R&S®FPL1-K30 noise figure and gain measurements

Simple and accurate measurements using the Y-factor method

Measure the noise figure and gain of amplifiers using an R&S®FPL1000 with the R&S®FPL1-K30 option and a noise source

The perfect choice for

- Characterization of amplifiers
- Optimization of radio frontends

Key specifications

Noise figure measurement range	**Noise source ENR** 4 dB to 7 dB 12 dB to 17 dB 20 dB to 22 dB	**Measurement range** 0 dB to 20 dB 0 dB to 30 dB 0 dB to 35 dB
FPL1000 noise figure uncertainty	± 0.05 dB (10 MHz to 7.5 GHz)	
Measurement accuracy	± 0.15 dB (10 MHz to 7.5 GHz)	

Your benefit	Features
Compact solution – no additive setup required	Many additional RF measurements (harmonics, spurious, etc.) possible
Powerful tool for development and qualification of amplifier circuits	Noise figure and gain measurements
Everything needed visible on one screen	Graphical and numerical display of all results

Characterize key amplifier specifications accurately using the Y-factor method

The following parameters can be measured at a specified frequency or in a selectable frequency range:

- Noise figure in dB
- Gain in dB
- Y factor in dB

The noise source is controlled by the 28 V output on the R&S®FPL1-B5 additional interfaces unit on the back of the instrument. With an optional R&S®FPL1-B22 RF preamplifier, the sensitivity of the measurement can be improved for measuring devices with a low noise figure, e.g. LNAs.

The advantage of the R&S®FPL1-K30 compared to conventional noise measurement systems is that a wide variety of other RF measurements can also be performed, for example measurement of harmonics, intermodulation and spurious responses.

▷ For more information, visit www.rohde-schwarz.com/catalog/FPL1000

All measurement results on one screen

Simultaneous view of graphs for noise figure, gain and Y factor versus frequency and a table of the results in numerical format

Model configuration information

Description	Type
Signal and spectrum analyzer, 5 kHz to 3 GHz	R&S®FPL1003
Signal and spectrum analyzer, 5 kHz to 7.5 GHz	R&S®FPL1007
Options	
Noise figure and gain measurement application	R&S®FPL1-K30
Additional interfaces	R&S®FPL1-B5
RF preamplifier	R&S®FPL1-B22

Rohde & Schwarz Representative

Rohde & Schwarz GmbH & Co. KG | Europe, Africa, Middle East +49 89 4129 12345 | North America 1 888 TEST RSA (1 888 837 87 72)
Latin America +1 410 910 79 88 | Asia Pacific +65 65 13 04 88 | China +86 800 810 82 28 / +86 400 650 58 96
www.rohde-schwarz.com | customersupport@rohde-schwarz.com
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