Version 01.00

September 2007

R&S®FSU67 Spectrum Analyzer

The first spectrum analyzer with a direct frequency range up to 67 GHz

The R&S®FSU67 is the first spectrum analyzer with a direct frequency range up to 67 GHz and fundamental mixing. It allows measurements up to 67 GHz without using cumbersome setups with external mixers.

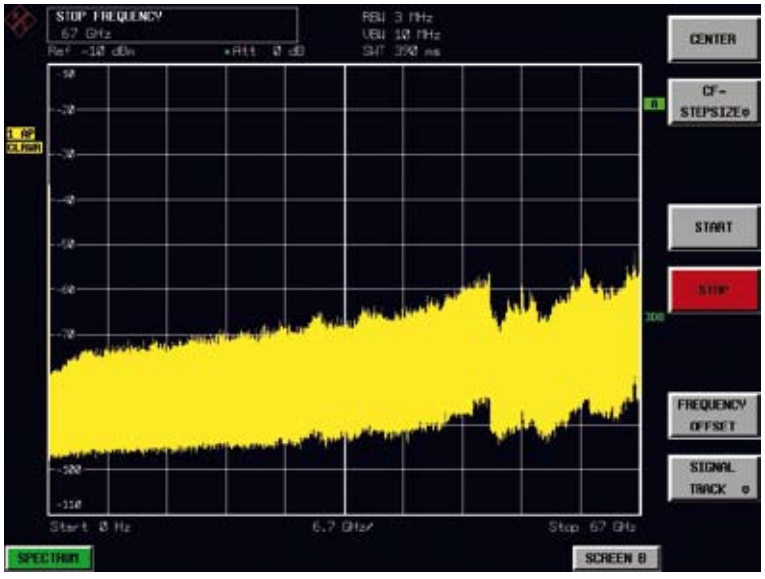
- Frequency range from 20 Hz to 67 MHz
- Full span sweep of 67 GHz
- Low noise floor:
  –152 dBm (1 Hz) at 2 GHz
  –130 dBm (1 Hz) at 65 GHz

ROHDE&SCHWARZ

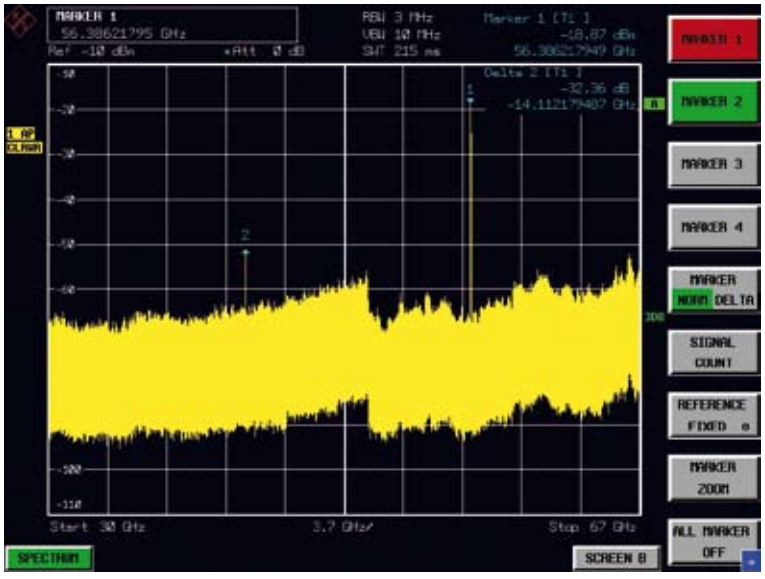
Spectrum analysis up to 67 GHz

Key facts

- Simplified test setups with just one connection from 20 Hz to 67 GHz
- Full span sweep of 67 GHz
- Unambiguous frequency indication without the image response and multiple responses known from external harmonic mixers
- Wider level range with a much higher permissable reference level than with harmonic mixers
- Good level accuracy up to 67 GHz
- Low noise floor:
  –152 dBm (1 Hz) at 2 GHz
  –130 dBm (1 Hz) at 65 GHz



The full span sweep of the R&S®FSU67 shows a low noise floor up to 67 GHz.



Subharmonics of multipliers which are present despite filtering can easily be measured in one sweep in relation to the wanted signal even for a 50 GHz to 67 GHz signal.

Characteristics

The R&S®FSU67 is based on the tried-and-tested R&S®FSU spectrum analyzer family and offers the same comprehensive set of measurement functions and features, as for example:

- TOI typ. +25 dBm
- 1 dB compression +13 dBm
- Phase noise
  typ. –133 dBc (1 Hz) at 10 kHz offset
  typ. –160 dBc (1 Hz) at 10 MHz offset
- Resolution bandwidth from 1 Hz to 50 MHz
- Versatile filter characteristics: Gaussian, channel filters, FFT, 6 dB EMI filters
- Full range of detectors including RMS, quasi-peak
- Comprehensive power measurement functions (CP, ACP, time domain power)
- R&S®NRP power sensors can be connected directly (R&S®FS-K9 and R&S®NRP-Z6 options required)
- Harmonic distortion and spurious emissions measurement function
- High display linearity <0.1 dB
- Application firmware for phase noise and noise figure measurements
- External generator control for use of an external microwave generator as tracking generator for scalar network measurements

Ordering information

Designation	Type	Order No.
Spectrum Analyzer, 20 Hz to 67 GHz	R&S®FSU67	1166.1660.67

Options

Designation	Type	Order No.
Options		
Low-Aging OXCO	R&S®FSU-B4	1144.9000.02
External Generator Control	R&S®FSP-B10	1129.7246.02
Removable Hard Disk	R&S®FSU-B18 [1) 2)]	1145.0242.04
Second Hard Disk for R&S®FSU-B18	R&S®FSU-B19 [2)]	1145.0394.04
Extended Environmental Specification	R&S®FSU-B20 [1) 3)]	1155.1606.08
LO/IF Ports for External Mixers	R&S®FSU-B21	1157.1090.02
Broadband FM Demodulator Output	R&S®FSU-B27	1157.2000.02
Trigger Port for R&S®FSP for indication of trigger conditions	R&S®FSU-B28	1162.9915.02
Selected software options		
AM/FM/φM Measurement Demodulator	R&S®FS-K7	1141.1796.02
Power Sensor Measurements	R&S®FS-K9	1157.3006.02
Application Firmware for Noise Figure and Gain Measurements	R&S®FS-K30	1300.6508.02
Application Firmware for Phase Noise Measurement	R&S®FS-K40	1161.8138.02

For other software options, please see the R&S®FSU data sheet.

1) Factory installation only.
2) Not with R&S®FSU-B20.
3) Not with R&S®FSU-B18/-B19.

For data sheet, see PD 0758.0016.22
and www.rohde-schwarz.com
(search term: FSU)

ROHDE&SCHWARZ

www.rohde-schwarz.com
Europe: +49 1805 12 4242, customersupport@rohde-schwarz.com
Americas: +1-888-837-8772, customer.support@rsa.rohde-schwarz.com
Asia: +65 65 130 488, customersupport.asia@rohde-schwarz.com