

5. Audio Analyzer: HP 8903A or equivalent.

### C. PORTABLE EQUIPMENT

The following equipment should be in the unit test area, available for spot test and as a part of calibration.

1. VHF and UHF hand-held radio and cables.

### D. PERMANENT LOCATION FINAL TEST EQUIPMENT

1. 3000B ATS

- a. Hewlett Packard Model 9816 Computer
- b. Hewlett Packard Model 82901M Disc Drive
- c. Hewlett Packard Model 2671G Printer
- d. Hewlett Packard Model 8568A Prog. Spectrum Analyzer
- e. Hewlett Packard Model 436A Power Meter
- f. Hewlett Packard Model 8447D Amplifier (.1-1300 MHz 26 dB)
- g. Hewlett Packard Model 8496A 110 dB attenuator (Cal'd DC-4 GHz)
- h. Marconi Model 2019 Signal Generator (programmable)
- i. DATA I/O Model 29A PROM PROGRAMMER (or equivalent)
- j. Comtest 3000B Software Verification Package

with a screwdriver, or other appropriate tool, of screws, nuts, or other tightened type of hardware that is suspected of being loose.

- a. Front panel and front panel hardware; check for cosmetic misfeatures such as marks or scratches visible from arms length. Check for properly tightened knob set screws and appearance of knobs and meter. Check for readable scope graticule. Check for feel of buttons. Check on PTR.

## II. VOLTAGE REQUIREMENTS

### A. Regulation

1. EQUIPMENT: Variac; AC line monitor. Set Variac to 104 VAC as read on AC line monitor.

a. Check that unit is in regulation\* as indicated on unit oscilloscope. Check on PTR.

b. Set Variac to 126 VAC as read on AC line monitor. Check that unit is in regulation as indicated on unit oscilloscope. Check on PTR.

\*Deregulation will show up on scope as wobble, spikes, or both. Become familiar with what is typical of well-regulated pattern and what is typical of poor regulation.

## III. SYSTEM TIME BASE

### A. Accuracy

1. EQUIPMENT: Standard generator, set to 852.35 MHz no mod, at 1 mV out. UNIT: 852.35 MHz, RCV, FM, BW NAR, MOD & FREQ ERROR Mode.

a. Cable 10 MHz out on rear panel to standard counter. Check that counter reads 10.000000 MHz  $\pm$  4 Hz. Record on PTR.

b. Cable standard generator output to unit RF IN/OUT jack. Check freq. error, as read on LCD counter  $\pm$  400 Hz. Record on PTR.

c. Change standard generator and unit to 52.35 MHz. Check error  $\pm$  20 Hz. Record on PTR.

## IV. AUDIO SECTIONS

### A. Voltmeter/Scope Calibration/Audio Section

### 5.3.3 NOMENCLATURE AND TEST NOTES

1. "Standard Generator" refers to Wavetek Model 3010 referenced to 10 MHz house standard.
2. "Standard Counter" refers to frequency counter referenced to 10 MHz house standard.
3. "Unit" refers to 3000B under test.
4. On the data sheet, blanks are provided for recording data. Data from test must appear in blanks. The information following the blanks  $\pm$ .01V indicate the tolerance.

The parenthesis preceeding the blanks: (5.00V) indicate perfect readings (not always shown).

Blanks followed by no reading indicate that no specification or tolerance is defined, therefore proper operation is indicated by placing a check mark in the blank.

### 5.3.4 TEST DEFINITION

#### I. VISUAL INSPECTION

##### A. External Hardware Inspection

1. Visual inspection should include "testing"