Document Number: 310312-25K/A50

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Specification Reference: S-605

Test Procedure

for

Antenna Terminator/Dummy Load

Model TER-25K/A50

General

The TER-25K is a dummy load capable of dissipating 25 kilowatts (kW) of RF energy over the range of DC to 30MHz. With an input of 25kW average power, the peak input must not exceed 50kW peak-to-peak.

Basically, the TER-25K consists of six (6) 300-ohm ceramic or glass cylinders with a special resistive element electrofused on to the exterior surface walls. The protective coating over the resistive material is a baked-on silicon film. Electrical connections are made positive by fired-on silver bands at either end of the cylinder.

Operation of the dummy load above the 18kW level requires cooling which is provided by base-mounted axial fans.

Mechanical Inspection

1. Inspect for any damage incurred during installation.
2. Inspect straps holding resistors for tightness to prevent movement.
3. Check tightness of all other nuts and screws.
4. Check fuses for proper value (2.0 amperes).

Electrical Inspection

1. Check all solder connections.
2. Inspect resistor contacts for good electrical connection.
3. Measure DC resistance of resistor from center connector of output termination to ground.
4. Measure interlock circuit continuity at the interlock connector; check switches S101, S102 and S103 for proper performance.
5. Check XMTR (transmitter) pilot light continuity through the interlock indicator.
6. Apply 110VAC, 60Hz, single-phase to AC connector, turn AC power switch on, and check fans for correct direction of rotation (Airflow is directed upward through resistor and exhausted out top of cabinet into free air or plenum depending on the installation).

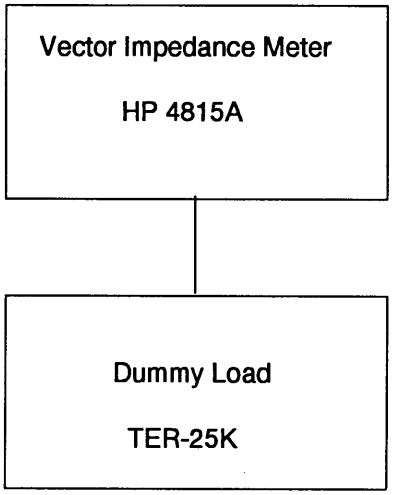
Adjustments and VSWR Measurement

Equipment required

Simpson 260 VOM meter

Hewlett-Packard 4815A RF Vector Impedance Meter

Test Set-up



Procedure

1. **Connect equipment as specified in the test setup above.**
2. **Set the capacitor plate distance 16 inchers from the front edge of the cabinet frame.**
3. **Adjust the capacitor plate at 24MHz for minimum SWR.**
4. **After tuning for minimum SWR at 24MHz, verify that the SWR for 4MHz, 16MHz, 24MHz and 28MHz is within published specification.**
5. **Turn the base-mounted fans ON and check for proper operation. Verify that the airflow is correct.**

Check-Off Sheet

Mechanical Inspection

1. Mechanical connections are secure _____
2. All straps connected in proper position _____
3. Proper fuses are in fuseholders _____

Electrical Inspection

1. Wire connections are mechanically strong; no cold solder joints. _____
2. DC resistance measured _____
3. Interlocks are working properly _____
4. Switches are working properly _____
5. Pilot light continuity check _____
6. Airflow is in correct direction (up) _____

Adjustment and SWR Measurements _____

Model: TER-25K/A50 **Serial #** _____

Signed _____

Date _____