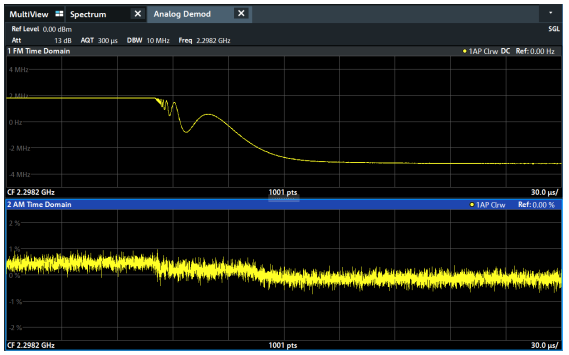
R&S®FPL1-K7 Analog Modulation Analysis

Simple-to-use AM/FM/φM demodulator



Key specifications	
Demodulation bandwidth	100 Hz to 40 MHz
Recording time (depends on demodulation bandwidth)	158 ms to 83184 s
AF filters	
High-pass filters	20 Hz, 50 Hz, 300 Hz
Low-pass filters	3 kHz, 15 kHz, 23 kHz, 150 kHz; 5/10/25 % of demodulation bandwidth
Deemphasis	25 µs, 50 µs, 75 µs, 750 µs
Residual AM	0.1 % (RF ≤ 3 GHz)
Residual FM	130 Hz (RF ≤ 3 GHz)

The perfect choice for

- Analysis of AM and FM audio signals
- Transient and settling measurements of oscillators such as VCOs and PLLs
- Troubleshooting AM/FM transmitters
- Simple chirp analysis of pulsed or continuous wave signals

Your benefit	Features
All necessary results on one screen	Parallel indication of e.g. spectrum, time domain, result summery....
Detailed analysis of transmitters	Powerful analysis of AM, FM and φM audio signals
Measurement of VCO's (e.g. during switching phase)	Analysis of frequency and amplitude transients

Simple-to-use AM/FM/φM demodulator

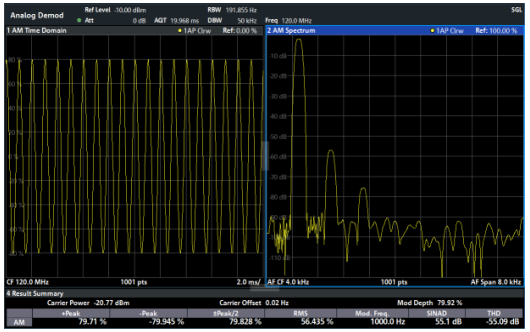
The R&S®FPL1-K7 AM/FM/φM demodulation option converts the R&S®FPL1000 into an analog modulation analyzer for amplitude, frequency and phase modulated signals. It measures characteristics of the useful modulation and factors such as residual FM and synchronous modulation. Users can choose from a set of low-pass, high-pass, deemphasis and weighting filters.

R&S®FPL1-K7 functions includes:

- Demodulation of AM, FM and φM signals
- Simultaneous viewing of:
  - Modulation signal versus time
  - FFT spectrum of the modulation signal
  - RF signal power versus time
  - FFT spectrum of the RF signal
- Table with numeric display of:
  - Deviation or modulation depth, RMS weighted, +peak, –peak, ± peak/2
  - Modulation frequency
  - Carrier frequency offset
  - Carrier power
  - Total harmonic distortion (THD) and SINAD

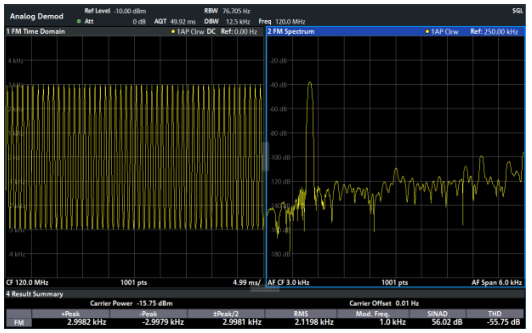
▷ For more information, visit
www.rohde-schwarz.com/catalog/FPL1000

Modulation depth and total harmonic distortion (THD)



Measurement of modulation depth, SINAD and THD of a test signal, AM modulated with a 1 kHz sine wave at a modulation depth of 0.8

Frequency deviation measurement

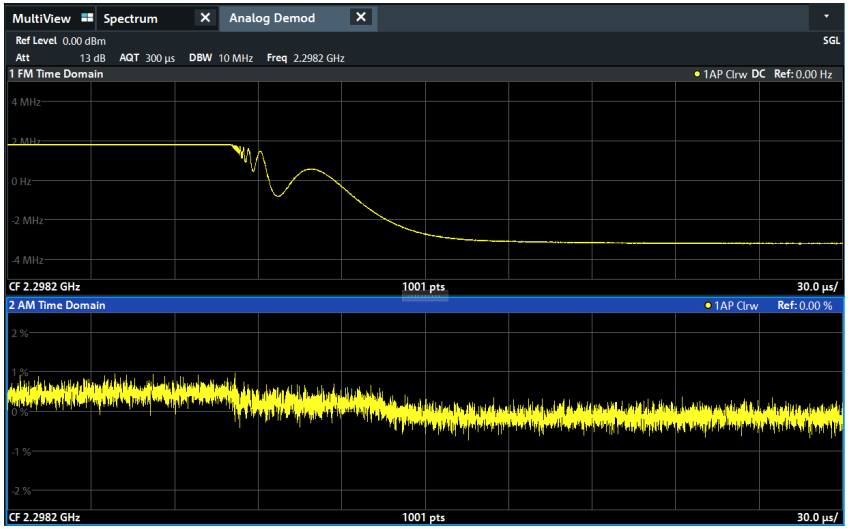


Frequency deviation measurement: display of modulation signal together with peak and RMS deviation, carrier frequency offset and carrier power

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
Vector network analyzer, two ports, 3 GHz	R&S®ZNL3
Vector network analyzer, two ports, 6 GHz	R&S®ZNL6
Options	
AM/FM/φM measurement demodulator	R&S®FPL1-K7
40 MHz analysis bandwidth	R&S®FPL1-B40
Spectrum analyzer function for R&S®ZNL3	R&S®ZNL3-B1

VCO transient measurement



Frequency and amplitude transient of a VCO during switching phase

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