



R&S®FPL1-K7 ANALOG MODULATION ANALYSIS

Simple-to-use AM/FM/PM demodulator

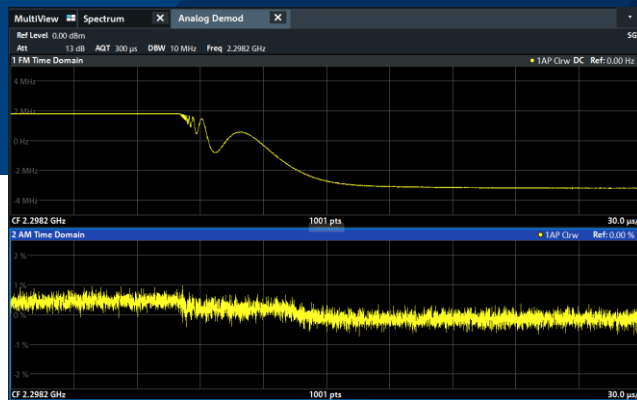
The perfect choice for

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



Key specifications	
Demodulation bandwidth	100 Hz to 40 MHz
Recording time ¹⁾	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)

¹⁾ depends on demodulation bandwidth

The R&S®FPL1-K7 AM/FM/PM 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.

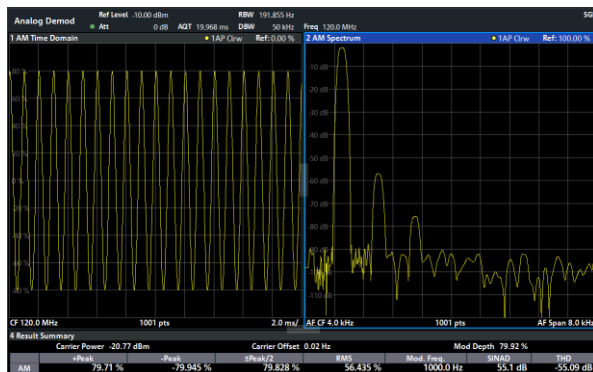
R&S®FPL1-K7 functions include:

- ▶ Demodulation of AM, FM and PM 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



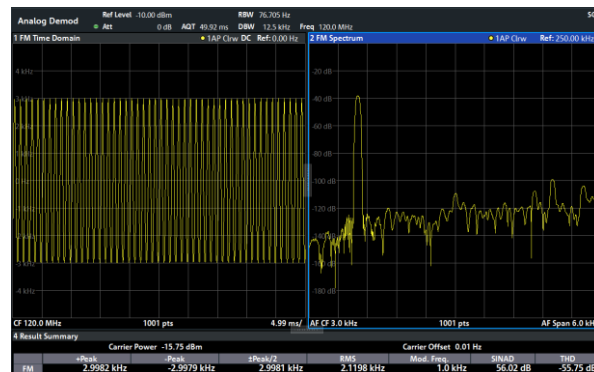
For more information, visit
www.rohde-schwarz.com/product/FPL1000

Modulation depth and total harmonic distortion (THD)



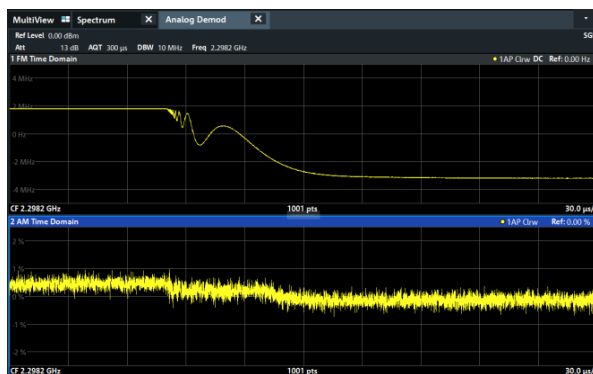
Measurement of modulation depth, SINAD and THD of a test signal, AM modulated with a 1 kHz sine wave at a modulation depth of 0.8

Frequency deviation measurement



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

VCO transient measurement



Frequency and amplitude transient of a VCO during switching phase

Model configuration information	
Description	Item
Signal and spectrum analyzer, 5 kHz to 3 GHz	R&S®FPL1003
Signal and spectrum analyzer, 5 kHz to 7 GHz	R&S®FPL1007
Signal and spectrum analyzer, 5 kHz to 14 GHz	R&S®FPL1014
Signal and spectrum analyzer, 5 kHz to 26 GHz	R&S®FPL1026
Vector network analyzer, two ports, 3 GHz	R&S®ZNL3
Options	
AM/FM/PM measurement demodulator	R&S®FPL1-K7
YIG pre-selector filter	R&S®FPL1-B11
40 MHz analysis bandwidth	R&S®FPL1-B40
Spectrum analyzer function for R&S®ZNL3	R&S®ZNL3-B1

Rohde & Schwarz Representative

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