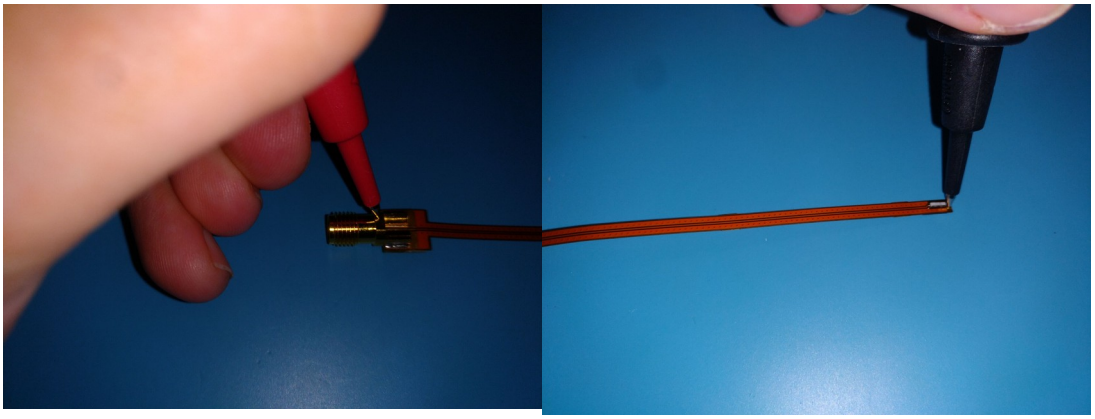
AKL-PT2 Test Procedure

Background information

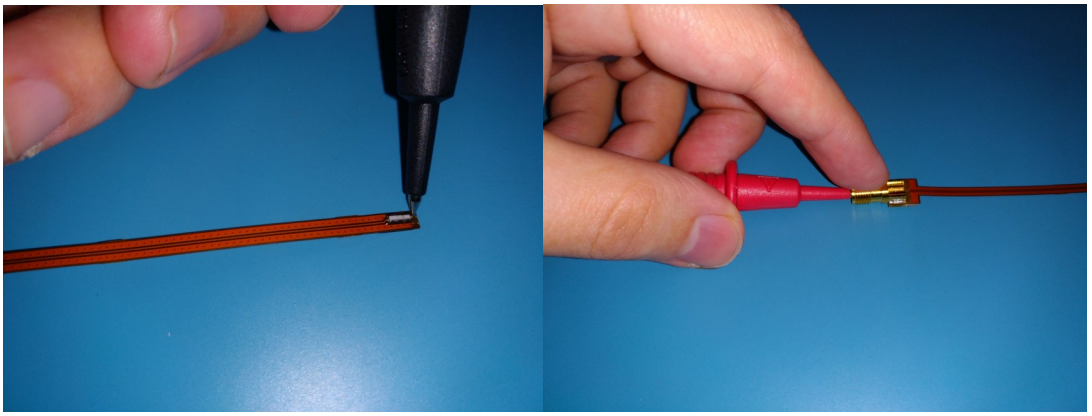
1. Record probe serial number, date, time, temperature, and relative humidity

DC Resistance

1. Equipment needed:
    - 5 ¾ digit multimeter (example: Rohde & Schwarz HMC8012)
2. Set multimeter to resistance mode.
3. Touch tips of probes together and press “NULL” button to remove lead resistance.
4. Place one probe on tip-side ground contact and the other on the top flat of the SMA as shown. Wait for meter reading to stabilize and record R_gnd value.



5. Place one probe on tip-side signal contact and one on SMA center pin as shown. Wait for meter reading to stabilize and record R_sig value.

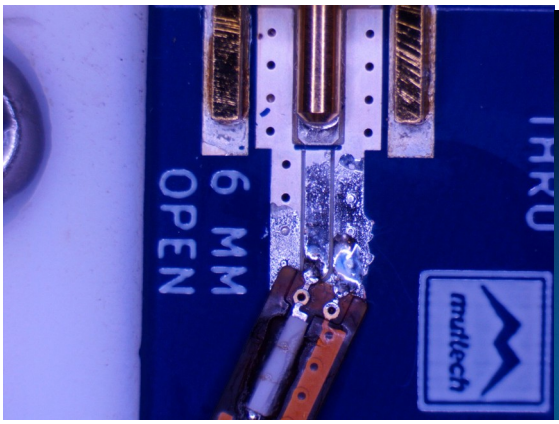


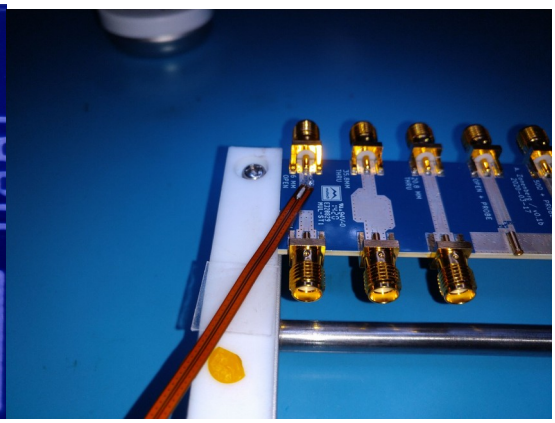
Connector Gaging

1. Equipment needed:
    - SMA gage set (ex: Mini-Circuits ACUDIAL-SMA)
2. Zero female pin gage against the gage master.
3. Measure female pin position and record FP value to nearest .0005” (12.7 µm).
4. Repeat for female dielectric.

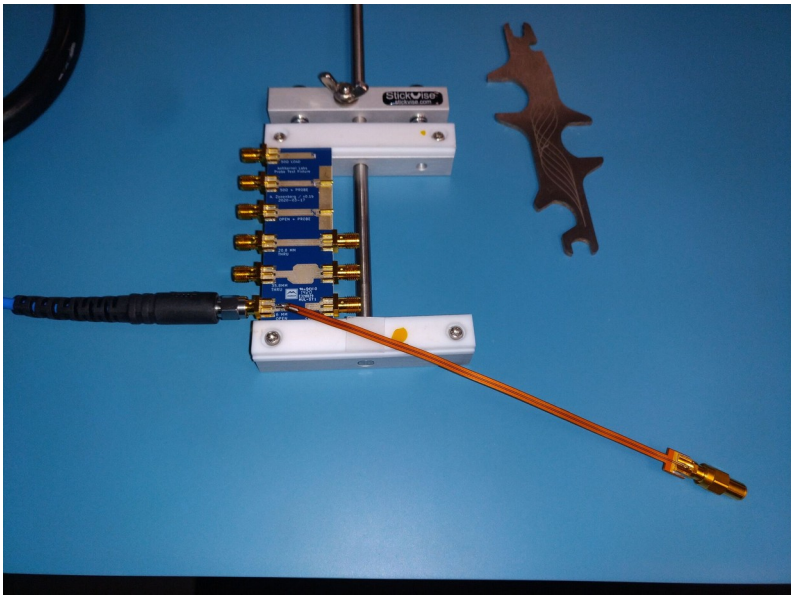
Open Circuit Return Loss / Impedance

1. Equipment needed:
    - Soldering gear
    - Test fixture
    - 2-port 6 GHz VNA (ex: PicoVNA 106) and SOLT standard set
    - Precision SMA male terminator (ex: Rosenberger 32S15R-1.0E3)
    - 5 lbf-in (0.565 Nm) torque wrench
2. Perform single port SOLT calibration on VNA port 1 per manufacturer procedure.
3. Apply 23.992 mm reference plane extension to VNA port 1 to shift reference plane to tip of probe.
4. Secure bottom side of probe to Stickvise with double-sided tape and solder tip of probe to 6mm open on fixture as shown.





5. Connect terminator to SMA on probe and VNA port 1 to SMA on fixture. Torque both connections to 5 lbf-in (0.565 Nm).



6. Record 1-port S-parameters as {probe serial}-zin.s1p.