

***TB 9-6625-2280-35**

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR PEAK POWER METER WAVETEK, MODEL 8502A

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REPORTING OF ERRORS

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*This bulletin supersedes TB 9-6625-2280-35, dated 5 October 1992.

SECTION I IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This bulletin provides instructions for the calibration of Peak Power Meter, Wavetek, Model 8502A. The manufacturer's manual was used as the prime data source in compiling these instructions. The equipment being calibrated will be referred to as the TI (test instrument) throughout this bulletin.

a. Model Variations. None.

b. Time and Technique. The time required for this calibration is approximately 6 hours, using the dc and low frequency and microwave techniques.

2. Forms, Records, and Reports

a. Forms, records, and reports required for calibration personnel at all levels are prescribed by TB 750-25.

b. Adjustments to be reported are designated (R) at the end of the sentence in which they appear. When adjustments are in tables, the (R) follows the designated adjustment. Report only those adjustments made and designated with (R).

3. Calibration Description. TI parameters and performance specifications which pertain to this calibration are listed in table 1.

Table 1. Calibration Description

Test instrument parameters	Performance specifications
Calibrator output	Frequency range: 0.95 to 1.05 GHz Accuracy: $\pm 5.0\%$ Power range: 1.000 mW Accuracy: $\pm 4.5\%$
Power linearity	Frequency range: 30 MHz to 40 GHz ¹ Power range: Peak power mode -20 to +20 dBm ² Accuracy: -10 dBm $\pm 7\%$ 0 to +10 dBm $\pm 4\%$ Power range: CW power mode -40 to +20 dBm ³ Accuracy: 30 dBm $\pm 5\%$ -20 to +20 dBm $\pm 4\%$
Analog output	Coefficient: 100mV/dB(0 V = 0 dBm)
Voltage proportional to frequency	1 V dc per GHz Accuracy at 10 GHz: $\pm 0.5\%$

¹Checked at 1 GHz only.

²-30 dBm range accuracy $\pm 39\%$ not checked.

³-40 dBm range accuracy $\pm 14\%$ not checked.