

TB 9-4931-535-35

SUPERSEDED COPY DATED 30 DECEMBER 1996

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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

Headquarters, Department of the Army, Washington, DC
30 January 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.

SECTION		Paragraph	Page
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
	Frequency counter and marker	8	4
	Range calibration	9	5
	Amplitude linearity	10	6
	Reference level	11	7
	50/75 Ω flatness	12	8
	1 M Ω flatness	13	9
	Noise	14	10
	Low frequency response	15	11
	Local oscillator sideband	16	12
	Harmonic distortion	17	14
	Bandwidth	18	15
	Tracking generator flatness	19	18
	Final procedure	20	19

*This bulletin supersedes TB 9-4931-535-35, dated 30 December 1996.

SECTION I IDENTIFICATION AND DESCRIPTION

1. Test Instrument Identification. This procedure provides instructions for the calibration of Spectrum Analyzer, Hewlett-Packard, Model 3585A. 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 4 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
Frequency marker	Range: 20 Hz to 40.1 MHz Counter accuracy: ± 0.3 Hz Readout accuracy: ± 0.2 % of frequency span $\pm$ resolution bandwidth setting
Range calibration	Frequency: 150 kHz Range: -25 to +30 dB Accuracy: ± 0.7 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
50/75 Ω flatness	Frequency range: 20 Hz to 40.1 MHz Flatness: ± 0.5 dB
1 M Ω flatness	Frequency range: 20 Hz to 10 MHz Flatness: ± 0.7 dB Frequency range: 10 to 40.1 MHz Flatness: ± 1.5 dB