

Reference	Fluke	Calibration date	July 03 2019
Ref P/N	732B	Ambient Temperature	+23.2 °C
Serial	6480002	Relative Humidity	32.1 %
ID Number	XPR1	Pressure	1001.4 hPa
Notes	Test CHA-CHB, spade cables	Test type	Manual ratio

Reference standard	Mfg	Model	Options	Serial / Unc	CEID	Calibration date	Due date
DC STD	Fluke	732B	10.0000152 V	6480002	E190337B	05/30/2019	11/30/2019
DMM	HP	3458A	001,X02	X	XD3	06/16/2019	12/16/2019

xDevs.com certifies that this calibration used standards whose accuracies are traceable to the SI, through National Measurement Laboratory. Actual measurement uncertainty available upon request was calculated using the expanded method and is expressed in values at approximately the 95% confidence level using a coverage factor of K= 2.

Certificate statements are based on test results within specified limits without reduction of the uncertainty of the test and/or measurement. The test and measurement data here relate only to the item tested and/or measured. Unit acceptance of failure includes uncertainty data compilation. Calibration due date that appears on the Certificate of Calibration and labels are determined by the customer and does not imply conformance to a standard.

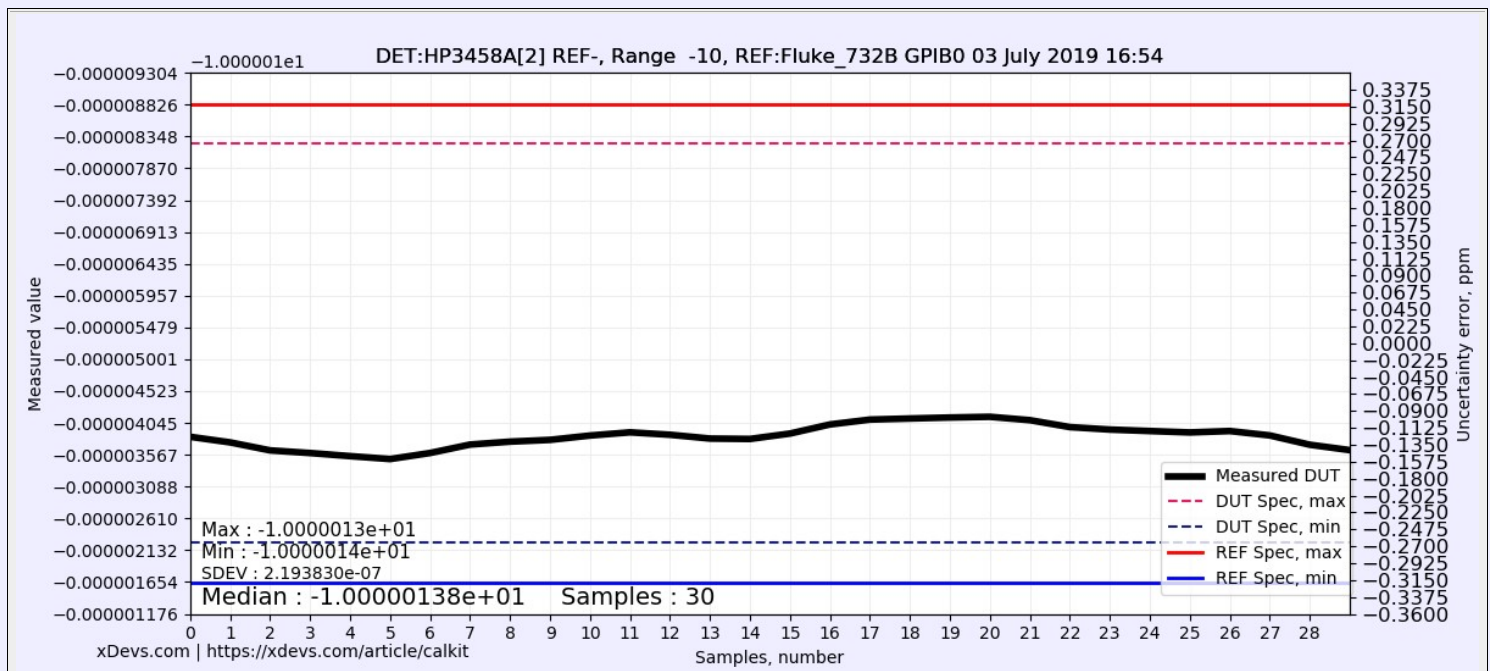
UUT output transferred by manual ratiometric measurement with reference standard.

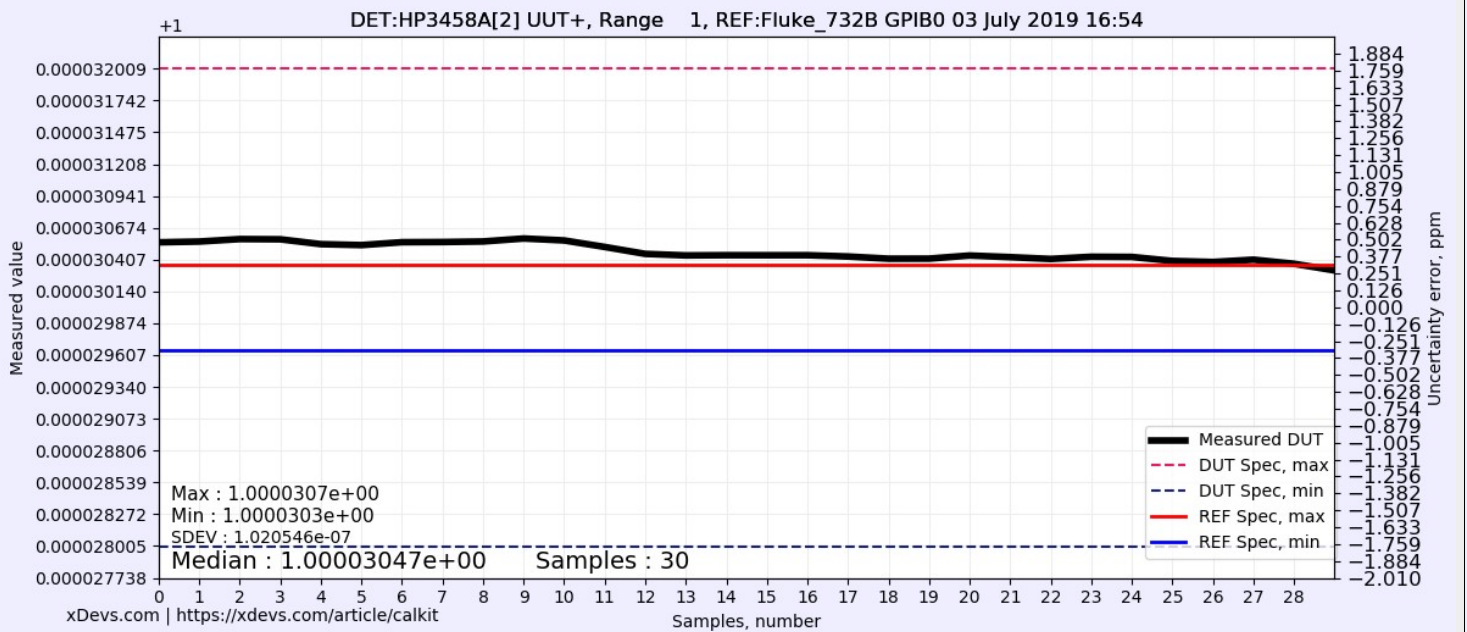
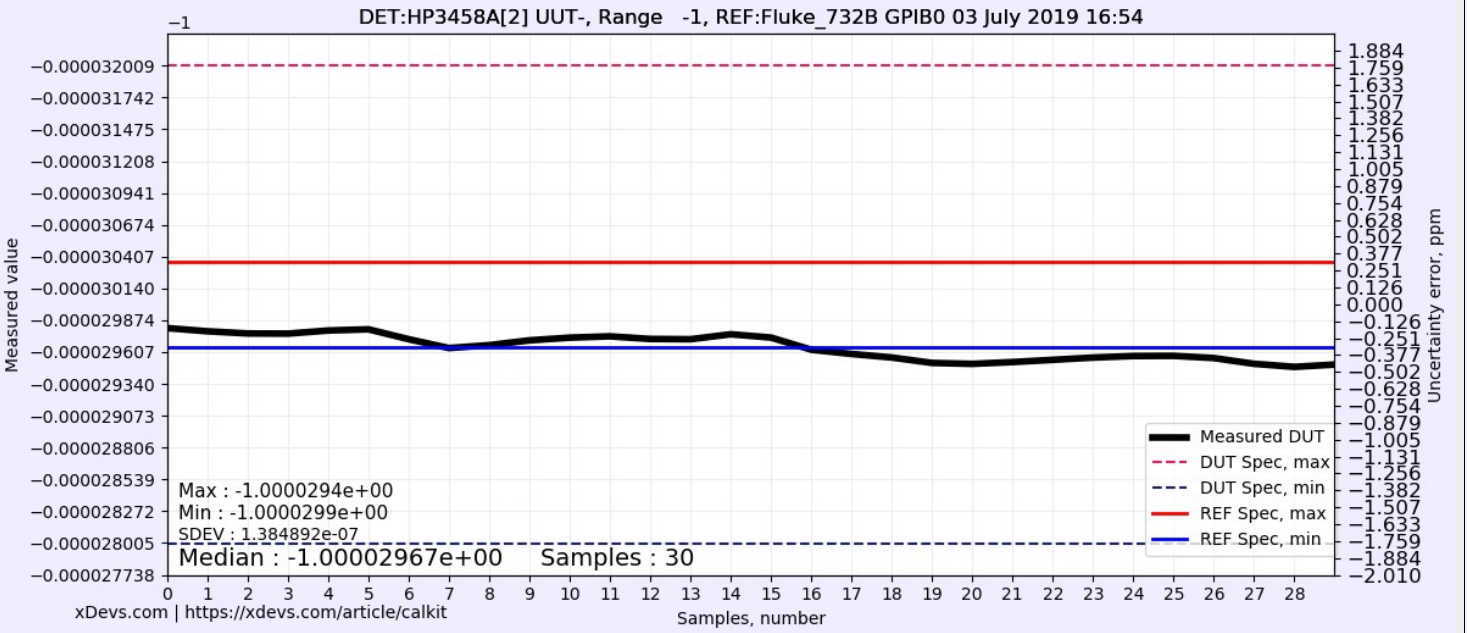
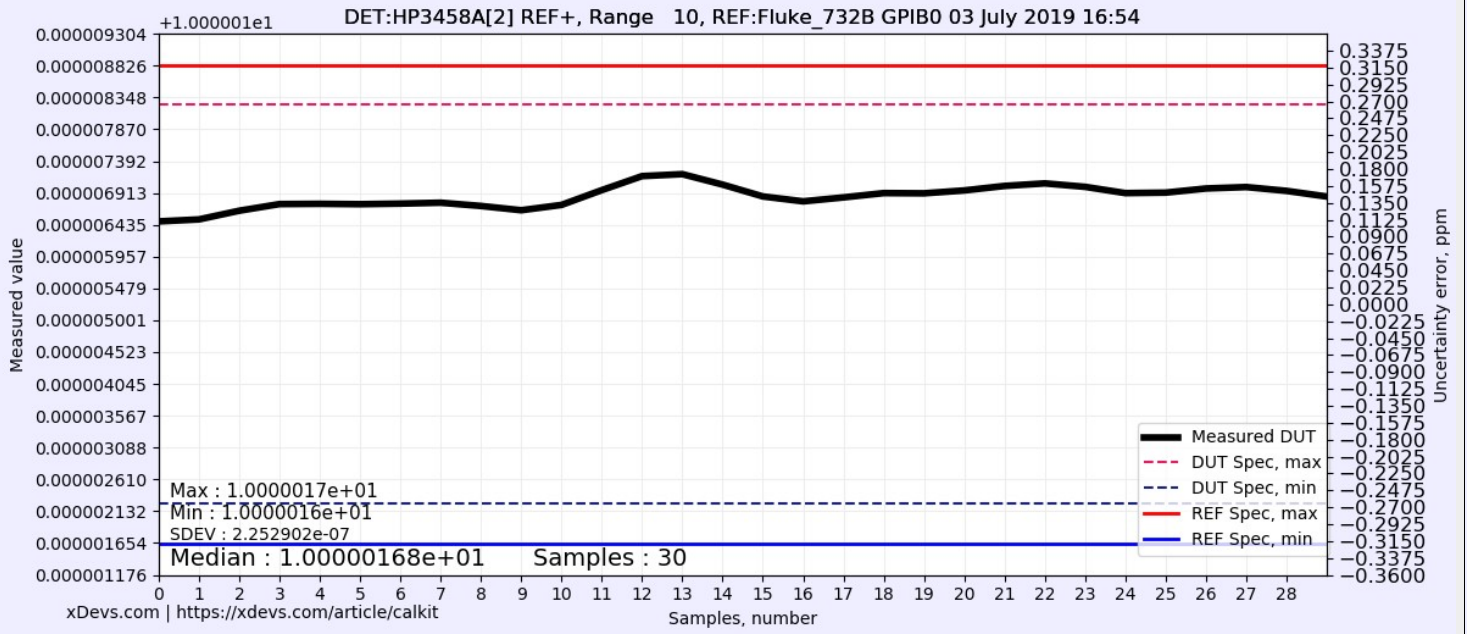
Fixed range is used on the Keysight 3458A/X02 detector. The following test use 10 minute transfer specification with Fluke 732B output source as reference. Gain verified for stability ±0.05 ppm over the test period. Detector DC voltage offset is DUT is nulled prior to the measurement.

Configuration : Battery power STD, NPLC100, NDIG8, Guard is open.

	Measurement	Unit	Uncertainty	Standard Deviation	DUT Spec / Δ	Test Status
<b>Transfer reference output</b>	<b>10.0000152</b>	<b>VDC</b>	<b>±0.020 ppm</b>		0.300 ppm	In spec
Reference measured output (+)	10.00001694	VDC	±0.100 ppm	σ = 0.0000 μVDC	Δ = 0.170 ppm	
Reference measured output (-)	-10.00001384	VDC	±0.100 ppm	σ = 0.0000 μVDC	Δ = -0.140 ppm	
Reference calculated EMF	10.00001539	VDC	±0.100 ppm		Δ = 0.015 ppm	
Detector zero offset	0.00000018	VDC		σ = 0.1050 μVDC		
UUT measured output (+)	1.00003045	VDC	±0.550 ppm	σ = 0.0000 μVDC		
UUT measured output (-)	-1.00002959	VDC	±0.550 ppm	σ = 0.0000 μVDC		
Ratio positive polarity	0.10000288	VDC	±0.650 ppm			
Ratio negative polarity	0.10000282	VDC	±0.650 ppm			
UUT calculated output (+)	1.00003028	VDC	±0.670 ppm		Δ = 0.274 ppm	
UUT calculated output (-)	-1.00002973	VDC	±0.670 ppm		Δ = -0.274 ppm	
<b>UUT calculated EMF (Linear)</b>	<b>1.00003001</b>	<b>VDC</b>	<b>±0.670 ppm</b>		0.1%	In spec
<b>UUT calculated EMF (RSS)</b>	<b>1.00003001</b>	<b>VDC</b>	<b>±0.650 ppm</b>		0.1%	In spec

Statistics image data





Test procedure : \$Id: xfer\_dcv.py | Rev 1453 | 2019/07/03 08:36:46 clu \$

Lab temperature maintained +23°C ±1°C

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