

## **ST-8000A FIRST ARTICLE TEST SETUP FOR HP3561A**

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The first article tests of the ST-8000A utilizes the HP-3561A Spectrum Analyzer. The HP-3561A can be difficult to configure and operate. This document will describe how to set the HP-3561A into the necessary modes required during the first article tests. The method of connections and terminations of the actual hardware are covered in the "FIRST ARTICLE TEST PROCEDURES", see the 'Test Diagrams' figures 1-3. During the first article tests the HP-3561A is used to analyze harmonics, spurious noise and muted levels. This document will establish the procedures require to attain a basic configuration for the first article tests. Later the methods for setting the vertical and horizontal scales will be described.

### **RECALLING TEST CONFIGURATION**

This is the recall procedure for the first article tests of the ST-8000A.

- 1) Press "RECALL".
- 2) Press "CATALOG ON OFF" (window menu softkey).
- 3) Use the Up &/ Down arrows on the number keypad to select 'ARTICLE1' as the highlighted setup file on the window.
- 4) Press "USE CAT FILENAME" (window menu softkey). The filename selected will be displayed in the upper left corner of the window.
- 5) Press "RECALL STATE" (window menu softkey). The test setup will now be enforce.
- 6) Press "FREQ" to return to the SPAN window.

### **ALTERING dBm/DIV (VERTICAL SCALE)**

- 1) Press "VERT SCALE".
- 2) Press "DEFINE dB/DIV" (window menu softkey).
- 3) Enter a number from the keypad ('11' for example).
- 4) Press "dB" (window menu softkey).

### **ALTERING the SPAN (HORIZONTAL SCALE)**

- 1) Press "FREQ".
- 2) Press "DEFINE SPAN" (window menu softkey).
- 3) Enter 1-100, (5 for example), on number keypad. This is the number of kHz that will span the window.
- 4) Press "khz" (window menu softkey).

## **BASIC CONFIGURATION**

After cycling power on the HP-3561A do the following:

- 1) Press "PRESET". (establish any known state)
- 2) Press "FREQ". Do not proceed until 'SPAN' is in the upper left corner of the window.
- 3) Press "FORMAT".
  - a) Press "SINGLE" (window menu softkey).
- 4) Press "FREQ".
  - a) Press "DEFINE SPAN" (window menu softkey).
  - b) Enter '1' and '0' on the number keypad. This is echoed in the window next to SPAN.
  - c) Press "khz" (window menu softkey).
- 5) Press "UNITS".
  - a) Press "mW (dBm)" (window menu softkey).
  - b) Press "UNIT CAL SELECT" (window menu softkey).
  - c) Press "define IMPEDENCE" (window menu softkey) twice.
  - d) Enter '600' on the number keypad. This is echoed in the upper left corner of the window.
  - e) Press "ohm" (window menu softkey).
- 6) Press "VERT SCALE".
  - a) Press "SINGLE AUTO SCL" (window menu softkey). This will set the top of the vertical scale to the maximum signal.

## **SAVING A TEST CONFIGURATION**

- 1) Setup the unit for the desired configuration to be saved.
- 2) Press "SAVE".
- 3) Press "DEFINE FILENAME" (window menu softkey).
- 4) Press "CLEAR ENTRY" (window menu softkey).

- 5) Enter the filename, 8 chars max. The blue letters underneath the keys are what is echoed into the upper left corner of the window when pressed.
- 6) Press "ENTER" (window menu softkey).
- 7) Press "SAVE STATE" (window menu softkey). The current configuration is now saved as the name you entered.
- 8) Press "CATALOG ON OFF" (window menu softkey) to view the setup files and verify the new files entry.
- 9) Press "FREQ" to return to the SPAN window.