S E R V I C E N O T E

SUPERSEDES: NONE

54601B 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 54601B 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 limits for the calibration routine for voltage measurement accuracy have 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 35.76 V
2V/div	14V	13.70 to 14.30 V
1V/div	7V	6.848 to 7.152 V
0.5V/div	3.5V	3.424 to 3.576 V
(1)0.2V/div	1.4V	1.370 to 1.430 V
(1)0.1V/div	0.7V	684.8 to 715.2 mV
50mV/div	350mV	342.4 to 357.6 mV
20mV/div	140mV	137.0 to 143.0 mV
10mV/div	70mV	68.48 to 71.52 mV
(2)5mV/div	35mV	34.48 to 36.52 mV
(2) 2mV/div	14mV	12.48 to 15.52 mV

(1) Also applies to channels 3 and 4
(2) Full scale is 80 mV