

# R&S®FSC

## Spectrum Analyzer

### Specifications

**3** year  
warranty



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Specifications apply under the following conditions:

15 minutes warm-up time at ambient temperature, specified environmental conditions met, calibration cycle adhered to.

Data without tolerances: typical values only. Data designated as “nominal” applies to design parameters and is not tested.

## Base unit

### Frequency

|                      |               |                |
|----------------------|---------------|----------------|
| Frequency range      | model .03/.13 | 9 kHz to 3 GHz |
|                      | model .06/.16 | 9 kHz to 6 GHz |
| Frequency resolution |               | 1 Hz           |

|                                               |                  |                                                                                             |
|-----------------------------------------------|------------------|---------------------------------------------------------------------------------------------|
| <b>Reference frequency, internal, nominal</b> |                  |                                                                                             |
| Aging per year                                |                  | $1 \times 10^{-6}$                                                                          |
| Temperature drift                             | 0 °C to +30 °C   | $1 \times 10^{-6}$                                                                          |
|                                               | +30 °C to +50 °C | $3 \times 10^{-6}$                                                                          |
| Achievable initial adjustment accuracy        |                  | $5 \times 10^{-7}$                                                                          |
| Total reference uncertainty                   |                  | (time since last adjustment $\times$ aging rate) + temperature drift + calibration accuracy |

|                                   |             |                                                                                                                                                                                    |
|-----------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Frequency readout</b>          |             |                                                                                                                                                                                    |
| Marker resolution                 |             | 0.1 Hz                                                                                                                                                                             |
| Uncertainty                       |             | $\pm(\text{marker frequency} \times \text{reference uncertainty} + 10 \% \times \text{resolution bandwidth} + \frac{1}{2} (\text{span}/(\text{sweep points} - 1)) + 1 \text{ Hz})$ |
| Number of sweep (trace) points    |             | 631                                                                                                                                                                                |
| Marker tuning frequency step size |             | span/630                                                                                                                                                                           |
| Frequency counter resolution      |             | 0.1 Hz                                                                                                                                                                             |
| Count uncertainty                 | S/N > 25 dB | $\pm(\text{frequency} \times \text{reference uncertainty} + \frac{1}{2} (\text{last digit}))$                                                                                      |
| <b>Frequency span</b>             |             |                                                                                                                                                                                    |
| Span setting uncertainty          |             | $\pm \text{span}/630$                                                                                                                                                              |

|                                         |                             |                                         |
|-----------------------------------------|-----------------------------|-----------------------------------------|
| <b>Spectral purity, SSB phase noise</b> | f = 500 MHz, carrier offset |                                         |
|                                         | 30 kHz                      | < -95 dBc (1 Hz), typ. -105 dBc (1 Hz)  |
|                                         | 100 kHz                     | < -100 dBc (1 Hz), typ. -110 dBc (1 Hz) |
|                                         | 1 MHz                       | < -120 dBc (1 Hz), typ. -127 dBc (1 Hz) |

### Sweep time

|             |                                                       |                                                              |
|-------------|-------------------------------------------------------|--------------------------------------------------------------|
| Sweep time  | span = 0 Hz                                           | 200 $\mu$ s to 100 s                                         |
|             | $10 \text{ Hz} \leq \text{span} \leq 600 \text{ MHz}$ | 20 ms to 1000 s                                              |
|             | span > 600 MHz                                        | $20 \text{ ms} \times \text{span}/600 \text{ MHz}$ to 1000 s |
| Uncertainty | span = 0 Hz                                           | 1 %, nominal                                                 |
|             | span $\geq 10 \text{ Hz}$                             | 3 %, nominal                                                 |

### Bandwidths

|                              |                                                      |                                      |
|------------------------------|------------------------------------------------------|--------------------------------------|
| <b>Resolution bandwidths</b> |                                                      |                                      |
| Range                        | -3 dB bandwidth                                      | 10 Hz to 3 MHz in 1/3 sequence       |
| Bandwidth accuracy           | $10 \text{ Hz} \leq \text{RBW} \leq 300 \text{ kHz}$ | < 5 %, nominal                       |
|                              | RBW > 300 kHz                                        | < 10 %, nominal                      |
| Selectivity                  | 60 dB:3 dB                                           | < 5 (Gaussian type filters), nominal |
| <b>Video filters</b>         |                                                      |                                      |
| Range                        | -3 dB bandwidth                                      | 10 Hz to 3 MHz in 1/3 sequence       |

## Level

|                                                                              |                                                                                                                                                                                                                             |                                        |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Display range                                                                |                                                                                                                                                                                                                             | displayed noise floor to +30 dBm       |
| <b>Maximum rated input level with RF attenuation <math>\geq 10</math> dB</b> |                                                                                                                                                                                                                             |                                        |
| DC voltage                                                                   |                                                                                                                                                                                                                             | 50 V                                   |
| CW RF power                                                                  |                                                                                                                                                                                                                             | 30 dBm (= 1 W)                         |
| Peak RF power                                                                | < 3 s duration                                                                                                                                                                                                              | 33 dBm (= 2 W)                         |
| Max. pulse voltage                                                           |                                                                                                                                                                                                                             | 150 V                                  |
| Max. pulse energy                                                            | pulse width 10 $\mu$ s                                                                                                                                                                                                      | 10 mWs                                 |
| <b>Maximum rated input level with RF attenuation &lt; 10 dB</b>              |                                                                                                                                                                                                                             |                                        |
| DC voltage                                                                   |                                                                                                                                                                                                                             | 50 V                                   |
| CW RF power                                                                  |                                                                                                                                                                                                                             | 20 dBm (= 100 mW)                      |
| Peak RF power                                                                | < 3 s duration                                                                                                                                                                                                              | 23 dBm (= 200 mW)                      |
| Max. pulse voltage                                                           |                                                                                                                                                                                                                             | 50 V                                   |
| Max. pulse energy                                                            | pulse width 10 $\mu$ s                                                                                                                                                                                                      | 1 mWs                                  |
| <b>Intermodulation</b>                                                       |                                                                                                                                                                                                                             |                                        |
| Third-order intermodulation (TOI), nominal values                            | intermodulation-free dynamic range, signal level $2 \times -20$ dBm, RF attenuation = 0 dB, without RF preamplifier (R&S®FSC-B22 option) or RF preamplifier = OFF                                                           |                                        |
|                                                                              | $f_{in} < 300$ MHz                                                                                                                                                                                                          | > 54 dBc (TOI > +7 dBm, typ. +11 dBm)  |
|                                                                              | $300 \text{ MHz} \leq f_{in} < 3.6$ GHz                                                                                                                                                                                     | > 60 dBc (TOI > +10 dBm, typ. +15 dBm) |
|                                                                              | $3.6 \text{ GHz} \leq f_{in} \leq 6$ GHz                                                                                                                                                                                    | > 46 dBc (TOI > +3 dBm, typ. +10 dBm)  |
|                                                                              | signal level $2 \times -40$ dBm, RF attenuation = 0 dB, RF preamplifier (R&S®FSC-B22 option) = ON                                                                                                                           |                                        |
|                                                                              | $f_{in} < 300$ MHz                                                                                                                                                                                                          | > 50 dBc (TOI -15 dBm)                 |
|                                                                              | $300 \text{ MHz} \leq f_{in} \leq 6$ GHz                                                                                                                                                                                    | > 56 dBc (TOI -12 dBm)                 |
| Second harmonic intercept (SHI), nominal values                              | RF attenuation = 0 dB, without RF preamplifier (R&S®FSC-B22 option) or RF preamplifier = OFF                                                                                                                                |                                        |
|                                                                              | $f_{in} = 20$ MHz to 1.5 GHz                                                                                                                                                                                                | +40 dBm                                |
|                                                                              | $f_{in} = 1.5$ GHz to 3 GHz                                                                                                                                                                                                 | +30 dBm                                |
|                                                                              | RF attenuation 0 dB, RF preamplifier (R&S®FSC-B22 option) = ON                                                                                                                                                              |                                        |
|                                                                              | $f_{in} = 100$ MHz to 3 GHz                                                                                                                                                                                                 | 0 dBm                                  |
| <b>Displayed average noise level</b>                                         | RF attenuation 0 dB, termination 50 $\Omega$ , RBW = 100 Hz, VBW = 10 Hz, sample detector, log scaling, tracking generator = OFF, normalized to 1 Hz, without RF preamplifier (R&S®FSC-B22 option) or RF preamplifier = OFF |                                        |
|                                                                              | frequency                                                                                                                                                                                                                   |                                        |
|                                                                              | 9 kHz to 100 kHz                                                                                                                                                                                                            | < -108 dBm, typ. -118 dBm              |
|                                                                              | 100 kHz to 1 MHz                                                                                                                                                                                                            | < -115 dBm, typ. -125 dBm              |
|                                                                              | 1 MHz to 10 MHz                                                                                                                                                                                                             | < -136 dBm, typ. -144 dBm              |
|                                                                              | 10 MHz to 2 GHz                                                                                                                                                                                                             | < -141 dBm, typ. -146 dBm              |
|                                                                              | 2 GHz to 3.6 GHz                                                                                                                                                                                                            | < -138 dBm, typ. -143 dBm              |
|                                                                              | 3.6 GHz to 5 GHz                                                                                                                                                                                                            | < -142 dBm, typ. -146 dBm              |
|                                                                              | 5 GHz to 6 GHz                                                                                                                                                                                                              | < -140 dBm, typ. -144 dBm              |
|                                                                              | RF attenuation 0 dB, termination 50 $\Omega$ , RBW = 100 Hz, VBW = 10 Hz, sample detector, log scaling, tracking generator = OFF, normalized to 1 Hz, RF preamplifier (R&S®FSC-B22 option) = ON                             |                                        |
|                                                                              | frequency                                                                                                                                                                                                                   |                                        |
|                                                                              | 100 kHz to 1 MHz                                                                                                                                                                                                            | < -133 dBm, typ. -143 dBm              |
|                                                                              | 1 MHz to 10 MHz                                                                                                                                                                                                             | < -157 dBm, typ. -161 dBm              |
|                                                                              | 10 MHz to 1 GHz                                                                                                                                                                                                             | < -161 dBm, typ. -165 dBm              |
|                                                                              | 1 GHz to 2 GHz                                                                                                                                                                                                              | < -159 dBm, typ. -163 dBm              |
|                                                                              | 2 GHz to 5 GHz                                                                                                                                                                                                              | < -155 dBm, typ. -159 dBm              |
|                                                                              | 5 GHz to 6 GHz                                                                                                                                                                                                              | < -151 dBm, typ. -155 dBm              |

| Immunity to interference, nominal values                              |                                                                                                                                                                      |                         |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Image frequencies                                                     | $f_{in} - 2 \times 21.4 \text{ MHz}$                                                                                                                                 | < -70 dBc, typ. -80 dBc |
|                                                                       | $f_{in} - 2 \times 831.4 \text{ MHz}$                                                                                                                                | < -70 dBc, typ. -90 dBc |
|                                                                       | $f_{in} - 2 \times 4881 \text{ MHz}$                                                                                                                                 | -60 dBc                 |
| Intermediate frequencies                                              | 21.4 MHz, 831.4 MHz, 4881.4 MHz                                                                                                                                      | -60 dBc, typ. -80 dBc   |
|                                                                       | 8931.4 MHz                                                                                                                                                           | -50 dBc                 |
| Other interfering signals,<br>signal level – RF attenuation < -20 dBm | $f \leq 3.6 \text{ GHz}$<br>spurious at $f_{in} - 2440.7 \text{ MHz}$                                                                                                | < -60 dBc               |
|                                                                       | $3.6 \text{ GHz} < f \leq 6 \text{ GHz}$<br>spurious at $f_{in} - 4465.7 \text{ MHz}$                                                                                | < -60 dBc               |
|                                                                       | $f \leq 3.6 \text{ GHz}$                                                                                                                                             |                         |
| Other interfering signals,<br>related to local oscillators            | $\Delta f < 300 \text{ kHz}$                                                                                                                                         | -60 dBc                 |
|                                                                       | $\Delta f \geq 300 \text{ kHz}$                                                                                                                                      | < -60 dBc               |
|                                                                       | $f > 3.6 \text{ GHz}$                                                                                                                                                |                         |
|                                                                       | $\Delta f < 300 \text{ kHz}$                                                                                                                                         | -54 dBc                 |
|                                                                       | $\Delta f \geq 300 \text{ kHz}$                                                                                                                                      | < -54 dBc               |
|                                                                       | $f = \text{receive frequency}$                                                                                                                                       |                         |
| Residual spurious response                                            | input matched with 50 $\Omega$ ,<br>without input signal, RBW $\leq 30 \text{ kHz}$ ,<br>$f \geq 3 \text{ MHz}$ , RF attenuation = 0 dB,<br>tracking generator = OFF | < -90 dBm               |

| Level display                    |  |                                                |
|----------------------------------|--|------------------------------------------------|
| Logarithmic level axis           |  | 1/2/5/10/20/50/100 dB, 10 divisions            |
| Linear level axis                |  | 0 % to 100 %, 10 divisions                     |
| Number of traces                 |  | 2                                              |
| Trace detectors                  |  | max peak, min peak, auto peak, sample, RMS     |
| Trace functions                  |  | clear/write, max hold, min hold, average, view |
| Setting range of reference level |  | -80 dBm to +30 dBm                             |
| Units of level axis              |  | dBm, dBmV, dB $\mu$ V, V, W                    |

| Level measurement uncertainty          |                                                                                                                    |                                                      |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Absolute level uncertainty at 100 MHz  | +20 °C to +30 °C                                                                                                   | $\pm 0.3 \text{ dB}$ ( $\sigma = 0.1 \text{ dB}$ )   |
| Frequency response (+20 °C to +30 °C)  | $9 \text{ kHz} \leq f < 10 \text{ MHz}$                                                                            | $\pm 1.5 \text{ dB}$ , nominal                       |
|                                        | $10 \text{ MHz} \leq f \leq 3.6 \text{ GHz}$                                                                       | $\pm 1 \text{ dB}$ ( $\sigma = 0.33 \text{ dB}$ )    |
|                                        | $3.6 \text{ GHz} < f \leq 6 \text{ GHz}$                                                                           | $\pm 1.5 \text{ dB}$ ( $\sigma = 0.5 \text{ dB}$ )   |
| Attenuator uncertainty                 |                                                                                                                    | $\pm 0.3 \text{ dB}$ ( $\sigma = 0.1 \text{ dB}$ )   |
| Uncertainty of reference level setting |                                                                                                                    | $\pm 0.1 \text{ dB}$ , nominal                       |
| Display nonlinearity                   | S/N > 16 dB, 0 dB to -50 dB,<br>logarithmic level display                                                          | $\pm 0.2 \text{ dB}$ ( $\sigma = 0.067 \text{ dB}$ ) |
| Bandwidth switching uncertainty        | reference: RBW = 10 kHz                                                                                            | $\pm 0.1 \text{ dB}$ , nominal                       |
| Total measurement uncertainty          | 95 % confidence level, +20 °C to +30 °C,<br>S/N > 16 dB, 0 dB to -50 dB below reference level, RF attenuation auto |                                                      |
|                                        | $10 \text{ MHz} < f \leq 3.6 \text{ GHz}$                                                                          | $\pm 1 \text{ dB}$ , typ. $\pm 0.5 \text{ dB}$       |
|                                        | $3.6 \text{ GHz} < f \leq 6 \text{ GHz}$                                                                           | $\pm 1.5 \text{ dB}$ , typ. $\pm 1 \text{ dB}$       |

## Trigger functions

| Trigger                |                                   |                           |
|------------------------|-----------------------------------|---------------------------|
| Trigger source         |                                   | free run, video, external |
| External trigger level | low $\rightarrow$ high transition | 2.4 V, nominal            |
|                        | high $\rightarrow$ low transition | 0.7 V, nominal            |

**Tracking generator (model .13/.16 only)**

|                                |                                                                            |                             |
|--------------------------------|----------------------------------------------------------------------------|-----------------------------|
| Frequency range                | model .13                                                                  | 100 kHz to 3 GHz            |
|                                | model .16                                                                  | 100 kHz to 6 GHz            |
| Connector                      |                                                                            | N female, 50 $\Omega$       |
| VSWR                           | $100 \text{ kHz} \leq f \leq 1 \text{ GHz}$                                | < 1.5, nominal              |
|                                | $1 \text{ GHz} < f \leq 3 \text{ GHz}$                                     | < 2, nominal                |
|                                | $3 \text{ GHz} < f \leq 6 \text{ GHz}$ (model .16 only)                    | < 2, nominal                |
| Output level                   | tracking generator attenuation = 0 dB                                      | 0 dBm, nominal              |
| Tracking generator attenuator  |                                                                            | 0 dB to 40 dB in 1 dB steps |
| Dynamic range                  | RF attenuation = 0 dB, tracking generator attenuation = 10 dB, RBW = 1 kHz |                             |
|                                | $100 \text{ kHz} \leq f < 300 \text{ kHz}$                                 | > 60 dB, typ. 80 dB         |
|                                | $300 \text{ kHz} \leq f < 3 \text{ GHz}$                                   | > 70 dB, typ. 90 dB         |
|                                | $3 \text{ GHz} \leq f < 6 \text{ GHz}$ (model .16 only)                    | > 70 dB, typ. 90 dB         |
| Reverse power                  |                                                                            |                             |
| DC voltage                     |                                                                            | 50 V                        |
| CW RF power                    |                                                                            | +20 dBm (= 0.1 W)           |
| Max. pulse voltage             |                                                                            | 50 V                        |
| Max. pulse energy (10 $\mu$ s) |                                                                            | 1 mWs                       |

## Inputs and outputs

|                                             |                                             |                                                  |
|---------------------------------------------|---------------------------------------------|--------------------------------------------------|
| <b>RF input</b>                             |                                             |                                                  |
| Impedance                                   |                                             | 50 $\Omega$                                      |
| Connector                                   |                                             | N female                                         |
| VSWR                                        | $100 \text{ kHz} \leq f \leq 1 \text{ GHz}$ | < 1.5, nominal                                   |
|                                             | $1 \text{ GHz} < f \leq 6 \text{ GHz}$      | < 2, nominal                                     |
| Setting range of input attenuator           |                                             | 0 dB to 40 dB in 5 dB steps                      |
| RF preamplifier gain                        | with R&S®FSC-B22 option                     | 20 dB, nominal                                   |
| <b>AF output</b>                            |                                             |                                                  |
| AF demodulation types                       |                                             | AM and FM                                        |
| Connector                                   |                                             | 3.5 mm mini jack                                 |
| Output impedance                            |                                             | 32 $\Omega$ , nominal                            |
| Voltage (open circuit)                      |                                             | $V_{\text{RMS}}$ adjustable from 0 V to > 100 mV |
| <b>USB interface</b>                        |                                             |                                                  |
| Front panel                                 |                                             | USB host interface, version 1.1                  |
| Connector                                   |                                             | USB type A plug, version 1.1                     |
| Memory sticks supported                     |                                             | $\leq 4$ Gbyte, USB version 1.1 or 2.0           |
| Rear panel                                  |                                             | USB device interface, version 1.1                |
| Connector                                   |                                             | USB type B plug, version 1.1                     |
| <b>External reference, external trigger</b> |                                             |                                                  |
| Connector                                   |                                             | BNC female, 50 $\Omega$                          |
| Mode                                        | selectable                                  | external reference, external trigger             |
| External reference input                    | required level                              | 0 dBm                                            |
|                                             | frequency                                   | 10 MHz                                           |
| External trigger threshold                  | low $\rightarrow$ high transition           | 2.4 V, nominal                                   |
|                                             | high $\rightarrow$ low transition           | 0.7 V, nominal                                   |
| <b>IF out</b>                               |                                             |                                                  |
| Connector                                   |                                             | BNC female, 50 $\Omega$                          |
| Frequency                                   |                                             | 21.4 MHz                                         |
| <b>DC supply input</b>                      |                                             |                                                  |
| Connector                                   |                                             | 5 mm DIN 45323 female                            |
| Input voltage range                         |                                             | 14 V to 16 V, nominal                            |
| Input current                               |                                             | 0.9 A to 0.7 A                                   |

## General data

|                     |                      |                                                                               |
|---------------------|----------------------|-------------------------------------------------------------------------------|
| <b>Power supply</b> |                      |                                                                               |
| AC supply           | input specifications | 100 V AC to 240 V AC, 50 Hz to 60 Hz, 400 Hz, 130 VA                          |
| DC supply           | input specifications | 14 V to 16 V, 0.9 A to 0.7 A, nominal                                         |
| Power consumption   |                      | 12 W, nominal                                                                 |
| Safety              |                      | in line with IEC 61010-1, EN 61010-1, CAN/CSA C22.2 No. 61010-1-04, UL61010-1 |
| Test mark           |                      | VDE - GS, cCSA <sub>US</sub> ,                                                |

|                              |                                       |                                                                                                                                                                                       |
|------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Manual operation</b>      |                                       |                                                                                                                                                                                       |
| Languages                    |                                       | Chinese, English, French, German, Italian, Hungarian, Japanese, Korean, Portuguese, Russian, Spanish                                                                                  |
| <b>Remote control</b>        |                                       |                                                                                                                                                                                       |
| Command set                  |                                       | SCPI 1997.0                                                                                                                                                                           |
| LAN interface                |                                       | 10/100BaseT, RJ-45                                                                                                                                                                    |
| USB interface                | rear panel                            | USB device, type B                                                                                                                                                                    |
| <b>Display</b>               |                                       |                                                                                                                                                                                       |
| Type                         |                                       | 14.5 cm (5,7") LCD TFT color                                                                                                                                                          |
| Resolution                   |                                       | 640 × 480 pixel                                                                                                                                                                       |
| <b>Audio</b>                 |                                       |                                                                                                                                                                                       |
| Speaker                      |                                       | internal                                                                                                                                                                              |
| <b>Mass memory</b>           |                                       |                                                                                                                                                                                       |
| Mass memory                  |                                       | flash memory (internal)<br>USB memory stick (not supplied)                                                                                                                            |
| Data storage                 | internal                              | > 256 instrument settings and traces                                                                                                                                                  |
|                              | external, on 1 Gbyte USB memory stick | > 5000 instrument settings and traces                                                                                                                                                 |
| <b>Temperature</b>           | operating temperature range           | +0 °C to +50 °C                                                                                                                                                                       |
|                              | permissible temperature range         | +0 °C to +55 °C                                                                                                                                                                       |
|                              | storage temperature range             | −40 °C to +70 °C                                                                                                                                                                      |
| Climatic loading             | relative humidity                     | +25/+40 °C at 85 % relative humidity (IEC 60068-2-30)                                                                                                                                 |
| <b>Mechanical resistance</b> |                                       |                                                                                                                                                                                       |
| Vibration                    | sinusoidal                            | IEC 60068-2-6                                                                                                                                                                         |
|                              | random                                | IEC 60068-2-64                                                                                                                                                                        |
| Shock                        |                                       | 40 g shock spectrum,<br>in line with MIL-STD-810E, method 516.4 procedure 1, IEC 60068-2-27                                                                                           |
| <b>EMC</b>                   |                                       | in line with EMC Directive 2004/108/EC including:<br>IEC/EN 61326-1 <sup>1, 2</sup> ,<br>IEC/EN 61326-2-1,<br>CISPR 11/EN 55011 <sup>1</sup><br>IEC/EN 61000-3-2,<br>IEC/EN 61000-3-3 |

|                              |           |                                                           |
|------------------------------|-----------|-----------------------------------------------------------|
| <b>Weight and dimensions</b> |           |                                                           |
| Dimensions                   | W × H × D | 233 mm × 158.1 mm × 350 mm<br>(9.2 in × 6.2 in × 13.8 in) |
| Weight                       |           | 4.5 kg (9.9 lb)                                           |

|                                         |  |        |
|-----------------------------------------|--|--------|
| <b>Recommended calibration interval</b> |  | 1 year |
|-----------------------------------------|--|--------|

<sup>1</sup> RF emission in line with EN 55011 class A, operation in residential, commercial and business areas or in small-size companies is not covered. Thus, the instrument may not be operated in residential, commercial and business areas or in small-size companies, unless additional measures are taken to ensure that EN 55011 class B is complied with.

<sup>2</sup> Immunity test requirement for industrial environment (EN 61326 table 2).



## Ordering information

| Designation                                                                                                          | Type     | Order No.    |
|----------------------------------------------------------------------------------------------------------------------|----------|--------------|
| Spectrum Analyzer, 9 kHz to 3 GHz                                                                                    | R&S®FSC3 | 1314.3006.03 |
| Spectrum Analyzer, 9 kHz to 3 GHz,<br>with tracking generator                                                        | R&S®FSC3 | 1314.3006.13 |
| Spectrum Analyzer, 9 kHz to 6 GHz                                                                                    | R&S®FSC6 | 1314.3006.06 |
| Spectrum Analyzer, 9 kHz to 6 GHz,<br>with tracking generator                                                        | R&S®FSC6 | 1314.3006.16 |
| <b>Accessories supplied</b>                                                                                          |          |              |
| Power cable, USB cable for connection to PC, quick start guide and CD-ROM (with operating manual and service manual) |          |              |

## Options

| Designation                                                  | Type        | Order No.    |
|--------------------------------------------------------------|-------------|--------------|
| Preamplifier, 100 kHz to 3 GHz/6 GHz<br>(for the R&S®FSC3/6) | R&S®FSC-B22 | 1314.3535.02 |

## Recommended extras

| Designation                                                                               | Type        | Order No.    |
|-------------------------------------------------------------------------------------------|-------------|--------------|
| Ethernet Cable                                                                            | R&S®HA-Z210 | 1309.6152.00 |
| Headphones                                                                                | R&S®FSH-Z36 | 1145.5838.02 |
| 19" Rack Adapter<br>for installing two R&S®FSC                                            | R&S®ZZA-T33 | 1109.4458.00 |
| 19" Rack Adapter<br>for installing one R&S®FSC                                            | R&S®ZZA-T34 | 1109.4464.00 |
| Matching pad 50/75 $\Omega$ ,<br>0 Hz to 2700 MHz, matching at both ends,<br>N-connectors | R&S®RAM     | 0358.5414.02 |
| Matching pad 50/75 $\Omega$ ,<br>0 Hz to 2700 MHz, matching at one end,<br>N-connectors   | R&S®RAZ     | 0358.5714.02 |
| 75 ohm matching pad N to BNC (female)                                                     | R&S®FSH-Z38 | 1300.7740.02 |
| Near-Field Probe Set                                                                      | R&S®HZ-15   | 1147.2736.02 |
| Preamplifier for R&S®HZ-15                                                                | R&S®HZ-16   | 1147.2720.02 |

## Supported Power Sensors <sup>3</sup>

| Designation                                                                                                                | Type         | Order No.    |
|----------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| Universal Power Sensor, 10 MHz to 8 GHz, 100 mW, 2-path                                                                    | R&S®NRP-Z211 | 1417.0409.02 |
| Universal Power Sensor, 10 MHz to 18 GHz, 100 mW, 2-path                                                                   | R&S®NRP-Z221 | 1417.0309.02 |
| <b>R&amp;S®NRP-Zxx power sensors require the following adapter cable for operation on the R&amp;S®FSC</b>                  |              |              |
| USB Adapter Cable (passive), length: 2 m (78.7 in),<br>to connect R&S®NRP-Zxx S/SN power sensors to the R&S®Spectrum Rider | R&S®NRP-Z4   | 1146.8001.02 |

| Warranty                                               |         |                                                         |
|--------------------------------------------------------|---------|---------------------------------------------------------|
| Base unit                                              |         | 3 years                                                 |
| All other items <sup>4</sup>                           |         | 1 year                                                  |
| Options                                                |         |                                                         |
| Extended Warranty, one year                            | R&S®WE1 | Please contact your local Rohde & Schwarz sales office. |
| Extended Warranty, two years                           | R&S®WE2 |                                                         |
| Extended Warranty with Calibration Coverage, one year  | R&S®CW1 |                                                         |
| Extended Warranty with Calibration Coverage, two years | R&S®CW2 |                                                         |

### Extended warranty with a term of one and two years (WE1 and WE2)

Repairs carried out during the contract term are free of charge <sup>5</sup>. Necessary calibration and adjustments carried out during repairs are also covered.

### Extended warranty with calibration coverage (CW1 and CW2)

Enhance your extended warranty by adding calibration coverage at a package price. This package ensures that your Rohde & Schwarz product is regularly calibrated, inspected and maintained during the term of the contract. It includes all repairs <sup>5</sup> and calibration at the recommended intervals as well as any calibration carried out during repairs or option upgrades.

For product brochure, see PD 5214.3330.32 and at [www.rohde-schwarz.com](http://www.rohde-schwarz.com).

<sup>3</sup> For average power measurement only.

<sup>4</sup> For options that are installed, the remaining base unit warranty applies if longer than 1 year. Exception: all batteries have a 1 year warranty.

<sup>5</sup> Excluding defects caused by incorrect operation or handling and force majeure. Wear-and-tear parts are not included.

## Service that adds value

- ▮ Worldwide
- ▮ Local and personalized
- ▮ Customized and flexible
- ▮ Uncompromising quality
- ▮ Long-term dependability

## Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, monitoring and network testing. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries.

## Sustainable product design

- ▮ Environmental compatibility and eco-footprint
- ▮ Energy efficiency and low emissions
- ▮ Longevity and optimized total cost of ownership

Certified Quality Management

**ISO 9001**

Certified Environmental Management

**ISO 14001**

## Rohde & Schwarz GmbH & Co. KG

[www.rohde-schwarz.com](http://www.rohde-schwarz.com)

## Rohde & Schwarz training

[www.training.rohde-schwarz.com](http://www.training.rohde-schwarz.com)

## Regional contact

- ▮ Europe, Africa, Middle East | +49 89 4129 12345  
[customersupport@rohde-schwarz.com](mailto:customersupport@rohde-schwarz.com)
- ▮ North America | 1 888 TEST RSA (1 888 837 87 72)  
[customer.support@rsa.rohde-schwarz.com](mailto:customer.support@rsa.rohde-schwarz.com)
- ▮ Latin America | +1 410 910 79 88  
[customersupport.la@rohde-schwarz.com](mailto:customersupport.la@rohde-schwarz.com)
- ▮ Asia Pacific | +65 65 13 04 88  
[customersupport.asia@rohde-schwarz.com](mailto:customersupport.asia@rohde-schwarz.com)
- ▮ China | +86 800 810 82 28 | +86 400 650 58 96  
[customersupport.china@rohde-schwarz.com](mailto:customersupport.china@rohde-schwarz.com)

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PD 5214.3330.22 | Version 03.00 | February 2017 (as)

R&S®FSC Spectrum Analyzer

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5214333022