

KEYSIGHT TECHNOLOGIES (AGILENT HP)

53230A

The Keysight (formerly Agilent) 53230A is a high-performance universal frequency counter and timer offering two 350 MHz base channels, 12 digits/second frequency resolution, and 20 ps single-shot time interval resolution. It features continuous gap-free measurements, a 4.3-inch color graphical display, and supports optional microwave input channels up to 15 GHz.

SPECIFICATIONS

General

Interfaces	USB 2.0, LAN (LXI-C) standard; GPIB optional
Display	4.3-inch color graphical display

Physical

Power Supply	100 - 240 VAC @ 50/60 Hz; 100 - 120 VAC @ 400 Hz; 90 VA max
Operating Temperature	0 to 55 °C
Dimensions (W×H×D)	261.1 × 103.8 × 303.2 mm
Weight	3.9 kg

Measurement Specifications

Frequency Resolution	12 digits/second (continuous-count)
Time Interval Resolution	20 ps (single-shot)
Continuous Gap-Free Measurements	Supported
Measurement Rate/Speed	Up to 75,000 frequency readings/sec

Input Characteristics (Base Channels)

Number of Channels	2 base channels
Base Bandwidth	350 MHz
Input Impedance	1 MΩ or 50 Ω (selectable)
Input Coupling	AC or DC

Optional Microwave Input (Channel 3)

Optional Frequency Range	6 GHz or 15 GHz (by option)
Pulse Microwave Measurements	Supported (via optional software)

System and Memory

Internal Memory Capacity	1,000,000 readings
Command Compatibility	SCPI compatible (Agilent 53131A, 53132A, 53181A)

Analysis and Math

Graphical Display Modes	Trend plot (stripchart), cumulative histograms
Allan Deviation (ADEV) Support	Yes

Connectivity and Interfaces

LAN (LXI Compliance)	LXI-C / LAN standard
GPIB (IEEE-488)	Optional
USB Host Ports	Supports USB memory stick
Battery Operation Option	Optional Lithium-Ion Battery (supports remote usage and timebase maintenance)

Timebase & Reference

External Reference Input Frequencies	1 MHz, 5 MHz, 10 MHz
Reference Output Frequency	10 MHz
Timebase Option	Option 010 (Ultra-High Stability OCXO)

Input Characteristics

Input Voltage Range (50 Ω)	± 5 V
Input Voltage Range (1 M Ω)	± 50 V

Environmental

Storage Temperature	-30°C to +70°C
Maximum Operating Altitude	3,000 meters (9,842 ft)

Compliance

Safety Compliance	IEC 61010-1, EN 61010-1
EMC Compliance	IEC 61326-1, EN 61326-1

Performance

Supported Measurements	Frequency, frequency ratio, time interval, period, rise/fall time, pulse width, duty cycle, phase, timestamp, totalize
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Inputs

Channel 1 & 2 Connectors	BNC (female)
Sensitivity (DC to 100 MHz)	20 mVrms
Sensitivity (100 MHz to 350 MHz)	40 mVrms
Selectable Low-Pass Filter	100 kHz
Threshold Setting Range (1x Attenuation)	± 5 V
Threshold Setting Range (10x Attenuation)	± 50 V

Power

Maximum Power Consumption	90 VA (130 VA with battery option)
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TECHNOLOGY

Universal Frequency Counter

APPLICATIONS

Time and Frequency Measurement, Modulation Domain Analysis, Jitter 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.