

# Supplementary Information



Order Number 3/7; : 7625654/3

**Model Number** 3458A  
**Manufacturer** Keysight Technologies Inc  
**Description** Digital multimeter, 8.5 digit  
**Serial Number** 2823A21304

**Date of Calibration** 8 Apr 2014  
**Procedure** LF1003UK  
**Temperature** 23 ±1 °C  
**Humidity** 45 ±10 %RH

**Customer**  
Keysight Technologies Deutschland GmbH  
Herrenberger Strasse 130  
71034 BOEBLINGEN  
Germany

**Location of Calibration**  
Keysight Technologies UK Ltd  
610 Wharfedale Road  
IQ Winnersh  
Wokingham Berkshire RG41 5TP  
United Kingdom

## Remarks or Special Requirements

THIS COVER SHEET IS SUPPLEMENTARY TO THE ACCREDITED CALIBRATION CERTIFICATE.

## Calibration Equipment Used

Model Number	Model Description	Equipment ID	Cal Due Date	Order Number
1613	Resistor	UK4216	26 Jul 2014	1-4891459909-1
1615	Standard Resistor	UK4278	10 Sep 2014	1-4995758664-1
1G	Resistance Std.	UK7708	9 Mar 2015	1-4986957412-1
3458A	Digital multimeter, 8.5 digit	UK8606	15 Apr 2014	1-5571723403-1
4000A	Calibrator, Transconductance AMP	UK5802	8 Jul 2014	1-5547913462-1
4035-B	Standard Resistor	DE915	18 Sep 2014	1-4668706719-1
4200	Datron 4200	UK5906	6 Apr 2014	1-5571790679-1
4210	1 Ohm Standard Resistor	DE911	24 Sep 2014	1-4672990117-1
497500	Standard Resistor	UK5320	9 Mar 2015	1-4992299715-1
5071A	Primary frequency standard	UK13623	11 Feb 2015	1-5668289000-1
5615	Resistor, Capacitor, Inductor	UK11892	6 Sep 2014	1-4323828176-1
5685A	10 Ohm Std Resistor	UK12794	10 Sep 2014	1-4995758376-1
5720A	Calibrator	UK15273	16 Apr 2014	1-5080760905-1
80010	Standard Resistor	UK4275	26 Jul 2014	1-4891847336-1
ET3458	Production Calibration Test Fixture	UK13739	29 Apr 2014	1-5641564272-1
RS3	Standard Resistor	UK5561	26 Jul 2014	1-4892294938-1
ZOD80	1M Ohm Resistor	UK4276	13 Oct 2014	1-5408146578-1

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Edgar Leckel - European Operations Manager

# CERTIFICATE OF CALIBRATION



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CERTIFICATE  
NUMBER

**1-5985403432-1A**

APPROVED SIGNATORY

Mike Horsefield

Date Of Issue:	7 Apr 2014	Page 1 of 9 pages
Instrument Description:	Digital Multimeter	
Instrument Manufacturer:	Keysight Technologies	
Model Number:	3458A	
Serial Number:	2823A21304	
Our Reference Number:	1-5985403432-1	
Customer:	Keysight Technologies Inc	
Date Of Calibration:	6 Apr 2014	
Ambient Temperature:	23 ± 1 ° C	Relative Humidity: 45 ± 10 %

## REMARKS:

This certificate records the **on-receipt** calibration status of the instrument, the unit was returned in this condition.

The instruments performance conformed to the manufacturers specification at the points measured with due allowance having been made for measurement uncertainties.

## TEST DESCRIPTION:

The 90 day specification has been used to define the absolute test limits in this certificate. They include the original manufacturer's calibration uncertainty for NIST traceability as published in the product's Calibration Manual 03458-90017:Dec2000.

A minimum warm-up period of 4 hours was allowed before testing. In accordance with the manufacturer's recommended practice, the appropriate "ACAL" routines were invoked before testing each function.

The Firmware version reported by REV? was  
The value for CALNUM? reported by the 3458A PRIOR to testing was  
and at COMPLETION of testing was

8.2

156

156

Test location \_\_\_\_\_  
 Permanent lab    Mobile lab    Customer's building

The reported uncertainty has been calculated to give a confidence level of at least 95%.

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This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

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**Applicable Specification :**

- Standard  
 Option 002

**DC Voltage Accuracy**

Last calibration internal temperature (Cal? 59) = 34.78 °C  
 Present internal temperature (Temp?) = 35.0 °C

3458A set-up: NPLC 500, NDIG 8

**Zero Offsets**

A low thermal short was connected to the input terminals.

Applied Voltage	Range	Specification (applied ± limit)	Measured Value	Uncertainty	Status (if applicable)
<b>Internal Offset Tests (Front)</b>					
Input Shorted	100 mV	± 1.0 µV	-0.00005 mV	± 0.1 µV	
Input Shorted	1 V	± 1.0 µV	-0.0000048 V	± 0.1 µV	
Input Shorted	10 V	± 2.0 µV	-0.000003 V	± 0.1 µV	
Input Shorted	100 V	± 30.0 µV	-0.000001 V	± 1.0 µV	
Input Shorted	1000 V	± 100.0 µV	0.00000 V	± 12.0 µV	
<b>Internal Offset Tests (Rear)</b>					
Input Shorted	100 mV	± 1.0 µV	-0.00045 mV	± 0.1 µV	
Input Shorted	1 V	± 1.0 µV	-0.0000044 V	± 0.1 µV	
Input Shorted	10 V	± 2.0 µV	-0.000003 V	± 0.1 µV	
Input Shorted	100 V	± 30.0 µV	-0.000003 V	± 1.0 µV	
Input Shorted	1000 V	± 100.0 µV	-0.00001 V	± 12.0 µV	

**Gain**

The following measurements used the multimeter's "Math Null" function to exclude thermal emfs and other internal offsets from the measured value.

Applied	Range	Specification (applied ± limit)	Measured Value	Uncertainty	Status (if applicable)
100 mV	100 mV	± 0.85 µV	100.00019 mV	± 0.25 µV	
1 V	1 V	± 5.4 µV	1.0000055 V	± 1.0 µV	
-1 V	1 V	± 5.4 µV	-0.99999883 V	± 1.0 µV	
-1 V	10 V	± 5.1 µV	-0.9999989 V	± 1.0 µV	
-5 V	10 V	± 23.5 µV	-4.9999929 V	± 6.5 µV	
-10 V	10 V	± 46.5 µV	-9.9999856 V	± 10.0 µV	
1 V	10 V	± 5.1 µV	0.9999999 V	± 1.0 µV	
5 V	10 V	± 23.5 µV	4.9999932 V	± 6.5 µV	
10 V	10 V	± 46.5 µV	9.9999861 V	± 10.0 µV	
100 V	100 V	± 680 µV	99.999956 V	± 100 µV	
1000 V	1000 V	± 16.6 mV	999.99563 V	± 1.0 mV	

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**AC Voltage Accuracy (Synchronous mode)**

A voltage of substantially sinusoidal form was applied to the 3458A input.

3458A set-up: SETACV SYNC; RES .002; LFILTER ON; for frequencies <= 50 kHz; ACBAND 10,1E6

Applied Voltage	Frequency	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
10 mV	1 kHz	10 mV	$\pm 3.12 \mu\text{V}$	10.00008 mV	$\pm 0.7 \mu\text{V}$	
100 mV	1 kHz	100 mV	$\pm 9.2 \mu\text{V}$	99.9984 mV	$\pm 4.6 \mu\text{V}$	
1 V	20 Hz	1 V	$\pm 0.112 \text{ mV}$	1.000006 V	$\pm 39 \mu\text{V}$	
1 V	1 kHz	1 V	$\pm 0.092 \text{ mV}$	1.000020 V	$\pm 30 \mu\text{V}$	
1 V	20 kHz	1 V	$\pm 0.162 \text{ mV}$	0.999928 V	$\pm 36 \mu\text{V}$	
1 V	50 kHz	1 V	$\pm 0.322 \text{ mV}$	0.999935 V	$\pm 33 \mu\text{V}$	
1 V	100 kHz	1 V	$\pm 0.822 \text{ mV}$	0.999967 V	$\pm 34 \mu\text{V}$	
0.9 V	1 kHz	1 V	$\pm 0.085 \text{ mV}$	0.900022 V	$\pm 0.032 \text{ mV}$	
0.7 V	1 kHz	1 V	$\pm 0.071 \text{ mV}$	0.700018 V	$\pm 0.025 \text{ mV}$	
0.5 V	1 kHz	1 V	$\pm 0.056 \text{ mV}$	0.500019 V	$\pm 0.018 \text{ mV}$	
0.3 V	1 kHz	1 V	$\pm 0.042 \text{ mV}$	0.300008 V	$\pm 0.011 \text{ mV}$	
0.1 V	1 kHz	1 V	$\pm 0.027 \text{ mV}$	0.099998 V	$\pm 0.005 \text{ mV}$	
1 V	1 kHz	10 V	$\pm 0.27 \text{ mV}$	0.99999 V	$\pm 0.03 \text{ mV}$	
10 V	20 Hz	10 V	$\pm 1.12 \text{ mV}$	9.99994 V	$\pm 0.57 \text{ mV}$	
10 V	1 kHz	10 V	$\pm 0.92 \text{ mV}$	9.99980 V	$\pm 0.32 \text{ mV}$	
10 V	20 kHz	10 V	$\pm 1.62 \text{ mV}$	9.99964 V	$\pm 0.36 \text{ mV}$	
10 V	100 kHz	10 V	$\pm 8.22 \text{ mV}$	10.00017 V	$\pm 0.33 \text{ mV}$	
10 V	1 MHz	10 V	$\pm 101.02 \text{ mV}$	10.05444 V	$\pm 3.90 \text{ mV}$	
100 V	20 Hz	100 V	$\pm 0.0242 \text{ V}$	99.9991 V	$\pm 0.0048 \text{ V}$	
100 V	1 kHz	100 V	$\pm 0.0222 \text{ V}$	99.9984 V	$\pm 0.0036 \text{ V}$	
100 V	20 kHz	100 V	$\pm 0.0222 \text{ V}$	100.0027 V	$\pm 0.0043 \text{ V}$	
100 V	50 kHz	100 V	$\pm 0.0372 \text{ V}$	100.0105 V	$\pm 0.0037 \text{ V}$	
100 V	100 kHz	100 V	$\pm 0.1222 \text{ V}$	100.0218 V	$\pm 0.0038 \text{ V}$	
700 V	50 Hz	1000 V	$\pm 0.301 \text{ V}$	699.935 V	$\pm 0.030 \text{ V}$	
700 V	1 kHz	1000 V	$\pm 0.301 \text{ V}$	699.926 V	$\pm 0.030 \text{ V}$	
700 V	20 kHz	1000 V	$\pm 0.441 \text{ V}$	700.203 V	$\pm 0.030 \text{ V}$	

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### AC Voltage Accuracy (Analogue mode)

A voltage of substantially sinusoidal form was applied to the 3458A input.  
3458A set-up: SETACV ANA; NPLC 500; ACBAND 10,1E6

Applied Voltage	Frequency	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
10 mV	1 kHz	10 mV	$\pm 27.00 \mu\text{V}$	9.99927 mV	$\pm 1.00 \mu\text{V}$	
100 mV	1 kHz	100 mV	$\pm 30.0 \mu\text{V}$	99.9849 mV	$\pm 6.0 \mu\text{V}$	
1 V	20 Hz	1 V	$\pm 1.700 \text{ mV}$	0.999010 V	$\pm 0.090 \text{ mV}$	
1 V	1 kHz	1 V	$\pm 0.300 \text{ mV}$	0.999862 V	$\pm 0.080 \text{ mV}$	
1 V	100 kHz	1 V	$\pm 6.800 \text{ mV}$	0.998169 V	$\pm 0.100 \text{ mV}$	
1 V	1 kHz	10 V	$\pm 1.20 \text{ mV}$	0.99987 V	$\pm 0.08 \text{ mV}$	
10 V	20 Hz	10 V	$\pm 17.00 \text{ mV}$	9.99191 V	$\pm 0.90 \text{ mV}$	
10 V	1 kHz	10 V	$\pm 3.00 \text{ mV}$	9.99835 V	$\pm 0.90 \text{ mV}$	
10 V	100 kHz	10 V	$\pm 68.00 \text{ mV}$	9.98261 V	$\pm 1.00 \text{ mV}$	
10 V	1 MHz	10 V	$\pm 0.700 \text{ V}$	10.13671 V	$\pm 20.00 \text{ mV}$	
100 V	20 Hz	100 V	$\pm 0.1700 \text{ V}$	99.9215 V	$\pm 0.0090 \text{ V}$	
100 V	1 kHz	100 V	$\pm 0.0400 \text{ V}$	99.9863 V	$\pm 0.0090 \text{ V}$	
100 V	100 kHz	100 V	$\pm 0.6800 \text{ V}$	99.8375 V	$\pm 0.0100 \text{ V}$	
700 V	50 Hz	1000 V	$\pm 0.760 \text{ V}$	699.775 V	$\pm 0.154 \text{ V}$	
700 V	1 kHz	1000 V	$\pm 0.620 \text{ V}$	699.857 V	$\pm 0.154 \text{ V}$	
700 V	20 kHz	1000 V	$\pm 0.620 \text{ V}$	700.154 V	$\pm 0.154 \text{ V}$	

### AC Voltage Accuracy (Random mode)

A voltage of substantially sinusoidal form was applied to the 3458A input.  
3458A set-up: SETACV RNDM; RES .1; ACBAND 10,1E6

Applied Voltage	Frequency	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
10 mV	1 kHz	10 mV	$\pm 0.052 \text{ mV}$	10.000 mV	$\pm 0.003 \text{ mV}$	
100 mV	1 kHz	100 mV	$\pm 0.08 \text{ mV}$	99.97 mV	$\pm 0.03 \text{ mV}$	
1 V	50 Hz	1 V	$\pm 0.0008 \text{ V}$	0.9999 V	$\pm 0.0003 \text{ V}$	
1 V	1 kHz	1 V	$\pm 0.0008 \text{ V}$	0.9999 V	$\pm 0.0003 \text{ V}$	
1 V	100 kHz	1 V	$\pm 0.0008 \text{ V}$	0.9998 V	$\pm 0.0003 \text{ V}$	
1 V	1 kHz	10 V	$\pm 0.001 \text{ V}$	1.000 V	$\pm 0.001 \text{ V}$	
10 V	50 Hz	10 V	$\pm 0.008 \text{ V}$	9.995 V	$\pm 0.003 \text{ V}$	
10 V	1 kHz	10 V	$\pm 0.008 \text{ V}$	9.999 V	$\pm 0.003 \text{ V}$	
10 V	100 kHz	10 V	$\pm 0.008 \text{ V}$	10.002 V	$\pm 0.003 \text{ V}$	
10 V	1 MHz	10 V	$\pm 0.101 \text{ V}$	10.045 V	$\pm 0.024 \text{ V}$	

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## AC Voltage Accuracy (Random mode) - continued

Applied Voltage	Frequency	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
100 V	50 Hz	100 V	$\pm 0.12$ V	100.00 V	$\pm 0.03$ V	
100 V	1 kHz	100 V	$\pm 0.12$ V	99.94 V	$\pm 0.03$ V	
100 V	100 kHz	100 V	$\pm 0.12$ V	99.93 V	$\pm 0.03$ V	
700 V	50 Hz	1000 V	2.2 V	699.8 V	$\pm 0.3$ V	
700 V	1 kHz	1000 V	2.2 V	699.7 V	$\pm 0.3$ V	
700 V	20 kHz	1000 V	2.2 V	700.0 V	$\pm 0.3$ V	

## Resistance Accuracy

3458A set-up:

Below 1 megohm: 4-wire ohms; OCOMP ON; Delay 1; NPLC 100; NDIG 7  
 1 megohm and higher: 2-wire ohms; NPLC 500  
 100 M $\Omega$ : NDIG 6  
 1 G $\Omega$ : NDIG 5

Last calibration internal temperature (Cal? 60) = 34.78 °C  
 Present temperature (Temp?) = 35.00 °C

Range	Applied Resistance (AR)	Specification	Measured Value (MV)	Error (MV-AR)	Uncertainty	Status (if applicable)
<b>2-Wire Mode</b>						
10 ohms	Front Input Shorted	$\pm 0.25$ ohms	0.09845 ohms	98.5 m ohm	$\pm 0.5$ m ohm	
10 ohms	Rear Input Shorted	$\pm 0.25$ ohms	0.17386 ohms	173.9 m ohm	$\pm 0.5$ m ohm	
<b>4-Wire Mode</b>						
10 ohms	Front Input Shorted	$\pm 50$ $\mu$ ohms	0.00000 ohms	0 $\mu$ ohm	$\pm 10$ $\mu$ ohm	
10 ohms	Rear Input Shorted	$\pm 50$ $\mu$ ohms	0.00000 ohms	0 $\mu$ ohm	$\pm 10$ $\mu$ ohm	
10 ohms	9.99991 ohms	$\pm 23$ ppm	9.99989 ohms	-1.8 ppm	$\pm 1.5$ ppm	
100 ohms	99.99829 ohms	$\pm 18$ ppm	99.99832 ohms	0.3 ppm	$\pm 1.5$ ppm	
1 k ohm	0.9999597 k ohm	$\pm 11.5$ ppm	0.9999594 k ohm	-0.3 ppm	$\pm 1.5$ ppm	
10 k ohm	10.000049 k ohm	$\pm 11.5$ ppm	10.000050 k ohm	0.1 ppm	$\pm 0.5$ ppm	
100 k ohm	100.00050 k ohm	$\pm 11.5$ ppm	100.00030 k ohm	-2.0 ppm	$\pm 2.5$ ppm	
<b>2-Wire Mode</b>						
1 M ohm	1.0000184 M ohm	$\pm 17$ ppm	1.0000162 M ohm	-2.2 ppm	$\pm 6.0$ ppm	
10 M ohm	10.000648 M ohm	$\pm 63$ ppm	10.000919 M ohm	27.1 ppm	$\pm 7.0$ ppm	
100 M ohm	99.9507 M ohm	$\pm 513$ ppm	99.9586 M ohm	79.2 ppm	$\pm 50.0$ ppm	
1 G ohm	1.00445 G ohm	$\pm 0.501$ %	1.00504 G ohm	0.058 %	$\pm 0.030$ %	

The reported uncertainty has been calculated to give a confidence level of at least 95%.

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**DC Current Accuracy**

3458A set-up: NPLC 500; NDIG 7

Note: The 100 mA and 1 A currents were applied for 5 minutes before measurement.

Applied Current	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
Front Input Open	1 $\mu$ A	$\pm$ 40 pA	-0.000001 $\mu$ A	$\pm$ 2 pA	
Front Input Open	10 $\mu$ A	$\pm$ 100 pA	-0.000015 $\mu$ A	$\pm$ 8 pA	
Front Input Open	100 $\mu$ A	$\pm$ 800 pA	-0.00002 $\mu$ A	$\pm$ 70 pA	
Front Input Open	1 mA	$\pm$ 5 nA	-0.0000003 mA	$\pm$ 0.2 nA	
Front Input Open	10 mA	$\pm$ 50 nA	-0.000005 mA	$\pm$ 2 nA	
Front Input Open	100 mA	$\pm$ 500 nA	-0.00002 mA	$\pm$ 15 nA	
Front Input Open	1 A	$\pm$ 10 $\mu$ A	-0.0000010 A	$\pm$ 1.9 $\mu$ A	
Rear Input Open	1 $\mu$ A	$\pm$ 40 pA	-0.000001 $\mu$ A	$\pm$ 2 pA	
Rear Input Open	10 $\mu$ A	$\pm$ 100 pA	0.000007 $\mu$ A	$\pm$ 8 pA	
Rear Input Open	100 $\mu$ A	$\pm$ 800 pA	0.00005 $\mu$ A	$\pm$ 70 pA	
Rear Input Open	1 mA	$\pm$ 5 nA	0.0000002 mA	$\pm$ 0.2 nA	
Rear Input Open	10 mA	$\pm$ 50 nA	-0.000003 mA	$\pm$ 2 nA	
Rear Input Open	100 mA	$\pm$ 500 nA	-0.00003 mA	$\pm$ 15 nA	
Rear Input Open	1 A	$\pm$ 10 $\mu$ A	-0.0000005 A	$\pm$ 1.9 $\mu$ A	
1 $\mu$ A	1 $\mu$ A	$\pm$ 60 pA	0.999993 $\mu$ A	$\pm$ 27 pA	
10 $\mu$ A	10 $\mu$ A	$\pm$ 300 pA	9.999975 $\mu$ A	$\pm$ 70 pA	
100 $\mu$ A	100 $\mu$ A	$\pm$ 2.80 nA	100.00019 $\mu$ A	$\pm$ 0.40 nA	
1 mA	1 mA	$\pm$ 25.0 nA	0.9999985 mA	$\pm$ 4.0 nA	
10 mA	10 mA	$\pm$ 0.250 $\mu$ A	10.000012 mA	$\pm$ 0.040 $\mu$ A	
100 mA	100 mA	$\pm$ 4.00 $\mu$ A	99.99986 mA	$\pm$ 0.40 $\mu$ A	
1 A	1 A	$\pm$ 115.0 $\mu$ A	1.0000549 A	$\pm$ 15.0 $\mu$ A	

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## AC Current Accuracy

The applied current was of substantially sinusoidal form.

3458A set-up: ACBAND 10,1E4; LFILTER ON; NPLC 100

Applied Current	Frequency	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
100 $\mu$ A	1 kHz	100 $\mu$ A	$\pm 0.0905 \mu$ A	99.9932 $\mu$ A	$\pm 33.0$ nA	
1 mA	1 kHz	1 mA	$\pm 0.000505$ mA	0.999981 mA	$\pm 330$ nA	
10 mA	20 Hz	10 mA	$\pm 0.01705$ mA	9.99348 mA	$\pm 1.10 \mu$ A	
10 mA	1 kHz	10 mA	$\pm 0.00505$ mA	9.99974 mA	$\pm 1.10 \mu$ A	
10 mA	5 kHz	10 mA	$\pm 0.00505$ mA	10.00045 mA	$\pm 1.10 \mu$ A	
100 mA	20 Hz	100 mA	$\pm 0.1705$ mA	99.9324 mA	$\pm 11.0 \mu$ A	
100 mA	1 kHz	100 mA	$\pm 0.0505$ mA	99.9943 mA	$\pm 11.0 \mu$ A	
100 mA	5 kHz	100 mA	$\pm 0.0505$ mA	100.0083 mA	$\pm 11.0 \mu$ A	
1 A	20 Hz	1 A	$\pm 0.001805$ A	0.999165 A	$\pm 0.150$ mA	
1 A	1 kHz	1 A	$\pm 0.001205$ A	0.999903 A	$\pm 0.150$ mA	
1 A	5 kHz	1 A	$\pm 0.001205$ A	1.000383 A	$\pm 0.150$ mA	

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## AC/DC Current Accuracy

A single check is made to confirm the basic accuracy of this function.

Applied Current	Frequency	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
10 mA	DC	10 mA	$\pm 0.04000$ mA	9.97978 mA	$\pm 0.10$ $\mu$ A	

## AC/DC Voltage Accuracy (Analogue Mode)

A single check is made to confirm the basic accuracy of this function.

Applied Voltage	Frequency	Range	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
10 V	DC	10 V	$\pm 0.04000$ V	10.01723 V	$\pm 0.10$ mV	

## Frequency Accuracy

Applied Frequency	Specification (applied $\pm$ limit)	Measured Value	Uncertainty	Status (if applicable)
10 MHz	$\pm 0.001$ MHz	10.00000 MHz	$\pm 10$ Hz	

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## AC Voltage High Frequency

Range	Input Voltage	Freq.	Expected Value	Measured Value	Difference	Tolerance	Uncertainty	Status
0.01 V	0.01 V	1 MHz	0.00999537 V	0.00995462 V	-0.00004075 V	± 0.00012512 V	± 0.00001286 V	
0.01 V	0.01 V	4 MHz	0.00993783 V	0.00960447 V	-0.00033336 V	± 0.00070712 V	± 0.00001665 V	
0.1 V	0.10 V	1 MHz	0.10022343 V	0.09989193 V	-0.00033150 V	± 0.00101120 V	± 0.00009322 V	
0.1 V	0.10 V	4 MHz	0.10012198 V	0.09843925 V	-0.00168273 V	± 0.00407120 V	± 0.00015312 V	
0.1 V	0.10 V	8 MHz	0.09954427 V	0.10060009 V	0.00105582 V	± 0.00408120 V	± 0.00015312 V	
0.1 V	0.10 V	10 MHz	0.09945063 V	0.10805730 V	0.00860667 V	± 0.01510120 V	± 0.00015348 V	
1 V	1.00 V	1 MHz	1.0024449 V	1.0072873 V	0.0048424 V	± 0.0101120 V	± 0.0005802 V	
1 V	1.00 V	4 MHz	1.0021061 V	0.9979229 V	-0.0041832 V	± 0.0407120 V	± 0.0014644 V	
1 V	1.00 V	8 MHz	0.9955283 V	1.0110091 V	0.0154808 V	± 0.0408120 V	± 0.0014638 V	
1 V	1.00 V	10 MHz	0.9919317 V	1.0414386 V	0.0495069 V	± 0.1510120 V	± 0.0014654 V	
10 V	3.00 V	2 MHz	3.013204 V	3.009581 V	-0.003623 V	± 0.127036 V	± 0.002612 V	
10 V	3.00 V	4 MHz	3.001103 V	3.035095 V	0.033992 V	± 0.127036 V	± 0.004361 V	
10 V	3.00 V	8 MHz	2.991729 V	3.052163 V	0.060434 V	± 0.128036 V	± 0.004362 V	
10 V	3.00 V	10 MHz	3.000920 V	3.168136 V	0.167216 V	± 0.460036 V	± 0.004365 V	

The reported uncertainty has been calculated to give a confidence level of at least 95%.

Any quoted uncertainty refers only to the measured value and does not carry any implication regarding the long term stability of the instrument.