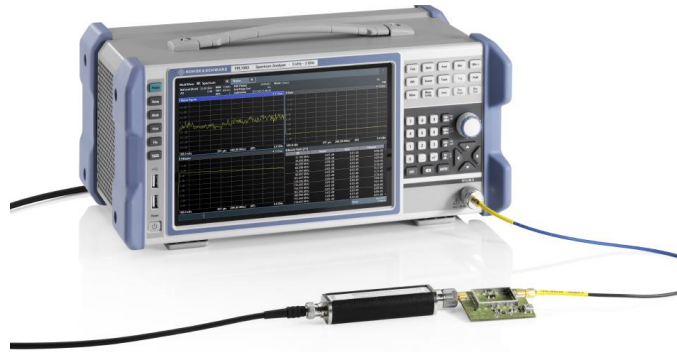


# R&S® FPL1-K30 Noise Figure and Gain Measurements

## Simple and accurate using the Y-factor method



The R&S® FPL1-K30 noise figure and gain measurement option allows you to characterize the most important amplifier specifications. Using the Y-factor method, the noise figure and gain are measured with high accuracy.

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 through the 28 V output on the FPL1-B5 additional interfaces unit on the back of the instrument. With an optional 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 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 or spurious responses.

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

Key specifications		
Noise figure measurement range	noise source ENR	Meas. range
	4 dB to 7 dB	0 dB to 20 dB
	12 dB to 17 dB	0 dB to 30 dB
	20 dB to 22 dB	0 dB to 35 dB
FPL1000 noise figure uncertainty	± 0.05 dB (10 MHz to 3 GHz)	
Measurement accuracy	± 0.25 dB (10 MHz to 3 GHz)	

Common uses
Characterization of amplifiers
Optimization of radio frontends

► For more information, see [www.rohde-schwarz.com/product/FPL1000](http://www.rohde-schwarz.com/product/FPL1000)

## All measurement results on one screen



Simultaneous view of graphs vs. frequency for noise figure, gain and Y-factor and the results table in numerical format.

## Model configuration information

Product	Name
R&S®FSL1003	Signal and spectrum analyzer, 5 kHz to 3 GHz
<b>Options</b>	
R&S®FSL1-K30	Noise figure and gain measurement application
R&S®FSL-B5	Additional interfaces
R&S®FSL1-B22	RF preamplifier

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