

KANNAD 406 ELTs**SWR Measurement between ELT Transmitter and Antenna****1. REASON**

When installing an ELT, KANNAD recommends SWR measurements to check ELT-Antenna link.

This Service Letter is to provide information regarding the way to perform SWR measurements with any type of ELTs antenna used with ELT transmitters manufactured by KANNAD.

2. EFFECTIVITY

This Service Letter is applicable to any type of two or three-frequency ELT antennas used with all Automatic Portable (AP) or Automatic Fixed (AF) KANNAD ELTs.

KANNAD 406 ATP-M	S1818502-02
KANNAD 406 ATP	S1819502-02
KANNAD 406 AP	S1820502-02
KANNAD 406 AP-H	S1820502-04
KANNAD 406 AF	S1821502-02
KANNAD 406 AF (6D)	S1821502-06
KANNAD 406 AF-H	S1822502-02
KANNAD 121 AF	S1824502-02
KANNAD 121 AF-H	S1826502-02

3. TOOLS

SWR3000 SWR meter manufactured by PROCOM or equivalent.

Equivalence:

SWR meter with built-in signal generator, compatible with the frequencies of ELT transmitter and ELT antennas (121.5 / 243 / 406 MHz).

4. PROCEDURE**A. General**

- (1) Switch ELT to OFF.
- (2) Disconnect ELT - antenna cable from BNC connector of ELT.
- (3) Refer to your SWR meter documentation to calibrate it and to select the centre frequency and span you wish to measure.
- (4) Connect the ELT - antenna cable to the SWR meter.
- (5) Measure SWR and compare with the data supplied by the antenna manufacturer. If the SWR is higher than data supplied by the antenna manufacturer, the BNC connectors, coaxial cable and antenna have to be inspected for defect.
- (6) Connect ELT - antenna cable to BNC connector of ELT.
- (7) Switch ELT to ARM.

B. Using SWR3000 SWR meter

Figure 1: SWR3000 SWR meter, Commands and Controls



- (1) Switch ELT to OFF.
- (2) Disconnect ELT - antenna cable from BNC connector of ELT.
- (3) Press ON on the SWR meter key pad.
- (4) Press CENTER:
 - Type 121 on the key pad (for a 121MHz SWR measurement) then press ENTER.
 - CALIBRATING PRESS CAL TO CALIBRATE OR PRESS ENTER TO SKIP is displayed.
- (5) Press ENTER to skip.
- (6) Press SPAN:
 - Choose an adequate span, then press ENTER.
 - Example, type 50 to enter a 50 MHz span, then press ENTER.
 - Note: 10 MHz is the span min. accepted by SWR3000 SWR meter.
- (7) CALIBRATING PRESS CAL TO CALIBRATE OR PRESS ENTER TO SKIP is displayed:
 - Press CAL to calibrate the SWR meter:
 - CALIBRATING DONE is displayed at the end of the calibrating task.
- (8) Connect the ELT - antenna cable to the TEST PORT of SWR meter (a N to BNC adaptor is required):
 - SWR is performed.
- (9) Press HOLD/RUN to display the marker and freeze the screen.
- (10) If necessary, use the MARKER button to place the marker on 121.5 MHz (abscissa axis).
- (11) Read the SWR on the ordinate axis and compare with the data supplied by the antenna manufacturer. If the SWR is higher than data supplied by the antenna manufacturer, the BNC connectors, coaxial cable and antenna have to be inspected for defect.
- (12) Press CENTER and perform the same procedure from (4) to (11) for 243 and 406 (if any) frequencies.
- (13) Disconnect the ELT - antenna cable.
- (14) SWR3000 SWR meter will switch off automatically after 60 seconds of non use.
- (15) Connect ELT - antenna cable to BNC connector of ELT.
- (16) Switch ELT to ARM.

Figure 2: Example of SWR measurements at 121.5 MHz frequency

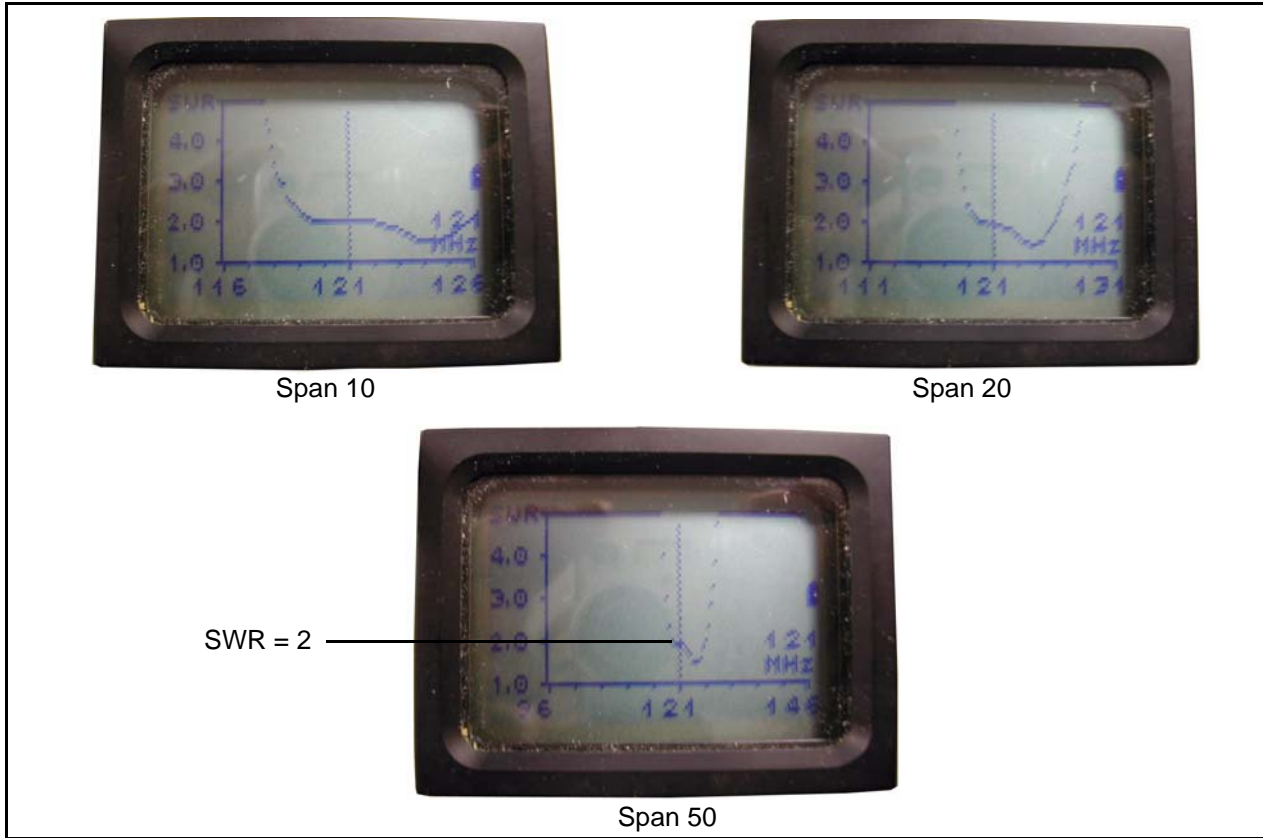


Figure 3: Example of SWR measurements at 243 MHz frequency

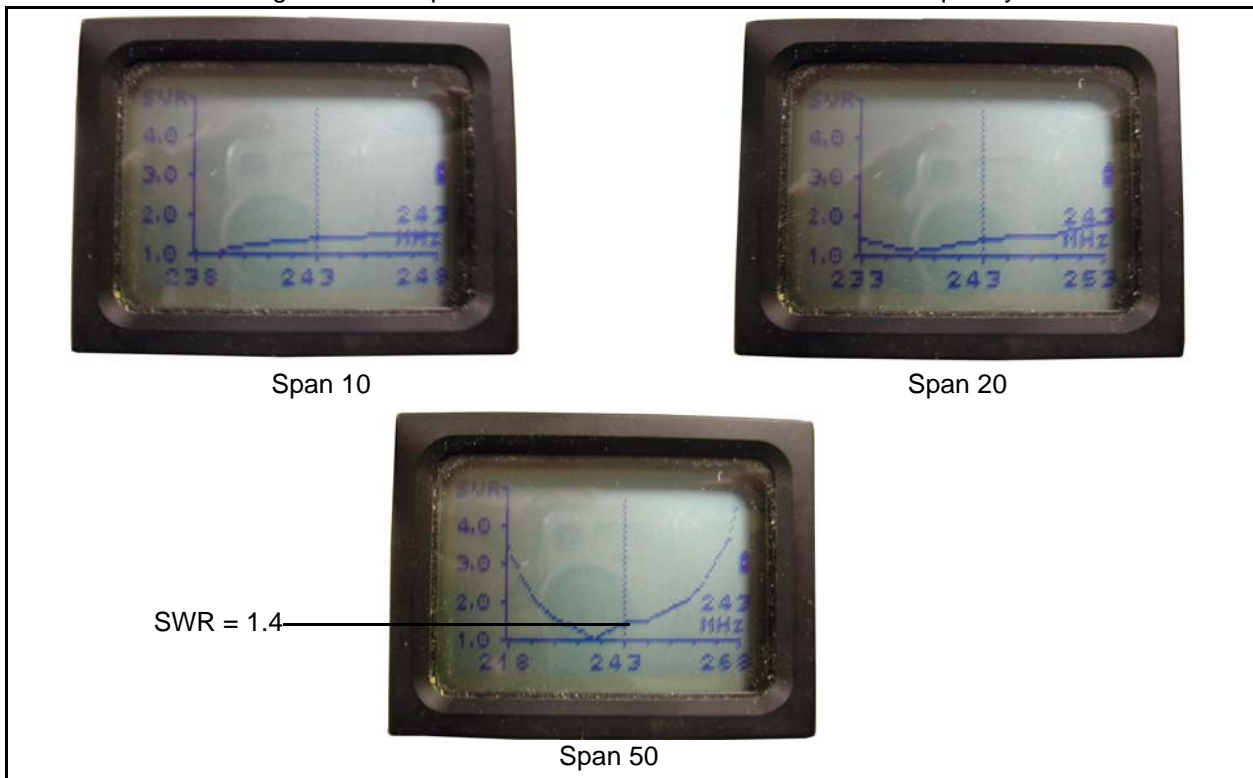
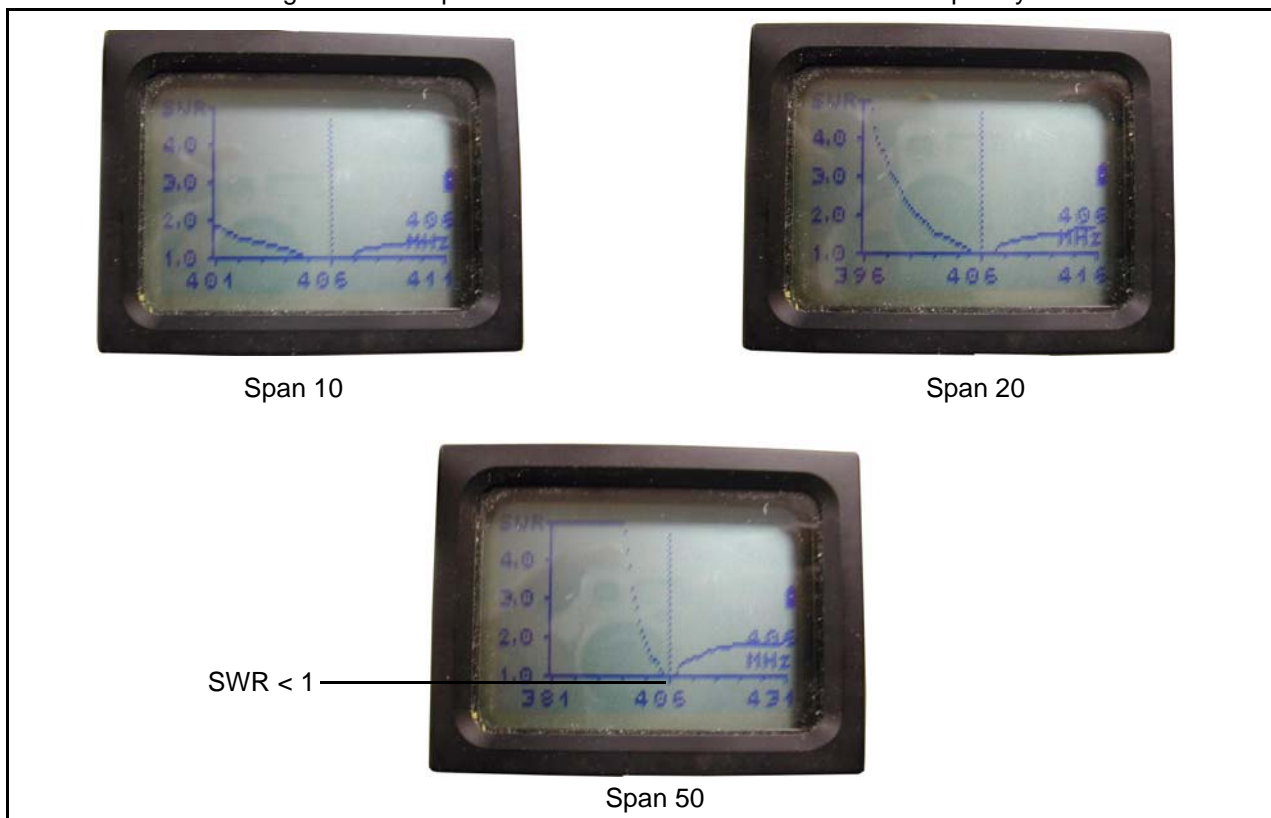


Figure 4: Example of SWR measurements at 406 MHz frequency



5. CONTACT

For any further information, please feel free to contact our customer support at:

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