Oscilloscope Amplitude Verification Tests



To verify the oscilloscope amplitude output of the 3000A series multi product calibrator, the following procedure should be followed.

- 1. Select Scope Function from the front panel
- 2. Press the 'Amplitude' key to enter amplitude function
- 3. Select 'Amplitude' from the function menu, this will provide a list of selectable amplitude ranges.
- 4. Select the 'DC' from the function menu
- 5. The output of the oscilloscope will now be a DC level which can be measured with a high accuracy multimeter in the DC voltage setting.

The recommended test points for the 3000 series are as follows:

2mV/Division (6mV Pk-Pk)
5mV/Division (30mV Pk-Pk)
10mV/Division (60mV Pk-Pk)
20mV/Division (120mV Pk-Pk)
50mV/Division (300mV Pk-Pk)
100mV/Division (600mV Pk-Pk)
200mV/Division (600mV Pk-Pk)
200mV/Division (3V Pk-Pk)
500mV/Division (3V Pk-Pk)
5V/Division (12V Pk-Pk)
5V/Division (30V Pk-Pk)
20V/Division (120V Pk-Pk)
50V/Division (300V Pk-Pk)

Note that the high voltage ranges are generated from the High Voltage DC section of the calibrator, if an error is present on the normal DC high Voltage DC output it will be present on the Oscilloscope. If there is no error on the DC high voltage output, the design of the oscilloscope function means that any errors in the output of the oscilloscope function are likely to be down to connection/measurement errors as opposed to an error in the hardware.

