

# **\*TB 9-6625-1914-35**

## **DEPARTMENT OF THE ARMY TECHNICAL BULLETIN**

### **CALIBRATION PROCEDURE FOR SPECTRUM ANALYZER, IF, LF, AND RF PLUG-IN UNITS, HEWLETT-PACKARD, MODELS 8552( ), 8553( ), 8554( ), 8555( ), AND 8556( )**

Headquarters, Department of the Army, Washington, DC  
28 May 2004

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#### **REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS**

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\*This technical bulletin supersedes TB 9-6625-1914-35, 9 December 2003, including all changes.

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## SECTION I IDENTIFICATION AND DESCRIPTION

**1. Test Instrument Identification.** This bulletin provides instructions for the calibration of Spectrum Analyzer IF, LF, and RF Plug-in Units, Hewlett-Packard, Models 8552( ), 8553( ), 8554( ), 8555( ), and 8556( ). The manufacturers' manuals were used as the prime data sources in compiling these instructions. The equipment being calibrated will be referred to as the TI (test instrument) throughout this bulletin.

**a. Model Variations.** Variations among models are described in text, tables, and figures.

**b. Time and Technique.** The time required for this calibration is approximately 2 hours for each plug-in, using the dc and low frequency technique for Models 8552( ), 8553( ), and 8556( ); and the dc and low frequency and microwave technique for Models 8554( ), and 8555( ).

### 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                                                     |
|--------------------------------------------|--------------------------------------------------------------------------------|
| Model 8552( )                              |                                                                                |
| Amplitude stability vs IF bandwidth change | ±5.8% on linear display (Model 8552A)                                          |
|                                            | ±5.8% at .1 to 300 kHz (Model 8552B)                                           |
|                                            | ±12% at .03 to 300 kHz (Model 8552B)                                           |
|                                            | ±19% at .01 to 300 kHz (Model 8552B)                                           |
| Amplitude display accuracy                 | 0.25 dB/dB over entire 70 dB display range with ±1.5 dB total cumulative error |
| Bandwidth accuracy                         | ±20% at 3 dB points (except at 10 kHz, ±5%)                                    |