



The Infiniium 9000 Series Oscilloscope Quick Demo

Infiniium 9000 Series

Engineered for the broadest measurement capability.

Designed to fit your environment

- Biggest screen in class (15" XGA)
- Touchscreen with 1024x768 resolution
- Thinnest in class (9")
- Lightest in class (26 lbs)
- Knob per channel
- Convenient USB and other connectivity
- Quiet fans (30 db in front is best in class)
- Single acq board mounted vertically enables mechanical design

3 instruments in 1 box

Scope: Powerful Infiniium features coupled with superior specs for precise signal representation.

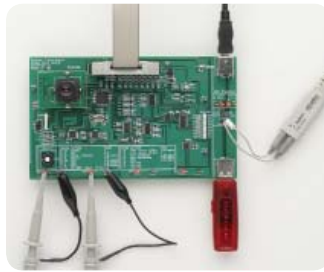
Logic analyzer: 16 fully integrated digital channels to see critical data values and timing relationships

Protocol analyzer: World's first scope-based protocol viewer with multi-tab viewing to quickly drill down and move between protocol and physical layers.

Widest range of debug and compliance apps: Tailor your scope to simplify debug and compliance testing today and in the future with the industry's widest range of application software.

9000 Series demo board, mouse and two passive probes required

- Connect power via USB cable



Oscilloscope Demonstration

600 MHz, 1 GHz, 2.5 GHz, 4 GHz Models • 10 Mpts – 1 Gpt Memory • 10- 20 GSa/s

Quick demo

1. Connect probe and ground lead from channel 1 to test ch 1 points provided.
2. Turn the mode select knob to position 3 (burst).
3. Press **Default Setup**.
4. Press **AutoScale**.
5. Adjust timebase to about **1 us/div** to get the following display of a bursty signal with an occasional glitch:



6. Drag and drop the rise time measurement icon onto the signal to demonstrate quick measurements.
7. Highlight the **Measure** tab at the top of the screen to illuminate the drop

down menus and walk through some of the options available with the Infiniium class oscilloscope.

8. Highlight the **Analyze** tab at the top of the screen to show rich feature set here also.
9. Highlight the **Trigger** tab at the top of the screen, click on trigger setup and point out trigger shortcuts and gallery.
10. Then choose **InfiniScan** and select **Zone Qualify** from the menu. Draw a box around the top portion of the occasional glitch and select **AND Must Intersect** from the Zone 1 menu choice. Powerful hardware triggering combined with InfiniScan event triggering lets you zero within complex triggers very quickly for efficient troubleshooting.
11. Highlight the **Setup** tab at the top of the screen and select **Acquisition**. Change the Analog Memory Depth setting to **Manual** and select **Max**. Close the setup screen and adjust the timebase to about **1 ms/div** to show multiple bursts on screen. (You may want to increase the intensity so the bursts are more visible.)
12. Press stop and zoom in on one of the bursts. Responsive deep memory allows you to take advantage of your investment to zero in on the details when needed.



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Mixed-Signal Oscilloscope (Logic Analyzer) Demonstration

16 integrated, time-aligned channels • 2 GSa/s • 128 Mpts per channel

Quick demo

1. Connect probes and ground leads from channel 1 and channel 2 to corresponding test points provided.
2. Connect MSO cable from front of scope to connector on demo board..
3. Turn the mode select knob to position 6 (SPI)
4. Press **Default Setup**
5. Press **AutoScale** to get the following display of analog and digital channels:



6. Note that the digital channels can be grouped into buses if desired. Trigger and decode are available across any combination of analog and digital signals, and the display is totally time-aligned.
7. Highlight the **Setup** tab at the top of the screen and select **Acquisition**. Select **Segmented** under Sampling Mode. Manually enter **100** for the # of segments. Close the box and press **Run**.
8. After all 100 segments are acquired, use the **Play** menu at the bottom of the screen to demonstrate stepping through the acquisitions to note the differences.

Protocol Analyzer Demonstration

Time-aligned physical and protocol views • Broadest support available • Industry's only multi-tab viewer on scope

Quick demo

1. Unplug mouse from scope and plug into connector on lower right side of demo board. (Mouse signal is passed through to scope so it still works.)
2. Connect channel 1 probe to red test point marked D+ and corresponding ground, connect channel 2 probe to red test point marked D- and corresponding ground.
3. Disconnect MSO cable from demo board.
4. Press **Default Setup**.
5. Press **AutoScale**.
6. Highlight the **Analyze** tab at the top of the screen and select **Serial Data**.
7. Choose **Serial Decode** from the menu and select USB 2.0. Check the **Show Decode** box and press **AutoSetup** to get the following display.



8. Note that the payload value (which contains coordinate information) changes as you move the mouse. The blue cursor on the waveform display is time-aligned to the blue highlighted line in the decode display. Decode information can be moved below the waveform rather than on it by clicking on it and dragging it.
9. Now let's set up to trigger on a mouse move. Highlight the **Trigger** tab at the top of the screen and select **Setup Trigger**. In the **Type** menu choose **Data**. Select the **Payload** tab in the decode view and note that the scope triggers and displays the data each time the mouse is moved.

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