

# 53200 Series Universal Counter Quick Guide

## QUICK DEMO

**Equipment:** 532xxA universal counter, 3352xA FG/AWG, BNC cable

**Conventions:** Hard keys are **bold** and soft keys are underlined

**Summary:** Demo uses the 532xxA universal counter to measure a 10-MHz signal with Gaussian noise

### 1. Setup and turn-on the 532xxA and 3352xA.

Connect the BNC cable to chan 1 of the 532xxA and chan 1 of the 3352xA.

### 2. On the 3352xA:

- Press **Chan1** → Output Load → Set to High Z to match the counter input impedance. Press Output On.
- Press **Parameters** → Frequency, then use the key pad to enter 10 and press MHz.
- Press **Modulation** → Type → FM → Shape → More → Noise. Press Freq Dev, then use key pad to enter **300** and press KHz. Press Bandwidth, then use key pad to enter **10** and press KHz.

*The 3352xA is now outputting a 10-MHz carrier with 10 KHz of Gaussian noise on it.*

### 3. On the 532xxA:

- Press **Math** → Statistics → Statistics On.

*The 532xxA is now making the following frequency measurements: current, mean, min, max, standard dev, and Allen deviation.*

- Press **Graph** → Histogram

*The 532xxA is now displaying each reading in memory on a histogram.*

- ### 4. Switch back and forth between the two displays by pressing **Freq** **Period** for the statistics display and **Graph** for the histogram.



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So MUCH  
So FAST



## QUICK FACTS

- 350-MHz channel 1 and 2
- Up to 75,000 frequency and 90,000 time interval readings/Sec
- Turn modulation on by pressing Modulation On
- 20-picosecond single-shot measurement resolution
- Optional channel 3 up to 15 GHz
- Gapless sampling
- Optional pulsed RF/microwave capability



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## Agilent's New 53200 Series Frequency Counters

What makes the 53200 Series counters better than anything you've used before? Here are a few of the improvements and new capabilities:

### **MORE FREQUENCY**

350 MHz baseband frequency, 6- or 15-GHz 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, and opt.GPIB connectivity)

### **MORE MEASUREMENT CAPABILITY**

Basic modulation domain/time stamp and opt. pulse/burst microwave measurements.

### **ADDITIONAL RESOURCES:**

For more detailed demo resources, refer to the 53200 Series memory stick where you will find more useful information, including the new video demo series, a detailed demo guide, a data sheet with specifications, and more Frequency Counter hints/tips. Also, visit our Web site at:

**[www.agilent.com/find/FrequencyCounterSpotlight](http://www.agilent.com/find/FrequencyCounterSpotlight)**