operating conditions
- ▶ Directional power measurements from 200 MHz to 4 GHz

2 730 €

-60%

Serial number:

- ▶ 615-100069

12 Radio Communication Test

12.1

R&S®CMA180 Radio Test Set



Key facts:

- ▶ Frequency range from 100 kHz to 3 GHz
- ▶ Analog modulation and demodulation (CW, AM, FM)
- ▶ Up to 150 W peak input power and up to 100 W continuous input power
- ▶ Signal level for receiver measurements can be lowered to -140 dBm
- ▶ Integrated audio generators

Alternative 1

19 900 €

Serial number:

26 600 €

- ▶ 620-102812

Options included:

- ▶ R&S®CMA-B110D
- ▶ R&S®CMA-B690A
- ▶ R&S®CMA-PS182
- ▶ R&S®CMA-S052P
- ▶ R&S®CMA-S054B

-25%

Alternative 2

22 844 €

Serial number:

30 459 €

- ▶ 615-102947

Options included:

- ▶ R&S®CMA-S052P Solid state disk
- ▶ R&S®CMA-S054B Power supply
- ▶ R&S®CMA-B690M OCXO reference oscillator
- ▶ R&S®CMA-B110D Baseband Generator H110D, 4GB
- ▶ R&S®CMA-K120 Spectrum analyzer
- ▶ R&S®CMA-Z020A Transport case
- ▶ R&S®CMA-Z025A Soft carrying bag
- ▶ R&S®CMA-Z030A Display protection cover

-25%

12.2

R&S®CMA-Z600A AF Impedance matching unit

459 €



Key facts:

- The R&S®CMA-Z600A AF impedance matching unit enhances the versatile audio functions of the R&S®CMA180. It provides various input and output impedances between high/low impedance and 600 Ω, balanced/unbalanced as well as XLR connections.

~~1 529 €~~

-70%

Serial number:

- 604-100304
- 604-100257

12.3

R&S®CMW500 Wideband radio communication tester



Alternative 1

31 500 €

Key facts:

- ▶ Wireless standards and broadcast technologies, e.g. LTE (incl. MIMO), WLAN, Bluetooth or DVB-T and associated inter-RAT messages
- ▶ All phases of development, verification and production
- ▶ Upgradable to support all protocol layers, from RF tests and protocol tests to end-to-end application tests, incl. NB-IoT
- ▶ Audio and Speech testing

~~105 000 €~~

-70%

Serial numbers:

- ▶ 607-140415

Options included:

- ▶ R&S®CMW-B210A GSM Signaling Module,
- ▶ R&S®CMW-B270A WLAN signaling module
- ▶ R&S®CMW-S600B CMW500 Frontpanel with Display/Keypad
- ▶ R&S®CMW-B590D Extra RF Frontend, advanced functionality
- ▶ R&S®CMW-B690B OCXO, high stability
- ▶ R&S®CMW-S550B Baseband Interconnection, flexible link
- ▶ R&S®CMW-B661A Ethernet Switch
- ▶ R&S®CMW-S570B (x 4 pcs) RF Converter
- ▶ R&S®CMW-B500I Signaling Unit Advanced
- ▶ R&S®CMW-B110A Baseband Generator, 1GByte memory
- ▶ R&S®CMW-B450B Data Application Unit
- ▶ R&S®CMW-S590D RF Frontend, advanced functionality
- ▶ R&S®CMW-U450D Change-over DAU Var.A or Var.B to Var.D
- ▶ R&S®CMW-U5035 Basic Assembly Change-over Kit 12
- ▶ R&S®CMW-B612A IEEE Bus, one interface
- ▶ R&S®CMW-PS503 R&S®CMW500 Basic Assembly (mainframe), 70MHz to 3.3GHz
- ▶ R&S®CMW-B620A Digital Video Interface
- ▶ R&S®CMW-B660A Option Carrier
- ▶ R&S®CMW-U5055 Basic Assembly Change-over Kit 16
- ▶ R&S®CMW-B200A Signaling Unit Universal
- ▶ R&S®CMW-B300B (x 2 pcs) Signaling Unit Wideband for WCDMA/LTE
- ▶ R&S®CMW-B400B Audio analyser/generator
- ▶ R&S®CMW-B405A Speech Codec
- ▶ R&S®CMW-KB036 Extended frequency range, 3.3 GHz to 6 GHz, per TRX



Rohde & Schwarz Nordic Demo Sales Campaign Catalog 2021

- ▶ R&S®CMW-S100A Baseband Meas. Unit, 1GByte memory

Warranty: 12 months
R&S Manufacturer Calibration included.

Alternative 2

40 603 €

Key facts:

~~115 000 €~~

- ▶ Multi-RAT signaling: LTE, WCDMA, GSM, CDMA2000, 1xRTT/EV-DO, WLAN, Bluetooth
- ▶ LTE-Advanced: 8DL CC up to 4x4/8x2 MIMO fading, 2 UL CA
- ▶ WLAN 11 a / b / g / n / ac / ax SISO and MIMO signaling test
- ▶ All phases of development, verification and production
- ▶ Upgradable to support all protocol layers, from RF tests and protocol tests to end-to-end application tests.
- ▶ "5G ready" HW.

-60%

Serial number:

- ▶ 607-166525
- ▶ 607-166526

Options included:

- ▶ R&S®CMW-S590D RF Frontend, advanced functionality
- ▶ R&S®CMW-B450H Data Application Unit
- ▶ R&S®CMW-PS505 R&S®CMW500 Basic Assembly(mainframe), 70MHz to 3.3GHz
- ▶ R&S®CMW-B540I Digital IQ Interface QUAD
- ▶ R&S®CMW-B554N Multi-CMW PCIe enabler
- ▶ R&S®CMW-B570H (x 3 pcs) Extra RF Converter (TRX), BW 160 MHz, H570H
- ▶ R&S®CMW-B620A Digital Video Interface
- ▶ R&S®CMW-PK364 6GHz Flat Rate, for up to 4 RF converters
- ▶ R&S®CMW-B661H Ethernet Switch
- ▶ R&S®CMW-B660H Option Carrier
- ▶ R&S®CMW-B500I Signaling Unit Advanced
- ▶ R&S®CMW-S570H RF Converter (TRX), BW 160 MHz
- ▶ R&S®CMW-S550N Baseband interconnection, flexible link
- ▶ R&S®CMW-B690B OCXO, high stability
- ▶ R&S®CMW-S100H Measurement Unit Advanced
- ▶ R&S®CMW-S600B CMW500 Frontpanel With Display/Keypad
- ▶ R&S®CMW-U450I Change-over DAU VarH to VarI
- ▶ R&S®CMW-B590D Extra RF Frontend, advanced functionality
- ▶ R&S®CMW-B500I Signaling Unit Advanced
- ▶ R&S®CMW-S052S Solid State Drive

Warranty: 12 months
R&S Manufacturer Calibration included.



Alternative 3

45 679 €

Key facts:

~~101 508 €~~

-55%

- ▶ Multi-RAT signaling: LTE, WCDMA, GSM, WLAN, Bluetooth
- ▶ LTE-Advanced: 8DL CC up to 4x4/8x2 MIMO fading, 4 UL CA (might require multi CMW)
- ▶ WLAN 11 a / b / g / n / ac / ax SISO and MIMO signaling test
- ▶ All phases of development, verification and production
- ▶ Upgradable to support all protocol layers, from RF tests and protocol tests to end-to-end application tests.
- ▶ "5G ready" HW.

Serial number:

- ▶ 607-168252
- ▶ 607-168253
- ▶ 620-169444

Options included:

- ▶ R&S®CMW-S052S Solid State Drive (SSD)
- ▶ R&S®CMW-PS505 Basic Assembly(mainframe), 70MHz to 3.3GHz
- ▶ R&S®CMW-S600B Frontpanel With Display/Keypad
- ▶ R&S®CMW-S550N Baseband interconnection, flexible link
- ▶ R&S®CMW-B690B OCXO, high stability
- ▶ R&S®CMW-S570H RF Converter (TRX), BW 160 MHz
- ▶ R&S®CMW-B554N Multi-CMW PCIe enabler
- ▶ R&S® CMW-B450I Data Application Unit
- ▶ R&S®CMW-B661H Ethernet Switch
- ▶ R&S®CMW-B500I Signaling Unit Advanced (SUA)
- ▶ R&S®CMW-B570H Extra RF Converter (TRX), BW 160 MHz (x 3 pcs)
- ▶ R&S®CMW-B540I Digital IQ Interface QUAD
- ▶ R&S®CMW-PK364 6GHz Flat Rate, for up to 4 RF converters (TRXs) (SL)
- ▶ R&S® CMW-B450I Data Application Unit
- ▶ R&S®CMW-B590D Extra RF Frontend, advanced functionality
- ▶ R&S®CMW-B660H Option Carrier
- ▶ R&S®CMW-B500I Signaling Unit Advanced (SUA)
- ▶ R&S®CMW-S590D RF Frontend, advanced functionality
- ▶ R&S®CMW-B620A Digital Video Interface (DVI)
- ▶ R&S®CMW-S100H Measurement Unit Advanced (MUA)

Warranty: 607-168252 and 607-168253: 12 months

R&S Manufacturer Calibration included.

12.4

RT-ZVC02A Multi-channel power probe for CMWrun with autoranging

3 300 €

Key facts:

- ▶ Multi-channel power probe,
- ▶ for R&S®CMWrun only
- ▶ 2 current- and 2 voltage channels,
- ▶ 5 MSa/s sampling rate,
- ▶ 18 bit resolution, autoranging

~~5 500 €~~

-40%

Serial number:

- ▶ 620-101120

12.5



R&S®CMX500 Radio communication tester

Key facts:

- ▶ 5G NR signaling test in sub-6 GHz (FR1). Upgradable to mmWave (FR2) frequency bands with RRH's.
- ▶ Support of Stand-alone mode / Non-Stand-alone mode
- ▶ Modern Web-Based User Interface for RF-, Functional-, Application- and Protocol test
- ▶ Modular and scalable HW-Architecture
- ▶ Upgrade your existing LTE setup by R&S®CMX500 5G signaling support

Alternative 1

Please request a quotation

Serial number:

- ▶ 607-100196

Options included:

- ▶ R&S®CMX-B300A Processing Unit
- ▶ R&S®CMX-PB70A Access.
- ▶ R&S®CMX-B200A (x2) Accelerator Unit
- ▶ R&S®CMX-U70AB Basic Assembly Upgrade Kit 1

Alternative 2

Please request a quotation

Serial number:

- ▶ 620-101205

Options included:

- ▶ R&S®CMX-B200A
- ▶ R&S®CMX-B200A
- ▶ R&S®CMX-B300A
- ▶ R&S®CMX-PB70B

12.6	R&S®CMWC-Z70A 10 GBPS Ethernet Switch	1 314 €
	Serial numbers:	2 190 €
	▶ 607-101207	
	▶ 607-101564	-40%
12.7	R&S®CMWC Multi-CMW Controller	10 500 €
	Serial number:	17 500 €
	▶ 607-103031	-40%
12.8	R&S®CMW-Z24 Multibox RF set	1 280 €
	Key facts:	3 190 €
	▶ RF connection set for multibox setups, providing two 4 way power splitter / combiner, 250 MHz to 6 GHz, 1HU	-60%
	Serial numbers:	
	▶ 607-101147	
	▶ 607-101435	

12.9

R&S®CMU200 Universal radio communication tester

5 000 €



Key facts:

- ▶ Extremely high-speed testing
- ▶ Highly accurate measurements
- ▶ Modular future-proof design
- ▶ Comprehensive spectrum analyzer
- ▶ Fast switching between networks
- ▶ R&S®CMU200V02 for mobile phone testing with network emulation – the signaling specialist
- ▶ R&S®CMU200V10 for high-end servicing of mobile phones – the service tester specialist
- ▶ R&S®CMU200V30 for non-signaling production testing of mobile phones – the calibration specialist

82 700 €

-94%

Serial number:

- ▶ 620-118120

Options included:

- ▶ R&S®U-B11 OCXO REF.OSC.
- ▶ R&S®CMU-B21 Signalling 2G/3GPP CAPAB.
- ▶ R&S®CMU-B41 AUDIO-GEN.ANA.
- ▶ R&S®CMU-B52 Speech codec
- ▶ R&S®PCMCIA Interface
- ▶ R&S®CMU-B17 IQ-AND ZF-INTERF.
- ▶ R&S®CMU-K42 GPRS Signalling
- ▶ R&S®CMU-K65 WCDMA TX-MEAS.
- ▶ R&S®CMU-K66 WCDMA-Generator
- ▶ R&S®CMU-K68 WCDMA SIG-SW VOL1
- ▶ R&S®CMU-K69 WCDMA-SIG-SW VOL2
- ▶ R&S®CMU-K20 SW-OPT. GSM400
- ▶ R&S®CMU-K21 SW OPT. GSM900
- ▶ R&S®CMU-K22 SW OPT.-GSM1800
- ▶ R&S®CMU-K23 SW OPT.GSM1900
- ▶ R&S®CMU-K24 SW-OPT. GSM850
- ▶ R&S®CMU-K43 EGPRS Signalling

Warranty: Exchange right within 2 weeks.

13 Mobile Network Testing

13.1

R&S®TSME Drive test scanner
1 500 €

Key facts:

- Needs to be part of a system

Serial numbers:

- 615-100249
- 615-100898

~~3 836 €~~
-60%

13.2

R&S®TSME6 Ultracompact drive test scanner
2 457 €

Key facts:

- No limitations in 3GPP frequency bands up to 6 GHz
- Possibility to add more than ten technologies simultaneously in one scanner
- Supports R&S®TSME30DC and R&S®TSME44DC downconverters for mmWave measurements
- Compact and lightweight design with customized mechanical concept for cascading
- Low power consumption

Serial number:

- 607-102296

~~4 095 €~~
-40%
Options included:

- R&S®TSME6-Z5 Carrying Box for TSME6
- R&S®TSME-Z1 Power supply, Uin 90-264VAC, Uout +12VDC/ 2.5A
- R&S®TSME-Z15 Ultrawideband Magnetic Antenna 698-3800 MHz

Warranty: 12 months

13.3

R&S®TSMW Universal radio network analyzer
10 000 €

Key facts:

- Needs to be part of a system

Serial number:

- 615-100153

~~27 429 €~~
-65%
Options included:

- R&S®Z1 Power supply
- R&S®K21 GSM/WCDMA Scanner
- R&S®K29 LTE Scanner option

13.4

R&S®HE400 Antenna



Key facts:

- ▶ Wide dynamic range due to switchable active and passive mode (LNA ON/OFF)
- ▶ Automatic antenna module and polarization recognition
- ▶ Trigger button for external triggering of the receiver
- ▶ Distinct directional pattern
- ▶ Fatigue-free operation due to antenna design and materials used, which keep weight to a minimum
- ▶ Very wide frequency range in a compact size
- ▶ GPS- and GLONASS-capable receiver and electronic compass included
- ▶ TSMX-PPS2ripod thread and adapter thread for smartphone/tablet cradle
- ▶ Exchangeable cable set between antenna and receiver

Alternative 1

5 730 €

Serial number:

~~9 550 €~~

- ▶ 620-101470

Options included:

- ▶ R&S®HE300USB
- ▶ R&S®HE400
- ▶ R&S®HE400CEL
- ▶ R&S®HE400-K
- ▶ R&S®HE400UWB
- ▶ R&S®HE400Z2

-40%

Alternative 2

5 300 €

Serial number:

~~7 100 €~~

- ▶ 620-102939

Options included:

- ▶ R&S®HE400HF
- ▶ R&S®HE400-K
- ▶ R&S®HE400UWB

-25%

13.5

R&S®TC-SGH40 Standard gain horn antenna for calibration

1 925 €



Key facts:

- ▶ 26,5 GHz up to 40 GHz 2.92 mm (f)

~~3 500 €~~

Serial number:

- ▶ 604-100957
- ▶ 604-100956

-45%



14 Terms and Conditions

Delivery terms

CIP to address INCOTERMS 2010

Delivery time

As soon as possible. Specific delivery time will be determined case by case and stated in the final order acknowledgement.

Warranty

Rohde & Schwarz delivers high quality test & measurement equipment. Due to different ages of our demo instruments, warranty is different for each item listed. Detailed information regarding warranty will be offered upon request for quotation. Warranty starts upon date of delivery.

Calibration

Detailed information regarding calibration will be given upon request for quotation.

Price

Prices in EUR, excl VAT.
All prices are shown per item.

Payment terms

Individual payment terms are to be defined by local sales representatives.

Limitations and restrictions

The offers are subject to the equipment remaining unsold. First come, first served. For availability, contact your local sales representative.

This campaign is valid until 31th of January, 2022.

Additionally, errors and omissions are excepted.