DSO9104A-02

S E R V I C E N O T E

Supersedes:
None

DSO9104A - 1 GHz Digitizing Oscilloscope

Serial Numbers: All

Intermittent power failure on some 9000 series units.

Parts Required:

P/N	Description	Qty.

Agilent part numbers will not be available for at least a month for these modifications. Until they are setup at SPO, replacement parts are stocked at service centers for modifying oscilloscopes.

ADMINISTRATIVE INFORMATION

<table>
<tr><td colspan="3">SERVICE NOTE CLASSIFICATION:
MODIFICATION RECOMMENDED</td></tr>
<tr><td>ACTION CATEGORY:
X ON SPECIFIED FAILURE
[ ] AGREEABLE TIME</td><td colspan="2">STANDARDS
LABOR: 3.5 Hours</td></tr>
<tr><td>LOCATION CATEGORY:
[ ] CUSTOMER INSTALLABLE
[ ] ON-SITE
X SERVICE CENTER
[ ] CHANNEL PARTNER</td><td>SERVICE INVENTORY:
[ ] RETURN
[ ] SCRAP
[ ] SEE TEXT</td><td>USED PARTS:
[ ] RETURN
X SCRAP
[ ] SEE TEXT</td></tr>
<tr><td>AVAILABILITY: PRODUCT'S SUPPORT LIFE</td><td colspan="2">NO CHARGE AVAILABLE UNTIL: End of product support life</td></tr>
<tr><td>AUTHOR: KO</td><td colspan="2">PRODUCT LINE: 1A</td></tr>
<tr><td colspan="3">ADDITIONAL INFORMATION:</td></tr>
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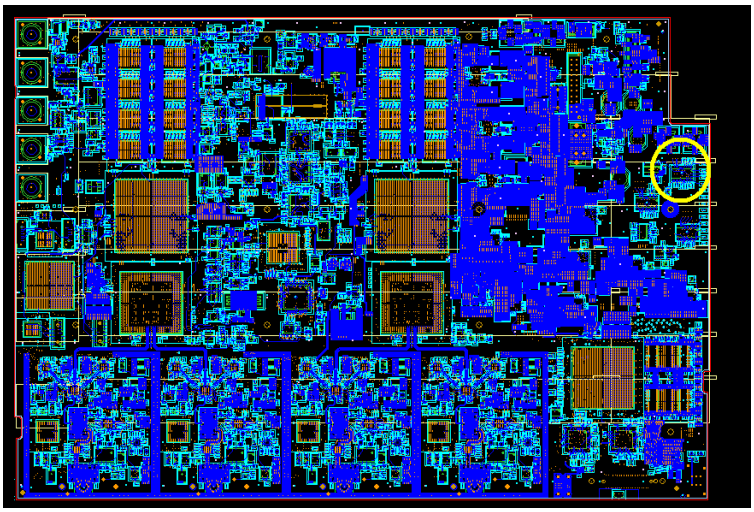
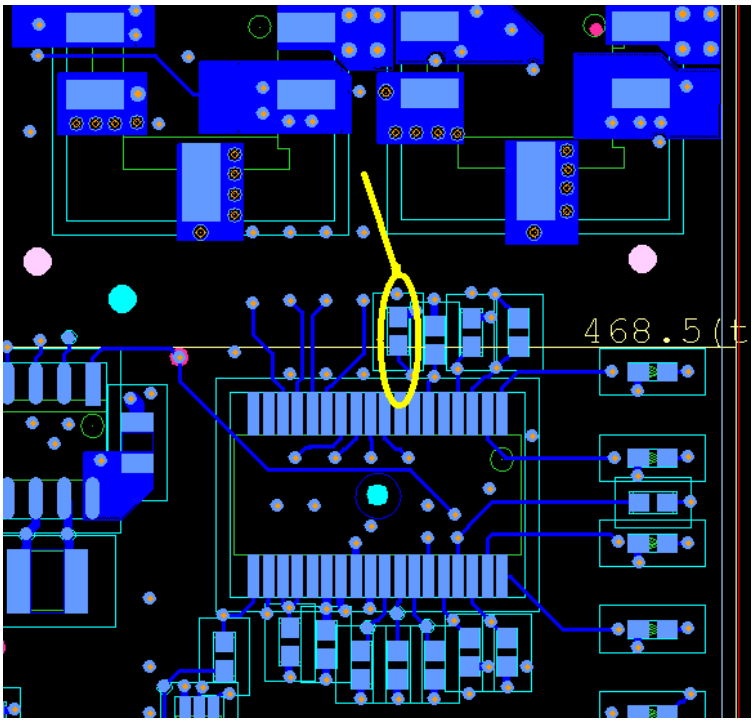
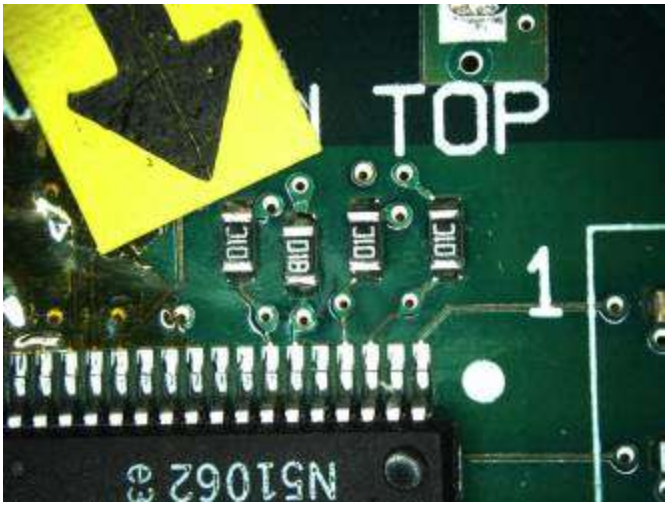
Situation:
A few of the 9000 series scopes randomly turn off. The fix is modifying the power distribution circuit on the acquisition board and dressing the wires that attach to the power supply. Make sure you use RoHS soldering station because the acquisition board components are RoHS compliant

Solution/Action:
1. Use the disassembly instructions in the service manual to remove the acquisition board.
2. Refer to the below drawings to identify R2830. The area of interest is marked with a yellow circle

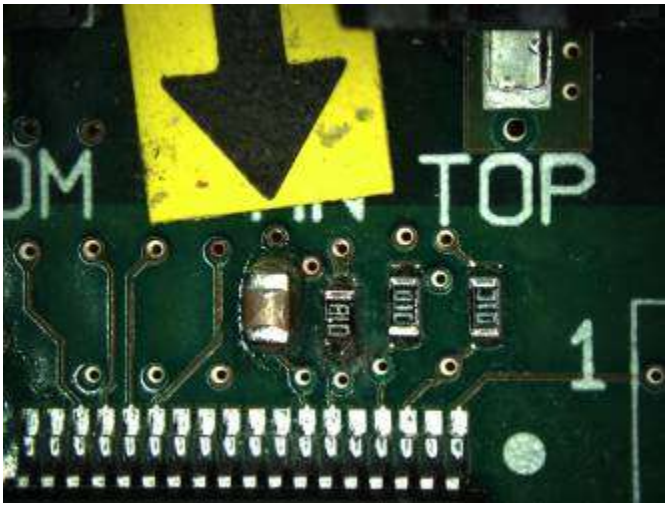






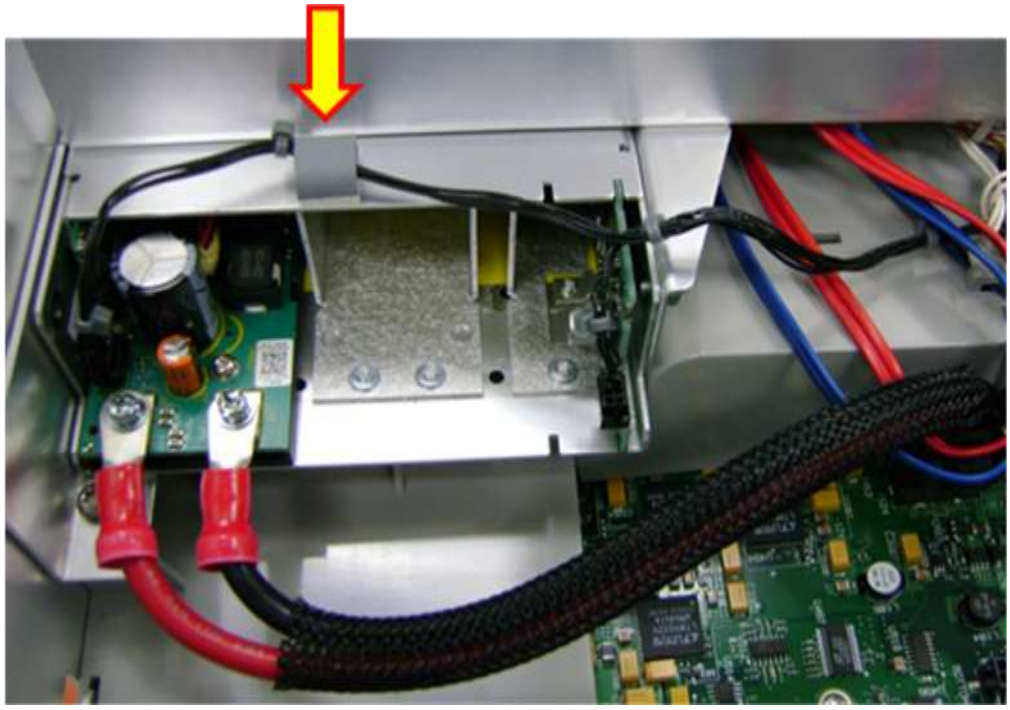
Before modification

3. Remove existing 10K resistor R2830.
4. Clean the solder pad and install the 10.5K SMD resistor on the pad.
5. Solder the 220nF SMD capacitor on top of the 10.5K resistor as shown in the below picture. Make sure the solder overflows down to the resistor pad entirely. A poorly soldered capacitor won't work as a capacitor.
6. Check the quality of your work by using a multimeter probe tip. Gently touch the lower pad of the capacitor several times. The probe tip introduces enough noise to turn the scope off if the capacitor is not soldered correctly. The capacitor forms a low pass filter to reduce noise. If the capacitor is soldered correctly, noise will not cause the scope to turn off.



After modification

7. Install the acquisition board back into the scope.
8. Refer to the below picture and dress the bulk power supply cables as shown.
9. Install clip on sheet metal as shown and dress the on/off cable through clip.



Bulk power supply cable and on/off cable routing

9. Reassemble the scope. Charge any parts and labor to factory warranty for this specific failure.