

HP 3458A - Feature #1279

Usage items

11/07/2015 08:49 AM - tin

Status: New	Start date: 11/07/2015
Priority: Normal	Due date:
Assignee: tin	% Done: 0%
Category:	Estimated time: 0.00 hour
Target version:	

Description
From Manual:
me Directly For DC or ohms measurements, you can specify the integration time directly (in seconds) using the APER (aperture) command. For example, to specify 22 ms of integration time, send: OUTPUT 722;"APER.022" Note When using the APER command, the multimeter does not average readings for long integration times as it does with the NPLC command. For example, if you specify 60=PLCs (1 second of integration time at a 60 Hz = line frequency) using the NPLC command, the multimeter averages six 10 PLC readings. If you specify 1 second of integration time using the APER command, the multimeter integrates a single reading for 1 second. With the APER command, you can specify integration time from 500ns to 1s in increments of 100ns. The APER command is most commonly used when sampling a specific part of a signal (such as a pulse) or for digitizing. You can also use the APER command to reject a noise signal of a specific frequency from the input signal. To do this, set the integration time equal to an integral multiple of the period of the signal to be rejected. For example, to reject noise at 100Hz (period = 10ms), specify an integration time of 10ms, 20ms, 30ms, etc.

History
#1 - 11/07/2015 08:51 AM - tin
For DC or ohms measurements, you should specify resolution when the resolution provided by the NPLC or APER command is not sufficient. For example, in the following program, line 10 specifies 1 PLC of integration time which provides 60dB of NMR and 7½ digits of resolution. This produces an actual resolution of 1 µV on the 10V range. For this application, 100nV of resolution is required with a max_input of 10V. The preceding equation produces a %_resolution parameter of 0.000001 (1E-6). This is specified in line 20. 10 OUTPUT 722;"NPLC 1" 20 OUTPUT 722;"DCV 10, 1E-6" 30 END