



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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CALIBRATION

Valid To: February 28, 2025

Certificate Number: 3399.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 5}:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC ^{2, 6} (±)	Comments
DC Voltage – Generate	(0 to 220) mV >220 mV to 2.2 V (>2.2 to 11) V (>11 to 22) V (>22 to 220) V (>220 to 1100) V	3.5 μV/V + 3.5 μV 6.5 μV/V + 3.5 μV 7 μV/V + 5 μV 7.5 μV/V + 7.5 μV 8.5 μV/V + 85 μV 9 μV/V + 650 μV	Fluke 5700A
DC Voltage – Measure	(0 to 120) mV >120 mV to 1.2 V (>1.2 to 12) V (>12 to 120) V (>120 to 1050) V	5 μV/V + 3.5 μV 11 μV/V + 3.5 μV 12 μV/V + 3.5 μV 14 μV/V + 55 μV 30 μV/V + 550 μV	Keysight 3458A
Resistance – Measure	(0 to 12) Ω (>12 to 120) Ω (>120 to 1200) Ω (>1.2 to 12) kΩ (>12 to 120) kΩ (>120 to 1200) kΩ (>1.2 to 12) MΩ	13 μΩ/Ω + 240 μΩ 10 μΩ/Ω + 2.5 mΩ 14 μΩ/Ω + 2.5 mΩ 14 μΩ/Ω + 25 mΩ 16 μΩ/Ω + 85 mΩ 20 μΩ/Ω + 3 Ω 60 μΩ/Ω + 150 Ω	Keysight 3458A

II. Electrical – RF/Microwave

Parameter/Range	Frequency	CMC ^{2, 6, 7} (\pm)	Comments
RF Power – Measuring Equipment (Absolute)			
(-40 to 10) dBm	10 MHz to 4 GHz (>4 to 12) GHz (>12 to 16) GHz (>16 to 18) GHz	0.082 dB + <i>M</i> 0.12 dB + <i>M</i> 0.15 dB + <i>M</i> 0.17 dB + <i>M</i>	R&S NRP-Z21
(-20 to < 0) dBm	9 kHz to 10 MHz 10 MHz to 6 GHz (>6 to 12) GHz (>12 to 16) GHz (>16 to 18) GHz	0.060 dB + <i>M</i> 0.048 dB + <i>M</i> 0.065 dB + <i>M</i> 0.086 dB + <i>M</i> 0.099 dB + <i>M</i>	R&S NRP-Z51
	10 MHz to 8 GHz (>8 to 19) GHz (>19 to 25) GHz (>25 to 33) GHz	0.10 dB + <i>M</i> 0.12 dB + <i>M</i> 0.15 dB + <i>M</i> 0.18 dB + <i>M</i>	R&S NRP-Z52
	10 MHz to 14 GHz (>14 to 19) GHz (>19 to 25) GHz (>25 to 40) GHz	0.099 dB + <i>M</i> 0.11 dB + <i>M</i> 0.13 dB + <i>M</i> 0.21 dB + <i>M</i>	R&S NRP-Z55
(-40 to 10) dBm	9 kHz to 10 MHz	0.050 dB + <i>M</i>	R&S NRP-Z91
(0 to 10) dBm	10 MHz to 6 GHz (>6 to 12) GHz (>12 to 16) GHz (>16 to 18) GHz	0.035 dB + <i>M</i> 0.048 dB + <i>M</i> 0.065 dB + <i>M</i> 0.082 dB + <i>M</i>	R&S NRP-Z51
	10 MHz to 8 GHz (>8 to 19) GHz (>19 to 25) GHz (>25 to 33) GHz	0.090 dB + <i>M</i> 0.12 dB + <i>M</i> 0.14 dB + <i>M</i> 0.17 dB + <i>M</i>	R&S NRP-Z52
	10 MHz to 14 GHz (>14 to 19) GHz (>19 to 25) GHz (>25 to 40) GHz	0.090 dB + <i>M</i> 0.10 dB + <i>M</i> 0.12 dB + <i>M</i> 0.21 dB + <i>M</i>	R&S NRP-Z55
Power Meter Test Generator	50 MHz 1 mW nominal (0 dBm)	0.018 dB + <i>M</i>	R&S NRV-Z51

Parameter/Range	Frequency	CMC ^{2, 6, 7} (±)	Comments
RF Power – Measuring Equipment (Absolute) (cont)			
(-30 to 13) dBm	8 kHz to 1 MHz (>1 to 70) MHz >70 MHz to 2 GHz (>2 to 8) GHz (>8 to 12.4) GHz (>12.4 to 13) GHz (>13 to 18) GHz	0.020 dB + <i>M</i> 0.020 dB + <i>M</i> 0.026 dB + <i>M</i> 0.030 dB + <i>M</i> 0.036 dB + <i>M</i> 0.043 dB + <i>M</i> 0.047 dB + <i>M</i>	R&S NRVC
(-30 to <-10) dBm (-10 to <0) dBm (0 to 23) dBm (>23 to 26) dBm (>26 to 34) dBm	Linearity @ 50 MHz	0.024 dB 0.020 dB 0.018 dB 0.022 dB 0.025 dB	R&S NRVC-B2
(-30 to -20) dBm	128.1 MHz	0.073 dB	R&S NRP-Z91
RF Power – Measure (Absolute)			
(-20 to 10) dBm	9 kHz to 18 GHz	0.077 dB + <i>M</i>	R&S NRP-Z51
(-40 to 10) dBm	10 MHz to 6 GHz (>6 to 12) GHz (>12 to 18) GHz	0.10 dB + <i>M</i> 0.12 dB + <i>M</i> 0.16 dB + <i>M</i>	R&S NRP-Z21
(-20 to 10) dBm	10 MHz to 14 GHz (>14 to 19) GHz (>19 to 25) GHz (>25 to 33) GHz	0.099 dB + <i>M</i> 0.12 dB + <i>M</i> 0.15 dB + <i>M</i> 0.18 dB + <i>M</i>	R&S NRP-Z52
	10 MHz to 14 GHz (>14 to 19) GHz (>19 to 25) GHz (>25 to 40) GHz	0.099 dB + <i>M</i> 0.11 dB + <i>M</i> 0.12 dB + <i>M</i> 0.21 dB + <i>M</i>	R&S NRP-Z55

Parameter/Range	Frequency	CMC ^{2, 6} (\pm)	Comments
RF Power – Measure (Absolute) (DUT: Generator) (-20 to 20) dBm	>DC to 200 MHz >200 MHz to 4 GHz (>4 to 8) GHz (>8 to 12.5) GHz (>12.5 to 18) GHz (>18 to 26.5) GHz (>26.5 to 40) GHz (>40 to 50) GHz (>50 to 67) GHz	0.026 dB 0.052 dB 0.056 dB 0.065 dB 0.084 dB 0.09 dB 0.11 dB 0.14 dB 0.15 dB	Indicating measuring instrument: direct RF power comparison (e.g.: power sensor)
RF Power – Generate (Absolute) (DUT: Power Meter) (-40 to 23) dBm	>DC to 200 MHz >200 MHz to 4 GHz (>4 to 8) GHz (>8 to 12.5) GHz (>12.5 to 18) GHz (>18 to 26.5) GHz (>26.5 to 40) GHz (>40 to 50) GHz (>50 to 67) GHz	0.039 dB 0.072 dB 0.077 dB 0.079 dB 0.10 dB 0.15 dB 0.28 dB 0.38 dB 0.44 dB	Material measure: direct RF power comparison (e.g.: power sensor + power splitter)
Tuned RF Power – Measure (Relative) (DUT: Generator, Step Attenuator) (0 to -0.1) dB (-0.1 to -20) dB (-20 to -40) dB (-40 to -60) dB (-60 to -80) dB (-80 to -90) dB	128.1 MHz	0.007 dB 0.010 dB 0.014 dB 0.016 dB 0.019 dB 0.021 dB	Indicating measuring instrument: direct RF power comparison (e.g.: spectrum analyzer)

Parameter/Range	Frequency	CMC ^{2,6} (±)	Comments
Tuned RF Power – Generate (Relative) (DUT: Power Meter) (0 to -0.1) dB (-0.1 to -20) dB (-20 to -40) dB (-40 to -60) dB (-60 to -80) dB (-80 to -90) dB	128.1 MHz	0.010 dB 0.020 dB 0.023 dB 0.024 dB 0.027 dB 0.036 dB	Material measure: direct RF power comparison (e.g.: step attenuator, generator)
Attenuation – Measure (10 to 60) dB (In 10 dB Steps) (1 to 60) dB 70 dB 80 dB (>60 to <80) dB	10 MHz to 1 GHz, 2 GHz, 3GHz (>1 to <3) GHz 10 MHz, 50 MHz, 100 MHz, 500 MHz, 1 GHz 10 MHz to 1 GHz, 2 GHz, 3 GHz (>1 to <3) GHz 10 MHz, 50 MHz, 100 MHz, 500 MHz, 1 GHz, 2 GHz, 3 GHz >10 MHz to <3 GHz 10 MHz, 50 MHz, 100 MHz, 500 MHz, 1 GHz, 2 GHz, 3 GHz >10 MHz to <3 GHz 10 MHz, 50 MHz, 100 MHz, 500 MHz, 1 GHz, 2 GHz, 3 GHz >10 MHz to <1 GHz (>1 to <3) GHz	0.05 dB 0.12 dB 0.08 dB 0.15 dB 0.33 dB 0.06 dB 0.15 dB 0.06 dB 0.26 dB 0.14 dB 0.24 dB 0.42 dB	R&S RSG, R&S FSQ26

Parameter/Range	Frequency	CMC ^{2,6} (\pm)	Comments
Internal Step Attenuator ⁴ – (10 to 60) dB (In 10 dB Steps) (5 to 70) dB	10 MHz 100 MHz, 1 GHz 2 GHz 3 GHz 128 MHz	0.13 dB 0.11 dB 0.13 dB 0.18 dB 0.07 dB	R&S RSG
Display Linearity ⁴ – (10 to 80) dB (In 10 dB Steps)	10 MHz, 100 MHz 1 GHz 2 GHz 3 GHz	0.11 dB 0.11 dB 0.13 dB 0.19 dB	R&S RSG
Reflection S ₁₁ /S ₂₂ – Mag/Phase Measure Type-N (50 Ω)	(9 kHz to <100) kHz (0 to 0.1) lin (>0.1 to 0.25) lin (>0.25 to 0.5) lin (>0.5 to 1) lin (0 to 180) deg 100 kHz to 8.5 GHz (0 to 0.1) lin (>0.1 to 0.25) lin (>0.25 to 0.5) lin (>0.5 to 1) lin (0 to 180) deg	0.007 lin (180 to 3.5) deg 0.007 lin (3.5 to 1.5) deg (0.007 to 0.009) lin (1.5 to 0.95) deg (0.009 to 0.016) lin (0.95 to 0.92) deg 0.006 lin (180 to 3.4) deg (0.006 to 0.007) lin (3.5 to 1.5) deg (0.007 to 0.009) lin (1.5 to 0.94) deg (0.009 to 0.016) lin (0.94 to 0.92) deg	R&S ZV-Z270 with R&S ZNB8

Parameter/Range	Frequency	CMC ^{2, 3, 6} (\pm)	Comments
Reflection S ₁₁ /S ₂₂ – Mag/Phase Measure (cont)			
Type-N (50 Ω)	(10 to < 50) MHz (0 to 0.1) lin	0.007 lin (180 to 3.5) deg	R&S ZV-Z270 with R&S ZVA40
	(>0.1 to 0.25) lin	(0.007 to 0.008) lin (3.5 to 1.6) deg	
	(>0.25 to 0.5) lin	(0.008 to 0.011) lin (1.6 to 1.2) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.011 to 0.020) lin 1.2 deg	
	50 MHz to 12 GHz (0 to 0.1) lin	0.007 lin (180 to 4.1) deg	
	(>0.1 to 0.25) lin	(0.007 to 0.009) lin (4.1 to 2.0) deg	
	(>0.25 to 0.5) lin	(0.009 to 0.013) lin (2.0 to 1.5) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.013 to 0.026) lin 1.5 deg	
	(>12 to 18) GHz (0 to 0.1) lin	0.010 lin (180 to 5.6) deg	
	(>0.1 to 0.25) lin	(0.010 to 0.014) lin (5.6 to 3.1) deg	
	(>0.25 to 0.5) lin	(0.014 to 0.023) lin (3.1 to 2.6) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.023 to 0.043) lin (2.6 to 2.5) deg	

Parameter/Range	Frequency	CMC ^{2,3,6} (\pm)	Comments
Reflection S ₁₁ /S ₂₂ – Mag/Phase Measure (cont) 3.5 mm (50 Ω)	10 MHz to 8 GHz (0 to 0.1) lin	0.008 lin (180 to 4.6) deg	R&S ZV-Z235 with R&S ZVA40
	(>0.1 to 0.25) lin	0.008 lin (4.6 to 1.9) deg	
	(>0.25 to 0.5) lin	0.008 lin (1.9 to 1.0) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.008 to 0.013) lin (1.0 to 0.75) deg	
	(>8 to 24) GHz (0 to 0.1) lin	0.011 lin (180 to 6.4) deg	
	(>0.1 to 0.25) lin	0.011 lin (6.4 to 2.6) deg	
	(>0.25 to 0.5) lin	(0.011 to 0.013) lin (2.6 to 1.5) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.013 to 0.022) lin (1.5 to 1.3) deg	
	(>24 to 26.5) GHz (0 to 0.1) lin	0.015 lin (180 to 8.7) deg	
	(>0.1 to 0.25) lin	(0.015 to 0.016) lin (8.7 to 3.7) deg	
	(>0.25 to 0.5) lin	(0.016 to 0.017) lin (3.7 to 2.0) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.017 to 0.026) lin (2.0 to 1.5) deg	
	(>26.5 to 33) GHz (0 to 0.1) lin	0.019 lin (180 to 11) deg	
	(>0.1 to 0.25) lin	0.019 lin (11 to 4.4) deg	
	(>0.25 to 0.5) lin	(0.019 to 0.022) lin (4.4 to 2.6) deg	
(>0.5 to 1) lin (0 to 180) deg	(0.022 to 0.035) lin (2.6 to 2.1) deg		

Parameter/Range	Frequency	CMC ^{2,6} (\pm)	Comments
Reflection S ₁₁ /S ₂₂ – Mag/Phase Measure (cont)			
2.92 mm (50 Ω)	(10 to 700) MHz (0 to 0.1) lin	0.007 lin (180 to 3.5) deg	R&S ZV-Z229 with R&S ZVA40
	(>0.1 to 0.25) lin	0.007 lin (3.5 to 1.5) deg	
	(>0.25 to 0.5) lin	(0.007 to 0.009) lin (1.5 to 0.99) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.009 to 0.018) lin (0.99 to 0.98) deg	
	>700 MHz to 8 GHz (0 to 0.1) lin	0.008 lin (180 to 4.5) deg	
	(>0.1 to 0.25) lin	(0.008 to 0.009) lin (4.5 to 1.9) deg	
	(>0.25 to 0.5) lin	(0.009 to 0.011) lin (1.9 to 1.3) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.011 to 0.020) lin (1.3 to 1.2) deg	
	(>8 to 24) GHz (0 to 0.1) lin	0.014 lin (180 to 8.1) deg	
	(>0.1 to 0.25) lin	(0.014 to 0.015) lin (8.1 to 3.4) deg	
	(>0.25 to 0.5) lin	(0.015 to 0.018) lin (3.4 to 2.0) deg	
	(>0.5 to 1) lin (0 to 180) deg	(0.018 to 0.031) lin (2.0 to 1.8) deg	
	(>24 to 40) GHz (0 to 0.1) lin	0.018 lin (180 to 10.0) deg	

Parameter/Range	Frequency	CMC ^{2, 6} (±)	Comments
Reflection S ₁₁ /S ₂₂ – Mag/Phase Measure (cont) 2.92 mm (50 Ω)	(>24 to 40) GHz (>0.1 to 0.25) lin (>0.25 to 0.5) lin (>0.5 to 1) lin (0 to 180) deg	(0.018 to 0.019) lin (10.0 to 4.2) deg (0.019 to 0.022) lin (4.2 to 2.5) deg (0.022 to 0.036) lin (2.5 to 2.1) deg	R&S ZV-Z229 with R&S ZVA40
Transmission Loss S ₂₁ /S ₁₂ Mag – Measure Type-N (50 Ω)	(9 to <100) kHz (0 to 3) dB (>3 to 30) dB (>30 to 60) dB 100 kHz to 8.5 GHz (0 to 3) dB (>3 to 30) dB (>30 to 60) dB (10 to <50) MHz (0 to 3) dB (>3 to 30) dB (>30 to 60) dB 50 MHz to 12 GHz (0 to 3) dB (>3 to 30) dB (>30 to 60) dB >12 MHz to 18 GHz (0 to 3) dB (>3 to 30) dB (>30 to 60) dB	0.032 dB 0.026 dB 0.039 dB 0.031 dB 0.023 dB 0.036 dB 0.050 dB 0.021 dB 0.11 dB 0.062 dB 0.021 dB 0.034 dB 0.13 dB 0.026 dB 0.036 dB	R&S ZV-Z270 with R&S ZNB8 R&S ZV-Z270 with R&S ZVA40

Parameter/Range	Frequency	CMC ^{2, 6} (±)	Comments
Transmission Loss S ₂₁ /S ₁₂ Mag – Measure (cont)			
	3.5 mm (50 Ω)	(10 to <700) MHz (0 to 3) dB 0.038 dB (>3 to 30) dB 0.021 dB (>30 to 60) dB 0.044 dB 700 MHz to 8 GHz (0 to 3) dB 0.029 dB (>3 to 30) dB 0.021 dB (>30 to 60) dB 0.035 dB (>8 to 24) GHz (0 to 3) dB 0.052 dB (>3 to 30) dB 0.021 dB (>30 to 60) dB 0.035 dB (>24 to 26.5) GHz (0 to 3) dB 0.061 dB (>3 to 30) dB 0.025 dB (>30 to 60) dB 0.046 dB (>26.5 to 33) GHz (0 to 3) dB 0.076 dB (>3 to 30) dB 0.025 dB (>30 to 60) dB 0.046 dB	R&S ZV-Z235 with R&S ZVA40
	2.92 mm (50 Ω)	(10 to <700) MHz (0 to 3) dB 0.048 dB (>3 to 30) dB 0.021 dB (>30 to 60) dB 0.060 dB 700 MHz to 8 GHz (0 to 3) dB 0.042 dB (>3 to 30) dB 0.021 dB (>30 to 60) dB 0.036 dB (>8 to 24) GHz (0 to 3) dB 0.064 dB (>3 to 30) dB 0.021 dB (>30 to 60) dB 0.036 dB (>24 to 40) GHz (0 to 3) dB 0.088 dB (>3 to 30) dB 0.029 dB (>30 to 60) dB 0.043 dB	R&S ZV-Z229 with R&S ZVA40



III. Electrical – RF/Microwave Device Specific Parameters

Parameter/Equipment	Frequency	CMC ^{2, 6, 8} (±)	Comments
<p>CISPR Pulse Characteristic (Absolute) – Measure DUT: Pulse Generator</p> <p>Band A 13.5 μVs; 25 Hz</p> <p>Band B 0.316 μVs; 100 Hz</p> <p>Band C/D 0.044 μVs; 100 Hz</p>	<p>(9 to 150) kHz</p> <p>150 kHz to 30 MHz</p> <p>(30 to 1000) MHz</p>	<p>0.25 dB</p> <p>0.25 dB</p> <p>0.26 dB</p>	<p>Indicating measuring instrument: direct pulse comparison (e.g.: receiver) CISPR 16-1-1</p>
<p>CISPR Detector (Absolute) – Generate DUT: Test Receiver</p> <p>Band A Ref. BW 6 dB: 200 Hz</p> <p>Band B Ref. BW 6 dB: 9 kHz</p> <p>Band C/D Ref. BW 6 dB: 120 kHz</p>	<p>(9 to 150) kHz</p> <p>150 kHz to 30 MHz</p> <p>(30 to 1000) MHz</p>	<p>0.30 dB</p> <p>0.30 dB</p> <p>0.31 dB</p>	<p>Material measure: direct pulse comparison (e.g.: IGUU 2918) CISPR 16-1-1</p>
<p>CISPR Pulse Repetition Rate – Measure DUT: Pulse Generator</p> <p>Band A (0.1 to 100) Hz</p> <p>Band B (0.1 to 3180) Hz</p> <p>Band C/D (0.1 to 42 400) Hz</p>	<p>(9 to 150) kHz</p> <p>150 kHz to 30 MHz</p> <p>(30 to 1000) MHz</p>	<p>0.01 %</p> <p>0.01 %</p> <p>0.01 %</p>	<p>Indicating measuring instrument: direct measurement (e.g.: frequency counter) CISPR 16-1-1</p>

Parameter/Equipment	Frequency	CMC ^{2, 6} (±)	Comments
CISPR Detector – (Relative: Response Variation with Repetition Frequency) – Generate DUT: Test Receiver Band A (0.1 to 100) Hz Band B (0.1 to 1000) Hz Band C/D (0.1 to 1000) Hz	 (9 to 150) kHz 150 kHz to 30 MHz (30 to 1000) MHz	 0.05 dB 0.05 dB 0.05 dB	 Material measure: direct pulse comparison (e.g.: IGUU 2918) CISPR 16-1-1
CISPR Detector (Absolute) Generate DUT: Test Receiver Band E (Pulse Modulated Carrier) Ref. BW 6 dB: 1 MHz	 (1 to 4) GHz (4 to 8) GHz (8 to 18) GHz	 0.10 dB 0.11 dB 0.13 dB	 Material measure: direct comparison pulse to modulated carrier (e.g.: signal generator) CISPR 16-1-1
CISPR Detector (Relative) Generate DUT: Test Receiver Band E (Pulse Modulated Carrier) (316 to 353 500) Hz	 (1 to 18) GHz	 0.05 dB	 Material measure: direct comparison pulse to modulated carrier (e.g.: signal generator) CISPR 16-1-1

Parameter/Equipment	Frequency	CMC ^{2, 6} (\pm)	Comments
CISPR 16-1-1 Overall Selectivity –			
1.5 dB 6 dB 20 dB	200 Hz RBW	1.4 Hz 0.7 Hz 0.4 Hz	Frequency FT-001S GPS receiver
1.5 dB 6 dB 20 dB	9 kHz RBW	0.06 kHz 0.04 kHz 0.02 kHz	
1.5 dB 6 dB 20 dB	120 kHz RBW	0.8 kHz 0.38 kHz 0.23 kHz	
3 dB 6 dB 9 dB 20 dB	1 MHz RBW	4 kHz 3.7 kHz 3.1 kHz 3.8 kHz	

IV. Time & Frequency

Parameter/Range	Frequency	CMC ^{2, 3} (\pm)	Comments
Frequency –			
Generate	10 MHz	1.8 pHz/Hz	GPS – Frequency FT-001S
Measure	(10 to <100) Hz 100 Hz to <1 kHz (1 to <10) kHz 10 kHz to 3 GHz (>3 to <20) GHz (20 to 40) GHz	1.9 μ Hz/Hz 11 nHz/Hz 16 nHz/Hz 8.6 pHz/Hz 400 pHz/Hz 51 pHz/Hz	GPS – Frequency FT-001S and Agilent 53132A, 53152A

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.

⁴ Nominal Attenuation

⁵ This scope meets A2LA's *PI12 Flexible Scope Policy*.

⁶ The stated measured values are determined using the indicated instrument (see Comments). This capability is suitable for the calibration of the devices intended to measure or generate the measured value in the ranges indicated. CMCs are expressed as either a specific value that covers the full range or as a percent or fraction of the reading plus a fixed floor specification.

⁷ In the statement of CMC, M is the mismatch uncertainty between device-under-test (DUT) and calibration standard.

⁸ In the statement of CMC, percentage (%) refers to percent of reading, unless otherwise noted.