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Data Sheet

August 3, 2026

KEYSIGHT

Keysight 53230A 350 MHz Universal Frequency Counter/Timer, 12 digits/s, 20 ps

Keysight 53230A 350 MHz Universal Frequency Counter/Timer, 12 digits/s, 20 ps The Keysight 53230A is the top model in the 53200A Series universal frequency counter/timers. It provides 350 MHz baseband inputs, 12 digits/s frequency resolution, and 20 ps single-shot time interval resolution. Measurements include frequency, period, time interval, pulse width, rise/fall, duty, phase, totalize, plus 53230A-only continuous/gap-free, timestamp, and pulse/burst software capabilities. Optional microwave channels extend to 6 or 15 GHz. The Keysight 53230A is the top model in the 53200A Series universal frequency counter/timers. It provides 350 MHz baseband inputs, 12 digits/s frequency resolution, and 20 ps single-shot time interval resolution. Measurements include frequency, period, time interval, pulse width, rise/fall, duty, phase, totalize, plus 53230A-only continuous/gap-free, timestamp, and pulse/burst software capabilities. Optional microwave channels extend to 6 or 15 GHz. Precision frequency and time-interval metrology; pulse characterization; gap-free continuous measurements and timestamping; ATE and R&D RF/baseband timing analysis.

No photo

MODEL Keysight 53230A	CALIBRATION N/A — off-catalog OEM datasheet
CONDITION See OEM documentation	STATUS Not listed on Aumictech inventory
RFQ / SKU 53230A	LISTING Off-catalog — OEM dat asheet only

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

Features & description

From manufacturer datasheet

Features

- Baseband: DC–350 MHz (2 channels on 53220A/53230A) • Frequency resolution: 12 digits/s • Single-shot time resolution: 20 ps • Up to ~75,000 / 90,000 readings/s (frequency / time interval class)
- Measurements: frequency, period, TI A↔B, pulse width, rise/fall, duty, phase, totalize, voltage min/max/p-p, RF signal strength • 53230A only: continuous/gap-free; timestamp; pulse/burst measurement software • Optional microwave: 6 GHz or 15 GHz; optional U-OCXO (Opt 010); optional battery (Opt 300) • Connectivity: LAN/LXI, USB, GPIB

53230A Characteristics / Specifications

PARAMETER	VALUE
Model	53230A
Manufacturer	Keysight Technologies
Instrument Type	Universal Frequency Counter/Timer
Family	53200A Series
Alias	53230A; Agilent 53230A Frequency / Resolution
Baseband Range	DC (1 mHz) to 350 MHz (period 2.8 ns to 1000 s)
Digits/s	12 digits/s
Maximum Display Resolution (freq/period)	15 digits
Standard	Ch 1 & Ch 2, DC–350 MHz
Coupling	DC or AC; 50 Ω or 1 M Ω
Connectors	Front BNC(f); Option 201 adds rear parallel BNCs
Reading rates	up to tens of thousands per second (see datasheet graphs) Timebase Internal, external, or auto reference
External lock range	± 1 ppm (± 0.1 ppm with Opt 010) Operational Notes 53210A is RF-only 10 digits/s; 53220A is 12 digits/s with 100 ps TI. Prefer Keysight 53200A Series datasheet for full accuracy equations and microwave option rows.
Baseband	DC–350 MHz (2 channels on 53220A/53230A)
Frequency resolution	12 digits/s
Single-shot time resolution	20 ps
Measurements	frequency, period, TI A $\leftrightarrow$ B, pulse width, rise/fall, duty, phase, totalize, voltage min/max/p-p, RF signal strength
53230A only	continuous/gap-free; timestamp; pulse/burst measurement software
Optional microwave	6 GHz or 15 GHz; optional U-OCXO (Opt 010); optional battery (Opt 300)
Connectivity	LAN/LXI, USB, GPIB
Bandwidth	(50 Ω or 1 M Ω): 10 Hz–350 MHz

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
Model	53230A
Manufacturer	Keysight Technologies
Instrument Type	Universal Frequency Counter/Timer
Family	53200A Series
Alias	53230A; Agilent 53230A

Frequency / Resolution

Frequency / Resolution

PARAMETER	VALUE
Baseband Range	DC (1 mHz) to 350 MHz (period 2.8 ns to 1000 s)
Digits/s	12 digits/s
Maximum Display Resolution (freq/period)	15 digits

Single-Shot Time Resolution: 20 ps
Optional Microwave: 6 GHz or 15 GHz channels (order options)

Input Channels

Specifications

PARAMETER	VALUE
Standard	Ch 1 & Ch 2, DC-350 MHz
Coupling	DC or AC; 50 Ω or 1 M Ω
Connectors	Front BNC(f); Option 201 adds rear parallel BNCs

AC Coupled Bandwidth (50 Ω or 1 M Ω): 10 Hz-350 MHz

Measurements (53230A)
Frequency, Frequency Ratio, Period, Single Period
Time IntervalAto B, B to A, A, B
Positive/Negative Pulse Width; Rise/Fall Time; Duty
PhaseAto B / B to A (-180.000° to 360.000°)
Totalize (continuous or timed)
Min/Max/Peak-to-Peak Input Voltage; RF Signal Strength
Continuous / Gap-Free; Timestamp; Pulse/Burst software

Gate / Speed
Continuous gap-free gate time: 10 μ s to 1000 s in 10 μ s steps (limits apply)

Reading rates: up to tens of thousands per second (see datasheet graphs)

Timebase

Internal, external, or auto reference

Option 010: Ultra-high-stability OCXO

External lock range: ± 1 ppm (± 0.1 ppm with Opt 010)

Operational Notes

53210A is RF-only 10 digits/s; 53220A is 12 digits/s with 100 ps TI. Prefer Keysight 53200A Series datasheet for full accuracy equations and microwave option rows.

Ordering Information

OPTION	DESCRIPTION
Option 201	adds rear parallel BNCs

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.
Request a quote: sales@aumictech.com · +1 (484) 841-9341

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.