

53200 RF/Universal Frequency Counter/Timers Models: 53210A, 53220A and 53230A



From top:

53210A RF Counter

53220A Universal Frequency Counter/Timer

53230A Universal Frequency Counter/Timer

The Keysight 53200 Series is a new generation of 350 MHz RF/universal frequency counter/timers with optional 6 GHz or 15GHz inputs. The first frequency counters with LXI Class C compliance, the 53200 family is built with LAN and USB I/O for ease of connectivity and data collection. The combination of high-speed measurements and built-in analysis and graphical display provides new functionality that has not previously been available in basic frequency counter/timers.

Key Features

- More frequency:**
350 MHz baseband frequency, 6 or 15GHz optional microwave channels
- More resolution:**
Up to 12 digits/sec and 20-ps single-shot time interval
- More information accessibility:**
1 M reading memory, up to 75,000 frequency readings/sec, strip chart/trend plot, cumulative histograms
- More connectivity:**
First LXI-compliant counters (LXI/Ethernet, USB, GPIB connectivity)
- More measurement capability:**
Gap-free/continuous measurements and timestamping for basic modulation domain analysis and pulse/burst microwave measurements. The optional battery supports remote usage and helps maintain accurate measurements by keeping the timebase warm at all times.
- Frequency counter emulation mode:**
53131A, 53132A, 53181A

Product Specifications

	53210A RF frequency counter	53220A universal frequency counter/timer	53230A universal frequency counter/timer
Channels	Channel 1: 350 MHz Opt channel 2: 6 or 15 GHz	Channel 1 and 2: 350 MHz Opt channel 3: 6 or 15 GHz	
Frequency resolution	10 digits/sec	12 digits/sec	
Time interval resolution	NA	100 psec	20 psec
Measurements	Frequency, period, frequency ratio, max/min/peak to peak input voltage	Frequency, period, frequency ratio, max/min/peak to peak input voltage, time interval, single period, pulse width, rise/fall time, duty cycle, phase, totalize	Frequency, period, frequency ratio, max/min/peak to peak input voltage, time interval, single period, pulse width, rise/fall time, duty cycle, phase, totalize, timestamp/MDA
Burst/pulse microwave measurements		NA	Carrier frequency, PRI, PRF, PW
Math		Smoothing (Reading moving average), scaling, Δ -change, null	
Statistics	Mean, standard deviation, max, peak-to-peak, count	Mean, standard deviation, max, peak-to-peak, count, Allan deviation	
Graphical display		Digits, trend, histogram, limit test, markers	

Accessories

Part	Description
1250-1476	Adapter: Type-N (m) to BND (f), DC to 4 GHz
N2874A	Passive probe: 10:1, 1.5 GHz, 1.3 m
34190A	Rack mount kit
34191A	2U dual flange kit
34194A	Dual lock link kit

For more details on the Keysight 53200 Series and ordering information see:
Keysight 53200 Series Datasheet, literature number 5990-6283EN
Keysight 53200 Family Brochure, literature number 5990-6339EN

For more information on the Keysight 53200 Series, please visit:

<https://www.keysight.com/us/en/products/frequency-counter-products.html>

Options

Part	Description
Option 010	Ultra high-stability OCXO timebase
106/115	Add 6/15 GHz CW microwave channel
203	Move microwave channel input to rear
201	Add rear panel parallel inputs for channel 1 and channel 2
300	Internal lithium ion battery charger for unstable AC power or timebase stability

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