



### CALIBRATION CERTIFICATE

<b>Customer:</b>	<b>Address:</b>
<b>Description:</b> MaxTester Copper Test Set	
<b>Serial no.:</b> [REDACTED]	<b>Model no.:</b> MAX-610
<b>Calibration location:</b> [REDACTED]	<b>Calibration date:</b> 2019-04-09

As found					
<input checked="" type="checkbox"/> Initial calibration	<input type="checkbox"/> Within specifications (i)	<input type="checkbox"/> Within specifications* (ii)	<input type="checkbox"/> Outside specifications* (iii)	<input type="checkbox"/> Outside specifications (iv)	<input type="checkbox"/> Defective operation
*See results page for details on "As found" status					

Comments on unit status:

Action taken		
<input type="checkbox"/> No adjustment was made	<input checked="" type="checkbox"/> Adjustments were made	<input type="checkbox"/> Repair was performed

As left	
<input checked="" type="checkbox"/> Within specifications	<input type="checkbox"/> Outside specifications

**Calibration conditions**  
Temperature: 23 °C ± 3 °C

Equipment and standard(s) used to establish traceability			
Description	Inventory number	Calibration date	Calibration validity
Equipment and standard(s) used for "As found" measurements			
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
Equipment and standard(s) used for "As left" measurements			
Agilent 33522A waveform generator	MY50003066	2018-05-11	1 year
Agilent 53220A frequency counter	MY50001135	2018-06-09	1 year
KeySight N1914A Power Meter Electrical	MY56180002	2018-05-11	2 years
KeySight E9304A Power Sensor	MY56240009	2018-05-11	1 year
KeySight E9304A Power Sensor	MY56240011	2018-05-11	1 year
Fluke 5500A Calibrator	6740009	2018-07-16	1 year
JIG-2410 resistance measurement standard	EME097485	2012-08-23	Indefinite

EXFO certifies that the unit has been calibrated using standards traceable to a national metrology institute (NIST, NPL, NRC, METAS or other), natural physical constants or using ratio measurements. NIST is the National Institute of Standards and Technology in the USA, NPL is the National Physical Laboratory in the UK, NRC is the National Research Council in Canada and METAS is the Swiss Federal Institute of Metrology. All uncertainties are reported with a level of confidence of 95 %. Calibration is based on the ISO/IEC 17025 standard. The certificate shall not be reproduced, except in full, without the written approval of EXFO.

\_\_\_\_\_  
 [REDACTED]  
**Calibration operator**

\_\_\_\_\_  
 2021-09-16  
**Date**

## CALIBRATION CERTIFICATE

### Results summary

Procedure: IETA-00356 and IETA-00357

#### Power level calibration @ 10 kHz, 600 Ω

Parameter	Measured power level (dBm)	Reference power level (dBm)	Deviation (dB)	Uncertainty (dB)	Specification (dB)	Conformance limit (dB)	Verification *
<b>As found</b>							
VF Rx	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VF Tx	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>As left</b>							
VF Rx	0.1	0.0	0.1	0.32	1.0	0.7	i
VF Tx	-0.1	0.0	-0.1	0.22	1.0	0.8	i

#### Power level calibration @ 10 MHz, 100 Ω

Parameter	Measured power level (dBm)	Reference power level (dBm)	Deviation (dB)	Uncertainty (dB)	Specification (dB)	Conformance limit (dB)	Verification *
<b>As found</b>							
WB Rx	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WB Tx	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>As left</b>							
WB Rx	0.1	0.0	0.1	0.33	1.0	0.7	i
WB Tx	0.0	0.0	0.0	0.34	1.0	0.7	i

#### Frequency calibration @ 10 kHz, 600 Ω

Parameter	Measured frequency (kHz)	Reference frequency (kHz)	Deviation (kHz)	Uncertainty (kHz)	Specification (kHz)	Conformance limit (kHz)	Verification *
<b>As found</b>							
VF Rx 0 dBm	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VF Tx 10 dBm	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>As left</b>							
VF Rx 0 dBm	9.9999	10.0000	-0.0001	0.0006	0.0015	0.0010	i
VF Tx 10 dBm	10.0001	10.0000	0.0001	0.0001	0.0015	0.0014	i

#### Frequency calibration @ 10 MHz, 100 Ω

Parameter	Measured frequency (MHz)	Reference frequency (MHz)	Deviation (MHz)	Uncertainty (MHz)	Specification (MHz)	Conformance limit (MHz)	Verification *
<b>As found</b>							
WB Rx 0 dBm	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WB Tx 10 dBm	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>As left</b>							
WB Rx 0 dBm	10.0000	10.0000	0.0000	0.0006	0.0015	0.0010	i
WB Tx 10 dBm	10.0000	10.0000	0.0000	0.0001	0.0006	0.0005	i

\* Verification status legend:

- i) Within specifications;
- ii) Within specifications: All measured results are within specifications limits. In conformance with ISO/IEC 17025, full compliance cannot be stated because of measurement uncertainties. Nevertheless, results indicate that the instrument is likely to perform according to specifications;
- iii) Outside specifications: Some measured results are outside specification limits. Nevertheless, as per ISO/IEC 17025, non compliance cannot be stated because of measurement uncertainties;
- iv) Outside specifications.

Unless otherwise stated, 100 % of shipped units have all "As left" results in case i.

## CALIBRATION CERTIFICATE

### Results summary

Procedure: IETA-00355

#### Multimeter - DC voltage calibration @ 1 MΩ

Parameter	Measured value (V)	Reference value (V)	Deviation (V)	Uncertainty (V)	Specification (V)	Conformance limit (V)	Verification *
<b>As found</b>							
DC voltage	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>As left</b>							
DC voltage	119.9	120.0	-0.1	0.6	1.7	1.2	i

#### Multimeter - Isolation resistance calibration @ 125 V

Parameter	Measured value (MΩ)	Reference value (MΩ)	Deviation (MΩ)	Uncertainty (MΩ)	Specification (MΩ)	Conformance limit (MΩ)	Verification *
<b>As found</b>							
Isol. resistance	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>As left</b>							
Isol. resistance	40.1	40.0	0.1	0.6	0.9	0.4	i

#### Multimeter - Capacitance calibration

Parameter	Measured value (μF)	Reference value (μF)	Deviation (μF)	Uncertainty (μF)	Specification (μF)	Conformance limit (μF)	Verification *
<b>As found</b>							
Capacitance	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>As left</b>							
Capacitance	1.001	1.000	0.001	0.005	0.020	0.016	i

\* Verification status legend:

- i) Within specifications;
- ii) Within specifications: All measured results are within specifications limits. In conformance with ISO/IEC 17025, full compliance cannot be stated because of measurement uncertainties. Nevertheless, results indicate that the instrument is likely to perform according to specifications;
- iii) Outside specifications: Some measured results are outside specification limits. Nevertheless, as per ISO/IEC 17025, non compliance cannot be stated because of measurement uncertainties;
- iv) Outside specifications.

Unless otherwise stated, 100 % of shipped units have all "As left" results in case i.