Keysight 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

Learn more at: www.keysight.com



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 d | igits/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, ∆-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 |

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 |

Please consult with your distributor for final pricing.

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: www.keysight.com/find/FrequencyCounterSpotlight

To find a distributor in your area, go to: www.keysight.com/find/distributors

Learn more at: www.keysight.com

