# S E R V I C E N O T E

SUPERSEDES: E2500A-09

## E2500A Frequency Agile Signal Simulator (8791 Model 10)

**Serial Numbers:** 0000A00000 / 9999A99999

### Determining the cause of System Error 00227 Calibration Error: Bad Detector Voltage.

**Duplicate Service Notes:** E2500B-04A, E2500A-09A

**Situation:**
During Level Calibration of the E2500A Frequency Agile Signal Simulator, the system may issue System Error 00227 Calibration Error: Bad Detector Voltage, at which time the system will abort the Level Calibration routine.

**Solution/Action:**
To determine the cause of the error, do the following:

1. Disconnect the RF Input from the rear of the 86792A Agile Upconverter (AUC). Install a type "N" to BNC adapter to the RF Input and connect the 38 MHz output on the rear of the AUC to the RF input and then execute LEVEL Calibration.

*Continued*

DATE: 09 October 1992

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

**INFORMATION ONLY**

| AUTHOR: | ENTITY: | ADDITIONAL INFORMATION: |
|---|---|---|
| DGS | 0400 | |



Agilent Technologies

If the Unit Calibrates, then the Problem is located within the 86791A Agile Carrier Synthesizer (ACS) and its output power and flatness should be tested. Refer to the 86791A (ACS) Service Manual Section 3 Performance tests.

NOTE: The ACS output signal level should be approximately - 10 dBm.

2. If calibration error 00227 still occurs, then the problem is in the 86792A (AUC). It will be necessary to check the gain of the linear upconversion path. The linear upconversion path consists of the A12 First Converter and FLC assembly, A13 Second Converter and A14 Third Converter and Output assembly. To verify the gain of the A12, A13 and A14 assemblies, refer to section 5 of the 86792A service manual. Perform the following tests:

   a) A12 First Converter Filter Tilt and Gain

   b) A12 First Converter Gain, Flatness and Tilt

   c) A13 Second Converter Gain

   d) A14 Output Section Gain

   e) A14 Output Detector Gain and Offset

To properly adjust the 86791A Agile Carrier Synthesizer or the 86792A Agile Upconverter would require that they be returned to the nearest service center for adjustment.