



Detecting Power-up Transients

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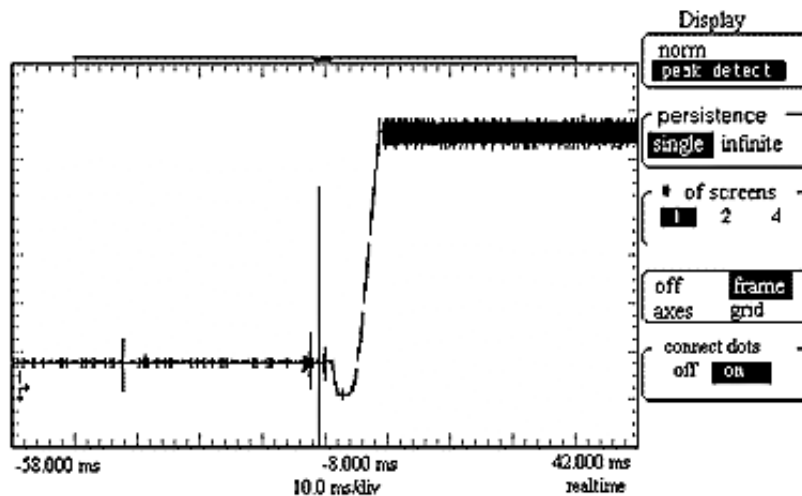
Purpose:

In this hands-on exercise, you will use Peak Detect to capture single-shot transients during a power supply's power-up cycle.

Equipment:

- Agilent 54520-Series Oscilloscope
- Agilent 54720-66506 Application Training Board

1. Connect channel 1 to TP3 and ground to TP10 on the Agilent 54720-66506 Application Training Board.
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 **[LAB1B.SET]**.
 - d. Press **execute**.
3. Press the **[Stop/Single]** key (display should read "stopped" in the upper left corner of screen).
4. Execute the following sequence of instructions:
 - a) Disconnect the power cord from the demo board.
 - b) Press **[Clear display]**.
 - c) Press **[Stop/Single]** to setup a single acquisition upon trigger (display should read "running-awaiting trigger" in the upper left corner of screen).
 - d) Rub your feet on the floor to collect some static electricity. (Note: This may not work too well in a humid climate.)
 - e) Re-connect the power cord.



5. Observe the entire power-up cycle of this power supply by changing the **HORIZONTAL TIMEBASE** setting to compress more of the scope's acquisition memory on screen. Did the scope capture any power-up transients? _____



6. Return the timebase setting to **2 ms/div**.
7. Press the **[Display]** menu key and select **peak detect**.
8. Repeat steps #4 & #5. What differences do you observe with the **peak detect** mode engaged?