Name: Calibration Laboratory of Keysight Technologies (China) Co., Ltd.

Address: No.3, Wangjing North Road, Chaoyang District, Beijing, China

Registration No. CNAS L0640

Accreditation Criteria: ISO/IEC 17025:2017 and relevant requirements of CNAS

Effective Date: 2024-01-18 Expiry Date: 2030-01-21

SCHEDULE 5 ACCREDITED CALIBRATION AND MEASUREMENT CAPABILITY SCOPE

Note: The instruments with * represents onsite calibration can be performed.

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
未分组							
1	*RF/MW Vector Signal Generator	Power Level	RF/MW Vector Signal Generator Test Procedure CAL-CHA001-01	20 dBm～30 dBm , 9 kHz～14 GHz	U=0.16 dB		
				20 dBm～30 dBm ,14 GHz～18 GHz	U=0.17 dB		
				15 dBm～20 dBm ,9 kHz～100 kHz	U=0.10 dB		
				15 dBm～20 dBm ,100 kHz～8 GHz	U=0.053 dB		
				15 dBm～20 dBm ,8 GHz～24 GHz	U=0.081 dB		
				15 dBm～20 dBm ,24 GHz～67 GHz	U=0.12 dB		
				15 dBm～20 dBm ,9 kHz～100 kHz	U=0.097 dB		

在线扫码获取验证

The scope of the accreditation in Chinese remains the definitive version.

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10 dBm～15 dBm ,100 kHz～8 GHz	U=0.051 dB		
				10 dBm～15 dBm ,8 GHz～24 GHz	U=0.079 dB		
				10 dBm～15 dBm ,24 GHz～67 GHz	U=0.12 dB		
				3 dBm～10 dBm ,9 kHz～100 kHz	U=0.058 dB		
				3 dBm～10 dBm ,100 kHz～8 GHz	U=0.043 dB		
				3 dBm～10 dBm ,8 GHz～24 GHz	U=0.075 dB		
				3 dBm～10 dBm ,24 GHz～67 GHz	U=0.12 dB		
				-3 dBm～3 dBm ,9 kHz～12.4 GHz	U=0.03 dB		
				-3 dBm～3 dBm ,12.4 GHz～18 GHz	U=0.034 dB		
				-3 dBm～3 dBm ,18 GHz～24 GHz	U=0.073 dB		
				-3 dBm～3 dBm ,24 GHz～26.5 GHz	U=0.088 dB		
				-3 dBm～3 dBm ,26.5 GHz～33 GHz	U=0.10 dB		
				-3 dBm～3 dBm ,33 GHz～67 GHz	U=0.12 dB		
				-20 dBm～-3 dBm ,9 kHz～100 kHz	U=0.13 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm～-3 dBm ,100 kHz～8 GHz	U=0.047 dB		
				-20 dBm～-3 dBm ,8 GHz～12.4 GHz	U=0.061 dB		
				-20 dBm～-3 dBm ,12.4 GHz～14 GHz	U=0.070 dB		
				-20 dBm～-3 dBm ,14 GHz～18 GHz	U=0.074 dB		
				-20 dBm～-3 dBm ,18 GHz～24 GHz	U=0.077 dB		
				-20 dBm～-3 dBm ,24 GHz～26.5 GHz	U=0.092 dB		
				-20 dBm～-3 dBm ,26.5 GHz～33 GHz	U=0.10 dB		
				-20 dBm～-3 dBm ,33 GHz～67 GHz	U=0.12 dB		
				-30 dBm～-20 dBm ,9 kHz～100 kHz	U=0.16 dB		
				-30 dBm～-20 dBm ,100 kHz～8 GHz	U=0.047 dB		
				-30 dBm～-20 dBm ,8 GHz～12.4 GHz	U=0.061 dB		
				-30 dBm～-20 dBm ,12.4 GHz～14 GHz	U=0.070 dB		
				-30 dBm～-20 dBm ,14 GHz～18 GHz	U=0.074 dB		
				-30 dBm～-20 dBm ,18 GHz～24 GHz	U=0.077 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-30 dBm～-20 dBm ,24 GHz～26.5 GHz	U=0.092 dB		
				-30 dBm～-20 dBm ,26.5 GHz～33 GHz	U=0.10 dB		
				-30 dBm～-20 dBm ,33 GHz～67 GHz	U=0.12 dB		
				-90 dBm～-30 dBm ,9 kHz～100 kHz	U=0.16 dB		
				-90 dBm～-30 dBm ,100 kHz～8 GHz	U=0.048 dB		
				-90 dBm～-30 dBm ,8 GHz～12.4 GHz	U=0.062 dB		
				-90 dBm～-30 dBm ,12.4 GHz～14 GHz	U=0.071 dB		
				-90 dBm～-30 dBm ,14 GHz～18 GHz	U=0.075 dB		
				-90 dBm～-30 dBm ,18 GHz～24 GHz	U=0.078 dB		
				-90 dBm～-30 dBm ,24 GHz～26.5 GHz	U=0.093 dB		
				-90 dBm～-30 dBm ,26.5 GHz～33 GHz	U=0.10 dB		
				-90 dBm～-30 dBm ,33 GHz～50 GHz	U=0.12 dB		
				-110 dBm～-90 dBm ,9 kHz～100 kHz	U=0.16 dB		
				-110 dBm～-90 dBm ,100 kHz～8 GHz	U=0.086 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-110 dBm～-90 dBm ,8 GHz～12.4 GHz	U=0.069 dB		
				-110 dBm～-90 dBm ,12.4 GHz～14 GHz	U=0.077 dB		
				-110 dBm～-90 dBm ,14 GHz～18 GHz	U=0.081 dB		
				-110 dBm～-90 dBm ,18 GHz～24 GHz	U=0.084 dB		
				-110 dBm～-90 dBm ,24 GHz～26.5 GHz	U=0.098 dB		
				-110 dBm～-90 dBm ,26.5 GHz～33 GHz	U=0.11 dB		
				-110 dBm～-90 dBm ,33 GHz～40 GHz	U=0.12 dB		
				-110 dBm～-90 dBm ,40 GHz～50 GHz	U=0.14 dB		
				-130 dBm～-110 dBm ,9 kHz～100 kHz	U=0.16 dB		
				-130 dBm～-110 dBm ,100 kHz～8 GHz	U=0.071 dB		
				-130 dBm～-110 dBm ,8 GHz～12.4 GHz	U=0.083 dB		
				-130 dBm～-110 dBm ,12.4 GHz～14 GHz	U=0.089 dB		
				-130 dBm～-110 dBm ,14 GHz～18 GHz	U=0.092 dB		
				-130 dBm～-110 dBm ,18 GHz～24 GHz	U=0.096 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-130 dBm～-110 dBm ,24 GHz～26.5 GHz	U=0.11 dB		
				-130 dBm～-110 dBm ,26.5 GHz～33 GHz	U=0.12 dB		
				-130 dBm～-110 dBm ,33 GHz～40 GHz	U=0.13 dB		
				-130 dBm～-110 dBm ,40 GHz～50 GHz	U=0.14 dB		
				-140 dBm～-130 dBm ,9 kHz～100 kHz	U=0.17 dB		
				-140 dBm～-130 dBm ,100 kHz～8 GHz	U=0.077 dB		
				-140 dBm～-130 dBm ,8 GHz～24 GHz	U=0.10 dB		
				-140 dBm～-130 dBm ,24 GHz～50 GHz	U=0.15 dB		
		Timebase Frequency		10 MHz	U_{rel}=1x10^{-11}		
		Harmonic Distortion		-146 dBc～-25 dBc ,Carrier 0.5 MHz～1 MHz	U=0.13 dB		
				-146 dBc～-30dBc ,Carrier 1 MHz～0.7 GHz	U=0.61 dB		
				-146 dBc～-30dBc ,Carrier 0.7 GHz～1 GHz	U=0.52 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-146 dBc～-30 dBc ,Carrier 1.0 GHz～10 GHz	U=0.80 dB		
				-146 dBc～-30 dBc ,Carrier 10 GHz～20 GHz	U=0.90 dB		
				-146 dBc～-30 dBc ,Carrier Freqency: 20 GHz～50 GHz	U=1.4 dB		
		Spurious		-146 dBc～-30dBc ,9 kHz～2 GHz	U=0.089 dB		
				-146 dBc～-30dBc ,2 GHz～6 GHz	U=0.096 dB		
				-146 dBc～-30 dBc ,6 GHz～26.5 GHz	U=0.089 dB		
				-146 dBc～-30 dBc ,6 GHz～50 GHz	U=0.090 dB		
		Pulse Modulation On/Off Ratio		80 dB～120 dB,9 kHz～50 GHz	U=0.089 dB		
		FM Deviation		10 Hz～100 kHz,Carrier：9 kHz～50 GHz,Mod Rate: 1 kHz	U_{rel}=0.99%		
		FM Frequency Response		0 dB～1 dB,Carrier ：9 kHz～50 GHz,Mod Rate 80 Hz～100 kHz	U=0.12 dB		
		FM Distortion		0.1%～1%, Carrier ：10 MHz～3.3 GHz, Mod Rate 1 kHz	U=0.002%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Residual FM		0.1 Hz～100 Hz, Carrier 250 kHz～250 MHz	U=0.06 Hz		
				0.1 Hz～100 Hz, Carrier 250 MHz～500 MHz	U=0.03 Hz		
				0.1 Hz～100 Hz, Carrier 500 MHz～1000 MHz	U=0.06 Hz		
				0.1 Hz～100 Hz, Carrier 1000 MHz～2000 MHz	U=0.12 Hz		
				0.1 Hz～100 Hz, Carrier 2000 MHz～4000 MHz	U=0.24 Hz		
				0.1 Hz～100 Hz, Carrier 4000 MHz～6000 MHz	U=0.48 Hz		
		Phase Modulation Deviation		1 rad～100 rad, Carrier：10 MHz～3.3 GHz, Mod Rate 200 Hz ～ 20 kHz	U_{rel}=0.13%		
		Phase Modulation Frequency Response		0 dB～3 dB,Carrier 500 MHz～1000 MHz, Mod rate 80 Hz～100 kHz	U=0.12 dB		
				0 dB～3 dB,Carrier 500 MHz～1000 MHz, mod rate 100 kHz～100 MHz	U=0.14 dB		
		Phase Modulation Distortion		0.03%～1%,Carrier Frequency: 500 MHz～700 MHz,Phase deviation:(1～90) rad	U=0.004%		

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				0.03%～1%,Carrier Frequency: 700 MHz～1000 MHz,Phase deviation:(1～90) rad	U=0.007%		
		AM		AM depth 5%~99%,Carrier Frequency：100 kHz～10 MHz, Mod Rate 50 Hz ～ 10 kHz	U_{rel}=0.75%		
				AM depth 20%~99%,Carrier Frequency：10 MHz～3 GHz, Mod Rate 50 Hz ～ 100 kHz	U_{rel}=0.5%		
				AM depth 20%~99%,Carrier Frequency：3 GHz～26.5 GHz, Mod Rate 50 Hz ～ 100 kHz	U_{rel}=1.5%		
				AM depth 20%~99%,Carrier Frequency：26.5 GHz～31.15 GHz, Mod Rate 50 Hz ～ 100 kHz	U_{rel}=1.9%		
				AM depth 20%~99%,Carrier Frequency：31.15 GHz～50 GHz, Mod Rate 50 Hz ～ 100 kHz	U_{rel}=6%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AM Distortion		0.01%～3%,Carrier Frequency：100 kHz～50 GHz, Mod Rate 20 Hz～ 100 kHz	U=0.006%		
		AM Frequency Response		-3 dB～3 dB,Carrier Frequency：100 kHz～50 GHz,Mod Rate 10 Hz～20 kHz	U=0.025 dB		
				-3 dB～3 dB,Carrier Frequency：100 kHz～50 GHz,Mod Rate 20 kHz～100 kHz	U=0.12 dB		
		DC FM Carrier Offset		-0.5%～0.5%,Carrier Frequency：200 MHz～4500 MHz,Deviation 1 kHz～500 kHz	U=0.0051%		
				-0.5%～0.5%,Carrier Frequency：200 MHz～4500 MHz,Deviation 500 kHz ～4 MHz	U=0.0001%		
		Amplitude Switching Speed		10 µs～500 µs	U=0.91 µs		
				500 µs～10 ms	U=1.3 µs		
		Burst Modulation On/Off Ratio		70 dB～130 dB,Carrier Frequency：0.25 MHz～4 GHz	U=0.08 dB		

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		Digital Modulation Power Relative to CW		0 dBm～15 dBm,Carrier Frequency：9 kHz～50 GHz	U=0.002 dB		
		GSM Phase Error RMS		0.1°～1°,Carrier Frequency: 800 MHz～2200 MHz	U=0.02 °		
		GSM Phase Error Peak		0.1°～1°,Carrier Frequency: 800 MHz～2200 MHz	U=0.12 °		
		EDGE EVM		0.1%～5%,Carrier Frequency: 800 MHz～2200 MHz	U=0.025%		
		CDMA RHO		0.1～1,Carrier Frequency: 800 MHz～2200 MHz	U=0.0002		
		CDMA ACP		-80 dB～-30 dB,Carrier Frequency: 800 MHz～2200 MHz	U=0.12 dB		
		CDMA EVM		0.1%～5%,Carrier Frequency: 800 MHz～2200 MHz	U=0.023%		
		WCDMA EVM		0.1%～1%,Carrier Frequency: 800 MHz～2200 MHz	U=0.03%		
		WCDMA ACP		-80 dB～-30 dB,Carrier Frequency: 800 MHz～2200 MHz(include ACLR)	U=0.30 dB		

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		LTE ACP		-80 dB~ -30 dB,Carrier Frequency: 800 MHz~ 2200 MHz	U=0.50 dB		
		DECT Position Deviation Error		0.1 kHz～3 kHz,Carrier Frequency: 800 MHz~ 2200 MHz	U=0.12 kHz		
		Custom EVM		0.1%～5%,Carrier Frequency: 100 MHz～44 GHz（ π/4DQPSK、PHS、PDC、NADC、TETRA、BPSK、QPSK、QAM16、QAM64、QAM256）	U=0.01%		
		2FSK Freq Shift Error		0.1%～5%,Carrier Frequency: 100 MHz～ 6000 MHz	U=0.048%		
		GMSK Phase Error RMS		0.1°～1°,Carrier Frequency: 800 MHz～ 6000 MHz	U=0.013 °		
		Frequency Switching Speed		180 ns～100 μs,Carrier Frequency：9 kHz～50 GHz	U=4 ns		
				100 μs～10 ms,Carrier Frequency：9 kHz～50 GHz	U=50 μs		
				10 ms～100 ms,Carrier Frequency：9 kHz～50 GHz	U=0.8 ms		

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		Pulse Modulation Level		0 dBm～9 dBm,Carrier Frequency：9 kHz～50 GHz	U=0.028 dB		
		Pulse Modulation Rise/Fall Time		20 ps～10 ns,Carrier Frequency：9 kHz～50 GHz	U=0.41 ns		
		Residual Phase Noise		-150 dBc/Hz～-20 dBc/Hz,Carrier Frequency：100 MHz～3.2 GHz,Deviation：1 Hz～10 Hz	U=2.8 dB		
				-150 dBc/Hz～-20 dBc/Hz,Carrier Frequency：100 MHz～3.2 GHz,Deviation：10 Hz～100 Hz	U=2.5 dB		
				-150 dBc/Hz～-20 dBc/Hz,Carrier Frequency：100 MHz～3.2 GHz,Deviation：100 Hz～10 kHz	U=2.4 dB		
				-150 dBc/Hz～-20 dBc/Hz,Carrier Frequency：100 MHz～3.2 GHz,Deviation：10 kHz～1 MHz	U=2.3 dB		

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		Single Sideband Phase Noise		-150 dBc/Hz～-20 dBc/Hz,Carrier Frequency：1 MHz～20 GHz,Deviation：1 Hz～10 Hz	U=2.9 dB		
				-150 dBc/Hz～-20 dBc/Hz,Carrier Frequency：1 MHz～20 GHz,Deviation：10 Hz～100 Hz	U=2.6 dB		
				-160 dBc/Hz～-25 dBc/Hz,Carrier Frequency：1 MHz～20 GHz,Deviation：100 Hz～10 kHz	U=2.4 dB		
				-170 dBc/Hz～-25 dBc/Hz,Carrier Frequency：1 MHz～20 GHz,Deviation：10 kHz～1 MHz	U=2.3 dB		
				-170 dBc/Hz～-25 dBc/Hz,Carrier Frequency：10 MHz～20 GHz,Deviation：1 MHz～100 MHz	U=4.6 dB		
		Sub-Harmonic Spurious		-146 dBc～-40 dBc,载波频率：9 kHz～50 GHz	U=0.75 dB		

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		Swept Frequency Accuracy		9 kHz～50 GHz	U_{rel}=3.4×10^{-6}		
2	*RF/MW Frequency Synthesizer	Power Level	RF/MW Frequency synthesizer Test Procedure CAL-CHA001-02	0 dBm～18 dBm,100 kHz～4.2 GHz	U=0.08 dB		
				0 dBm～13 dBm,4.2 GHz～6 GHz	U=0.09 dB		
				0 dBm～10 dBm,6 GHz～10 GHz	U=0.13 dB		
				0 dBm～10 dBm,18 GHz～26.5 GHz	U=0.18 dB		
				0 dBm～10 dBm,26.5 GHz～36 GHz	U=0.25 dB		
				0 dBm～10 dBm,36 GHz～50 GHz	U=0.42 dB		
				10 dBm～ 20 dBm,6 GHz～10 GHz	U=0.19 dB		
				10 dBm～ 20 dBm,10 GHz～18 GHz	U=0.22 dB		
				0 dBm～-127 dBm,3 MHz～1 GHz	U=0.11 dB+0.005 dB/10 dB		
				0 dBm～-127 dBm,1 GHz～6.0 GHz	U=0.02 dB+0.005 dB/10 dB		
				0 dBm～-90 dBm,6 GHz～26.5 GHz	U=0.18 dB+0.005 dB/10 dB		
				0 dBm～-90 dBm,26.5 GHz～33.5 GHz	U=0.25 dB+0.005 dB/10 dB		

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				0 dBm～-20 dBm,33.5 GHz～50 GHz	U=0.25 dB		
				-20 dBm～-70 dBm,33.5 GHz～50 GHz	U=0.41 dB		
				-70 dBm～-90 dBm,33.5 GHz～50 GHz	U=0.42 dB		
		Frequency		10 MHz	U_{rel}=1.0x10^{-11}		
		Harmonic Distortion		-146 dBc～-30 dBc ,1 MHz～2 GHz	U=0.5 dB		
				-146 dBc～-30 dBc ,2 GHz～4 GHz	U=0.6 dB		
				-146 dBc～-30dBc ,4 GHz～6.0 GHz	U=1.2 dB		
				-146 dBc～-30dBc ,6.0 GHz～7.0 GHz	U=1.5 dB		
				-146 dBc～-30 dBc ,7.0 GHz～20 GHz	U=1.8 dB		
		Spurious		-130 dBc～-50 dBc ,184 kHz～1.0 MHz	U=1.2 dB		
				-130 dBc～-50 dBc ,1.0 MHz～41.4 MHz	U=1.1 dB		
				-130 dBc～-50 dBc ,41.1 MHz～1.602 GHz	U=0.8 dB		
				-130 dBc～-50 dBc ,1.602 GHz～1.925 GHz	U=1.7 dB		
				-130 dBc～-50 dBc ,1.925 GHz～3.0 GHz	U=2.0 dB		

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				-130 dBc～-50 dBc ,3.0 GHz～6.0 GHz	U=2.0 dB		
				-130 dBc～-50 dBc ,6.0 GHz～13.5 GHz	U=1.8 dB		
				-130 dBc～-50 dBc ,13.5 GHz～20 GHz	U=1.9 dB		
				-130 dBc～-50 dBc ,20 GHz～40 GHz	U=2.0 dB		
				-130 dBc～-50 dBc ,40 GHz～50 GHz	U=1.8 dB		
		FM Deviation		5 kHz～100 kHz,Mod Rate 1 kHz, Carrier frequency 0.25 MHz ～ 6 GHz	U_{rel}=0.96%		
				0.8 kHz～100 kHz,Mod Rate 10 kHz, Carrier frequency 0.25 MHz ～ 6 GHz	U_{rel}=2.0%		
				25 kHz～350 kHz,Mod Rate 20 kHz, Carrier frequency 10 MHz ～ 26.5 GHz	U_{rel}=0.86%		
				25 kHz～375 kHz,Mod Rate 100 kHz, Carrier frequency 10 MHz ～ 26.5 GHz	U_{rel}=0.96%		
				500 kHz,Mod Rate 100 kHz, Carrier frequency 10 MHz ～ 26.5 GHz	U_{rel}=0.11%		

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				1 MHz～2 MHz,Mod Rate 100 kHz, Carrier frequency 10 MHz ～ 26.5 GHz	U_{rel}=0.24%		
				2.4 MHz,Mod Rate 1 MHz, Carrier frequency 10 MHz ～ 26.5 GHz	U_{rel}=0.054%		
				5 MHz,Mod Rate 1 MHz, Carrier frequency 10 MHz ～ 26.5 GHz	U_{rel}=0.24%		
				8 MHz,Mod Rate 1 MHz, Carrier frequency 10 MHz ～ 26.5 GHz	U_{rel}=1.4%		
		Phase Modulation Deviation		0.1 rad～1.0 rad,Mod Rate 1 kHz, ,Carrier frequency 0.25 MHz ～ 26.5 GHz	U_{rel}=1.0%		
				1 rad～1.5 rad,Mod Rate 1 kHz ,Carrier frequency 0.25 MHz ～ 26.5 GHz	U_{rel}=0.6%		
				1.5 rad～2.0 rad,Mod Rate 1 kHz ,Carrier frequency 0.25 MHz ～ 26.5 GHz	U_{rel}=0.5%		
				2 rad～5.5 rad,Mod Rate 1 kHz ,Carrier frequency 0.25 MHz ～ 26.5 GHz	U_{rel}=0.2%		
				100 rad,Mod Rate 1 kHz ,Carrier frequency 0.25 MHz ～ 26.5 GHz	U_{rel}=2.9%		

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		AM		10%～90%,Mod Rate 1 kHz, ,Carrier frequency 0.25 MHz ～ 26.5 GHz	U_{rel}=1.1%		
		AM Distortion		1%～6% ,AM：30 %～90%,Mod Rate 1 kHz,Carrier frequency 0.25 MHz ～ 26.5 GHz	U=0.47%		
		AM Frequency Response		0 dB～3 dB,Mod Rate 20 Hz～1 kHz,Carrier frequency 0.25 MHz ～ 26.5 GHz	U=0.08 dB		
				0 dB～3 dB,Mod Rate 1 kHz～10 kHz,Carrier frequency 0.25 MHz ～ 26.5 GHz	U=0.02 dB		
				0 dB～3 dB,Mod Rate 10 kHz～40 kHz,Carrier frequency 0.25 MHz ～ 26.5 GHz	U=0.08 dB		
				0 dB～3 dB,Mod Rate 40 kHz～250 kHz,Carrier frequency 0.25 MHz ～ 26.5 GHz	U=0.087 dB		
		Single Side Band Phase Noise		-160 dBc/Hz～-25 dBc/Hz,Carrier Frequency：100 MHz～20 GHz,Deviation：10 Hz～1 MHz	U=1.0 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
3	*RF/MW Signal Generator	ALC Linearity	RF/MW Signal Generator Test Procedure CAL-CHA001-03	0 dBm～13 dBm,100 kHz～2.5 MHz	U=0.11 dB		
				0 dBm～13 dBm,2.5 MHz～500 MHz	U=0.12 dB		
				0 dBm～13 dBm,500 MHz～20 GHz	U=0.20 dB		
		AM Distortion		0.01%～3%,Carrier Frequency：100 MHz～20 GHz,AM:10%, Mod rate 1kHz	U=0.03%		
				0.01%～3%,Carrier Frequency：1.5 MHz～5 MHz,AM:30%, Mod rate 1kHz	U=0.12%		
				0.01%～3%,Carrier Frequency：5 MHz～3 GHz,AM:30%, Mod rate 1kHz	U=0.075%		
				0.01%～3%,Carrier Frequency：3 GHz～6 GHz,AM:30%, Mod rate 1kHz	U=0.15%		
				0.01%～3%,Carrier Frequency：1.5 MHz～5 MHz,AM:80%, Mod rate 1kHz	U=0.37%		
				0.01%～3%,Carrier Frequency：5 MHz～3 GHz,AM:80%, Mod rate 1kHz	U=0.12%		

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				0.01%～3%,Carrier Frequency：3 GHz～6 GHz,AM:80%, Mod rate 1kHz	U=0.24%		
		AM Frequency Response		0 dB～3 dB,Carrier Frequency：100 MHz～2.7 GHz,Mod Rate: 10 Hz～10 kHz	U=0.027 dB		
				0 dB～3 dB,Carrier Frequency：100 MHz～2.7 GHz,Mod Rate: 10 kHz～50 kHz	U=0.04 dB		
				0 dB～3 dB,Carrier Frequency：2.7 GHz～20 GHz,Mod Rate: 10 Hz～50 kHz	U=0.13 dB		
		AM		1%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.08%		
				1%～2%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.10%		
				2%～5%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.14%		
				5%～10%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.10%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10%～15%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.17%		
				15%～20%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.20%		
				20%～30%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.26%		
				30%～50%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.31%		
				50%～60%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.48%		
				60%～70%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.39%		
				70%～80%，Carrier Frequency：100 kHz～6 GHz，Mod rate：1 kHz	U=0.27%		
				10%～80%,Carrier Frequency：20 GHz，Mod rate：1 kHz	U=1.3%		
		Analog Ramp Sweep		10 MHz～20 GHz	U=0.001 GHz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Power Level		-120.1 dBm～0 dBm,Carrier Frequency：1 MHz～1275 MHz	U=0.082 dB		
				-119 dBm～-96.1 dBm,Carrier Frequency：1275 MHz～5400 MHz	U=0.20 dB		
				-96.1 dBm～0 dBm,Carrier Frequency：1275 MHz～5400 MHz	U=0.15 dB		
				0 dBm～13 dBm,Carrier Frequency：1 MHz～3000 MHz	U=0.13 dB		
				0 dBm～11 dBm,Carrier Frequency：3000 MHz～6000 MHz	U=0.14 dB		
				-10 dBm～6 dBm,Carrier Frequency：6 GHz～20 GHz	U=0.31 dB		
		Carrier Frequency		10 kHz～5.4 GHz	$U_{rel}=1.9\times10^{-7}$		
		Carrier Frequency Offset		-13.5 MHz～13.5 MHz,Carrier Frequency：1350 MHz	U=0.40 kHz		
		Carrier Frequency Offset with FM		-50 Hz～50 Hz,Carrier Frequency: 2 GHz	U=1.0 Hz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		EXT Mod ALC Flatness		-1 dB～1 dB,Frequency：10 Hz～20 Hz,Amplitude：1 V	U=0.0055 dB		
				-1 dB～1 dB,Frequency：20 Hz～50 Hz,Amplitude：1 V	U=0.0058 dB		
				-1 dB～1 dB,Frequency：50 Hz～20kHz Hz,Amplitude：1 V	U=0.0076 dB		
				-1 dB～1 dB,Frequency：20 kHz～200kHz Hz,Amplitude：1 V	U=0.029 dB		
				-1 dB～1 dB,Frequency：200 kHz～500kHz Hz,Amplitude：1 V	U=0.089 dB		
				-1 dB～1 dB,Frequency：10 Hz～20 Hz,Amplitude：0.7 V	U=0.0056 dB		
				-1 dB～1 dB,Frequency：20 Hz～50 Hz,Amplitude：0.7 V	U=0.0055 dB		
				-1 dB～1 dB,Frequency：50 Hz～20kHz Hz,Amplitude：0.7 V	U=0.008 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-1 dB～1 dB,Frequency：20 kHz～200kHz Hz,Amplitude：0.7 V	U=0.029 dB		
				-1 dB～1 dB,Frequency：200 kHz～500kHz Hz,Amplitude：0.7 V	U=0.089 dB		
				-1 dB～1 dB,Frequency：10 Hz～20 Hz,Amplitude：1.4 V	U=0.0085 dB		
				-1 dB～1 dB,Frequency：20 Hz～50 Hz,Amplitude：1.4 V	U=0.0075 dB		
				-1 dB～1 dB,Frequency：50 Hz～20kHz Hz,Amplitude：1.4 V	U=0.0092 dB		
				-1 dB～1 dB,Frequency：20 kHz～200kHz Hz,Amplitude：1.4 V	U=0.035 dB		
				-1 dB～1 dB,Frequency：200 kHz～500kHz Hz,Amplitude：1.4 V	U=0.095 dB		
		FM Frequency Response		0 dB～3 dB,Carrier Frequency：35.5 MHz,Mod Rate：30 Hz	U=0.55 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB～3 dB,Carrier Frequency：35.5 MHz,Mod Rate：30 Hz～100 kHz	U=0.22 dB		
				0 dB～3 dB,Carrier Frequency：2 GHz,Mod Rate：20 kHz～200 kHz	U=0.09 dB		
		FM Distortion		0.01%～3%,Carrier Frequency：21.1 MHz～39.6 MHz,Deviation ：210 kHz～396 kHz,, Mod Rate 1 kHz	U=0.37%		
				0.01%～0.5%,Carrier Frequency：2 GHz,Deviation ：1 kHz～50 kHz, Mod Rate 1 kHz	U=0.03%		
		FM Deviation		1 kHz～396 kHz,Carrier Frequency：100 kHz～6 GHz, Mod Rate 1 kHz	U_{rel}=1.0%		
		Frequency Setting Time		0.01 ms～2 ms,Carrier Frequency：100 kHz～6 GHz	U=0.01 ms		
		Harmonic Spurious		-70 dBc～-40 dBc,Carrier Frequency：10 kHz ～100 kHz	U=0.98 dB		
				-70 dBc～-40 dBc,Carrier Frequency：100 kHz ～5 MHz	U=0.49 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-70 dBc～-40 dBc,Carrier Frequency：5 MHz ～ 1.5 GHz	U=0.31 dB		
				-70 dBc～-40 dBc,Carrier Frequency：1.5 GHz ～ 3 GHz	U=0.74 dB		
				-70 dBc～-40 dBc,Carrier Frequency：3 GHz ～ 3.3 GHz	U=1.3 dB		
				-70 dBc～-40 dBc,Carrier Frequency：3.3 GHz ～ 6.6 GHz	U=1.6 dB		
				-70 dBc～-40 dBc,Carrier Frequency：6.6 GHz ～ 20 GHz	U=2.9 dB		
		IF Input		-18 dBm, IF Frequency：10 MHz～700 MHz,Carrier Frequency：10 MHz ～ 2 GHz	U=0.23 dB		
				-18 dBm, IF Frequency：10 MHz～700 MHz,Carrier Frequency：2 GHz ～ 6 GHz	U=0.74 dB		
				-18 dBm, IF Frequency：10 MHz～700 MHz,Carrier Frequency：6 GHz ～ 12 GHz	U=1.4 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-18 dBm, IF Frequency：10 MHz～700 MHz,Carrier Frequency：12 GHz ～ 16 GHz	U=1.7 dB		
				-18 dBm, IF Frequency：10 MHz～700 MHz,Carrier Frequency：16 GHz ～ 20 GHz	U=1.8 dB		
		IQ Error Vector		0.01%～1.5%,Carrier Frequency：100 kHz～6 GHz	U=0.74%		
		IQ Input Impedance		1～1.2,Frequency：1 MHz	U=0.007		
				1～1.2,Frequency：50 MHz	U=0.004		
		IQ Residual Carrier And Leakage		-70 dBc～-40 dBc,Carrier Frequency：100 kHz～6 GHz	U=0.17 dB		
		Level Frequency Response		0 dB～1 dB, Frequency：300 kHz～4 GHz,5 dBm	U=0.13 dB		
				0 dB～1 dB, Frequency：4 GHz～6 GHz,5 dBm	U=0.14 dB		
		Level Settling Time		3 ms～5 ms,Amplitude：-130 dBm～0 dBm,Frequency：30 MHz～5 GHz	U=0.0062 ms		
		Mod Gen Distortion		0.01%～0.1%,Frequency：100 Hz～20 kHz	U=0.013%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01%～0.1%,Frequency：20 kHz～100 kHz	U=0.032%		
		MOD GEN Frequency Response		2 dB,Frequency：10 Hz～20 Hz	U=0.0055 dB		
				2 dB,Frequency：20 Hz～100 Hz	U=0.0054 dB		
				2 dB,Frequency：100 Hz～10 kHz	U=0.0057 dB		
				2 dB,Frequency：10 kHz～30 kHz	U=0.0075 dB		
				2 dB,Frequency：30 kHz～70 kHz	U=0.0098 dB		
				2 dB,Frequency：70 kHz～100 kHz	U=0.029 dB		
				2 dB,Frequency：100 kHz～300 kHz	U=0.089 dB		
				3 dB,Frequency：300 kHz～1 MHz	U=0.15 dB		
				3 dB,Frequency：1 MHz～4 MHz	U=0.43 dB		
				3 dB,Frequency：4 MHz～10 MHz	U=1.6 dB		
		MOD GEN Output Level		10 mV, Frequency：1 kHz	U=0.0057 mV		
				30 mV, Frequency：1 kHz	U=0.0071 mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				100 mV, Frequency：1 kHz	U=0.13 mV		
				100 mV～300 mV,Frequency：1 kHz	U=0.59 mV		
				300 mV～1 V,Frequency：1 kHz	U=1.1 mV		
				1 V～3 V, Frequency：1 kHz	U=5.9 mV		
		Maximum Leveled Output Power		10 dBm～20 dBm,Frequency：10 MHz～100 MHz	U=0.22 dB		
				10 dBm～20 dBm,Frequency：100 MHz～2 GHz	U=0.19 dB		
				10 dBm～20 dBm,Frequency：2 GHz～20 GHz	U=0.31 dB		
		MOD ALC Distortion		0.01%～0.1%,Frequency：50 Hz～20 kHz,Amplitude：1V	U=0.013%		
		MOD GEN Frequency		1 kHz～40 kHz	U=0.00061 Hz		
				40 kHz～1 MHz	U=0.0015 Hz		
		Non-Harmonic Spurious		-70 dBc～-40 dBc,Frequency：10 kHz～1 MHz	U=1.0 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-70 dBc～-40 dBc,Frequency：1 MHz～3 GHz	U=0.21 dB		
				-70 dBc～-40 dBc,Frequency：3 GHz～6.6 GHz	U=0.74 dB		
				-70 dBc～-40 dBc,Frequency：6.6 GHz～13.2 GHz	U=1.4 dB		
				-70 dBc～-40 dBc,Frequency：13.2 GHz～18 GHz	U=1.7 dB		
				-70 dBc～-40 dBc,Frequency：18 GHz～20 GHz	U=1.8 dB		
		Output Impedance		1～1.9,Frequency:300 kHz～6 GHz	U=0.021		
		Phase MOD Distortion		0.01%～3%,Mod Rate：1 kHz,Phase：10 rad	U=0.37%		
		Phase MOD Flatness		0 dB～3 dB ,Mod Rate：0.1 kHz～10 kHz,Phase：10 rad, Carrier Frequency 10MHz～6 GHz	U=0.19 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB～3 dB ,Mod Rate：10 kHz～20 kHz,Phase：0.3 rad～10 rad, Carrier Frequency 10MHz～6 GHz	U=0.45 dB		
		Phase MOD ON AM		0.001 rad～0.1 rad,Carrier Frequency: 500 MHz,AM：30%,Mod Rate：1 kHz	U=0.031 rad		
		Phase MOD		0.5 rad,500 MHz	U=0.015 rad		
				0.625 rad,500 MHz	U=0.019 rad		
				1 rad,500 MHz	U=0.01 rad		
				2.5 rad,500 MHz	U=0.025 rad		
				5 rad,500 MHz	U=0.05 rad		
				0.625 rad,70.687 MHz	U=0.019 rad		
				10.0 rad, 46.8 MHz～6 GHz	U=0.1 rad		
		Pulse Generator Pulse Width		1 μs～100 μs	U=0.01 ns		
		Pulse MOD Video Crosstalk		-30 dBc,Carrier Frequency：1000 MHz	U=0.17 dB		
		Pulse Modulation On/Off Ratio		78 dB,Carrier Frequency：50 MHz～6 GHz	U=0.16 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Pulse Modulation: Rise/Fall Time		0.01 ns～12 ns,Carrier Frequency：500 MHz～20 GHz	U=0.01 ns		
		Residual FM		0.01 Hz～4 Hz, Carrier Frequency：1 GHz	U=0.61 Hz		
		Residual AM		0.001%～0.02%,Carrier Frequency：100 MHz～6 GHz	U=0.001%		
		Single Sideband Phase Noise		-110 dBc/Hz～-70 dBc/Hz,Carrier Frequency：10 MHz～20 GHz	U=0.17 dB		
				-110 dBc/Hz～-70 dBc/Hz,Carrier Frequency：10 MHz～20 GHz	U=0.28 dB		
				-110 dBc/Hz～-70 dBc/Hz,Carrier Frequency：10 MHz～20 GHz	U=0.37 dB		
		Sub-Harmonic Spurious		-20 dBc～-80 dBc,Carrier Frequency：1 GHz～3 GHz	U=0.31 dB		
				-20 dBc～-80 dBc,Carrier Frequency：3 GHz～6 GHz	U=0.5 dB		
				-20 dBc～-80 dBc,Carrier Frequency：6 GHz～6.6 GHz	U=1.3 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBc～-80 dBc,Carrier Frequency：6.6 GHz～13.2 GHz	U=1.6 dB		
				-20 dBc～-80 dBc,Carrier Frequency：13.2 GHz～20 GHz	U=2.9 dB		
		Synchronous AM With FM		0.001%～0.1% ,Carrier Frequency：10 MHz～6 GHz	U=0.007%		
		Synchronous PHIM With AM		0.001 rad～0.1 rad ,Carrier Frequency：100 kHz～6 GHz	U=0.004 rad		
		Wideband Noise		-120 dBc/Hz～-160 dBc/Hz,Carrier Frequency：20 MHz～3 GHz	U=0.49 dB		
				-120 dBc/Hz～-160 dBc/Hz,Carrier Frequency：3 GHz～6 GHz	U=1.8 dB		
4	*High Precision Digital Multimeter	DC Voltage	High precision Digital Multimeter Test Procedure CAL-CHA002-01	100 mV	U=0.00032 mV		
				1 V	U=0.0000026 V		
				10 V	U=0.000025 V		
				100 V	U=0.00026 V		
				1000 V	U=0.0059 V		
		DC Voltage Offset		0V，100 mV Range	U=0.00016 mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0V，1 V Range	U=0.00015 mV		
				0V，10 V Range	U=0.00032 mV		
				0V，100 V Range	U=0.014 mV		
				0V，1000 V Range	U=0.041 mV		
		AC Voltage		10 mV ,1 kHz	U=0.00089 mV		
				10 mV ,20 kHz	U=0.0012 mV		
				10 mV ,100 kHz	U=0.0085 mV		
				10 mV ,300 kHz	U=0.066 mV		
				10 mV ,1 MHz	U=0.021 mV		
				10 mV ,1 MHz～4 MHz	U=0.14 mV		
				100 mV ,1 kHz	U=0.0046 mV		
				100 mV ,20 kHz	U=0.0069 mV		
				100 mV ,100 kHz	U=0.036 mV		
				100 mV ,300 kHz	U=0.068 mV		
				100 mV ,1 MHz	U=0.17 mV		
				100 mV ,4 MHz～8 MHz	U=0.67 mV		
				100 mV ,10 MHz	U=2.3 mV		
				1 V ,1 kHz	U=0.000040 V		
				1 V ,20 kHz	U=0.000063 V		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 V ,50 kHz	U=0.00013 V		
				1 V ,100 kHz	U=0.00020 V		
				1 V ,300 kHz	U=0.00060 V		
				1 V ,500 kHz～1 MHz	U=0.0017 V		
				1 V ,1 MHz～8 MHz	U=0.0067 V		
				1 V ,10 MHz	U=0.025 V		
				3 V , 100 kHz	U=0.00056 V		
				3 V ,2 MHz～8 MHz	U=0.021 V		
				3 V ,10 MHz	U=0.075 V		
				10 V ,10 Hz	U=0.00055 V		
				10 V, 20 Hz	U=0.00038 V		
				10 V ,40 Hz	U=0.00031 V		
				10 V ,200 Hz～500 Hz	U=0.00050 V		
				10 V ,1 kHz	U=0.00040 V		
				10 V ,10 kHz	U=0.00062 V		
				10 V ,20 kHz	U=0.00064 V		
				10 V ,50 kHz	U=0.0012 V		
				10 V ,100 kHz	U=0.0016 V		
				10 V ,300 kHz	U=0.0051 V		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10 V ,500 kHz	U=0.016 V		
				10 V ,1 MHz	U=0.019 V		
				100 V ,1 kHz	U=0.0041 V		
				100 V ,20 kHz	U=0.0079 V		
				100 V ,50 kHz	U=0.0075 V		
				100 V ,100 kHz	U=0.023 V		
				700 V ,1 kHz	U=0.060 V		
		AC Current		10 μA ,1 kHz	U=0.0074 μA		
				100 μA ,1 kHz	U=0.017 μA		
				1 mA ,1 kHz	U=0.00011 mA		
				10 mA,1 kHz	U=0.0011 mA		
				100 mA,1 kHz	U=0.011 mA		
				1 A,1 kHz	U=0.00021 A		
		DC Current		100 μA	U=0.0013 μA		
				1 mA	U=0.0000096 mA		
				10 mA	U=0.000094 mA		
				100 mA	U=0.0022 mA		
				1 A	U=0.000036 A		
		DC Current Offset		0A，100 μA Range	U=0.00012 μA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0A，1 mA Range	U=0.0000012 mA		
				0A，10 mA Range	U=0.000012 mA		
				0A，100 mA Range	U=0.00012 mA		
				0A，1 A Range	U=0.0000015 A		
		Resistance		10 Ω	U=0.000086 Ω		
				100 Ω	U=0.00083 Ω		
				1 kΩ	U=0.0000074 kΩ		
				10 kΩ	U=0.000074 kΩ		
				100 kΩ	U=0.00074 kΩ		
				1 MΩ	U=0.0000077 MΩ		
				10 MΩ	U=0.00014 MΩ		
				100 MΩ	U=0.0018 MΩ		
		Resistance Offset		0 Ω，10 Ω Range	U=0.000021 Ω		
		Frequency		1 Hz	U=0.000020 Hz		
				10 MHz	U=0.000058 MHz		
5	*Digital Multimeter	DC Voltage	Digital Multimeter Test Procedure CAL-CHA002-02	10 mV～220 mV	U=0.00077%×R_d+0.4 μV		
				220 mV～2.2 V	U=0.00051%×R_d+0.7 μV		
				2.2 V～22 V	U=0.00036%×R_d+3 μV		
				22 V～ 220 V	U=0.00051%×R_d+40 μV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				220 V～1100 V	U=0.00067%×R_d+0.4 mV		
		AC Voltage		10 mV～22 mV,20 Hz～40 Hz	U=0.0095%×R_d+4 μV		
				10 mV～22 mV,40 Hz～20 kHz	U=0.0084%×R_d+4 μV		
				10 mV～22 mV,20 kHz～50 kHz	U=0.021%×R_d+4 μV		
				10 mV～22 mV,50 kHz～100 kHz	U=0.053%×R_d+5 μV		
				22 mV～220 mV,10 Hz～20 Hz	U=0.025%×R_d+13 μV		
				22 mV～220 mV,20 Hz～40 Hz	U=0.0095%×R_d+7 μV		
				22 mV～220 mV,40 Hz～20 kHz	U=0.0060%×R_d+7 μV		
				22 mV～220 mV,20 kHz～50 kHz	U=0.013%×R_d+7 μV		
				22 mV～220 mV,50 kHz～100 kHz	U=0.033%×R_d+18 μV		
				22 mV～220 mV,100 kHz～300 kHz	U=0.069%×R_d+21 μV		
				22 mV～220 mV,300 kHz～500 kHz	U=0.15%×R_d+27 μV		
				22 mV～220 mV,500 kHz～1 MHz	U=0.29%×R_d+48 μV		
				220 mV～2.2 V,10 Hz～20 Hz	U=0.025%×R_d+42 μV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				220 mV～2.2 V, 20 Hz～40 Hz	U=0.0095%×R_d+16 μV		
				220 mV～2.2 V,40 Hz～20 kHz	U=0.0044%×R_d+8 μV		
				220 mV～2.2 V,20 kHz～50 kHz	U=0.0071%×R_d+11 μV		
				220 mV～2.2 V, 50 kHz～100 kHz	U=0.0090%×R_d+32 μV		
				220 mV～2.2 V, 100 kHz～300 kHz	U=0.035%×R_d+84 μV		
				220 mV～2.2 V,300 kHz～500 kHz	U=0.11%×R_d+2 mV		
				220 mV～2.2 V, 500 kHz～1 MHz	U=0.18%×R_d+3 mV		
				2.2 V～22 V,10 Hz～20 Hz	U=0.025%×R_d+42 μV		
				2.2 V～22 V,20 Hz～40 Hz	U=0.0095%×R_d+16 μV		
				2.2 V～22 V,40 Hz～20 kHz	U=0.0044%×R_d+8 μV		
				2.2 V～22 V,20 kHz～50 kHz	U=0.0071%×R_d+11 μV		
				2.2 V～22 V, 50 kHz～100 kHz	U=0.0090%×R_d+32 μV		
				2.2 V～22 V,100 kHz～300 kHz	U=0.034%×R_d+84 μV		
				2.2 V～22 V, 300 kHz～500 kHz	U=0.011%×R_d+2.1 mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2.2 V～22 V,500 kHz～1 MHz	U=0.18%×R_d+3.1 mV		
				22 V～220 V,20 Hz～40 Hz	U=0.0095%×R_d+1.5 mV		
				22 V～220 V, 40 Hz～20 kHz	U=0.0055%×R_d+0.6 mV		
				22 V～220 V,20 kHz～50 kHz	U=0.0084%×R_d+1.1 mV		
				22 V～220 V, 50 kHz～100 kHz	U=0.016%×R_d+2.6 mV		
				220 V～1000 V,40 Hz～50 Hz	U=0.0095%×R_d+4.3 mV		
				220 V～1000 V, 50 Hz～1 kHz	U=0.0072%×R_d+3.5 mV		
		AC Current		0.022 mA～0.22 mA,40 Hz～1 kHz	U=0.011%×R_d+8 nA		
				0.022 mA～0.22 mA,1 kHz～5 kHz	U=0.029%×R_d+12 nA		
				0.022 mA～0.22 mA,5 kHz～10 kHz	U=0.11%×R_d+69 nA		
				0.22 mA～2.2 mA,10 Hz～20 Hz	U=0.026%×R_d+42 nA		
				0.22 mA～2.2 mA,20 Hz～40 Hz	U=0.017%×R_d+37 nA		
				0.22 mA～2.2 mA,40 Hz～1 kHz	U=0.011%×R_d+37 nA		
				0.22 mA～2.2 mA,1 kHz～5 kHz	U=0.021%×R_d+0.11 μA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.22 mA～2.2 mA, 5 kHz～10 kHz	U=0.11%×R_d+0.69 μA		
				2.2 mA～22 mA,10 Hz～20 Hz	U=0.026%×R_d+42 nA		
				2.2 mA～22 mA,20 Hz～40 Hz	U=0.017%×R_d+37 nA		
				2.2 mA～22 mA,40 Hz～1 kHz	U=0.011%×R_d+37 nA		
				2.2 mA～22 mA,1 kHz～5 kHz	U=0.021%×R_d+0.58 μA		
				2.2 mA～22 mA,5 kHz～10 kHz	U=0.11%×R_d+5.0 μA		
				22 mA～220 mA,10 Hz～20 Hz	U=0.026%×R_d+4.2 μA		
				22 mA～220 mA,20 Hz～40 Hz	U=0.017%×R_d+3.7 μA		
				22 mA～220 mA,40 Hz～1 kHz	U=0.011%×R_d+2.7 μA		
				22 mA～220 mA,1 kHz～5 kHz	U=0.021%×R_d+3.7 μA		
				22 mA～220 mA,5 kHz～10 kHz	U=0.11%×R_d+10 μA		
				220 mA～2.2 A,20 Hz～1 kHz	U=0.026%×R_d+37 μA		
				220 mA～2.2 A,1 kHz～5 kHz	U=0.046%×R_d+80 μA		
				220 mA～2.2 A,5 kHz～10 kHz	U=0.73%×R_d+0.16 mA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2.2 A～11 A,40 Hz～1 kHz	U=0.048%×R_d+0.18 mA		
				2.2 A～11 A,1 kHz～5 kHz	U=0.10%×R_d+0.40 mA		
		DC Current		0.01 mA～0.22 mA	U=0.0040%×R_d+6.2 nA		
				0.22 mA～2.2 mA	U=0.0036%×R_d+7.1 nA		
				2.2 mA～22 mA	U=0.0036%×R_d+40 nA		
				22 mA～220 mA	U=0.0046%×R_d+0.72 μA		
				220 mA～2.2 A	U=0.0082%×R_d+12 μA		
				2.2 A～11 A	U=0.036%×R_d+0.48 mA		
		Resistance		1 Ω	U=0.23 mΩ		
				10 Ω	U=0.23 mΩ		
				100 Ω	U=1 mΩ		
				1 kΩ	U=6.6 mΩ		
				10 kΩ	U=66 mΩ		
				100 kΩ	U=0.86 Ω		
				1 MΩ	U=13 Ω		
				10 MΩ	U=0.4 kΩ		
				100 MΩ	U=10 kΩ		
				11 Ω～99.9 Ω	U=0.0023%×R_d+0.9 mΩ		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				110 Ω～0.99 kΩ	U=0.0029%×R_d+0.3 mΩ		
				1.1 kΩ～9.9 kΩ	U=0.0029%×R_d+0.3 mΩ		
				11 kΩ～99.9 kΩ	U=0.0029%×R_d+0.54 mΩ		
				110 kΩ～0.99 MΩ	U=0.0033%×R_d+4.7 mΩ		
				1.1 MΩ～9.9 MΩ	U=0.0033%×R_d+4.7 mΩ		
				11 MΩ～32.9 MΩ	U=0.0063%×R_d+41 mΩ		
				33 MΩ～99.9 MΩ	U_{rel}=0.017%		
				1 GΩ	U_{rel}=0.5%		
		Frequency		1 Hz～1 MHz	U=0.00026%×R_d+0.001 Hz		
		Capacitance		1 μF 100Hz	U=0.46 nF		
				1 nF 1kHz	U=13 pF		
				5 nF 1kHz	U=20 pF		
				10 nF 1kHz	U=33 pF		
				0.1 μF 1kHz	U=0.28 nF		
				9 μF～10 μF 100Hz	U=29 nF		
				0.1 mF 50Hz	U=0.43 μF		
				1 mF 20Hz	U=4.3 μF		
		Temperature		-200 °C～-100 °C	U=0.33 °C		
				-100 °C～-30 °C	U=0.29 °C		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-25 ° C～120 ° C	U=0.18 ° C		
				120 ° C～1000 ° C	U=0.34 ° C		
				1000 ° C～1372 ° C	U=0.36 ° C		
		Conductance		10 nS～50 nS	U_{rel}=0.088%		
		Diode Voltage		1 V	U=0.00013 V		
				3 V	U=0.00054 V		
6	*Spectrum Analyzer	Time Base Frequency	Spectrum Analyzer Test Procedure CAL-CHA003-01	10 MHz	U_{rel}=1.0x10^{-11}		
		Frequency Readout		500 MHz～1.505 GHz	U=0.001 Hz		
				1.505 GHz～17.5 GHz	U=1.1 Hz		
				17.5 GHz～21 GHz	U=4 Hz		
				21 GHz～45 GHz	U=5 Hz		
		Count		1 GHz	U=0.001 Hz		
				1.5 GHz ～21 GHz	U=0.02 Hz		
				21 GHz～45 GHz	U=0.5 Hz		
		Frequency Span		10 kHz～1 MHz	U_{rel}=0.022%		
				1 MHz～17 MHz	U_{rel}=0.02%		
				17 MHz	U_{rel}=0.0041%		
				17 MHz～100 MHz	U_{rel}=0.02%		
				100 MHz～3590 MHz	U_{rel}=0.0082%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				3.59 GHz～26.5 GHz	U_{rel}=0.023%		
		Resolution Bandwidth Switching Uncertainty		-1 dB～1 dB,100 Hz～300 Hz	U=0.0058 dB		
				-1 dB～1 dB,300 Hz～8 MHz	U=0.002 dB		
				-1 dB～1 dB,8 MHz～40 MHz	U=0.0058 dB		
				-1 dB～1 dB,40 MHz～80 MHz	U=0.0058 dB		
		Resolution Bandwidth		30 Hz	U_{rel}=6.0%		
				100 Hz	U_{rel}=0.65%		
				300 Hz	U_{rel}=0.31%		
				1 kHz	U_{rel}=0.29%		
				3 kHz	U_{rel}=0.33%		
				9 kHz	U_{rel}=1.7%		
				10 kHz	U_{rel}=0.11%		
				30 kHz	U_{rel}=0.033%		
				100 kHz	U_{rel}=0.057%		
				120 kHz	U_{rel}=1.8%		
				300 kHz	U_{rel}=0.02%		
				1 MHz	U_{rel}=0.01%		
				2 MHz	U_{rel}=1.1%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				3 MHz	U_{rel}=0.19%		
				5 MHz	U_{rel}=1.3%		
				10 MHz	U_{rel}=0.06%		
				20 MHz	U_{rel}=0.03%		
				50 MHz	U_{rel}=0.46%		
		Residual FM		0.01 Hz～250 Hz,Center Frequency 7 MHz	U=0.10 Hz		
				0.01 Hz～250 Hz,Center Frequency 500 MHz	U=0.9 Hz		
				0.01 Hz～250 Hz,Center Frequency 678.5 MHz	U=0.48 Hz		
				0.01 Hz～250 Hz,Center Frequency 1000 MHz	U=0.19 Hz		
				0.01 Hz～250 Hz,Center Frequency 1678.5 MHz～2200 MHz	U=0.94 Hz		
				0.01 Hz～250 Hz,Center Frequency 2900 MHz	U=5.9 Hz		
		Fast Time Domain Amplitude		1 μs～1 s	U_{rel}=0.029%		
		Noise Sidebands		-80 dBc/Hz～-170 dBc/Hz , Freq Deviation:98 Hz～100 Hz, Carrier: 500MHz～1 GHz	U=0.48 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-80 dBc/Hz～-155 dBc/Hz , 100 Hz～10 kHz Deviation,Center Frequency: 500 MHz～1 GHz	U=0.12 dB		
				-80 dBc/Hz～-155 dBc/Hz , 10 kHz～30 kHz Deviation,Center Frequency: 500 MHz～1 GHz	U=0.05 dB		
				-80 dBc/Hz～-155 dBc/Hz , Deviation:30 kHz～1 MHz ， Center Frequency: 500 MHz～1 GHz	U=0.31 dB		
				-80 dBc/Hz～-170 dBc/Hz , 1 MHz～10 MHz Deviation， Center Frequency: 500 MHz～1 GHz	U=0.56 dB		
				-80 dBc/Hz～-120 dBc/Hz, Deviation:100 kHz ～ 999 kHz,Center Frequency: 2 GHz	U=0.08 dB		
				-80 dBc/Hz～-140 dBc/Hz, Deviation:999 kHz ～ 1 MHz ,Center Frequency: 2 GHz	U=0.09 dB		
		Sweep Time		0.1 ms ～ 20 ms	U_{rel}=0.26 %		

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				20 ms～100 s	U_{rel}=0.04%		
		Reference Level		0 dBm～-10 dBm，50MHz	U=0.019 dB		
				-10 dBm～-50 dBm，50MHz	U=0.025 dB		
				-50 dBm～-80 dBm，50MHz	U=0.095 dB		
				-80 dBm～-90 dBm，50MHz	U=0.20 dB		
		Displayed Average Noise Level		-151 dBm～-90dBm，20 Hz～10 kHz, RBW 1 Hz	U=0.40 dB		
				-156 dBm～-90dBm，10 kHz～100 kHz, RBW 1 Hz	U=0.33 dB		
				-162 dBm～-90dBm，100 kHz～200 kHz, RBW 1 Hz	U=0.33 dB		
				-168 dBm～-90dBm，200 kHz～500 kHz, RBW 1 Hz	U=0.33 dB		
				-172 dBm～-90dBm，500 kHz～500 MHz, RBW 1 Hz	U=0.33 dB		
				-170 dBm～-90dBm，500 MHz～2 GHz, RBW 1 Hz	U=0.33 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-167 dBm～-90dBm，2 GHz～6.6 GHz, RBW 1 Hz	U=0.33 dB		
				-166 dBm～-90dBm，6.6 GHz～8.4 GHz, RBW 1 Hz	U=0.33 dB		
				-165 dBm～-90dBm，8.4 GHz～13.6 GHz, RBW 1 Hz	U=0.33 dB		
				-164 dBm～-90dBm，13.6 GHz～20 GHz, RBW 1 Hz	U=0.33 dB		
				-162 dBm～-90dBm，20 GHz～26.5 GHz, RBW 1 Hz	U=0.33 dB		
				-161 dBm～-90dBm，26.5 GHz～32 GHz, RBW 1 Hz	U=0.33 dB		
				-160 dBm～-90dBm，32 GHz～34 GHz, RBW 1 Hz	U=0.33 dB		
				-158 dBm～-90dBm，34 GHz～40 GHz, RBW 1 Hz	U=0.33 dB		
				-157 dBm～-90dBm，40 GHz～46 GHz, RBW 1 Hz	U=0.33 dB		

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				-155 dBm～-90dBm，46 GHz～50 GHz, RBW 1 Hz	U=0.33 dB		
		Residual Response		-80 dB～-160 dB ,150 kHz～1.25 MHz	U=0.87 dB		
				-80 dB～-160 dB ,1.25 MHz～50 MHz	U=0.44 dB		
				-80 dB～-160 dB ,50 MHz～3.9 GHz	U=0.33 dB		
				-80 dB～-160 dB ,3.9 GHz～35 GHz	U=0.53 dB		
				-80 dB～-160 dB ,35 GHz～45 GHz	U=1.2 dB		
		Input Attenuation Switching Uncertainty		0 dB～6 dB,50 MHz	U=0.019 dB		
				6 dB～20 dB,50 MHz	U=0.023 dB		
				20 dB～70 dB,50 MHz	U=0.028 dB		
				70 dB～75 dB,50 MHz	U=0.043 dB		
				0 dB～30 dB,128 MHz	U=0.019 dB		
				30 dB～60 dB,128 MHz	U=0.029 dB		
				60 dB～70 dB,128 MHz	U=0.035 dB		
				70 dB～75 dB,128 MHz	U=0.043 dB		
				10 dB～70 dB,2.9 GHz	U=0.18 dB		
		Other Input Related		-130 dBc～-40 dBc,1 MHz～10 MHz	U=0.10 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Spurious Responses		-130 dBc～-40 dBc,11 MHz～3.1 GHz	U=0.17 dB		
				-130 dBc～-40 dBc,3.1 GHz～7 GHz	U=0.19 dB		
				-130 dBc～-40 dBc,7 GHz～13 GHz	U=0.23 dB		
				-130 dBc～-40 dBc,13 GHz～39.1 GHz	U=0.27 dB		
				-130 dBc～-40 dBc,39 GHz～50 GHz	U=0.52 dB		
		Second Harmonic Distortion		-120 dBc～-40 dBc,9 MHz～28 MHz	U=0.42dB		
				-120 dBc～-40 dBc,28 MHz～3490 MHz	U=0.18 dB		
				-120 dBc～-40 dBc,3490 MHz～15.5 GHz	U=0.27 dB		
				-120 dBc～-40 dBc,15.5 GHz～31 GHz	U=0.32 dB		
		Third Order Intermodulation Distortion		-100 dBc～-40 dBc,10 MHz～28 MHz	U=0.18 dB		
				-100 dBc～-40 dBc,28 MHz～3 GHz	U=0.062 dB		
				-100 dBc～-40 dBc,3 GHz～4 GHz	U=0.075 dB		
				-100 dBc～-40 dBc,4 GHz～40 GHz	U=0.061 dB		
				-100 dBc～-40 dBc,40 GHz～46 GHz	U=1.5 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-100 dBc～-40 dBc,46 GHz～50 GHz	U=1.6 dB		
		Gain Compression		0 dB～1 dB,50 MHz～2 GHz	U=0.04 dB		
				0 dB～1 dB,2 GHz～14 GHz	U=0.12 dB		
				0 dB～1 dB,14 GHz～19.9 GHz	U=0.14 dB		
		Frequency Response		-5 dB～5 dB,3 Hz～20 Hz	U=0.062 dB		
				-5 dB～5 dB,20 Hz～9 kHz	U=0.056 dB		
				-5 dB～5 dB,9 kHz～300 kHz	U=0.062 dB		
				-5 dB～5 dB,0.300 MHz～3550 MHz	U=0.051 dB		
				-5 dB～5 dB,3.55 GHz～18 GHz	U=0.064 dB		
				-5 dB～5 dB,18 GHz～26.5 GHz	U=0.095 dB		
				-5 dB～5 dB,26 GHz～39.5 GHz	U=0.18 dB		
				-5 dB～5 dB,39.5 GHz～50 GHz	U=0.24 dB		
		Absolute Amplitude		-83 dBm～-80 dBm,50 MHz	U=0.076 dB		
				-80 dBm～-10 dBm,50 MHz	U=0.045 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-10 dBm～-1 dBm,50 MHz	U=0.23 dB		
				-30 dBm,128 MHz	U=0.076 dB		
				-20 dBm ～ -40 dBm,64 MHz	U=0.06 dB		
				-10 dBm～-20 dBm,64 MHz	U=0.093 dB		
		Display Scale Fidelity		-90 dBm ～ -75 dBm,5 MHz	U=0.043 dB		
				-75 dBm～-65 dBm,5 MHz	U=0.036 dB		
				-65 dBm～0 dBm,5 MHz	U= 0.017 dB		
				-90 dBm～-85 dBm, 50 MHz	U=0.021 dB		
				-85 dBm～-45 dBm, 50 MHz	U=0.009 dB		
				-45 dBm～-11 dBm, 50 MHz	U=0.006 dB		
				-11 dBm～0 dBm, 50 MHz	U=0.018 dB		
				-90 dBm～-85 dBm,128 MHz	U=0.074 dB		
				-85 dBm～-80 dBm,128 MHz	U=0.025 dB		
				-80 dBm～0 dBm,128 MHz	U=0.021 dB		
		Input Port Return Loss		6 dB～60 dB,10 MHz～3.5 GHz	U=0.030 dB		

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				6 dB～60 dB,3.5 GHz～6 GHz	U=0.053 dB		
				6 dB～60 dB,6 GHz～9 GHz	U=0.067 dB		
				6 dB～60 dB,9 GHz～20 GHz	U=0.042 dB		
				6 dB～60 dB,20 GHz～30 GHz	U=0.060 dB		
				6 dB～60 dB ,30 GHz～35 GHz	U=0.072 dB		
				6 dB～60 dB,35 GHz～40 GHz	U=0.091 dB		
		Tracking GEN Level		0 dBm～-40 dBm ,128 MHz	U=0.088 dB		
				-10 dBm, 64 MHz	U=0.14 dB		
		Tracking GEN Frequency Response		-3 dB～3 dB ,9 kHz～80 kHz	U=0.089 dB		
				-3 dB～3 dB ,80 kHz～2 GHz	U=0.094 dB		
				-3 dB～3 dB ,2 GHz～3 GHz	U=0.11 dB		
				-3 dB～3 dB,3 GHz～5 GHz	U=0.11 dB		
				-3 dB～3 dB,5 GHz～7 GHz	U=0.076 dB		
				-3 dB～3 dB,7 GHz～7.5 GHz	U=0.14 dB		
		Tracking Gen LO		-16 dBm～-90 dBm ,9 kHz～2.9 GHz	U=0.15 dB		

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		Feedthrough Amplitude		-16 dBm～-90 dBm ,2.9 GHz～3 GHz	U=3.0 dB		
		Tracking GEN Absolute Amplitude, Vernier		-17 dBm～-18 dBm ,50 MHz	U=0.10 dB		
				-18 dBm～-26 dBm ,50 MHz	U=0.008 dB		
		Tracking GEN Harmonic Distortion		-146 dBc～-15 dBc ,9 kHz～850 MHz	U=0.36 dB		
				-146 dBc～-15 dBc ,850 MHz～1.5 GHz	U=2.3 dB		
		Tracking GEN Non-Harmonic Distortion		-146 dBc～-23 dBc ,9 kHz～1.8 GHz	U=0.36 dB		
				-146 dBc～-23 dBc ,1.8 GHz～3 GHz	U=2.6 dB		
		Audio - DC Offset		4 V , 4 V Range	U=0.1 mV		
				0.4 V, 0.4 V Range	U=0.057 mV		
		Audio – Residual Noise		0.1 μV～5 mV, 4 V Range	U=1.6 μV		
				0.1 μV～1 mV, 0.4 V Range	U=0.58 μV		
		Audio - DC Voltage Measurement		4 V, 4 V Range	U=1.6 mV		
				0.4 V, 4 V Range	U=0.36 mV		
				-4 V, 4 V Range	U=1.6 mV		
				-0.4 V, 4 V Range	U=0.36 mV		
				400 mV, 0.4 V Range	U=0.077 mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				100 mV, 0.4 V Range	U=0.084 mV		
				-400 mV, 0.4 V Range	U=0.077 mV		
				-100 mV, 0.4 V Range	U=0.084 mV		
		Audio - AC Voltage Measurement Uncertainty		3 V,20 Hz,4 V Range	U=0.71 mV		
				3 V,1 kHz ,4 V Range	U=0.48 mV		
				3 V,20 kHz ,4 V Range	U=0.72 mV		
				3 V,100 kHz,4 V Range	U=3.0 mV		
				2 V,300 kHz,4 V Range	U=8.1 mV		
				2 V,1 MHz ,4 V Range	U=25 mV		
				0.3 V,1 kHz,4 V Range	U=0.085mV		
				0.3 V,300 kHz,4 V Range	U=1.1 mV		
				0.3 V,20 Hz,0.4 V Range	U=0.071 mV		
				0.3 V,1 kHz ,0.4 V Range	U=0.048 mV		
				0.3 V,20 kHz ,0.4 V Range	U=0.072mV		
				0.3 V,100 kHz,0.4 V Range	U=0.30 mV		
				0.3 V,300 kHz ,0.4 V Range	U=1.1 mV		
				0.3 V,1 MHz,0.4 V Range	U=3.5 mV		
				0.1 V,1 kHz,0.4 V Range	U=0.012 mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.1 V,300 kH,0.4 V Range	U=0.35 mV		
		Audio - Inherent Distortion		-60 dB,100 Hz,3 V	U=0.35 dB		
				-60 dB,1 kHz～20 kHz,3 V	U=0.10 dB		
				-60 dB,80 kHz,3 V	U=0.13 dB		
				-60 dB,20 kHz～80 kHz,0.6 V	U=0.18 dB		
				-60 dB,20 kHz,0.3 V	U=0.13 dB		
				-60 dB,80 kHz,0.3 V	U=0.31 dB		
		Audio – Distortion Measurement		-50 dB～-20 dB,100 Hz～50 kHz	U=0.14 dB		
		Audio – SINAD Measurement		-40 dB～20 dB,1 kHz	U=0.14 dB		
		Audio - Filter Frequency Response		0 dB～0.05 dB, 50 Hz HPF, Frequency: 200 Hz	U=0.006 dB		
				0 dB～1 dB , 50 Hz HPF, Frequency: 20 Hz	U=0.17 dB		
				0 dB～0.05 dB , 300 Hz HPF, Frequency: 1 kHz	U=0.006 dB		
				0 dB～1 dB , 300 Hz HPF, Frequency: 100 Hz	U=0.11 dB		
				0 dB～0.05 dB , 3 kHz LPF, Frequency: 1 kHz	U=0.006 dB		
				0 dB～1 dB , 3 kHz LPF, Frequency: 6 kHz	U=0.12 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB～0.05 dB , 15 kHz LPF, Frequency: 10 kHz	U=0.006 dB		
				0 dB～1 dB , 15 kHz LPF , Frequency: 30 kHz	U=0.16 dB		
				0 dB～0.05 dB , 100 kHz LPF, Frequency: 10 kHz	U=0.006 dB		
				0 dB～0.5 dB , 100 kHz LPF, Frequency: 100 kHz	U=0.16 dB		
				0 dB～0.5 dB , 25 µs Deemphasis, Frequency: 6.366 kHz	U=0.12 dB		
				0 dB～0.5 dB , 50 µs Deemphasis, Frequency: 3.183 kHz	U=0.11 dB		
				0 dB～0.5 dB , 75 µs Deemphasis , Frequency: 2.122 kHz	U=0.11 dB		
				0 dB～0.5 dB , 750 µs Deemphasis , Frequency: 212.2 Hz	U=0.11 dB		
		Audio - Frequency Counter		20 Hz,0.3 V	U=0.0017 Hz		
				100 Hz,0.3 V	U=0.00057 Hz		
				990 Hz,0.3 V	U=0.001 Hz		
				1.01 kHz,0.3 V	U=0.0000013 kHz		
				9.9 kHz,0.3 V	U=0.00000057 kHz		
				99 kHz,0.3 V	U=0.000012 kHz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				300 kHz,0.3 V	U=0.000057 kHz		
				990 kHz,0.3 V	U=0.000024 kHz		
				300 kHz,0.1 V	U=0.000012 kHz		
				1.01 kHz,0.1 V	U=0.00000057 kHz		
				20 Hz,0.1 V	U=0.001 kHz		
		AM - Modulation Depth		5%, Carrier Frequency:12.5 MHz,Mod Rate：1 kHz	U=0.001%		
				50%, Carrier Frequency:12.5 MHz,Mod Rate：1 kHz	U=0.006%		
				99%, Carrier Frequency:12.5 MHz,Mod Rate：1 kHz	U=0.006%		
				5%,Carrier Frequency:12.5 MHz,Mod Rate：90 Hz	U=0.001%		
				50%, Carrier Frequency:12.5 MHz,Mod Rate：90 Hz	U=0.006%		
				99%, Carrier Frequency:12.5 MHz,Mod Rate：90 Hz	U=0.006%		
				5%, Carrier Frequency:12.5 MHz,Mod Rate：150 Hz	U=0.001%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				50%, Carrier Frequency:12.5 MHz,Mod Rate：150 Hz	U=0.006%		
				99%, Carrier Frequency:12.5 MHz,Mod Rate：150 Hz	U=0.006%		
				5%, Carrier Frequency:100 kHz,Mod Rate：1 kHz	U=0.001%		
				50%, Carrier Frequency:100 kHz,Mod Rate：1 kHz	U=0.006%		
				99%, Carrier Frequency:100 kHz,Mod Rate：1 kHz	U=0.006%		
		AM - Flatness		47%～53%, Carrier Frequency:12.5 MHz,Mod Rate：50 Hz～100 kHz	U=0.01%		
				47%～53%, Carrier Frequency:100 kHz,Mod Rate：50 Hz～10 kHz	U=0.01%		
		AM - Inherent Distortion		-50.5 dB,Carrier Frequency:12.5 MHz,Mod Rate:50 Hz ,99 %	U=0.72 dB		
				-50.5 dB,Carrier Frequency:12.5 MHz,Mod Rate:1 kHz ,99 %	U=0.39 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-50.5 dB,Carrier Frequency:12.5 MHz,Mod Rate:10 kHz ,99 %	U=0.15 dB		
				-50.5 dB,Carrier Frequency:12.5 MHz,Mod Rate:50 kHz ,99 %	U=0.24 dB		
				-50.5 dB,Carrier Frequency:100 kHz,Mod Rate:50 Hz ,99 %	U=0.93 dB		
				-50.5 dB,Carrier Frequency:100 kHz,Mod Rate:1 kHz ,5 %	U=3.0 dB		
				-50.5 dB,Carrier Frequency:100 kHz,Mod Rate:1 kHz ,99 %	U=0.59 dB		
				-50.5 dB,Carrier Frequency:100 kHz,Mod Rate:10 kHz ,99 %	U=0.55 dB		
		AM - FM Rejection		0.01%～0.2%,Carrier Frequency：100 kHz～600 MHz	U=0.006%		
		AM - Residual AM		0.01%～0.01%,Carrier Frequency：300 kHz～3 GHz	U=0.0006%		
		FM - Frequency Deviation		5.52 kHz,Carrier Frequency: 200 kHz,Mod Rate: 1 kHz	U=0.001 kHz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				55.2 kHz,Carrier Frequency: 200 kHz,Mod Rate: 10 kHz	U=0.006 kHz		
				50 kHz,Carrier Frequency: 200 kHz,Mod Rate: 50 Hz	U=0.006 kHz		
				5.52 kHz,Carrier Frequency: 12.0 MHz,Mod Rate: 1 kHz	U=0.001 kHz		
				55.2 kHz,Carrier Frequency: 12.0 MHz,Mod Rate: 10 kHz	U=0.006 kHz		
				552 kHz,Carrier Frequency: 12.0 MHz,Mod Rate: 100 kHz	U=0.06 kHz		
				481 kHz,Carrier Frequency: 12.0 MHz,Mod Rate: 200 kHz	U=0.6 kHz		
		FM - Inherent FM Distortion		-50.5 dB,Carrier Frequency:200 kHz,Mod Rate:1 kHz Deviation: 50 kHz	U=0.13 dB		
				-50.5 dB,Carrier Frequency:200 kHz,Mod Rate:5 kHz Deviation: 50 kHz	U=0.12 dB		
				-50.5 dB,Carrier Frequency:200 kHz,Mod Rate:10 kHz Deviation: 50 kHz	U=0.14 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-50.5 dB,Carrier Frequency:12.0 MHz,Mod Rate:1 kHz Deviation: 50 kHz	U=1.5 dB		
				-50.5 dB,Carrier Frequency:12.0 MHz,Mod Rate:10 kHz Deviation: 50 kHz	U=1.5 dB		
				-50.5 dB,Carrier Frequency:12.0 MHz,Mod Rate:1 kHz Deviation: 500 kHz	U=0.19 dB		
				-50.5 dB,Carrier Frequency:12.0 MHz,Mod Rate:20 kHz Deviation: 500 kHz	U=0.30 dB		
				-50.5 dB,Carrier Frequency:12.0 MHz,Mod Rate:50 kHz Deviation: 500 kHz	U=0.18 dB		
				-50.5 dB,Carrier Frequency:12.0 MHz,Mod Rate:100 kHz Deviation: 500 kHz	U=0.13 dB		
		FM - AM Rejection		0.1 Hz～20 Hz,Carrier Frequency:100 kHz～12.5 MHz	U=0.057 Hz		
		FM - Residual FM		0.1 Hz～1 Hz,Carrier Frequency:300 kHz	U=0.058 Hz		
				0.1 Hz～1 Hz,Carrier Frequency:600 MHz	U=0.066 Hz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.1 Hz～2.5 Hz,Carrier Frequency:3 GHz	U=0.086 Hz		
		PM - Phase Deviation		5.52 rad,Carrier Frequency:12 MHz, Mod Rate:100 kHz	U=0.00057 rad		
				20 rad,Carrier Frequency:12 MHz, Mod Rate:20 kHz	U=0.0057 rad		
				400 rad,Carrier Frequency:12 MHz, Mod Rate:1 kHz	U=0.057 rad		
		PM - Inherent PM Distortion		-60 dB,500 rad,Mod Rate:1 kHz	U=0.23 dB		
				-60 dB,25 rad,Mod Rate:20 kHz	U=0.10 dB		
				-60 dB,10 rad,Mod Rate:50 kHz	U=0.09 dB		
				-60 dB,5 rad,Mod Rate:100 kHz	U=0.11 dB		
		PM - AM Rejection		0 rad～0.02 rad,Carrier Frequency:12.5 MHz	U=0.001 rad		
		Tracking GEN IQ Modulation Power Level		-3 dBm～ 3 dBm,+90°,-90° ,Carrier Frequency: 1001 MHz	U=0.75 dB		
		Tracking GEN IQ Modulation Harmonic		-60 dBc～-30 dBc,+90°, Frequency：1000 MHz	U=0.10 dB		
				-60 dBc～-30 dBc,+90°, Frequency 999 MHz	U=0.10 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-60 dBc～-30 dBc, -90°, Frequency：1000 MHz	U=0.10 dB		
				-60 dBc～-30 dBc,-90°, Frequency: 999 MHz	U=0.10 dB		
		Tracking GEN AM Modulation		0 dB～3 dB,Carrier Frequency: 1 GHz	U=0.75 dB		
				0 dB～2 dB,Carrier Frequency:1001 MHz～999 MHz	U=0.085 dB		
		Tracking GEN FM Modulation		0 dB～3 dB,Carrier Frequency: 1 GHz	U=0.75 dB		
				0 dB～1 dB,Carrier Frequency:1001 MHz～999 MHz	U=0.085 dB		
		IF Bandwidth - Shape Factor		3～5,Resolution Bandwidth 10 Hz～300 Hz	U=0.028		
				3～5,Resolution Bandwidth 1 kHz	U=0.0069		
				3～5,Resolution Bandwidth 3 kHz	U=0.028		
				3～5,Resolution Bandwidth 10 kHz	U=0.01		
				3～5,Resolution Bandwidth 30 kHz	U=0.028		
				3～5,Resolution Bandwidth 100 kHz	U=0.01		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				3～5,Resolution Bandwidth 300 kHz、1 MHz	U=0.02		
				3～5,Resolution Bandwidth 3MHz、10 MHz	U=0.01		
				3～5,Resolution Bandwidth 20 MHz	U=0.34		
				3～5,Resolution Bandwidth 50 MHz	U=0.84		
		Calibrator Output Level		-30 dBm,128 MHz	U=0.076 dB		
				-10 dBm,300 MHz	U=0.11 dB		
				-20 dBm,50 MHz	U=0.18 dB		
				-40 dBm,120 MHz	U=0.12 dB		
				0 dBm,100 MHz	U=0.17 dB		
		Noise Density		-170 dBm/Hz～-120 dBm/Hz, 1.8 GHz ~ 42 GHz	U=0.57 dB		
		IF Frequency Response		-1 dB～1 dB，Carrier 1.825 GHz ,-30 dBm～0 dBm，Span 1 kHz ～ 10 MHz	U=0.011 dB		
				-1 dB～1 dB，Carrier 1.825 GHz～42.25 GHz, -30 dBm～0 dBm，Span 10 MHz～80 MHz	U=0.04 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-1 dB～1 dB，Carrier 1.825 GHz～42.25 GHz, -30 dBm～0 dBm，Span 80 MHz～255 MHz	U=0.08 dB		
				-1 dB～1 dB，Carrier 1.825 GHz ～ 5.95 GHz,-30 dBm～0 dBm，Span 255 MHz ～ 509 MHz	U=0.09 dB		
				-1 dB～1 dB，Carrier 1.825 GHz ～ 5.95 GHz,-30 dBm～0 dBm，Span 255 MHz ～ 510 MHz	U=0.11 dB		
		Power Bandwidth		-1 dB～1 dB,Carrier 50 MHz，-30 dBm～0 dBm，RBW 3 Hz～1 MHz	U=0.001 dB		
		Audio Distortion		0.01%～0.30%，Amplitude：0.11 V～2.8 V， Frequency：20 Hz～250 Hz	U=0.003%		
				0.01%～0.30%，Amplitude：0.11 V～2.8 V, Frequency：250 Hz～25 kHz	U=0.002%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01%～0.30%，Amplitude：0.11 V～2.8 V , Frequency：25 kHz～75 kHz	U=0.004%		
		Audio Amplitude		0.055 V ～ 0.79 V，0.038 kHz	U_{rel}= 0.015%		
				0.055 V ～ 0.79 V，0.0381 kHz ～0.74 kHz	U_{rel}= 0.012%		
				0.055 V～0.79 V, 0.74 kHz～243.75 kHz	U_{rel}=0.022%		
		Frequency Response of The IQ Path		-1 dB～1 dB，0 dBm ,120 MHz～136 MHz	U=0.097 dB		
		RF Frequency Characteristics		-5 dB～5 dB,5 MHz～49.999 MHz	U=0.057 dB		
				-5 dB～5 dB, 50 MHz	U=0.035 dB		
				-5 dB ～ 5 dB,50 MHz ～ 100 MHz	U=0.059 dB		
				-5 dB ～ 5 dB, 100.1 MHz ～3 GHz	U=0.060 dB		
				-5 dB ～ 5 dB, 3.01 GHz～6 GHz	U=0.070 dB		
				-5 dB ~ 5 dB, 6.01 GHz ~ 12 GHz	U=0.11 dB		
				-5 dB ～ 5 dB, 12.01 GHz ～ 16 GHz	U=0.13 dB		
				-5 dB ～ 5 dB,16.01 GHz ～ 26.5 GHz	U=0.18 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Pulse Digitization Uncertainty		-5 dB～5 dB, RBW1 MHz,log scale	U=0.04 dB		
				-5 dB～5 dB, RBW 2 MHz ,log scale	U=0.09 dB		
				-15%～15%,RBW 1 MHz, linear scale	U=0.31%		
				-15%～15%,RBW 2 MHz, linear scale	U=0.5%		
		Delayed Sweep		1000 μs～65000 μs	U=0.0035 μs		
		Gate Delay And Gate Length		Min Gate Delay 2 s～6 s	U=0.036 μs		
				MAX Gate Delay 2 s～6 s	U=0.036 μs		
				Gate Length 1 μs	U=0.036 μs		
				Gate Length 65 ms	U=0.0067 ms		
		Fast Sweep Time		300 MHz	U=0.00001 MHz		
		First LO Output Amplitude		0 dBm～20 dBm,3 GHz～6.8 GHz	U=0.15 dB		
7	*Digital Mobile Test Set	RF GEN Level	Digital Mobile Test Set Test Procedure CAL-CHA004-01	-15 dBm～-39 dBm, 850 MHz～2650 MHz	U=0.19 dB		
				-39 dBm～-54 dBm, 850 MHz～2650 MHz	U=0.20 dB		
				-54 dBm～-69 dBm, 850 MHz～2650 MHz	U=0.21 dB		
				-69 dBm～-89 dBm, 850 MHz～2650 MHz	U=0.22 dB		

The scope of the accreditation in Chinese remains the definitive version.

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-89 dBm～-110 dBm, 850 MHz～2650 MHz	U=0.23 dB		
		RF GEN Harmonics Distortion		-20 dBc～-90 dBc ,810 MHz～960 MHz	U=0.6 dB		
				-20 dBc～-90 dBc ,960 MHz～1700 MHz	U=0.9 dB		
				-20 dBc～-90 dBc ,1700 MHz～1750 MHz	U=1.1 dB		
				-20 dBc～-90 dBc ,1750 MHz～1990 MHz	U=1.9 dB		
		RF GEN Spurious		-90 dBc～-105 dBc ,996 MHz～1990MHz	U=1.2 dB		
		RF Generator Residual FM		0.1 Hz～7 Hz,Carrier Frequency：800 MHz～2000 MHz,Power：-20 dBm	U=1.6 Hz		
		RF Generator FM		0.5 kHz～20 kHz,Carrier 800 MHz～2000 MHz,Mod Rate 1 kHz	U_{rel}=1.0%		
		RF Generator FM Distortion		0.01%～0.5%,Deviation 0.5 kHz～20 kHz，Carrier Frequency：800 MHz～2000 MHz	U=0.06%		
		TDMA GEN Digital MOD EVM		0.01%～3%,Carrier Frequency: 790 MHz～1667 MHz	U=0.57%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TDMA GEN Digital Modulation Magnitude Error		0.01%～2%, Carrier Frequency: 790 MHz～1667 MHz	U=0.38%		
		TDMA GEN Digital Modulation Phase Error		0.01 °～2 °, Carrier Frequency: 790 MHz～1667 MHz	U=0.3 °		
		TDMA GEN Digital Modulation Frequency Error		0.01 Hz～4 Hz , Carrier Frequency: 790 MHz～1667 MHz	U=0.05 Hz		
		TDMA GEN MOD IQ Origin Offset		-40 dB～-30 dB, Carrier Frequency: 790 MHz～1667 MHz	U=0.5 dB		
		RF Analyzer Level		-14 dBm～8 dBm ,835 MHz～1880 MHz	U=0.10 dB		
		TDMA Analyzer Digital MOD EVM		-1% ～1% , Carrier Frequency: 900 MHz～1900 MHz	U=0.57%		
		TDMA Analyzer Digital MOD Magnitude Error		-7% ～7% , Carrier Frequency: 900 MHz～1900 MHz	U=0.38%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TDMA Analyzer Digital MOD Phase Error		-4 ° ～4 ° , Carrier Frequency: 900 MHz～1900 MHz	U=0.3 °		
		TDMA Analyzer Digital MOD Frequency Error		-10 Hz～10 Hz , Carrier Frequency: 900 MHz～1900 MHz	U=0.1 Hz		
		TDMA Analyzer Digital MOD Origin Offset		-5 dB～5 dB , Carrier Frequency: 900 MHz～1900 MHz	U=0.5 dB		
		TDMA Analyzer Digital MOD Residual EVM		0.01%～1%, Carrier Frequency: 900 MHz～1900 MHz	U=0.48%		
		TDMA Analyzer Digital MOD Residual Magnitude Error		0.01%～0.7% , Carrier Frequency: 900 MHz～1900 MHz	U=0.33%		
		TDMA Analyzer Digital MOD Residual Phase Error		0.01 ° ～0.4 ° , Carrier Frequency: 900 MHz～1900 MHz	U=0.24 °		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TDMA Analyzer Digital MOD IQ Residual Origin Offset		-60 dB～-50 dB , Carrier Frequency: 900 MHz～1900 MHz	U=0.31 dB		
		TDMA IQ Tuning		-1.0 dB～1.0 dB,Carrier 850 MHz～2000 MHz	U=0.27dB		
		TDMA Analyzer Adjacent Power Accuracy		-1.2 dB～1.2 dB,Carrier 900 MHz～1900 MHz	U=0.27 dB		
		GSM Analyzer IQ Tuning		-1.0 dB～1.0 dB,Carrier 825 MHz～1950 MHz	U=0.27 dB		
		GSM GEN Modulation Accuracy Amplitude		-0.3 dB～0.3 dB ,Carrier 940 MHz～1840 MHz	U=0.12 dB		
		GSM GEN MOD Accuracy Peak Phase Error		-4.0 ° ～4.0 ° , Carrier 940 MHz～1840 MHz	U=1.4 °		
		GSM GEN MOD Accuracy RMS Phase Error		-1.0° ～1.0° , Carrier 940 MHz～1840 MHz	U=0.30°		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		GSM GEN MOD Accuracy Frequency Error		-9.4 Hz～9.4 Hz,Carrier 940 MHz～1840 MHz	U=1 Hz		
		GSM Output RF Spectrum Accuracy		-1.5 dB～1.5 dB,Carrier 900 MHz～1800 MHz	U=0.22 dB		
		GSM AN MOD Accuracy Peak Phase Error		-4.0 ° ～4.0 ° , Carrier 835 MHz～1880 MHz	U=1.4 °		
		GSM AN MOD Accuracy RMS Phase Error		-1.0 ° ～1.0 ° , Carrier 835 MHz～1880 MHz	U=0.30 °		
		GSM AN MOD Accuracy Frequency Error		-12 Hz～12 Hz,Carrier 835 MHz～1880 MHz	U=4.8 Hz		
		CDMA/1xEV GEN Digital Power		-26.94 dBm～-16.94 dBm,Carrier 870 MHz～1930 MHz	U=0.16 dB		
		CDMA GEN Modulation Accuracy RHO		0.9～1,Carrier 800 MHz～2150 MHz	U=0.0019		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		CDMA GEN Modulation Accuracy EVM		0～10% ,Carrier 800 MHz～2150 MHz	U=1.0%		
		CDMA AN Modulation Accuracy Frequency Error		-15 Hz～15 Hz,Carrier 900 MHz～1900 MHz	U=9.5 Hz		
		CDMA AN Average Power		-9.0 dBm～3.0 dBm , Carrier 850 MHz～1850 MHz	U=0.1 dB		
		CDMA AN Tuned Power		-56 dBm～-1.0 dBm , Carrier 834 MHz～1960 MHz	U=0.14 dB		
		CDMA AN Modulation Accuracy RHO		0.9～1,Carrier 900 MHz～1900 MHz	U=0.0003		
		CDMA AN Modulation Residual RHO		0.9～1,Carrier 900 MHz～1900 MHz	U=0.0003		
		1xEV GEN Modulation Accuracy RHO		0.9～1,Carrier 870 MHz～2150 MHz	U=0.0019		
		1xEV GEN Modulation Accuracy EVM		0.1%～10%, Carrier 870 MHz～2150 MHz	U=1.0%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		CDMA/1xEV GEN Residual Frequency Error		-15 Hz～15 Hz,Carrier 900 MHz～1900 MHz	U=0.59 Hz		
		1xEV AN Modulation Accuracy Residual RHO		0.9～1,Carrier 900 MHz～1900 MHz	U=0.0003		
		1xEV AN Modulation Accuracy Residual EVM		4% , Carrier 900 MHz～1900 MHz	U=0.38%		
		1xEV AN Tuned Power		-56.0 dBm～-1.0 dBm,Carrier 834 MHz～1960 MHz	U=0.14 dB		
		WCDMA GEN Digital Power		-26.94 dBm～-16.94 dBm,Carrier 870 MHz～2760 MHz	U=0.1 dB		
		WCDMA GEN Modulation Accuracy EVM		0.1%～10% , Carrier 800 MHz～2655 MHz	U=1.0%		
		WCDMA GEN Modulation Accuracy IQ Offset		-35 dBc～-20 dBc,Carrier 800 MHz～2655 MHz	U=0.5 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		WCDMA AN Channel Power		-56.0 dBm～-1.0 dBm,Carrier 834 MHz～2530 MHz	U=0.14 dB		
		WCDMA AN Level		-10.0 dBm ～7.0 dBm,Carrier 850 MHz～2530 MHz	U=0.07 dB		
		WCDMA AN Modulation Accuracy Residual EVM		0.01%～2.20% , Carrier 900 MHz～2530 MHz	U=0.48%		
		WCDMA ACLR		-0.8 dB～0.8 dB,Carrier 814 MHz～2530 MHz	U=0.15 dB		
		WCDMA AN MOD Residual Frequency Error		-5 Hz～5 Hz,Carrier 900 MHz～2530 MHz	U=0.69 Hz		
		AA GEN Modulation Accuracy RMS Phase Error		-1.0 ° ～1.0 ° , Carrier 478.2 MHz～2687.6 MHz	U=0.30 °		
		AA GEN Modulation Accuracy Peak Phase Error		-4.0 ° ～4.0 ° ,Carrier 478.2 MHz～2687.6 MHz	U=1.4 °		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AA GEN Modulation Accuracy EVM		0.1%～4%,Carrier 478.2 MHz～2687.6 MHz	U=0.5%		
		AA GEN MOD Accuracy Origin Offset		-39 dB～-30 dB, Carrier 478.2 MHz～2687.6 MHz	U=1.6 dB		
		AA GEN Spurious		-80 dBc～-50 dBc,Carrier 955.884 MHz～2010 MHz	U=0.9 dB		
		AA GEN Level		-30 dBm～-80 dBm,Carrier 460.6 MHz～2687.6 MHz	U=0.29 dB		
		AA AN Frequency Error		-12 Hz～12 Hz,Carrier 450.6 MHz～2524.8 MHz	U=1.3 Hz		
		AA AN Level Accuracy		-15 dBm～8 dBm,Carrier 450.6 MHz～2140.8 MHz	U=0.25 dB		
		TD-SCDMA AN Channel Power		-56.0 dBm～-1.0 dBm,Carrier 1880.8 MHz～2024.2 MHz	U=0.14 dB		
		TD-SCDMA ACLR Accuracy		-0.8 dB～0.8 dB,Carrier 1880.8 MHz～2017 MHz	U=0.15 dB		
		TD-SCDMA GEN Modulation Accuracy EVM		0.1%～2%, Carrier 1880.8 MHz～2017 MHz	U=0.48%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TD-SCDMA AN Modulation Accuracy Frequency Error		-5 Hz～10 Hz,Carrier 1880.8 MHz～2017 MHz	U=0.69 Hz		
		TD-SCDMA GEN Digital Power		-26.94 dBm～-16.94 dBm,Carrier 1880 MHz～2024.2 MHz	U=0.06 dB		
		TD-SCDMA GEN Modulation Accuracy EVM		0.1%～10%, Carrier 411 MHz～1800 MHz	U=1.0%		
		TD-SCDMA GEN Modulation Accuracy IQ Offset		-30 dBc～-20 dBc,Carrier 411 MHz～1800 MHz	U=0.5 dB		
		EGPRS GEN Modulation Accuracy EVM		0.1%～4.0%,Carrier 460 MHz～1880 MHz	U=0.48%		
		EGPRS GEN Modulation Accuracy Frequency Error		-9 Hz～9 Hz,Carrier 460 MHz～1880 MHz	U=1 Hz		
		EGPRS GEN Modulation Accuracy Origin Offset		0 dB～50 dB,Carrier 460 MHz～1880 MHz	U=0.48 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		EGPRS AN Modulation Accuracy RMS EVM		0.1% ～1.0%, Carrier 450 MHz～1990 MHz	U=0.48 %		
		EGPRS AN Modulation Accuracy PEAK EVM		-4.0%～4.0%, Carrier 450 MHz～1990 MHz	U=0.48%		
		EGPRS AN Modulation Accuracy Frequency Error		-10 Hz～10 Hz,Carrier 450 MHz～1990 MHz	U=1 Hz		
		EGPRS AN Modulation Accuracy Origin Offset		-1.5 dB～1.5 dB,Carrier 450 MHz～1990 MHz	U=0.5 dB		
		AF GEN Level		100 mV～6000 mV ,100 Hz～5 kHz	U_{rel}=0.1%		
		AF GEN Distortion		0.001%～0.1%,200 mV～6 V,100 Hz～5 kHz	U=0.012%		
		AF AN Level		0.5 V～5 V, 200 Hz～500 Hz	U_{rel}=0.02%		
				0.5 V～5 V, 0.5 kHz～10 kHz	U_{rel}=0.03%		
				50 mV,200 Hz～500 Hz	U_{rel}=0.03%		
				50 mV,0.5 kHz～10 kHz	U_{rel}=0.04%		
		AF AN Distortion		4%～11%,2 kHz～3 kHz ,50 mV	U=0.11%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				4%～11%,2 kHz～3 kHz ,100 mV	U=0.19%		
		AF AN SINAD		19 dB～27 dB,50 mV～100 mV,2 kHz～3 kHz	U=0.5 dB		
		Time-base Frequency		10 MHz	U_{rel}=1x10^{-11}		
8	*Wireless Communications Test Set	TX/RX Port Isolation	Wireless Communications Test Set Test Procedure CAL-CHA004-02	-140 dB～-40 dB,300 MHz～6000 MHz	U=0.6 dB		
		Reference Frequency Amplitude		1.4 V～20 V,1 MHz～10 MHz	U=0.25 V		
		Reference Frequency Accuracy		10 MHz	U=0.0016 Hz		
		Audio Generator Distortion		0.001% ~ 0.05%, 500 mV～5000 mV,20 Hz～10 kHz	U=0.016%		
		Audio Generator Level		0.1 V ～5 V,1 kHz ～10 kHz	U=0.1 mV		
		Audio Generator Output Impedance		50 Ω～75 Ω,1 kHz ～10 kHz	U=0.06 Ω		
		Audio Generator Max Output Current		5 mA～20 mA，1kHz～10kHz	U=0.14 mA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Audio Analyzer Frequency Response		1.96V～2V,50 Hz ～10 kHz	U=2.0 mV		
		Audio Analyzer Inherent Distortion		0.01%～0.05%,0.5 V ～5 V,100 Hz～10 kHz	U=0.012%		
		Audio Analyzer Linearity		0.01%～2%,0.02 V ～5 V,20 kHz	U=0.05%		
		RX SSB Phase Noise		-150 dBc/Hz～-50 dBc/Hz,50 MHz ～ 6000 MHz	U=0.1 dB		
		RX AVG Noise Level		-170 dBm～-50 dBm,50 MHz ～ 6000 MHz	U=0.53 dB		
		RX Dynamic Range		-150 dBc～-50 dBc,50 MHz ～ 6000 MHz	U=0.5 dB		
		RX Power Level		-110 dBm～-20 dBm,300 MHz～6000 MHz	U=0.073 dB		
				-20 dBm ～10 dBm,300 MHz～6000 MHz	U=0.046 dB		
		RX Linearity		-2 dB～2 dB,-60 dBm～0 dBm,50 MHz ～ 6000 MHz	U=0.05 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX Frequency Accuracy (Without Reference Connected)		10 MHz～6000 MHz	U_{rel}=1x10^{-8}		
		RX Frequency Accuracy (With Reference Connected)		10 MHz～6000 MHz	U=0.0048 Hz		
		RX Frequency Response		-5 dB～5 dB,-60 dBm～0 dBm,200 MHz～6000 MHz	U=0.12 dB		
		RX Residual AM		0.001%～1%,-40 dBm～0 dBm,50 MHz ～ 6000 MHz	U=0.001%		
		RX Residual FM		0.1 Hz～6 Hz,-20 dBm,50 MHz ～ 6000 MHz	U=1.8 Hz		
		RX Residual Response		-100 dBm～-60 dBm,50 MHz ～ 6000 MHz	U=0.25 dB		
		RX Harmonics		-20 dBc～-80 dBc,50 MHz ～ 6000 MHz	U=0.6 dB		
		RX Spurious / Image Response		-20 dBc～-80 dBc,,50 MHz ～ 6000 MHz	U=0.1 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX IF Frequency Response		0 dB～3 dB, Carrire frequency ,50 MHz ～ 6000 MHz, IF band 120 MHz	U=0.047 dB		
		RX VSWR		1～4，50 MHz～6000 MHz	U=0.01		
		TX Level Settling Time		0.1 μs～4 μs ,50 MHz ～ 6000 MHz, -50 dBm ～ -10 dBm	U=0.1 μs		
		TX Frequency		50 MHz～6000 MHz	U_{rel}=1x10^{-10}		
		TX VSWR		1～4，50 MHz～6000 MHz	U=0.01		
		TX MAX Output Power		-15 dBm～20 dBm,50 MHz～6000 MHz	U=0.2 dB		
		RX RBW		1 Hz～3 Hz	U=0.02 Hz		
				10 Hz～30 Hz	U=0.1 Hz		
				100 Hz～300 Hz	U=1 Hz		
				1 kHz～3 kHz	U=0.01 kHz		
				10 kHz～30 kHz	U=0.1 kHz		
				100 kHz～300 kHz	U=1 kHz		
				1 MHz～3 MHz	U=0.01 MHz		
		TX SNR		60 dB～100 dB,50 MHz～6000 MHz, Resolution Bandwidth 1 kHz	U=1 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX RFIO Port Balance		-10 dBm,50 MHz～6000 MHz	U=0.05 dB		
		TX Output Power		10 dBm～20 dBm,90 MHz～6000 MHz	U=0.14 dB		
				-20 dBm～10 dBm,90 MHz～6000 MHz	U=0.070 dB		
				-110 dBm～-20 dBm,90 MHz～6000 MHz	U=0.13 dB		
				-120 dBm～-110 dBm,90 MHz～6000 MHz	U=0.14 dB		
		TX Output Linearity		0 dB ～-40 dB,380 MHz～6000 MHz	U=0.07 dB		
		TX Return Loss		0 dB ～25 dB,380 MHz～6000 MHz	U=0.1 dB		
		TX Frequency Settling Time		1 μs～ 400 μs ,50 MHz ～ 6000 MHz, -50 dBm ～ -10 dBm	U=1 μs		
		TX Residual FM		0.1 Hz～15 kHz,50 MHz ～ 6000 MHz	U=1.8 Hz		
		TX SSB Phase Noise		-150 dBc/Hz～-50 dBc/Hz,50 MHz ～ 6000 MHz	U=0.21 dB		
		TX Harmonics		-70 dBc～-30 dBc,50 MHz ～ 6000 MHz	U=0.46 dB		
		TX IN Band Spurious		-70 dBc～-30 dBc,50 MHz ～ 6000 MHz	U=0.5 dB		
		1XEV-DO TX RHO		0.9 ～1,870 MHz～2150 MHz	U=0.0019		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		1XEV-DO RX ACP		-90 dB～-10 dB,870 MHz～2150 MHz,-10 dBm～0 dBm	U=0.8 dB		
		1XEV-DO RX EVM		0.01%～4%,870 MHz～2150 MHz	U=0.38%		
		1XEV-DO RX Frequency Error		-15 Hz～15 Hz,870 MHz～2150 MHz	U=0.59 Hz		
		TX Frequency Accuracy (Bluetooth)		2402 MHz ～ 2495 MHz	U=6.7 Hz		
		TX Bluetooth Frequency Deviation		-500 kHz ～ 500 kHz,2402 MHz～2495 MHz	U=3 kHz		
		RX Bluetooth Level Accuracy		－105 dBm ～ 5 dBm,2402 MHz～2495 MHz	U=0.085 dB		
		TX Carrier Suppression		－105 dBm ～ 5 dBm,50 MHz ～ 6000 MHz	U=0.2 dB		
		RX Bluetooth Frequency Offset		0.1 kHz～1 MHz,, Carrier frequency 2402 MHz ～ 2495 MHz	U=0.1 kHz		
		RX Bluetooth Level Accuracy		－105 dBm ～ 5 dBm,2402 MHz～2495 MHz	U=0.3 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX Bluetooth Leakage Power		-100 dB ～ -55 dB,2402 MHz～2495 MHz	U=0.1 dB		
		C2K TX ACP		-90 dB ～ -10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.1 dB		
		C2K TX EVM		0.01%～25%,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.48%		
		C2K TX RHO		0.9 ～1,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.001		
		RX SEQAN Format Factor		-1 dB ～ 1 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.002 dB		
		C2K RX ACP		-90 dB ～ -10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.8 dB		
		C2K RX EVM		0.01%～25%,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.38%		
		C2K RX RHO		0.9～1,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.0012		
		C2K RX Frequency Error		0.01 Hz～10 kHz,380 MHz～2800 MHz	U=0.01 Hz		
		EDGE RX Origin Offset		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.48 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		EDGE RX EVM		0.01%～10% ,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.48%		
		EDGE RX ORFS		-90 dB ～ -10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.8 dB		
		EDGE RX Frequency Error		1 Hz ～10 kHz,380 MHz～2800 MHz	U=1 Hz		
		EDGE TX EVM		0.01%～10% ,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.48%		
		TX FM Deviation		8 kHz,Frequency300 Hz ～ 15.999 kHz	U_{rel}=1.2%		
		TX FM Distortion		0.1%～3%,Frequency:300 Hz ～ 15.999 kHz ,Mod Rate: 8 kHz	U=0.3%		
		TX FIX Spurious		-90 dB ～ -10 dB,Frequency300 Hz ～ 15.999 kHz,Mod Rate: 8 kHz	U=0.5 dB		
		RX GPS Bias-Tee		10 mA～100 mA,Voltage Setting: 3.3V～5V	U=2.0 mA		
		RX GPS Frequency		1227.6 MHz～1575.42 MHz	U=11 Hz		
		TX GSM Frequency Error		-80 kHz ～80 kHz,710 MHz～1990 MHz,0 dBm～-20 dBm	U=6.1 Hz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX GSM Phase Error (Peak, RMS)		-20 ° ～20 ° ,380 MHz～710 MHz	U=0.29 °		
				-20 ° ～20 ° ,710 MHz～1990 MHz	U=0.078 °		
		RX GSM Origin Offset		-50 dB～-10 dB,0 dBm～-20 dBm,710 MHz～1990 MHz	U=3.1 dB		
		RX GSM ORFS		-90 dB ～ -10 dB,0 dBm～-20 dBm,710 MHz～1990 MHz	U=0.31 dB		
		RX GSM Frequency Error		0.01 Hz～10 kHz,710 MHz～1990 MHz	U=0.01 Hz		
		TX GSM Phase Error (Peak)		-4.0 ° ～4.0 ° ,710 MHz～1990 MHz	U=0.079 °		
		RX GSM Phase Error (RMS)		-1.0 ° ～1.0 ° ,450 MHz～710 MHz	U=0.29 °		
				-1.0 ° ～1.0 ° ,710 MHz～1990 MHz	U=0.079 °		
		TX LTE EVM		0.01%～8% ,0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.29%		
				0.01%～8% ,0 dBm～-20 dBm,3800 MHz～6000 MHz	U=0.48%		
		TX LTE ACP		-80 dB ～ -10 dB,0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.63 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX LTE CHP		0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.05 dB		
		RX LTE EVM		0.01%～8% ,0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.23%		
		RX LTE I/Q Offset		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.48 dB		
		RX LTE Frequency Error		0.01 Hz～10 kHz,380 MHz～3800 MHz	U=0.07 Hz		
		RX Seqan Trans Power		0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.1 dB		
		TX TDSCDMA Modulation (EVM)		0.01% ～ 18%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.95%		
		TX TD-SCDMA Modulation (Rho)		0 .9～1 ,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.0019		
		RX TD-SCDMA ACP		-80 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.8 dB		
		RX TD-SCDMA EVM		0.01% ～ 18%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.48%		
		RX TDSCDMA I/Q Imbalance		-1 dB～1 dB,0 dBm～-20 dBm,380 MHz～6000 MH	U=0.5 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX TDSCDMA I/Q Origin Offset		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MH	U=0.4 dB		
		RX TDSCDMA Frequency Error		-20 Hz～20 Hz,380 MHz～2800 MHz,0 dBm～-20 dBm	U=0.75 Hz		
		TX WCDMA HSDPA EVM		0.01% ～ 25%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=1.1%		
		TX WCDMA EVM		0.01% ～ 25%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.48%		
		TX WCDMA Level Error		0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.17 dB		
		RX TDSCDMA I/Q Origin Offset		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.4 dB		
		RX WCDMA Peak Code Domain Error		-1 dB～1 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.1 dB		
		RX WCDMA ACP		-80 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.8 dB		
		RX WCDMA EVM		0.01% ～ 25%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.48%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX WCDMA SEQAN Format Factor		0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.17 dB		
		RX WCDMA Frequency Error		-20 Hz～20 Hz,380 MHz～2800 MHz,0 dBm～-20 dBm	U=0.01 Hz		
		TX WLAN 802.11a EVM		-53 dB～-22 dB,5.8GHz,0 dBm～-20 dBm	U=0.29 dB		
		TX WLAN 802.11ac EVM		-53 dB～-22 dB,5.5 GHz～ 5.8 GHz,0 dBm～-20 dBm,Bandwidth 80 MHz	U=0.35 dB		
				-53 dB～-22 dB,5.5 GHz～ 5.8 GHz,0 dBm～-20 dBm,Bandwidth 160 MHz	U=0.36 dB		
		TX WLAN 802.11b EVM		0.01%～ 8%,2.4 GHz,0 dBm～-20 dBm	U=0.24%		
		TX WLAN 802.11g EVM		-53 dB～-22 dB,2.4 GHz,0 dBm～-20 dBm	U=0.31 dB		
		TX WLAN 802.11n EVM		-53 dB～-22 dB,5.8 GHz,0 dBm～-20 dBm, Bandwidth 20 MHz	U=2.3 dB		
				-53 dB～-22 dB,5.8 GHz,0 dBm～-20 dBm, Bandwidth 40 MHz	U=0.29 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX WLAN 802.11af EVM		-58 dB～-22 dB,700 MHz,-20 dBm～0 dBm,Bandwidth 8 MHz	U=0.35 dB		
		TX WLAN 802.11ah EVM		-58 dB～-22 dB,900 MHz,-20 dBm～0 dBm,Bandwidth 16 MHz	U=0.39 dB		
		TX WLAN 802.11ax EVM		-53 dB～-22 dB,5.8 GHz,-20 dBm～0 dBm,Bandwidth 80 MHz	U=0.58 dB		
				-53 dB～-22 dB,5.8 GHz,-20 dBm～0 dBm,Bandwidth 16 MHz	U=0.80 dB		
		TX WLAN Frequency		2000 MHz～6000 MHz	U=6.8 Hz		
		TX WLAN Power		-60 dBm～-40 dBm,2000 MHz～6000 MHz	U=0.12 dB		
				-40 dBm～-10 dBm,2000 MHz～6000 MHz	U=0.08 dB		
		TX Modulation Depth		-500 Hz～500 Hz,Mod index 0.28～0.35, 2.4 GHz ～ 2.48 GHz, -90 dBm ～ -20 dBm, Bluetooth GFSK	U=9.7 Hz		
		RX WLAN 802.11a EVM		-53 dB～-22 dB,5.8 GHz,0 dBm～-20 dBm	U=0.3 dB		
		RX WLAN 802.11ac EVM		-53 dB～-22 dB,5.5 GHz～ 5.8 GHz, 0 dBm～-20 dBm,80 MHz Bandwidth	U=0.39 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-53 dB～-22 dB,5.5 GHz～ 5.8 GHz, 0 dBm～-20 dBm,160 MHz Bandwidth	U=0.38 dB		
		RX WLAN 802.11b EVM		0.01%～ 8%,2.4 GHz,0 dBm～-20 dBm	U=0.29%		
		RX WLAN 802.11g EVM		-53 dB～-22 dB,2.4 GHz,0 dBm～-20 dBm	U=0.31 dB		
		RX WLAN 802.11n EVM		-53 dB～-22 dB,5.8 GHz,0 dBm～-20 dBm,20 MHz Bandwidth	U=1.6 dB		
				-53 dB～-22 dB,5.8 GHz,0 dBm～-20 dBm,40 MHz Bandwidth	U=0.29 dB		
		RX WLAN 802.11af EVM		-53 dB～-22 dB,700 MHz,0 dBm～-20 dBm,8 MHz Bandwidth	U=0.68 dB		
		RX WLAN 802.11ah EVM		-53 dB～-22 dB,900 MHz,0 dBm～-20 dBm,16 MHz Bandwidth	U=0.63 dB		
		RX WLAN 802.11ax EVM		-53 dB～-22 dB,5.8 GHz,0 dBm～-20 dBm,80 MHz Bandwidth	U=0.54 dB		
				-53 dB～-22 dB,5.8 GHz,0 dBm～-20 dBm,160 MHz Bandwidth	U=0.48 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX Frequency Deviation Range Accuracy		0.01 Hz～400 kHz,2000 MHz～6000 MHz	U=0.12 Hz		
		RX UL MOD Level		-10 dBm～-50 dBm,800 MHz～6000 MHz	U=0.13 dB		
		RX UL EVM		0.01%～25%,Bandwidth 5 MHz～20 MHz,-10 dBm～-50dBm,500 MHz～6000 MHz	U=0.57%		
		TX DL EVM		0.01%～25%,Bandwidth 5 MHz～20 MHz,-10 dBm～-50dBm,500 MHz～6000 MHz	U=0.5%		
9	*LF/MW Network Analyzer	RF Output Level Linearity	LF/MW Network Analyzer Test Procedure CAL-CHA005-01	-25 dBm～15 dBm,9 kHz～100 kHz	U=0.01 dB		
				-25 dBm～15 dBm,100 kHz ～1 MHz	U=0.045 dB		
				-25 dBm～15 dBm,1 MHz～50 MHz	U=0.10 dB		
				-25 dBm～15 dBm,50 MHz～500 MHz	U=0.02 dB		
				-25 dBm～15 dBm,500 MHz～20 GHz	U=0.01 dB		
		Frequency		9 kHz～100 kHz	U_{rel}=1.9x10^{-8}		
				100 kHz～20 GHz	U_{rel}=7.3x10^{-10}		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RF Output Level		15 dBm～20 dBm ,9 kHz～100 kHz	U=0.10 dB		
				15 dBm～20 dBm ,100 kHz～8 GHz	U=0.053 dB		
				15 dBm～20 dBm ,8 GHz～20 GHz	U=0.081 dB		
				10 dBm～15 dBm ,9 kHz～100 kHz	U=0.097 dB		
				10 dBm～15 dBm ,100 kHz～8 GHz	U=0.051 dB		
				10 dBm～15 dBm ,8 GHz～20 GHz	U=0.079 dB		
				3 dBm～10 dBm ,9 kHz～100 kHz	U=0.058 dB		
				3 dBm～10 dBm ,100 kHz～8 GHz	U=0.043 dB		
				3 dBm～10 dBm ,8 GHz～20 GHz	U=0.075 dB		
				-3 dBm～3 dBm ,9 kHz～12.4 GHz	U=0.030 dB		
				-3 dBm～3 dBm ,12.4 GHz～18 GHz	U=0.034 dB		
				-3 dBm～3 dBm ,18 GHz～20 GHz	U=0.073 dB		
				-20 dBm～-3 dBm ,9 kHz～100 kHz	U=0.13 dB		
				-20 dBm～-3 dBm ,100 kHz～8 GHz	U=0.047 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm～-3 dBm ,8 GHz～12.4 GHz	U=0.061 dB		
				-20 dBm～-3 dBm ,12.4 GHz～14 GHz	U=0.070 dB		
				-20 dBm～-3 dBm ,14 GHz～18 GHz	U=0.074 dB		
				-20 dBm～-3 dBm ,18 GHz～20 GHz	U=0.077 dB		
		RF Output Flatness		-17 dBm～10 dBm ,9 kHz～300 kHz	U=0.062 dB		
				-17 dBm～10 dBm ,0.3 MHz～45 MHz	U=0.08 dB		
				-17 dBm～10 dBm ,45 MHz～2 GHz	U=0.044 dB		
				-17 dBm～10 dBm ,2 GHz～20 GHz	U=0.10 dB		
		Noise Floor		-145 dBm～-80 dBm,9 kHz～10 MHz	U=0.71 dB		
				-145 dBm～-80 dBm,10 MHz～20 GHz	U=1.1 dB		
		Directivity Calibration Coefficients		-60 dB～-10 dB ,9 kHz～300 kHz	U=0.17 dB		
				-62 dB～-10 dB,300 kHz～8.5 GHz	U=0.17 dB		
				-40 dB～-10 dB,8.5 GHz～20 GHz	U=0.66 dB		
		Source Match Calibration		-60 dB～-10 dB,9 kHz～ 8.5 GHz	U=0.42 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Coefficients		-60 dB～-10 dB,8.5GHz ～ 20 GHz	U=2.3 dB		
		Load Match Calibration Coefficients		-60 dB～-10 dB,9 kHz ～ 300 kHz	U=0.11 dB		
				-60 dB～-10 dB,300 kHz ～ 8.5 GHz	U=0.13 dB		
				-60 dB～-10 dB,8.5GHz ～ 20 GHz	U=0.27 dB		
		Transmission Tracking Coefficients		-2 dB～2 dB,9 kHz ～ 300 kHz	U=0.051 dB		
				-2 dB～2 dB,300 kHz ～ 8.5 GHz	U=0.04 dB		
				-2 dB～2 dB,8.5GHz ～ 20 GHz	U=0.27 dB		
		Reflection Tracking Coefficients		-2 dB～2 dB,9 kHz ～ 8.5 GHz	U=0.021 dB		
				-2 dB～2 dB,8.5GHz ～ 20 GHz	U=0.077 dB		
		Compression Magnitude		-3 dB～3 dB ,9 kHz～8.5 GHz	U=0.023 dB		
				-3 dB～3 dB ,8.5 GHz～ 20 GHz	U=0.034 dB		
		Compression Phase		-30 ° ～ 30 ° ,9 kHz～ 8.5 GHz	U=0.058 °		
				-30 ° ～30 ° ,8.5 GHz～20 GHz	U=0.46 °		
		Dynamic Accuracy		-100 dBm～-80 dBm,10MHz~1.195 GHz	U=0.044 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-80 dBm～-60 dBm,10 MHz~1.195 GHz	U=0.019 dB		
				-60 dBm～-50 dBm,10 MHz~1.195 GHz	U=0.011 dB		
				-50 dBm～-35 dBm,10 MHz~1.195 GHz	U=0.007 dB		
				-35 dBm～0 dBm,10 MHz~1.195 GHz	U=0.00014 dB		
				0 dBm～10 dBm,10 MHz~1.195 GHz	U=0.0052 dB		
				-110 dBm～-100 dBm,100 kHz～ 1 MHz	U=0.16 dB		
				-100 dBm～-80 dBm,100 kHz～ 1 MHz	U=0.016 dB		
				-80 dBm～-60 dBm,100 kHz～ 1 MHz	U=0.012 dB		
				-60 dBm～-50 dBm ,100 kHz～ 1 MHz	U=0.018 dB		
				-50 dBm～-30 dBm,100 kHz～ 1 MHz	U=0.0031 dB		
				-30 dBm～0 dBm,100 kHz～ 1 MHz	U=0.0088 dB		
		Dynamic Accuracy Phase		-20 ° ～ 20 ° ,-115 dBm～-100 dBm,100 kHz～ 1 MHz	U=1.1 °		
				-20 ° ～ 20 ° ,-100 dBm～-80 dBm,100 kHz～ 1 MHz	U=0.12 °		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 ° ～ 20 ° ,-80 dBm ～ -60 dBm,100 kHz～ 1 MHz	U=0.036 °		
				-20 ° ～ 20 ° ,-60 dBm ～ -50 dBm ,100 kHz～ 1 MHz	U=0.032 °		
				-20 ° ～ 20 ° ,-50 dBm ～ -30 dBm,100 kHz～ 1 MHz	U=0.02 °		
				-20 ° ～ 20 ° ,-30 dBm～ 0 dBm,100 kHz～ 1 MHz	U=0.014 °		
		Crosstalk		-150 dB～-90 dB ,9 kHz～8.5 GHz	U=1.2 dB		
				-150 dB～-90 dB ,8.5 GHz～20 GHz	U=2.4 dB		
		Trace Noise Magnitude		0.00001 dB～0.02 dB ,9 kHz～10 MHz	U=0.00012 dB		
				0.00001 dB～0.02 dB ,10 MHz～4.38 GHz	U=0.00004 dB		
				0.00001 dB～0.02 dB ,4.38 GHz～8.5 GHz	U=0.00013 dB		
				0.00001 dB～0.02 dB ,8.5 GHz～20 GHz	U=0.00026 dB		
		Trace Noise Phase		0.001 ° ～0.20 ° ,9 kHz～10 MHz	U=0.0004 °		
				0.001 ° ～0.20 ° ,10 MHz～4.38 GHz	U=0.0011 °		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.001 ° ～0.20 °，4.38 GHz～8.5 GHz	U=0.0016 °		
				0.001 ° ～0.20 °，8.5 GHz～20 GHz	U=0.0023 °		
		AUX Input Port Voltage		10 V～40 V	U=1.2 mV		
				-10 V～10 V	U=0.02 mV		
				-40 V～-10 V	U=1.2 mV		
		System Dynamic Range		-150 dB～-70 dB，9 kHz～300 kHz	U=1.5 dB		
				-150 dB～-70 dB，0.3 MHz～6000 MHz	U=1.3 dB		
				-150 dB～-70 dB，6 GHz～8.5 GHz	U=1.5 dB		
				-150 dB～-70 dB，8.5 GHz～20 GHz	U=1.3 dB		
10	*High Performance Network Analyzer	Source Power Linearity	High Performance Network Analyzer Test Procedure CAL-CHA005-02	-20 dBm～13 dBm,900 Hz～67 GHz	U=0.01 dB		
				-30 dBm～-20 dBm,900 Hz～67 GHz	U=0.02 dB		
		Frequency		300 kHz～6.75 GHz	U_{rel}=1.4x10^{-9}		
		Source Power		-20 dBm～20 dBm，900 Hz～100 kHz	U=0.10 dB		
				-20 dBm～-3 dBm，100 kHz～6 GHz	U=0.047 dB		
				-3 dBm～20 dBm，100 kHz～6 GHz	U=0.051 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm～-3 dBm ,6 GHz～8 GHz	U=0.061 dB		
				-3 dBm～20 dBm ,6 GHz～8 GHz	U=0.078 dB		
				-20 dBm～-3 dBm ,8 GHz～14 GHz	U=0.070 dB		
				-3 dBm～20 dBm ,8 GHz～14 GHz	U=0.078 dB		
				-20 dBm～-3 dBm ,14 GHz～18 GHz	U=0.074 dB		
				-3 dBm～20 dBm ,14 GHz～18 GHz	U=0.078 dB		
				-20 dBm～-3 dBm ,18 GHz～24 GHz	U=0.077 dB		
				-3 dBm～20 dBm ,18 GHz～24 GHz	U=0.081 dB		
				-20 dBm～-3 dBm ,24 GHz～26.5 GHz	U=0.092 dB		
				-3 dBm～20 dBm ,24 GHz～26.5 GHz	U=0.095 dB		
				-20 dBm～20 dBm ,26.5 GHz～67 GHz	U=0.12 dB		
		Noise Floor		-140 dBm～-60 dBm,900 Hz～300 kHz	U=0.91 dB		
				-140 dBm～-60 dBm,300 kHz～10 MHz	U=0.26 dB		
				-140 dBm～-60 dBm,10 MHz～50 GHz	U=0.20 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-140 dBm～-60 dBm,50 GHz～67 GHz	U=0.91 dB		
		Directivity Calibration Coefficients		-30 dB～2 dB,900 Hz～50 MHz	U=0.15 dB		
				-39 dB～-5 dB,50 MHz～200 MHz	U=0.12 dB		
				-48 dB～-23 dB,200 MHz～500 MHz	U=0.34 dB		
				-46 dB～-20 dB,500 MHz～10 GHz	U=0.30 dB		
				-44 dB～-16 dB,10 GHz～20 GHz	U=0.24 dB		
				-43 dB～-14 dB,20 GHz～26.5 GHz	U=0.22 dB		
				-39 dB～-13 dB,26.5 GHz～50 GHz	U=0.30 dB		
				-38 dB～-10 dB,50 GHz～67 GHz	U=0.34 dB		
		Source Match Calibration Coefficients		-22 dB～-5 dB,900 Hz～50 MHz	U=0.097 dB		
				-43 dB～-6 dB,50 MHz～200 MHz	U=0.086 dB		
				-41 dB～-6 dB,200 MHz～500 MHz	U=0.11 dB		
				-46 dB～-6 dB,500 MHz～3.2 GHz	U=0.086 dB		
				-39 dB～-7 dB,3.2 GHz～13.5 GHz	U=0.15 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-36 dB～-7 dB,13.5 GHz～20 GHz	U=0.22 dB		
				-32 dB～-7 dB,20 GHz～26.5 GHz	U=0.34 dB		
				-30 dB～-7 dB,26.5 GHz～50 GHz	U=0.43 dB		
				-24 dB～-5 dB,50 GHz～67 GHz	U=0.66 dB		
		Load Match Calibration Coefficients		-29 dB～-7 dB,900 Hz～50 MHz	U=0.12 dB		
				-37 dB～-7 dB,50 MHz～200 MHz	U=0.18 dB		
				-44 dB～-7 dB,200 MHz～500 MHz	U=0.084 dB		
				-46 dB～-6 dB,500 MHz～10 GHz	U=0.10 dB		
				-40 dB～-6 dB,10 GHz～20 GHz	U=0.12 dB		
				-39 dB～-7 dB,20 GHz～26.5 GHz	U=0.15 dB		
				-35 dB～-7 dB,26.5 GHz～50 GHz	U=0.21 dB		
				-34 dB～-7 dB,50 GHz～60 GHz	U=0.25 dB		
				-32 dB～-6 dB,60 GHz～67 GHz	U=0.30 dB		
		Compression Magnitude（including		-1 dB～1 dB ,900 Hz～100 MHz	U=0.016 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Noise Receiver）		-1 dB～1 dB ,100 MHz～50 GHz	U=0.024 dB		
				-1 dB～1 dB ,50 GHz～67 GHz	U=0.034 dB		
		Compression Phase		-30 °～30 °,900 Hz～100 MHz	U=0.11 °		
				-30 °～30 °,100 MHz～50 GHz	U=0.08 °		
				-30 °～30 °,50 GHz～67 GHz	U=0.11 °		
		Dynamic Accuracy（including Noise Receiver）		-40 dB～-35 dB,900 kHz~2 GHz	U=0.0065 dB		
				-35 dB～-30 dB,900 kHz~2 GHz	U=0.0059 dB		
				-30 dB～-25 dB,900 kHz~2 GHz	U=0.0054 dB		
				-25 dB～-20 dB,900 kHz~2 GHz	U=0.0048 dB		
				-20 dB～-15 dB,900 kHz~2 GHz	U=0.0039 dB		
				-15 dB～-10 dB,900 kHz~2 GHz	U=0.0032 dB		
				-10 dB～-5 dB,900 kHz~2 GHz	U=0.0024 dB		
				-5 dB～0 dB,900 kHz~2 GHz	U=0.0012 dB		
				0 dB～5 dB,900 kHz~2 GHz	U=0.0010 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				5 dB～10 dB,900 kHz~2 GHz	U=0.0023 dB		
				10 dB～15 dB,900 kHz~2 GHz	U=0.0033 dB		
				15 dB～20 dB,900 kHz~2 GHz	U=0.0039 dB		
				20 dB～25 dB,900 kHz~2 GHz	U=0.0047 dB		
		Trace Noise Magnitude		0 dB～0.02 dB ,900 Hz～300 kHz	U=0.00044 dB		
				0 dB～0.02 dB ,300 kHz～45 MHz	U=0.00002 dB		
				0 dB～0.02 dB ,45 MHz～50 GHz	U=0.000017 dB		
				0 dB～0.02 dB ,50 GHz～67 GHz	U=0.000025 dB		
		Trace Noise Phase		0.001° ～0.20° ,900 Hz～300 kHz	U=0.00033 °		
				0.001 ° ～0.20 ° ,300 kHz～45 MHz	U=0.00010 °		
				0.001 ° ～0.20 ° ,45 MHz～50 GHz	U=0.000068 °		
				0.001 ° ～0.20 ° ,50 GHz～67 GHz	U=0.00055 °		
		Noise Jitter		0 dB～0.10 dB,45 MHz～50 GHz	U=0.0057 dB		
		Receiver Noise Figure		10 dB～21 dB ,10 MHz～50 GHz	U=0.12 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Receiver Noise Figure (26.5 GHz and below)		10 dB～21 dB ,10 MHz～18 GHz	U=0.41 dB		
				10 dB～21 dB ,18 GHz～25 GHz	U=0.50 dB		
				10 dB～21 dB ,25 GHz～26.5 GHz	U=0.78 dB		
		VSWR		1 ～4 ,300 kHz～67 GHz	U=0.03		
		SA Detector Accuracy		-0.2 dB～0.2 dB ,300 kHz～67 GHz	U=0.005 dB		
		Display Average Noise Level		-150 dBm～-80 dBm,900 Hz～67 GHz，RBW 1 Hz	U=0.15 dB		
		Dynamic Range		-150 dB～-90 dB ,900 Hz～67 GHz	U=0.92 dB		
11	*Portable Network Analyzer	Display Linearity	Portable Network Analyzer Test Procedure CAL-CHA005-03	0 dBm～-50 dBm,300 kHz ～14 GHz	U=0.02 dB		
		Output Frequency		2 GHz	$U_{rel}=2.8\times10^{-8}$		
		Output Power Linearity		0 dBm～-50 dBm,300 kHz ～14 GHz	U=0.23 dB		
		Output Power Level		-9 dBm～-11 dBm,300 kHz ～14 GHz	U=0.11 dB		
		Absolute Level Measurement		-0.3 dB～0.3 dB,65.833 MHz	U=0.12 dB		
		Frequency Response		-1.2 dB～1.2 dB,300 kHz～14 GHz	U=0.15 dB		
		Attenuator		0 dB～30 dB,65.833 MHz	U=0.11 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Trace Noise Magnitude		0 dB～0.02 dB ,300 kHz～14 GHz	U=0.001 dB		
		Trace Noise Phase		0.001 °～0.20 ° ,300 kHz～14 GHz	U=0.01 °		
		Phase Noise		-130 dB/Hz～-70 dB/Hz ,Frequency：500 MHz,Deviation：10 kHz～1 MHz	U=2.2 dB		
		Noise Display		-150 dBm～-70 dBm,300 kHz～14 GHz ,RBW 1 Hz	U=0.4 dB		
		Dynamic Range		-150 dB～-90 dB ,300 kHz～13 GHz	U=0.2 dB		
		Third Order Intermodulation		5 dBm～20 dBm ,30 MHz～14 GHz	U=0.5 dB		
12	*General-Purpose Network Analyzer	Test Port Output Linearity	General-purpose Network Analyzer Test Procedure CAL-CHA005-04	2.5 dBm～13 dBm,300 kHz～6 GHz	U=0.025 dB		
		Output Frequency		300 kHz～6.75 GHz ,	U_{rel}=2.5x10^{-7}		
		Minimum R Level		-30 dBm～-50 dBm ,300 kHz～6 GHz	U=1.5 dB		
		Test Port Output Power		-17 dBm～10 dBm ,0.3 MHz～6 GHz	U=0.19 dB		
		Receiver Magnitude Frequency Response		-2 dB～2 dB ,0.3 MHz～6 GHz	U=0.050 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Receiver Phase Frequency Response		-10 ° ～10 ° ,0.3 MHz～6 GHz,-17dBm～10 dBm	U=0.6 °		
		Test Port Input Noise Floor Level		-80 dBm～-140 dBm ,300 kHz～6 GHz	U=1.2 dB		
		Crosstalk		-150 dB～-90 dB ,300 kHz～6 GHz	U=2.2 dB		
		Test Port Return loss		-50 dB～-10 dB ,300 kHz ～6 GHz	U=0.38 dB		
		Directivity Calibration Coefficients		-40 dB～-10 dB ,300 kHz ～6 GHz	U=0.99 dB		
		Source Match Calibration Coefficients		-60 dB～-10 dB,300 kHz ～6 GHz	U=0.26 dB		
		Load Match Calibration Coefficients		-60 dB～-10 dB,300 kHz ～6 GHz	U=0.22 dB		
		Calibration Coefficients - Transmission Tracking		-1 dB～1 dB,300 kHz ～6 GHz	U=0.020 dB		
		Calibration Coefficients - Reflection Tracking		-1 dB～1 dB,300 kHz ～6 GHz	U=0.020 dB		
		Receiver Compression - Magnitude		-1 dB～1 dB ,300 kHz ～6 GHz	U=0.048 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Receiver Compression - Phase		-30 ° ～30 ° ,300 kHz ～6 GHz	U=0.033 °		
		Receiver Dynamic		-110 dBm～0 dBm,300 kHz ～6 GHz	U=0.006 dB		
		Trace Noise Magnitude		0 dB～0.02 dB ,300 kHz ～6 GHz	U=0.00016 dB		
		Trace Noise Phase		0.001 ° ～0.20 ° ,300 kHz ～6 GHz	U=0.00033 °		
		Source Harmonics		-60 dBc～-10 dBc ,300 kHz ～6 GHz	U=1.8 dB		
		Source Mixer Spurs		-80 dB～-50 dB ,300 kHz～6 GHz,Offset 4 kHz～ 100 kHz	U=1.6 dB		
		Phase Noise		-100 dBc/Hz～-50 dBc/Hz , Frequency 136 MHz,offset 100 Hz ～ 100 kHz	U=1.6 dB		
		Source & Receiver Harmonics		-60 dBc～-10 dBc ,300 kHz ～6 GHz	U=0.24 dB		
		Harmonic Measurement		-60 dBc～-10 dBc ,300 kHz ～6 GHz	U=0.10 dB		
13	*DC Power Supply	Transient Recovery Time	DC Power Supply Test Procedure CAL-CHA006-01	1 μs～6 ms,10 mV～300 V	U=0.053 μs		
		Transient Recovery Voltage		10 mV～300 V, 1 μs～6 ms	U_{rel}=0.02%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		CV PARD PK-PK		0.1 mV～300 mV,20 Hz～20 MHz	U_{rel}=3.7%		
		CV PARD RMS		0.01 mV～150 mV,20 Hz～20 MHz	U_{rel}=1.0%		
		CV Voltage		10 mV～1 V	U_{rel}=0.054%		
				1 V～10V	U_{rel}=0.0039%		
				10 V～100V	U_{rel}=0.0012%		
				100 V～1000 V	U_{rel}=0.0013%		
		CV Voltage Readback		10 mV～1 V	U_{rel}=0.054%		
				1 V～10V	U_{rel}=0.0015%		
				10 V～100V	U_{rel}=0.0013%		
				100 V～1000 V	U_{rel}=0.0013%		
		CV Load Effect		10 mV～1 V	U_{rel}=0.0094%		
				1 V～10 V	U_{rel}=0.0017%		
				10 V～100 V	U_{rel}=0.00011%		
				100 V～600 V	U_{rel}=0.0003%		
		CV Source Effect		10 mV～1 V	U_{rel}=0.0094%		
				1 V～10 V	U_{rel}=0.0013%		
				10 V～100 V	U_{rel}=0.00011%		
				100 V～600 V	U_{rel}=0.0003%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		CC Current		1 mA～500 mA	U_{rel}=0.011%		
				0.5 A～3 A	U_{rel}=0.0075%		
				3 A～5 A	U_{rel}=0.012%		
				5 A～15 A	U_{rel}=0.011%		
				15 A～100 A	U_{rel}=0.0069%		
				100 A～300 A	U_{rel}=0.012%		
		CC Current Readback		1 mA～500 mA	U_{rel}=0.013%		
				0.5 A～3 A	U_{rel}=0.008%		
				3 A～5 A	U_{rel}=0.012%		
				5 A～15 A	U_{rel}=0.011%		
				15 A～100 A	U_{rel}=0.0069%		
				100 A～300 A	U_{rel}=0.012%		
		Current Sink		0.02 A～12 A	U_{rel}=0.010%		
		CC Load Effect		0.5 A～7 A	U_{rel}=0.0004%		
				7 A～15 A	U_{rel}=0.00067%		
				15 A～100 A	U_{rel}=0.00033%		
				100 A～300 A	U_{rel}=0.003%		
		CC Source Effect		0.5 A～7 A	U_{rel}=0.0004%		
				7 A～15 A	U_{rel}=0.00067%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				15 A～100 A	U_{rel}=0.00033%		
				100 A～300 A	U_{rel}=0.003%		
		CC PARD RMS		0.01 mA～200 mA,20 Hz～20 MHz	U_{rel}=3.7%		
		Resistance		1 Ω	U_{rel}=0.22%		
14	*Oscilloscope	Delay Time	Oscilloscope Test Procedure CAL-CHA007-01	2.5 ns～800 ns	U=0.002 ns		
				800 ns～8 μs	U=0.012 ns		
				8 μs～1 ms	U=1.3 ns		
		Horizontal Delta Time		1.9 ns~2 ns	U=0.12 ps		
				2 ns～600 ns	U=0.002 ns		
				600 ns～800 ns	U=0.04 ns		
				800 ns～1 μs	U=0.1 ns		
				1 μs～2 μs	U=0.2 ns		
				2 μs～100 μs	U=0.02 μs		
		Timescale		25 ns～100 ns	U_{rel}=1.9x10^{-9}		
		DC Voltage		10 mV～14.9 mV	U_{rel}=0.013%		
				14.9 mV～143 mV	U_{rel}=0.0014%		
				143 mV～715 mV	U_{rel}=0.0015%		
				0.715 V～1.43 V	U_{rel}=0.0016%		
				1.43 V～7.15 V	U_{rel}=0.0010%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				7.15 V～35 V	U_{rel}=0.0013%		
				35 V～160 V	U_{rel}=0.0014%		
		DC Gain Accuracy		-2%～2%,6 mV～9 mV,1 mV/div	U=0.36%		
				-3%～3%,12 mV～18 mV,2 mV/div	U=0.33%		
				-3%～3%,30 mV～45 mV,4.98 mV/div～6.25 mV/div	U=0.12%		
				-3%～3%,60 mV～400 mV,10 mV/div	U=0.013%		
				-3%～3%,120 mV～400 mV,20 mV/div	U=0.016%		
				-3%～3%,300 mV～700 mV,49.8 mV/div～50 mV/div	U=0.025%		
				-3%～3%,600 mV～1200 mV,100 mV/div～150 mV/div	U=0.013%		
				-3%～3%,1.2 V～2.2 V,200 mV/div	U=0.02%		
				-3%～3%,1.2 V～4.5 V,400 mV/div～500 mV/div	U=0.025%		
				-3%～3%,1.2 V～9 V,1 V/div	U=0.016%		
				-2%～2%,12 V～16 V,2 V/div	U=0.02%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-2%～2%,30V,5 V/div	U=0.02%		
				-2%～2%,60V,10 V/div	U=0.8%		
		Bandwidth		-3 dB～3 dB,50 MHz～2300 MHz	U=0.23 dB		
				-3 dB～3 dB,2.3 GHz～11 GHz	U=0.30 dB		
				-3 dB～3 dB,11 GHz～18 GHz	U=0.60 dB		
				-3 dB～3 dB,18 GHz～26.5 GHz	U=0.69 dB		
				-3 dB～3 dB,26.5 GHz～33 GHz	U=0.70 dB		
				-3 dB～3 dB,33 GHz～50 GHz	U=0.81 dB		
		Threshold Voltage		±（10 mV～5 V）	U_{rel}=0.02%		
		DC Calibrator		0.25 V～5 V	U_{rel}=0.004%		
		Aux Trigger Out		Low Level ±（10 mV～0.7 V）	U_{rel}=1.7%		
				High Level 0.5 V～4 V	U_{rel}=2%		
				Peak to Peak 50 mV～1 V	U_{rel}=4.8%		
		Delta Time Measurement		0.1 ps～5.7 ps, 501 MHz	U=0.017 ps		
				5.7 ps～12 ps,20 MHz	U=0.048 ps		
				45 ps～940 ps,24 MHz～240 MHz	U=0.47 ps		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2 ns～940 ns,24 kHz～2.4 MHz	U=0.047 ns		
				2.0 μs～9.4 μs,2.4 kHz	U=0.047 μs		
		Impedance Test		50 Ω	U_{rel}=0.0036%		
				1 MΩ	U_{rel}=0.013%		
				250 kΩ	U_{rel}=0.2%		
15	*Digital Communications Analyzer Oscilloscope	Time-base	Digital Communications Analyzer Oscilloscope Test Procedure CAL-CHA007-02	40 ps～60 ps, Delay: 24 ns Frequency：19.98 GHz	U=0.37 ps		
				40 ps～60 ps, Delay: 27.95 ns Frequency：19.98 GHz	U=0.52 ps		
				40 ps～60 ps, Delay: 35.95 ns Frequency：19.98 GHz	U=0.55 ps		
				40 ps～60 ps, Delay: 59.95 ns Frequency：19.98 GHz	U=0.60 ps		
				90 ps～110 ps, Delay: 24 ns Frequency：10 GHz	U=1.1 ps		
				190 ps～210 ps, Delay: 24 ns Frequency：5 GHz	U=0.88 ps		
				490 ps～510 ps, Delay: 24 ns Frequency：2 GHz	U=1.3 ps		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				9980 ps～10020 ps, Delay: 24 ns Frequency：1 GHz	U=1.6 ps		
				1990 ps～2010 ps, Delay: 24 ns Frequency：500 MHz	U=1.2 ps		
				4987 ps～5013 ps, Delay: 24 ns Frequency：200 MHz	U=2.1 ps		
				980 ps～1020 ps, Delay: 24 ns Frequency：100 MHz	U=4.4 ps		
				19.97 ns～20.03 ns, Delay: 24 ns Frequency：50 MHz	U=4.2 ps		
				49.94 ns～50.06 ns, Delay: 24 ns Frequency：20 MHz	U=10 ps		
		Fine Time-base		24 ns	U=0.86 ps		
				28 ns	U=0.75 ps		
				40 ns	U=0.53 ps		
				64 ns	U=0.46 ps		
		Trigger Jitter Test		0.03 ps～ 3 ps, Delay24 ns,2 GHz	U=0.13 ps		
				0.03 ps～ 3 ps, Delay24 ns,2.5 GHz	U=0.14 ps		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.03 ps～ 3 ps, Delay24 ns,2.75 GHz	U=0.083 ps		
				0.03 ps～ 3 ps, Delay24 ns,3 GHz	U=0.15 ps		
				0.03 ps～ 3 ps, Delay24 ns,3.2 GHz	U=0.14 ps		
				0.03 ps～ 3 ps, Delay24 ns,5 GHz	U=0.11 ps		
				0.03 ps～ 3 ps, Delay24 ns,8 GHz	U=0.06 ps		
				0.03 ps～ 3 ps, Delay24 ns,10 GHz	U=0.058 ps		
				0.03 ps～ 3 ps, Delay24 ns,12 GHz	U=0.1 ps		
				0.03 ps～ 3 ps, Delay24 ns,13 GHz	U=0.059 ps		
				0.03 ps～ 3 ps, Delay24 ns,14 GHz	U=0.1 ps		
				0.03 ps～ 3 ps, Delay24 ns,15 GHz	U=0.059 ps		
				0.03 ps～ 3 ps, Delay41.1 ns,3 GHz	U=0.14 ps		
				0.03 ps～ 3 ps, Delay100 ns,12 GHz	U=0.058 ps		
				0.03 ps～ 15 ps, Delay200 ns,2.5 GHz	U=0.087 ps		
		Trigger Level		-0.4 V	U=0.0035 V		
				-0.32 V	U=0.0027 V		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-0.24 V	U=0.0031 V		
				-0.16 V	U=0.0018 V		
				-0.08 V	U=0.0025 V		
				0 V	U=0.0013 V		
				0.08 V	U=0.0018 V		
				0.16 V～0.24 V	U=0.0027 V		
				0.32 V	U=0.0032 V		
				0.4 V	U=0.0036V		
16	*Oscilloscope Module	Bandwidth	Oscilloscope Module Test Procedure CAL-CHA007-03	0 dB～3 dB,12.4 GHz	U=0.23 dB		
				0 dB～3 dB,18 GHz	U=0.25dB		
				0 dB～3 dB,19.98 GHz	U=0.29 dB		
				0 dB～3 dB,26.5 GHz	U=0.24 dB		
				0 dB～3 dB,50 GHz	U=0.44 dB		
		DC Voltage Accuracy		0.5 V	U=0.00045 V		
				0.25 V	U=0.00016 V		
				-0.25 V	U=0.00021 V		
				-0.5 V	U=0.00044 V		
		Input Reflection		-5%～5%,Input Port,30 ps POS/NEG Rise time	U=2.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-10%～10%,Trigger Port,100 ps～200 ps POS/NEG Rise time	U=2.3%		
		TDR System Test-Level		Low Level: 0 mV	U=0.055 mV		
				High Level: 200 mV	U=0.062 mV		
		TDR System Test-Flatness		-1%～1%,1 ns～ 100 ns	U=0.11%		
				-5%～5%, 45 ps～1 ns	U=0.18%		
		TDR System Test-Risetime		0.1 ps～45 ps	U=2.8 ps		
17	*RF/MW Power Meter	Instrumentation Measurement	RF/MW Power Meter Test Procedure CAL-CHA008-01	3.1623 μW	U=18 nW		
				10 μW	U=0.020 μW		
				31.6228 μW	U=18 nW		
				100 μW	U=18 nW		
				316.2278 μW	U=60 nW		
				1 mW	U=61 nW		
				3.1623 mW	U=0.58 μW		
				10 mW	U=0.58 μW		
				31.6228 mW	U=5.8 μW		
				100 mW	U=5.8 μW		
		Power Reference		1 mW,50 MHz	U_{rel}=0.34%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Output VSWR		1～1.5,50 MHz	U=0.028		
		Timebase		10 MHz	U=0.092 kHz		
		Power Measurement (With Sensor)		-30 dBm,50 MHz	U=0.18 dB		
				0 dBm,50 MHz	U=0.022 dB		
		Normal Instrumentation Measurement		1 μW～1 mW, 50 MHz	U_{rel}=0.38%		
18	*Peak-Average Power Meter	Time-base Frequency	Peak-Average Power Meter Test Procedure CAL-CHA008-02	10 MHz	$U_{rel}=1\times10^{-9}$		
		Power Reference Level		1 mW, 50 MHz	U_{rel}=0.23%		
		Absolute Power		63 μW～100 μW	U_{rel}=0.11%		
				100 μW～320 μW	U_{rel}=0.064%		
				320 μW～3.2 mW	U_{rel}=0.03%		
				3.2 mW～100 mW	U_{rel}=0.01%		
		Rise/Fall Time		0.8 ns～13 ns	U=0.25 ns		
		Power Reference Output VSWR		1～1.5,50 MHz	U=0.019		
		Instrumentation Linearity		-1%～1%，-10 dBm～-6 dBm	U=0.064%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-1%～1%, -6 dBm～8 dBm	U=0.042%		
				-1%～1%,8 dBm～20 dBm	U=0.028%		
19	*Handheld RF/MW Power Meter	Noise	Handheld RF/MW Power Meter Test Procedure CAL-CHA008-03	-70 dBm～-60 dBm,10 MHz～6 GHz	U=0.53 dB		
		SWR		1～1.5,10 MHz～1.5 GHz	U=0.007		
				1～1.5,1.5 GHz～6 GHz	U=0.014		
		Linearity		-40 dBm～-39 dBm,50 MHz	U=0.039 dB		
				-39 dBm～-14 dBm,50MHz	U=0.035 dB		
				-14 dBm～6 dBm,50MHz	U=0.028 dB		
		Frequency Response		-0.3 dB～0.3 dB, 0 dBm,10 MHz～6 GHz	U=0.068 dB		
		Power		0dBm,50MHz	U=0.016dB		
20	*Termination RF/MW Power Meter (Indicator)	Power Reference	Termination RF/MW Power Meter Test Procedure CAL-CHA008-04	1 mW，50 MHz、1GHz	U=0.006 mW		
		Instrument Plus Power Sensor Linearity		9.02 mW ～ 35.88 mW，50 MHz	U_{rel}=0.053%		
				35.88 mW ～ 45.17 mW，50MHz	U_{rel}=0.038%		
				45.17 mW ～ 56.89 mW，50MHz	U_{rel}=0.071%		
				56.89 mW ～ 71.58 mW，50MHz	U_{rel}=0.036%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				71.58 mW ～ 90.16 mW，50MHz	U_{rel}=0.045%		
21	*Graphics Power Meter (Indicator)	Instrumentation Measurement	Graphics Power Meter Test Procedure CAL-CHA008-05	6.991 dBm， Range -11.822 dBm ～ 6.996 dBm	U=0.001 dB		
				-11.839 dBm, Range -11.822 dBm ～ 6.996 dBm	U=0.005 dB		
				-11.843 dBm, Range -25.771 dBm ～ -11.822 dBm	U=0.002 dB		
				-25.628 dBm, Range -25.771 dBm ～ -11.822 dBm	U=0.005 dB		
				-25.868 dBm, Range -41.808 dBm ～ -25.864 dBm	U=0.003 dB		
				-41.907 dBm, Range -41.808 dBm ～ -25.864 dBm	U=0.005 dB		
				-41.915 dBm, Range -57.814 dBm ～ -41.806 dBm	U=0.005 dB		
				-57.956 dBm, Range -57.814 dBm ～ -41.806 dBm	U=0.008 dB		
				-57.952 dBm, Range -61.727 dBm ～ -57.805 dBm	U=0.009 dB		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-61.809 dBm, Range -61.727 dBm ～ -57.805 dBm	U=0.012 dB		
				-0.028 dB～0.028 dB, Range -11.822 dBm ～ 6.996 dBm	U=0.005 dB		
				-0.028 dB～0.028 dB, Range -11.822 dBm ～ 6.996 dBm to Range -25.771 dBm ～ -11.822 dBm	U=0.005 dB		
				-0.028 dB～0.028 dB, Range -25.771 dBm ～ -11.822 dBm	U=0.004 dB		
		Linearity		-0.028 dB～0.028 dB, Range -25.771 dBm ～ -11.822 dBm to Range -41.808 dBm ～ -25.864 dBm	U=0.004 dB		
				-0.028 dB～0.028 dB, Range -41.808 dBm ～ -25.864 dBm	U=0.004 dB		
				-0.028 dB～0.028 dB, Range -41.808 dBm ～ -25.864 dBm to Range -57.814 dBm ～ -41.806 dBm	U=0.005 dB		
				-0.028 dB～0.028 dB, Range -57.814 dBm ～ -41.806 dBm	U=0.005 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-0.075 dB～0.075 dB, Range -57.814 dBm ～ -41.806 dBm to Range -61.727 dBm ～ -57.805 dBm	U=0.010 dB		
				-0.23 dB～0.23 dB, Range -61.727 dBm ～ -57.805 dBm	U=0.007 dB		
		Calibration Frequency		50 MHz	U=98 Hz		
		Calibration Power Leve		1 mW, 50 MHz	U=0.0034 mW		
		Calibrator Output SWR		1～1.5,50 MHz	U=0.029		
22	*Thermistor Power Meter (Indicator)	Recorder Output Voltage	Thermistor Power Meter Test Procedure CAL-CHA008-06	1000 mV，1 mW Range	U=1.6 mV		
				948.8 mV，1 mW Range	U=0.82 mV		
		Meter Accuracy		1000 mV，0.01 mW	U=6.5 mV		
				948.8 mV，0.03 mW	U=7.2 mV		
				1000 mV，0.1 mW	U=3.8 mV		
				948.8 mV，0.3 mW	U=3.8 mV		
				1000 mV，1 mW	U=3.8 mV		
				948.8 mV，3 mW	U=3.4 mV		
				1000 mV，10 mW	U=3.7 mV		
		Meter Scale		-0.5 div～0.5 div, Range：0.01 mW	U=0.33 div		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-0.5 div～0.5 div, Range：0.03 mW	U=0.49 div		
				-0.5 div～0.5 div, Range：0.1 mW	U=0.19 div		
				-0.5 div～0.5 div, Range：0.3 mW	U=0.22 div		
				-0.5 div～0.5 div, Range：1 mW	U=0.19 div		
				-0.5 div～0.5 div, Range：3 mW	U=0.22 div		
				-0.5 div～0.5 div, Range：10 mW	U=0.19 div		
		Calibration Factor		989 mV，Cal factor：89%	U=2.3 mV		
				978 mV，Cal factor：90%	U=2.5 mV		
				967 mV，Cal factor：91%	U=2.6 mV		
				957 mV，Cal factor：92%	U=2.3 mV		
				946 mV，Cal factor：93%	U=2.3 mV		
				935 mV，Cal factor：94%	U=2.3 mV		
				926 mV，Cal factor：95%	U=2.3 mV		
				916 mV，Cal factor：96%	U=2.5 mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				907 mV，Cal factor：97%	U=6.6 mV		
				897 mV，Cal factor：98%	U=2.8 mV		
				889 mV，Calfactor：99%	U=3.0 mV		
				880 mV，Calfactor：100%	U=2.8 mV		
		Meter Linearity		-0.5 div～0.5 div, Range: 3 mW，Power Level： 1 mW	U=0.16 div		
				-0.5 div～0.5 div, Range: 3 mW，Power Level： 2 mW	U=0.18 div		
				-0.5 div～0.5 div, Range: 3 mW，Power Level： 3 mW	U=0.21 div		
		Zero Carryover		-5 mV～5 mV，Range：0.01 mW	U=0.80 mV		
				-5 mV～5 mV，Range：0.03 mW	U=0.64 mV		
				-5 mV～5 mV，Range：0.1 mW	U=0.24 mV		
				-5 mV～5 mV，Range：0.3 mW	U=0.13 mV		
				-5 mV～5 mV，Range：1 mW	U=0.13 mV		
				-5 mV～5 mV，Range：3 mW	U=0.06 mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-5 mV～5 mV，Range：10 mW	U=0.06 mV		
		Power Reference Level		1 mW, 50 MHz	U_{rel}=0.23%		
		Power Reference Output VSWR		1～1.5,50 MHz	U=0.019		
		Absolute Power		-30 dBm～-27 dBm	U=0.29 dB		
				-27 dBm～-23 dBm	U=0.10 dB		
				-23 dBm～-20 dBm	U=0.60 dB		
				-20 dBm～-14 dBm	U=0.12 dB		
				-14 dBm～-8 dBm	U=0.033 dB		
				-8 dBm～-3 dBm	U=0.014 dB		
				-3 dBm～10 dBm	U=0.00065 dB		
23	*Voltage/Power Meter Indicator	Power REF Level	Voltage/Power Meter Test Procedure CAL-CHA008-07	1 mW, 50 MHz	U=0.0057 mW		
		Analog Outputs		10 mV～3 V	U=0.001 V		
		DC Measuring		10 mV	U=0.74 μV		
				1 V	U=0.00050 V		
				-1 V	U=0.00050 V		
				10 V	U=0.00050 V		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				100 V	U=0.005 V		
				400 V	U=0.05 V		
		AC Measuring		1 mV, Frequency: 100 kHz	U=0.0051 mV		
				10 mV, Frequency: 100 kHz	U=0.010 mV		
				100 mV , Frequency: 100 kHz	U=0.063 mV		
				1 V , Frequency: 100 kHz	U=0.00052 V		
				10 V , Frequency: 100 kHz	U=0.0013 V		
24	*Power Sensor	Calibration Factor	Power Sensor Test Procedure CAL-CHA009-01	1 μW～100 mW, 9 kHz～5 MHz	U=0.47%		
				1 μW～100 mW, 5 MHz～8 GHz	U=0.54%		
				1 μW～100 mW, 8 GHz～11 GHz	U=0.57%		
				1 μW～100 mW, 11 GHz～13 GHz	U=0.63%		
				1 μW～100 mW, 13 GHz～16 GHz	U=0.79%		
				1 μW～100 mW, 16 GHz～17 GHz	U=0.84%		
				1 μW～100 mW, 17 GHz～18 GHz	U=1.0%		
				1 μW～100 mW, 18 GHz～26.5 GHz	U=1.6%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 μW～100 mW, 26.5 GHz～33 GHz	U=1.9%		
				1 μW～100 mW, 33 GHz～35 GHz	U=2.2%		
				1 μW～100 mW, 35 GHz～38 GHz	U=2.3%		
				1 μW～100 mW, 38 GHz～39 GHz	U=2.5%		
				1 μW～100 mW, 39 GHz～41 GHz	U=2.6%		
				1 μW～100 mW, 41 GHz～44 GHz	U=2.7%		
				1 μW～100 mW, 44 GHz～50 GHz	U=2.9%		
		VSWR		1～2, Frequency：9 kHz～ 5 MHz	U=0.0061		
				1～2, Frequency：5 MHz～100 MHz	U=0.0054		
				1～2, Frequency：100 MHz ～2 GHz	U=0.0035		
				1～2, Frequency：2 GHz～ 10 GHz	U=0.0053		
				1～2, Frequency：10 GHz ～ 20 GHz	U=0.0074		
				1～2, Frequency：20 GHz ～ 33 GHz	U=0.0098		
				1～2, Frequency：33 GHz ～ 40 GHz	U=0.013		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1～2, Frequency：40 GHz ～ 50 GHz	U=0.022		
		Linearity		-3%～3%, 24 dBm～27 dBm, Frequency：50 MHz	U=0.55%		
				-3%～3%,11 dBm～24 dBm, Frequency：50 MHz	U=0.13%		
				-3%～3%,8 dBm ~ 11 dBm, Frequency：50 MHz	U=0.09%		
				-3%～3%,5 dBm～8 dBm, Frequency：50 MHz	U=0.07%		
				-3%～3%,-1 dBm～5 dBm, Frequency：50 MHz	U=0.05%		
				-3%～3%,-10 dBm～-1 dBm, Frequency：50 MHz	U=0.09%		
				-3%～3%,-21 dBm～-10 dBm, Frequency：50 MHz	U=0.15%		
				-3%～3%,-30 dBm～-21 dBm, Frequency：50 MHz	U=0.18%		
				-3%～3%,-36 dBm～-30dBm， Frequency：50 MHz	U=0.40%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-3%～3%,-37 dBm～-36 dBm, Frequency：50 MHz	U=0.48%		
		Internal Calibration Accuracy		1 mW, 50 MHz	U_{rel}=0.24%		
		Sensor Rise and Fall Time		1 ns~13 ns,50 MHz～40 GHz	U=0.89 ns		
		Power Accuracy		-20 dBm, 50 MHz	U=0.033 dB		
				-20 dBm, 100 MHz	U=0.036 dB		
				-20 dBm, 20 MHz,30 MHz,250 MHz	U=0.037 dB		
				-20 dBm,15 MHz, 500 MHz	U=0.038 dB		
				-20 dBm, 750 MHz,1 GHz,1.25 GHz,1.5 GHz,1.75 GHz,2 GHz,2.25 GHz	U=0.039 dB		
				-20 dBm,2.5 GHz,2.75 GHz,3 GHz,3.25 GHz,3.5 GHz,3.75 GHz	U=0.040 dB		
				-20 dBm,4 GHz,4.25 GHz	U=0.041 dB		
				-20 dBm,10 MHz,4.5 GHz	U=0.042 dB		
				-20 dBm, 4.75 MHz	U=0.043 dB		
				-20 dBm,5 GHz,5.25 GHz,5.5 GHz,5.75 GHz,6 GHz,7.75 GHz,8 GHz	U=0.044 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm,6.25 GHz,6.5 GHz,6.75 GHz,7 GHz,7.25 GHz,7.5 GHz,8.25 GHz,8.5 GHz	U=0.045 dB		
				-20 dBm,8.75 GHz,9 GHz,9.5 GHz,9.75 GHz,13.75 GHz,14.25 GHz,14.75 GHz	U=0.046 dB		
				-20 dBm,9.25 GHz,10 GHz,10.25 GHz,10.5 GHz,10.75 GHz,11 GHz,11.25 GHz,11.5 GHz,11.75 GHz,12 GHz,13 GHz,14 GHz,14.5 GHz,15 GHz,15.25 GHz	U=0.047 dB		
				-20 dBm,12.25 GHz,12.5 GHz,12.75 GHz,13.25 GHz,15.5 GHz,15.75 GHz	U=0.048 dB		
				-20 dBm, 16 GHz,16.25 GHz	U=0.050 dB		
				-20 dBm, 16.5 GHz,16.75 GHz,17 GHz	U=0.052 dB		
				-20 dBm, 17.25 GHz	U=0.053 dB		
				-20 dBm, 17.5 GHz	U=0.054 dB		
				-20 dBm, 17.75 GHz	U=0.055 dB		
				-20 dBm, 18 GHz	U=0.056 dB		
				0 dBm, 50 MHz	U=0.032 dB		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dBm, 20 MHz,30 MHz,100 MHz	U=0.036 dB		
				0 dBm, 15 MHz	U=0.037 dB		
				0 dBm, 250 MHz,500 MHz	U=0.038 dB		
				0 dBm, 750 MHz,1 GHz,1.25 GHz,1.75 GHz,2 GHz,2.25 GHz	U=0.039 dB		
				0 dBm,1.5 GHz,2.5 GHz,2.75 GHz,3 GHz,3.25 GHz.3.5 GHz,3.75 GHz	U=0.040 dB		
				0 dBm, 4 GHz,4.25 GHz	U=0.041 dB		
				0 dBm, 10 MHz,4.5 GHz	U=0.042 dB		
				0 dBm,4.75 GHz	U=0.043 dB		
				0 dBm,5 GHz,5.5 GHz,5.75 GHz,6 GHz,7.75 GHz.8 GHz	U=0.044 dB		
				0 dBm,5.25 GHz,6.25 GHz,6.5 GHz,6.75 GHz,7 GHz,7.25 GHz,7.5 GHz,8.25 GHz,8.5 GHz	U=0.045 dB		
				0 dBm,8.75 GHz,9 GHz,9.5 GHz,9.75 GHz	U=0.046 dB		
				0 dBm, 9.25 GHz,10 GHz	U=0.047 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dBm,10.25 GHz,10.5 GHz,10.75 GHz,11 GHz,11.25 GHz,11.5 GHz,11.75 GHz,12 GHz,13 GHz,13.25 GHz,14 GHz,14.25 GHz,14.5 GHz,14.75 GHz,15 GHz	U=0.048 dB		
				0 dBm,12.25 GHz,12.5 GHz,12.75 GHz,13.5 GHz,15.25 GHz	U=0.049 dB		
				0 dBm, 15.5 GHz,15.75 GHz	U=0.050 dB		
				0 dBm, 16 GHz,16.25 GHz	U=0.051 dB		
				0 dBm, 16.75 GHz	U=0.053 dB		
				0 dBm, 16.5 GHz,17 GHz,17.25 GHz	U=0.054 dB		
				0 dBm, 17.5 GHz	U=0.055 dB		
				0 dBm, 17.75 GHz	U=0.056 dB		
				0 dBm, 18 GHz	U=0.057 dB		
25	*Attenuator	Attenuation	Attenuator Test Procedure CAL-CHA010-01	0 dB,1 kHz	U=0.002 dB		
				0 dB,300 kHz～50 MHz	U=0.041 dB		
				0 dB,50 MHz～500 MHz	U=0.018 dB		
				0 dB,500 MHz～1 GHz	U=0.021 dB		
				0 dB,1 GHz～2 GHz	U=0.020 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB,2 GHz～12 GHz	U=0.035dB		
				0 dB,12 GHz～12.4 GHz	U=0.040 dB		
				0 dB,12.4 GHz～16 GHz	U=0.041 dB		
				0 dB,16 GHz～18 GHz	U=0.042 dB		
				0 dB,18 GHz～20 GHz	U=0.045 dB		
				0 dB,20 GHz～26.5 GHz	U=0.076 dB		
				0 dB,26.5 GHz～40 GHz	U=0.084 dB		
				0 dB,40 GHz～43 GHz	U=0.17 dB		
				0 dB,43 GHz～50 GHz	U=0.16 dB		
				1 dB～12 dB,1 kHz	U=0.002 dB		
				1 dB～12 dB,300 kHz～50 MHz	U=0.066 dB		
				1 dB～12 dB,50 MHz～100 MHz	U=0.026 dB		
				1 dB～12 dB,100 MHz～500 MHz	U=0.020 dB		
				1 dB～12 dB,500 MHz～1 GHz	U=0.022 dB		
				1 dB～12 dB,1 GHz～2 GHz	U=0.023 dB		
				1 dB～12 dB,2 GHz～8 GHz	U=0.034 dB		
				1 dB～12 dB,8 GHz～12 GHz	U=0.040 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 dB～12 dB,12 GHz～12.4 GHz	U=0.060 dB		
				1 dB～12 dB,12.4 GHz～16 GHz	U=0.044 dB		
				1 dB～12 dB,16 GHz～20 GHz	U=0.045 dB		
				1 dB～12 dB,20 GHz～26.5 GHz	U=0.085 dB		
				1 dB～12 dB,26.5 GHz～40 GHz	U=0.094 dB		
				1 dB～12 dB,40 GHz～50 GHz	U=0.13 dB		
				13 dB～20 dB,1 kHz	U=0.003 dB		
				13 dB～20 dB,300 kHz～50 MHz	U=0.090 dB		
				13 dB～20 dB,50 MHz 100 MHz	U=0.035 dB		
				13 dB～20 dB,100 MHz～500 MHz	U=0.025 dB		
				13 dB～20 dB,500 MHz～2 GHz	U=0.029 dB		
				13 dB～20 dB,2 GHz～8 GHz	U=0.041 dB		
				13 dB～20 dB,8 GHz～12 GHz	U=0.047 dB		
				13 dB～20 dB,12 GHz～12.4 GHz	U=0.065 dB		
				13 dB～20 dB,12.4 GHz～18 GHz	U=0.051 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				13 dB～20 dB,18 GHz～20 GHz	U=0.053 dB		
				13 dB～20 dB,20 GHz～26.5 GHz	U=0.092 dB		
				13 dB～20 dB,26.5 GHz～40 GHz	U=0.12 dB		
				13 dB～20 dB,40 GHz～50 GHz	U=0.16 dB		
				21 dB～30 dB,1 kHz	U=0.003 dB		
				21 dB～30 dB,300 kHz～50 MHz	U=0.094 dB		
				21 dB～30 dB,50 MHz～100 MHz	U=0.045 dB		
				21 dB～30 dB,100 MHz～2 GHz	U=0.036 dB		
				21 dB～30 dB,2 GHz～8 GHz	U=0.062 dB		
				21 dB～30 dB,8 GHz～12 GHz	U=0.060 dB		
				21 dB～30 dB,12 GHz～12.4 GHz	U=0.067 dB		
				21 dB～30 dB,12.4 GHz～16 GHz	U=0.068 dB		
				21 dB～30 dB,16 GHz～18 GHz	U=0.071 dB		
				21 dB～30 dB,18 GHz～20 GHz	U=0.072 dB		
				21 dB～30 dB,20 GHz～26.5 GHz	U=0.12 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				21 dB～30 dB,26.5 GHz～40 GHz	U=0.13 dB		
				21 dB～30 dB,40 GHz～50 GHz	U=0.18 dB		
				31 dB～40 dB,1 kHz	U=0.008 dB		
				31 dB～40 dB,300 kHz～50 MHz	U=0.11 dB		
				31 dB～40 dB,50 MHz～100 MHz	U=0.045 dB		
				31 dB～40 dB,100 MHz～500 MHz	U=0.037 dB		
				31 dB～40 dB,500 MHz～1 GHz	U=0.040 dB		
				31 dB～40 dB,1 GHz～2 GHz	U=0.041 dB		
				31 dB～40 dB,2 GHz～8 GHz	U=0.063 dB		
				31 dB～40 dB,8 GHz～12 GHz	U=0.062 dB		
				31 dB～40 dB,12 GHz～12.4 GHz	U=0.069 dB		
				31 dB～40 dB,12.4 GHz～16 GHz	U=0.071 dB		
				31 dB～40 dB,16 GHz～18 GHz	U=0.070 dB		
				31 dB～40 dB,18 GHz～20 GHz	U=0.076 dB		
				31 dB～40 dB,20 GHz～26.5 GHz	U=0.12 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				31 dB～40 dB,26.5 GHz～40 GHz	U=0.17 dB		
				31 dB～40 dB,40 GHz～43 GHz	U=0.32 dB		
				31 dB～40 dB,43 GHz～50 GHz	U=0.31 dB		
				41 dB～50 dB,1 kHz	U=0.009 dB		
				41 dB～50 dB,300 kHz～50 MHz	U=0.10 dB		
				41 dB～50 dB,50 MHz～100 MHz	U=0.040 dB		
				41 dB～50 dB,100 MHz～500 MHz	U=0.030 dB		
				41 dB～50 dB,500 MHz～2 GHz	U=0.053 dB		
				41 dB～50 dB,2 GHz～8 GHz	U=0.087 dB		
				41 dB～50 dB,8 GHz～12 GHz	U=0.85 dB		
				41 dB～50 dB,12 GHz～12.4 GHz	U=0.095 dB		
				41 dB～50 dB,12.4 GHz～16 GHz	U=0.097 dB		
				41 dB～50 dB,16 GHz～18 GHz	U=0.098 dB		
				41 dB～50 dB,18 GHz～20 GHz	U=0.11 dB		
				41 dB～50 dB,20 GHz～26.5 GHz	U=0.17 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				41 dB～50 dB,26.5 GHz～40 GHz	U=0.24 dB		
				41 dB～50 dB,40 GHz～43 GHz	U=0.42 dB		
				41 dB～50 dB,43 GHz～50 GHz	U=0.40 dB		
				51 dB～60 dB,1 kHz	U=0.015 dB		
				51 dB～60 dB,300 kHz～50 MHz	U=0.12 dB		
				51 dB～60 dB,50 MHz～100 MHz	U=0.046 dB		
				51 dB～60 dB,100 MHz～500 MHz	U=0.032 dB		
				51 dB～60 dB,500 MHz～2 GHz	U=0.054 dB		
				51 dB～60 dB,2 GHz～8 GHz	U=0.088 dB		
				51 dB～60 dB,8 GHz～12 GHz	U=0.086 dB		
				51 dB～60 dB,12 GHz～12.4 GHz	U=0.097 dB		
				51 dB～60 dB,12.4 GHz～18 GHz	U=0.098 dB		
				51 dB～60 dB,18 GHz～20 GHz	U=0.11 dB		
				51 dB～60 dB,20 GHz～26.5 GHz	U=0.17 dB		
				51 dB～60 dB,26.5 GHz～40 GHz	U=0.24 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				51 dB～60 dB,40 GHz～43 GHz	U=0.57 dB		
				51 dB～60 dB,43 GHz～50 GHz	U=0.44 dB		
				61 dB～70 dB,300 kHz～50 MHz	U=0.15 dB		
				61 dB～70 dB,50 MHz～100 MHz	U=0.062 dB		
				61 dB～70 dB,100 MHz～500 MHz	U=0.050 dB		
				61 dB～70 dB,500 MHz～2 GHz	U=0.072 dB		
				61 dB～70 dB,2 GHz～12 GHz	U=0.12 dB		
				61 dB～70 dB,12 GHz～12.4 GHz	U=0.13 dB		
				61 dB～70 dB,12.4 GHz～18 GHz	U=0.14 dB		
				61 dB～70 dB,18 GHz～20 GHz	U=0.15 dB		
				61 dB～70 dB,20 GHz～26.5 GHz	U=0.24 dB		
				61 dB～70 dB,26.5 GHz～40 GHz	U=0.30 dB		
				61 dB～70 dB,40 GHz～43 GHz	U=0.44 dB		
				61 dB～70 dB,43 GHz～50 GHz	U=0.43 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				71 dB～80 dB,300 kHz～50 MHz	U=0.15 dB		
				71 dB～80 dB,50 MHz～100 MHz	U=0.065 dB		
				71 dB～80 dB,100 MHz～500 MHz	U=0.051 dB		
				71 dB～80 dB,500 MHz～2 GHz	U=0.081 dB		
				71 dB～80 dB,2 GHz～12 GHz	U=0.12 dB		
				71 dB～80 dB,12 GHz～18 GHz	U=0.14 dB		
				71 dB～80 dB,18 GHz～20 GHz	U=0.15 dB		
				71 dB～80 dB,20 GHz～26.5 GHz	U=0.24 dB		
				71 dB～80 dB,26.5 GHz～40 GHz	U=0.34 dB		
				71 dB～80 dB,40 GHz～43 GHz	U=0.58 dB		
				71 dB～80 dB,43 GHz～50 GHz	U=0.57 dB		
				81 dB～90 dB,300 kHz～50 MHz	U=0.18 dB		
				81 dB～90 dB,50 MHz～100 MHz	U=0.068 dB		
				81 dB～90 dB,100 MHz～500 MHz	U=0.069 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				81 dB～90 dB,500 MHz～1 GHz	U=0.096 dB		
				81 dB～90 dB,1 GHz～2 GHz	U=0.11 dB		
				81 dB～90 dB,2 GHz～12 GHz	U=0.16 dB		
				81 dB～90 dB,12 GHz～12.4 GHz	U=0.17 dB		
				81 dB～90 dB,12.4 GHz～18 GHz	U=0.18 dB		
				81 dB～90 dB,18 GHz～20 GHz	U=0.19 dB		
				81 dB～90 dB,20 GHz～26.5 GHz	U=0.31 dB		
				81 dB～90 dB,26.5 GHz～40 GHz	U=0.45 dB		
				81 dB～90 dB,40 GHz～43 GHz	U=0.68 dB		
				81 dB～90 dB,43 GHz～50 GHz	U=0.60 dB		
				91 dB～100 dB,300 kHz～50 MHz	U=0.18 dB		
				91 dB～100 dB,50 MHz～100 MHz	U=0.067 dB		
				91 dB～100 dB,100 MHz～500 MHz	U=0.068 dB		
				91 dB～100 dB,500 MHz～1 GHz	U=0.097 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				91 dB～100 dB,1 GHz～2 GHz	U=0.12 dB		
				91 dB～100 dB,2 GHz～8 GHz	U=0.18 dB		
				91 dB～100 dB,8 GHz～12 GHz	U=0.23 dB		
				91 dB～100 dB,12 GHz～12.4 GHz	U=0.30 dB		
				91 dB～100 dB,12.4 GHz～16 GHz	U=0.24 dB		
				91 dB～100 dB,16 GHz～20 GHz	U=0.27 dB		
				91 dB～100 dB,20 GHz～26.5 GHz	U=0.45 dB		
				91 dB～100 dB,26.5 GHz～40 GHz	U=0.47 dB		
				91 dB～100 dB,40 GHz～43 GHz	U=0.75 dB		
				91 dB～100 dB,43 GHz～50 GHz	U=0.74 dB		
				101 dB,300kHz～50 MHz	U=0.19 dB		
				101 dB,50 MHz～100 MHz	U=0.069 dB		
				101 dB,100 MHz～500 MHz	U=0.071 dB		
				101 dB,500 MHz～1 GHz	U=0.097 dB		
				101 dB,1 GHz～2 GHz	U=0.14 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				101 dB,2 GHz～8 GHz	U=0.20 dB		
				101 dB,8 GHz～12 GHz	U=0.23 dB		
				101 dB,12 GHz～12.4 GHz	U=0.38 dB		
				101 dB,12.4 GHz～16 GHz	U=0.24 dB		
				101 dB,16 GHz～20 GHz	U=0.27 dB		
				101 dB,20 GHz～26.5 GHz	U=0.45 dB		
				101 dB,26.5 GHz～40 GHz	U=0.47 dB		
				101 dB,40 GHz～43 GHz	U=0.76 dB		
				101 dB,43 GHz～50 GHz	U=0.74 dB		
				102 dB～110 dB,300 kHz～50 MHz	U=0.19 dB		
				102 dB～110 dB,50 MHz～100 MHz	U=0.069 dB		
				102 dB～110 dB,100 MHz～500 MHz	U=0.071 dB		
				102 dB～110 dB,500 MHz～1 GHz	U=0.097 dB		
				102 dB～110 dB,1 GHz～2 GHz	U=0.14 dB		
				102 dB～110 dB,2 GHz～8 GHz	U=0.20 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				102 dB～110 dB,8 GHz～12 GHz	U=0.23 dB		
				102 dB～110 dB,12 GHz～12.4 GHz	U=0.38 dB		
				102 dB～110 dB,12.4 GHz～16 GHz	U=0.24 dB		
				102 dB～110 dB,16 GHz～18 GHz	U=0.27 dB		
				111 dB～120 dB,300 kHz～50 MHz	U=0.22 dB		
				111 dB～120 dB,50 MHz～100 MHz	U=0.070 dB		
				111 dB～120 dB,100 MHz～500 MHz	U=0.072 dB		
				111 dB～120 dB,500 MHz～1 GHz	U=0.098 dB		
				111 dB～120 dB,1 GHz～2 GHz	U=0.19 dB		
				111 dB～120 dB,2 GHz～8 GHz	U=0.27 dB		
				111 dB～120 dB,8 GHz～12 GHz	U=0.33 dB		
				111 dB～120 dB,12 GHz～16 GHz	U=0.41 dB		
				111 dB～120 dB,16 GHz～18 GHz	U=0.42 dB		
				30 dB ,50 MHz	U=0.011 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		VSWR		1～1.5,300 kHz～2 GHz,50 Ω	U=0.001		
				1～1.5,2 GHz～40 GHz,50 Ω	U=0.009		
				1～1.5,40 GHz～50 GHz,50 Ω	U=0.022		
				1.5～2.33,300 kHz～10 MHz,50 Ω	U=0.010		
				1.5～2.33,10 MHz～50 MHz,50 Ω	U=0.008		
				1.5～2.33,50 MHz～2 GHz,50 Ω	U=0.009		
				1.5～2.33,2 GHz～8 GHz,50 Ω	U=0.013 dB		
				1.5～2.33,8 GHz～40 GHz,50 Ω	U=0.014 dB		
				1.5～2.33,40 GHz～50 GHz,50 Ω	U=0.034		
				2.33～4,300 kHz～10 MHz,50 Ω	U=0.028		
				2.33～4,10 MHz～50 MHz,50 Ω	U=0.015		
				2.33～4,50 MHz～2 GHz,50 Ω	U=0.017		
				2.33～4,2 GHz～8 GHz,50 Ω	U=0.028		
				2.33～4,8 GHz～20 GHz,50 Ω	U=0.030		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2.33～4,20 GHz～40 GHz,50 Ω	U=0.033		
				2.33～4,40 GHz～50 GHz,50 Ω	U=0.063		
				4～10,300 kHz～10 MHz,50 Ω	U=0.081		
				4～10,10 MHz～50 MHz,50 Ω	U=0.044		
				4～10,50 MHz～2 GHz,50 Ω	U=0.043		
				4～10,2 GHz～20 GHz,50 Ω	U=0.082		
				4～10,20 GHz～40 GHz,50 Ω	U=0.11		
				4～10,40 GHz～50 GHz,50 Ω	U=0.16		
				1～1.5,300 kHz～1.3 GHz,75 Ω	U=0.005		
				1～1.5,1.3 GHz～3 GHz,75 Ω	U=0.009		
				1.5～10,300 kHz～1.3 GHz,75 Ω	U=0.008		
				1.5～10,1.3 GHz～3 GHz,75 Ω	U=0.014		
26	*Frequency Counter	Power Measurement	Frequency Counter Test Procedure CAL-CHA011-01	-20 dBm～0 dBm,50 MHz～500 MHz	U=0.28 dB		
				-20 dBm～0 dBm,500 MHz～1 GHz	U=0.24 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm～0 dBm,1 GHz～20 GHz	U=0.28 dB		
				-20 dBm～0 dBm,20 GHz～26.5 GHz	U=0.38 dB		
				-20 dBm～0 dBm,26.5 GHz～40 GHz	U=0.43 dB		
				-17 dBm～0 dBm,40 GHz～46 GHz	U=0.62 dB		
		Frequency		0.1 Hz～1 Hz	$U=6.7\times10^{-11}$ Hz		
				1 Hz ～ 10 Hz	$U=8.8\times10^{-10}$ Hz		
				10 Hz ～ 100 Hz	$U=4.7\times10^{-9}$ Hz		
				100 Hz ～ 12.4 GHz	$U_{rel}=2.4\times10^{-11}$		
		Signal Period		4 ns～1 μs,-1 V～-0.1V, 0.1V～1 V	U=0.0026 ns		
		Pulse Width		5 ns,-1 V～-0.1V,0.1V～1 V	U=0.0028 ns		
		Peak Volts		-1 V～-0.1V,0.1V～1 V,2 MHz	U=0.02 V		
		Time Interval		49.9 ns～150 ns,1 V	U=0.0037 ns		
		Trigger Level		0.01 V～0.08 V,1 MHz	U=0.0045 V		
		Termination Resistor		50 Ω	U_{rel}=0.004%		
				1 MΩ	U_{rel}=0.001%		
		Time-base Output Frequency		10 MHz	$U_{rel}=1\times10^{-11}$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Rise Fall Time		1 ns～30 ns , 1 kHz ～ 20MHz	U=0.92 ns		
27	*Digital LCR Meter	Capacitance	Digital LCR Meter Test Procedure CAL-CHA012-01	1 pF,1 kHz～1 MHz	U_{rel}=0.012%		
				1 pF,1 MHz～13 MHz	U_{rel}=0.050%		
				10 pF,1 kHz～2 MHz	U_{rel}=0.0046%		
				10 pF,2 MHz～13 MHz	U_{rel}=0.011%		
				100 pF,1 kHz～300 kHz	U_{rel}=0.0086%		
				100 pF,300 kHz～2 MHz	U_{rel}=0.007%		
				100 pF,2 MHz～13 MHz	U_{rel}=0.016%		
				1000 pF,20 Hz～100 kHz	U_{rel}=0.0081%		
				1000 pF,100 kHz～2 MHz	U_{rel}=0.010%		
				1000 pF,2 MHz～13 MHz	U_{rel}=0.032%		
				10 nF,100 Hz～120 Hz	U_{rel}=0.0056%		
				10 nF,1 kHz	U_{rel}=0.0044%		
				10 nF,1 kHz～100 kHz	U_{rel}=0.0055%		
				100 nF,120 Hz～100 kHz	U_{rel}=0.0042%		
				1 μF,100 Hz～120 Hz	U_{rel}=0.0069%		
				1 μF,1 kHz	U_{rel}=0.0044%		
				1 μF,10 kHz	U_{rel}=0.0064%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 μF,100 kHz	U_{rel}=0.0096%		
				10 μF,20 Hz～100 Hz	U_{rel}=0.0082%		
				10 μF,100 Hz～1 kHz	U_{rel}=0.0052%		
				10 μF,10 kHz	U_{rel}=0.017%		
				10 μF,100 kHz	U_{rel}=0.070%		
		Dissipation		0.0～0.2,1 pF～1000 pF, 20 Hz～1 MHz	U=0.00002		
				0.0～0.024,1 pF～1000 pF, 1 MHz～3 MHz	U=0.000025		
				0.0～0.024,1 pF～1000 pF, 3 MHz～13 MHz	U=0.000075		
				0.0～0.024,0.01 μF～1 μF, 120 Hz～100 kHz	U=0.00002		
				0.0～0.024,10 μF,120 Hz～1 kHz	U=0.000065		
				0.0～0.024,10 μF,10 kHz	U=0.00029		
				0.0～0.024,10 μF,100 kHz	U=0.00072		
		Signal Level		0.005 V～0.012 V,20 Hz～300 kHz	U_{rel}=0.065%		
				0.005 V～0.012 V,300 kHz～1 MHz	U_{rel}=1.4%		
				0.012 V～1 V,20 Hz～300 kHz	U_{rel}=0.012%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.012 V～1 V,300 kHz～1 MHz	U_{rel}=0.68%		
				1 V～20 V,20 Hz～300 kHz	U_{rel}=0.054%		
				1 V～20 V,300 kHz～1 MHz	U_{rel}=1.2%		
				0.1 V～10 V,1 MHz～30 MHz	U_{rel}=1.0%		
		Signal Level Monitor		0.005 V～0.012 V,20 Hz～300 kHz	U_{rel}=0.064%		
				0.005 V～0.012 V,300 kHz～1 MHz	U_{rel}=1.4%		
				0.012 V～1 V,20 Hz～300 kHz	U_{rel}=0.011%		
				0.012 V～1 V,300 kHz～1 MHz	U_{rel}=0.68%		
				1 V～20 V,20 Hz～300 kHz	U_{rel}=0.034%		
				1 V～20 V,300 kHz～1 MHz	U_{rel}=1.05%		
				0.1 V～10 V,1 MHz～30 MHz	U_{rel}=1.0%		
		DC Bias Level		0.1 V～10 V	U_{rel}=0.0011%		
				10 V～40 V	U_{rel}=0.0013%		
		DC Bias Current		0.02 mA～2 mA	U_{rel}=0.0062%		
				2 mA～20 mA	U_{rel}=0.0089%		
				20 mA～100 mA	U_{rel}=0.019%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Impedance		10 mΩ,1 kHz	U_{rel}=0.8%		
				100 mΩ,DC～1 kHz	U_{rel}=0.028%		
				1 Ω,120 Hz～1 kHz	U_{rel}=0.0087%		
				10 Ω,120 Hz～1 kHz	U_{rel}=0.0045%		
				100 Ω,20 Hz～1 MHz	U_{rel}=0.03%		
				1 kΩ,20 Hz～1 MHz	U_{rel}=0.017%		
				100 kΩ,DC～100 kHz	U_{rel}=0.012%		
		Frequency		20 Hz～30 MHz	U_{rel}=3.8×10^{-9}		
28	*RF Impedance Analyzer	Frequency	RF Impedance Analyer Test Procedure CAL-CHA013-01	1 MHz～3 GHz	U_{rel}=1.3×10^{-9}		
		Amplitude		-40 dBm～-19 dBm,1 MHz	U=0.18 dB		
				-15 dBm,1 MHz	U=0.11 dB		
				-10 dBm,1 MHz	U=0.18 dB		
				-7.9 dBm～-6 dBm,1 MHz	U=0.31 dB		
				-5 dBm,1 MHz	U=0.18 dB		
				-4 dBm～-1 dBm,1 MHz	U=0.31 dB		
				0 dBm～1 dBm,1 MHz	U=0.16 dB		
				-40 dBm～-35 dBm,10 MHz～300 MHz	U=0.27 dB		
				-30 dBm～1 dBm,10 MHz～300 MHz	U=0.19 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-40 dBm～1 dBm,500 MHz	U=0.15 dB		
				-40 dBm～7 dBm,1 GHz	U=0.16 dB		
				-40 dBm～-35 dBm,1.5 GHz～1.8 GHz	U=0.29 dB		
				-30 dBm～1 dBm,1.5 GHz～1.8 GHz	U=0.19 dB		
				-40 dBm,2 GHz	U=0.34 dB		
				-35 dBm～1 dBm,2 GHz	U=0.24 dB		
				-40 dBm～-35 dBm,2.2 GHz～3 GHz	U=0.33 dB		
				-30 dBm～1 dBm,2.2 GHz～3 GHz	U=0.25 dB		
		Impedance		0 Ω,-40 dBm,1 MHz	U=0.014 Ω		
				0 Ω,-33 dBm～13 dBm,1 MHz	U=0.0025 Ω		
				0 Ω,-40 dBm,10 MHz	U=0.0099 Ω		
				0 Ω,-33 dBm～13 dBm,10 MHz	U=0.0035 Ω		
				0 Ω,-40 dBm～13 dBm,100 MHz	U=0.014 Ω		
				0 Ω,-40 dBm～13 dBm,200 MHz	U=0.025 Ω		
				0 Ω,-40 dBm～13 dBm,300 MHz～1 GHz	U=0.03 Ω		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 Ω,-40 dBm～13 dBm,1.3～1.8 GHz	U=0.1 Ω		
				0 Ω,-40 dBm～13 dBm,2～3 GHz	U=0.2 Ω		
				50 Ω,-40 dBm～13 dBm,1 MHz～100 MHz	U=0.05 Ω		
				50 Ω,-40 dBm～13 dBm,200 MHz～300 MHz	U=0.1 Ω		
				50 Ω,-40 dBm～13 dBm,500 MHz	U=0.15 Ω		
				50 Ω,-40 dBm～13 dBm,600 MHz～1 GHz	U=0.2 Ω		
				50 Ω,-40 dBm～-20 dBm,1.3 GHz～1.8 GHz	U=0.3 Ω		
				50 Ω,-15 dBm～5 dBm,1.3 GHz～1.8 GHz	U=0.2 Ω		
				50 Ω,-40 dBm～1 dBm,2 GHz～3 GHz	U=0.41 Ω		
				0 Ω～ 22 kΩ,-40 dBm,1 MHz	U=2.8 kΩ		
				0 kΩ～ 22 kΩ,-33 dBm～13 dBm,1 MHz	U=35 Ω		
				0 kΩ～ 22 kΩ,-40 dBm,10 MHz	U=24 Ω		
				0 kΩ～ 22 kΩ,-33 dBm～13 dBm,10 MHz	U=3.5 Ω		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,100 MHz	U=0.34 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,200 MHz	U=0.2 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,300 MHz	U=0.12 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,500 MHz	U=0.068 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,600 MHz	U=0.049 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,800 MHz	U=0.068 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,1 GHz	U=0.22 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,1.6 GHz	U=0.6 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,1.8 GHz	U=0.23 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,2.0 GHz	U=0.08 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,2.2 GHz	U=0.18 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,2.4 GHz	U=0.55 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,2.6 GHz	U=2.2 Ω		
				0 kΩ～ 22 kΩ ,-40 dBm～13 dBm,3 GHz	U=1 Ω		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 Ω～ 156 Ω,-40 dBm,1 MHz	U=0.002 Ω		
				0 Ω～ 156 Ω,-33 dBm～13 dBm,1 MHz	U=0.00019 Ω		
				0 Ω～ 156 Ω,-40 dBm,10 MHz	U=0.004 Ω		
				0 Ω～ 156 Ω,-33 dBm～13 dBm,10 MHz	U=0.0018 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,100 MHz	U=0.019 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,200 MHz	U=0.045 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,300 MHz	U=0.073 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,500 MHz	U=0.26 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,600 MHz	U=0.62 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,800 MHz～1 GHz	U=0.43 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,1.3 GHz	U=0.13 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,1.6 GHz	U=0.08 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,1.8 GHz	U=0.26 Ω		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 Ω～ 156 Ω,-40 dBm～13 dBm,2 GHz	U=0.91 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,2.4 GHz	U=1.8 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,2.6 GHz	U=0.6 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,2.8 GHz	U=0.24 Ω		
				0 Ω～ 156 Ω,-40 dBm～13 dBm,3 GHz	U=0.3 Ω		
		Admittance		0.01 μS～10000 μS,-15 dBm～5 dBm,1 MHz	U=0.016 μS		
				0.01 μS～10000 μS,-33 dBm～-20 dBm,1 MHz	U=0.37 μS		
				0.01 μS～10000 μS,-40 dBm,1 MHz	U=8.6 μS		
				0.01 μS～10000 μS,-15 dBm～5 dBm,10 MHz	U=0.16 μS		
				0.01 μS～10000 μS,-33 dBm～-20 dBm,10 MHz	U=0.32 μS		
				0.01 μS～10000 μS,-40 dBm,10 MHz	U=4.7 μS		
				0.01 μS～10000 μS,-15 dBm～5 dBm,100 MHz	U=1.6 μS		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01 μS～10000 μS,-33 dBm～-20 dBm,100 MHz	U=2.2 μS		
				0.01 μS～10000 μS,-40 dBm,100 MHz	U=6.3 μS		
				0.01 μS～10000 μS,-33 dBm～5 dBm,200 MHz	U=6.3 μS		
				0.01 μS～10000 μS,-40 dBm,200 MHz	U=8.6 μS		
				0.01 μS～10000 μS,-33 dBm～5 dBm,300 MHz	U=9.4 μS		
				0.01 μS～10000 μS,-40 dBm,300 MHz	U=13 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,500 MHz	U=16 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,600 MHz	U=19 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,800 MHz	U=25 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,1 GHz	U=32 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,1.3 GHz	U=42 μS		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01 μS～10000 μS,-40 dBm～5 dBm,1.6 GHz	U=58 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,1.8 GHz	U=66 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,2 GHz	U=91 μS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,2.2 GHz	U=0.10 mS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,2.4 GHz	U=0.11 mS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,2.6 GHz	U=0.13 mS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,2.8 GHz	U=0.15 mS		
				0.01 μS～10000 μS,-40 dBm～5 dBm,3 GHz	U=0.16 mS		
29	*High Resistance Meter	Resistance	High Resistance Meter Test Procedure CAL-CHA014-01	1 MΩ	U_{rel}=0.086%		
				10 MΩ	U_{rel}=0.18%		
				100 MΩ	U_{rel}=0.19%		
				1 GΩ	U_{rel}=0.19%		
				10 GΩ	U_{rel}=0.37%		
				100 GΩ	U_{rel}=0.62%		
		DC Current		100 pA	U=0.34 pA		
				1 nA	U=0.0019 nA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10 nA	U=0.017 nA		
				100 nA	U=0.13 nA		
				1 μA	U=0.00073 μA		
				10 μA	U=0.0073 μA		
				100 μA	U=0.075 μA		
		DC Voltage		10mV	U=0.06mV		
				10 V	U=0.00068 V		
				25 V	U=0.0010 V		
				50 V	U=0.0015 V		
				100 V	U=0.0025 V		
				200 V	U=0.0051 V		
				201 V	U=0.0055 V		
				250 V	U=0.0065 V		
				500 V	U=0.013 V		
				1000 V	U=0.034 V		
30	*Function Generator	Time-base Frequency	Function Generator Test Procedure CAL-CHA015-01	10 MHz	U=0.0021 Hz		
		DC Voltage		10 V	U=0.00028 V		
				0.5 V	U=0.0000073 V		
				10mV	U=0.06mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-10 V	U=0.00059 V		
		AC Amplitude		5.7 V～10 V,40 Hz～100 Hz	U_{rel}=0.035%		
				0.018 V～1 V,100 Hz～1 kHz	U_{rel}=0.011%		
				1 V～3.5 V,100 Hz～1 kHz	U_{rel}=0.018%		
				3.5 V～5.7 V,100 Hz～1 kHz	U_{rel}=0.044%		
				5.7 V～7 V,100 Hz～1 kHz	U_{rel}=0.011%		
		Flatness		-10 dBm～0 dBm,100 kHz～5 MHz	U=0.027 dB		
				-10 dBm～ 0 dBm,5 MHz～10 MHz	U=0.031 dB		
				-10 dBm～ 0 dBm,10 MHz～22 MHz	U=0.033 dB		
				-10 dBm～ 0 dBm,22 MHz～30 MHz	U=0.034 dB		
				0 dBm～ 10 dBm, 100 kHz～5 MHz	U=0.026 dB		
				0 dBm～ 10 dBm, 5 MHz～60 MHz	U=0.030 dB		
				0 dBm～10 dBm, 6 MHz～90 MHz	U=0.030 dB		
				0 dBm~ 10 dBm, 90 MHz～120 MHz	U=0.032 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10 dBm～ 25 dBm, 100 kHz～8 MHz	U=0.009 dB		
				10 dBm～25 dBm, 8 MHz～40 MHz	U=0.011 dB		
				10 dBm～ 25 dBm, 40 MHz～80 MHz	U=0.024 dB		
				10 dBm～25 dBm, 80 MHz～120 MHz	U=0.033 dB		
		Harmonic Distortion		-100 dBc～0 dBc,100 Hz～40 kHz	U=1.2 dB		
				-100 dBc～0 dBc,40 kHz～60 kHz	U=1.4 dB		
				-100 dBc～0 dBc,60 kHz～80 kHz	U=1.8 dB		
				-100 dBc～0 dBc,80 kHz～500 kHz	U=1.2 dB		
				-100 dBc～0 dBc,500 kHz～5 MHz	U=1.0 dB		
				-100 dBc～0 dBc,5 MHz～75 MHz	U=1.6 dB		
31	*Noise Source	ENR	Noise Source Test Procedure CAL-CHA016-01	1 dB～30 dB, 1 GHz	U=0.09 dB		
				1 dB～30 dB, 4 GHz	U=0.091 dB		
				1 dB～30 dB, 2 GHz	U=0.093 dB		
				1 dB～30 dB, 10 MHz, 100 MHz, 7 GHz	U=0.10 dB		
				1 dB～30 dB, 3 GH, 6 GHz, 8 GHz	U=0.11 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 dB～30 dB, 5 GH, 19 GHz, 25 GHz	U=0.13 dB		
				1 dB～30 dB,9 GHz, 10 GHz, 11 GHz, 12 GHz, 13 GHz, 14 GHz, 20 GHz, 21 GHz, 24 GHz, 26 GHz, 26.5 GHz	U=0.14 dB		
				1 dB～30 dB, 15 GH, 18 GHz	U=0.15 dB		
				1 dB～30 dB, 16 GH, 17 GHz, 22 GHz	U=0.16 dB		
				1 dB～30 dB, 23 GHz	U=0.17 dB		
		Reflection		0.0001～1,10 MHz, 100 MHz, 1 GHz, 2 GHz	U=0.0030		
				0.0001～1, 3 GHz, 4 GHz, 14 GHz	U=0.0049		
				0.0001～1, 5 GHz, 6 GHz, 7 GHz, 8 GHz, 9 GHz, 10 GHz, 11 GHz, 12 GHz, 16 GHz	U=0.0050		
				0.0001～1, 13 GHz, 15 GHz, 17 GHz, 18 GHz	U=0.0051		
				0.0001～1, 19 GHz	U=0.0052		
				0.0001～1, 20 GHz, 23 GHz	U=0.0053		
				0.0001～1, 24 GHz	U=0.0054		
				0.0001～1, 22 GHz, 25 GHz	U=0.0055		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.0001～1, 21 GHz, 26 GHz, 26.5 GHz	U=0.0056		
		Reflection(Source On-Source Off)		0.0001～1, 1 GHz, 2 GHz,5 GHz,10 GHz,15 GHz,18 GHz	U=0.000058		
				0.0001～1， 100 MHz,3 GHz,4 GHz,6 GHz,11 GHz,12 GHz	U=0.00013		
				0.0001～1, 9 GHz,13 GHz,14 GHz,16 GHz,17 GHz	U=0.00016		
				0.0001～1, 7 GHz	U=0.0002		
				0.0001～1, 8 GHz	U=0.00023		
				0.0001～1, 10 MHz	U=0.00054		
32	*Noise Figure Analyzer	Reference Frequency	Noise Figure Analyzer Test Procedure CAL-CHA017-01	10 MHz	$U_{rel}=1.2\times10^{-9}$		
		Input VSWR		1.01～2,10 MHz～0.5 GHz	U=0.09		
				1.01～2,0.5 GHz～1.0 GHz	U=0.11		
				1.01～2,1.0 GHz～1.5 GHz	U=0.13		
				1.01～2,1.5 GHz～3 GHz	U=0.11		
				1.01～2,3 GHz～6.7 GHz	U=0.05		
				1.01～2,6.7 GHz～20 GHz	U=0.11		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1.01～2,20 GHz～26.5 GHz	U=0.21		
		Noise Source Supply		0.01 V～1V	U_{rel}=0.03%		
				28 V	U=0.31 mV		
		Frequency		14 MHz～26.5 GHz,Resolution Bandwidth:4 MHz	U=0.010 MHz		
				1 GHz,Resolution Bandwidth:0.1 MHz	U=0.002 MHz		
		Instrument Noise Figure		0 dB～20 dB ,10 MHz～26.5 GHz	U=0.014 dB		
		Measurement Jitter		0 dB～0.5 dB ,1 GHz	U=0.006 dB		
		Noise Figure Range And Measurement		0 dB～22 dB,50 MHz	U=0.014 dB		
		Gain Measurement Uncertainty		-20 dB～40 dB	U=0.010 dB		
33	*Multiplexer Module	Relay Contact Resistance	Multiplexer Module Test Procedure CAL-CHA018-01	0.05 Ω～2 Ω	U=0.00054 Ω		
		Thermocouple Reference Junction		-209 ℃	U=0.13 ℃		
				-150 ℃～450 ℃	U=0.09 ℃		
				600 ℃～750 ℃	U=0.10 ℃		
				1000 ℃	U=0.12 ℃		
				1199 ℃	U=0.13 ℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
34	*Power Splitter	Reflection Coefficient	Power Splitter Test Procedure CAL-CHA024-01	0～1, 50 MHz~2 GHz	U=0.0036		
				0～1, 2.1 GHz~3 GHz	U=0.0049		
				0～1, 3.1 GHz~6 GHz	U=0.0067		
				0～1, 6.1 GHz~8 GHz	U=0.0071		
				0～1, 8.1 GHz~13.5 GHz	U=0.0082		
				0～1, 13.6 GHz~18 GHz	U=0.0085		
				0～1, 18.1 GHz~26.5 GHz	U=0.01		
				0～1, 26.6 GHz~33 GHz	U=0.014		
				0～1, 33.1 GHz~40 GHz	U=0.015		
				0～1, 40.1 GHz~50 GHz	U=0.018		
		Insertion Loss		0 dB～8 dB,50 MHz	U=0.031 dB		
				0 dB～8 dB, 50.1 MHz~500 MHz	U=0.027 dB		
				0 dB～8 dB, 500.1 MHz~1 GHz	U=0.03 dB		
				0 dB～8 dB, 1.1 GHz~2 GHz	U=0.026 dB		
				0 dB～8 dB, 2.1 GHz~3 GHz	U=0.028 dB		
				0 dB～8 dB, 3.1 GHz~6 GHz	U=0.034 dB		
				0 dB～8 dB, 6.1 GHz~9.5 GHz	U=0.066 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB～8 dB, 9.6 GHz~12.5 GHz	U=0.064 dB		
				0 dB～8 dB, 12.6 GHz~16 GHz	U=0.062 dB		
				0 dB～8 dB, 16.1 GHz~25 GHz	U=0.06 dB		
				0 dB～8 dB, 25.1 GHz~26.5 GHz	U=0.059 dB		
				0 dB～8 dB, 26.6 GHz~28 GHz	U=0.094 dB		
				0 dB～8 dB, 28.1 GHz~30 GHz	U=0.092 dB		
				0 dB～8 dB, 30.1 GHz~32 GHz	U=0.09 dB		
				0 dB～8 dB, 32.1 GHz~34.5 GHz	U=0.088 dB		
				0 dB～8 dB, 34.6 GHz~37.3 GHz	U=0.086 dB		
				0 dB～8 dB, 37.4 GHz~40 GHz	U=0.084 dB		
				0 dB～8.5 dB, 40.1 GHz~43.5 GHz	U=0.14 dB		
				0 dB～8.5 dB,43.6 GHz~50 GHz	U=0.13 dB		
		Port 2 To Port 3 Tracking		-1 dB~1 dB, 50 MHz~3 GHz	U=0.030 dB		
				-1 dB~1 dB, 3.1 GHz~4 GHz	U=0.033 dB		
				-1 dB~1 dB, 4.1 GHz~5 GHz	U=0.030 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-1 dB~1 dB, 5.1 GHz~6.5 GHz	U=0.033 dB		
				-1 dB~1 dB, 6.6 GHz~8 GHz	U=0.043 dB		
				-1 dB~1 dB, 8.1 GHz~9 GHz	U=0.030 dB		
				-1 dB~1 dB, 9.1 GHz~12.5 GHz	U=0.047 dB		
				-1 dB~1 dB, 12.6 GHz~16 GHz	U=0.049 dB		
				-1 dB~1 dB, 16.1 GHz~18 GHz	U=0.048 dB		
				-1 dB~1 dB, 18.1 GHz~20 GHz	U=0.049 dB		
				-1 dB~1 dB, 20.1 GHz~23.5 GHz	U=0.047 dB		
				-1 dB~1 dB, 23.6 GHz~26.5 GHz	U=0.066 dB		
				-1 dB~1 dB, 26.6 GHz~32 GHz	U=0.070 dB		
				-1 dB~1 dB, 32.1 GHz~37 GHz	U=0.069 dB		
				-1 dB~1 dB, 37.1 GHz~40 GHz	U=0.068 dB		
				-1 dB~1 dB, 40.1 GHz~43.6 GHz	U=0.086 dB		
				-1 dB~1 dB, 43.7 GHz~47 GHz	U=0.085 dB		
				-1 dB~1 dB, 47.1 GHz~50 GHz	U=0.093 dB		
		Equivalent Source Match		0~1, 50 MHz~500 MHz	U=0.0051		

The scope of the accreditation in Chinese remains the definitive version.

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0~1, 501 MHz~2 GHz	U=0.0041		
				0~1, 2.1 GHz~10 GHz	U=0.0055		
				0~1, 10.1 GHz~14 GHz	U=0.0073		
				0~1, 14.1 GHz~18 GHz	U=0.0074		
				0~1, 18.1 GHz~22 GHz	U=0.0075		
				0~1,22.1 GHz~26.5 GHz	U=0.0074		
				0~1, 26.6 GHz~ 40 GHz	U=0.013		
				0~1, 40.1 GHz~50 GHz	U=0.015		
35	Semiconductor Device Parameter Analyzer	DC Voltage Output	Semiconductor Device Parameter Analyzer Test Procedure CAL-CHA025-01	0.01 V～0.22 V	U_{rel}=0.0013%		
				0.22 V～2.2 V	U_{rel}=0.0009%		
				2.2 V～22 V	U_{rel}=0.0008%		
				22 V～500 V	U_{rel}=0.0012%		
		DC Current Output		1 pA～11.5 pA	U_{rel}=0.13%		
				11.5 pA～115 pA	U_{rel}=0.058%		
				115 pA～1.15 nA	U_{rel}=0.031%		
				1.15 nA～11.5 nA	U_{rel}=0.016%		
				11.5 nA～115 nA	U_{rel}=0.0039%		
				115 nA～1.15 μA	U_{rel}=0.0021%		
				1.15 μA～11.5 μA	U_{rel}=0.0022%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				20 μA～115 μA	U_{rel}=0.0025%		
				0.2 mA～1.15 mA	U_{rel}=0.0020%		
				2 mA～11.5 mA	U_{rel}=0.0024%		
				20 mA～115 mA	U_{rel}=0.0041%		
				0.2 A～1.05 A	U_{rel}=0.014%		
				1.5 A～3.03 A	U_{rel}=0.011%		
				3.03 A～10.5 A	U_{rel}=0.026%		
				10.5 A～20 A	U_{rel}=0.067%		
		DC Voltage Measurement		0.01 V～0.22 V	U_{rel}=0.0013%		
				0.22 V～2.2 V	U_{rel}=0.0009%		
				2.2 V～22 V	U_{rel}=0.0008%		
				22 V～500 V	U_{rel}=0.0012%		
		DC Current Measurement		1 pA～11.5 pA	U_{rel}=0.13%		
				11.5 pA～115 pA	U_{rel}=0.058%		
				115 pA～1.15 nA	U_{rel}=0.031%		
				1.15 nA～11.5 nA	U_{rel}=0.016%		
				11.5 nA～115 nA	U_{rel}=0.0039%		
				115 nA～1.15 μA	U_{rel}=0.0021%		
				1.15 μA～11.5 μA	U_{rel}=0.0022%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				20 μA～115 μA	U_{rel}=0.0025%		
				0.2 mA～1.15 mA	U_{rel}=0.0020%		
				2 mA～11.5 mA	U_{rel}=0.0024%		
				20 mA～115 mA	U_{rel}=0.0041%		
				0.2 A～1.05 A	U_{rel}=0.014%		
				1.5 A～3.03 A	U_{rel}=0.011%		
				3.03 A～10.5 A	U_{rel}=0.026%		
				10.5 A～20 A	U_{rel}=0.067%		
		Level Test		0.1 V～2.2 V	U_{rel}=0.017%		
				2.2 V～22 V	U_{rel}=0.0033%		
				22 V～50 V	U_{rel}=0.0025%		
		Pulse Shape Test-Period		100 ns	U=0.10 ns		
				2 μs	U=0.082 μs		
				100 μs	U=0.093 μs		
				100 ms	U=0.090 ms		
				2 s	U=0.082 s		
		Pulse Shape Test-Delay		2.5 ns	U=0.0036 ns		
				2.5 μs	U=0.003 μs		
				2.5 ms	U=0.051 ms		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Pulse Shape Test-Width		50 ns	U=0.071 ns		
				1 μs	U=0.0046 μs		
				50 μs	U=0.052 μs		
				50 ms	U=0.052 ms		
				1 s	U=0.0041 s		
		Pulse Shape Test-Rise/Fall Time		20 ns～100 ns	U_{rel}=0.54%		
				0.35 μs～10 μs	U_{rel}=0.34%		
				100 μs～10 ms	U_{rel}=0.30%		
		Output Impedance		50 Ω	U_{rel}=0.002%		
		Pulse Overshoot		0.01 %～5.2%,+/-10 V	U=0.29%		
				0.01%～5.1%,+/-20 V	U=0.30%		
36	*Pulse Pattern Generator	Frequency	Pulse Pattern Generator Test Procedure CAL-CHA026-01	0.2 Hz ～3.35 GHz including period test	$U_{rel}=8.5\times10^{-7}$		
		Pulse Width		100 ps～999 ns	$U_{rel}=1.7\times10^{-5}$		
				1 μs～500 ms	$U_{rel}=8.4\times10^{-6}$		
		Pulse Delay		1 ns～500 ns	$U_{rel}=3.2\times10^{-5}$		
				3 μs～500 ms	$U_{rel}=4.3\times10^{-5}$		
		Double Pulse Delay		6 ns～100 ns	$U_{rel}=1.5\times10^{-4}$		
				500 ms～1 s	$U_{rel}=5.8\times10^{-5}$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Period Jitter		Period 0.3 ns～20 ns，including clock jitter and data jitter	U=1.9 ps		
				Period 20 ns～500 ns，including clock jitter and data jitter	U=1.4 ps		
		Width Jitter		width 50 ns～500 ns	U=1.4 ps		
		Delay Jitter		Delay 50 ns～500 ns	U=1.3 ps		
		Output Levels		10 mV ~ 100 mV	U=0.82 mV		
				100 mV ~ 1 V	U=1.6 mV		
				1 V ~ 10 V	U=13 mV		
		Transition Time		50 ps ~ 1 ns	U=2.1 ps		
				1 ns ~ 500 ms	U=8 ps + 0.1%t_x		
		Pulse Aberration		10 mV ~ 200 mV, pulse level：0.5 V～2 V	U=3 mV		
				10 mV ~ 200 mV, pulse level：2 V～5 V	U=30 mV		
37	*DC Electronic Load	CC Mode Current	DC Electronic Load Test Procedure CAL-CHA028-01	0.1 A～1 A	U_{rel}=0.02%		
				1 A～120 A	U_{rel}=0.01%		
		CV Mode Voltage		1 V～10 V	U_{rel}=0.0017%		
				10 V～240 V	U_{rel}=0.0004%		
		CR Mode Resistor		0.017 Ω～0.5 Ω	U=0.000055 Ω		
				0.5 Ω～2 Ω	U=0.0004 Ω		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2 Ω～2.5 kΩ	U=0.0007 Ω		
		Slew		60 μs～125 μs，0.050 A/μs～0.083 A/μs	U=0.055 μs		
				1.2 ms～2 ms，0.0025 A/μs~0.0042 A/ms	U=0.054 ms		
		CC PARD		0.001 mA～4 mA，10kHz	U=0.001 mA		
		CC Mode Regulation		1 A ～10 A, Voltage Change: 4 V ～ 240 V	U=0.53 mA		
		CV Mode Regulation		5 V～25 V,Current Change: 1A ～ 60A	U=0.11 mV		
		Power		0.6 W～1.5 kW	U_{rel}=0.012%		
		Current Rise/Fall Time		0.1 μs～100 μs (5 V，Current Change: 3A ～ 27A)	U=5.3 μs		
38	*Wavelength Meter	Wavelength	Wavelength Meter Test Procedure CAL-CHA020-01	1550 nm	U_{rel}=1.6x10^{-7}		
		Amplitude Accuracy		0 dBm(Wavelength：1310 nm, 1550 nm)	U=0.23 dB		
39	*Optical power Meter	Optical power	Optical power Meter Test Procedure CAL-CHA021-01	10 μW(Wavelength：1310 nm,1550 nm)	U_{rel}=1.9%		
		Linearity		10 dBm～-30 dBm(Wavelength ： 1310 nm, 1550 nm)	U_{rel}=0.20%		
				-30 dBm～-60 dBm(Wavelength ： 1310 nm, 1550 nm)	U_{rel}=0.21%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
40	*Optical Attenuator	Attenuation	Optical Attenuator Test Procedure CAL-CHA022-01	1 dB ～60 dB(Wavelength ： 1310 nm, 1550 nm)	U=0.075 dB		
41	*Laser Source	Output Power	Laser Source Test Procedure CAL-CHA023-01	10 dBm～-60 dBm(Wavelength ： 1310nm ~ 1630 nm)	U=0.11 dB		
		Wavelength		1310 nm~1630 nm	U_{rel}=3.5x10^{-7}		
		Power Stability		10 dBm～-20 dBm(Wavelength ： 1310 nm~1630 nm)	U=0.0026 dB		
42	*RF Amplifier	VSWR	RF Amplifier Test Procedure CAL-CHA032-01	1.001～2.2, Frequency: 100 kHz～400 MHz	U=0.021		
				1.001～2.2, Frequency: 400 MHz～1.3 GHz	U=0.030		
		Gain		10.0 dB～60.0 dB, Frequency: 100 kHz～400 MHz	U=0.060 dB		
				10.0 dB～60.0 dB, Frequency: 400 MHz～1.3 GHz	U=0.091 dB		
				10.0 dB～60.0 dB, Frequency: 1.3 GHz～8 GHz	U=0.25 dB		
		Gain Flatness		0 dB～3.0 dB, Frequency: 100 kHz～400 MHz	U=0.05 dB		
				0 dB～3.0 dB, Frequency: 400 MHz～1.3 GHz	U=0.82 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Harmonic Distortion		-100 dBc～0 dBc, Carrier Frequency: 100 MHz～400 MHz, Output Power: 0 dBm	U=0.30 dB		
		Gain Compression		0.0 dB～1.0 dB, Output Power: 6 dBm～16 dBm	U=0.35 dB		
		Reverse Isolation		-100 dB～0 dB, Frequency: 100 kHz～1.3 GHz	U=0.30 dB		
		Noise Figure		0.0 dB～35.0 dB, Frequency: 100 kHz～1.3 GHz	U=0.43 dB		
43	*RF/MW Vector Signal Generator with IQ ports	AM Distortion	RF/MW Vector Signal Generator with IQ ports Test Procedure CAL-CHA001-04	0.01%～3%,Carrier Frequency：0.1 MHz～10 MHz,AM:10%～90%	U=0.03%		
				0.01%～ 3%,Carrier Frequency：10 MHz～20 GHz,AM:10%～90%	U=0.04%		
		AM Frequency Response		0 dB～3 dB,Carrier Frequency：100 MHz～2.7 GHz,Mod Rate: DC～10 kHz	U=0.027 dB		
				0 dB～3 dB,Carrier Frequency：100 MHz～2.7 GHz,Mod Rate: 10 kHz～50 kHz	U=0.04 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB～3 dB,Carrier Frequency：2.7 GHz～20 GHz,Mod Rate: DC～50 kHz	U=0.13 dB		
				0 dB～3 dB,Carrier Frequency：100 MHz～20 GHz,Mod Rate: 50 kHz～100 kHz	U=0.14 dB		
		AM		5%～99%，Carrier Frequency：100 kHz～10 MHz	U_{rel}=0.75%		
				5%～20%，Carrier Frequency：10 MHz～3 GHz	U_{rel}=2.5%		
				20%～99%，Carrier Frequency：10 MHz～3 GHz	U_{rel}=0.5%		
				5%～20%，Carrier Frequency：3 GHz～20 GHz	U_{rel}=4.5%		
				20%～99%，Carrier Frequency：3 GHz～20 GHz	U_{rel}=1.5%		
		Power Level		-120 dBm～-20 dBm,Carrier Frequency：100 kHz～250 kHz	U=0.17 dB		
				-20 dBm～20 dBm,Carrier Frequency：100 kHz～250 kHz	U=0.15 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-120 dBm～-20 dBm,Carrier Frequency：250 kHz～6 GHz	U=0.11 dB		
				-20 dBm～20 dBm,Carrier Frequency：250 kHz～6 GHz	U=0.063 dB		
				-10 dBm～-120 dBm,Carrier Frequency：6 GHz～20 GHz	U=0.16 dB		
				-10 dBm～20 dBm,Carrier Frequency：6 GHz～20 GHz	U=0.14 dB		
		Carrier Frequency		10 kHz～20 GHz	U_{rel}=1 × 10^{-9}		
		Carrier Frequency Offset with FM		1 MHz,Carrier Frequency: 50 MHz～6 GHz	U=0.064 kHz		
		FM Frequency Response		-3 dB～3 dB, Mod Rate：30 Hz～400 kHz	U=0.15 dB		
		FM Distortion		0.01 %～1%, Carrier Frequency：2 MHz～6 GHz,Mod Rate ：1 kHz ~ 10 kHz, Mod index 0.2～100	U=0.017%		
		FM Deviation		Deviation ：200 Hz～400 kHz,Carrier Frequency：100 kHz～20 GHz	U_{rel}=1.0%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Frequency Setting Time		0.0001 ms～2 ms,Carrier Frequency：100 kHz～6 GHz	U=0.0061 ms		
		Harmonic Spurious		-70 dBc～-40 dBc,Carrier Frequency：10 kHz～3 GHz	U=0.49 dB		
				-70 dBc～-40 dBc,Carrier Frequency：3 GHz～6.6 GHz	U=1.9 dB		
				-70 dBc～-40 dBc,Carrier Frequency：6.6 GHz～22 GHz	U=2.5 dB		
		IQ Error Vector		0.01%～1.5%,Carrier Frequency：100 kHz～6 GHz	U=0.74%		
		IQ Input Impedance		1.01～1.2,Frequency：1 MHz ~ 50 MHz	U=0.004		
				1.01～1.2,Frequency：50 MHz～1000 MHz	U=0.007		
		IQ Residual Carrier And Leakage		-70 dBc～-40 dBc,Carrier Frequency：100 kHz～6 GHz	U=0.17 dBc		
		Level Frequency Response		0 dB～1 dB,Frequency:9 kHz～20 MHz,-20 dBm～20 dBm	U=0.09 dB		
				0 dB～1 dB,Frequency:20 MHz～50 MHz,-20 dBm ~ 20 dBm	U=0.13 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB～1 dB,Frequency:50 MHz～2 GHz,-20 dBm ～ 20 dBm	U=0.10 dB		
				0 dB～1 dB,Frequency:2 GHz～6 GHz,-20 dBm～ 20 dBm	U=0.13 dB		
				0 dB～1 dB,Frequency:6 GHz～20 GHz,-20 dBm ～ 20 dBm	U=0.17 dB		
		Level Setting Time		3 ms～5 ms,Amplitude：-130 dBm～20 dBm,Frequency：300 kHz～6 GHz	U=0.0061 ms		
		Modulation Generator Distortion		0.001%～0.1%,Frequency：100 Hz～20 kHz	U=0.016%		
				0.001%～0.1%,Frequency：20 kHz～100 kHz	U=0.032%		
		Modulation Generator Frequency Response		(0～2) dB,Frequency：10 Hz～100 kHz	U=0.047 dB		
				(0～ 2) dB,Frequency：100 kHz～10 MHz	U=0.15 dB		
		Modulation Generator Output Level		3 mV,Frequency:1kHz	U_{rel}=1.7%		
				10 mV,Frequency:1kHz	U_{rel}=0.56%		
				30 mV,Frequency:1kHz	U_{rel}=0.24%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				100 mV,Frequency:1kHz	U_{rel}=0.12%		
				100 mV～300 mV,Frequency:1kHz	U_{rel}=0.19%		
				300 mV～1 V,Frequency:1kHz	U_{rel}=0.11%		
				1 V～3 V,Frequency:1kHz	U_{rel}=0.26%		
		Modulation Generator Frequency		1 kHz～1 MHz	U=0.00053 Hz		
		Non-Harmonic Spurious		-70 dBc～-40 dBc,Frequency：10 kHz～1 MHz	U=1.0 dB		
				-70 dBc～-40 dBc,Frequency：1 MHz～3 GHz	U=0.21 dB		
				-70 dBc～-40 dBc,Frequency：3 GHz～6.6 GHz	U=0.74 dB		
				-70 dBc～-40 dBc,Frequency：6.6 GHz～13.2 GHz	U=1.3 dB		
				-70 dBc～-40 dBc,Frequency：13.2 GHz～18 GHz	U=1.7 dB		
				-70 dBc～-40 dBc,Frequency：18 GHz～20 GHz	U=1.7 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Output Impedance		1.01～1.9,Frequency：300 kHz～6 GHz	U=0.021		
		Phase Modulation Distortion		0～1%,Carrier Frequency: 100 kHz～6000 MHz,Phase deviation:(1~90) rad	U=0.03%		
		Phase Modulation Flatness		0 dB～3 dB ,Mod Rate：DC～100 kHz	U=0.16 dB		
		Phase Modulation on AM		0.0001 rad～0.1 rad,Carrier Frequency: 100 kHz～6 GHz	U=0.0038 rad		
		Phase Modulation		0.7 rad～100 rad,100 kHz～6 GHz	Urel =1%		
				0.3 rad～0.7 rad,100 kHz～6 GHz	U_{rel}=3%		
				1.2 rad～100 rad,6 GHz～20 GHz	U_{rel}=3%		
		Pulse Modulation Video Crosstalk		-30 dBc,Carrier Frequency：100 kHz～6 GHz	U=0.17 dB		
		Pulse Modulation On/Off Ratio		50 dB ~ 200 dB,Carrier Frequency：100 kHz～6 GHz	U=0.16 dB		
				50 dB ~ 200 dB,Carrier Frequency：6 GHz～20 GHz	U=0.17 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Pulse Modulation: Rise/Fall Time		(0.1～12) ns,Carrier Frequency：500 MHz～20 GHz	U=0.2 ns		
				(0.1～12) ns,Carrier Frequency：100 kHz～500 MHz	U=0.4 ns		
		Residual FM		(0.01～4) Hz, Carrier Frequency：1 GHz	U=0.61 Hz		
		Residual AM		0.00001%～0.02%,Carrier Frequency：100 MHz～6 GHz	U=0.00061%		
				0.00001%～0.02%, Carrier Frequency：100 kHz～100 MH	U=0.0012%		
		Single-Sideband Phase Noise		-110 dBc/Hz～-70 dBc/Hz, Carrier Frequency：10 MHz～20 GHz,10 Hz～1 MHz offset	U=2.3 dB		
		Sub-Harmonic Spurious		-20 dBc～-80 dBc,Carrier Frequency：100 kHz～2 GHz	U=0.5 dB		
				-20 dBc～-80 dBc,Carrier Frequency：2 GHz～4.5 GHz	U=1.9 dB		
				-20 dBc～-80 dBc,Carrier Frequency：4.5 GHz～20 GHz	U=2.5 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Synchronous AM with FM		0.0001%～0.1%,Carrier Frequency：10 MHz～2 GHz	U=0.0014%		
				0.0001%～0.1%,Carrier Frequency：2 GHz～6 GHz	U=0.0016%		
		Synchronous PHIM with AM		0.0001 rad～0.1 rad,Carrier Frequency：100 kHz～6 GHz	U=0.0037 rad		
		Wideband Noise		-120 dBc/Hz～-160 dBc/Hz,Carrier Frequency：20 MHz～3 GHz	U=0.49 dBc/Hz		
				-120 dBc/Hz～-160 dBc/Hz,Carrier Frequency：3 GHz～6 GHz	U=1.8 dBc/Hz		
		Sensitivity Of Electronic Tuning Of Internal Reference Frequency		Sensitivity 5 × 10^{-9}/V ～ 5 × 10^{-8}/V, Frequency: 10 MHz	U=6.1 × 10^{-11}/V		
		Additive white Gaussian noise		0 dB～0.1 dB, system bandwidth = symbolrate, symbol rate < 4 MHz, −24 dB < C/N < 30 dB and0 dB<crest factor < 12 dB	U=0.0061 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		I/Q modulation RF frequency response		-2 dB~ 2 dB,Frequency：300 kHz～6 GHz, external/internal I/Q inputs	U=0.17 dB		
		I/Q outputs DC voltage		10 mV ～0.3 V	U=0.061 mV		
				0.3 V ～1 V	U=0.084 mV		
				1 V ～3.6 V	U=0.23 mV		
		I/Q Outputs SFDR		50 dBc ~ 80 dBc, 2 MHz ～20 MHz offset	U=0.17 dB		
		D/A Converter Interpolation Spectra Of Aliasing Filter		-100 dB ~ -70 dB, Internal baseband, 10MHz ～100 MHz offset	U=0.49 dB		
		Internal Reference		10 MHz	U_{rel}= 1 × 10^{-11}		
		I/Q Output Frequency Response		-2 dB~ 2 dB, IQ Output Frequency：1 MHz ～60 MHz, reference 1 MHz	U=0.085 dB		
		I/Q Outputs Wideband Noise		-170 dBc~ -150 dBc, Generated Signal 10 dBm，Offset > 30 MHz	U=0.17 dB		
		IQ Adjacent Channel Power For 3GPP FDD		-70 dB ~ -40 dB, Bandwidth 5 MHz ~ 10 MHz	U=0.16 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		IQ Output EVM for WCDMA 3GPP		0.01%～5%,Carrier Frequency：100 MHz～6 GHz	U=0.09%		
44	*Wideband Wireless Communications Test Set	Reference Frequency Amplitude	Broadband Wireless Communications Test Set Test Procedure CAL-CHA004-03	1.4 V～20 V,1 MHz～80 MHz	U=0.021 V		
		Reference Frequency Accuracy		10 MHz	U=0.014 Hz		
		Audio Generator THD+N		0.01%～ 0.1%, 100 mV～20 V,100 Hz～10 kHz	U=0.007%		
		Audio Generator THD		0.01%～ 0.1%, 100 mV～20 V,100 Hz～10 kHz	U=0.0036%		
		Audio Generator Level		0.1 V ～5 V,20 Hz ～10 kHz	U=0.1 mV		
				10 mV ～100 mV,20 Hz ～10 kHz	U=0.06 mV		
				1 mV ～10 mV,20 Hz ～10 kHz	U=0.002 mV		
		Audio Generator Output Impedance		50 Ω～75 Ω,1 kHz ～10 kHz	U=0.006 Ω		
		Audio Generator Max Output Current		5 mA～20 mA,20 Hz ～10 kHz	U=0.22 mA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Audio Analyzer Frequency Response		-40 mV～-10mV，10mV～40 mV,2 V Input,50 Hz ～20 kHz	U_{rel}=0.023%		
		Audio Analyzer Inherent Distortion		0.01%～ 0.1%,0.5 V～5 V,100 Hz～10 kHz	U=0.007%		
		Audio Analyzer THD		0.01%～0.1%, 0 mV～5000 mV,100 Hz～10 kHz	U=0.0036%		
		Audio Analyzer Linearity		0.01%～2%,0.02 V ～5 V,10 kHz～20 kHz	U=0.024%		
				0.01%～2%,1 mV ～0.02 V,10 kHz～20 kHz	U=0.18%		
		RX SSB Phase Noise		-150 dBc/Hz～-50 dBc/Hz,50 MHz ～ 6000 MHz	U=1.8 dB		
		RX Average Noise Level		-150 dBm～-50 dBm	U=0.9 dB		
		RX Dynamic Range		-150 dBc～-50 dBc	U=0.6 dB		
		RX Power Level		20 dBm～-20 dBm,100 kHz～2000 MHz	U=0.073 dB		
				20 dBm～-20 dBm,2000 MHz～4000 MHz	U=0.08 dB		
				20 dBm～-20 dBm,4000 MHz～6000 MHz	U=0.14 dB		
				-20 dBm～-60 dBm,100 kHz～4000 MHz	U=0.17 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm～-60 dBm,4000 MHz～6000 MHz	U=0.18 dB		
		RX Linearity		-2 dB～2 dB,0 dBm～-60 dBm	U=0.06 dB		
		RX Residual Response		-60 dBm～-100 dBm	U=1.0 dB		
		RX Harmonics		-20 dBc～-80 dBc	U=0.6 dB		
		RX Spurious /Image Response		-20 dBc～-80 dBc	U=0.6 dB		
		RX VSWR		1.01～4,50 MHz～6000 MHz	U=0.01		
		TX Frequency		50 MHz～6000 MHz	U_{rel}=0.12%		
		TX VSWR		1.01～4,50 MHz～6000 MHz	U=0.01		
		TX Signal To Noise Ratio		60 dB～100 dB,50 MHz～3000 MHz, Resolution Bandwidth 1 kHz	U=0.66 dB		
				60 dB～100 dB,3000 MHz～6000 MHz, Resolution Bandwidth 1 kHz	U=2.6 dB		
		TX Output Power		20 dBm～-20 dBm,100 kHz～2000 MHz	U=0.07 dB		
				20 dBm～-20 dBm,2000 MHz～4000 MHz	U=0.08 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				20 dBm～-20 dBm,4000 MHz～6000 MHz	U=0.12 dB		
				-20 dBm～-80 dBm,100 kHz～6000 MHz	U=0.13 dB		
				-80 dBm～-110 dBm,100 kHz～6000 MHz	U=0.14 dB		
				-110 dBm～-120 dBm,100 kHz～6000 MHz	U=0.18 dB		
		TX Output Linearity		0 dB ～-46 dB,380 MHz～6000 MHz	U=0.06 dB		
		TX SSB Phase Noise		-150 dBc/Hz～-50 dBc/Hz,50 MHz ～ 6000 MHz	U=0.06 dB		
		TX Harmonics		-70 dB～-30 dB,50 MHz ～ 6000 MHz	U=0.47 dB		
		TX IN-Band Spurious		-70 dB～-30 dB,50 MHz ～ 6000 MHz	U=0.66 dB		
		1XEV-DO TX RHO		0.9 ～1,870 MHz～2150 MHz	U=0.0019		
		1XEV-DO RX ACP		-90 dB～-10 dB,870 MHz～2150 MHz,0 dBm～-10 dBm	U=1.1 dB		
		1XEV-DO RX EVM		0.01%～4% rms,870 MHz～2150 MHz	U=0.1 %		
		1XEV-DO RX Frequency Error		-15 Hz～15 Hz,870 MHz～2150 MHz	U=3.1 Hz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		1XEV-DO IQ Imbalance		-90dB～-40 dB,870 MHz～2150 MHz	U=4.5 dB		
		1XEV-DO Carrier Feedthrough		-90dB～-40 dB，870 MHz～2150 MHz	U=3.2 dB		
		TX Frequency Accuracy (Bluetooth)		2402 MHz ～ 2495 MHz	U=6.7 Hz		
		TX Bluetooth Level Accuracy		－105 dBm ～ 5 dBm,2402 MHz～2495 MHz	U=0.085 dB		
		TX Carrier Suppression		－105 dBm～5 dBm	U=0.2 dB		
		RX Bluetooth Frequency Offset		0.1 kHz～1 MHz	U=0.1 kHz		
		RX Bluetooth Level Accuracy		－105 dBm ～ 5 dBm,2402 MHz～2495 MHz	U=0.3 dB		
		RX Bluetooth LeakagePower		-100 dB～-55 dB,2402 MHz～2495 MHz	U=0.1 dB		
		Rx Bluetooth Frequency Deviation		0.01%～1%，Deviation：100 kHz～210 kHz, modulation index 0.22～ 0.42	U=0.059%		
		Rx Bluetooth Frequency Drift		-75 kHz～75 kHz, Test pattern 10101010	U=0.23 kHz		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Rx Bluetooth RMS EVM		0.01%～3 %，PRBS pattern	U=0.43%		
		Rx Bluetooth PEAK EVM		0.01%～3 %，PRBS pattern	U=0.61%		
		Rx Bluetooth Frequency Stability Wi		Wi (-75～75) kHz, Deviation（0~160) kHz	U=0.24 kHz		
		Rx Bluetooth Frequency Stability Wo		Wo (-10～10) kHz, Deviation（0～160) kHz	U=0.17 kHz		
		C2K TX ACP		-90 dB ～ -10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.1 dB		
		C2K TX EVM		0.01%～25%,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.95%		
		C2K TX RHO		0.9～1,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.001		
		C2K RX ACP		-90 dB ～ -10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=1.1 dB		
		C2K RX EVM		0.01%～25%,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.09 %		
		C2K RX RHO		0.9～1,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.0012		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		C2K RX Frequency Error		0.1 Hz～10 kHz,380 MHz～2800 MHz	U=3.3 Hz		
		C2K RX IQ Imbalance		-90 dB～-40 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=8.3 dB		
		C2K RX Carrier Feedthrough		-90 dB ～ -40 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=3.4 dB		
		EDGE RX Origin Offset		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.48 dB		
		EDGE RX EVM		0.01%～10% ,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.15%		
		EDGE RX ORFS		-90 dB～ -10 dB,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.8 dB		
		EDGE RX Frequency Error		0.1 Hz ～10 kHz,380 MHz～2800 MHz	U=1 Hz		
		EDGE TX EVM		0.01%～10% ,0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.48%		
		TX GSM Frequency Error		-80 kHz ～80 kHz,710 MHz～1990 MHz,0 dBm～-20 dBm	U=6.1 Hz		
		TX GSM Phase Error (Peak, RMS)		-20° ～20° ,710 MHz～1990 MHz	U=0.36°		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX GSM 8PSK EVM		0.01%～10%，710 MHz～1990 MHz	U=0.58%		
		TX GSM Power		-10 dBm ~ 0 dBm，710 MHz～1990 MHz	U=0.14 dB		
				-90 dBm ~ -10 dBm,710 MHz～1990 MHz	U=0.17 dB		
		RX GSM Origin Offset		-90 dB～-40 dB,0 dBm～-20 dBm,710 MHz～1990 MHz	U=2.1 dB		
		RX GSM 8PSK EVM		0.01%~8%,0dBm~-20dBm,710MHz~1990MHz	U=0.19%		
		RX GSM ORFS		-90 dB ～ -10 dB, 0 dBm～-20 dBm,710 MHz～1990 MHz	U=0.31 dB		
		RX GSM Frequency Error		0.01 Hz～10 kHz,710 MHz～1990 MHz	U=0.85 Hz		
		RX GSM Phase Error (Peak)		-4.0° pk～4.0° peak,710 MHz～1990 MHz	U=0.1°		
		RX GSM Phase Error(RMS)		-1.0° rms～1.0° rms,710 MHz～1990 MHz	U=0.26°		
		TX LTE EVM		0.01%～8% ,0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.45%		
		TX LTE Power		0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.14 dB		

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		RX LTE ACP		-80 dB ～ -10 dB,0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.99 dB		
		RX LTE CHP		0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.05 dB		
		RX LTE EVM		0.01%～8% ,0 dBm～-20 dBm,380 MHz～3800 MHz	U=0.27%		
		RX LTE I/Q Offset		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～3800 MHz	U=2.7 dB		
		RX LTE Frequency Error		0.1 Hz～10 kHz,380 MHz～3800 MHz	U=3.1 Hz		
		TX TD-SCDMA Modulation (EVM)		0.01% ～ 18%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.47%		
		TX TD-SCDMA Modulation (Rho)		0.9 ～1 ,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.0019		
		TX TD-SCDMA Power		0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.16 dB		
		RX TD-SCDMA ACP		-80 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=1.1 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX TD-SCDMA EVM		0.01% ～ 10%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.09%		
		RX TD-SCDMA I/Q Imbalance		-90 dB～-40 dB, 0 dBm～-20 dBm,380 MHz～6000 MHz	U=5.7 dB		
		RX TD-SCDMA I/Q Origin Offset		-90 dB～-40 dB, 0 dBm～-20 dBm,380 MHz～6000 MHz	U=3.0 dB		
		RX TD-SCDMA Frequency Error		380 MHz～2800 MHz,0 dBm～-20 dBm	U=2.5 Hz		
		TX WCDMA HSDPA EVM		0.01% ～ 10%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=1.2%		
		TX WCDMA EVM		0.01%～10%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=1.2%		
		TX WCDMA Level Error		0 dBm～-20 dBm,380 MHz～2800 MHz	U=0.14 dB		
		RX WCDMA I/Q Origin Offset		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=1.8 dB		
		RX WCDMA I/Q Imbalance		-50 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=3.5 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX WCDMA Peak Code Domain Error		-1 dB～1 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.1 dB		
		RX WCDMA ACP		-80 dB～-10 dB,0 dBm～-20 dBm,380 MHz～6000 MHz	U=1.1 dB		
		RX WCDMA EVM		0.01%～ 25%,0 dBm～-20 dBm,380 MHz～6000 MHz	U=0.08%		
		RX WCDMA Frequency Error		380 MHz～2800 MHz,0 dBm～-20 dBm	U=1.2 Hz		
		TX WLAN 802.11a EVM		-53 dB～-22 dB,0 dBm～-20 dBm	U=0.29 dB		
		TX WLAN 802.11ac EVM		-53 dB～-22 dB,0 dBm～-20 dBm,80 MHz Bandwidth	U=0.39 dB		
				-53 dB～-22 dB,0 dBm～-20 dBm,160 MHz Bandwidth	U=0.38 dB		
		TX WLAN 802.11b EVM		0.01%～ 8%,0 dBm～-20 dBm	U=0.24%		
		TX WLAN 802.11g EVM		-53 dB～-22 dB,0 dBm～-20 dBm	U=0.31 dB		
		TX WLAN 802.11n EVM		-53 dB～-22 dB,0 dBm～-20 dBm,20 MHz Bandwidth	U=2.2 dB		
				-53 dB～-22 dB,0 dBm～-20 dBm,40 MHz Bandwidth	U=0.29 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX WLAN 802.11a (dB) EVM		-53 dB～-22 dB,0 dBm～-20 dBm	U=1.3 dB		
		RX WLAN 802.11ac EVM		-53 dB～-22 dB,0 dBm～-20 dBm,80 MHz Bandwidth	U=0.39 dB		
				-53 dB～-22 dB,0 dBm～-20 dBm,160 MHz Bandwidth	U=0.38 dB		
		RX WLAN 802.11b EVM		0.01～8%,0 dBm～-20 dBm	U=0.1%		
		RX WLAN 802.11g EVM		-53 dB～-22 dB,0 dBm～-20 dBm,DSSS	U=0.1%		
				0.01%～ 8%, 0 dBm～-20 dBm,OFDM	U=0.48%		
		RX WLAN 802.11b/g Frequency Error		0 dBm～-20 dBm，2484 MHz	U=3.1 Hz		
		RX WLAN 802.11b/g Chip Clock Error		1×10^{-9}～1×10^{-6}，2484 MHz Carrier	$U=5.3 \times 10^{-8}$		
		RX WLAN 802.11b/g IQ Offset		0 dBm～-20 dBm，2484 MHz	U=1.1 dB		
		RX WLAN 802.11b/g IQ Spectrum Flatness		0 dBm～-20 dBm，2484 MHz	U=0.4 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX WLAN 802.11n EVM		-53 dB～-22 dB,0 dBm～-20 dBm,20 MHz Bandwidth	U=3.4 dB		
				-53 dB～-22 dB,0 dBm～-20 dBm,40 MHz Bandwidth	U=3.5 dB		
		RX WLAN 802.11n Frequency Error		2484 MHz， 0 dBm～-20 dBm	U=5.0 Hz		
		RX WLAN 802.11n Chip Clock Error		1×10^{-9}~1×10^{-6}, 2484 MHz Carrier	$U=2.5 \times 10^{-7}$		
		RX WLAN 802.11n IQ Offset		-90 dB～-40 dB, 0 dBm～-20 dBm	U=1.8 dB		
		RX WLAN 802.11n IQ Spectrum Flatness		-1 dB～1 dB, 0 dBm～-20 dBm	U=0.4 dB		
		TX WIMAX EVM		-50 dB～-30 dB, 2500 MHz	U=3.3 dB		
45	*High Frequency Function Generator	Timebase Frequency	High Frequency Function Generator Test Procedure CAL-CHA015-02	1 MHz ~ 10 MHz	$U_{rel}=2.1\times10^{-7}$		
		DC Voltage		-10 V ~ -3.5 V	$U_{rel}=5.5\times10^{-5}$		
				-3.5 V ~ -1.5 V	$U_{rel}=6.5\times10^{-5}$		
				-1.5 V ~-0.25 V	$U_{rel}=1.5\times10^{-5}$		
				-0.25 V ~-0.15 V	$U_{rel}=6.9\times10^{-5}$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-0.15 V ~-0.03 V	U_{rel}=6.9×10^{-5}		
				0.03 V ~0.1 V	U_{rel}=1.4×10^{-4}		
				0.11 V ~1.1 V	U_{rel}=2.2×10^{-4}		
				1.2 V ~10 V	U_{rel}=2.2x10^{-4}		
		AC Amplitude		Vpp0.4185V~2.5V,1MHz ~40MHz	U=1.6%		
		Flatness		(0~1) dB, 500 kHz~0.9 MHz	U=0.055 dB		
				(0~1) dB, 1 MHz～4.9 MHz	U=0.053 dB		
				(0~1) dB, 5 MHz～10 MHz	U=0.058 dB		
				(0~1) dB, 11 MHz～50 MHz	U=0.060 dB		
				(0~1) dB, 51 MHz～240 MHz	U=0.067 dB		
		Harmonic Distortion		-80 dB ~ -40 dB, 500 kHz～240 MHz	U=0.64 dB		
				-80 dB ~ -40 dB, 240 MHz～375 MHz	U=0.73 dB		
		Total Harmonics Distortion		0.01%~ 0.2%, Signal Frequency 20 kHz,peak to peak 1V	U=0.0095%		
		Spurious		-80 dB～-40 dB, Fundamental Frequency 500 kHz～250 MHz	U=0.78 dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-80 dB～-40 dB, Fundamental Frequency 250 MHz~375 MHz	U=0.89 dB		
		Pulse Rise-Fall Time		(1~3) ns, Signal Frequency 2 MHz~10 MHz	U=0.11 ns		
46	*Serial/Par BERT Modules	Frequency	Serial/Par BERT Modules Test Procedure CAL-CHA027-01	300 MHz ～12.4GHz	U_{rel}=1.7×10^{-7}		
		Output Transition Time		0.2 ps～75 ps	U=0.19 ps		
		Output Termination Voltage		-2V ～-0.8 V,1V～5V	U=1.0 mV		
		Output Delay		-0.75 ns～0.75 ns	U=0.19 ps		
		Output Jitter		0.03 ps～10 ps	U=0.71 ps		
		Output Overshoot		1mV～500 mV	U=7.4 mV		
		Generator Width		100 ps～999 ns	U=2.0 ps		
		Output Phase Noise		-100 dBc/Hz～-50 dBc/Hz, 10 GHz(10 kHz Offset)	U=1.3 dB		
		Input Delay		-0.75 ns～0.75 ns	U=1.0 ps		
		Input Phase Margin		0.03 ps～12 ps	U=1.1 ps		
		Input Norm Sensitivity		1 mV ～150 mV	U=2.1 mV		
		Delay Control Input		-110 ps～110 ps	U=1.0 ps		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
47	*Oscilloscope Voltage Probe	Input Resistance	Oscilloscope Voltage Probe Test Procedure CAL-CHA029-01	20 kΩ ～1MΩ	U_{rel}=0.053%		
		Bandwidth		(1.8～3)GHz，power level:0dBm～-10dBm	U=0.070 GHz		
				(3～5)GHz，power level:0dBm～-10dBm	U=0.085 GHz		
				(5~10)GHz，power level:0dBm～-10dBm	U=0.090 GHz		
				(10～12)GHz，power level:0dBm～-10dBm	U=0.094 GHz		
48	*Oscilloscope Differential Probe	DC Voltage	Oscilloscope Differential Probe Calibration Procedure CAL-CHA029-02	-50 mV~ 50 mV	U=0.053 mV		
		Gain		1~500	U_{rel}=0.053%		
		Rise Time		40 ps~265 ps	U=9.1 ps		
				10 ps~40 ps	U=4.7 ps		
		Differential Signal Range		1~10	U_{rel}=0.6%		
		Common ModeRejection Voltage		10 mV~167 mV，Common-ModeRejection Ratio：60 Hz ~ 1 MHz	U=7.0 mV		
		Common ModeRejection Ratio		18 dB~153 dB，frequency：1 MHz~1000 MHz	U=0.77 dB		
		Frequency response		0.1 GHz~1 GHz	U=0.18 dB		
49	*Oscilloscope Current Probe	DC Current	Oscilloscope Current Probe Test Procedure CAL-CHA030-01	DC current：50 mA ~ 100 A，Convert rate 10mV/A~1 V/A	U_{rel}=0.22%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AC Current		50 mA ~ 10 A, Frequency：10 Hz ~ 50 Hz	U=0.024 A		
		AC Current(To Voltage)		50 mA ~ 10 A, Frequency：50 Hz ~ 100 kHz Convert rate 10 mV/A~100 mV/A	U=4.1 mA		
		Bandwidth		Bandwidth DC~ 100 kHz Convert Rate 10 mV/A~ 1V/A	U=0.12		
				Bandwidth 100 kHz ~ 100 MHz，Convert Rate 10 mV/A~ 1V/A	U=0.065		
		Rise time		Rise time 0.1 ns~ 23 ns Convert Rate 10 mV/A~ 200 mV/A	U=0.080 ns		
				上升时间 0.1 ns~ 23 ns 转换比 200 mV/A~ 1 V/A	U=0.058 ns		
50	*Clamp Meter	DC Voltage	Clamp Meter Test Procedure CAL-CHA031-01	60 V,300 V	U=0.053 V		
				540 V	U=0.055 V		
		AC Voltage		60 V,50 Hz	U=0.056 V		
				300 V,50 Hz	U=0.078 V		
				540 V,50 Hz	U=0.15 V		
				60 V,450 Hz	U=0.056 V		
				300 V,450 Hz	U=0.078 V		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				540 V,450 Hz	U=0.15 V		
		DC Current		4 A	U=0.012 A		
				36 A	U=0.22 A		
				540 A	U=2.6 A		
				900 A	U=4.1 A		
		AC Current		4 A,50 Hz	U=0.015 A		
				36 A,50 Hz	U=0.30 A		
				4 A,440 Hz	U=0.021 A		
				36 A,440 Hz	U=0.41 A		
		Resistance		40 Ω	U=0.055 Ω		
				360 Ω	U=0.060 Ω		
				3600 Ω	U=0.56 Ω		
		Frequency		9 Hz～450 Hz	U=0.053 Hz		
51	*Signal Source Analyzer	RF IN Port VSWR	Signal Source Analyzer Test Procedure CAL-CHA033-01	1.001～1.6,10 MHz～30 MHz	U=0.042		
				1.001～1.2,30 MHz～2 GHz	U=0.015		
				1.001～1.3,2 GHz～3 GHz	U=0.028		
		Frequency count		10 MHz～30 MHz,Resolution 64 kHz,-20 dBm～0 dBm	U_{rel}=2.3x10^{-4}		

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				10 MHz～30 MHz,Resolution 64 kHz,0 dBm～20 dBm	U_{rel}=8.9x10^{-5}		
				30 MHz～2 GHz,Resolution 64 kHz,-20 dBm～0 dBm	U_{rel}=2.3x10^{-6}		
				30 MHz～2 GHz,Resolution 64 kHz,0 dBm～20 dBm	U_{rel}=1.5x10^{-6}		
				2 GHz～7 GHz,Resolution 64 kHz,-20 dBm～0 dBm	U_{rel}=1.4x10^{-7}		
				2 GHz～7 GHz,Resolution 64 kHz,0 dBm～20 dBm	U_{rel}=6.3x10^{-7}		
				10 MHz～30 MHz,Resolution 1 kHz,-20 dBm～0 dBm	U_{rel}=1.8x10^{-8}		
				10 MHz～30 MHz,Resolution 1 kHz,0 dBm～20 dBm	U_{rel}=4.4x10^{-7}		
				30 MHz～2 GHz,Resolution 1 kHz,-20 dBm～0 dBm	U_{rel}=4.0x10^{-9}		
				30 MHz～2 GHz,Resolution 1 kHz,0 dBm～20 dBm	U_{rel}=6.3x10^{-9}		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2 GHz～7 GHz,Resolution 1 kHz,-20 dBm～0 dBm	U_{rel}=7.4x10^{-10}		
				2 GHz～7 GHz,Resolution 1 kHz,0 dBm～20 dBm	U_{rel}=2.6x10^{-9}		
				10 MHz～30 MHz,Resolution 10 Hz,-20 dBm～0 dBm	U_{rel}=4.0x10^{-9}		
				10 MHz～30 MHz,Resolution 10 Hz,0 dBm～20 dBm	U_{rel}=1.8x10^{-8}		
				30 MHz～2 GHz,Resolution 10 Hz,-20 dBm～0 dBm	U_{rel}=1.7x10^{-10}		
				30 MHz～2 GHz,Resolution 10 Hz,0 dBm～20 dBm	U_{rel}=4.7x10^{-10}		
				2 GHz～7 GHz,Resolution 10 Hz,-20 dBm～0 dBm	U_{rel}=4.0x10^{-11}		
				2 GHz～7 GHz,Resolution 10 Hz,0 dBm～20 dBm	U_{rel}=5.9x10^{-11}		
		Power Measurement		-20 dBm～20 dBm，10 MHz～30 MHz	U=0.14 dB		
				-20 dBm～20 dBm，30 MHz～3 GHz	U=0.13 dB		

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				-20 dBm～20 dBm，3 GHz～7 GHz	U=0.16 dB		
		SA Relative Level		-2 dB～2 dB, CF 10 MHz～3 GHz , offset -7.5 MHz～7.5 MHz	U=0.17 dB		
		Phase Noise		-3 dB～3 dB，CF 1 GHz ,offset -100 MHz～100 MHz	U=0.23 dB		
				-3 dB～3 dB,CF 10 MHz ,offset -1 MHz～1 MHz	U=0.22 dB		
		Phase Noise Sensitivity		CF 70 MHz ,offset 1 MHz～7 MHz， -180 dBc/Hz ～-160 dBc/Hz	U=2.6 dB		
		DC Power Voltage		1 V	U=0.065 mV		
				2 V	U=0.031 mV		
				5 V	U=0.30 mV		
				10 V	U=0.44 mV		
				12 V	U=0.86 mV		
				16 V	U=0.52 mV		
		DC Current		1 mA～5 mA	U=2.5 μA		
				5 mA～80 mA	U=8 μA		