

KEYSIGHT TECHNOLOGIES (AGILENT HP)

E5052B

The Keysight (formerly Agilent) E5052B is a high-performance Signal Source Analyzer that provides comprehensive measurement capabilities for oscillators and high-frequency signal sources. It integrates phase noise, AM noise, baseband noise, transient, and spectrum monitoring measurements, leveraging cross-correlation techniques to achieve ultra-low phase noise sensitivity. Natively covering 10 MHz to 7 GHz, its RF frequency range can be extended up to 26.5 GHz with the E5053A downconverter and up to 110 GHz using external harmonic mixers.

SPECIFICATIONS

General

Interfaces	GPIB, LAN, USB
Display	10.4-inch color TFT LCD (touch screen)
Warm-up Time	45 minutes
Recommended Calibration Cycle	1 year

Physical

Power Supply	100 to 240 VAC, 50/60 Hz
Operating Temperature	+5 to +40 °C °C

Input Characteristics

RF Input Frequency Range	10 MHz to 7 GHz
Extended Frequency Range (with E5053A)	10 MHz to 26.5 GHz
Extended Frequency Range (with Harmonic Mixers)	Up to 110 GHz
Baseband Input Frequency Range	1 Hz to 100 MHz

Phase Noise Measurement

Offset Frequency Range	1 Hz to 100 MHz
Maximum Number of Cross-Correlations	100,000

Spectrum Monitor Measurement

Frequency Range	10 MHz to 7 GHz
Maximum Frequency Span	15 MHz

Transient Measurement

Wideband Frequency Measurement Range	10 MHz to 7 GHz
--------------------------------------	-----------------

VCO Characterization & DC Control

DC Power Supply Voltage Range	0 V to +16 V
DC Power Supply Current Limit Range	Up to 80 mA

Internal Reference

Nominal Reference Frequency	10 MHz
-----------------------------	--------

Interfaces & Connectors

RF Input Connector Type	Type-N (female)
RF Input Impedance	50 Ω
Baseband Input Connector Type	BNC (female)

Capabilities

Supported Measurement Modes	Phase Noise, AM Noise, Baseband Noise, Spectrum Monitor, Transient (Frequency/Phase/Power), VCO Characterization
-----------------------------	--

Inputs & Outputs

Baseband Input Impedance	50 Ω / 1 M Ω (selectable)
External Reference Input Connector	BNC (female)
External Reference Output Connector	BNC (female)
Trigger Input Connector	BNC (female)
Trigger Input Level	TTL

Connectivity

GPIO Interface	IEEE 488.2
----------------	------------

Interfaces

Video Output	VGA (15-pin mini D-Sub)
USB Interface	USB 2.0 Type A (Host), USB 2.0 Type B (Device)

Compliance

LXI Compliance	LXI Class C
----------------	-------------

Environmental

Operating Altitude	Up to 2,000 meters
--------------------	--------------------

TECHNOLOGY

Signal Source Analyzer

APPLICATIONS

Phase Noise Measurement, VCO Characterization, AM / Baseband Noise Measurement, Transient Analysis

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.