Coax Cable Test

Summary

Use the **Coax Cable Test** to discover a short or an open on the coax cable run between the satellite modem and the TRIA.

This Job Aid covers:

This Job Aid supports all Technician audiences.

Tools Required

- Volt-Ohm meter
- Coax cable prep tool
- Compression connector tool
- 3.0 GHz barrel
- 75 Ohm terminator

Please Note: If there is no meter available, then look at the cable in sections beginning with the indoors, where the coax cable was attached to the modem. Inspect the cable for:

- Visible cable damage
- Poor/loose fittings
- Sharp bends (bends greater than 90 degrees)
- Cable compliance (meets Viasat's *Coax Cable Specifications*)

If a problem is found in a section, then only replace that section before testing the cable again, and moving to the next section. Check the connection between the modem and the ground block, then from the ground block to the TRIA.

Test Detail

Use the following steps to complete the **Coax Cable Test.**

First, test the Volt Ohm meter using the following steps.

Set up and test the Volt-Ohm meter:

- Connect black test probe to common port
- Connect red test probe to Ohm port

Set Ohm position to 200k or highest on meter

- Test 1: Make sure the red and black probes are not touching and view the meter
    - If the Volt-Ohm meter does not read one (1), the meter failed. Replace meter before continuing.
    - If the Volt-Ohm meter reads one (1), go to Test 2.
- Test 2: Touch the red cable probe to the black cable probe and view the meter reading.
    - If the Volt-Ohm meter does not read zero (0), the meter failed. Replace meter before continuing.
    - If the Volt-Ohm meter reads zero (0), the meter is good.

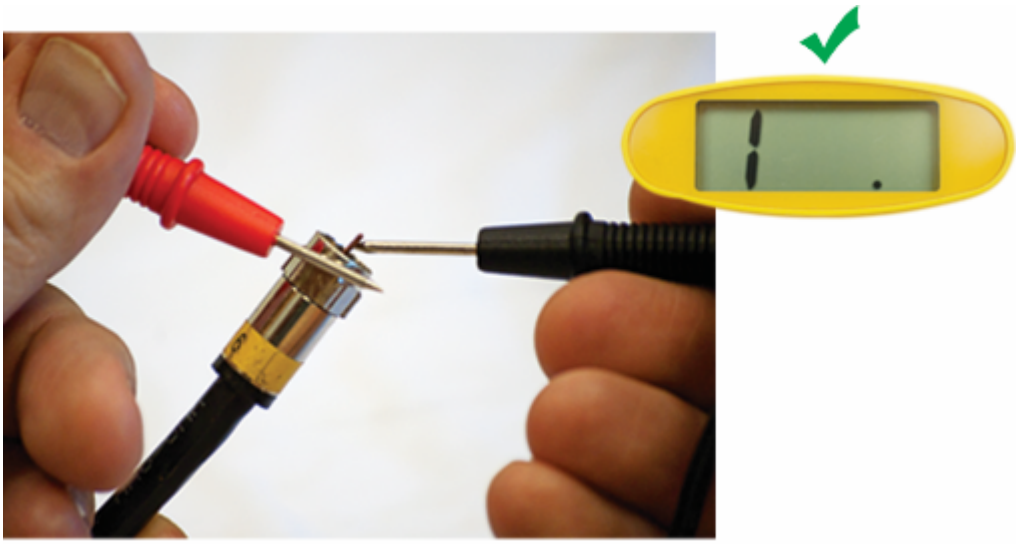
Disconnect the AC power cord from the power source to power down the modem.

Disconnect the coax and Ethernet cables from the modem and the TRIA.

Test coax for a short or an open:

Place a high frequency 3.0 GHz barrel and a 75 Ohm terminator on one end of the cable. Place the Volt Ohm meter on the other end of the cable.

- Touch the red probe to the outside shield of the connector
- Touch the black probe to the coax center conductor



View the meter reading.

- If the meter now fluctuates between zero (0) and one (1), the cable has a short. Repair or replace the coax cable run.

(Including connectors)

- If the Volt-Ohm meter reads zero (0), the coax cable has

an open. Repair or replace the coax cable run.

- (Including connectors)
- If the Volt-Ohm meter reads 75 Ohms, the coax cable does not have a short or an open and has passed.

Validate the cable repair with a **Modem Lock Test**.