

Reference	Fluke	Calibration date	April 13 2020		
Ref P/N	5720A/03	Ambient Temperature	22.29 °C		
Serial	9572003	Relative Humidity	47.83 %		
ID Number	Niko's cal	Pressure	1015.38 hPa		
Notes	Sub xfer, battery powered SSVR		Test type	Front spade lug terminals	

Reference standard	Mfg	Model	Options	Serial / Unc	CEID	Calibration date	Due date
MFC	Fluke	5720A	03 H1	9572003	Internal	04/13/2020	10/13/2020
DMM	HP	3458A	001,X02	MY45040325	XD2 LN	03/18/2020	09/18/2020

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.

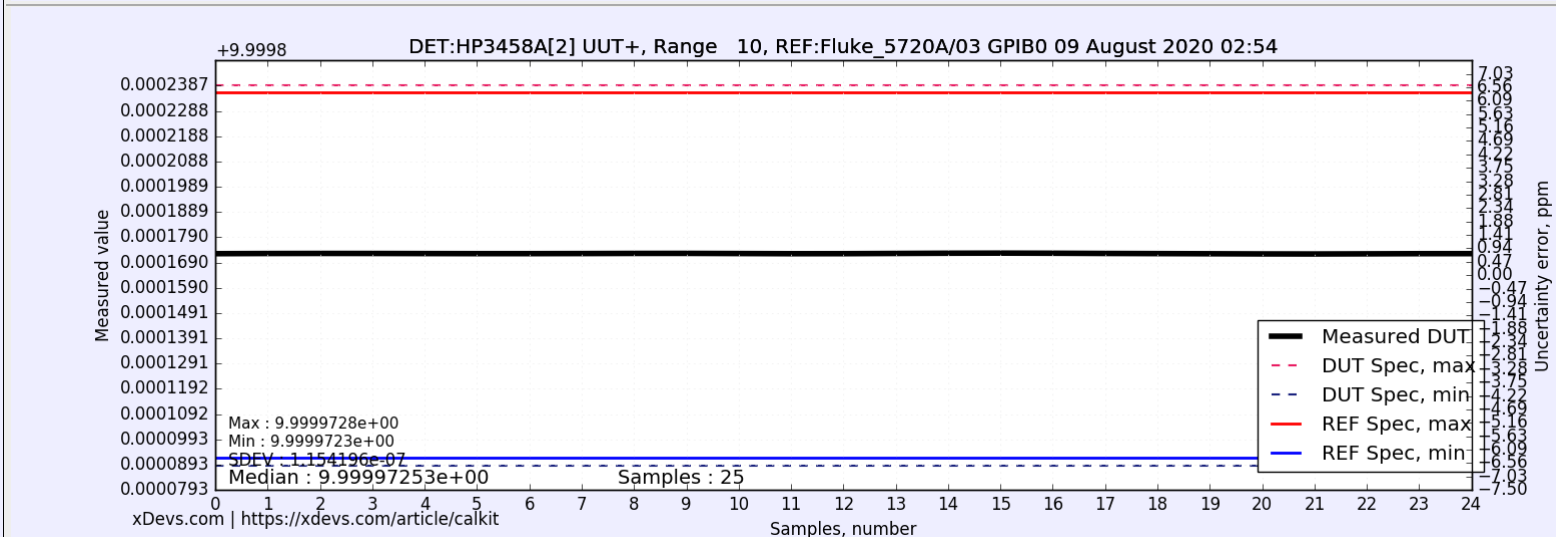
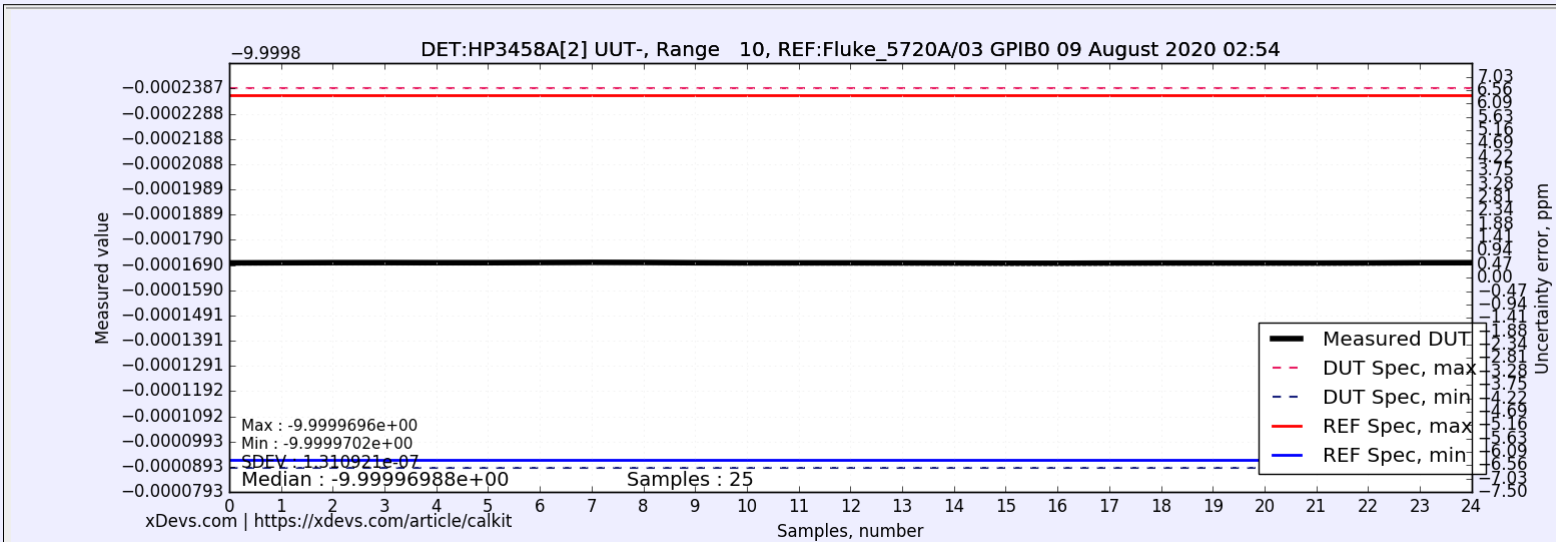
Certificate statements are based on test results within specified limits without reduction of the uncertainty of the test and/or measurement. The test and measurement data here relate only to the item tested and/or measured. Unit acceptance of failure includes uncertainty data compilation. Calibration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

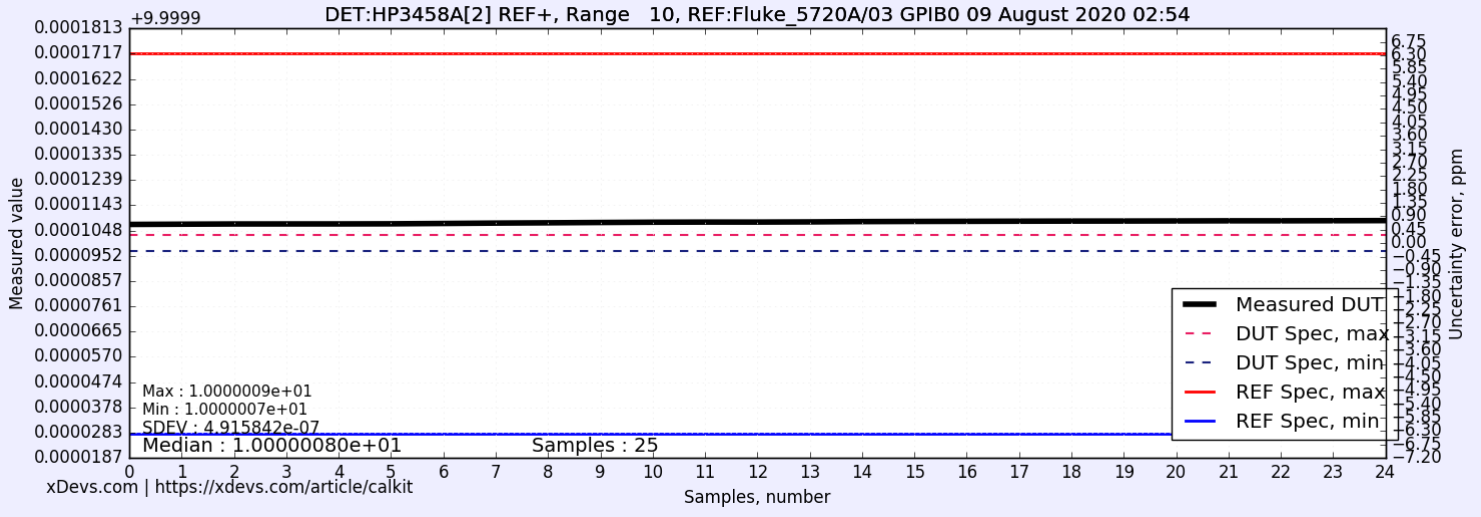
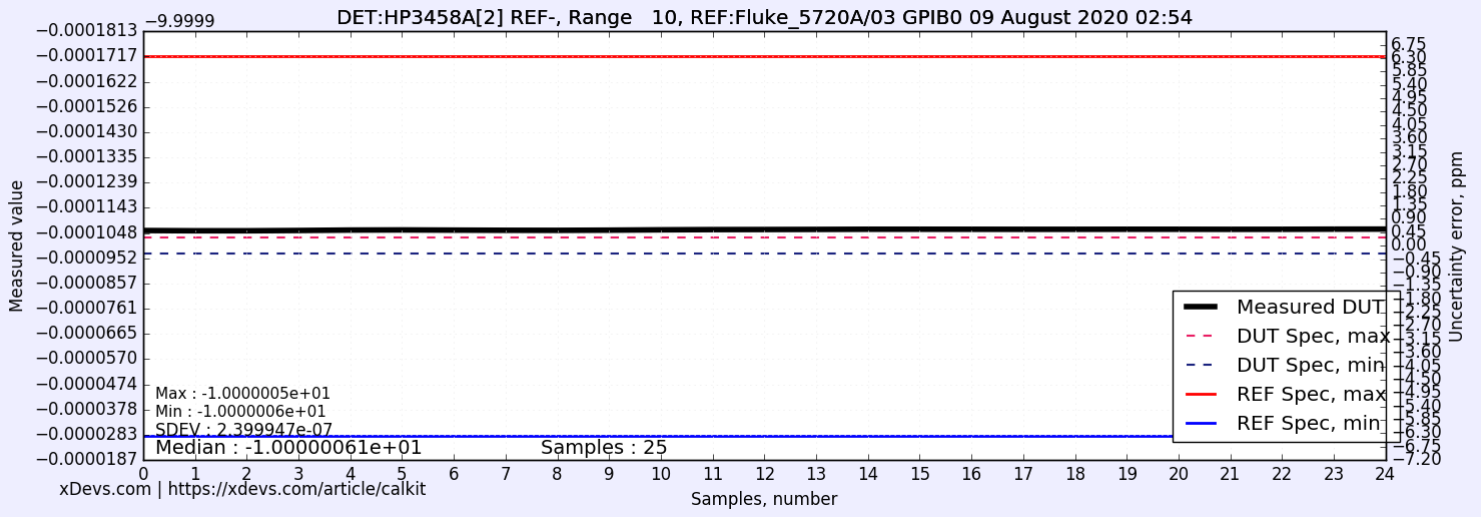
UUT output transferred by manual ratiometric measurement with reference standard. Fixed 1.000e+01 range is used on the Keysight 3458A/X02 detector. The following test use 10 minute transfer specification with Fluke 5720A/03 output source as reference. Gain verified for stability ±0.10 ppm over the test period. Detector zero offset is DUT is nullified prior to the measurement.

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

	Measurement	Unit	Uncertainty	Standard Deviation	DUT Spec / Δ	Degree of freedom / Notes
Transfer reference output	10.0000000	VDC	±2.300 ppm			
Reference measured output (+)	10.0000082	VDC	±0.100 ppm	$\sigma = 3.831462e-07$ VDC	$\Delta = 0.820$ ppm	25
Reference measured output (-)	-10.0000062	VDC	±0.100 ppm	$\sigma = 1.783613e-07$ VDC	$\Delta = 0.616$ ppm	25
Reference calculated +/-	10.0000072	VDC	±0.100 ppm		$\Delta = 0.718$ ppm	
Detector zero offset	0.0000001	VDC		$\sigma = 0.000000e+00$ VDC		
UUT measured output (+)	9.9999725	VDC	±0.100 ppm	$\sigma = 1.185064e-07$ VDC		25
UUT measured output (-)	-9.9999699	VDC	±0.100 ppm	$\sigma = 0.1382$ μVDC		25
Ratio positive polarity	0.99999643		±0.200 ppm			Inf
Ratio negative polarity	0.99999637		±0.200 ppm			Inf
UUT calculated output (+)	9.9999643	VDC	±2.500 ppm		$\Delta = 0.030$ ppm	
UUT calculated output (-)	-9.9999637	VDC	±2.500 ppm		$\Delta = -0.030$ ppm	
Temperature Δ	0.228	°C	±1.00 %		±1.0 °C	
UUT previous data	9.9999687	VDC	±2.000 ppm			Report
Deviation from previous	-0.469 ppm	VDC	±3.055 ppm			
UUT transfer result (Linear)	9.9999640	VDC	±2.500 ppm		0.1%	In spec
UUT transfer result (RSS)	9.9999640	VDC	±2.309 ppm		0.1%	In spec

Statistics image data





Test procedure : \$Id: xfer_dcv.py | Rev 1844 | 2020/08/09 02:50:49 tin_fpga \$

Lab temperature maintained +23°C ±1°C

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RAW data	Result
Array Ref P	[10.00000704, 10.00000718, 10.00000741, 10.00000718, 10.00000739, 10.00000718, 10.00000749, 10.00000769, 10.00000763, 10.0000079, 10.00000792, 10.00000811, 10.0000079, 10.00000797, 10.00000835, 10.00000813, 10.00000835, 10.00000828, 10.00000842, 10.00000839, 10.00000832, 10.00000867, 10.0000083, 10.00000858, 10.00000856]
Array Ref N	[-10.0000059, -10.00000546, -10.00000569, -10.00000562, -10.00000609, -10.00000608, -10.00000581, -10.00000592, -10.00000569, -10.0000059, -10.00000604, -10.00000616, -10.00000613, -10.00000609, -10.00000639, -10.00000616, -10.00000629, -10.00000618, -10.00000618, -10.00000629, -10.00000623, -10.00000622, -10.00000611, -10.00000639, -10.00000627]
Array UUT P	[9.999972403, 9.999972684, 9.999972543, 9.999972648, 9.999972508, 9.999972491, 9.999972508, 9.999972508, 9.999972631, 9.999972684, 9.999972561, 9.999972421, 9.999972263, 9.999972421, 9.999972438, 9.999972613, 9.999972684, 9.999972789, 9.999972701, 9.999972526, 9.999972561, 9.999972456, 9.999972421, 9.999972263, 9.999972456, 9.999972561, 9.999972491]
Array UUT N	[-9.999969829, -9.999969864, -9.999970022, -9.999970004, -9.999969899, -9.999969899, -9.999969899, -9.999969952, -9.999970197, -9.999970057, -9.999969882, -9.999969777, -9.999969882, -9.999969882, -9.999969777, -9.999969864, -9.999969864, -9.999969637, -9.999969654, -9.999969794, -9.999969864, -9.999969724, -9.999969899, -9.999969689, -9.999969724, -9.999970057, -9.999969899]

Histogramm

