Capturing "Buried" High-speed Glitches

By: Agilent Technologies

Purpose:
In this hands-on exercise, you will use Glitch Trigger to isolate and capture a
single-shot glitch that is "buried" within a complex digital pulse stream.

Equipment:
- Agilent 54520-Series Oscilloscope
- Agilent 54720-66506 Application Training board

1. Connect channel 1 to J2 on the Agilent 54720-66506 Application Training Board using a 50
   (Ohm) BNC cable. Close switch #2 and #4 on S1. All other switches should be open.

2. Load the scope setup from the disk file.
   a. Press the **[blue shift key]** and then press **[Disk].**
   b. Select the *load scope* soft key and then select *SET*.
   c. Turn the general entry knob to select setup from file **[LAB1C.SET**].
   d. Press *execute*.

3. Press the Single-shot/Glitch button on the demo board several times. Each time you press
   this button, a narrow negative glitch will be injected into the pulse stream that you are
   observing on screen.

   Do you ever see the glitch? _____

   Why or why not? _____

4. Make the following setup changes in the *TRIGGER* setup menu:
   a. Mode = *glitch*
   b. Source = *channel 1 - LOW*
   c. Level = *center*
   d. Qualification = *when present <*
   e. Width = *5 ns*

5. Press the "Single-shot/Glitch" button on the demo board.

   Do you capture the glitch this time? _____

   Why or why not?