

S E R V I C E N O T E

SUPERSEDES: None

**E4411A Spectrum Analyzer  
(Model Number ESA-L1500A)**

**Serial Numbers:** US36450101 / US38452514

(Exceptions: US38452344, US38452372, US38452373, US38452374, US38452424, US38452432, US38452462, US38452463, US38452469, US38452489, US38452502, US38452504, US38452507, US38452509, US38452511, US38452512, US38452513)

**Spec Changes for TG Operating Temperature, 75 ohm Gain Compression, 75ohm DANL, and Residual FM**

**To Be Performed By:** Agilent-Qualified Personnel or Customer

**Parts Required:**

P/N	Description	Quantity
E4411-90054	ESA-L1500A User's and Cal Guide	1

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DATE: March 1999

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

**INFORMATION ONLY**

AUTHOR: RA	ENTITY: 5320	ADDITIONAL INFORMATION:
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**Situation:**

In an effort to eliminate extremely low yields, it has become necessary to relax certain specifications. These specifications are

- 1) Gain Compression for 75 ohm units
- 2) DANL for 75 ohm units
- 3) Residual FM
- 4) Operating temperature range for Tracking Generators specs

This change is retroactive and therefore applies to older E4411A instruments as well as newer ones. Units shipped within the serial number range listed above meet their original specification when shipped, but they will no longer be supported to meet their original specifications after they are calibrated or repaired.

The specification changes are as follows:

**TG Operating Temperature**

The Operating temperature range for Tracking Generators to meet their specifications has changed from:

0 to 55 degrees Celcius

to:

20 to 30 degrees Celcius

**Gain Compression for 75 ohm units**

The specification for the 1 dB Gain Compression point changed so that the input power level at the mixer was decreased from:

54 dBmV

to:

46.75 dBmV

**DANL for 75 ohm units**

The upper limits change from:

1 MHz to 500 MHz Range -65 dBmV

500 MHz to 1.0 GHz Range -61 dBmV

1.0 GHz to 1.5 GHz Range -55 dBmV

to:

1 MHz to 500 MHz Range -65 dBmV (stays the same)

500 MHz to 1.0 GHz Range -60 dBmV

1.0 GHz to 1.5 GHz Range -53 dBmV

**Residual FM**

The upper limit for Residual FM changes from:

100 Hz

to:

150 Hz

**Solution / Action:**

The new ESA-L1500A User's and Calibration Guide has been changed to reflect the specification changes. The STE-9000 software has also been modified. If the performance verification routines are being performed manually, then the new procedures should be used (ESA-L1500A User's and Calibration Guide, p/n E4411-90054).

In addition, Tracking Generator performance verification tests must be performed at room temperature (20 to 30 degrees Celcius).