Keysight Technologies
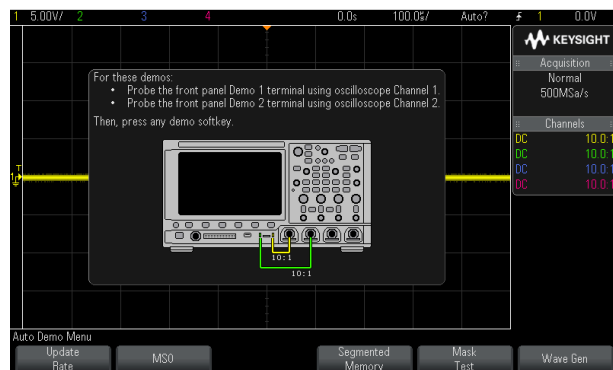## InfiniiVision 3000 X-Series Oscilloscope

Use the "Auto Demo" and "App Demo" modes to quickly and easily demonstrate key features of the scope
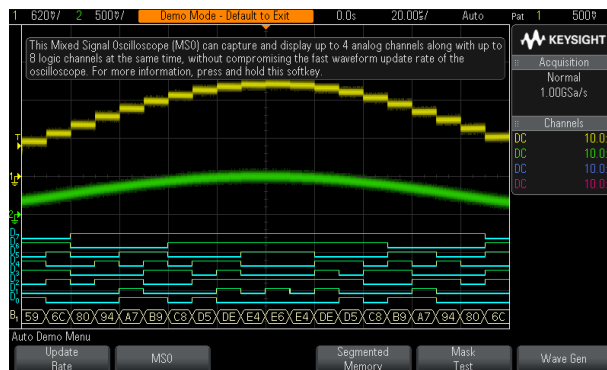
Getting started

The Auto Demo and App Demo modes allow you to demonstrate oscilloscope features using internally-generated signals.

For these demos, probe the front panel Demo 1 terminal using Channel 1 and probe the front panel Demo 2 terminal using Channel 2 as shown in the connection diagram above.
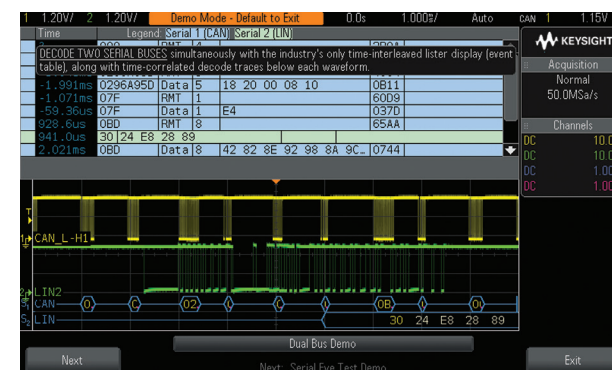
Using the "Auto Demo" mode

Auto Demo shows

- Fast waveform update rate
- Mixed signal oscilloscope
- Serial bus (I2C example)
- Segmented memory acquisition
- Mask testing
- WaveGen function generator + AWG

Use the "Auto Demo" mode to quickly demonstrate key features and capabilities of the oscilloscope in two easy steps.

Using the "App Demo" mode

Auto Demo shows

- Serial bus (All available protocols)
- Advanced triggering
- Advanced waveform math
- Power measurement application

Use the "App Demo" mode to quickly demonstrate some of the scope's more advanced measurement applications and options in two easy steps.

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InfiniiVision 3000 X-Series Oscilloscope

Using the "Training Signals" mode for more advanced demonstrations

### Parametric violation search

1. Press [Default Setup] front panel key.
2. Press the [Help] front panel key.
3. Press the Training Signals softkey; then select the Runt Pulses from the list using the Entry knob.
4. Press the Output softkey to enable this output signal.
5. Set Channel-1 to 500 mV/div with +1.7 V offset using front panel Channel-1 knobs.
6. Press the Trigger Level knob to set triggering at 50% of the signal amplitude.
7. Press [Run/Stop] front panel key.
8. Press [Search] front panel key; then select Runt from the list using the Entry knob.

The white triangles at the top of the display indicate the location of each "found" runt pulse. Let's now navigate to each runt and take a closer look at each one.

9. Set timebase to 200.0 ns/div using Horizontal scale knob.
10. Press the [□] and [□] front panel navigation buttons to automatically navigate to each positive "runt" pulse.
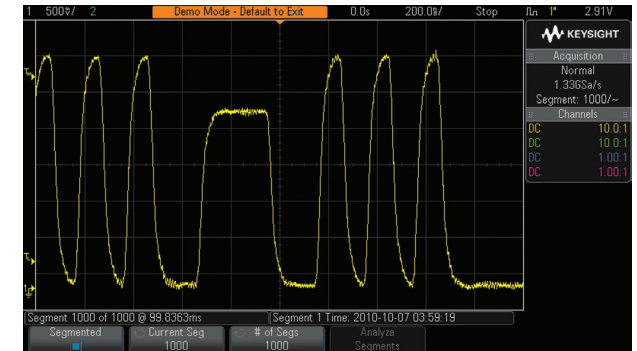
Parametric violation triggering
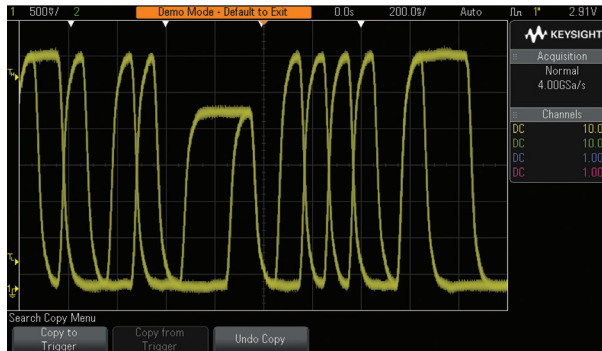
Let's now trigger on these "runts" using the scope's automatic "Copy Search to Trigger" feature.

11. Press the Copy softkey; then press Copy to Trigger.
12. Press the Horizontal position knob to set offset to 0 seconds.
13. Press [Run/Stop] to begin repetitive acquisitions again.

The scope is now triggering on two different positive runt pulses of different widths as shown in the screen image above. Let's now use the scope's segmented memory acquisition mode to efficiently capture 1,000 occurrences of these positive runt pulses into memory.

www.keysight.com/find/3000X-Series

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Capturing consecutive runt pulses using segmented memory

14. Press the [Acquire] front panel key.
15. Press the Segmented softkey; then select the # of segments = 1000 using the Entry knob.
16. Press Segmented softkey to begin acquisition.
17. Press the Current Seg softkey; then use Entry knob to review all 1000 captured segments that each contain a runt pulse.

Segmented memory optimizes oscilloscope acquisition memory to capture only the events that satisfy the scope's trigger condition, in this case runt pulses.

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