

S E R V I C E N O T E

SUPERSEDES: NONE

54610B Oscilloscope**Serial Numbers:** 0000A00000 / 9999A99999**Voltage Measurement Accuracy****Situation:**

Due to confusion caused by the different ways accuracy is calculated for calibration and general use, the calibration routine for voltage measurement accuracy has been modified.

To calculate the cursor accuracy for the 54610B oscilloscope, the algorithm remains the same:

Single cursor accuracy:

(vertical accuracy $\pm 1.2\%$) of full scale $\pm(0.5\%)$ of position value

Dual cursor accuracy:

(vertical accuracy $\pm 0.4\%$) of full scale

Where vertical accuracy is defined as 2%, or about 2% for vernier ranges.

The test limits for the calibration routine for voltage measurement accuracy has been modified to follow the dual cursor accuracy specifications exactly (non-vernier range).

Continued

DATE: January 1996

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR:

CLD

ENTITY:

0840

ADDITIONAL INFORMATION:

Solution/Action:

Calibration routines for voltage measurement accuracy should be modified to the table below.

| Range | Reading | Limits |
|------------|---------|------------------|
| 5V/div | 35V | 34.04 to 35.96V |
| 2V/div | 14V | 13.62 to 14.38V |
| 1V/div | 7V | 6.808 to 7.192V |
| 0.5V/div | 3.5V | 3.404 to 3.596V |
| 0.2V/div | 1.4V | 1.362 to 1.438V |
| 0.1V/div | 0.7V | 680.8 to 719.2mV |
| 50mV/div | 350mV | 340.4 to 359.6mV |
| 20mV/div | 140mV | 136.2 to 143.8mV |
| 10mV/div | 70mV | 68.08 to 71.92mV |
| (1)5mV/div | 35mV | 33.08 to 36.92mV |
| (1)2mV/div | 14mV | 12.08 to 15.92mV |

(1) Full scale is 80 mV