

Product Brief

5 MHz to 7 / 26 GHz Signal Source Analyzer **APPH**

The APPH offers a comprehensive set to powerful measurement capabilities such as

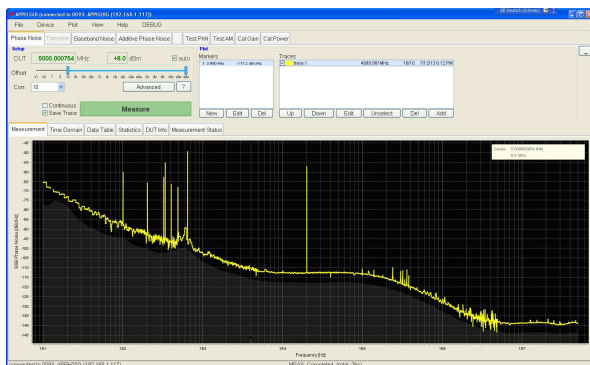
- >> Additive & Absolute Phase Noise
- >> Time Domain Analysis
- >> Spectrum and Phase Monitoring
- >> VCO Characterization
- >> Baseband FFT Analyzer

For phase noise analysis, the instrument has built-in power detector and frequency counter and

operates with either internal or external reference sources. Analysis range is from 0.1 Hz up to 50 MHz frequency offset.

The instrument can be controlled with LAN (VXI-11), USB, or with GPIB from any PC or laptop. Platform independent intuitive graphical user interface (GUI), API library, and powerful SCPI command language set are included.

Applying proven cross-correlation measurement procedures and self-calibration routines, fast, reproducible, and accurate measurements are obtained even under changing environmental conditions



Graphical User Interface

- All-in-one compact measurement system
- Traceable calibration
- Measurements down to -185 dBc/Hz
- Wide offset range 0.1 Hz to 50 MHz
- Built-in frequency counter and power meter
- Two channel FFT Analyzer
- Selectable internal or external reference
- Powerful graphical user interface
- Remote control via USBTMC, LAN VXI-11, or GPIB

Applications

- General purpose phase (and amplitude) noise tests
- Additive or residual phase noise measurements supported
- Wide-band time domain and spectrum analysis
- VCO testing
- Cross-correlator FFT analysis
- Automated production testing

Features

Key Specifications

The specifications in the following pages describe the warranted performance of the signal analyzer for 25 ± 10 °C after a 30 minute warm-up period. Typical specifications describe expected, but not warranted performance. Min and Max specifications are warranted.

Parameter	Value	Notes
RF Frequency range	5 MHz to 7/26 GHz	
Input Power Range	-10 to + 23 dBm	
Input impedance VSWR	50 Ohms < 2	
Offset Analysis Range	0.1 Hz to 50 MHz	
Measurement Accuracy	± 2 dB	
Residual Phase Noise Floor		
10 Hz offset 1 kHz 10 kHz	-150 dBc/Hz -174 dBc/Hz -185 dBc/Hz	Correlator engine only
Meas. time per average 1 Hz (Start) 10 Hz 100 Hz 1 kHz	10 sec 1.2 sec 0.2 sec 0.015 sec	
Internal References	5 MHz to 26 GHz	
External References	5 MHz to 15 GHz	
Tuning voltage output	0 to +20 V	settable
Baseband input range Input Impedance Voltage noise density	-12 to +12 V 1 k Ω 1.2 nV $\sqrt{\text{Hz}}$	DC coupled Input shorted, $f > 1$ kHz
Transient Measurements / Time Domain Analysis	See data sheet	
VCO Characterization	See data sheet	
Spectrum Monitoring	See data sheet	