

Reference	ESI	Calibration date	July 05 2019
Ref P/N	SR104	Ambient Temperature	0.00 °C
Serial	102	Relative Humidity	0.00 %
ID Number	XFER 10kΩ	Pressure	0.00 hPa
Notes	Test 4W, TRUEOHM, DEL1, CHA/CHB spade cables	Test type	Automatic ratio

Reference standard	Mfg	Model	Options	Serial / Unc	CEID	Calibration date	Due date
10KR STD	ESI	SR104	9999.9995 KΩ	G202088930104	E190342A	06/06/2019	06/06/2020
DMM	HP	3458A	001,X02	2823A13345	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.

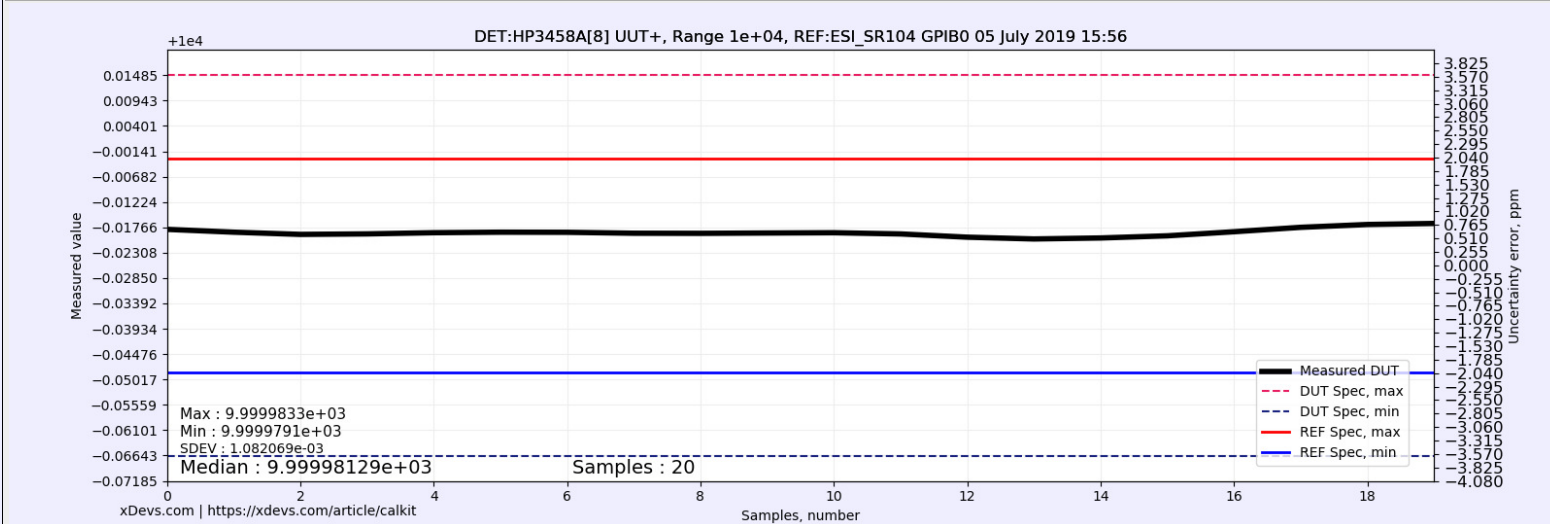
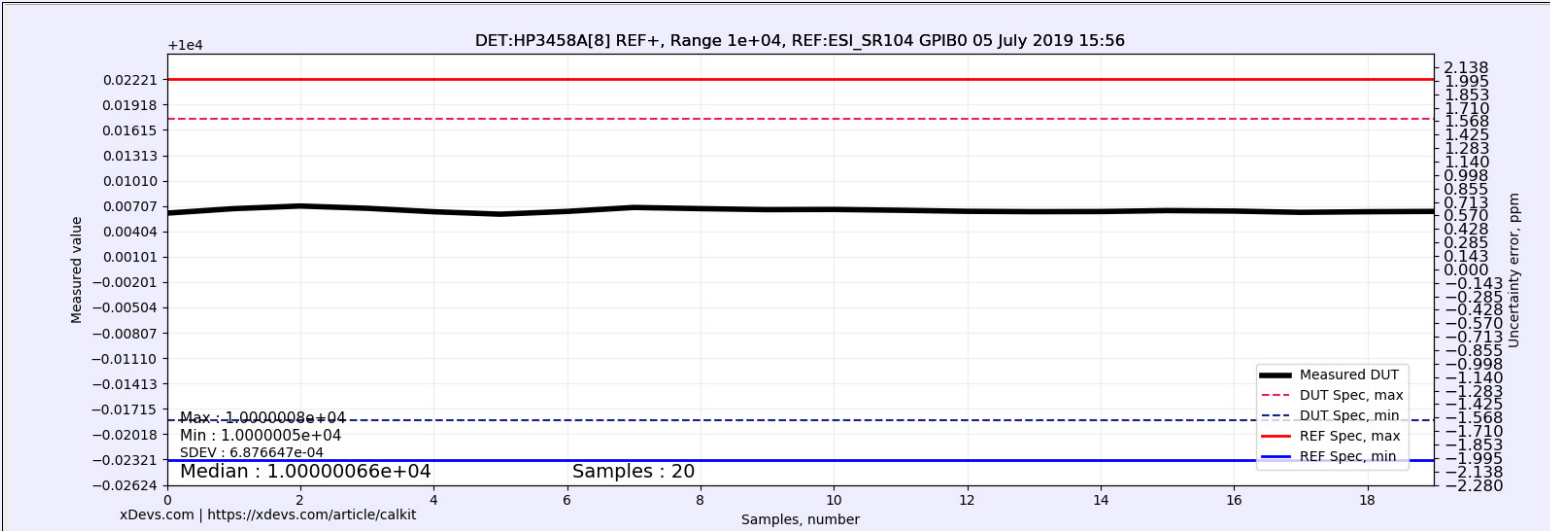
Certificate statements are based on test results within specified limits without reduction of the uncertainty of the test and/or measurement. The test and measurement data here relate only to the item tested and/or measured. Unit acceptance of failure includes uncertainty data compilation. Calibration 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 ESI SR104 output source as reference. Gain verified for stability ±0.05 ppm over the test period. Detector zero 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	Degree of freedom / Notes
Transfer reference output	9999.9995	Ω	±0.160 ppm			
Reference measured output (+)	10000.0066	Ω	±0.600 ppm	$\sigma = 6.477228e-04 \Omega$	$\Delta = 0.713 \text{ ppm}$	20
Reference calculated +/-	10000.0066	Ω	±0.600 ppm		$\Delta = 0.713 \text{ ppm}$	
Detector zero offset	0.0000	Ω		$\sigma = 1.000000e-09 \Omega$		
UUT measured output (+)	9999.9813	Ω	±0.600 ppm	$\sigma = 1.178447e-03 \Omega$		20
Ratio positive polarity	0.99999747		±1.200 ppm			Inf
UUT calculated output (+)	9999.9742	Ω	±1.360 ppm		$\Delta = 0.000 \text{ ppm}$	
Temperature Δ	0.000	°C	±1.00 %		±1.0 °C	
UUT previous data	9999.9770	Ω	±0.330 ppm			Report
Deviation from previous	-0.279 ppm	Ω	±1.255 ppm			
UUT transfer result (Linear)	9999.9742	Ω	±1.360 ppm		0.1%	In spec
UUT transfer result (RSS)	9999.9742	Ω	±1.211 ppm		0.1%	In spec

Statistics image data



RAW data	Result
Array Ref P	[10000.00579, 10000.00679, 10000.00799, 10000.00618, 10000.00699, 10000.00527, 10000.00602, 10000.00821, 10000.006, 10000.00674, 10000.00676, 10000.00663, 10000.0062, 10000.00663, 10000.00604, 10000.00677, 10000.00676, 10000.00568, 10000.00681, 10000.00631]
Array Ref N	[]
Array UUT P	[9999.982381, 9999.981233, 9999.980174, 9999.980981, 9999.98152, 9999.98091, 9999.98204, 9999.980318, 9999.981448, 9999.980856, 9999.98134, 9999.981538, 9999.979941, 9999.979062, 9999.980694, 9999.979618, 9999.981717, 9999.982398, 9999.983295, 9999.983188]
Array UUT N	[]

