

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

Address: No.116, Tianfu Sijie, Nanbu Yuanqu, High-Tech Zone, Chengdu, Sichuan, China

Registration No. CNAS L0640

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

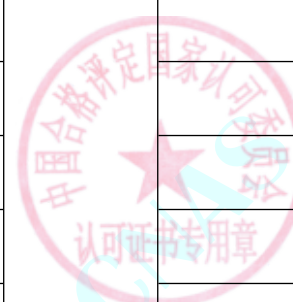
Effective Date: 2024-01-18 Expiry Date: 2030-01-21

CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT
SCHEDULE OF ACCREDITATION CERTIFICATE

SCHEDULE 5 ACCREDITED CALIBRATION AND MEASUREMENT CAPABILITY SCOPE

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

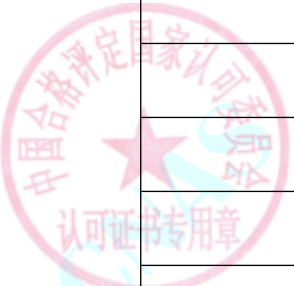
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
未分组							
1	*RF/MW Vector Signal Generator	Power Level	RF/MW Vector Signal Generator Test Procedure CAL-CHA001-01	20 dBm~30 dBm ,9 kHz~14 GHz	U=0.16 dB		
				20 dBm~30 dBm ,14 GHz~18 GHz	U=0.17 dB		
				15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



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No	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=0.030 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		

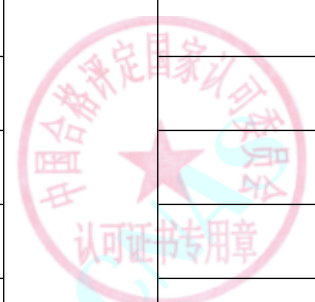


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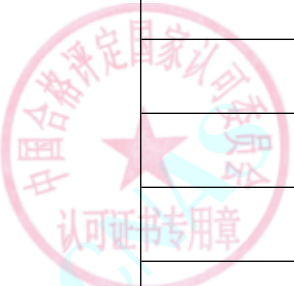
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm~-3 dBm ,100 kHz~8 GHz	U=0.047 dB		
				-20 dBm~-3 dBm ,8 GHz~12.4 GHz	U=0.061 dB		
				-20 dBm~-3 dBm ,12.4 GHz~14 GHz	U=0.070 dB		
				-20 dBm~-3 dBm ,14 GHz~18 GHz	U=0.074 dB		
				-20 dBm~-3 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		



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No	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=0.056 dB		

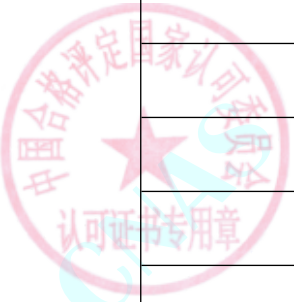


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-110 dBm~-90 dBm ,8 GHz~12.4 GHz	U=0.069 dB		
				-110 dBm~-90 dBm ,12.4 GHz~14 GHz	U=0.077 dB		
				-110 dBm~-90 dBm ,14 GHz~18 GHz	U=0.081 dB		
				-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		

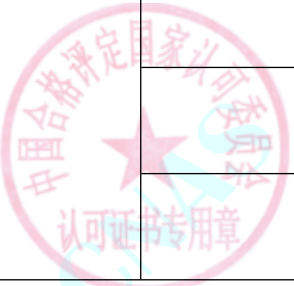


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-130 dBm~-110 dBm ,24 GHz~26.5 GHz	U=0.11 dB		
				-130 dBm~-110 dBm .26.5 GHz~33 GHz	U=0.12 dB		
				-130 dBm~-110 dBm ,33 GHz~40 GHz	U=0.13 dB		
				-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	$U_{rel}=1 \times 10^{-11}$		
		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		

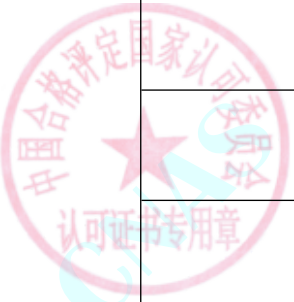


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-146 dBc ~ -30 dBc Carrier 1.0 GHz ~ 10 GHz	U=0.80 dB		
				-146 dBc ~ -30 dBc Carrier 10 GHz ~ 20 GHz	U=0.90 dB		
				-146 dBc ~ -30 dBc Carrier 20 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 ,26.5 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%		

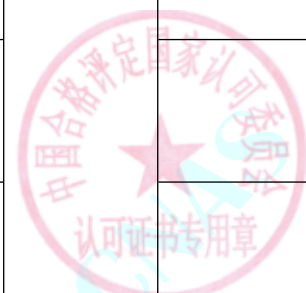


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Residual FM	ilac-M	0.1 Hz~100 Hz, Carrier 250 kHz~250 MHz	U=0.06 Hz		
				0.1 Hz~100 Hz, Carrier 250 MHz~500 MHz	U=0.03 Hz		
				0.1 Hz~100 Hz, Carrier 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=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, 载波频率 500 MHz~1000 MHz, 调制频率 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%		

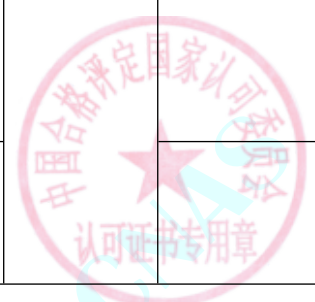


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AM		0.03%~1%,Carrier Frequency: 700 MHz~ 1000 MHz,Phase deviation:(1~90) rad	$U=0.007\%$		
				AM depth 5%~99%,Carrier Frequency: 100 kHz~ 10 MHz, Mod 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: 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	$U_{rel}=6\%$		
		AM Distortion		0.01%~3%,Carrier Frequency: 100 kHz~ 50 GHz, Mod Rate 20 Hz ~ 100 kHz	$U=0.006\%$		

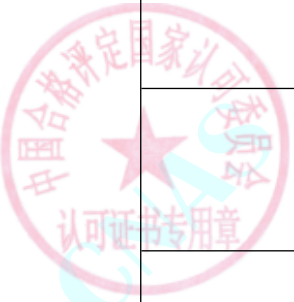


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AM Frequency Response		-3 dB~3 dB,Carrier Frequency: 100 kHz~ 50 GHz,Mod Rate 10 Hz~20 kHz	U=0.025 dB		
				-3 dB~3 dB,Carrier Frequency: 100 kHz~ 50 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		
		Digital Modulation Power Relative to CW		0 dBm~15 dBm,Carrier Frequency: 9 kHz~50 GHz	U=0.002 dB		
		Frequency Switching Speed		180 ns~100 μs,Carrier Frequency: 9 kHz~50 GHz	U=4 ns		



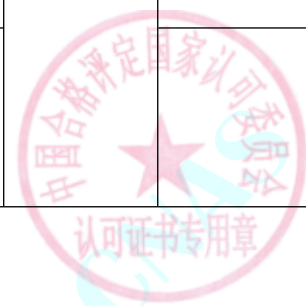
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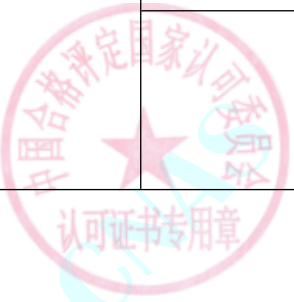
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				100 μs~10 ms,Carrier Frequency: 9 kHz~50 GHz	U=50 μs		
				10 ms~100 ms,Carrier Frequency: 9 kHz~50 GHz	U=0.8 ms		
		Pulse Modulation Level		0 dBm~9 dBm,Carrier Frequency: 9 kHz~50 GHz	U=0.028 dB		
		Pulse Modulation Rise/Fall Time		20 ps~10 ns,Carrier Frequency: 9 kHz~50 GHz	U=0.41 ns		
		Maximum Leveled Output Power		12 dBm~22 dBm,Carrier Frequency: 9 kHz~50 GHz	U=0.05 dB		
		Maximum Leveled Output Power (Wide IQ/FM Mode)		4 dBm~20 dBm,Carrier Frequency: 250 kHz~ 3.2 GHz	U=0.12 dB		
		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		



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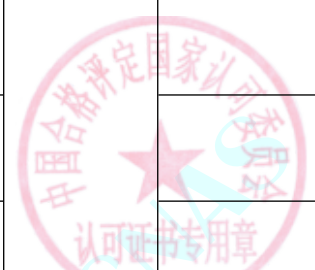
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-150 dBc/Hz~-20 dBc/Hz,Carrier Frequency: 100 MHz~3.2 GHz,Deviation: 100 Hz~10 kHz	U=2.4 dB		
				-150 dBc/Hz~-20 dBc/Hz,Carrier Frequency: 100 MHz~3.2 GHz,Deviation: 10 kHz~1 MHz	U=2.3 dB		
		Single Sideband 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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-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: 100 MHz~20 GHz,Deviation: 1 MHz~100 MHz	U=4.6 dB		
		Sub-Harmonic Spurious		-146 dBc~-40 dBc,Carrier Frequency: 9 kHz~50 GHz	U=0.75 dB		
		Swept Frequency Accuracy		9 kHz~50 GHz	$U_{rel}=3.4 \times 10^{-6}$		
		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		

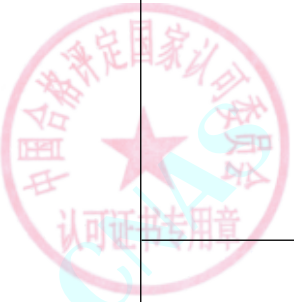


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		CDMA ACP		-80 dB~ -30 dB,Carrier Frequency: 100 MHz~ 2200 MHz	U=0.12 dB		
		CDMA EVM		0.1%~5%,Carrier Frequency: 800 MHz~ 2200 MHz	U=0.023%		
		WCDMA EVM		0.1%~1%,Carrier Frequency: 800 MHz~ 2200 MHz	U=0.03%		
		WCDMA ACP		-80 dB~ -30 dB,Carrier Frequency: 800 MHz~ 2200 MHz(include ACLR)	U=0.30 dB		
		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 (□ /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%		



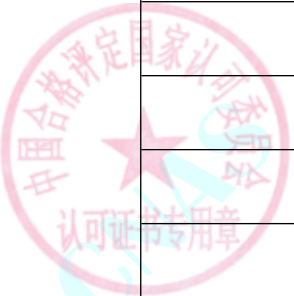
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		GMSK Phase Error RMS		0.1° ~ 1° ,Carrier Frequency: 800 MHz ~ 6000 MHz	U=0.013°		
2	*RF/MW Frequency Synthesizer	Power Level	RF/MW Frequency synthesizer Test Procedure CAL-CHA001-02	0 dBm ~ 18 dBm, 100 kHz ~ 4.2 GHz	U=0.08 dB		
				0 dBm ~ 13 dBm, 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		

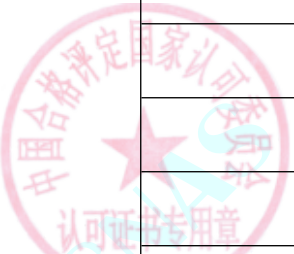


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				0 dBm~-20 dBm,33.5 GHz~50 GHz	U=0.25 dB			
					-20 dBm~-70 dBm,33.5 GHz~50 GHz	U=0.41 dB		
					-70 dBm~-90 dBm,33.5 GHz~50 GHz	U=0.42 dB		
		Frequency		10 MHz	U _{rel} =1.0x10 ⁻¹¹			
		Harmonic Distortion		-146 dBc~-30 dBc ,1 MHz~2 GHz	U=0.5 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		

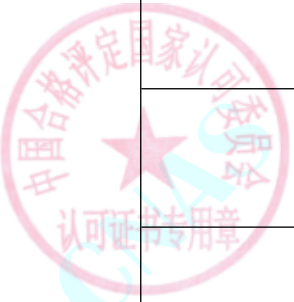


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				-130 dBc ~ -50 dBc ,3.0 GHz ~ 6.0 GHz	U=2.0 dB		
				-130 dBc ~ -50 dBc ,6.0 GHz ~ 13.5 GHz	U=1.8 dB		
				-130 dBc ~ -50 dBc ,13.5 GHz ~ 20 GHz	U=1.9 dB		
				-130 dBc ~ -50 dBc ,20 GHz ~ 40 GHz	U=2.0 dB		
				-130 dBc ~ -50 dBc ,40 GHz ~ 50 GHz	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%		

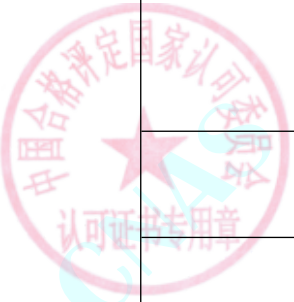


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 MHz~2 MHz, Mod Rate 100 kHz, Carrier frequency 10 MHz ~ 26.5 GHz	$U_{rel}=0.24\%$		
				2.4 MHz, Mod Rate 1 MHz, Carrier frequency 10 MHz ~ 26.5 GHz	$U_{rel}=0.054\%$		
				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	$U_{rel}=2.9\%$		

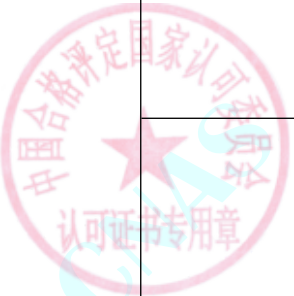


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AM		10%~90%,Mod Rate 1 kHz, Carrier frequency 0.25 MHz ~ 26.5 GHz	$U_{rel}=1.1\%$		
		AM Distortion		1%~6%,AM: 30%~90%,Mod Rate 1 kHz,Carrier frequency 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	$U=0.08\text{ dB}$		
				0 dB~3 dB,Mod Rate 1 kHz~10 kHz,Carrier frequency 0.25 MHz ~ 26.5 GHz	$U=0.02\text{ dB}$		
				0 dB~3 dB,Mod Rate 10 kHz~40 kHz,Carrier frequency 0.25 MHz ~ 26.5 GHz	$U=0.08\text{ dB}$		
				0 dB~3 dB,Mod Rate 40 kHz~250 kHz,Carrier frequency 0.25 MHz ~ 26.5 GHz	$U=0.087\text{ dB}$		
		Single Side Band Phase Noise		-160 dBc/Hz~-25 dBc/Hz,Carrier Frequency: 100 MHz~20 GHz,Deviation: 10 Hz~1 MHz	$U=1.0\text{ dB}$		

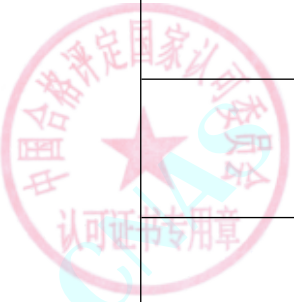


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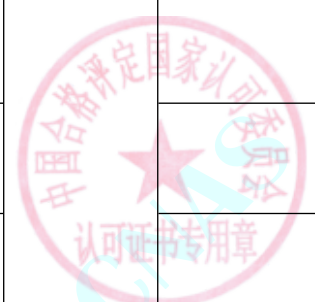
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
3	*RF/MW Signal Generator	ALC Linearity	RF/MW Signal Generator Test Procedure CAL-CHA001-03	0 dBm~13 dBm,100 kHz~2.5 MHz	U=0.11 dB		
				0 dBm~13 dBm,2.5 MHz~500 MHz	U=0.12 dB		
				0 dBm~13 dBm,500 MHz~20 GHz	U=0.20 dB		
				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%						
		AM Distortion					



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AM Frequency Response		0.01%~3%, Carrier Frequency: 3 GHz~6 GHz, AM: 80%, Mod rate 1 kHz	U=0.24%		
				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%		

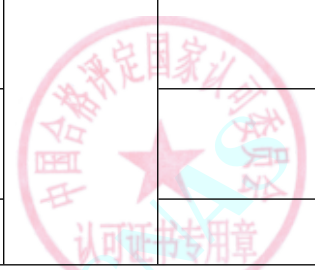


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10%~15%, Carrier Frequency: 100 kHz~6 GHz, Mod rate: 1 kHz	U=0.17%		
				15%~20%, Carrier Frequency: 100 kHz~6 GHz, Mod rate: 1 kHz	U=0.20%		
				20%~30%, 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		

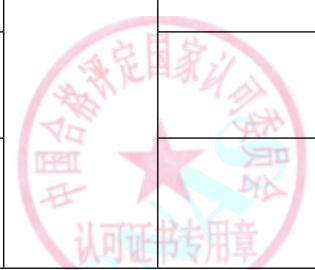


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Power Level		-120.1 dBm~0 dBm,Carrier Frequency: 1 MHz~1275 MHz	U=0.082 dB		
				-119 dBm~-96.1 dBm,Carrier Frequency: 1275 MHz~5400 MHz	U=0.20 dB		
				-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	$U_{rel}=1.9 \times 10^{-7}$		
	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				

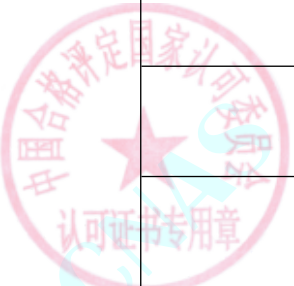


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		EXT Mod ALC Flatness		-1 dB~1 dB, Frequency: 10 Hz~20 Hz, Amplitude: 1 V	U=0.0055 dB		
				-1 dB~1 dB, Frequency: 20 Hz~50 Hz, Amplitude: 1 V	U=0.0058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

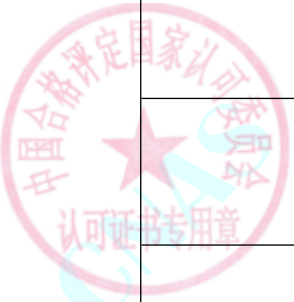


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-1 dB~1 dB, Frequency: 20 kHz~200kHz Hz, Amplitude: 0.7 V	U=0.029 dB		
				-1 dB~1 dB, Frequency: 200 kHz~500kHz Hz, Amplitude: 0.7 V	U=0.089 dB		
				-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		

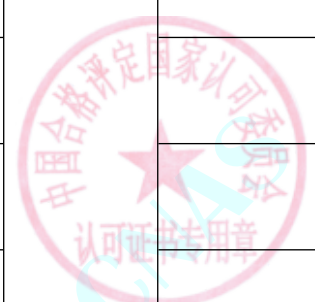


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB~3 dB,Carrier Frequency: 35.5 MHz,Mod Rate: 30 Hz~100 kHz	U=0.22 dB		
				0 dB~3 dB,Carrier Frequency: 2 GHz,Mod Rate: 20 kHz~200 kHz	U=0.09 dB		
		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		



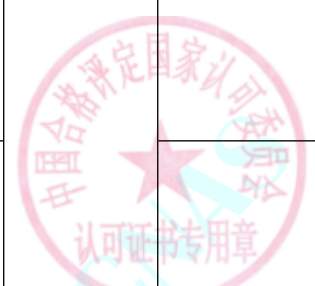
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-70 dBc~-40 dBc,Carrier Frequency: 5 MHz ~ 1.5 GHz	U=0.31 dB		
				-70 dBc~-40 dBc,Carrier Frequency: 1.5 GHz ~ 3 GHz	U=0.74 dB		
				-70 dBc~-40 dBc,Carrier 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		

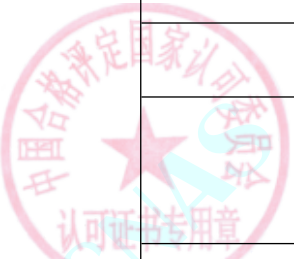


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-18 dBm, IF Frequency: 10 MHz~700 MHz,Carrier Frequency: 12 GHz ~ 16 GHz	U=1.7 dB		
				-18 dBm, IF Frequency: 10 MHz~700 MHz,Carrier Frequency: 16 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%		



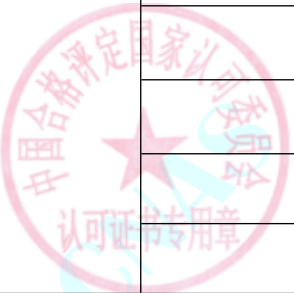
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01%~ 0.1%,Frequency: 20 kHz~100 kHz	U=0.032%		
		MOD GEN Frequency Response		2 dB,Frequency: 10 Hz~20 Hz	U=0.0055 dB		
				2 dB,Frequency: 20 Hz~100 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		

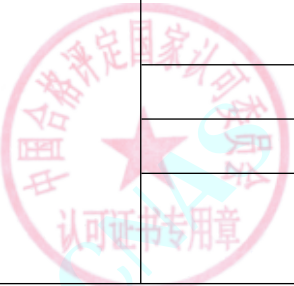


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				100 mV, Frequency: 1 kHz	U=0.13 mV		
				100 mV~300 mV, Frequency: 1 kHz	U=0.59 mV		
				300 mV~1 V, Frequency: 1 kHz	U=1.1 mV		
				1 V~3 V, Frequency: 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		

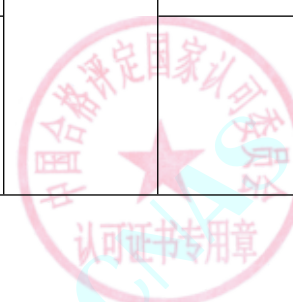


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-70 dBc~-40 dBc,Frequency: 1 MHz~3 GHz	U=0.21 dB		
				-70 dBc~-40 dBc,Frequency: 3 GHz~6.6 GHz	U=0.74 dB		
				-70 dBc~-40 dBc,Frequency: 6.6 GHz~13.2 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		

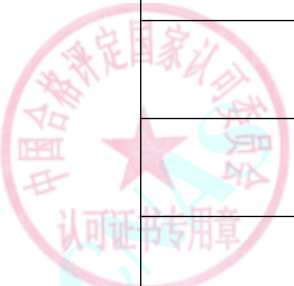


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB~3 dB ,Mod Rate: 10 kHz~20 kHz,Phase: 0.3 rad~10 rad, Carrier Frequency 10MHz~6 GHz	U=0.45 dB		
		Phase MOD ON AM		0.001 rad~0.1 rad,Carrier Frequency: 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		

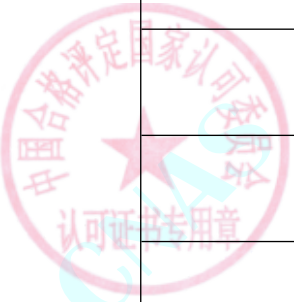


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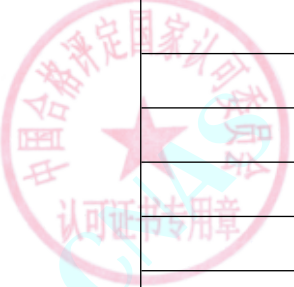
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Pulse Modulation: Rise/Fall Time		0.01 ns~12 ns, Carrier Frequency: 500 MHz~20 GHz	U=0.01 ns		
		Residual FM		0.01 Hz~4 Hz, Carrier Frequency: 1 GHz	U=0.61 Hz		
		Residual AM		0.001%~0.02%, Carrier Frequency: 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		



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			ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF APT/CALIBRATION CERTIFICATE	-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		



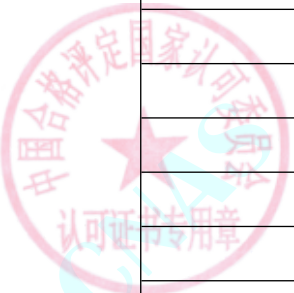
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The scope of the accreditation in Chinese remains the definitive version.

No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AC Voltage		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		
				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		

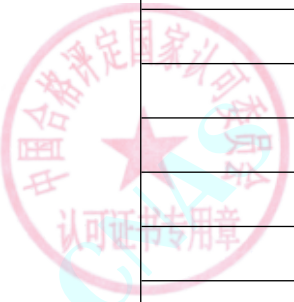


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 V ,50 kHz	U=0.00013 V		
				1 V ,100 kHz	U=0.00020 V		
				1 V ,300 kHz	U=0.00060 V		
				1 V ,500 kHz~1 MHz	U=0.0017 V		
				1 V ,1 MHz~8 MHz	U=0.0067 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		

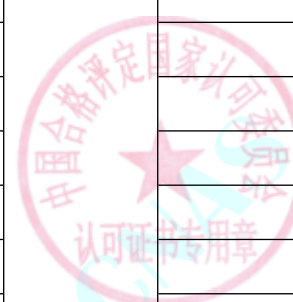


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10 V ,500 kHz	U=0.016 V		
				10 V ,1 MHz	U=0.019 V		
				100 V ,1 kHz	U=0.0041 V		
				100 V ,20 kHz	U=0.0079 V		
				100 V ,50 kHz	U=0.0075 V		
	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



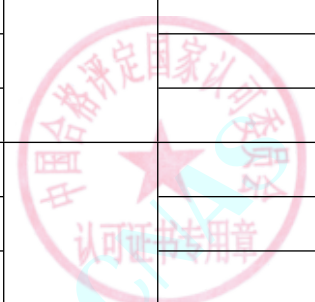
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
			ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	0A, 1 mA Range	$U=0.0000012 \text{ mA}$		
				0A, 10 mA Range	$U=0.000012 \text{ mA}$		
				0A, 100 mA Range	$U=0.00012 \text{ mA}$		
				0A, 1 A Range	$U=0.0000015 \text{ A}$		
		Resistance		10 Ω	$U=0.000086 \Omega$		
				100 Ω	$U=0.00083 \Omega$		
				1 k Ω	$U=0.0000074 \text{ k } \Omega$		
				10 k Ω	$U=0.000074 \text{ k } \Omega$		
				100 k Ω	$U=0.00074 \text{ k } \Omega$		
				1 M Ω	$U=0.0000077 \text{ M } \Omega$		
				10 M Ω	$U=0.00014 \text{ M } \Omega$		
				100 M Ω	$U=0.0018 \text{ M } \Omega$		
		Resistance Offset		0 Ω , 10 Ω Range	$U=0.000021 \Omega$		
		Frequency		1 Hz	$U=0.000020 \text{ Hz}$		
10 MHz	$U=0.000058 \text{ MHz}$						
5	*Digital Multimeter	DC Voltage	Digital Multimeter Test Procedure CAL-CHA002-02	10 mV~220 mV	$U=0.00077\% \times R_d + 0.4 \mu \text{ V}$		
				220 mV~2.2 V	$U=0.00051\% \times R_d + 0.7 \mu \text{ V}$		
				2.2 V~22 V	$U=0.00036\% \times R_d + 3 \mu \text{ V}$		
				22 V~ 220 V	$U=0.00051\% \times R_d + 40 \mu \text{ V}$		

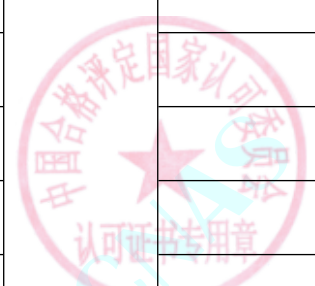


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AC Voltage		220 V~1100 V	$U=0.00067\% \times R_d + 0.4 \text{ mV}$		
				10 mV~22 mV, 20 Hz~40 Hz	$U=0.0095\% \times R_d + 4 \text{ } \mu\text{V}$		
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

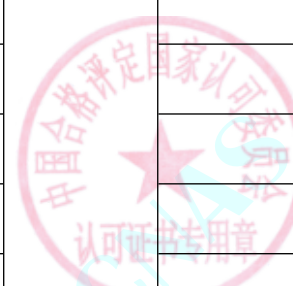


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				220 mV~2.2 V, 20 Hz~40 Hz	$U=0.0095\% \times R_d + 16 \mu V$		
				220 mV~2.2 V, 40 Hz~20 kHz	$U=0.0044\% \times R_d + 8 \mu V$		
				220 mV~2.2 V,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

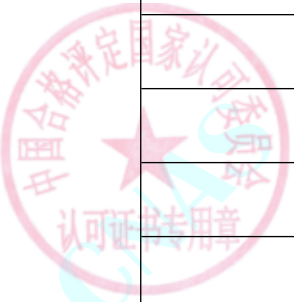


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AC Current		2.2 V~22 V , 500 kHz~1 MHz	$U=0.18\% \times R_d+3.1 \text{ mV}$		
				22 V~220 V, 20 Hz~40 Hz	$U=0.0095\% \times R_d+1.5 \text{ mV}$		
		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

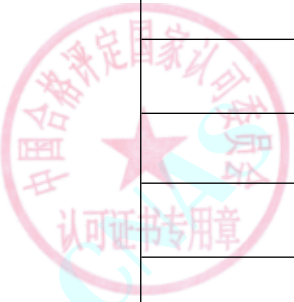


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.022 mA~0.22 mA , 5 kHz~10 kHz	$U=0.11\% \times R_d + 0.69 \mu A$		
				2.2 mA~22 mA, 10 Hz~20 Hz	$U=0.026\% \times R_d + 42 nA$		
				2.2 mA~22 mA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

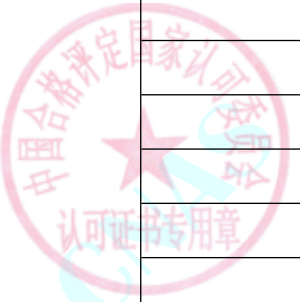


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		DC Current	ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	2.2 A~11 A,40 Hz~1 kHz	$U=0.048\% \times R_d+0.18 \text{ mA}$		
				2.2 A~11 A, 1 kHz~5 kHz	$U=0.10\% \times R_d+0.40 \text{ mA}$		
				0.01 mA~0.22 mA	$U=0.0040\% \times R_d+6.2 \text{ nA}$		
				0.22 mA~2.2 mA	$U=0.0036\% \times R_d+7.1 \text{ nA}$		
				2.2 mA~22 mA	$U=0.0036\% \times R_d+40 \text{ nA}$		
				22 mA~220 mA	$U=0.0046\% \times R_d+0.72 \text{ } \mu \text{ A}$		
				220 mA~2.2 A	$U=0.0082\% \times R_d+12 \text{ } \mu \text{ A}$		
				2.2 A~11 A	$U=0.036\% \times R_d+0.48 \text{ mA}$		
		Resistance		1 Ω	$U=0.023 \text{ m } \Omega$		
				10 Ω	$U=0.23 \text{ m } \Omega$		
				100 Ω	$U=1 \text{ m } \Omega$		
				1 k Ω	$U=6.6 \text{ m } \Omega$		
				10 k Ω	$U=66 \text{ m } \Omega$		
				100 k Ω	$U=0.86 \text{ } \Omega$		
				1 M Ω	$U=13 \text{ } \Omega$		
				10 M Ω	$U=0.004\text{k } \Omega$		
		100 M Ω	$U=10 \text{ k } \Omega$				
				0.2 Ω ~ 10.9999 Ω	$U=0.0039\% \times R_d+50 \text{ } \mu \text{ } \Omega$		

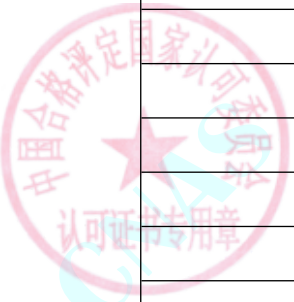


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				11 Ω ~ 109.9999 Ω	$U=0.0023\% \times R_d + 0.9 \text{ m}\Omega$		
				110 Ω ~ 11 k Ω	$U=0.0029\% \times R_d + 0.3 \text{ m}\Omega$		
				11 k Ω ~ 109.9999 k Ω	$U=0.0029\% \times R_d + 0.54 \text{ m}\Omega$		
				110 k Ω ~ 10.99999 M Ω	$U=0.0033\% \times R_d + 4.7 \text{ m}\Omega$		
				11 M Ω ~ 32.99999 M Ω	$U=0.0063\% \times R_d + 41 \text{ m}\Omega$		
				33 M Ω ~ 109.9999 M Ω	$U_{\text{rel}}=0.017\%$		
				110 M Ω ~ 329.9999 M Ω	$U_{\text{rel}}=0.11\%$		
				1 G Ω	$U_{\text{rel}}=0.5\%$		
	Frequency			1 Hz ~ 1 MHz	$U=0.00026\% \times R_d + 0.001 \text{ Hz}$		
	Capacitance			1 μF	$U=0.46 \text{ nF}$		
				1 nF	$U=13 \text{ pF}$		
				5 nF	$U=20 \text{ pF}$		
				10 nF	$U=33 \text{ pF}$		
				0.1 μF	$U=0.28 \text{ nF}$		
		9 μF ~ 10 μF	$U=29 \text{ nF}$				
		0.1 mF	$U=0.43 \mu\text{F}$				
		1 mF	$U=4.3 \mu\text{F}$				
		10 mF	$U=43 \mu\text{F}$				
		100 mF	$U=1 \text{ mF}$				



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Temperature	ilac-M	-200 ° C~-100° C	U=0.33 ° C		
				-100° C~-30 ° C	U=0.29 ° C		
				-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%		



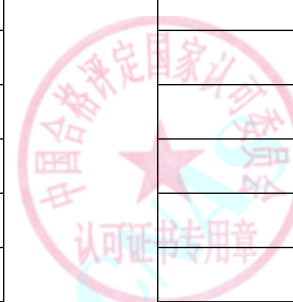
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				17 MHz~100 MHz	$U_{rel}=0.02\%$		
				100 MHz~3590 MHz	$U_{rel}=0.0082\%$		
				3.59 GHz~26.5 GHz	$U_{rel}=0.023\%$		
		Resolution Bandwidth Switching 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	$U_{rel}=0.02\%$				



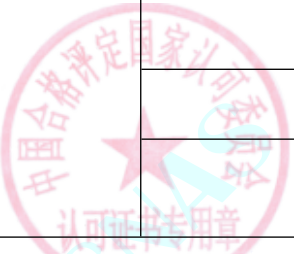
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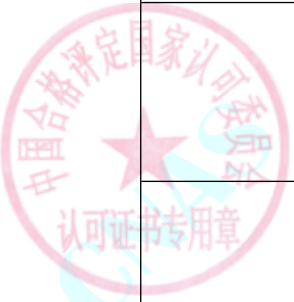
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 MHz	$U_{rel}=0.01\%$		
				2 MHz	$U_{rel}=1.1\%$		
				3 MHz	$U_{rel}=0.19\%$		
				5 MHz	$U_{rel}=1.3\%$		
				10 MHz	$U_{rel}=0.06\%$		
				20 MHz	$U_{rel}=0.03\%$		
				50 MHz	$U_{rel}=0.46\%$		
		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		
		Fast Time Domain Amplitude		0.01 Hz~250 Hz,Center Frequency 2900 MHz	$U=5.9$ Hz		
				1 μ s~1 s	$U_{rel}=0.029\%$		



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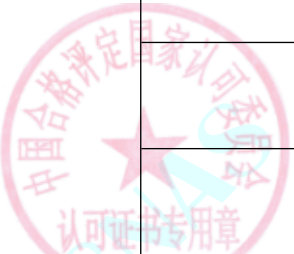
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Noise Sidebands		-80 dBc/Hz~-155 dBc/Hz , 100 Hz~10 kHz Deviation,Center Frequency: 500 MHz~1 GHz	U=0.12 dB		
				-156 dBc/Hz~-80 dBc/Hz , 98 Hz~100 Hz Deviation,Center Frequency: 500 MHz~1 GHz	U=0.48 dB		
				-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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-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 %		
				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		

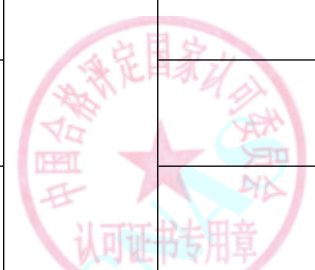


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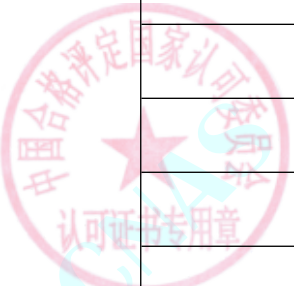
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-172 dBm~-90dBm, 500 kHz~500 MHz, RBW 1 Hz	U=0.33 dB		
				-170 dBm~-90dBm, 500 MHz~2 GHz, RBW 1 Hz	U=0.33 dB		
				-167 dBm~-90dBm, 2 GHz~6.6 GHz, RBW 1 Hz	U=0.33 dB		
				-166 dBm~-90dBm, 6.6 GHz~8.4 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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-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		
				-155 dBm~-90dBm, 46 GHz~50 GHz, RBW 1 Hz	U=0.33 dB		
				-156 dBm~-90dBm, 50 GHz~110 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		
				-140 dBm~-80 dBm ,45 GHz~70 GHz	U=7 dB		
				-140 dBm~-80 dBm ,70 GHz~110 GHz	U=8.7 dB		
		Input Attenuation Switching		0 dB~6 dB,50 MHz	U=0.019 dB		
				6 dB~20 dB,50 MHz	U=0.023 dB		



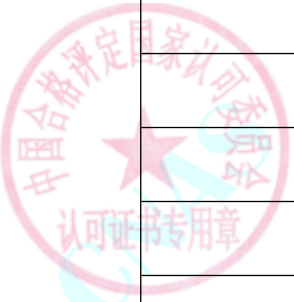
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Uncertainty	ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	20 dB~70 dB,50 MHz	U=0.028 dB		
				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 Spurious Responses		-130 dBc~-40 dBc,11 MHz~3.1 GHz	U=0.17 dB		
				-125 dBc~-40 dBc,1 MHz~11 MHz	U=0.10 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		
		Second Harmonic Distortion		-130 dBc~-40 dBc,39 GHz~50 GHz	U=0.52 dB		
				-120 dBc~-40 dBc,9 MHz~28 MHz	U=0.42 dB		
				-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		

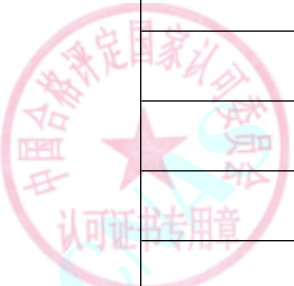


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Third Order Intermodulation Distortion		-120 dBc~-40 dBc,15.5 GHz~31 GHz	U=0.32 dB		
				-100 dBc~-40 dBc,10 MHz~28 MHz	U=0.18 dB		
				-100 dBc~-40 dBc,28 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		
		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		
		Input Frequency Response		-5 dB~5 dB,3 Hz~20 Hz	U=0.060 dB		
				-5 dB~5 dB,20 Hz~9 kHz	U=0.056 dB		
				-5 dB~5 dB,9 kHz~300 kHz	U=0.060 dB		
				-5 dB~5 dB,0.300 MHz~3550 MHz	U=0.051 dB		

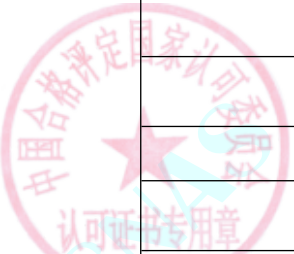


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-5 dB~5 dB,3.55 GHz~18 GHz	U=0.064 dB		
				-5 dB~5 dB,18 GHz~26.5 GHz	U=0.095 dB		
				-5 dB~5 dB,26.5 GHz~39.5 GHz	U=0.18 dB		
				-5 dB~5 dB,39.5 GHz~50 GHz	U=0.24 dB		
		Absolute Amplitude		-80 dBm~-10 dBm,50 MHz	U=0.045 dB		
				-83 dBm~-80 dBm,50 MHz	U=0.076 dB		
				-30 dBm,128 MHz	U=0.076 dB		
				-20 dBm ~ -40 dBm,64 MHz	U=0.06 dB		
				-10 dBm~-1 dBm,50 MHz	U=0.23dB		
		Display Scale Fidelity		-20 dBm~-10 dBm,64 MHz	U=0.093 dB		
				-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		

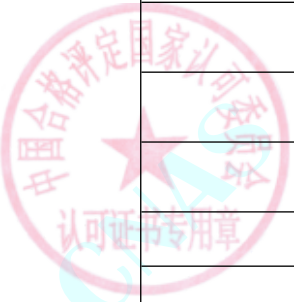


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Input Port Return Loss		-45 dBm~-11 dBm, 50 MHz	U=0.006 dB		
				-11 dBm~0 dBm, 50 MHz	U=0.018 dB		
				-90 dBm~-85 dBm, 128 MHz	U=0.074 dB		
				-85 dBm~-80 dBm, 128 MHz	U=0.025 dB		
				-80 dBm~0 dBm, 128 MHz	U=0.021 dB		
				6 dB~60 dB, 10 MHz~3.5 GHz	U=0.030 dB		
				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				
		RF Reference Output Level		0 dBm~-40 dBm, 128 MHz	U=0.088 dB		
		-10 dBm, 64 MHz		U=0.14 dB			
		Tracking GEN		-3 dB~3 dB, 9 kHz~80 kHz	U=0.089 dB		

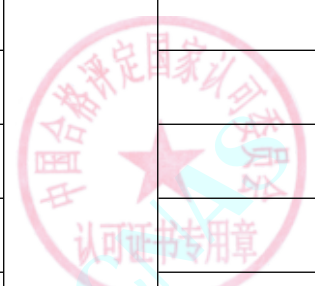


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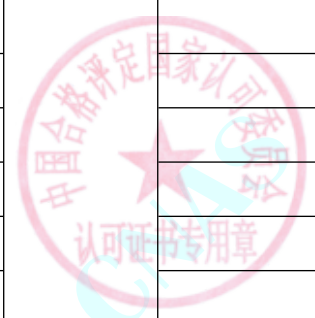
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Frequency Response		-3 dB~3 dB ,80 kHz~2 GHz	U=0.094 dB		
				-3 dB~3 dB ,2 GHz~3 GHz	U=0.11 dB		
				-3 dB~3 dB,3 GHz~5 GHz	U=0.11 dB		
				-3 dB~3 dB,5 GHz~7 GHz	U=0.076 dB		
				-3 dB~3 dB,7 GHz~7.5 GHz	U=0.14 dB		
		Tracking Gen LO		-16 dBm~-90 dBm ,9 kHz~2.9 GHz	U=0.15 dB		
		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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				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		
				4 V, 4 V Range	U=1.6 mV		
		Audio - DC Voltage Measurement		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		
				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		

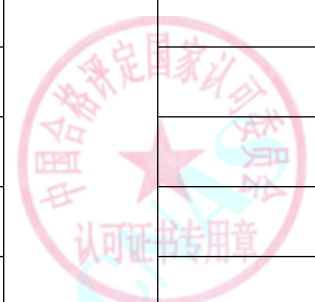


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.3 V,300 kHz,4 V Range	U=1.1 mV		
				0.3 V,20 Hz,0.4 V Range	U=0.071 mV		
				0.3 V,1 kHz ,0.4 V Range	U=0.048 mV		
				0.3 V,20 kHz ,0.4 V Range	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		
				0.1 V,300 kHz,0.4 V Range	U=0.35 mV		
		Audio - Distortion Measurement		-60 dB~-20 dB,100 Hz~80 kHz	U=0.10 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		

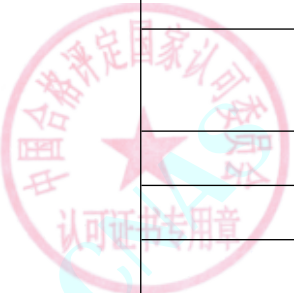


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB~0.05 dB , 3 kHz LPF, Frequency: 1 kHz	U=0.006 dB		
				0 dB~1 dB , 3 kHz LPF, Frequency: 6 kHz	U=0.12 dB		
				0 dB~0.05 dB , 15 kHz LPF, Frequency: 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		

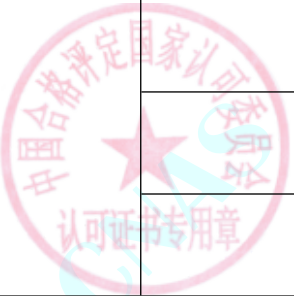


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				9.9 kHz,0.3 V	U=0.00000057 kHz		
				99 kHz,0.3 V	U=0.000012 kHz		
				300 kHz,0.3 V	U=0.000057 kHz		
				990 kHz,0.3 V	U=0.000024 kHz		
				300 kHz,0.1 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%		

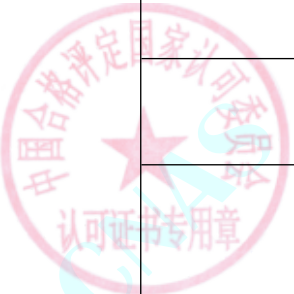


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				5%, Carrier Frequency:12.5 MHz,Mod Rate: 150 Hz	U=0.001%		
				50%, Carrier Frequency:12.5 MHz,Mod Rate: 150 Hz	U=0.006%		
				99%, Carrier Frequency:12.5 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		

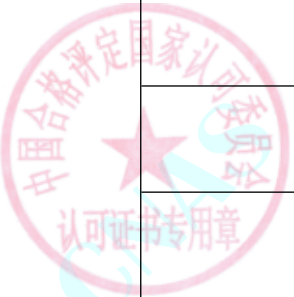


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-50.5 dB,Carrier Frequency:12.5 MHz,Mod Rate:1 kHz ,99 %	U=0.39 dB		
				-50.5 dB,Carrier Frequency:12.5 MHz,Mod Rate:10 kHz 99 %	U=0.15 dB		
				-50.5 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%		

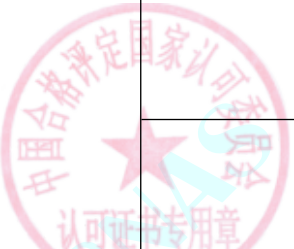


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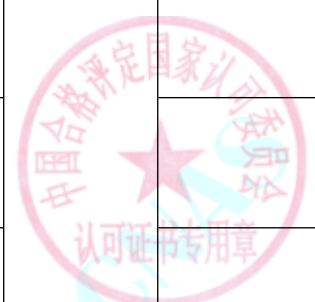
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		FM - Frequency Deviation		5.52 kHz, Carrier Frequency: 200 kHz, Mod Rate: 1 kHz	U=0.001 kHz		
				55.2 kHz, Carrier Frequency: 200 kHz, Mod Rate: 10 kHz	U=0.006 kHz		
				50 kHz, Carrier Frequency: 200 kHz, 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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-50.5 dB,Carrier Frequency:200 kHz,Mod Rate:10 kHz Deviation: 50 kHz	U=0.14 dB		
				-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		

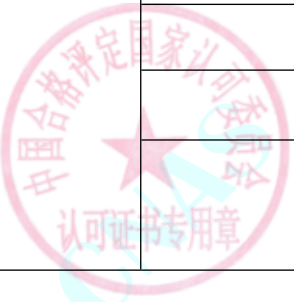


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		FM - Residual FM		0.1 Hz~1 Hz,Carrier Frequency:300 kHz	U=0.058 Hz		
				0.1 Hz~1 Hz,Carrier Frequency:600 MHz	U=0.066 Hz		
		PM - Phase Deviation		0.1 Hz~2.5 Hz,Carrier Frequency:3 GHz	U=0.086 Hz		
				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		
		PM - Inherent PM Distortion		400 rad,Carrier Frequency:12 MHz, Mod Rate:1 kHz	U=0.057 rad		
				-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		
		PM - AM Rejection		-60 dB,5 rad,Mod Rate:100 kHz	U=0.11 dB		
				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		

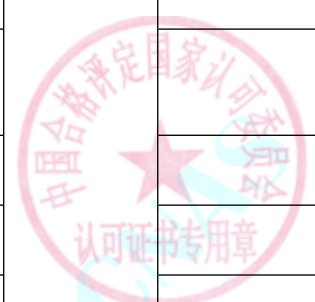


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Tracking GEN IQ Modulation Harmonic		-60 dBc~-30 dBc,+90 °, Frequency: 1000 MHz	U=0.10 dB		
				-60 dBc~-30 dBc,+90 °, Frequency 999 MHz	U=0.10 dB		
				-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		

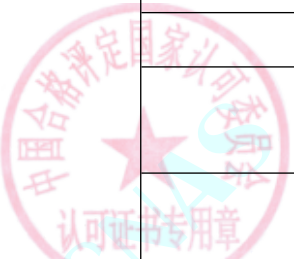


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				3~5,Resolution Bandwidth 30 kHz	U=0.028		
				3~5,Resolution Bandwidth 100 kHz	U=0.01		
				3~5,Resolution Bandwidth 300 kHz、1 MHz	U=0.02		
				3~5,Resolution 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~- 120dBm/Hz, 1.8 GHz ~ 42 GHz	U=0.57 dB		
				-156 dBm/Hz~-120 dBm/Hz, 42 GHz ~ 110 GHz, 1.8 GHz ~ 42 GHz	U=0.57 dB		

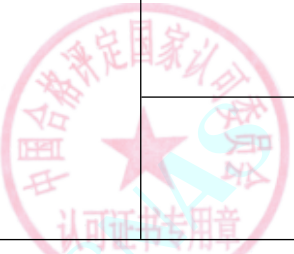


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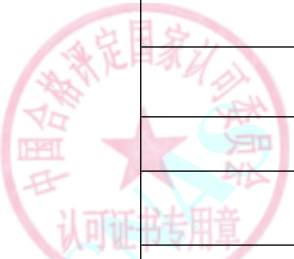
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		IF Frequency Response		-1 dB~1 dB, Carrier 1.825 GHz, -30 dBm~0 dBm, Span 1 kHz ~ 10 MHz	U=0.011 dB		
				-1 dB~1 dB, Carrier 1.825 GHz~42.25 GHz, -30 dBm~0 dBm, Span 10 MHz~80 MHz	U=0.04 dB		
				-1 dB~1 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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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	$U=0.002\%$		
				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		
		Input RF level		-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		

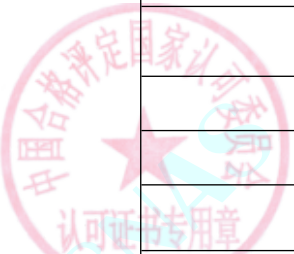


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-5 dB ~ 5 dB, 3.01 GHz~6 GHz	U=0.070 dB		
				-5 dB ~ 5 dB, 6.01 GHz~12 GHz	U=0.11 dB		
				-5 dB ~ 5 dB, 12.01 GHz ~ 16 GHz	U=0.13 dB		
				-5 dB ~ 5 dB, 16.01 GHz ~ 26.5 GHz	U=0.18 dB		
		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		
		Total Amplitude Accuracy		-10 dBm~0 dBm,50 GHz~52 GHz	U=0.63 dB		



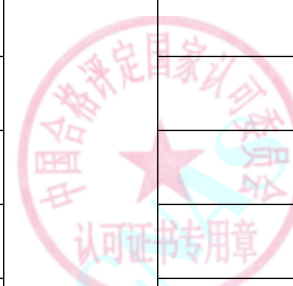
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-10 dBm~0 dBm,52 GHz~57.6 GHz	U=0.64 dB		
				-10 dBm~0 dBm,57.6 GHz~59.2 GHz	U=0.65 dB		
				-10 dBm~0 dBm,59.2 GHz~62.4 GHz	U=0.66 dB		
				-10 dBm~0 dBm,62.4 GHz~66.4 GHz	U=0.67 dB		
				-10 dBm~0 dBm,66.4 GHz~68 GHz	U=0.68 dB		
				-10 dBm~0 dBm,68 GHz~68.8 GHz	U=0.69 dB		
				-10 dBm~0 dBm,68.8 GHz~70.4 GHz	U=0.70 dB		
				-10 dBm~0 dBm,70.4 GHz~72.8 GHz	U=0.71 dB		
				-10 dBm~0 dBm,72.8 GHz~75 GHz	U=0.72 dB		
				-10 dBm~0 dBm,75 GHz~76.3 GHz	U=0.74 dB		
				-10 dBm~0 dBm,76.3 GHz~77.5 GHz	U=0.73 dB		
				-10 dBm~0 dBm,77.5 GHz~78.3 GHz	U=0.72 dB		
				-10 dBm~0 dBm,78.3 GHz~79.9 GHz	U=0.71 dB		
				-10 dBm~0 dBm,79.9 GHz~81.1 GHz	U=0.72 dB		

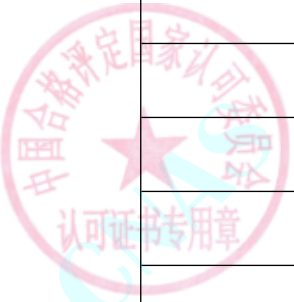


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-10 dBm~0 dBm,81.1 GHz~81.5 GHz	U=0.73 dB		
				-10 dBm~0 dBm,81.5 GHz~83.1 GHz	U=0.74 dB		
				-10 dBm~0 dBm,83.1 GHz~86.7 GHz	U=0.75 dB		
				-10 dBm~0 dBm,86.7 GHz~87.5 GHz	U=0.74 dB		
				-10 dBm~0 dBm,87.5 GHz~88.3 GHz	U=0.73 dB		
				-10 dBm~0 dBm,88.3 GHz~89.1 GHz	U=0.72 dB		
				-10 dBm~0 dBm,89.1 GHz~90 GHz	U=0.71 dB		
				-10 dBm~0 dBm,90 GHz~90.4 GHz	U=0.73 dB		
				-10 dBm~0 dBm,90.4 GHz~93.6 GHz	U=0.72 dB		
				-10 dBm~0 dBm,93.6 GHz~95.2 GHz	U=0.73 dB		
				-10 dBm~0 dBm,95.2 GHz~96 GHz	U=0.74 dB		
				-10 dBm~0 dBm,96 GHz~96.8 GHz	U=0.75 dB		
				-10 dBm~0 dBm,96.8 GHz~99.2 GHz	U=0.77 dB		
				-10 dBm~0 dBm,99.2 GHz~100 GHz	U=0.76 dB		



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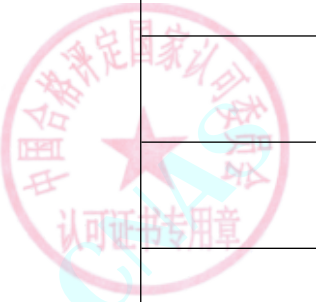
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-10 dBm~0 dBm,100 GHz~103.2 GHz	U=0.74 dB		
				-10 dBm~0 dBm,103.2 GHz~104 GHz	U=0.73 dB		
				-10 dBm~0 dBm,104 GHz~105.6 GHz	U=0.74 dB		
				-10 dBm~0 dBm,105.6 GHz~108 GHz	U=0.75 dB		
				-10 dBm~0 dBm,108 GHz~110 GHz	U=0.76 dB		
		IF Input Gain Accuracy	-5 dB~5 dB,250 MHz~878 MHz	U=0.19 dB			
		LO Output Power Accuracy	0 dBm~20 dBm,3 GHz~6 GHz	U=0.062 dB			
			0 dBm~20 dBm,6 GHz~10 GHz	U=0.068 dB			
			0 dBm~20 dBm,10 GHz~14 GHz	U=0.074 dB			
		7	*EMI Receiver	Frequency Reference	EMI Receiver Test Procedure CAL-CHA003-02		
Frequency Readout	517.59 MHz~832.5 MHz, Frequency Span:1.98 MHz			U=0.3 kHz			
	1505 MHz, Frequency Span:318 MHz			U=0.048 MHz			
	1505 MHz, Frequency Span:127 MHz			U=0.019 MHz			
	1505 MHz, Frequency Span:54 MHz			U=0.048 MHz			



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				1505 MHz, Frequency Span:7.95 MHz	$U=0.0083$ MHz		
				1505 MHz, Frequency Span:0.106 MHz	$U=0.016$ kHz		
		Count Accuracy		1 GHz,	$U=0.0048$ Hz		
		Frequency Span		17 MHz~680 MHz, Center Frequency: 200 MHz	$U_{rel}=0.0041\%$		
				680 MHz~1522.5 MHz, Center Frequency: 350 MHz~2838.75 MHz	$U_{rel}=0.0082\%$		
		Resolution Bandwidth Switching Uncertainty		-1 dB~1 dB, Resolution Bandwidth:300 Hz~100 kHz	$U=0.021$ dB		
				-1 dB~1 dB, Resolution Bandwidth:100 kHz~300 kHz	$U=0.024$ dB		
				-1 dB~1 dB, Resolution Bandwidth:300 kHz~1 MHz	$U=0.030$ dB		
				-1 dB~1 dB, Resolution Bandwidth:1 MHz~1.5 MHz	$U=0.033$ dB		
				-1 dB~1 dB, Resolution Bandwidth:1.5 MHz~2 MHz	$U=0.036$ dB		
				-1 dB~1 dB, Resolution Bandwidth:2 MHz~3 MHz	$U=0.042$ dB		

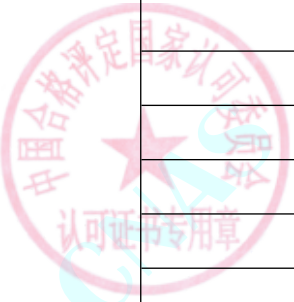


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				-1 dB~1 dB, Resolution Bandwidth:3 MHz~4 MHz	U=0.047 dB		
				-1 dB~1 dB, Resolution Bandwidth:4 MHz~5 MHz	U=0.051 dB		
				-1 dB~1 dB, Resolution Bandwidth:5 MHz~6 MHz	U=0.055 dB		
				-1 dB~1 dB, Resolution Bandwidth:6 MHz~8 MHz	U=0.062 dB		
		Phase Noise		-80 dBc/Hz~-155 dBc/Hz, Deviation: 0.1 kHz	U=0.63 dB		
				-80 dBc/Hz~-155 dBc/Hz, Deviation: 10 kHz	U=0.38 dB		
				-80 dBc/Hz~-155 dBc/Hz, Deviation: 100 kHz~1000 kHz	U=0.63 dB		
		Input Attenuation Switching Uncertainty		0 dB~6 dB, 50 MHz	U=0.021 dB		
				6 dB~8 dB, 50 MHz	U=0.019 dB		
				8 dB~20 dB, 50 MHz	U=0.025 dB		
				20 dB~30 dB, 50 MHz	U=0.024 dB		
				30 dB~40 dB, 50 MHz	U=0.023 dB		

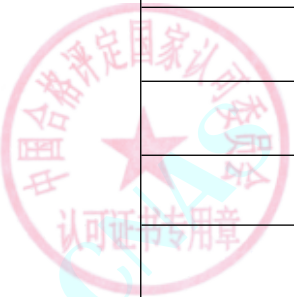


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		Second Harmonic Intercept		40 dB~70 dB, 50 MHz	U=0.022 dB		
				-120 dBc~-40 dBc, 10 MHz~1.8 GHz	U=0.92 dB		
				-120 dBc~-40 dBc, 1.8 GHz~8.2 GHz	U=0.95 dB		
		Gain Compression		-120 dBc~-40 dBc, 8.2 GHz~12.4GHz	U=1.0 dB		
				0 dB~1 dB, 50 MHz~3.5 GHz	U=0.14 dB		
				0 dB~1 dB, 3.5 GHz~15.3 GHz	U=0.16 dB		
		Frequency Responses		0 dB~1 dB, 15.3 GHz~19.9 GHz	U=0.17 dB		
				-1.15 dB~1.15 dB, 20 Hz~3.25 GHz	U=0.14 dB		
				-1.15 dB~1.15 dB, 3.25 GHz~3.6 GHz	U=0.15 dB		
				-2 dB~2 dB, 3.6 GHz~17.85 GHz	U=0.23 dB		
				-2.85 dB~2.85 dB, 17.85 GHz~23.45 GHz	U=0.20 dB		
				-2.85 dB~2.85 dB, 23.45 GHz~26.5 GHz	U=0.24 dB		
				-3 dB~3 dB, 26.5 GHz~29.85 GHz	U=0.39 dB		
				-3 dB~3 dB, 29.85 GHz~34.45 GHz	U=0.40 dB		

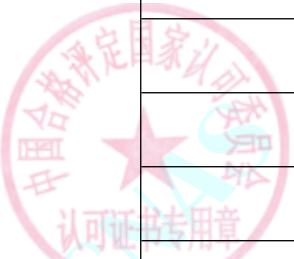


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-4.1 dB~-4.1 dB, 34.45 GHz~36.85 GHz	U=0.51 dB		
				-4.1 dB~-4.1 dB, 36.85 GHz~39.85 GHz	U=0.52 dB		
				-4.1 dB~-4.1 dB, 39.85 GHz~41.85 GHz	U=0.65 dB		
				-4.1 dB~-4.1 dB, 41.85 GHz~44 GHz	U=0.66 dB		
		Absolute Amplitude		-70 dBm~-25 dBm, 50 MHz	U=0.059 dB		
				-25 dBm~-20 dBm, 50 MHz	U=0.058 dB		
				-20 dBm~-10 dBm, 50 MHz	U=0.059 dB		
		Display Scale Fidelity		-85 dBm~-75 dBm, 50 MHz	U=0.023 dB		
				-75 dBm~-45 dBm, 50 MHz	U=0.022 dB		
				-45 dBm~-16 dBm, 50 MHz	U=0.021 dB		
		Displayed Average Noise Level		-170 dBm~-90 dBm, 9 kHz~1 GHz	U=0.12 dB		
				-170 dBm~-90 dBm, 1 GHz~44 GHz	U=0.34 dB		
		Residual Response		-130 dBm~-100 dBm, 1.25 MHz~6 MHz	U=0.54 dB		
				-130 dBm~-100 dBm, 6 MHz~3.6 GHz	U=0.57 dB		

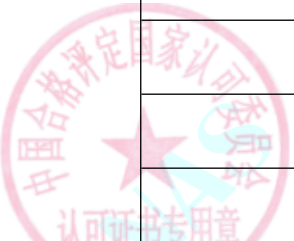


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-130 dBm~-100 dBm, 3.6 GHz~4.8 GHz	U=1.1 dB		
		RBW Selectivity CISPR Bands		-6 dB~1.5 dB, Carrier Frequency: 9 kHz ~ 18 GHz, RBW: 200 Hz, 9 kHz, 120 kHz, 1 MHz	U=0.031 dB		
		Conducted Band Sine Wave (Peak, Ave)		-3 dB~3 dB, 9 kHz~30 MHz	U=0.15 dB		
		Radiated Band Sine Wave (Peak, Ave)		-2.5 dB~2.5 dB, 30 MHz~3.6 GHz	U=0.15 dB		
				-2.5 dB~2.5 dB, 3.6 GHz~5 GHz	U=0.18 dB		
				-2.5 dB~2.5 dB, 5 GHz~ 9 GHz	U=0.28 dB		
				-2.5 dB~2.5 dB, 9 GHz~18 GHz	U=0.40 dB		
		Responses To Pulses (Peak, Ave, RMS)		30 dB μ V ~ 120 dB μ V, 9 kHz~150 kHz	U=0.53 dB		
				30 dB μ V ~ 120 dB μ V, 150 kHz~30 MHz	U=0.43 dB		
				30 dB μ V ~ 120 dB μ V, 30 MHz~1 GHz	U=0.61 dB		
				30 dB μ V ~ 120 dB μ V, 1 GHz~18 GHz	U=0.35 dB		

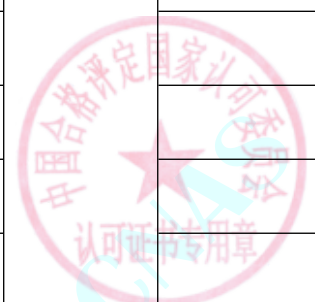


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Variation With Pulse Repetition Frequency (Ave, RMS)	ilac-MRA INTERNATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	30 dB μ V \sim 120 dB μ V, 9 kHz \sim 18 GHz	U=0.12 dB		
		Responses To Intermittent Disturbances (Ave, RMS)		30 dB μ V \sim 120 dB μ V, 9 kHz \sim 18 GHz	U=0.12 dB		
		Spurious Responses		-135 dBc \sim -80 dBc,10 MHz \sim 225 MHz	U=0.40 dB		
				-135 dBc \sim -80 dBc,225 MHz \sim 2.1765 GHz	U=0.38 dB		
				-135 dBc \sim -80 dBc,2.1765 GHz \sim 5.5 GHz	U=0.42 dB		
				-135 dBc \sim -80 dBc,5.5 GHz \sim 15.5 GHz	U=0.56 dB		
				-135 dBc \sim -80 dBc,15.5 GHz \sim 23 GHz	U=0.60 dB		
				-135 dBc \sim -80 dBc,23 GHz \sim 25 GHz	U=0.54 dB		
				-135 dBc \sim -80 dBc,25 GHz \sim 40 GHz	U=0.72 dB		
				-135 dBc \sim -80 dBc,40 GHz \sim 44 GHz	U=0.90 dB		
		3rd order Inter-Modulation Distortion	-9 dBm \sim 23 dBm,10 MHz \sim 50.1 MHz	U=0.26 dB			



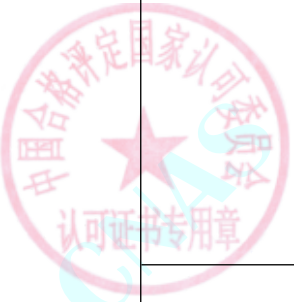
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-9 dBm~23 dBm,50.1 MHz~1 GHz	U=0.27 dB		
				-9 dBm~23 dBm,1 GHz~5 GHz	U=0.33 dB		
				-9 dBm~23 dBm,5 GHz~18 GHz	U=0.46 dB		
				-9 dBm~23 dBm,18 GHz~44 GHz	U=0.55 dB		
		CISPR 16 Pulse Quasi Peak Absolute Amplitude		30 dB μ V ~ 120 dB μ V , 9 kHz~30 MHz	U=0.37 dB		
				30 dB μ V ~ 120 dB μ V , 30 MHz~300 MHz	U=0.55 dB		
		Q-P Detector Variation With Pulse Repetition Freq		30 dB μ V ~ 120 dB μ V , 9 kHz~150 kHz	U=0.10 dB		
				30 dB μ V ~ 120 dB μ V , 150 kHz~30 MHz	U=0.11 dB		
				30 dB μ V ~ 120 dB μ V , 30 MHz~1 GHz	U=0.12 dB		
		CISPR 16 Pulse Quasi Peak To Average、Peak And RMS Detector Relative Response Ratio		30 dB μ V ~ 120 dB μ V , 9 kHz~1 GHz	U=0.12 dB		
		Conducted Band VSWR		1~2,9 kHz~10 kHz	U=0.034		



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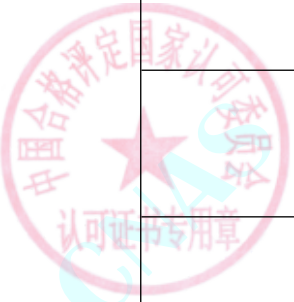
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Radiated Band VSWR	ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	1~2,10 kHz~1.55 MHz	U=0.018		
				1~2,1.55 MHz~30 MHz	U=0.016		
				1~3, 30 MHz~1.5 GHz	U=0.016		
				1~3, 1.5 GHz~17.5 GHz	U=0.028		
				1~3, 17.5 GHz~44 GHz	U=0.034		
		Power Bandwidth		-1 dB~1 dB, Carrier 50 MHz, -30 dBm~0 dBm, Resolution Bandwidth 1 Hz~100 kHz	U=0.003 dB		
				-1 dB~1 dB, Carrier 50 MHz, -30 dBm~0 dBm, Resolution Bandwidth 110 kHz~1 MHz	U=0.006 dB		
		IF Frequency Response		-1 dB~1 dB, Carrier : 1.825 GHz, -30 dBm~0 dBm	U=0.044 dB		
		Noise Density		-170 dBm/Hz~-146 dBm/Hz, 1.8 GHz	U=0.57 dB		
		8		*Digital Mobile Test Set	RF GEN Level		
-39 dBm~-54 dBm, 850 MHz~2650 MHz	U=0.20 dB						
-54 dBm~-69 dBm, 850 MHz~2650 MHz	U=0.21 dB						



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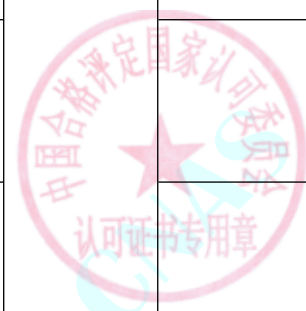
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-69 dBm~-89 dBm, 850 MHz~2650 MHz	U=0.22 dB		
				-89 dBm~-110 dBm, 850 MHz~2650 MHz	U=0.23 dB		
		RF GEN Harmonics Distortion		-20 dBc~-90 dBc, 810 MHz~960 MHz	U=0.6 dB		
				-20 dBc~-90 dBc, 960 MHz~1700 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%		



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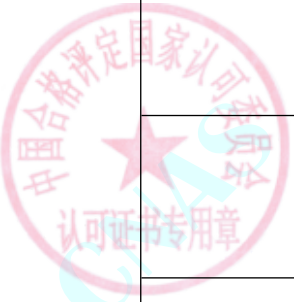
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TDMA GEN Digital Modulation Magnitude Error		0.01%~2%, Carrier Frequency: 790 MHz~ 1667 MHz	U=0.38%		
		TDMA GEN Digital Mod Phase Error		0.01°~2°, Carrier Frequency: 790 MHz~ 1667 MHz	U=0.3°		
		TDMA GEN Digital Mod 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%		
		TDMA Analyzer Digital MOD Phase Error		-4° ~4°, Carrier Frequency: 900 MHz~ 1900 MHz	U=0.3°		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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 °		
		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		



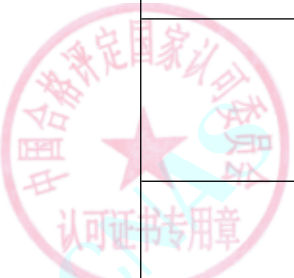
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TDMA Analyzer Adjacent Power Accuracy	ilac-MRA CNAS CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF APPROVED CERTIFICATE	-1.2 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 MOD 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°		
		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		

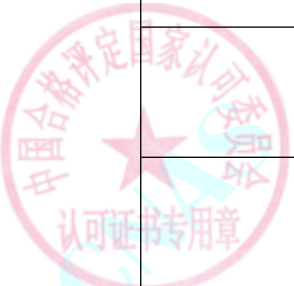


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		GSM AN MOD Accuracy Peak Phase Error		-4.0 ° ~ 4.0 ° , Carrier 835 MHz ~ 1880 MHz	U=1.4 °		
		GSM AN MOD Accuracy RMS Phase Error		-1.0 ° ~ 1.0 ° , Carrier 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		
		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		

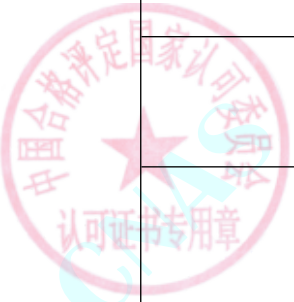


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		CDMA AN Average Power		-9.0 dBm~3.0 dBm , Carrier 850 MHz~1850 MHz	U=0.1 dB		
		CDMA AN Tuned Power		-56 dBm~-1.0 dBm , Carrier 834 MHz~1960 MHz	U=0.14 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%		
		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		

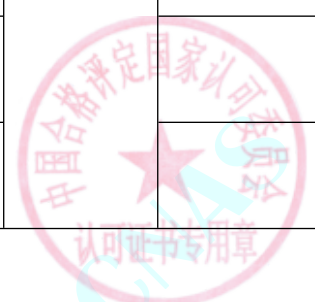


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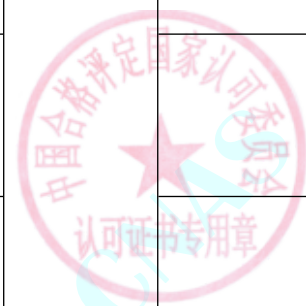
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		1xEV AN Modulation Accuracy Residual EVM		4% , Carrier 900 MHz~1900 MHz	U=0.38%		
		1xEV AN Tuned Power		-56.0 dBm~-1.0 dBm,Carrier 834 MHz~1960 MHz	U=0.14 dB		
		WCDMA GEN Digital Power		-26.94 dBm~-16.94 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		
		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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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 °		
		AA GEN Modulation Accuracy Peak EVM Uncertainty		0.1%~4%,Carrier 478.2 MHz~2687.6 MHz	U=0.5%		
		AA GEN Modulation Accuracy Origin Offset		-39 dB~-30 dB, Carrier 478.2 MHz~2687.6 MHz	U=1.6 dB		

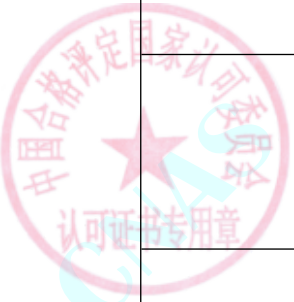


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AA GEN Spurious		-80 dBc~-50 dBc,Carrier 955.884 MHz~2010 MHz	U=0.9 dB		
		AA GEN Level		-30 dBm~-80 dBm,Carrier 460.6 MHz~2687.6 MHz	U=0.29 dB		
		AA 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%		
		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		



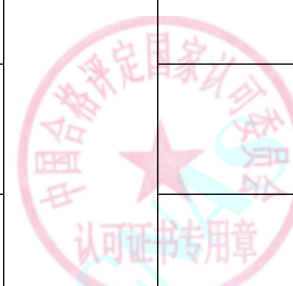
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TD-SCDMA GEN Modulation Accuracy EVM	ilac-MRA CNAS INTERNATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF A CERTIFICATE	0.1%~10%, Carrier 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		
		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%		

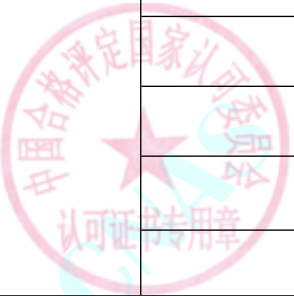


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		EGPRS AN Modulation Accuracy Frequency Error		-10 Hz~10 Hz,Carrier 450 MHz~1990 MHz	$U=1$ Hz		
		EGPRS AN Modulation Accuracy Origin Offset		-1.5 dB~1.5 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 Residual 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	$U=0.11\%$		
				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		
		Timebase Frequency		10 MHz	$U_{rel}=1 \times 10^{-11}$		

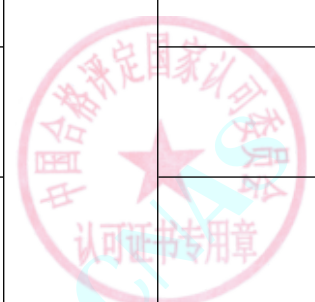


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
9	*Wireless Communications Test Set	TX/RX Port Isolation	Wireless Communications Test Set Test Procedure CAL-CHA004-02	-140 dB~-40 dB,300 MHz~6000 MHz	U=0.6 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		
		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%		

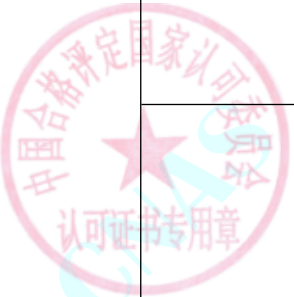


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Audio Analyzer Linearity		0.01%~2%,0.02 V ~5 V,20 kHz	U=0.05%		
		RX SSB/Phase Noise		-150 dBc/Hz~-50 dBc/Hz,50 MHz ~ 6000 MHz	U=0.1 dB		
		RX Average 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		
		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		

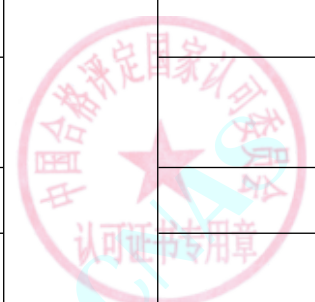


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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX Frequency Response		-5 dB~5 dB,-60 dBm~0 dBm,200 MHz~6000 MHz	U=0.12 dB		
		RX Residual AM		0.001%~1%,-40 dBm~0 dBm,50 MHz ~ 6000 MHz	U=0.001%		
		RX 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		
		RX IF Frequency Response		0 dB~3 dB, Carrier 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		

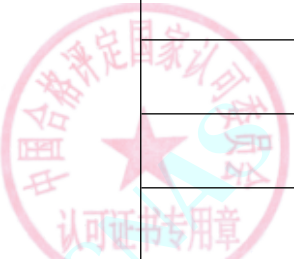


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TTX MAX Output Power		-15 dBm~20 dBm,50 MHz~6000 MHz	U=0.2 dB		
		RX RBW		1 Hz~3 Hz	U=0.02 Hz		
				10 Hz~30 Hz	U=0.1 Hz		
				100 Hz~300 Hz	U=1 Hz		
				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 Signal To Noise Ratio		60 dB~100 dB,50 MHz~6000 MHz, Resolution Bandwidth 1 kHz	U=1 dB		
		TX RFIO Port Balance		-10 dBm,50 MHz~6000 MHz	U=0.05 dB		
		TX Output Power		-120 dBm~-110 dBm,90 MHz~6000 MHz	U=0.14 dB		
				-110 dBm~-20 dBm,90 MHz~6000 MHz	U=0.13 dB		
				-20 dBm~10 dBm,90 MHz~6000 MHz	U=0.070 dB		
		TX Output Linearity		10 dBm~20 dBm,90 MHz~6000 MHz	U=0.14 dB		
				0 dB ~-40 dB,380 MHz~6000 MHz	U=0.07 dB		

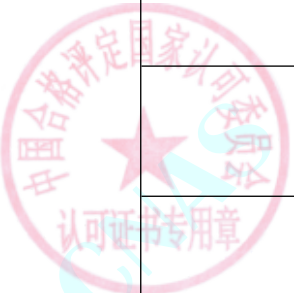


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX Return Loss		0 dB ~25 dB,380 MHz~6000 MHz	U=0.1 dB		
		TX Frequency Settling Time		1 μs ~ 400 μs,50 MHz ~ 6000 MHz, -50 dBm ~ -10 dBm	U=1 μs		
		TX 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		
		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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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		
		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%		

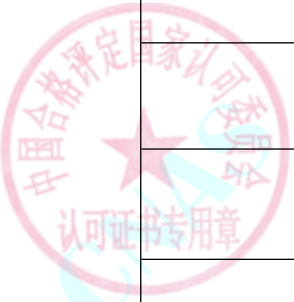


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		C2K TX RHO		0.9 ~ 1,0 dBm ~ -20 dBm, 380 MHz ~ 2800 MHz	U=0.001		
		C2K RX SEQAN Format Factor		-1 dB ~ 1 dB, 0 dBm ~ - 20 dBm, 380 MHz ~ 2800 MHz	U=0.002 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		
		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		



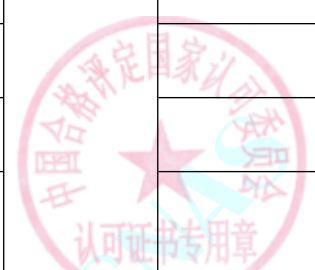
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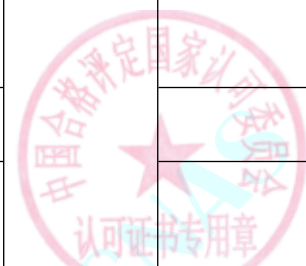
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		EDGE TX EVM		0.01%~10%, 0 dBm~-20 dBm, 380 MHz~2800 MHz	U=0.48%		
		TX FM Deviation		8 kHz, Frequency 300 Hz ~ 15.999 kHz	U _{rel} =1.2%		
		TX FM Distortion		0.1%~3%, Frequency: 300 Hz ~ 15.999 kHz, Mod Rate: 8 kHz	U=0.3%		
		TX FIX Spurious		-90 dB ~ -10 dB, Frequency 300 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		
		TX GSM Phase Error (Peak, RMS)		-20 ° ~ 20 °, 710 MHz~1990 MHz	U=0.078 °		
				-20 ° ~ 20 °, 380 MHz~710 MHz	U=0.29 °		
		RX GSM Origin Offset		-50 dB~-10 dB, 0 dBm~-20 dBm, 710 MHz~1990 MHz	U=3.1 dB		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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 ° ,710 MHz~1990 MHz	U=0.079 °		
				-1.0 ° ~ 1.0 ° ,450 MHz~710 MHz	U=0.29 °		
		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		
		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%		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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 MHz	U=0.5 dB		
		RX TDSCDMA I/Q Origin Offset		-50 dB~-10 dB,0 dBm~-20 dBm,380 MHz~6000 MHz	U=0.4 dB		



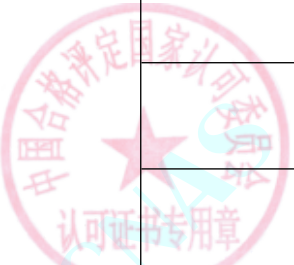
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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX TDSCDMA Frequency Error		-20 Hz~20 Hz,380 MHz~2800 MHz,0 dBm~-20 dBm	U=0.75 Hz		
		TX WCDMA HSDPA EVM		0.01% ~ 25%,0 dBm~-20 dBm,380 MHz~6000 MHz	U=1.1%		
		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%		
		RX WCDMA SEQAN Format Factor		0 dBm~-20 dBm,380 MHz~2800 MHz	U=0.17 dB		

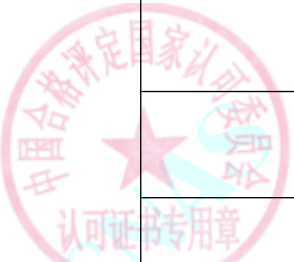


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX WCDMA Frequency Error		-20 Hz~20 Hz,380 MHz~2800 MHz,0 dBm~-20 dBm	U=0.01 Hz		
		TX WLAN 802.11a EVM		-53 dB~-22 dB,5.8GHz,0 dBm~-20 dBm	U=0.29 dB		
		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		
		TX WLAN 802.11ac EVM		-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		
		TX WLAN 802.11n EVM		-53 dB~-22 dB,5.8 GHz,0 dBm~-20 dBm, Bandwidth 40 MHz	U=0.29 dB		
		TX WLAN Frequency		2000 MHz~6000 MHz	U=6.8 Hz		

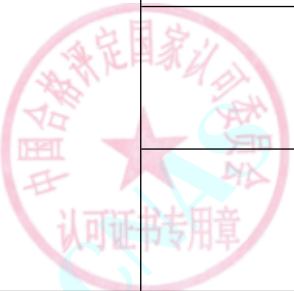


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX WLAN 802.11af EVM		-58 dB~-22 dB,700 MHz,0 dBm~-20 dBm,8 MHz Bandwidth	U=0.35 dB		
		TX WLAN Power		-60 dBm~-40 dBm,2000 MHz~6000 MHz	U=0.12 dB		
		TX WLAN 802.11ah EVM		-40 dBm~-10 dBm,2000 MHz~6000 MHz	U=0.08 dB		
		TX WLAN 802.11ah EVM		-58 dB~-22 dB,900 MHz,0 dBm~-20 dBm,16 MHz Bandwidth	U=0.39 dB		
		TX WLAN 802.11ax EVM		-53 dB~-22 dB,5.8 GHz,0 dBm~-20 dBm,80 MHz Bandwidth	U=0.58 dB		
		TX WLAN 802.11ax EVM		-53 dB~-22 dB,5.8 GHz,0 dBm~-20 dBm,160 MHz Bandwidth	U=0.80 dB		
		RX WLAN 802.11a (dB) 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		
		RX WLAN 802.11ac EVM		-53 dB~-22 dB,5.5 GHz~ 5.8 GHz, 0 dBm~-20 dBm,160 MHz Bandwidth	U=0.38 dB		

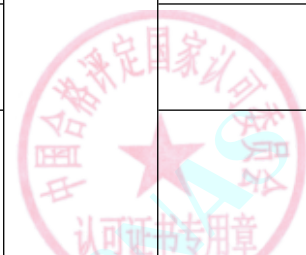


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX Modulation Depth		-500 Hz~500 Hz, Mod index 0.28~0.35, 2.4 GHz ~ 2.48 GHz, -90 dBm ~ -20 dBm, Bluetooth GFSK	U=9.7 Hz		
		RX WLAN 802.11b EVM		0.01%~ 8%,2.4 GHz,0 dBm~-20 dBm	U=0.29%		
		RX Frequency Deviation Range Accuracy		0.01 Hz~400 kHz,2000 MHz~6000 MHz	U=0.12 Hz		
		RX WLAN 802.11g EVM		-53 dB~-22 dB,2.4 GHz,0 dBm~-20 dBm	U=0.31 dB		
		RX UL Modulation Level		-10 dBm~-50 dBm,800 MHz~6000 MHz	U=0.13 dB		
		RX WLAN 802.11n EVM		-53 dB~-22 dB,5.8 GHz,0 dBm~-20 dBm,20MHz Bandwidth	U=1.6dB		
				-53 dB~-22 dB,5.8 GHz,0 dBm~-20 dBm,40MHz Bandwidth	U=0.29 dB		
		RX UL EVM		0.01%~25%,Bandwidth 5 MHz~20 MHz,-10 dBm~-50dBm,500 MHz~6000 MHz	U=0.57%		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX DL EVM	ilac-MRA	0.01%~25%,Bandwidth 5 MHz~20 MHz,-10 dBm~-50dBm,500 MHz~6000 MHz	U=0.5%		
		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		
10	*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	国家合格评定 国家认可 委员会 认可证书专用章	
				-25 dBm~15 dBm,300 kHz ~1 MHz	U=0.05 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	$U_{rel}=1.9 \times 10^{-8}$		

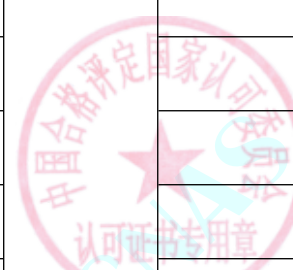


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RF Output Level		100 kHz~20 GHz	$U_{rel}=7.3 \times 10^{-10}$		
				15 dBm~20 dBm ,9 kHz~100 kHz	$U=0.10$ dB		
				15 dBm~20 dBm ,100 kHz~8 GHz	$U=0.053$ 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		

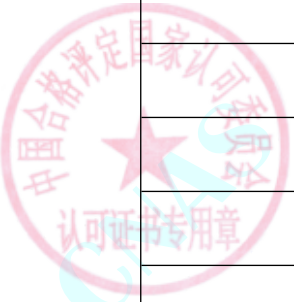


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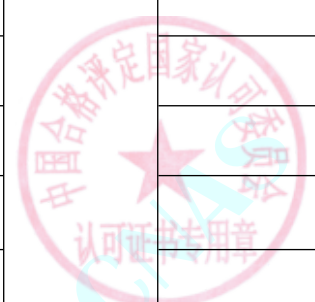
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm~-3 dBm ,100 kHz~8 GHz	U=0.047 dB		
				-20 dBm~-3 dBm ,8 GHz~12.4 GHz	U=0.061 dB		
				-20 dBm~-3 dBm ,12.4 GHz~14 GHz	U=0.070 dB		
				-20 dBm~-3 dBm ,14 GHz~18 GHz	U=0.074 dB		
				-20 dBm~-3 dBm ,18 GHz~20 GHz	U=0.077 dB		
		RF Output Flatness		-17 dBm~10 dBm ,9 kHz~300 kHz	U=0.062 dB		
		RF Output Flatness		-17 dBm~10 dBm ,0.3 MHz~45 MHz	U=0.08 dB		
		RF Output Flatness		-17 dBm~10 dBm ,45 MHz~2 GHz	U=0.044 dB		
		RF Output Flatness		-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		
		Noise Floor		-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		
		Directivity Calibration Coefficients		-62 dB~-10 dB,300 kHz~8.5 GHz	U=0.17 dB		
		Directivity Calibration Coefficients		-40 dB~-10 dB,8.5 GHz~20 GHz	U=0.66 dB		



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		Source Match Calibration Coefficients	ilac-MRA	-60 dB~-10 dB,9 kHz ~ 8.5 GHz	U=0.42 dB		
				-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		
		Transmission Tracking Coefficients		-60 dB~-10 dB,8.5GHz ~ 20 GHz	U=0.27 dB		
				-2 dB~2 dB,9 kHz ~ 300 kHz	U=0.051 dB		
				-1 dB~1 dB,300 kHz ~ 8.5 GHz	U=0.04 dB		
		Reflection Tracking Coefficients		-2 dB~2 dB,8.5GHz ~ 20 GHz	U=0.27 dB		
				-1 dB~1 dB,9 kHz ~ 8.5 GHz	U=0.021 dB		
		Compression Magnitude		-1 dB~1 dB,8.5GHz ~ 20 GHz	U=0.077 dB		
				-3 dB~3 dB ,9 kHz~8.5 GHz	U=0.023 dB		
		Compression Phase		-3 dB~3 dB ,8.5 GHz~ 20 GHz	U=0.034 dB		
				-30 ° ~ 30 ° ,9 kHz~8.5 GHz	U=0.058 °		
				-30 ° ~ 30 ° ,8.5 GHz~20 GHz	U=0.46 °		

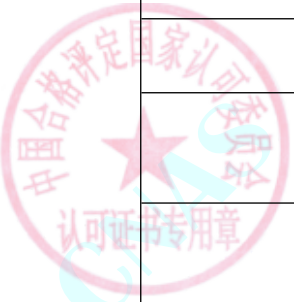


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Dynamic Accuracy		-100 dBm~-80 dBm,10MHz~1.195 GHz	U=0.044 dB		
				-80 dBm~-60 dBm,10MHz~1.195 GHz	U=0.019 dB		
				-60 dBm~-50 dBm,10MHz~1.195 GHz	U=0.011 dB		
				-50 dBm~-35 dBm,10MHz~1.195 GHz	U=0.007 dB		
				-35 dBm~0 dBm,10MHz~1.195 GHz	U=0.003 dB		
				0 dBm~10 dBm,10MHz~1.195 GHz	U=0.0052 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		
		Dynamic Accuracy Phase		-30 dBm~0 dBm,100 kHz~ 1 MHz	U=0.0088 dB		
				-20 ° ~ 20 ° , -115 dBm~-100 dBm,100 kHz~ 1 MHz	U=1.1 °		
				-20 ° ~ 20 ° , -80 dBm ~ -60 dBm,100 kHz~ 1 MHz	U=0.036 °		

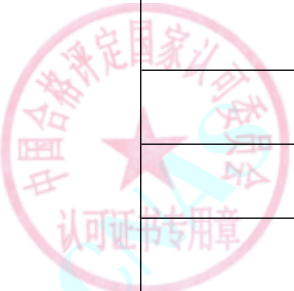


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 ° ~ 20 ° , -60 dBm ~ -50 dBm , 100 kHz ~ 1 MHz	U=0.032 °		
				-20 ° ~ 20 ° , -50 dBm ~ -30 dBm , 100 kHz ~ 1 MHz	U=0.02 °		
				-20 ° ~ 20 ° , -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 °		
				0.001 ° ~ 0.20 ° , 4.38 GHz ~ 8.5 GHz	U=0.0016 °		

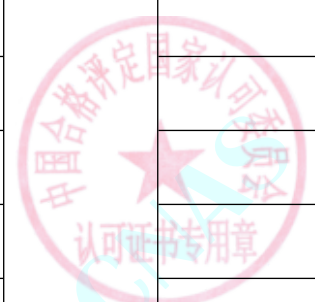


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-3 dBm~20 dBm ,6 GHz~8 GHz	U=0.078 dB		
				-20 dBm~-3 dBm ,8 GHz~14 GHz	U=0.070 dB		
				-3 dBm~20 dBm ,8 GHz~14 GHz	U=0.078 dB		
				-20 dBm~-3 dBm ,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		
				-140 dBm~-60 dBm,50 GHz~67 GHz	U=0.91 dB		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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		
				-36 dB~-7 dB,13.5 GHz~20GHz	U=0.22 dB		

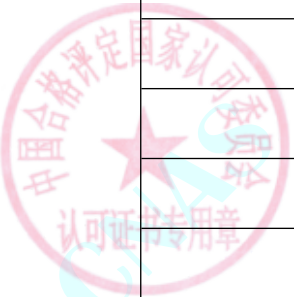


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Load Match Calibration Coefficients	ilac-M	-32 dB~-7 dB,20 GHz~26.5 GHz	U=0.34 dB		
				-30 dB~-7 dB,26.5 GHz~50 GHz	U=0.43 dB		
				-24 dB~-5 dB,50 GHz~67 GHz	U=0.66 dB		
				-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 Noise)			-1 dB~1 dB ,900 Hz~100 MHz
		-1 dB~1 dB ,100 MHz~50 GHz	U=0.024 dB				

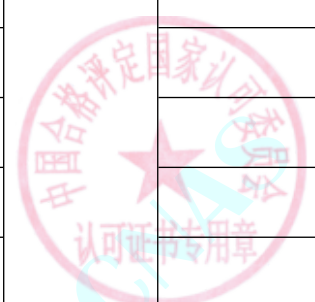


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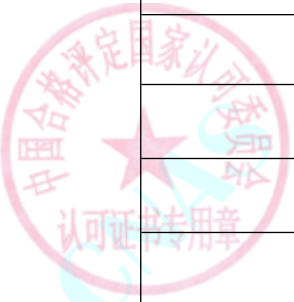
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Receiver)		-1 dB~1 dB,50 GHz~67 GHz	U=0.034 dB		
		Compression Phase		-30 ° ~30 ° ,900 Hz~100 MHz	U=0.11 °		
				-30 ° ~30 ° ,100 MHz~50 GHz	U=0.08 °		
		Dynamic Accuracy (including Noise Receiver)		-30 ° ~30 ° ,50 GHz~67 GHz	U=0.11 °		
				-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		
			5 dB~10 dB,900 kHz~2 GHz	U=0.0023 dB			



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				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° ~0.20° ,900 Hz~300 kHz	U=0.00033 °		
				0° ~0.20° ,300 kHz~45 MHz	U=0.00010 °		
				0° ~0.20° ,45 MHz~50 GHz	U=0.000068 °		
				0° ~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		
		Receiver Noise Figure (26.5 GHz)		10 dB~21 dB ,10 MHz~18 GHz	U=0.41 dB		

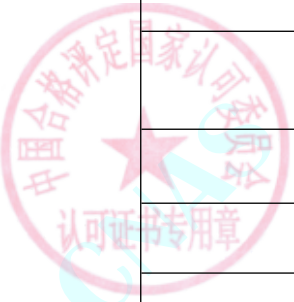


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		And Below)	ilac-M	10 dB~21 dB ,18 GHz~25 GHz	U=0.50 dB		
				10 dB~21 dB ,25 GHz~26.5 GHz	U=0.78 dB		
		VSWR		1 ~4,300 kHz~67 GHz	U=0.03		
		SA Detector Accuracy		-0.2 dB~0.2 dB ,300 kHz~67 GHz	U=0.005 dB		
		Display Average Noise Level		-150 dBm~-80 dBm,300 kHz~67 GHz,RBW 1 Hz	U=0.15 dB		
		Dynamic Range		-150 dB~-90 dB ,900 Hz~67 GHz	U=0.92 dB		
12	*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	$U_{rel}=2.8 \times 10^{-8}$		
		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		
		Trace Noise Magnitude		0 dB~0.02 dB ,300 kHz~14 GHz	U=0.001 dB		

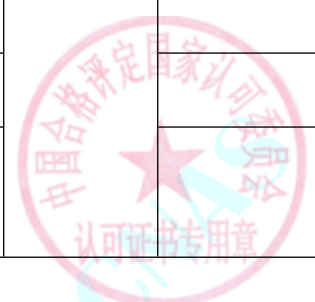


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Trace Noise Phase	ilac-MRA	0.001° ~ 0.20°, 300 kHz ~ 14 GHz	U=0.01°		
		Phase Noise		-130 dB/Hz ~ -70 dB/Hz Frequency: 500 MHz, Deviation: 10 kHz ~ 1 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		
13	*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		

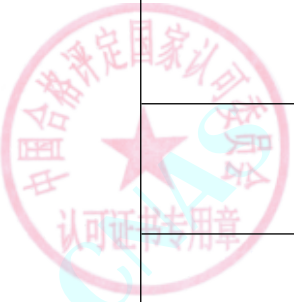


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Receiver Phase		-10° ~ 10° ,0.3	U=0.6°		
		Frequency Response		MHz~6 GHz,-17dBm~10 dBm			
		Test Port Input Noise Floor Level		-80 dBm~-140 dBm ,300 kHz~6 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		

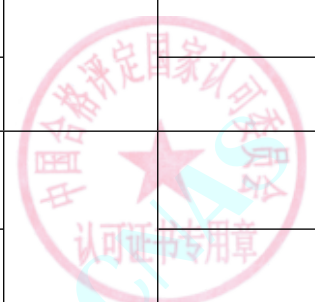


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Receiver Compression - Phase	ilac-MRA	30 ° ~ 30 ° ,300 kHz ~ 6 GHz	U=0.033 °		
		Receiver Dynamic		-110 dBm~0 dBm,300 kHz ~ 6 GHz	U=0.006 dB		
		Trace 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		
14	*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%		

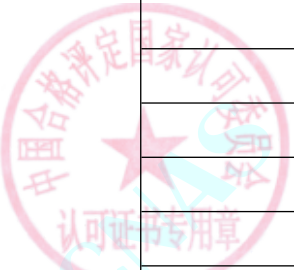


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		CV PARD PK-PK		0.1 mV~300 mV,20 Hz~20 MHz	$U_{rel}=3.7\%$		
		CV PARD RMS		0.01 mV~150 mV,20 Hz~20 MHz	$U_{rel}=1.0\%$		
		CV Voltage		10 mV~1V	$U_{rel}=0.054\%$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

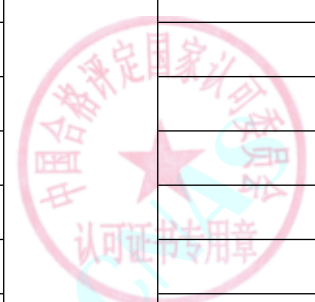


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		CC Current	ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	1 mA~500 mA	$U_{rel}=0.011\%$		
				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	$U_{rel}=0.00067\%$		

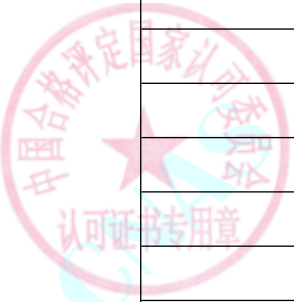


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
			ilac-MRA	15 A~100 A	$U_{rel}=0.00033\%$		
				100 A~300 A	$U_{rel}=0.003\%$		
		CC PARD RMS		0.01 mA~200 mA,20 Hz~20 MHz	$U_{rel}=3.7\%$		
		Resistance		1 Ω	$U_{rel}=0.22\%$		
15	*Digital 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		
		Sweep Time		1.9 ns~2 ns	$U=0.12$ ps		
				600 ns~800 ns	$U=0.04$ ns		
				2 ns~600 ns	$U=0.002$ ns		
				800 ns~1 μs	$U=0.1$ ns		
				1 μs~2 μs	$U=0.2$ ns		
		Time Scale		2 μs~100 μs	$U=0.02$ μs		
				25 ns~100 ns	$U_{rel}=1.9 \times 10^{-9}$		
		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	$U_{rel}=0.0010\%$						

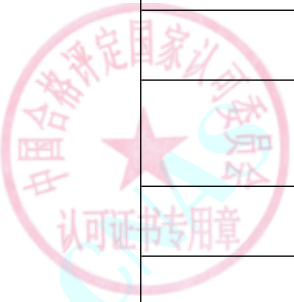


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				7.15 V~35 V	$U_{rel}=0.0013\%$		
				35 V~160 V	$U_{rel}=0.0014\%$		
		DC Gain		-2%~2%,6 mV~9 mV,1 mV/div	$U=0.36\%$		
				-3%~3%,12 mV~18 mV,2 mV/div	$U=0.33\%$		
				-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~450 mV,49.8 mV/div~50 mV/div	$U=0.025\%$		
				-3%~3%,600 mV~1200 mV, 100mV/div~150 mV/div	$U=0.013\%$		
				-3%~3%,1.2 V~1.8 V,200 mV/div	$U=0.020\%$		
				-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	$U=0.02\%$		

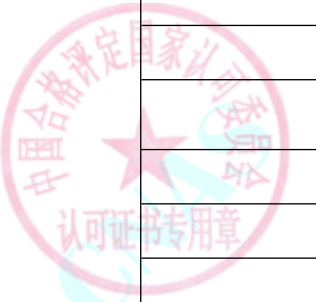


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				-2%~2%,30V,5 V/div	U=0.02%		
				-2%~2%,60V,10 V/div	U=0.8%		
		Bandwidth		-3 dB~3 dB,50 MHz~2300 MHz	U=0.23 dB		
				-3 dB~3 dB,2.3 GHz~11 GHz	U=0.30 dB		
				-3 dB~3 dB,11 GHz~18 GHz	U=0.60 dB		
				-3 dB~3 dB,18 GHz~26.5 GHz	U=0.69 dB		
				-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		

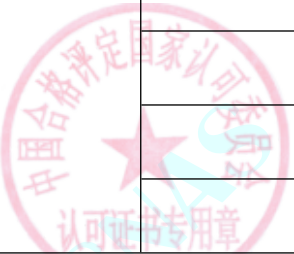


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Impedance Test		2 ns~940 ns,24 kHz~2.4 MHz	$U=0.047$ ns		
				2.0 μs~9.4 μs,2.4 kHz	$U=0.047$ μs		
				50 Ω	$U_{rel}=0.0036\%$		
				1 MΩ	$U_{rel}=0.013\%$		
				250 kΩ	$U_{rel}=0.2\%$		
16	*Digital Communications Analyzer Oscilloscope	Timebase	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		

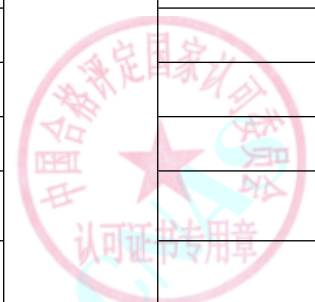


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				9980 ps~10020 ps, Delay: 24 ns Frequency: 1 GHz	U=1.6 ps		
				1990 ps~2010 ps, Delay: 24 ns Frequency: 500 MHz	U=1.2 ps		
				4987 ps~5013 ps, Delay: 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, Delay 24 ns, 2 GHz	U=0.13 ps		
				0.03 ps~ 3 ps, Delay 24 ns, 2.5 GHz	U=0.14 ps		

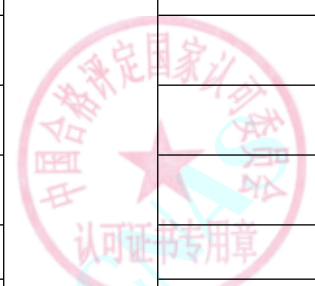


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.03 ps~ 3 ps, Delay24 ns,2.75 GHz	U=0.083 ps		
				0.03 ps~ 3 ps, Delay24 ns,3 GHz	U=0.15 ps		
				0.03 ps~ 3 ps, Delay24 ns,3.2 GHz	U=0.14 ps		
				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		

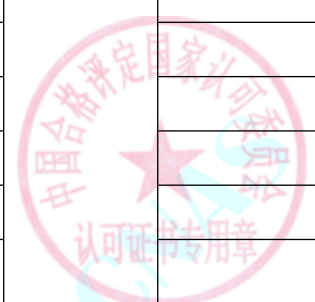


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-0.24 V	U=0.0031 V		
				-0.16 V	U=0.0018 V		
				-0.08 V	U=0.0025 V		
				0 V	U=0.0013 V		
				0.08 V	U=0.0018 V		
				0.16 V~0.24 V	U=0.0027 V		
				0.32 V	U=0.0032 V		
				0.4 V	U=0.0036V		
17	*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%		

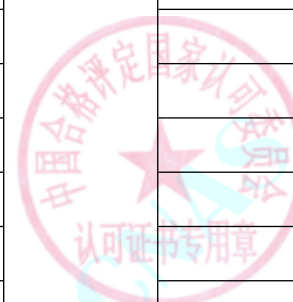


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date	
			ilac-MRA	-10%~10%, Trigger Port, 100 ps~200 ps POS/NEG Rise time	U=2.3%			
				TDR System Test-Level	Low Level: 0 mV	U=0.055 mV		
					High Level: 200 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-Rise Time		0.1 ps~45 ps	U=2.8 ps			
18	*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%			

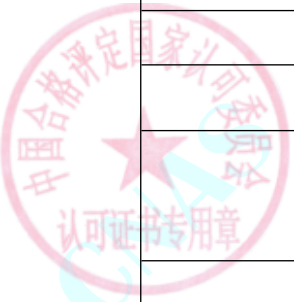


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Output VSWR		1~1.5,50 MHz	U=0.028		
		Timebase		10 MHz	U=0.092 kHz		
		Power Measurement (With Sensor)		-30 dBm,50 MHz	U=0.18 dB		
				0 dBm,50 MHz	U=0.022 dB		
		Normal Instrumentation Measurement		1 μW~1 mW, 50 MHz	U _{rel} =0.38%		
19	*Peak-Average Power Meter	Time-base Frequency	Peak-Average Power Meter Test Procedure CAL-CHA008-02	10 MHz	U _{rel} =1×10 ⁻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%		

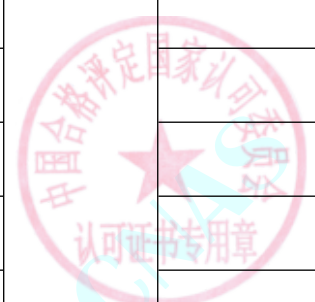


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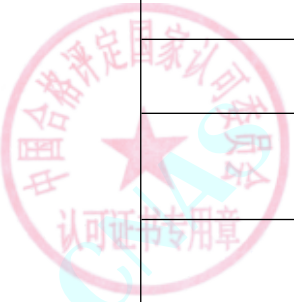
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-1%~1%, -6 dBm~8 dBm	U=0.042%		
				-1%~1%, 8 dBm~20 dBm	U=0.028%		
20	*Power Sensor	Calibration Factor	Power Sensor Test Procedure CAL-CHA009-01	1 μW~100 mW, 9 kHz~5 MHz	U=0.47%		
				1 μW~100 mW, 5 MHz~8 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%		
				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%						



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		VSWR		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%		
				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		
		Linearity		1~2, Frequency: 40 GHz ~ 50 GHz	U=0.022		
				-3%~3%, 27 dBm~24 dBm, Frequency: 50 MHz	U=0.55%		
				-3%~3%, 24 dBm~11 dBm, Frequency: 50 MHz	U=0.13%		

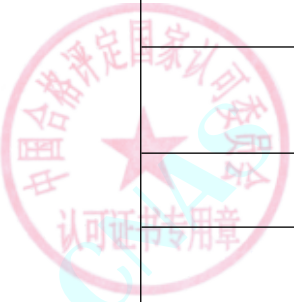


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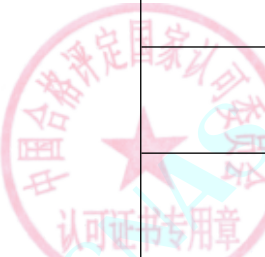
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-3%~3%,11 dBm~8 dBm, Frequency: 50 MHz	U=0.09%		
				-3%~3%,8 dBm~5 dBm, Frequency: 50 MHz	U=0.07%		
				-3%~3%,5 dBm~-1 dBm, Frequency: 50 MHz	U=0.05%		
				-3%~3%,-1 dBm~-10 dBm, Frequency: 50 MHz	U=0.09%		
				-3%~3%,-10 dBm~-21 dBm, Frequency: 50 MHz	U=0.15%		
				-3%~3%,-21 dBm~-30 dBm, Frequency: 50 MHz	U=0.18%		
				-3%~3%,-30 dBm~-36 dBm, Frequency: 50 MHz	U=0.40%		
				-3%~3%,-36 dBm~-37 dBm, Frequency: 50 MHz	U=0.48%		
				-3%~3%,7 dBm, Frequency: 50 MHz	U=0.08%		
				-3%~3%,6 dBm~5 dBm, Frequency: 50 MHz	U=0.07%		



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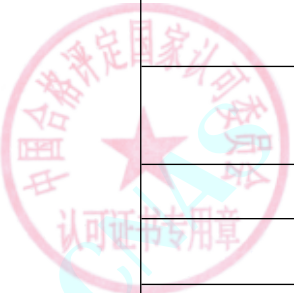
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-3%~3%,4 dBm~3 dBm, Frequency: 50 MHz	U=0.06%		
				-3%~3%,2 dBm~-1 dBm, Frequency: 50 MHz	U=0.05%		
				-3%~3%,-2 dBm~-3 dBm, Frequency: 50 MHz	U=0.11%		
				-3%~3%,-4 dBm~-6 dBm, Frequency: 50 MHz	U=0.10%		
				-3%~3%,-7 dBm~-10 dBm, Frequency: 50 MHz	U=0.09%		
				-3%~3%,-11 dBm~-13 dBm, Frequency: 50 MHz	U=0.17%		
				-3%~3%,-14 dBm~-17 dBm, Frequency: 50 MHz	U=0.16%		
				-3%~3%,-18 dBm~-21 dBm, Frequency: 50 MHz	U=0.15%		
				-3%~3%,-22 dBm~-23 dBm, Frequency: 50 MHz	U=0.19%		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-3%~3%,-24 dBm~-30 dBm, Frequency: 50 MHz	U=0.18%		
				-3%~3%,-31 dBm~-32 dBm, Frequency: 50 MHz	U=0.41%		
				-3%~3%,-33 dBm~-36 dBm, Frequency: 50 MHz	U=0.40%		
				-3%~3%,-37 dBm, Frequency: 50 MHz	U=0.48%		
		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			

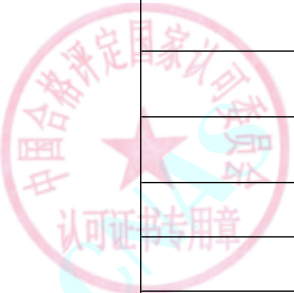


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				-20 dBm, 5 GHz, 5.25 GHz, 5.5 GHz, 5.75 GHz, 6 GHz, 7.75 GHz, 8 GHz	U=0.044 dB		
				-20 dBm, 6.25 GHz, 6.5 GHz, 6.75 GHz, 7 GHz, 7.25 GHz, 7.5 GHz, 8.25 GHz, 8.5 GHz	U=0.045 dB		
				-20 dBm, 8.75 GHz, 9 GHz, 9.5 GHz, 9.75 GHz, 13.75 GHz, 14.25 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		

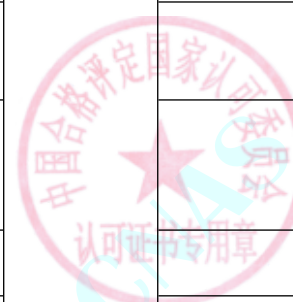


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-20 dBm, 18 GHz	U=0.056 dB		
				0 dBm, 50 MHz	U=0.032 dB		
				0 dBm, 20 MHz,30 MHz,100 MHz	U=0.036 dB		
				0 dBm, 15 MHz	U=0.037 dB		
				0 dBm, 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		

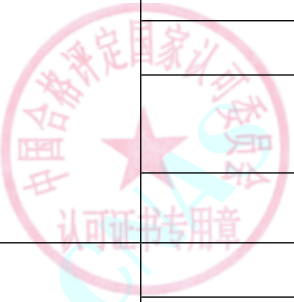


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date	
				0 dBm, 10.25 GHz, 10.5 GHz, 10.75 GHz, 11 GHz, 11.25 GHz, 11.5 GHz, 11.75 GHz, 12 GHz, 13 GHz, 13.25 GHz, 14 GHz, 14.25 GHz, 14.5 GHz, 14.75 GHz, 15 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			
				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
21	*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			



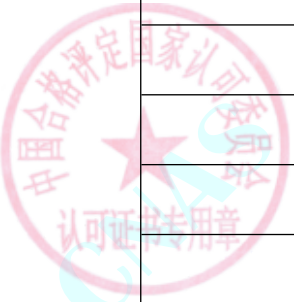
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 dB, 50 MHz~500 MHz	U=0.018 dB		
				0 dB, 500 MHz~1 GHz	U=0.021 dB		
				0 dB, 1 GHz~2 GHz	U=0.020 dB		
				0 dB, 2 GHz~12 GHz	U=0.035 dB		
				0 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~67 GHz	U=0.15 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		

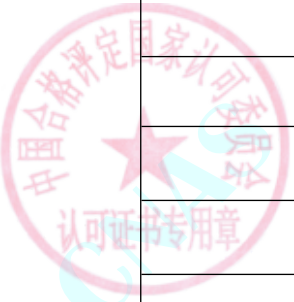


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 dB~12 dB,2 GHz~8 GHz	U=0.034 dB		
				1 dB~12 dB,8 GHz~12 GHz	U=0.040 dB		
				1 dB~12 dB,12 GHz~12.4 GHz	U=0.060 dB		
				1 dB~12 dB,12.4 GHz~16 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		
				1 dB~12 dB,50 GHz~67 GHz	U=0.15 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		

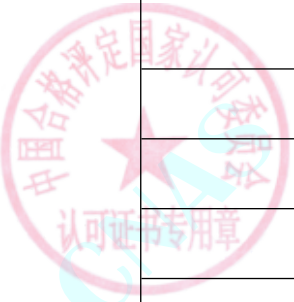


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				13 dB~20 dB,8 GHz~12 GHz	U=0.047 dB		
				13 dB~20 dB,12 GHz~12.4 GHz	U=0.065 dB		
				13 dB~20 dB,12.4 GHz~18 GHz	U=0.051 dB		
				13 dB~20 dB,18 GHz~20 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~67 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		

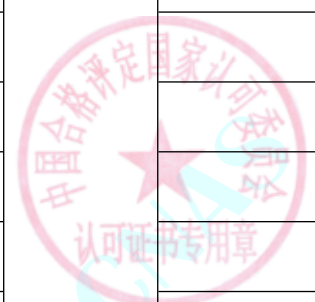


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				21 dB~30 dB,16 GHz~18 GHz	U=0.071 dB		
				21 dB~30 dB,18 GHz~20 GHz	U=0.072 dB		
				21 dB~30 dB,20 GHz~26.5 GHz	U=0.12 dB		
				21 dB~30 dB,26.5 GHz~40 GHz	U=0.13 dB		
				21 dB~30 dB,40 GHz~67 GHz	U=0.16 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		

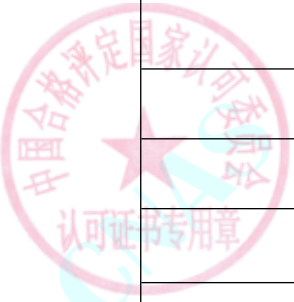


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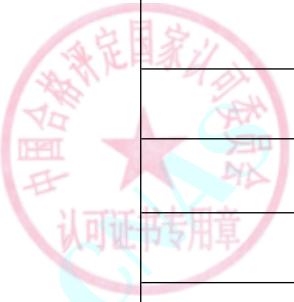
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				31 dB~40 dB,16 GHz~18 GHz	U=0.070 dB		
				31 dB~40 dB,18 GHz~20 GHz	U=0.076 dB		
				31 dB~40 dB,20 GHz~26.5 GHz	U=0.12 dB		
				31 dB~40 dB,26.5 GHz~67 GHz	U=0.16 dB		
				31 dB~40 dB,43 GHz~50 GHz	U=0.31 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		



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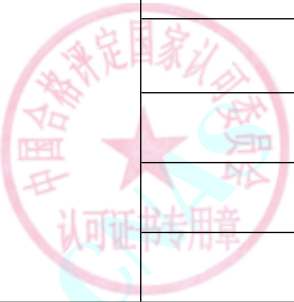
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				41 dB~50 dB,18 GHz~20 GHz	U=0.11 dB		
				41 dB~50 dB,20 GHz~26.5GHz	U=0.17 dB		
				41 dB~50 dB,26.5 GHz~67 GHz	U=0.16 dB		
				41 dB~50 dB,43 GHz~50 GHz	U=0.40 dB		
				51 dB~60 dB,1 kHz	U=0.015 dB		
				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		



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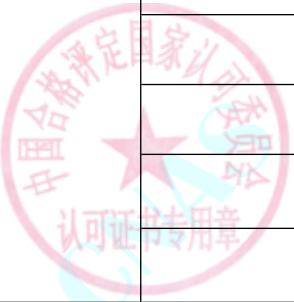
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				51 dB~60 dB,26.5 GHz~67 GHz	U=0.16 dB		
				61 dB~70 dB,300 kHz~50 MHz	U=0.15 dB		
				61 dB~70 dB,50 MHz~100 MHz	U=0.062 dB		
				61 dB~70 dB,100 MHz~500 MHz	U=0.050 dB		
				61 dB~70 dB,500 MHz~2 GHz	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		
				71 dB~80 dB,300 kHz~50 MHz	U=0.15 dB		



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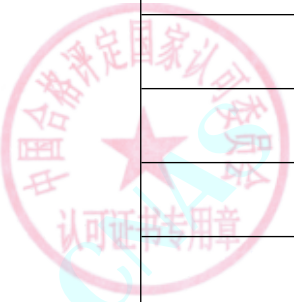
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				71 dB~80 dB,50 MHz~100 MHz	U=0.065 dB		
				71 dB~80 dB,100 MHz~500 MHz	U=0.051 dB		
				71 dB~80 dB,500 MHz~2 GHz	U=0.081 dB		
				71 dB~80 dB,2 GHz~12 GHz	U=0.12 dB		
				71 dB~80 dB,12 GHz~18 GHz	U=0.14 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		
				81 dB~90 dB,500 MHz~1 GHz	U=0.096 dB		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				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		
				91 dB~100 dB,1 GHz~2 GHz	U=0.12 dB		

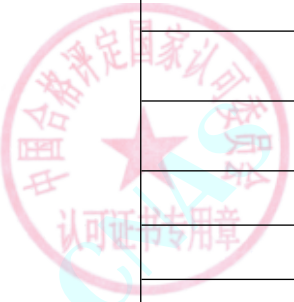


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				91 dB~100 dB,2 GHz~8 GHz	U=0.18 dB		
				91 dB~100 dB,8 GHz~12 GHz	U=0.23 dB		
				91 dB~100 dB,12 GHz~12.4 GHz	U=0.30 dB		
				91 dB~100 dB,12.4 GHz~16 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		
				101 dB,2 GHz~8 GHz	U=0.20 dB		

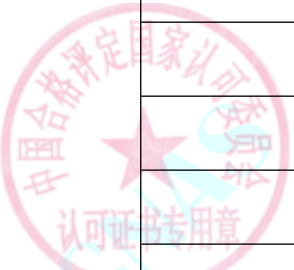


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				101 dB,8 GHz~12 GHz	U=0.23 dB		
				101 dB,12 GHz~12.4 GHz	U=0.38 dB		
				101 dB,12.4 GHz~16 GHz	U=0.24 dB		
				101 dB,16 GHz~20 GHz	U=0.27 dB		
				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		
				102 dB~110 dB,8 GHz~12 GHz	U=0.23 dB		

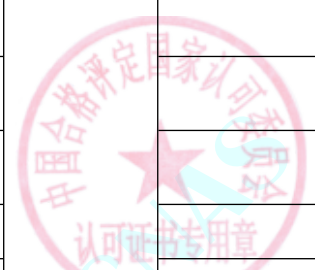


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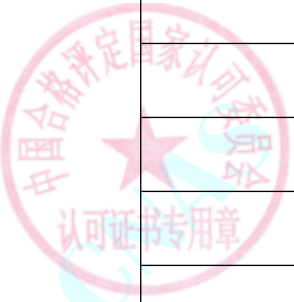
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				102 dB~110 dB,12 GHz~12.4 GHz	U=0.38 dB		
				102 dB~110 dB,12.4 GHz~16 GHz	U=0.24 dB		
				102 dB~110 dB,16 GHz~18 GHz	U=0.27 dB		
				111 dB~120 dB,300 kHz~50 MHz	U=0.22 dB		
				111 dB~120 dB,50 MHz~100 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		
		VSWR		1~1.5,300 kHz~2 GHz,50 Ω	U=0.001		



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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1~1.5,2 GHz~40 GHz,50 Ω	U=0.009		
				1~1.5,40 GHz~50 GHz,50 Ω	U=0.022		
				1~1.5,50 GHz~67 GHz,50 Ω	U=0.027		
				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		
				1.5~2.33,8 GHz~40 GHz,50 Ω	U=0.014		
				1.5~2.33,40 GHz~50 GHz,50 Ω	U=0.034		
				1.5~2.33,50 GHz~67 GHz,50 Ω	U=0.042		
				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		

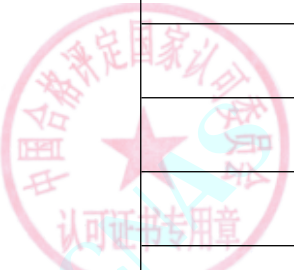


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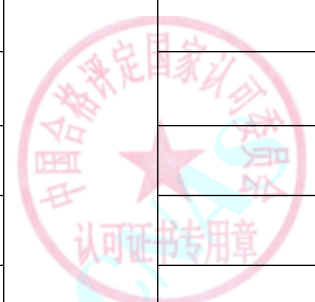
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2.33~4,8 GHz~20 GHz,50 Ω	U=0.030		
				2.33~4,20 GHz~40 GHz,50 Ω	U=0.033		
				2.33~4,40 GHz~50 GHz,50 Ω	U=0.063		
				2.33~4,50 GHz~67 GHz,50 Ω	U=0.075		
				4~10,300 kHz~10 MHz	U=0.081		
				4~10,10 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		
				4~10,50 GHz~67 GHz,50 Ω	U=0.17		
				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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1.5~10,1.3 GHz~3 GHz,75 Ω	U=0.014		
22	*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		
				-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=6.7×10 ⁻¹¹ Hz		
				1 Hz ~ 10 Hz	U=8.8×10 ⁻¹⁰ Hz		
				10 Hz ~ 100 Hz	U=4.7×10 ⁻⁹ Hz		
				100 Hz ~ 12.4 GHz	U _{rel} =2.4×10 ⁻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					

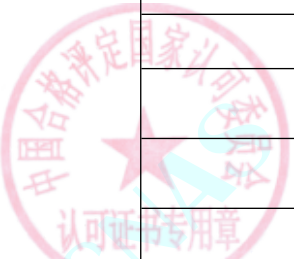


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Trigger Level	ilac-MRA	0.01V~0.08 V, 1 MHz	$U=0.0045\text{ V}$		
		Termination Resistor		50 Ω	$U_{rel}=0.004\%$		
				1 M Ω	$U_{rel}=0.001\%$		
		Timebase Output Frequency		10 MHz	$U_{rel}=1 \times 10^{-11}$		
Rise Fall Time	1 ns~30 ns , 1 kHz ~ 20MHz	$U=0.92\text{ ns}$					
23	*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	$U_{rel}=0.0044\%$						

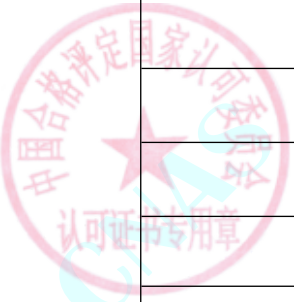


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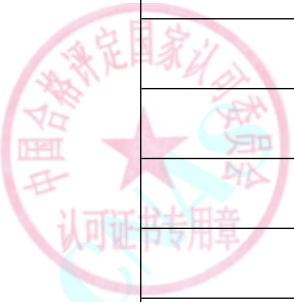
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10 nF, 1 kHz~100 kHz	$U_{rel}=0.0055\%$		
				100 nF, 120 Hz~100 kHz	$U_{rel}=0.0042\%$		
				1 μF, 100 Hz~120 Hz	$U_{rel}=0.0069\%$		
				1 μF, 1 kHz	$U_{rel}=0.0044\%$		
				1 μF, 10 kHz	$U_{rel}=0.0064\%$		
				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)	$U=0.00072$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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	$U_{rel}=0.012\%$		
				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		0.1 V~10 V	$U_{rel}=0.0011\%$		

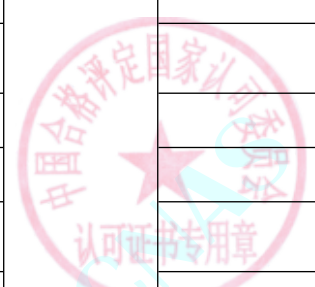


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Level	ilac-MRA	10 V~40 V	$U_{rel}=0.0013\%$		
		DC Bias Current		0.02 mA~2 mA,DC	$U_{rel}=0.0062\%$		
				2 mA~20 mA	$U_{rel}=0.0089\%$		
				20 mA~100 mA	$U_{rel}=0.019\%$		
				10 mΩ,1 kHz	$U_{rel}=0.8\%$		
		Impedance		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	$U_{rel}=0.017\%$		
		Frequency		100 kΩ,DC~100 kHz	$U_{rel}=0.012\%$		
Frequency	20 Hz~30 MHz	$U_{rel}=3.8 \times 10^{-9}$					
24	*RF Impedance Analyzer	Frequency	RF Impedance Analyzer Test Procedure CAL-CHA013-01	1 MHz~3 GHz	$U_{rel}=1.3 \times 10^{-9}$		
		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		

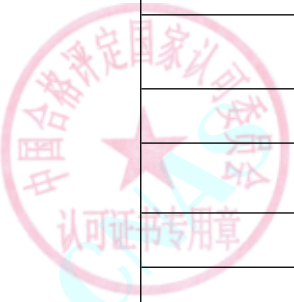


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-4 dBm~-1 dBm,1 MHz	U=0.31 dB		
				0 dBm~1 dBm,1 MHz	U=0.16 dB		
				-40 dBm~-35 dBm,10 MHz~300 MHz	U=0.27 dB		
				-30 dBm~1 dBm,10 MHz~300 MHz	U=0.19 dB		
				-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		

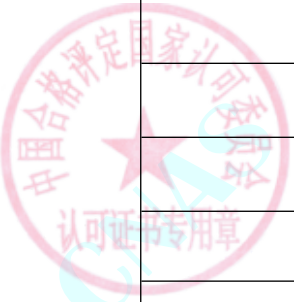


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 Ω, -40 dBm~13 dBm, 100 MHz	U=0.014 Ω		
				0 Ω, -40 dBm~13 dBm, 200 MHz	U=0.025 Ω		
				0 Ω, -40 dBm~13 dBm, 300 MHz~1 GHz	U=0.03 Ω		
				0 Ω, -40 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 ~22k Ω, -40 dBm, 1 MHz	U=2.8k Ω		
				0 Ω ~22k Ω, -33 dBm~13 dBm, 1 MHz	U=35 Ω		

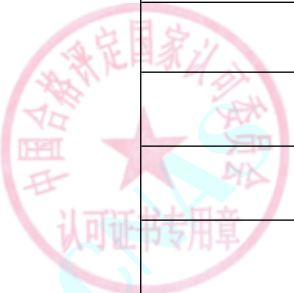


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 Ω ~ 22k Ω , -40 dBm, 10 MHz	U=24 Ω		
				0 Ω ~ 22k Ω , -33 dBm ~ 13 dBm, 10 MHz	U=3.5 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 100 MHz	U=0.34 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 200 MHz	U=0.2 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 300 MHz	U=0.13 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 500 MHz	U=0.068 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 600 MHz	U=0.049 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 800 MHz	U=0.068 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 1 GHz	U=0.22 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 1.6 GHz	U=0.6 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 1.8 GHz	U=0.23 Ω		
				0 Ω ~ 22 k Ω , -40 dBm ~ 13 dBm, 2.0 GHz	U=0.08 Ω		
				0 Ω ~ 22 k Ω , -40 dBm ~ 13 dBm, 2.2 GHz	U=0.18 Ω		
				0 Ω ~ 22 k Ω , -40 dBm ~ 13 dBm, 2.4 GHz	U=0.55 Ω		

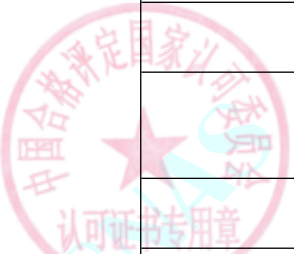


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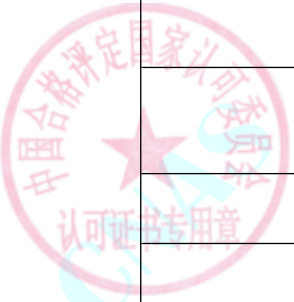
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 2.6 GHz	U=2.2 Ω		
				0 Ω ~ 22k Ω , -40 dBm ~ 13 dBm, 3 GHz	U=1 Ω		
				0 Ω ~ 22k Ω , -40 dBm, 1 MHz	U=0.002 Ω		
				0 Ω ~ 156 Ω , -33 dBm ~ 13 dBm, 1 MHz	U=0.00019 Ω		
				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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0 Ω ~ 156 Ω, -40 dBm ~ 13 dBm, 1.8 GHz	U=0.26 Ω		
				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=8.7 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		



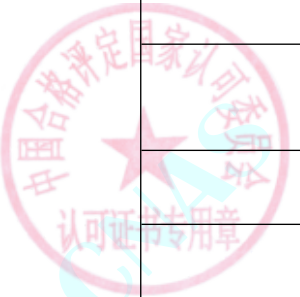
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01 μS~10000 μS,-33 dBm~20 dBm,100 MHz	U=2.2 μS		
				0.01 μS~10000 μS,-40 dBm,100 MHz	U=6.3 μS		
				0.01 μS~10000 μS,-33 dBm~5 dBm,200 MHz	U=6.3 μS		
				0.01 μS~10000 μS,-40 dBm,200 MHz	U=8.7 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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 1.6 GHz	$U=58 \mu$ S		
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 1.8 GHz	$U=66 \mu$ S		
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 2 GHz	$U=91 \mu$ S		
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 2.2 GHz	$U=0.10$ mS		
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 2.4 GHz	$U=0.11$ mS		
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 2.6 GHz	$U=0.13$ mS		
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 2.8 GHz	$U=0.15$ mS		
				0.01 μ S ~ 10000 μ S, -40 dBm ~ 5 dBm, 3 GHz	$U=0.16$ mS		
				25	*High Resistance Meter		
10 M Ω	$U_{rel}=0.18\%$						
100 M Ω	$U_{rel}=0.19\%$						
1 G Ω	$U_{rel}=0.19\%$						
10 G Ω	$U_{rel}=0.37\%$						
100 G Ω	$U_{rel}=0.62\%$						
DC Current	100 pA	$U=0.34$ pA					
	1 nA	$U=0.0019$ nA					



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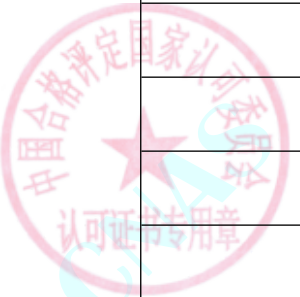
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
			ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	10 nA	U=0.017 nA		
				100 nA	U=0.13 nA		
				1 μA	U=0.00073 μA		
				10 μA	U=0.0073 μA		
				100 μA	U=0.075 μA		
		DC Voltage		10 mV	U=0.06 mV		
				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		
26	*Function Generator	Time-Base Frequency	Function Generator Test Procedure CAL-CHA015-01	10 MHz	U=0.0021 Hz	合格评定 国家认可 CNAS 认可证书专用章	
		DC Voltage		10 V	U=0.00028 V		
				10 mV	U=0.06 mV		
				0.5 V	U=0.0000073 V		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AC Amplitude		-10 V	$U=0.00059\text{ V}$		
				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	$U=0.027\text{ dB}$		
				-10 dBm~ 0 dBm,5 MHz~10 MHz	$U=0.031\text{ dB}$		
				-10 dBm~ 0 dBm,10 MHz~22 MHz	$U=0.033\text{ dB}$		
				-10 dBm~ 0 dBm,22 MHz~30 MHz	$U=0.034\text{ dB}$		
				0 dBm~ 10 dBm, 100 kHz~5 MHz	$U=0.026\text{ dB}$		
				0 dBm~ 10 dBm, 5 MHz~60 MHz	$U=0.030\text{ dB}$		
				0 dBm~10 dBm, 6 MHz~90 MHz	$U=0.030\text{ dB}$		
				0 dBm~10 dBm, 90 MHz~120 MHz	$U=0.032\text{ dB}$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
			ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	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		
27	*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 GHz, 6 GHz, 8 GHz	U=0.11 dB		

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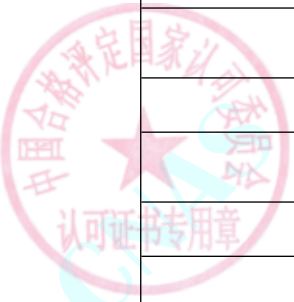
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 dB~30 dB, 5 GHz, 19 GHz, 25 GHz	U=0.13 dB		
				1 dB~30 dB, 9 GHz, 10 GHz, 11 GHz, 12 GHz, 13 GHz, 14 GHz, 20 GHz, 21 GHz, 24 GHz, 26 GHz, 26.5 GHz	U=0.14 dB		
				1 dB~30 dB, 15 GHz, 18 GHz	U=0.15 dB		
				1 dB~30 dB, 16 GHz, 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		



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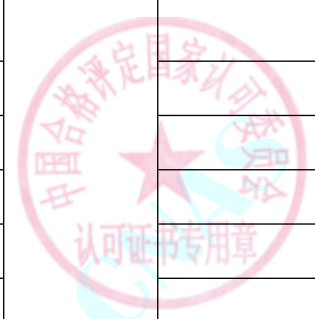
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Reflection(So urce On- Source Off)	ilac-M	0.0001~1, 21 GHz, 26 GHz, 26.5 GHz	U=0.0056		
				0.0001~1, 1 GHz, 2 GHz, 5 GHz, 10 GHz, 15 GHz, 18 GHz	U=0.000058		
				0.0001~1, 100 MHz, 3 GHz, 4 GHz, 6 GHz, 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		
				28	*Noise Figure Analyzer	Reference Frequency	Noise Figure Analyzer Test Procedure CAL-CHA017-01
Input VSWR	1.01~2, 10 MHz~0.5 GHz	U=0.09					
	1.01~2, 0.5 GHz~1 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					



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Noise Source Supply		1.01~2, 20 GHz~26.5 GHz	$U=0.21$		
				0.01 V~1 V	$U_{rel}=0.03\%$		
		Frequency		28 V	$U=0.31$ mV		
				14 MHz~26.5 GHz, Resolution Bandwidth:4 MHz	$U=0.010$ MHz		
				1 GHz, Resolution Bandwidth:0.1 MHz	$U=0.002$ MHz		
				0 dB~20 dB ,10 MHz~26.5 GHz	$U=0.014$ dB		
		Instrument Noise Figure Measurement Jitter		0 dB~0.5 dB ,1 GHz	$U=0.006$ dB		
		Noise Figure Range And Measurement Gain Measurement Uncertainty		0 dB~22 dB ,50 MHz	$U=0.014$ dB		
	-20 dB~40 dB	$U=0.010$ dB					
29	*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 $^{\circ}\text{C}$	$U=0.13$ $^{\circ}\text{C}$		
				-150 $^{\circ}\text{C}$ ~450 $^{\circ}\text{C}$	$U=0.09$ $^{\circ}\text{C}$		
				600 $^{\circ}\text{C}$ ~750 $^{\circ}\text{C}$	$U=0.10$ $^{\circ}\text{C}$		
				1000 $^{\circ}\text{C}$	$U=0.12$ $^{\circ}\text{C}$		
				1199 $^{\circ}\text{C}$	$U=0.13$ $^{\circ}\text{C}$		

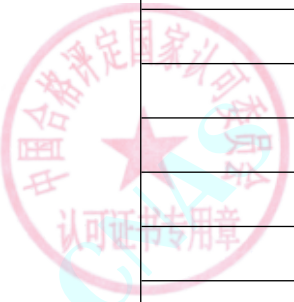


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
30	*Semiconductor Device Parameter Analyzer	DC Voltage Output	Semiconductor Device Parameter Analyzer Test Procedure CAL-CHA025-01	0.01 V~0.22 V	$U_{rel}=0.0013\%$		
				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	$U_{rel}=0.0022\%$		
				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	$U_{rel}=0.067\%$						

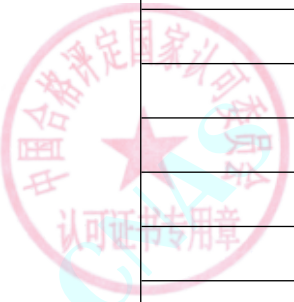


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		DC Voltage Measurement	ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	0.01 V~0.22 V	$U_{rel}=0.0013\%$		
				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	$U_{rel}=0.0022\%$		
				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	$U_{rel}=0.067\%$		

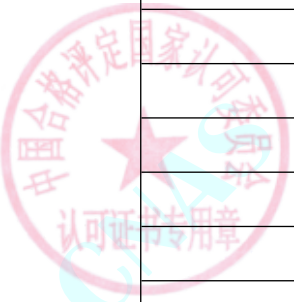


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Level Test		0.1 V~2.2 V	$U_{rel}=0.017\%$		
				2.2 V~22 V	$U_{rel}=0.0033\%$		
				22 V~50 V	$U_{rel}=0.0025\%$		
		Pulse Shape Test-Period		100 ns	$U=0.10$ ns		
				2 μs	$U=0.082$ μs		
				100 μs	$U=0.093$ μs		
				100 ms	$U=0.09$ ms		
		Pulse Shape Test-Delay		2 s	$U=0.082$ s		
				2.5 ns	$U=0.0036$ ns		
				2.5 μs	$U=0.003$ μs		
		Pulse Shape Test-Width		2.5 ms	$U=0.051$ ms		
				50 ns	$U=0.071$ ns		
				1 μs	$U=0.0046$ μs		
				50 μs	$U=0.052$ μs		
		Pulse Shape Test-Rise/Fall Time		50 ms	$U=0.052$ ms		
				1 s	$U=0.0041$ s		
				20 ns~100 ns	$U_{rel}=0.54\%$		
				0.35 μs~10 μs	$U_{rel}=0.34\%$		
				100 μs~10 ms	$U_{rel}=0.30\%$		

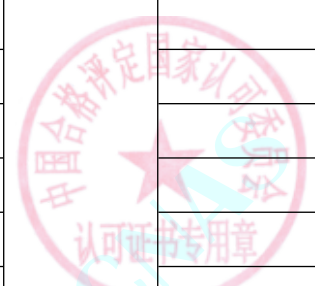


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Output Impedance		50 Ω	$U_{rel}=0.002\%$		
		Pulse Overshoot		0.01%~5.2%, +/-10 V	$U=0.29\%$		
31	*Pulse Pattern Generator	Internal PLL Frequency	Pulse Pattern Generator Test Procedure CAL-CHA026-01	0.2 Hz ~3.35 GHz, including period test	$U_{rel}=8.5 \times 10^{-7}$		
		Pulse Width		100 ps~999 ns	$U_{rel}=1.7 \times 10^{-5}$		
				1 μs~500 ms	$U_{rel}=8.4 \times 10^{-6}$		
		Pulse Delay		1 ns~500 ns	$U_{rel}=3.2 \times 10^{-5}$		
				3 μs~500 ms	$U_{rel}=4.3 \times 10^{-5}$		
		Double Pulse Delay		6 ns~100 ns	$U_{rel}=1.5 \times 10^{-4}$		
				500 ms~1 s	$U_{rel}=5.8 \times 10^{-5}$		
		Period Jitter		Period 0.3 ns~20 ns	$U=1.9$ ps		
				Period 20 ns~500 ns	$U=1.4$ ps		
		Width Jitter		width 50 ns~500 ns	$U=1.4$ ps		
		Delay Jitter		Delay 50 ns~500 ns	$U=0.45$ 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		1 ns~500 ms	$U=8$ ps + 0.1% t_x		

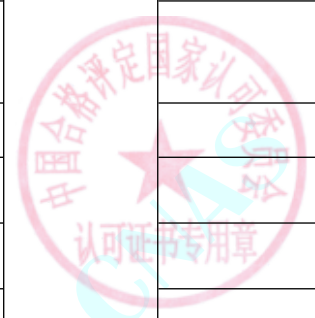


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Pulse Aberration	ilac-M	50 ps ~ 1 ns	$U=2.1$ ps		
				10 mV ~ 200 mV, Pulse level:0.5 V~2 V	$U=3$ mV		
				10 mV ~ 200 mV, Pulse level:2 V~5 V	$U=30$ mV		
32	*Serial/Par BERT Modules	Frequency	Serial/Par BERT Modules CAL-CHA027-01	300 MHz ~12.4 GHz	$U_{rel}=1.7 \times 10^{-7}$		
		Output Transition Time		0.2 ps~75 ps	$U=0.19$ ps		
		Output Termination Voltage		-2V~-0.8 V, 1 V~5 V	$U=1.0$ 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		1 mV~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 In		-110 ps~110 ps	$U=1.0$ ps		



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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
33	*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	$U=0.000055 \Omega$		
				0.5 Ω ~ 2 Ω	$U=0.0004 \Omega$		
				2 Ω ~ 2.5 k Ω	$U=0.0007 \Omega$		
		Slew		60 μs ~ 125 μs 0.050 A/ μs ~ 0.083 A/ μs	$U=0.055 \mu s$		
				1.2 ms ~ 2 ms 0.0025 A/ μs ~ 0.0042 A/ms	$U=0.054 ms$		
		CC PARD		0.001 mA ~ 4 mA, 10 kHz	$U=0.001 mA$		
		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: 1 A ~ 60 A	$U=0.11 mV$		
Power	0.6 W ~ 1.5 kW	$U_{rel}=0.012\%$					
Current Rise/Fall Time	0.1 μs ~ 100 μs (5 V, Current Change: 3 A ~ 27 A)	$U=5.3 \mu s$					
34	*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%	$U=0.03\%$		

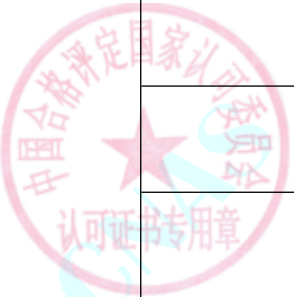


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AM Frequency Response		0.01%~3%, Carrier Frequency: 10 MHz~20 GHz, AM: 10%~90%	$U=0.04\%$		
				0 dB~3 dB, Carrier Frequency: 100 MHz~ 2.7 GHz, Mod Rate: 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		
				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	$U_{rel}=0.5\%$		

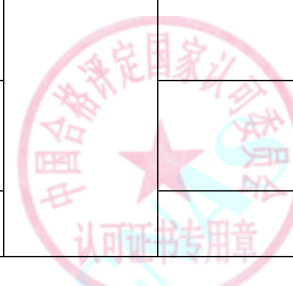


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Power Level		5%~20%, Carrier Frequency: 3 GHz~20 GHz	$U_{rel}=4.5\%$		
				20%~99%, Carrier Frequency: 3 GHz~20 GHz	$U_{rel}=1.5\%$		
				-120 dBm~-20 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		
				-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	$U_{rel}=1 \times 10^{-9}$		

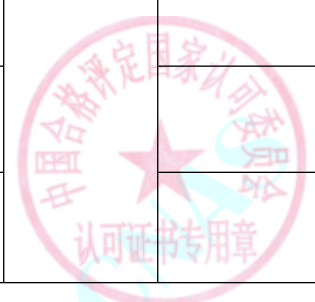


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Carrier Frequency Offset with FM		Offset Frequency: 1 MHz, Carrier Frequency: 50 MHz ~ 6 GHz	$U=0.064$ kHz		
		FM Frequency Response		-3 dB ~ 3 dB, Mod 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	$U_{rel}=1.0\%$		
		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		

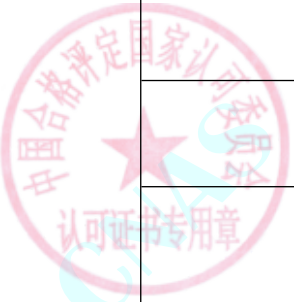


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		IQ Error Vector		0.01%~1.5%,Carrier Frequency: 100 kHz~6 GHz	U=0.74%		
		IQ Input Impedance		1.01~1.2,Frequency: 1 MHz ~ 50 MHz	U=0.004		
		IQ Residual Carrier And Leakage		1.01~1.2,Frequency: 50 MHz ~ 1000 MHz	U=0.007		
				-70 dBc~-40 dBc,Carrier Frequency: 100 kHz~6 GHz	U=0.17 dBc		
				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		
		Level Frequency Response		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		

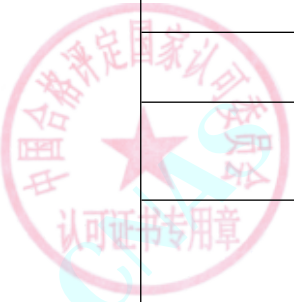


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Modulation Generator Distortion		0.001%~0.1%, Frequency: 100 Hz~20 kHz	$U=0.016\%$		
				0.001%~0.1%, Frequency: 20 kHz~100 kHz	$U=0.032\%$		
		Modulation 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: 1 kHz	$U_{rel}=1.7\%$		
				10 mV, frequency: 1 kHz	$U_{rel}=0.56\%$		
				30 mV, frequency: 1 kHz	$U_{rel}=0.24\%$		
				100 mV, frequency: 1 kHz	$U_{rel}=0.12\%$		
				100 mV~300 mV, Frequency: 1 kHz	$U_{rel}=0.19\%$		
				300 mV~1 V, Frequency: 1 kHz	$U_{rel}=0.11\%$		
				1 V~3 V, Frequency: 1 kHz	$U_{rel}=0.26\%$		
		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		

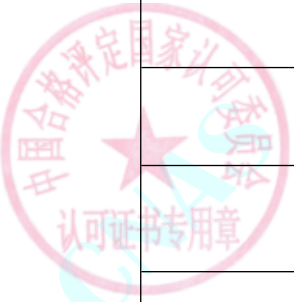


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				-70 dBc~-40 dBc, Frequency: 1 MHz~3 GHz	U=0.21 dB		
				-70 dBc~-40 dBc, Frequency: 3 GHz~6.6 GHz	U=0.74 dB		
				-70 dBc~-40 dBc, Frequency: 6.6 GHz~13.2 GHz	U=1.3 dB		
				-70 dBc~-40 dBc, Frequency: 13.2 GHz~18 GHz	U=1.7 dB		
				-70 dBc~-40 dBc, Frequency: 18 GHz~20 GHz	U=1.7 dB		
		Output Impedance		1~1.9, Frequency: 300 kHz~6 GHz	U=0.021		
		Phase Modulation Distortion		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	U _{rel} =1%		



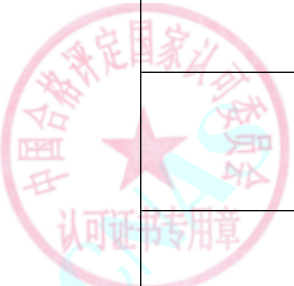
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.3 rad~0.7 rad,100 kHz~6 GHz	$U_{rel}=3\%$		
				1.2 rad~100 rad,6 GHz~20 GHz	$U_{rel}=3\%$		
		Pulse Modulation Video Crosstalk		30 dB,Carrier Frequency: 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		
		Pulse Modulation: Rise/Fall Time		50 dB ~ 200 dB,Carrier Frequency: 6 GHz~20 GHz	$U=0.17$ dB		
				0.1 ns~12 ns,,Carrier Frequency: 500 MHz~20 GHz	$U=0.2$ ns		
		Residual FM		0.1 ns~12 ns,Carrier Frequency: 100 kHz~500 MHz	$U=0.4$ ns		
				0.01 Hz~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	$U=0.0012\%$		

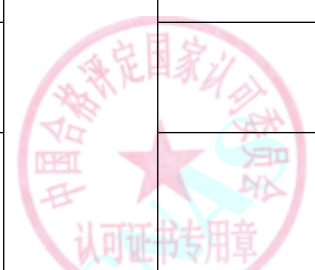


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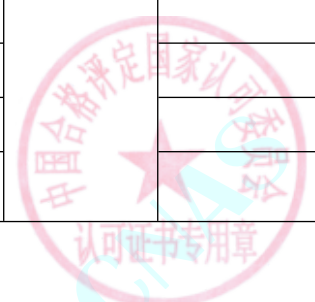
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Single-Sideband Phase Noise		-110 dBc/Hz~-70 dBc/Hz, Carrier Frequency: 10 MHz~20 GHz, 10 Hz~1 MHz offset	U=2.3 dB		
		Sub-Harmonic Spurious		-20 dBc~-80 dBc, Carrier Frequency: 100 kHz~2 GHz	U=0.5 dB		
				-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		
		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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-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 $5 \times 10^{-9}/V$ ~ $5 \times 10^{-8}/V$, Frequency: 10 MHz	U= $6.1 \times 10^{-11}/V$		
		Additive white Gaussian noise		0 dB ~0.1 dB, system bandwidth = symbol rate, symbol rate < 4 MHz, -24 dB < C/N < 30 dB and 0 dB < crest factor < 12 dB	U=0.0061 dB		
		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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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	$U_{rel} = 1 \times 10^{-11}$		
		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		
		IQ Output EVM for WCDMA 3GPP		0.01%~5%, Carrier Frequency: 100 MHz~6 GHz	U=0.09%		
		35		*Wideband Wireless Communications Test Set	Reference Frequency Amplitude		
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%				



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		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		
		Audio Generator Level		10 mV ~ 100 mV, 20 Hz ~ 10 kHz	$U=0.06$ mV		
		Audio Generator Level		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	$U=0.22$ mA		
		Audio Analyzer Frequency Response		-40 mV ~ 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	$U=0.024\%$		



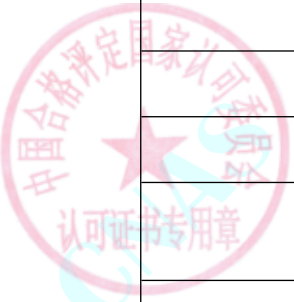
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.01%~2%,1 mV ~ 0.02 V,10 kHz ~ 20 kHz	U=0.18%		
		RX SSB Phase Noise		-150 dBc/Hz~-50 dBc/Hz,50 MHz ~ 6000 MHz	U=1.8 dB		
		RX Average Noise Level		-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		
				-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		

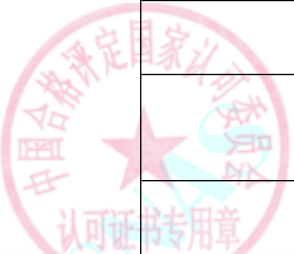


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX Frequency		50 MHz~6000 MHz	$U_{rel}=0.12\%$		
		TX VSWR		1.01~4, 50 MHz~6000 MHz	$U=0.01$		
		TX Signal To Noise Ratio		60 dB~100 dB, 50 MHz~3000 MHz, 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		
				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		

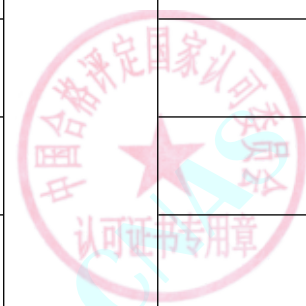


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX SSB Phase Noise		-150 dBc/Hz~-50 dBc/Hz,50 MHz ~ 6000 MHz	U=0.06 dB		
		TX Harmonics		-70 dB~-30 dB,50 MHz ~ 6000 MHz	U=0.47 dB		
		TX IN-Band Spurious		-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 %, 870 MHz~2150 MHz	U=0.1 %		
		1XEV-DO RX Frequency Error		-15 Hz~15 Hz,870 MHz~2150 MHz	U=3.1 Hz		
		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		



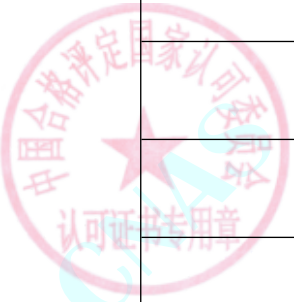
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX Carrier Suppression		-105 dBm ~ 5 dBm	U=0.2 dB		
		RX Bluetooth Frequency Offset		0.1 kHz~1 MHz	U=0.1 kHz		
		RX Bluetooth Level Accuracy		105 dBm ~ 5 dBm,2402 MHz~2495 MHz	U=0.3 dB		
		RX Bluetooth Leakage Power		-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		
		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		

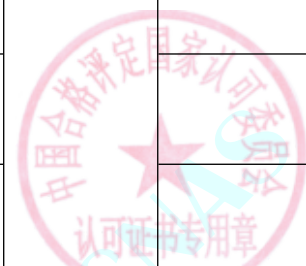


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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		C2K TX EVM		0.01%~25%,0 dBm~- 20 dBm,380 MHz~2800 MHz	U=0.95%		
		C2K TX RHO		0.9 ~1, 0 dBm~-20 dBm,380 MHz~2800 MHz	U=0.001		
		C2K RX ACP		-90 dB ~ -10 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		
		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		



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No	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=0.15%		
		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°		
		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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX GSM 8PSK EVM		0.01%~8%,0dBm~- 20dBm,710Mhz~1990M Hz	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° ~4.0° peak,710 MHz~1990 MHz	U=0.1°		
		RX GSM Phase Error(RMS)		-1.0° ~1.0° , 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		
		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%		

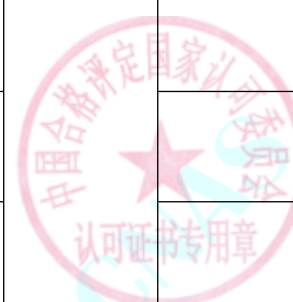


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX LTE I/Q Offset		-50 dB~-10 dB, 0 dBm~-20 dBm, 380 MHz~3800 MHz	U=2.7 dB		
		RX LTE Frequency Error		0.1 Hz~10 kHz, 380 MHz~3800 MHz	U=3.1 Hz		
		TX 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, 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		
		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		

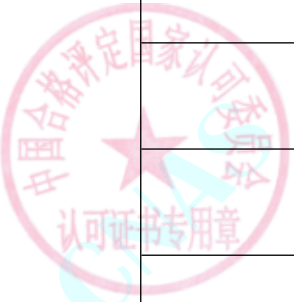


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX TD-SCDMA Frequency Error		380 MHz~2800 MHz,0 dBm~-20 dBm	U=2.5 Hz		
		TX WCDMA HSDPA EVM		0.01% ~ 10%,0 dBm~-20 dBm,380 MHz~6000 MHz	U=1.2%		
		TX 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		
		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		

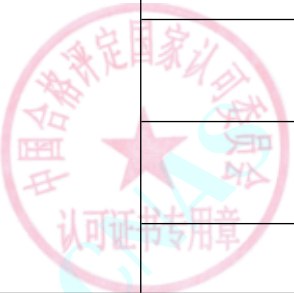


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		TX WLAN 802.11a EVM	ilac-M	-53 dB~-22 dB,0 dBm~- -20 dBm	U=0.29 dB		
		TX WLAN 802.11ac EVM		-53 dB~-22 dB,0 dBm~- -20 dBm,80 MHz Bandwidth	U=0.39 dB		
				-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		
		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%			

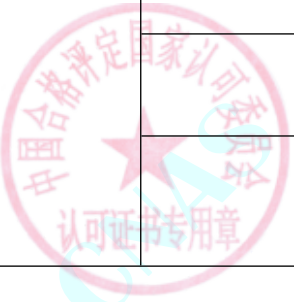


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX WLAN 802.11g EVM		-53 dB~-22 dB,0 dBm~-20 dBm,DSSS	U=0.1%		
		RX WLAN 802.11b/g Frequency Error		0.01%~ 8%, 0 dBm~-20 dBm,OFDM	U=0.48%		
		RX WLAN 802.11b/g Chip Clock Error		0 dBm~-20 dBm, 2484 MHz	U=3.1 Hz		
		RX WLAN 802.11b/g IQ Offset		$1 \times 10^{-9} \sim 1 \times 10^{-6}$, 0 dBm~-20 dBm, 2484 MHz Carrier	$U=5.3 \times 10^{-8}$		
		RX WLAN 802.11b/g IQ Spectrum Flatness		0 dBm~-20 dBm, 2484 MHz	U=1.1 dB		
		RX WLAN 802.11n EVM		0 dBm~-20 dBm, 2484 MHz	U=0.4 dB		
		RX WLAN 802.11n EVM		-53 dB~-22 dB,0 dBm~-20 dBm,20 MHz Bandwidth	U=3.4 dB		
		RX WLAN 802.11n EVM		-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		

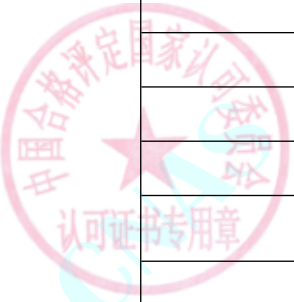


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		RX WLAN 802.11n Chip Clock Error		$1 \times 10^{-9} \sim 1 \times 10^{-6}$, 2484 MHz Carrier	$U=2.5 \times 10^{-7}$		
		RX WLAN 802.11n IQ Offset		-90 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		
36	*High Frequency Function Generator	Timebase Frequency	High Frequency Function Generator Test Procedure CAL-CHA015-02	1 MHz ~10 MHz	$U_{rel}=2.1 \times 10^{-7}$		
		DC Voltage		-10 V ~-3.5 V	$U_{rel}=5.5 \times 10^{-5}$		
				-3.5 V ~-1.5 V	$U_{rel}=6.5 \times 10^{-5}$		
				-1.5 V ~-0.25 V	$U_{rel}=1.5 \times 10^{-5}$		
				-0.25 V ~-0.15 V	$U_{rel}=6.9 \times 10^{-5}$		
				-0.15 V ~-0.03 V	$U_{rel}=6.9 \times 10^{-5}$		
				0.03 V ~0.1 V	$U_{rel}=1.4 \times 10^{-4}$		
				0.11 V ~1.1 V	$U_{rel}=2.2 \times 10^{-4}$		
				1.2 V ~ 10 V	$U_{rel}=2.2 \times 10^{-4}$		
		AC Amplitude		$V_{pp}0.4185V \sim 2.5V, 1MHz$ ~40MHz	$U_{rel}=1.6\%$		
Flatness	(0~1) dB, 500 kHz~0.9 MHz	$U=0.055$ dB					



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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty ($k=2$)	Note	Effective Date
			ilac-M	(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, 1 V peak to peak	$U=0.0095\%$		
		Spurious		-80 dB ~ -40 dB, Fundamental Frequency 500 kHz~250 MHz	$U=0.78$ dB		
				-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		
37	*Oscilloscope Voltage Probe	Input Resistance	Oscilloscope Voltage Probe Test Procedure CAL-CHA029-01	20 k Ω ~ 1 M Ω	$U_{rel}=0.053\%$		
				1 M Ω	$U=0.068$ k Ω		
		Bandwidth		(1.8~3)GHz, Power: 0 dBm ~ -10 dBm	$U=0.070$ GHz		



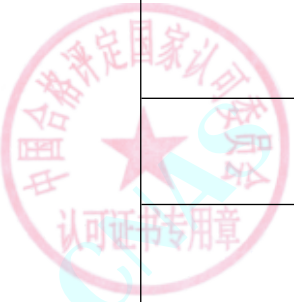
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
38	*RF Amplifier			(3~5) GHz, power: 0 dBm ~ -10 dBm	U=0.085 GHz		
				(5~10)GHz, Power:0 dBm ~ -10 dBm	U=0.090 GHz		
				(10~12)GHz, Power:0 dBm ~ -10 dBm	U=0.094 GHz		
		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		
				10.0 dB~60.0 dB, Frequency: 100 kHz~400 MHz	U=0.060 dB		
		Gain	RF Amplifier Test Procedure CAL-CHA032-01	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		
				0.0 dB~3.0 dB, Frequency: 100 kHz~400 MHz	U=0.05 dB		
		Gain Flatness	RF Amplifier Test Procedure CAL-CHA032-01	0.0 dB~3.0 dB, Frequency: 400 MHz~1.3 GHz	U=0.82 dB		
				-100 dBc~0 dBc, Carrier Frequency: 100 MHz~400 MHz, Output Power: 0 dBm	U=0.30 dB		
		Harmonic Distortion	RF Amplifier Test Procedure CAL-CHA032-01	-100 dBc~0 dBc, Carrier Frequency: 100 MHz~400 MHz, Output Power: 0 dBm	U=0.30 dB		



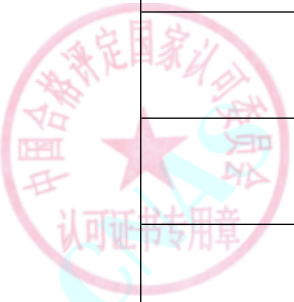
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Gain Compression		0.0 dB~1.0 dB, Output Power: 6 dBm~16 dBm	U=0.35 dB		
		Reverse Isolation		-100 dB~0 dB, Frequency: 100 kHz~1.3 GHz	U=0.30 dB		
		Noise Figure		0.0 dB~35.0 dB, Frequency: 100 kHz~1.3 GHz	U=0.43 dB		
39	*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		
		10 MHz~30 MHz,Resolution 64 kHz,-20 dBm~0 dBm		$U_{rel}=2.3 \times 10^{-4}$			
		10 MHz~30 MHz,Resolution 64 kHz,0 dBm~20 dBm		$U_{rel}=8.9 \times 10^{-5}$			
		30 MHz~2 GHz,Resolution 64 kHz,-20 dBm~0 dBm		$U_{rel}=2.3 \times 10^{-6}$			
		30 MHz~2 GHz,Resolution 64 kHz,0 dBm~20 dBm		$U_{rel}=1.5 \times 10^{-6}$			
2 GHz~7 GHz,Resolution 64 kHz,-20 dBm~0 dBm	$U_{rel}=1.4 \times 10^{-7}$						
		Frequency Measurement					

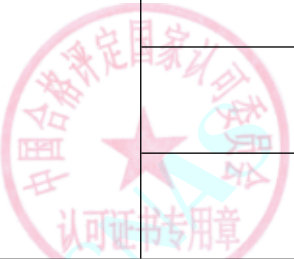


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2 GHz~7 GHz, Resolution 64 kHz, 0 dBm~20 dBm	$U_{rel}=6.3 \times 10^{-7}$		
				10 MHz~30 MHz, Resolution 1 kHz, -20 dBm~0 dBm	$U_{rel}=1.8 \times 10^{-8}$		
				10 MHz~30 MHz, Resolution 1 kHz, 0 dBm~20 dBm	$U_{rel}=4.4 \times 10^{-7}$		
				30 MHz~2 GHz, Resolution 1 kHz, -20 dBm~0 dBm	$U_{rel}=4.0 \times 10^{-9}$		
				30 MHz~2 GHz, Resolution 1 kHz, 0 dBm~20 dBm	$U_{rel}=6.3 \times 10^{-9}$		
				2 GHz~7 GHz, Resolution 1 kHz, -20 dBm~0 dBm	$U_{rel}=7.4 \times 10^{-10}$		
				2 GHz~7 GHz, Resolution 1 kHz, 0 dBm~20 dBm	$U_{rel}=2.6 \times 10^{-9}$		
				10 MHz~30 MHz, Resolution 10 Hz, -20 dBm~0 dBm	$U_{rel}=4.0 \times 10^{-9}$		
				10 MHz~30 MHz, Resolution 10 Hz, 0 dBm~20 dBm	$U_{rel}=1.8 \times 10^{-8}$		

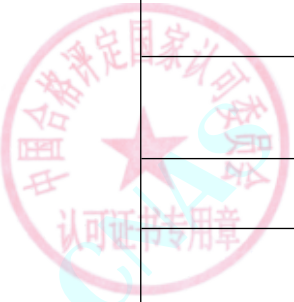


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				30 MHz~2 GHz, Resolution 10 Hz, -20 dBm~0 dBm	$U_{rel}=1.7 \times 10^{-10}$		
				30 MHz~2 GHz, Resolution 10 Hz, 0 dBm~20 dBm	$U_{rel}=4.7 \times 10^{-10}$		
				2 GHz~7 GHz, Resolution 10 Hz, -20 dBm~0 dBm	$U_{rel}=4.0 \times 10^{-11}$		
				2 GHz~7 GHz, Resolution 10 Hz, 0 dBm~20 dBm	$U_{rel}=5.9 \times 10^{-11}$		
		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		
				-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		

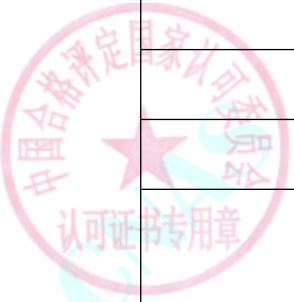


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		DC Power Voltage		1 V	$U=0.065 \text{ mV}$		
				2 V	$U=0.031 \text{ mV}$		
				5 V	$U=0.30 \text{ mV}$		
				10 V	$U=0.44 \text{ mV}$		
				12 V	$U=0.86 \text{ mV}$		
				16 V	$U=0.52 \text{ mV}$		
		DC Current		1 mA~5 mA	$U=2.5 \mu \text{ A}$		
				5 mA~80 mA	$U=8 \mu \text{ A}$		
40	*Wideband Power Sensor	Sensor Calibration Uncertainty	Wideband Power Sensor Test Procedure CAL-CHA009-02	31.6 nW~100 mW,0.05 GHz	$U_{\text{rel}}=0.69\%$		
				31.6 nW~100 mW,0.099 GHz	$U_{\text{rel}}=0.79\%$		
				31.6 nW~100 mW,0.3 GHz,0.499 GHz,0.5 GHz,2 GHz	$U_{\text{rel}}=0.84\%$		
				31.6 nW~100 mW,0.8 GHz,1 GHz,1.5 GHz	$U_{\text{rel}}=0.85\%$		
				31.6 nW~100 mW,3 GHz,4 GHz	$U_{\text{rel}}=0.93\%$		
				31.6 nW~100 mW,5 GHz,8 GHz	$U_{\text{rel}}=0.99\%$		
				31.6 nW~100 mW,6 GHz,7 GHz,9 GHz,10 GHz,12 GHz,13 GHz,14 GHz,15 GHz	$U_{\text{rel}}=1\%$		

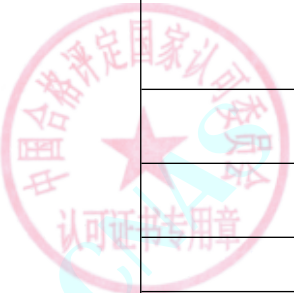


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				31.6 nW~100 mW,11 GHz,12.4 GHz,16 GHz	$U_{rel}=1.1\%$		
				31.6 nW~100 mW,17 GHz,18 GHz	$U_{rel}=1.2\%$		
				31.6 nW~100 mW,19 GHz,20 GHz,20.5 GHz,24.5 GHz	$U_{rel}=1.8\%$		
				31.6 nW~100 mW,19.5 GHz,21 GHz,22 GHz,23 GHz,24 GHz,25 GHz,25.5 GHz,26 GHz	$U_{rel}=1.9\%$		
				31.6 nW~100 mW,26.5 GHz	$U_{rel}=2\%$		
				31.6 nW~100 mW,27 GHz,28 GHz,29 GHz,30 GHz,31 GHz	$U_{rel}=2.1\%$		
				31.6 nW~100 mW,32 GHz,33 GHz,40 GHz	$U_{rel}=2.2\%$		
				31.6 nW~100 mW,34 GHz,35 GHz,37 GHz	$U_{rel}=2.3\%$		
		Sensor Calibration Uncertainty		31.6 nW~100 mW,36 GHz,38 GHz,39 GHz	$U_{rel}=2.4\%$		
		Sensor Rise and Fall Time		Rise Time,0~13 ns,500 MHz~40 GHz	$U=0.35$ ns		
				Fall Time,0~13 ns,500 MHz~40 GHz	$U=0.36$ ns		
		VSWR		0~1,50 MHz~2 GHz	$U=0.003$		
				0~1,2 GHz~20 GHz	$U=0.006$		



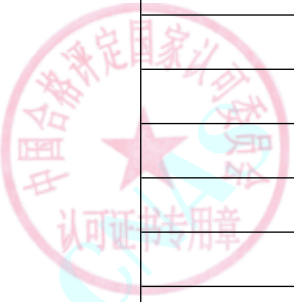
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Zero Set	ilac-MRA	0~1,20 GHz~40 GHz	U=0.009		
				No RF on Input	U=0.011 μW		
				RF ON, DC~500 MHz	U=0.013 μW		
				RF ON, 500 MHz ~ 40 GHz	U=0.019 μW		
				RF OFF, DC~ 500 MHz, Average Mode	U=0.0011 μW		
				RF OFF, 500 MHz~40 GHz, Average Mode	U=0.0015 μW		
		Timebase Accuracy		10 MHz	U _{rel} = 1 × 10 ⁻⁶		
41	*Pulse Function Arbitrary Noise Generator	Frequency	Pulse Function Arbitrary Noise Generator Test Procedure CAL-CHA026-02	10 MHz ~ 500 MHz	U _{rel} =2.2×10 ⁻⁷		
		Harmonic Distortion		-80 dB~-20 dB, 0.1 MHz ~ 500 MHz, Pulse Level 1 V~10 V	U=1.7 dB		
		Pulse Delay		0.1 ps~0.05 ns	U=8.5 ps		
				0.051 ns~0.09 ns	U=8.6 ps		
				0.1 ns~0.19 ns	U=8.9 ps		
				0.2 ns	U=9.2 ps		
				0.21 ns~0.30 ns	U=9.5 ps		
				0.31 ns~0.35 ns	U=9.9 ps		
				0.35 ns~0.40 ns	U=10 ps		
				0.41 ns~0.50 ns	U=11 ps		

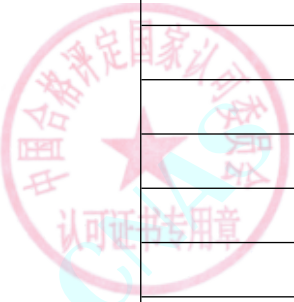


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Transition Time		0.51 ns~0.65 ns	U=12 ps		
				0.66 ns~2 ns	U=13 ps		
				2 ns~3 ns, Pulse Level 1 V	U=60 ps		
				2 ns~3 ns, Pulse Level 2 V	U=34 ps		
				2 ns~3 ns, Pulse Level 3 V	U=26 ps		
				2 ns~3 ns, Pulse Level 4 V	U=23 ps		
				2 ns~3 ns, Pulse Level 5 V	U=22 ps		
				2 ns~3 ns, Pulse Level 6 V	U=87 ps		
				2 ns~3 ns, Pulse Level 8 V	U=75 ps		
				2 ns~3 ns, Pulse Level 10 V	U=70 ps		
		Pulse Width		1.5 ns	U=39 ps		
				1.6 ns~11 ns	U=46 ps		
				12 ns~21 ns	U=57 ps		
				22 ns~31 ns	U=70 ps		
				32 ns~41 ns	U=84 ps		
				42 ns~51 ns	U=0.1ns		
				52 ns~61 ns	U=0.12ns		

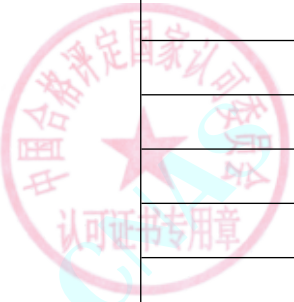


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date	
				62 ns~71 ns	U=0.14ns			
				72 ns~81 ns	U=0.15ns			
				82 ns~91 ns	U=0.17ns			
				92 ns~101 ns	U=0.18ns			
		DC Offset Voltage		-10 mV,10 mV	U=0.94 mV			
				-2 V~-10 mV, 10 mV~2 V	U=0.95 mV			
				-4 V~-2 V, 2 V~ 4 V	U=0.97 mV			
				-6 V~ -4 V, 4 V~ 6 V	U=0.99 mV			
				-8 V~-6 V, 6 V~8 V	U=1.1 mV			
				-10 V~-8.1 V, 8.1 V~10 V	U=1.7 mV			
				-20 V, 20 V	U=3.1 mV			
			DC Amplitude		0.05 V	U=0.59 mV		
					0.1 V	U=0.60 mV		
					0.125 V	U=0.60 mV		
				0.25 V	U=0.62 mV			
				0.5 V	U=0.70 mV			
				1 V	U=0.95 mV			
				1.25 V	U=1.1 mV			

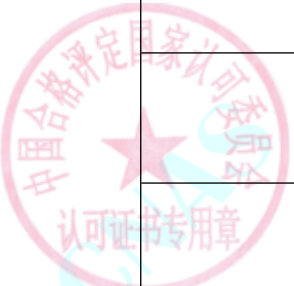


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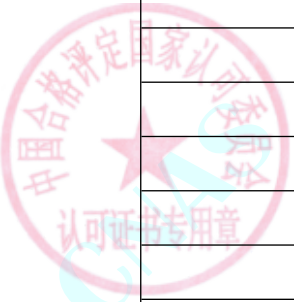
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2.5 V	U=2.0 mV		
				5 V	U=3.8 mV		
				10 V	U=7.7 mV		
42	*5G frequency extend transceiver	Tx Gain level accuracy	5G frequency extend Transceiver Test Procedure CAL-CHA034-01	Output -50 dBm~0 dBm ,5.6 GHz~12.4 GHz	U=0.17 dB		
		Rx Gain level accuracy		Input -50 dBm~0 dBm ,5.6 GHz~12.4 GHz	U=0.13 dB		
		Transmit Power Linearity		Output -50 dBm~5 dBm ,24 GHz~40 GHz	U=0.47 dB		
				Output -50 dBm~5 dBm ,40 GHz~44 GHz	U=0.48 dB		
		Receive Power Linearity		Input -50 dBm~5 dBm ,24 GHz~40 GHz	U=0.47 dB		
				Input -50 dBm~5 dBm ,40 GHz~44 GHz	U=0.50 dB		
43	*RF Channel Emulator	Level Accuracy (Input to Output gains)	RF Channel Emulator Test Procedure CAL-CHA035-01	Gain -40 dB~ 0 dB, Input -20 dBm~0 dBm, Output -40 dBm~-15 dBm ,1 MHz~6 GHz	U=0.08 dB		
		output level accuracy (CW Interference Absolute)		Output -20 dBm~0 dBm ,1 MHz~6 GHz	U=0.20 dB		
		Input Dynamics		-50 dB~ 20 dB, Input -30 dBm~ 35 dBm ,1 MHz~6 GHz	U=0.05 dB		



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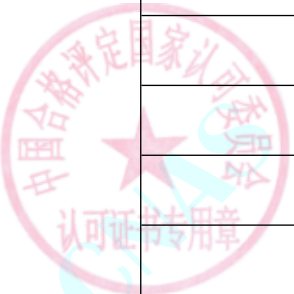
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Output Dynamics	ilac-M	-90 dB~20 dB, Output -100 dBm~5 dBm, 1 MHz~6 GHz	U=0.10 dB		
		Frequency Response flatness		-2 dB~2 dB, RF Frequency 140 MHz~6 GHz, 160 MHz BW, Input -20 dBm~0 dBm , Output -40 dBm~-15 dBm	U=0.09 dB		
		Insertion Delay		0.5 ns~3 ms	U=0.17 ns		
		Group Delay variation		0.5 ns~4 μs	U=0.08 ns		
44	*Environmental Testing Equipment	Temperature	Calibration Specification for Environmental Testing Equipment for Temperature and Humidity Parameters CAL-CHA036-01	(-60~0)°C	U=0.34 °C		
				(0~300)°C	U=(0.20~0.92)°C		
		Humidity		10%RH~95%RH	U=1.6%RH		
45	*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		
				1000 mV, 0.01 mW	U=6.5 mV		
				948.8 mV, 0.03 mW	U=7.2 mV		
		Meter Accuracy		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		



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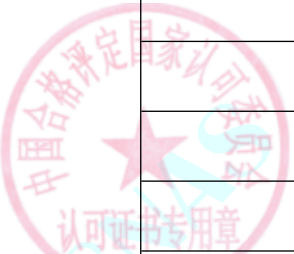
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Meter Scale		1000 mV, 10 mW	U=3.7 mV		
				-0.5 div~0.5 div, Range: 0.01 mW	U=0.33 div		
				-0.5 div~0.5 div, Range: 0.03 mW	U=0.49 div		
				-0.5 div~0.5 div, Range: 0.1 mW	U=0.19 div		
				-0.5 div~0.5 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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				926 mV, Cal factor: 95%	U=2.3 mV		
				916 mV, Cal factor: 96%	U=2.5 mV		
				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		

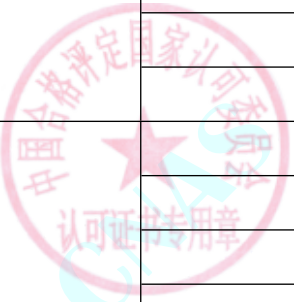


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			ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	-5 mV~5 mV, Range: 1 mW	U=0.13 mV		
				-5 mV~5 mV, Range: 3 mW	U=0.06 mV		
				-5 mV~5 mV, Range: 10 mW	U=0.06 mV		
				Power Reference 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		
				46	*Power Splitter		
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						

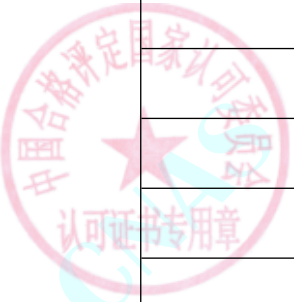


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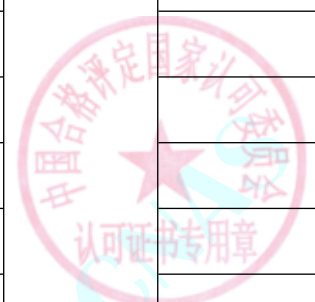
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0~1, 8.1 GHz~13.5 GHz	U=0.0082		
				0~1, 13.6 GHz~18 GHz	U=0.0085		
				0~1, 18.1 GHz~26.5 GHz	U=0.01		
				0~1, 26.6 GHz~33 GHz	U=0.014		
				0~1, 33.1 GHz~40 GHz	U=0.015		
				0~1, 40.1 GHz~50 GHz	U=0.018		
		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		
				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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				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		
				-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		

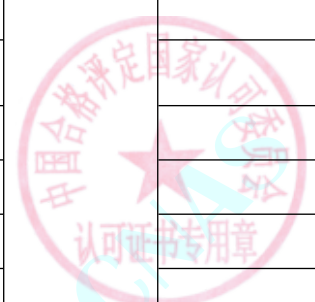


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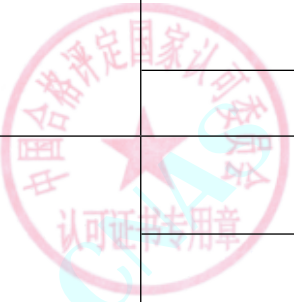
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				-1 dB~1 dB, 9.1 GHz~12.5 GHz	U=0.047 dB		
				-1 dB~1 dB, 12.6 GHz~16 GHz	U=0.049 dB		
				-1 dB~1 dB, 16.1 GHz~18 GHz	U=0.048 dB		
				-1 dB~1 dB, 18.1 GHz~20 GHz	U=0.049 dB		
				-1 dB~1 dB, 20.1 GHz~23.5 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		
				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		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				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		
47	*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 Mode Rejection Voltage		10 mV~167 mV, Common-Mode Rejection Ratio: 60 Hz ~ 1 MHz	U=7.0 mV		
		Common Mode Rejection 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					
48	*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%		
		AC Current		50 mA ~ 10 A, Frequency: 10 Hz ~ 50 Hz	U=0.024 A		

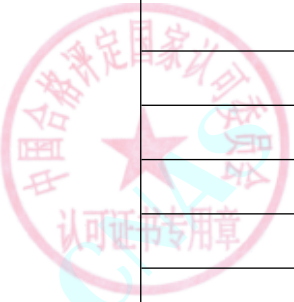


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		AC Current(To Voltage)	ilac-MRA	50 mA ~ 10 A, Frequency: 50 Hz ~ 100 kHz Convert rate 10 mV/A ~ 100 mV/A	U=4.1 mA		
		Bandwidth		Bandwidth DC ~ 100 kHz, 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		
				Rise time 0.1 ns ~ 23 ns Convert Rate 200 mV/A ~ 1 V/A	U=0.058 ns		
49	*Process Calibrator	DC Voltage Measurement	Process Calibrators Test Procedure CAL-CHA037-01	0.01 V ~ 0.1 V	$U=0.00073\% \times R_d + 0.52 \mu V$		
				0.1 V ~ 1 V	U=0.0049 V		
				1 V ~ 30 V	U=0.0053 V		
				30 V ~ 55 V	U=0.0054 V		
				55 V ~ 100 V	U=0.0055 V		
		DC Voltage Stimulation		0.01 V ~ 8 V	U=0.00053 V		
				8 V ~ 35 V	$U=0.0011\% \times R_d + 0.44 mV$		
				35 V ~ 100 V	U=0.0059 V		
		DC Current Measurement		0.08 mA ~ 0.8 mA	U=0.022% × Rd		

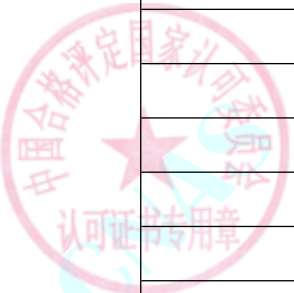


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.8 mA~80 mA	$U=0.066\% \times R_d$		
				80 mA~0.8 A	$U=0.03\% \times R_d+0.19 \text{ mA}$		
				1 A~12 A	$U=0.0075\% \times R_d+0.8 \text{ mA}$		
				12 A~15 A	$U=0.1\% \times R_d$		
		PWM Measurement-Frequency		100 Hz~1 kHz	$U=0.013 \text{ Hz}$		
				1 kHz~10 kHz	$U=0.81 \text{ Hz}$		
				10 kHz~15 kHz	$U=3.8 \text{ Hz}$		
				15 kHz~25 kHz	$U=11 \text{ Hz}$		
				25 kHz~100 kHz	$U=49 \text{ Hz}$		
		PWM Measurement-Duty Cycle		100 kHz~300 kHz	$U=0.25 \text{ kHz}$		
				25%, 1 kHz	$U=0.0053\%$		
				50%, 1 kHz~100 kHz	$U=0.11\%$		
				50%, 100 kHz~200 kHz	$U=0.26\%$		
		PWM Stimulation-Frequency		75%, 10 kHz	$U=0.053\%$		
				100 Hz~1 kHz	$U=0.0054 \text{ Hz}$		
				1 kHz~100 kHz	$U=0.53 \text{ Hz}$		
		PWM Stimulation-Duty Cycle		100 kHz~200 kHz	$U=0.55 \text{ Hz}$		
				25%, 1 kHz	$U=0.0053\%$		
				50%, 1 kHz~10 kHz	$U=0.0064\%$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Decade Resistor		50%~75%, 10 kHz~25 kHz	U=0.015%		
				50%, 25 kHz~100 kHz	U=0.47%		
				50%, 100 kHz~200 kHz	U=1%		
				10 Ω~800 Ω	U=0.053 Ω		
				800 Ω~10 k Ω	U=0.056 Ω		
				10 k Ω~20 k Ω	U=0.32 Ω		
				20 k Ω~300 k Ω	U=11 Ω		
		Electronic Load-CC mode Current		0.1 A~0.5 A	U=0.00053 A		
				0.5 A~1 A	U=0.00062 A		
				1 A~2.5 A	U=0.001 A		
				2.5 A~10 A	U=0.01 A		
		Electronic Load-CR mode Resistor		5 Ω~25 Ω	U=0.053 Ω		
				25 Ω~100 Ω	U=0.066 Ω		



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