

***TB 9-4931-540-35**

SUPERSEDED COPY DATED 5 JULY 1993

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

CALIBRATION PROCEDURE FOR SPECTRUM ANALYZER HEWLETT-PACKARD, MODEL 3585B

Headquarters, Department of the Army, Washington, DC
12 March 2001

Approved for public release, distribution is unlimited.

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedure, please let us know. Mail your letter or DA Form 2028 to: Commander, U. S. Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, AL 35898-5230. A reply will be furnished to you. You may also send in your comments electronically to our e-mail address: ls-lp@redstone.army.mil or by FAX (256) 842-6546/DSN 788-6546.

		Paragraph	Page
SECTION	I.	IDENTIFICATION AND DESCRIPTION	
		Test instrument identification	1 2
		Forms, records, and reports	2 2
		Calibration description.....	3 2
	II.	EQUIPMENT REQUIREMENTS	
		Equipment required	4 3
		Accessories required.....	5 3
	III.	CALIBRATION PROCESS	
		Preliminary instructions	6 4
		Equipment setup	7 4
		Counter and marker frequency.....	8 5
		Range calibration	9 5
		Amplitude linearity	10 7
		Reference level	11 8
		50 Ω flatness.....	12 10
		1 M Ω flatness	13 13
		Noise	14 15
		Low frequency response	15 16
		Local oscillator sideband	16 18
		Harmonic distortion	17 20
		Bandwidth	18 25
		Tracking generator flatness	19 28
		Final procedure	20 29

*This bulletin supersedes TB 9-4931-540-35, dated 5 July 1993.

SECTION I IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This procedure provides instructions for the calibration of Spectrum Analyzer, Hewlett-Packard, Model 3585B. 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 technique.

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. 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
Marker frequency	Range: 20 Hz to 40.1 MHz Counter accuracy: ± 0.3 Hz Readout accuracy: $\pm 0.2\%$ of frequency span $\pm$ resolution bandwidth setting
Range calibration	Frequency: 150 kHz Range: -25 to +30 dB Accuracy: ± 0.4 dB
Amplitude linearity	Range: 0 to -95 dB Accuracy: 0 to -20 dB: ± 0.3 dB -20 to -50 dB: ± 0.6 dB -50 to -80 dB: ± 1.0 dB -80 to -95 dB: ± 2.0 dB
Reference level	Range: +10 to -90 dBm Accuracy: +10 to -50 dBm: ± 0.4 dB -50 to -70 dBm: ± 0.7 dB -70 to -90 dBm: ± 1.5 dB
50 Ω flatness	Frequency: 20 Hz to 40.1 MHz Flatness: ± 0.5 dB