S E R V I C E N O T E

SUPERSEDES: NONE

54602B 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 54602B oscilloscope, the algorithm remains the same:

Single cursor accuracy:
(vertical accuracy ±1.2%) of full scale ±(0.5%) of position value
Dual cursor accuracy:
(vertical accuracy ±0.4%) of full scale
Where vertical accuracy is defined as 1.5%, or about 3% for vernier ranges.

The test lmits 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:	ENTITY:	ADDITIONAL INFORMATION:
CLD	0840	

Agilent Technologies

Solution/Action:
Calibration routines for voltage measurement accuracy should be modified to the table below.

Range	Reading	Limits
5V/div	35V	34.24 to 35.76V
2V/div	14V	13.10 to 14.30V
1V/div	7V	6.848 to 7.152V
0.5V/div	3.5V	3.424 to 3.576V
(1)0.2V/div	1.4V	1.370 to 1.430V
(1)0.1V/div	0.7V	684.8 to 715.2mV
50mV/div	350mV	342.4 to 357.6mV
20mV/div	140mV	137.2 to 143.0mV
10mV/div	70mV	68.48 to 71.52mV
5mV/div	35mV	34.24 to 35.76mV
2mV/div	14mV	13.70 to 14.30mV
(2)1mV/div	7mV	6.696 to 7.304mV

(1) Also applies to channels 3 and 4
(2) Full scale is 16 mV