

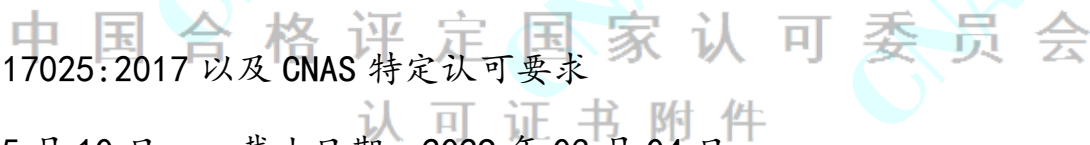
名称：泰克科技（中国）有限公司北京分公司

地址：北京市朝阳区酒仙桥路6号院7号楼1至19层101内3层303室

注册号：CNAS L3429

认可依据：ISO/IEC 17025:2017 以及 CNAS 特定认可要求

生效日期：2023年05月10日 截止日期：2029年03月04日



附件5 认可的校准和测量能力范围

注：“测量仪器名称”栏仪器名称前标注*的项目可开展现场校准。

序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 (k=2)	说明	生效日期
一 无线电设备							
1	*数字示波器	输入电阻	数字示波器检定规程 GJB 7691	(40~90)Ω	$U_{rel}=0.25\%$		2023-05-10
				0.9MΩ~1.1MΩ	$U_{rel}=0.12\%$		2023-05-10
		频带宽度		-3dB~3dB, (10MHz~500MHz)	$U=0.27dB$		2023-05-10
				-3dB~3dB, (500MHz~6GHz)	$U=0.50dB$		2023-05-10
				-3dB~3dB, (6GHz~20GHz)	$U=0.83dB$		2023-05-10



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		电压	JJG-1001A 合格评定国家认可委员会 认可证书附件	-3dB~3dB, (20GHz~40GHz)	$U=0.90\text{dB}$		2023-05-10
				10mV~200V	$U_{\text{rel}}=0.03\%$		2023-05-10
		触发灵敏度		4.4 mV~5.556V, (10MHz~550 MHz)	$U_{\text{rel}}=4\%$		2023-05-10
				4.4mV~3.4V, (550MHz~2.5GHz)	$U_{\text{rel}}=5\%$		2023-05-10
		时间		4.4mV~2.2V, (2.5 GHz~6.4GHz)	$U_{\text{rel}}=5\%$		2023-05-10
				10ns~10ms	$U_{\text{rel}}=3\times 10^{-6}$		2023-05-10
		上升时间		75ps~150ps	$U_{\text{rel}}=6\%$		2023-05-10
				150ps~500ps	$U_{\text{rel}}=4\%$		2023-05-10
				500ps~50ns	$U_{\text{rel}}=2\%$		2023-05-10
2	*示波器校准仪	直流电压	示波器校准仪检定规程 JJG 278	(1~100)mV	$U=0.007\text{mV}$		2023-05-10
				(0.1~1)V	$U_{\text{rel}}=4.5\times 10^{-5}$		2023-05-10
				(1~10)V	$U_{\text{rel}}=4.0\times 10^{-5}$		2023-05-10
				(10~190)V	$U_{\text{rel}}=3.5\times 10^{-5}$		2023-05-10



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		方波幅度	中国合格评定国家认可委员会 认可证书附件	(6~10)mV, (1kHz)	$U_{rel}=0.17\%$		2023-05-10
		正弦波幅度		(0.01~60)V, (1kHz)	$U_{rel}=0.02\%$		2023-05-10
				100mV~1V, (1kHz)	$U_{rel}=0.9\%$		2023-05-10
				(1~4.8)V, (1kHz)	$U_{rel}=0.3\%$		2023-05-10
		时间		(1.9~4.8)V, (45kHz)	$U_{rel}=0.3\%$		2023-05-10
				30mV~3V, (50kHz~100kHz)	$U_{rel}=0.4\%$		2023-05-10
				10ns~10ms	$U_{rel}=1.4 \times 10^{-9}$		2023-05-10
		脉冲宽度		(4~10) ns	$U=0.065\text{ns}$		2023-05-10
				(10~20) ns	$U_{rel}=0.33\%$		2023-05-10
				(20~100) ns	$U_{rel}=0.13\%$		2023-05-10
		正弦波平坦度		-3dB~3dB, (10MHz~500MHz)	$U=0.21\text{dB}$		2023-05-10
				-3dB~3dB, (500MHz~3GHz)	$U=0.25\text{dB}$		2023-05-10
				-3dB~3dB, (3GHz~6GHz)	$U=0.30\text{dB}$		2023-05-10



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		上升(下降)时间	合格评定国家认可委员会 认可证书附件	15ps~75ps	$U=5.5ps$		2023-05-10
				(75~150)ps	$U=12ps$		2023-05-10
				(150~500)ps	$U=28ps$		2023-05-10
		电阻		(40~90) Ω	$U=0.023\Omega$		2023-05-10
				(0.8~1.2)M Ω	$U=0.0003 M\Omega$		2023-05-10
				电容	(10~35)pF, (1MHz)		$U=0.28pF$
		(35~90)pF, (1MHz)			$U=0.63pF$		2023-05-10
		3		*函数发生器	幅度		函数发生器检定规程 JJG 840
(0.2~2.5)V, (1kHz)	$1.8 \times 10^{-3} U_x + 28\mu V$		2023-05-10				
(2.5~28)V, (1kHz)	$1.6 \times 10^{-3} U_x + 0.15mV$		2023-05-10				
直流电压	(10~100)mV		$2.6 \times 10^{-4} U_x + 87\mu V$		2023-05-10		
	(0.1~1)V		$5.5 \times 10^{-4} U_x + 33\mu V$		2023-05-10		
	(1~10)V		$5.8 \times 10^{-4} U_x + 13\mu V$		2023-05-10		



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		频率	合格评定 国家认可委员会 认可证书附件	1kHz~250MHz	$U_{rel}=2.5 \times 10^{-8}$		2023-05-10
		正弦波平坦度		-3dB~3dB, (100kHz~250MHz)	$U=0.2\text{dB}$		2023-05-10
		上升(下降)时间		500ps~50ns	$U_{rel}=4\%$		2023-05-10
		谐波		(-20~90)dBc, (1MHz~250MHz)	$U=0.9\text{dB}$		2023-05-10
		空度比		10%~90%, (1kHz)	$U_{rel}=0.2\%$		2023-05-10
4	*脉冲信号发生器	频率	脉冲信号发生器检定规程 JJG 490	10Hz~1kHz	$U_{rel}=5 \times 10^{-8}$		2023-05-10
				1kHz~3GHz	$U_{rel}=2.5 \times 10^{-8}$		2023-05-10
				3GHz~18GHz	$U_{rel}=8 \times 10^{-10}$		2023-05-10
		时间间隔		10ns~100μs	$U_{rel}=0.13\%$		2023-05-10
				100μs~1s	$U_{rel}=2.0 \times 10^{-5}$		2023-05-10
				1s~1000s	$U_{rel}=3.0 \times 10^{-5}$		2023-05-10
		脉冲幅度		10mV~200V, (1kHz)	$U_{rel}=0.2\%$		2023-05-10
上升时间	21ps~100ps	$U=1.5\%T_x+2.0\text{ps}$	2023-05-10				



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国 直流电压	合格评定 国家认可委员会 认可证书附件	100ps~10ns	$U=0.13\%T_x+9.2\text{ps}$		2023-05-10
				(10~100)mV	$2.6\times 10^{-4}U_x+87\mu\text{V}$		2023-05-10
				(0.1~1)V	$5.5\times 10^{-4}U_x+33\mu\text{V}$		2023-05-10
				(1~10)V	$5.8\times 10^{-4}U_x+13\mu\text{V}$		2023-05-10
5	*取样示波器	直流电压	取样示波器检定规程 JJG(军工)172	1mV~5V	$3\times 10^{-4}U_x+0.05\text{mV}$		2023-05-10
		频带宽度		-3dB~3dB, (50MHz~20GHz)	$U=0.5\text{dB}$		2023-05-10
				-3dB~3dB, (20GHz~40GHz)	$U=0.61\text{dB}$		2023-05-10
		时间		50ps~500ps	$U=0.11\%T_x+0.37\text{ps}$		2023-05-10
				500ps~1s	$U_{\text{rel}}=0.06\%$		2023-05-10
		上升时间		17.5ps~50ps	$U=6.5\text{ps}$		2023-05-10
		输入电阻		(40~90) Ω	$U_{\text{rel}}=0.3\%$		2023-05-10
6	*频谱分析仪	频率	频谱分析仪校准规范 JJF 1396	10Hz~26.5GHz	$U_{\text{rel}}=2\times 10^{-10}$		2023-05-10
		功率		-10dBm~20dBm, (10MHz~1GHz)	$U=0.26\text{dB}$		2023-05-10



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		垂直显示刻度	合格评定 认可	0dB~90dB, (10MHz~1GHz)	$U=0.04\text{dB}+0.05\text{dB}/10\text{dB}$		2023-05-10
		参考电平		0dBm~-90dBm, (10MHz~1GHz)	$U=0.04\text{dB}+0.05\text{dB}/10\text{dB}$		2023-05-10
		衰减器转换影响		-3dB~3dB, (0dB~70dB, 10MHz~1GHz)	$U=0.04\text{dB}$		2023-05-10
		分辨力带宽转换影响		-3dB~3dB, (分辨力带宽: 3Hz~10MHz, 载波频率: 10MHz~1GHz)	$U=0.04\text{dB}$		2023-05-10
		输入频响		-5dB~5dB, (100kHz~18GHz)	$U=0.06\text{dB}$		2023-05-10
				-5dB~5dB, (18GHz~26.5GHz)	$U=0.10\text{dB}$		2023-05-10
		分辨力带宽		3Hz~10MHz	$U_{\text{rel}}=2\%$		2023-05-10
7	*信号发生器	频率	信号发生器校准规范 JJF 1931	5kHz~1MHz	$U_{\text{rel}}=1.2 \times 10^{-8}$		2023-05-10
				1MHz~200MHz	$U_{\text{rel}}=1.2 \times 10^{-9}$		2023-05-10
				200MHz~26.5GHz	$U_{\text{rel}}=8 \times 10^{-10}$		2023-05-10
		功率		-110dBm~20dBm, (100kHz~18GHz)	$U=0.26\text{dB}+0.017\text{dB}/10\text{dB}$		2023-05-10
				-110dBm~20dBm, (18GHz~26.5GHz)	$U=0.39\text{dB}+0.017\text{dB}/10\text{dB}$		2023-05-10



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		调幅	中国合格评定 认可委员会	5%~99%, (载波: 0.1MHz~10MHz; 调制频率: 50Hz~10kHz)	$U_{rel}=0.9\%$		2023-05-10		
				5%~20%, (载波: 10MHz~3GHz; 调制频率: 50Hz~100kHz)	$U_{rel}=2.9\%$		2023-05-10		
				20%~99%, (载波: 10MHz~3GHz; 调制频率: 50Hz~100kHz)	$U_{rel}=0.6\%$		2023-05-10		
				5%~20%, (载波: 3GHz~26.5GHz; 调制频率: 50Hz~100kHz)	$U_{rel}=5.2\%$		2023-05-10		
				20%~99%, (载波: 3GHz~26.5GHz; 调制频率: 50Hz~100kHz)	$U_{rel}=1.7\%$		2023-05-10		
		调频			1kHz~400kHz, (载波: 10MHz~6.6GHz; 调制频率: 1kHz~200kHz)		$U_{rel}=1.2\%$		2023-05-10
					1kHz~400kHz, (载波: 6.6GHz~26.5GHz; 调制频率: 1kHz~200kHz)		$U_{rel}=2.9\%$		2023-05-10
		调相			1rad~400rad, (载波: 10MHz~6.6GHz; 调制频率: 200Hz~10kHz)		$U_{rel}=1.6\%$		2023-05-10
					2rad~400rad, (载波: 6.6GHz~13.2GHz; 调制频率: 200Hz~10kHz)		$U_{rel}=1.6\%$		2023-05-10



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		谐波	合格评定	4rad~400rad, (载波: 13.2GHz~26.5GHz; 调制频率: 200Hz~10kHz)	$U_{rel}=1.6\%$		2023-05-10	
				(-20~-90)dBc, (0.1MHz~26.5GHz)	$U=1.3\text{dB}$		2023-05-10	
8	*网络分析仪	驻波比	网络分析仪检定规程 JJG(军工) 232	1.0~2.0, (同轴 N型, 50MHz~18GHz)	$U_{rel}=5\%$		2023-05-10	
				1.0~2.0, (同轴 3.5mm, 50MHz~26.5GHz)	$U_{rel}=5\%$		2023-05-10	
		衰减量		0dB~50dB, (同轴 N型, 50MHz~18GHz)	$U=0.40\text{dB}$		2023-05-10	
				0dB~40dB, (同轴 3.5mm, 50MHz~26.5GHz)	$U=0.40\text{dB}$		2023-05-10	
				相移	-180°~180°, (同轴 N型, 50MHz~18GHz)		$U=1.0^\circ$	2023-05-10
					-180°~180°, (同轴 3.5mm, 50MHz~26.5GHz)		$U=1.0^\circ$	2023-05-10
9	*射频与微波功率传感器	校准因子	射频与微波功率传感器校准规范 JJF 1887	50%~120%, (1mW~10mW, 同轴 N型, 10MHz~50MHz)	$U_{rel}=2.0\%$		2023-05-10	
				50%~120%, (1mW~10mW, 同轴 N型, 50MHz~11GHz)	$U_{rel}=1.5\%$		2023-05-10	
				50%~120%, (1mW~10mW, 同轴 N型, 11GHz~16GHz)	$U_{rel}=2.2\%$		2023-05-10	



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-116-MK1	50%~120%, (1mW~10mW, 同轴 N 型, 16GHz~18GHz)	$U_{rel}=2.5\%$		2023-05-10
				50%~120%, (1mW~10mW, 同轴 3.5mm, 10MHz~6GHz)	$U_{rel}=2.0\%$		2023-05-10
				50%~120%, (1mW~10mW, 同轴 3.5mm, 6GHz~11GHz)	$U_{rel}=2.1\%$		2023-05-10
				50%~120%, (1mW~10mW, 同轴 3.5mm, 11GHz~18GHz)	$U_{rel}=3.0\%$		2023-05-10
				50%~120%, (1mW~10mW, 同轴 3.5mm, 18GHz~26.5GHz)	$U_{rel}=3.6\%$		2023-05-10
		驻波比	1.0~2.0, (50MHz~26.5GHz)	$U_{rel}=5\%$	2023-05-10		
二 时间频率设备							
1	*通用计数器	参考频率	通用计数器检定规程 JJG 349	5MHz, 10MHz	$U_{rel}=4.6 \times 10^{-10}$		2023-05-10
		频率		10Hz~1GHz	$U_{rel}=5 \times 10^{-10}$		2023-05-10
		周期		1ns~100s	$U_{rel}=5 \times 10^{-10}$		2023-05-10
		时间间隔		10ns~1μs	$U=0.2ns$		2023-05-10



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		灵敏度	JJG 841	1 μ s~100 μ s	$U_{rel}=2\times 10^{-6}$		2023-05-10
				100 μ s~100s	$U_{rel}=2\times 10^{-7}$		2023-05-10
				(10~100)mV, (10Hz~1MHz)	$U=1mV$		2023-05-10
				-40dBm~10dBm, (1MHz~1GHz)	$U=1dB$		2023-05-10
2	*微波计数器	参考频率	微波频率计数器检定规程 JJG 841	5MHz, 10MHz	$U_{rel}=4.6\times 10^{-10}$		2023-05-10
		频率		100kHz~26.5GHz	$U_{rel}=5\times 10^{-10}$		2023-05-10
		灵敏度		(10~100)mV, (100kHz~1MHz)	$U=1mV$		2023-05-10
				-40dBm~10dBm, (1MHz~26.5GHz)	$U=1dB$		2023-05-10
三 电学设备							
1	*数字多用表	直流电压	数字多用表校准规范 JJF 1587	(10~200)mV	$2.4\times 10^{-6}U_x+0.071\mu V$		2023-05-10
				(0.2~2)V	$2.2\times 10^{-6}U_x+0.04\mu V$		2023-05-10
				(2~20)V	$2.1\times 10^{-6}U_x+1.0\mu V$		2023-05-10
				(20~200)V	$2.3\times 10^{-6}U_x+4\mu V$		2023-05-10



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		直流电流	合格评定国家认可委员会 认可证书附件	(200~1000)V	$2.4 \times 10^{-6} U_x + 43 \mu\text{V}$		2023-05-10
				(10~200) μA	$U=0.58 \times 10^{-5} I_x + 0.02 \text{nA}$		2023-05-10
				(0.2~2) mA	$U=0.66 \times 10^{-5} I_x + 1.2 \text{nA}$		2023-05-10
				(2~20) mA	$U=0.66 \times 10^{-5} I_x + 12 \text{nA}$		2023-05-10
				(20~200) mA	$U=0.88 \times 10^{-5} I_x + 0.13 \mu\text{A}$		2023-05-10
				(0.22~2) A	$U=2.1 \times 10^{-5} I_x + 0.3 \mu\text{A}$		2023-05-10
				(2~10) A	$U=2.7 \times 10^{-5} I_x + 2 \mu\text{A}$		2023-05-10
				(10~20) A	$U=2.7 \times 10^{-5} I_x + 5 \mu\text{A}$		2023-05-10
		直流电阻		1 Ω	$U=6.5 \mu\Omega$		2023-05-10
				10 Ω	$U=81 \mu\Omega$		2023-05-10
				100 Ω	$U=0.61 \text{m}\Omega$		2023-05-10
				1k Ω	$U=6.1 \text{m}\Omega$		2023-05-10
				10k Ω	$U=41 \text{m}\Omega$		2023-05-10



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		中国	合格评定 国家认可委员会 认可证书附件	100k Ω	$U=0.63\Omega$		2023-05-10
				1M Ω	$U=8.9\Omega$		2023-05-10
				10M Ω	$U=0.10k\Omega$		2023-05-10
				100M Ω	$U=2.7k\Omega$		2023-05-10
				1000M Ω	$U=0.19M\Omega$		2023-05-10
		交流电压		10mV~200mV, (10Hz~20Hz)	$2.4 \times 10^{-4} U_x + 2.6\mu V$		2023-05-10
				10mV~200mV, (20Hz~40Hz)	$1.0 \times 10^{-4} U_x + 2.1\mu V$		2023-05-10
				10mV~200mV, (40Hz~20kHz)	$0.47 \times 10^{-4} U_x + 2.2\mu V$		2023-05-10
				10mV~200mV, (20kHz~50kHz)	$0.82 \times 10^{-4} U_x + 2.4\mu V$		2023-05-10
				10mV~200mV, (50kHz~100kHz)	$1.8 \times 10^{-4} U_x + 3.4\mu V$		2023-05-10
				10mV~200mV, (100kHz~300kHz)	$2.9 \times 10^{-4} U_x + 5.1\mu V$		2023-05-10
				0.2V~2V, (10Hz~20Hz)	$2.5 \times 10^{-4} U_x + 0.25\mu V$		2023-05-10
				0.2V~2V, (20Hz~40Hz)	$0.81 \times 10^{-4} U_x + 1.9\mu V$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1001-2010 电压表检定规程	0.2V~2V, (40Hz~20kHz)	$0.29 \times 10^{-4} U_x + 1.6 \mu\text{V}$		2023-05-10
				0.2V~2V, (20kHz~50kHz)	$0.52 \times 10^{-4} U_x + 1.4 \mu\text{V}$		2023-05-10
				0.2V~2V, (50kHz~100kHz)	$0.84 \times 10^{-4} U_x + 0.88 \mu\text{V}$		2023-05-10
				0.2V~2V, (100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 0.11 \mu\text{V}$		2023-05-10
				0.2V~2V, (300kHz~500kHz)	$3.1 \times 10^{-4} U_x + 2.2 \mu\text{V}$		2023-05-10
				0.2V~2V, (500kHz~1MHz)	$1.1 \times 10^{-3} U_x + 3.0 \mu\text{V}$		2023-05-10
				2V~20V, (10Hz~20Hz)	$2.4 \times 10^{-4} U_x + 0.52 \text{mV}$		2023-05-10
				2V~20V, (20Hz~40Hz)	$0.80 \times 10^{-4} U_x + 15 \mu\text{V}$		2023-05-10
				2V~20V, (40Hz~20kHz)	$0.34 \times 10^{-4} U_x + 0.13 \mu\text{V}$		2023-05-10
				2V~20V, (20kHz~50kHz)	$0.57 \times 10^{-4} U_x + 0.67 \mu\text{V}$		2023-05-10
				2V~20V, (50kHz~100kHz)	$0.96 \times 10^{-4} U_x + 2.8 \mu\text{V}$		2023-05-10
				2V~20V, (100kHz~300kHz)	$2.2 \times 10^{-4} U_x + 0.64 \mu\text{V}$		2023-05-10
				2V~20V, (300kHz~500kHz)	$4.7 \times 10^{-4} U_x + 10 \mu\text{V}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定国家认可委员会 认可证书附件	JJG-1001-2015 交流电压表检定规程	2V~20V, (500kHz~1MHz)	$1.5 \times 10^{-3} U_x + 30 \mu\text{V}$		2023-05-10
				20V~200V, (10Hz~20Hz)	$2.6 \times 10^{-4} U_x + 2.4 \text{mV}$		2023-05-10
				20V~200V, (20Hz~40Hz)	$0.81 \times 10^{-4} U_x + 1.7 \mu\text{V}$		2023-05-10
				20V~200V, (40Hz~20kHz)	$0.39 \times 10^{-4} U_x + 41 \mu\text{V}$		2023-05-10
				20V~200V, (20kHz~50kHz)	$0.81 \times 10^{-4} U_x + 1.7 \mu\text{V}$		2023-05-10
				20V~200V, (50kHz~100kHz)	$1.2 \times 10^{-4} U_x + 31 \mu\text{V}$		2023-05-10
				20V~200V, (100kHz~300kHz)	$2.5 \times 10^{-4} U_x + 63 \mu\text{V}$		2023-05-10
				200V~1000V, (40Hz~1kHz)	$1.2 \times 10^{-4} U_x + 0.36 \text{mV}$		2023-05-10
				200V~1000V, (1kHz~10kHz)	$0.50 \times 10^{-4} U_x + 0.21 \text{mV}$		2023-05-10
				200V~1000V, (20kHz~30kHz)	$1.6 \times 10^{-4} U_x + 0.46 \text{mV}$		2023-05-10
				200V~700V, (20kHz~50kHz)	$5.8 \times 10^{-4} U_x + 1.5 \text{mV}$		2023-05-10
				200V~700V, (50kHz~100kHz)	$5.8 \times 10^{-4} U_x + 6.7 \text{mV}$		2023-05-10
				交流电流	(20~200) μA , (10Hz~40Hz)	$U=4.6 \times 10^{-4} I_x + 2.9 \text{nA}$	



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定认可委员会	JJG 1638, 标准电容器检定规程 JJG 183, 交流标准功率源检定规程 JJG (军	(20~200) μ A, (40Hz~10kHz)	$U=0.84 \times 10^{-4} I_x + 3.9 \text{ nA}$		2023-05-10
				(0.2~2) mA, (10Hz~40Hz)	$U=5.1 \times 10^{-4} I_x + 1.6 \text{ nA}$		2023-05-10
				(0.2~2) mA, (40Hz~10kHz)	$U=0.80 \times 10^{-4} I_x + 42 \text{ nA}$		2023-05-10
				(2~20) mA, (10Hz~40Hz)	$U=4.0 \times 10^{-4} I_x + 0.45 \mu\text{A}$		2023-05-10
				(2~20) mA, (40Hz~10kHz)	$U=0.80 \times 10^{-4} I_x + 0.35 \mu\text{A}$		2023-05-10
				(20~200) mA, (10Hz~40Hz)	$U=3.5 \times 10^{-4} I_x + 6.1 \mu\text{A}$		2023-05-10
				(20~200) mA, (40Hz~10kHz)	$U=0.80 \times 10^{-4} I_x + 3.5 \mu\text{A}$		2023-05-10
				(0.2~2) A, (20Hz~40Hz)	$U=1.4 \times 10^{-4} I_x + 11 \mu\text{A}$		2023-05-10
				(0.2~2) A, (40Hz~10kHz)	$U=0.80 \times 10^{-4} I_x + 32 \mu\text{A}$		2023-05-10
				(2~20) A, (20Hz~40Hz)	$U=0.41 \times 10^{-4} I_x + 0.58 \text{ mA}$		2023-05-10
				(2~20) A, (40Hz~10kHz)	$U=0.85 \times 10^{-4} I_x + 56 \mu\text{A}$		2023-05-10
2	*多功能校准源	直流电压	多功能标准源校准规范 JJF 1638, 标准电容器检定规程 JJG 183, 交流标准功率源检定规程 JJG (军	(10~200) mV	$2.6 \times 10^{-6} U_x + 0.15 \mu\text{V}$		2023-05-10
				(0.2~2) V	$2.5 \times 10^{-6} U_x + 0.033 \mu\text{V}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国 合格评定 国家认可 委员会 认可 证书附件 直流电流	工) 6, 任意波发生器校准 规范 JJF 1152	(2~20)V	$2.0 \times 10^{-6} U_x$		2023-05-10
				(20~200)V	$2.0 \times 10^{-6} U_x + 11 \mu V$		2023-05-10
				(200~1000)V	$2.6 \times 10^{-6} U_x + 21 \mu V$		2023-05-10
				(10~200) μA	$U = 0.56 \times 10^{-5} I_x + 0.014 nA$		2023-05-10
				(0.2~2) mA	$U = 0.64 \times 10^{-5} I_x + 1.3 nA$		2023-05-10
				(2~20) mA	$U = 0.64 \times 10^{-5} I_x + 13 nA$		2023-05-10
				(20~200) mA	$U = 0.89 \times 10^{-5} I_x + 0.14 \mu A$		2023-05-10
				(0.2~1) A	$U = 2.2 \times 10^{-5} I_x$		2023-05-10
				(1~2) A	$U = 2.2 \times 10^{-5} I_x + 0.37 \mu A$		2023-05-10
				(2~5) A	$U = 2.2 \times 10^{-5} I_x + 2.9 \mu A$		2023-05-10
				(5~10) A	$U = 2.7 \times 10^{-5} I_x + 0.11 \mu A$		2023-05-10
				(10~20) A	$U = 2.7 \times 10^{-5} I_x + 4.9 \mu A$		2023-05-10
				直流电阻		1 Ω	$U = 6.4 \mu \Omega$



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定国家认可委员会 认可证书附件		10 Ω	$U=83\mu\Omega$		2023-05-10
				100 Ω	$U=0.61m\Omega$		2023-05-10
				1k Ω	$U=6.3m\Omega$		2023-05-10
				10k Ω	$U=41m\Omega$		2023-05-10
				100k Ω	$U=0.63\Omega$		2023-05-10
				1M Ω	$U=8.6\Omega$		2023-05-10
				10M Ω	$U=0.10k\Omega$		2023-05-10
				100M Ω	$U=1.5k\Omega$		2023-05-10
				1000M Ω	$U=0.17M\Omega$		2023-05-10
			交流电压		(10~22)mV, (10Hz~20Hz)	$3.2 \times 10^{-4} U_x + 1.3\mu V$	
				(10~22)mV, (20Hz~40Hz)	$2.1 \times 10^{-4} U_x + 1.3\mu V$		2023-05-10
				(10~22)mV, (40Hz~20kHz)	$1.3 \times 10^{-4} U_x + 1.1\mu V$		2023-05-10
				(10~22)mV, (20kHz~50kHz)	$2.2 \times 10^{-4} U_x + 2.0\mu V$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG 1010-2015 交流电压有效值 校准规范	(10~22)mV, (50kHz~ 100kHz)	$3.2 \times 10^{-4} U_x + 2.6 \mu\text{V}$		2023-05- 10
				(10~22)mV, (100kHz~ 300kHz)	$0.9 \times 10^{-3} U_x + 3.0 \mu\text{V}$		2023-05- 10
				(10~22)mV, (300kHz~ 500kHz)	$1.0 \times 10^{-3} U_x + 7.2 \mu\text{V}$		2023-05- 10
				(10~22)mV, (500kHz~ 1MHz)	$1.7 \times 10^{-3} U_x + 10 \mu\text{V}$		2023-05- 10
				(22~70)mV, (10Hz~ 20Hz)	$3.0 \times 10^{-4} U_x + 1.0 \mu\text{V}$		2023-05- 10
				(22~70)mV, (20Hz~ 40Hz)	$1.4 \times 10^{-4} U_x + 1.2 \mu\text{V}$		2023-05- 10
				(22~70)mV, (40Hz~ 20kHz)	$0.72 \times 10^{-4} U_x + 1.5 \mu\text{V}$		2023-05- 10
				(22~70)mV, (20kHz~ 50kHz)	$1.3 \times 10^{-4} U_x + 2.0 \mu\text{V}$		2023-05- 10
				(22~70)mV, (50kHz~ 100kHz)	$2.6 \times 10^{-4} U_x + 2.5 \mu\text{V}$		2023-05- 10
				(22~70)mV, (100kHz~ 300kHz)	$5.2 \times 10^{-4} U_x + 4.6 \mu\text{V}$		2023-05- 10
				(22~70)mV, (300kHz~ 500kHz)	$7.2 \times 10^{-4} U_x + 7.6 \mu\text{V}$		2023-05- 10
				(22~70)mV, (500kHz~ 1MHz)	$1.1 \times 10^{-3} U_x + 9.2 \mu\text{V}$		2023-05- 10
				(70~220)mV, (10Hz~ 20Hz)	$2.1 \times 10^{-4} U_x + 1.3 \mu\text{V}$		2023-05- 10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1001-2010 《通用计量术语及定义》	(70~220) mV, (20Hz~40Hz)	$0.94 \times 10^{-4} U_x + 1.4 \mu\text{V}$		2023-05-10
				(70~220) mV, (40Hz~20kHz)	$0.43 \times 10^{-4} U_x + 1.3 \mu\text{V}$		2023-05-10
				(70~220) mV, (20kHz~50kHz)	$0.67 \times 10^{-4} U_x + 2.7 \mu\text{V}$		2023-05-10
				(70~220) mV, (50kHz~100kHz)	$1.7 \times 10^{-4} U_x + 1.7 \mu\text{V}$		2023-05-10
				(70~220) mV, (100kHz~300kHz)	$2.6 \times 10^{-4} U_x + 4.3 \mu\text{V}$		2023-05-10
				(70~220) mV, (300kHz~500kHz)	$4.3 \times 10^{-4} U_x + 5.0 \mu\text{V}$		2023-05-10
				(70~220) mV, (500kHz~1MHz)	$0.92 \times 10^{-3} U_x + 27 \mu\text{V}$		2023-05-10
				(220~700) mV, (10Hz~20Hz)	$2.4 \times 10^{-4} U_x + 0.1 \mu\text{V}$		2023-05-10
				(220~700) mV, (20Hz~40Hz)	$0.89 \times 10^{-4} U_x + 0.88 \mu\text{V}$		2023-05-10
				(220~700) mV, (40Hz~20kHz)	$0.35 \times 10^{-4} U_x + 2.5 \mu\text{V}$		2023-05-10
				(220~700) mV, (20kHz~50kHz)	$0.55 \times 10^{-4} U_x + 1.5 \mu\text{V}$		2023-05-10
				(220~700) mV, (50kHz~100kHz)	$0.83 \times 10^{-4} U_x + 2.3 \mu\text{V}$		2023-05-10
				(220~700) mV, (100kHz~300kHz)	$1.8 \times 10^{-4} U_x + 5.8 \mu\text{V}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1001-2010 《通用计量术语及定义》	(220~700)mV, (300kHz~500kHz)	$3.2 \times 10^{-4} U_x + 6.8 \mu\text{V}$		2023-05-10
				(220~700)mV, (500kHz~1MHz)	$0.90 \times 10^{-3} U_x + 60 \mu\text{V}$		2023-05-10
				(0.7~2.2)V, (10Hz~20Hz)	$2.2 \times 10^{-4} U_x + 0.33 \mu\text{V}$		2023-05-10
				(0.7~2.2)V, (20Hz~40Hz)	$0.72 \times 10^{-4} U_x + 0.50 \mu\text{V}$		2023-05-10
				(0.7~2.2)V, (40Hz~20kHz)	$0.26 \times 10^{-4} U_x + 0.27 \mu\text{V}$		2023-05-10
				(0.7~2.2)V, (20kHz~50kHz)	$0.47 \times 10^{-4} U_x + 0.67 \mu\text{V}$		2023-05-10
				(0.7~2.2)V, (50kHz~100kHz)	$0.74 \times 10^{-4} U_x + 0.10 \mu\text{V}$		2023-05-10
				(0.7~2.2)V, (100kHz~300kHz)	$1.6 \times 10^{-4} U_x$		2023-05-10
				(0.7~2.2)V, (300kHz~500kHz)	$2.7 \times 10^{-4} U_x + 3.3 \mu\text{V}$		2023-05-10
				(0.7~2.2)V, (500kHz~1MHz)	$0.85 \times 10^{-3} U_x + 0.13 \text{mV}$		2023-05-10
				(2.2~7)V, (10Hz~20Hz)	$2.2 \times 10^{-4} U_x + 48 \mu\text{V}$		2023-05-10
				(2.2~7)V, (20Hz~40Hz)	$0.70 \times 10^{-4} U_x + 10 \mu\text{V}$		2023-05-10
				(2.2~7)V, (40Hz~20kHz)	$0.25 \times 10^{-4} U_x + 3.3 \mu\text{V}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1005-2005 直流电压表检定规程	(2.2~7)V, (20kHz~50kHz)	$0.48 \times 10^{-4} U_x + 7.5 \mu V$		2023-05-10
				(2.2~7)V, (50kHz~100kHz)	$0.85 \times 10^{-4} U_x + 0.75 \mu V$		2023-05-10
				(2.2~7)V, (100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 30 \mu V$		2023-05-10
				(2.2~7)V, (300kHz~500kHz)	$4.1 \times 10^{-4} U_x + 5.5 \mu V$		2023-05-10
				(2.2~7)V, (500kHz~1MHz)	$1.1 \times 10^{-3} U_x + 61 \mu V$		2023-05-10
				(7~22)V, (10Hz~20Hz)	$2.3 \times 10^{-4} U_x$		2023-05-10
				(7~22)V, (20Hz~40Hz)	$0.70 \times 10^{-4} U_x + 1.7 \mu V$		2023-05-10
				(7~22)V, (40Hz~20kHz)	$0.30 \times 10^{-4} U_x + 5.3 \mu V$		2023-05-10
				(7~22)V, (20kHz~50kHz)	$0.50 \times 10^{-4} U_x + 1.2 \mu V$		2023-05-10
				(7~22)V, (50kHz~100kHz)	$0.84 \times 10^{-4} U_x + 0.33 \mu V$		2023-05-10
				(7~22)V, (100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 3.3 \mu V$		2023-05-10
				(7~22)V, (300kHz~500kHz)	$4.1 \times 10^{-4} U_x + 33 \mu V$		2023-05-10
				(7~22)V, (500kHz~1MHz)	$1.1 \times 10^{-3} U_x + 1.6 mV$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定国家认可委员会 认可证书附件	JJG-1001-2010 交流电压源校准规范	(22~70) V, (10Hz~20Hz)	$2.3 \times 10^{-4} U_x + 0.25 \text{mV}$		2023-05-10
				(22~70) V, (20Hz~40Hz)	$0.68 \times 10^{-4} U_x + 0.28 \text{mV}$		2023-05-10
				(22~70) V, (40Hz~20kHz)	$0.34 \times 10^{-4} U_x + 20 \mu\text{V}$		2023-05-10
				(22~70) V, (20kHz~50kHz)	$0.57 \times 10^{-4} U_x + 0.11 \text{mV}$		2023-05-10
				(22~70) V, (50kHz~100kHz)	$0.95 \times 10^{-4} U_x + 0.15 \text{mV}$		2023-05-10
				(22~70) V, (100kHz~300kHz)	$2.0 \times 10^{-4} U_x + 0.18 \text{mV}$		2023-05-10
				(70~220) V, (10Hz~20Hz)	$2.2 \times 10^{-4} U_x + 0.071 \text{mV}$		2023-05-10
				(70~220) V, (20Hz~40Hz)	$0.75 \times 10^{-4} U_x + 3.7 \mu\text{V}$		2023-05-10
				(70~220) V, (40Hz~20kHz)	$0.34 \times 10^{-4} U_x + 67 \mu\text{V}$		2023-05-10
				(70~220) V, (20kHz~50kHz)	$0.69 \times 10^{-4} U_x + 0.17 \text{mV}$		2023-05-10
				(70~220) V, (50kHz~100kHz)	$0.98 \times 10^{-4} U_x + 0.33 \text{mV}$		2023-05-10
				(70~220) V, (100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 4.7 \text{mV}$		2023-05-10
				(200~700) V, (40Hz~1kHz)	$1.0 \times 10^{-4} U_x + 0.18 \text{mV}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可	JJG-1001A	(200~700)V, (1kHz~10kHz)	$0.46 \times 10^{-4} U_x + 0.19\text{mV}$		2023-05-10
				(200~700)V, (10kHz~50kHz)	$1.3 \times 10^{-4} U_x + 1.0\text{mV}$		2023-05-10
				(200~700)V, (50kHz~100kHz)	$5.0 \times 10^{-4} U_x$		2023-05-10
				(700~1000)V, (40Hz~1kHz)	$0.95 \times 10^{-4} U_x + 5.0\text{mV}$		2023-05-10
				(700~1000)V, (1kHz~20kHz)	$0.34 \times 10^{-4} U_x + 7.2\text{mV}$		2023-05-10
				(700~1000)V, (20kHz~50kHz)	$1.3 \times 10^{-4} U_x + 5.4\text{mV}$		2023-05-10
		交流电流	JJG-1001A	20 μ A~1mA, (10Hz~20Hz)	$U=3.4 \times 10^{-4} I_x + 5.7\text{nA}$		2023-05-10
				20 μ A~1mA, (20Hz~40Hz)	$U=1.2 \times 10^{-4} I_x + 8.0\text{nA}$		2023-05-10
				20 μ A~1mA, (40Hz~10kHz)	$U=0.72 \times 10^{-4} I_x + 4.8\text{nA}$		2023-05-10
				(1~10)mA, (10Hz~20Hz)	$U=3.3 \times 10^{-4} I_x + 0.01\mu\text{A}$		2023-05-10
				(1~10)mA, (20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 0.13\mu\text{A}$		2023-05-10
				(1~10)mA, (40Hz~10kHz)	$U=0.43 \times 10^{-4} I_x + 0.01\mu\text{A}$		2023-05-10
				(10~20)mA, (10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 0.42\mu\text{A}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG 1006-2015 直流电流表	(10~20) mA, (20Hz~40Hz)	$U=0.95 \times 10^{-4} I_x + 0.43 \mu\text{A}$		2023-05-10
				(10~20) mA, (40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 0.38 \mu\text{A}$		2023-05-10
				(20~50) mA, (10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 0.05 \mu\text{A}$		2023-05-10
				(20~50) mA, (20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 0.81 \mu\text{A}$		2023-05-10
				(20~50) mA, (40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 0.66 \mu\text{A}$		2023-05-10
				(50~100) mA, (10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 2.0 \mu\text{A}$		2023-05-10
				(50~100) mA, (20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 1.7 \mu\text{A}$		2023-05-10
				(50~100) mA, (40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 1.7 \mu\text{A}$		2023-05-10
				(100~200) mA, (10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 4.3 \mu\text{A}$		2023-05-10
				(100~200) mA, (20Hz~40Hz)	$U=0.96 \times 10^{-4} I_x + 4.2 \mu\text{A}$		2023-05-10
				(100~200) mA, (40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 3.4 \mu\text{A}$		2023-05-10
				(200~500) mA, (10Hz~20Hz)	$U=3.3 \times 10^{-4} I_x + 7.1 \mu\text{A}$		2023-05-10
				(200~500) mA, (20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 7.8 \mu\text{A}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定国家认可委员会 CNAS	JJG 1001-2011 《直流电流表检定规程》 附件	(200~500) mA, (40Hz~10kHz)	$U=0.41 \times 10^{-4} I_x + 6.6 \mu\text{A}$		2023-05-10
				(0.5~1) A, (10Hz~20Hz)	$U=2.9 \times 10^{-4} I_x + 22 \mu\text{A}$		2023-05-10
				(0.5~1) A, (20Hz~40Hz)	$U=0.91 \times 10^{-4} I_x + 20 \mu\text{A}$		2023-05-10
				(0.5~1) A, (40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 17 \mu\text{A}$		2023-05-10
				(1~2) A, (10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 42 \mu\text{A}$		2023-05-10
				(1~2) A, (20Hz~40Hz)	$U=0.95 \times 10^{-4} I_x + 43 \mu\text{A}$		2023-05-10
				(1~2) A, (40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 34 \mu\text{A}$		2023-05-10
				(2~5) A, (40Hz~1kHz)	$U=0.1 \times 10^{-4} I_x + 0.23 \text{mA}$		2023-05-10
				(2~5) A, (1kHz~10kHz)	$U=0.35 \times 10^{-4} I_x + 0.11 \text{mA}$		2023-05-10
				(5~10) A, (40Hz~1kHz)	$U=0.1 \times 10^{-4} I_x + 0.46 \text{mA}$		2023-05-10
				(5~10) A, (1kHz~10kHz)	$U=0.46 \times 10^{-4} I_x + 0.16 \text{mA}$		2023-05-10
				(10~20) A, (40Hz~1kHz)	$U=0.19 \times 10^{-4} I_x + 0.89 \text{mA}$		2023-05-10
				(10~20) A, (1kHz~10kHz)	$U=0.57 \times 10^{-4} I_x + 0.33 \text{mA}$		2023-05-10



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		电容	中国合格评定国家认可委员会 认可证书附件	1nF~10nF, (100Hz)	$U_{rel}=0.33\%$		2023-05-10
				10nF~100μF, (100Hz)	$U_{rel}=0.13\%$		2023-05-10
				100μF~1mF, (100Hz)	$U_{rel}=0.40\%$		2023-05-10
				100pF~300pF, (1kHz)	$U_{rel}=0.33\%$		2023-05-10
				300pF~1μF, (1kHz)	$U_{rel}=0.13\%$		2023-05-10
				1nF~100nF, (10kHz)	$U_{rel}=0.13\%$		2023-05-10
		频率		10Hz~120Hz	$U_{rel}=3.5 \times 10^{-7}$		2023-05-10
				120Hz~2MHz	$U_{rel}=2.5 \times 10^{-8}$		2023-05-10
		相位		(-180~180)°, (5Hz~2kHz)	$U=0.026^\circ$		2023-05-10
				(-180~180)°, (2kHz~5kHz)	$U=0.11^\circ$		2023-05-10
				(-180~180)°, (5kHz~10kHz)	$U=0.18^\circ$		2023-05-10
				(-180~180)°, (10kHz~50kHz)	$U=0.20^\circ$		2023-05-10
3	*交流电压标准源	交流电压	精密交流电压校准源检定规程 JJG 410	1mV~2.2mV, (10Hz~500kHz)	$U_{rel}=0.75\%$		2023-05-10



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1001-2010 电压表校准规范	1mV~2.2mV, (500kHz~2MHz)	$U_{rel}=0.92\%$		2023-05-10
				1mV~2.2mV, (2MHz~10MHz)	$U_{rel}=1.0\%$		2023-05-10
				1mV~2.2mV, (10MHz~20MHz)	$U_{rel}=1.2\%$		2023-05-10
				1mV~2.2mV, (20MHz~30MHz)	$U_{rel}=1.6\%$		2023-05-10
				2.2mV~7mV, (10Hz~500kHz)	$U_{rel}=0.64\%$		2023-05-10
				2.2mV~7mV, (500kHz~2MHz)	$U_{rel}=0.73\%$		2023-05-10
				2.2mV~7mV, (2MHz~10MHz)	$U_{rel}=0.76\%$		2023-05-10
				2.2mV~7mV, (10MHz~20MHz)	$U_{rel}=0.83\%$		2023-05-10
				2.2mV~7mV, (20MHz~30MHz)	$U_{rel}=1.0\%$		2023-05-10
				7mV~22mV, (10Hz~500kHz)	$U_{rel}=0.63\%$		2023-05-10
				7mV~22mV, (500kHz~2MHz)	$U_{rel}=0.70\%$		2023-05-10
				7mV~22mV, (2MHz~10MHz)	$U_{rel}=0.73\%$		2023-05-10
				7mV~22mV, (10MHz~20MHz)	$U_{rel}=0.80\%$		2023-05-10



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		中国合格评定 认可委员会	JJG-1001-2015 《通用计量术语及定义》	7mV~22mV, (20MHz~30MHz)	$U_{rel}=1.0\%$		2023-05-10
				22mV~70mV, (10Hz~500kHz)	$U_{rel}=0.56\%$		2023-05-10
				22mV~70mV, (500kHz~2MHz)	$U_{rel}=0.61\%$		2023-05-10
				22mV~70mV, (2MHz~10MHz)	$U_{rel}=0.66\%$		2023-05-10
				22mV~70mV, (10MHz~20MHz)	$U_{rel}=0.71\%$		2023-05-10
				22mV~70mV, (20MHz~30MHz)	$U_{rel}=0.91\%$		2023-05-10
				70mV~220mV, (10Hz~500kHz)	$U_{rel}=0.48\%$		2023-05-10
				70mV~220mV, (500kHz~2MHz)	$U_{rel}=0.53\%$		2023-05-10
				70mV~220mV, (2MHz~10MHz)	$U_{rel}=0.58\%$		2023-05-10
				70mV~220mV, (10MHz~20MHz)	$U_{rel}=0.63\%$		2023-05-10
				70mV~220mV, (20MHz~30MHz)	$U_{rel}=0.83\%$		2023-05-10
				220mV~700mV, (10Hz~500kHz)	$U_{rel}=0.46\%$		2023-05-10
				220mV~700mV, (500kHz~2MHz)	$U_{rel}=0.51\%$		2023-05-10



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		中国合格评定 认可委员会	JJG-1005-2005 直流电压源校准规范	220mV~700mV, (2MHz~10MHz)	$U_{rel}=0.56\%$		2023-05-10
				220mV~700mV, (10MHz~20MHz)	$U_{rel}=0.61\%$		2023-05-10
				220mV~700mV, (20MHz~30MHz)	$U_{rel}=0.81\%$		2023-05-10
				0.7V~2.2V, (10Hz~500kHz)	$U_{rel}=0.39\%$		2023-05-10
				0.7V~2.2V, (500kHz~2MHz)	$U_{rel}=0.44\%$		2023-05-10
				0.7V~2.2V, (2MHz~10MHz)	$U_{rel}=0.49\%$		2023-05-10
				0.7V~2.2V, (10MHz~20MHz)	$U_{rel}=0.54\%$		2023-05-10
				0.7V~2.2V, (20MHz~30MHz)	$U_{rel}=0.74\%$		2023-05-10
				2.2V~7V, (10Hz~500kHz)	$U_{rel}=0.38\%$		2023-05-10
				2.2V~7V, (500kHz~2MHz)	$U_{rel}=0.43\%$		2023-05-10
				2.2V~7V, (2MHz~10MHz)	$U_{rel}=0.48\%$		2023-05-10
				2.2V~7V, (10MHz~20MHz)	$U_{rel}=0.53\%$		2023-05-10
				2.2V~7V, (20MHz~30MHz)	$U_{rel}=0.73\%$		2023-05-10



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4	*电能质量分析仪	交流电压	电能质量测试分析仪检定规程 DL/T 1028	10V~20V, (50Hz~800Hz)	$U_{rel}=0.06\%$	只测单相电能质量分析仪	2023-05-10
				20V~45V, (50Hz~800Hz)	$U_{rel}=0.02\%$		2023-05-10
				45V~1000V, (50Hz~800Hz)	$U_{rel}=0.01\%$		2023-05-10
		谐波电压		1V~220V, (基波频率: 50Hz, 谐波次数: 2次~60次)	$U_{rel}=0.06\%$		2023-05-10
		谐波电流		0.1A~5A, (基波频率: 50Hz, 谐波次数: 2次~60次)	$U_{rel}=0.06\%$		2023-05-10
频率	50Hz~800Hz	$U_{rel}=0.01\%$	2023-05-10				
5	*直流纳伏数字电压表	直流电压	直流纳伏数字电压表检定规程 GJB/J 2656	100 μ V~1mV	$3.0 \times 10^{-5} U_x + 1.5nV$		2023-05-10
				1mV~10mV	$3.1 \times 10^{-5} U_x + 1.2nV$		2023-05-10
				10mV~100mV	$0.87 \times 10^{-5} U_x + 0.45\mu V$		2023-05-10
				100mV~1V	$0.46 \times 10^{-5} U_x + 1.8\mu V$		2023-05-10
6	*直流稳压电源	直流电压	直流稳定电源校准规范 JJF1597	(0.1~10)V	$U=0.87mV$		2023-05-10
				(10~100)V	$3 \times 10^{-6} U_x + 8.7mV$		2023-05-10



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		中国 直流电流	合格评定 国家认可 委员会 认可证书附件	(100~1000)V	$3 \times 10^{-6} U_x + 87\text{mV}$		2023-05-10
				(0.1~1)A	$U=2.3 \times 10^{-4} I_x + 0.089\text{mA}$		2023-05-10
				(1~10)A	$U=2.0 \times 10^{-4} I_x + 0.69\text{mA}$		2023-05-10
				(10~100)A	$U=8.0 \times 10^{-4} I_x + 4.0\text{mA}$		2023-05-10
		负载调整率		(0.1~10)V(恒压模式)	$U=0.87\text{mV}$		2023-05-10
				(10~100)V(恒压模式)	$3 \times 10^{-6} U_x + 8.7\text{mV}$		2023-05-10
				(100~1000)V(恒压模式)	$3 \times 10^{-6} U_x + 87\text{mV}$		2023-05-10
				(0.1~1)A(恒流模式)	$U=2.3 \times 10^{-4} I_x + 0.089\text{mA}$		2023-05-10
				(1~10)A(恒流模式)	$U=2.0 \times 10^{-4} I_x + 0.69\text{mA}$		2023-05-10
				(10~100)A(恒流模式)	$U=8.0 \times 10^{-4} I_x + 4.0\text{mA}$		2023-05-10
				(0.1~10)V(恒压模式)	$U=0.87\text{mV}$		2023-05-10
		电压调整率		(10~100)V(恒压模式)	$3 \times 10^{-6} U_x + 8.7\text{mV}$		2023-05-10
			(100~1000)V(恒压模式)	$3 \times 10^{-6} U_x + 87\text{mV}$		2023-05-10	



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		中国	合格评定国家认可委员会 认可证书附件	(0.1~1)A(恒流模式)	$U=2.3 \times 10^{-4} I_x + 0.089\text{mA}$		2023-05-10
				(1~10)A(恒流模式)	$U=2.0 \times 10^{-4} I_x + 0.69\text{mA}$		2023-05-10
				(10~100)A(恒流模式)	$U=8.0 \times 10^{-4} I_x + 4.0\text{mA}$		2023-05-10
				纹波电压	0.1mV~10mV(有效值)		$U_{rel}=16\%$
			10mV~1V(有效值)	$U_{rel}=10\%$	2023-05-10		
7	*钳形表	直流电压	钳形电流表校准规范 JJF 1075, 数字多用表校准规范 JJF 1587	(1~320)V	$U=0.06\text{V}$		2023-05-10
				(320~1000)V	$U=0.58\text{V}$		2023-05-10
		直流电流		(0.1~3)A	$U=3 \times 10^{-3} I_x + 0.06\text{mA}$		2023-05-10
				(3~15)A	$U=3.1 \times 10^{-3} I_x + 0.06\text{mA}$		2023-05-10
				(15~50)A	$U=3.2 \times 10^{-3} I_x + 0.06\text{A}$		2023-05-10
				(50~150)A	$U=3.3 \times 10^{-3} I_x + 0.05\text{A}$		2023-05-10
				(150~500)A	$U=5 \times 10^{-4} I_x + 0.05\text{A}$		2023-05-10
				(500~1000)A	$U=3 \times 10^{-3} I_x + 0.04\text{A}$		2023-05-10



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		直流电阻	合格评定国家认可委员会 认可证书附件	(1~100) Ω	$U=0.06\Omega$		2023-05-10
				(100~1000) Ω	$U=0.6\Omega$		2023-05-10
				(1~100) k Ω	$U=6\Omega\sim60\Omega$		2023-05-10
	交流电压			(1~33)V, (10Hz~1kHz)	$U=0.06V$		2023-05-10
				(33~330)V, (45Hz~1kHz)	$2.4\times 10^{-4}U_x+0.05V$		2023-05-10
				(330~1000)V, (45Hz~1kHz)	$1.3\times 10^{-4}U_x+0.53V$		2023-05-10
	交流电流			(0.1~3) A, (40Hz~1kHz)	$U=6.9\times 10^{-3}I_x+1.2mA$		2023-05-10
				(3~15) A, (40Hz~1kHz)	$U=2.9\times 10^{-3}I_x+2.5mA$		2023-05-10
				(15~50) A, (10Hz~45Hz)	$U=3.0\times 10^{-3}I_x+0.05A$		2023-05-10
				(15~50) A, (45Hz~1kHz)	$U=0.2\times 10^{-3}I_x+0.06A$		2023-05-10
				(50~150) A, (10Hz~45Hz)	$U=3.0\times 10^{-3}I_x+0.02A$		2023-05-10
				(50~150) A, (45Hz~1kHz)	$U=3.1\times 10^{-3}I_x+0.04A$		2023-05-10
			(150~500) A, (45Hz~1kHz)	$U=3.1\times 10^{-3}I_x+0.11A$		2023-05-10	



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				(500~1000)A, (45Hz~1kHz)	$U=3.2 \times 10^{-3} I_x + 0.23A$		2023-05-10
8	*直流分流器	中国 合格评定 国家认可 委员会 认可 证书附件 直流电阻	直流分流器检定规程 JJG1069	10k Ω , (0.1~1)mA	$U_{rel}=3.2 \times 10^{-5}$		2023-05-10
				1k Ω , (1~10)mA	$U_{rel}=3.0 \times 10^{-5}$		2023-05-10
				100 Ω , (1~10)mA	$U_{rel}=3.0 \times 10^{-5}$		2023-05-10
				10 Ω , (1~10)mA	$U_{rel}=3.0 \times 10^{-5}$		2023-05-10
				1 Ω , (0.01~0.1)A	$U_{rel}=3.0 \times 10^{-5}$		2023-05-10
				0.1 Ω , (0.1~1)A	$U_{rel}=3.0 \times 10^{-5}$		2023-05-10
				0.01 Ω , (1~10)A	$U_{rel}=3.5 \times 10^{-5}$		2023-05-10
				0.001 Ω , (10~100)A	$U_{rel}=7.6 \times 10^{-5}$		2023-05-10
9	*绝缘电阻表(兆欧表)	电阻	电子式绝缘电阻表检定规程 JJG 1005	40k Ω ~100k Ω ,	$U=0.28\%R_x+0.03k\Omega$		2023-05-10
				100k Ω ~200k Ω	$U=0.15\%R_x+0.66k\Omega$		2023-05-10
				200k Ω ~1M Ω	$U=0.26\%R_x+0.40k\Omega$		2023-05-10
				1M Ω ~10M Ω	$U=0.46\%R_x+0.4k\Omega$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国	合格评定 国家认可 委员会 认可证书附件	10M Ω ~1G Ω	$U=0.74\%R_x+0.12M\Omega$		2023-05-10
				1G Ω ~10G Ω	$U=1.5\%R_x+2.9M\Omega$		2023-05-10
				10G Ω ~100G Ω	$U=1.8\%R_x+1.6M\Omega$		2023-05-10
				100G Ω ~1T Ω	$U=2.9\%R_x+0.29G\Omega$		2023-05-10
		端电压		100V~1000V	$0.23\%U_x+0.64V$		2023-05-10
		1000V~10kV		$0.38\%U_x+8.1V$	2023-05-10		
		电阻		直流电阻箱检定规程 JJG 982	(0.1~2) Ω		$U=0.54\times 10^{-4}R_x+0.28m\Omega$
10	*直流电阻箱	电阻	直流电阻箱检定规程 JJG 982	(2~20) Ω	$U=0.22\times 10^{-4}R_x+0.36m\Omega$	2023-05-10	
				(20~200) Ω	$U=0.17\times 10^{-4}R_x+0.58m\Omega$	2023-05-10	
				(0.2~2)k Ω	$U=0.66\times 10^{-5}R_x+2.5m\Omega$	2023-05-10	
				(2~20)k Ω	$U=0.85\times 10^{-5}R_x+3.4m\Omega$	2023-05-10	
				(20~200)k Ω	$U=0.86\times 10^{-5}R_x+45m\Omega$	2023-05-10	
				(0.2~2)M Ω	$U=1.1\times 10^{-5}R_x+0.42\Omega$	2023-05-10	



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
				(2~10)M Ω	$U=1.6 \times 10^{-5} R_x + 0.1k\Omega$		2023-05-10
11	*高阻计	电阻值	中国合格评定国家认可委员会 高绝缘电阻测量仪(高阻计)检定规程 JJG 690	1M Ω ~10M Ω	$U_{rel}=1.2 \times 10^{-4}$		2023-05-10
				10M Ω ~1G Ω	$U_{rel}=2.6 \times 10^{-4}$		2023-05-10
				1G Ω ~10G Ω	$U_{rel}=0.9 \times 10^{-4}$		2023-05-10
				100G Ω	$U_{rel}=6.0 \times 10^{-4}$		2023-05-10
				1T Ω	$U_{rel}=6.0 \times 10^{-4}$		2023-05-10
				10T Ω	$U_{rel}=9.1 \times 10^{-4}$		2023-05-10
		100T Ω		$U_{rel}=2.1 \times 10^{-3}$		2023-05-10	
		端电压		1V~100V	$U_{rel}=0.03\%$		2023-05-10
100V~1000V	$U_{rel}=0.02\%$		2023-05-10				
12	*直流小电流表	直流电流	直流小电流表检定规程 JJG (军工) 200	(0.2~10) μ A	$U=2.7 \times 10^{-5} I_x + 16pA$		2023-05-10
				(2~200) nA	$U=2.5 \times 10^{-4} I_x + 0.03pA$		2023-05-10
				(0.2~2) nA	$U=2.6 \times 10^{-4} I_x + 0.05pA$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
13	*直流小电流标准源	直流电流	直流小电流标准源检定规程 GJB 2213	(20~200) pA	$U=2.2 \times 10^{-4} I_x + 0.013 \text{pA}$		2023-05-10
				(2~20) pA	$U=2.6 \times 10^{-4} I_x + 0.003 \text{pA}$		2023-05-10
				1 pA	$U_{\text{rel}}=2.4 \times 10^{-3}$		2023-05-10
				0.2 μA~1 μA	$U=1.0 \times 10^{-5} I_x + 75 \text{pA}$		2023-05-10
				20 nA~200 nA	$U=4.0 \times 10^{-4} I_x + 2.7 \text{pA}$		2023-05-10
				2 nA~20 nA	$U=4.0 \times 10^{-4} I_x + 0.33 \text{pA}$		2023-05-10
				0.2 nA~2 nA	$U=4.0 \times 10^{-4} I_x + 0.01 \text{pA}$		2023-05-10
14	*多参数生理模拟仪	直流电阻	多参数生理模拟仪校准规范 JJF 1470	10 Ω~10 kΩ	$U_{\text{rel}}=1.1 \times 10^{-3}$		2023-05-10
				(10~100) kΩ	$U_{\text{rel}}=2 \times 10^{-4}$		2023-05-10
				0.5 mV~1 V	$U_{\text{rel}}=2.5\%$		2023-05-10
		20 pA~200 pA		$U=5.9 \times 10^{-4} I_x + 0.002 \text{pA}$	2023-05-10		
		2 pA~20 pA		$U_{\text{rel}}=1.0 \times 10^{-3}$	2023-05-10		
		1 pA		$U_{\text{rel}}=2.0 \times 10^{-3}$	2023-05-10		



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		心率		(30~300)次/分	$U_{rel}=0.3\%$		2023-05-10
		频率		(1~100)Hz	$U_{rel}=0.01\%$		2023-05-10
15	*静电腕带/脚盘测试仪	直流电阻	静电腕带/脚盘测试仪校准规范 JJF(电子)31502	1k Ω ~100M Ω	$U_{rel}=0.1\%$		2023-05-10
				100M Ω ~1000M Ω	$U_{rel}=0.2\%$		2023-05-10
16	*过程仪表校验仪	直流电压	过程仪表校验仪校准规范 JJF 1472	测量: (10~330)mV	$2.1 \times 10^{-5} U_x + 1.1 \mu V$		2023-05-10
				测量: (0.33~33)V	$1.5 \times 10^{-5} U_x + 3.4 \mu V$		2023-05-10
				测量: (33~330)V	$2.0 \times 10^{-5} U_x + 76 \mu V$		2023-05-10
				输出: (10~100)mV	$1.4 \times 10^{-5} U_x + 0.45 \mu V$		2023-05-10
				输出: (0.1~10)V	$1.3 \times 10^{-5} U_x + 0.49 \mu V$		2023-05-10
				输出: (10~100)V	$1.5 \times 10^{-5} U_x + 44 \mu V$		2023-05-10
		直流电流		测量: (1~33)mA	$U=1.0 \times 10^{-4} I_x + 0.18 \mu A$		2023-05-10
				测量: (33~330)mA	$U=1.0 \times 10^{-4} I_x + 2.5 \mu A$		2023-05-10
				输出: (1~10)mA	$U=1.0 \times 10^{-4} I_x + 0.18 \mu A$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国 合格评定 委员会 认可 证书附件 直流电阻	JJG-1001-2010 直流电阻 校准规范	输出: (10~100)mA	$U=1.0 \times 10^{-4} I_x + 1.8 \mu A$		2023-05-10
				测量: (10~100) Ω	$U=2.7 \times 10^{-5} R_x + 1.6 m\Omega$		2023-05-10
				测量: (0.1~1)k Ω	$U=3.0 \times 10^{-5} R_x + 1.6 m\Omega$		2023-05-10
				测量: (1~10)k Ω	$U=3.0 \times 10^{-5} R_x + 1.2 m\Omega$		2023-05-10
				输出: (10~100) Ω	$U=1.2 \times 10^{-5} R_x + 0.98 m\Omega$		2023-05-10
				输出: (0.1~1)k Ω	$U=9.3 \times 10^{-6} R_x + 0.73 m\Omega$		2023-05-10
				输出: (1~10)k Ω	$U=4.7 \times 10^{-6} R_x + 62 m\Omega$		2023-05-10
		交流电压	JJG-1001-2010 交流电压 校准规范	10mV~330mV, (20Hz~40Hz)	$3.2 \times 10^{-4} U_x + 9.2 \mu V$		2023-05-10
				10mV~330mV, (40Hz~500Hz)	$2.7 \times 10^{-4} U_x + 10 \mu V$		2023-05-10
				10mV~330mV, (500Hz~5kHz)	$1.5 \times 10^{-4} U_x + 7.5 \mu V$		2023-05-10
				10mV~330mV, (5kHz~10kHz)	$1.6 \times 10^{-4} U_x + 6.8 \mu V$		2023-05-10
				0.33V~3.3V, (20Hz~40Hz)	$3.9 \times 10^{-4} U_x + 43 \mu V$		2023-05-10
				0.33V~3.3V, (40Hz~500Hz)	$3.2 \times 10^{-4} U_x + 41 \mu V$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1001-2010 《通用计量术语及定义》	0.33V~3.3V, (500Hz~10kHz)	$1.8 \times 10^{-4} U_x + 56 \mu\text{V}$		2023-05-10
				3.3V~33V, (20Hz~40Hz)	$3.9 \times 10^{-4} U_x + 0.30 \text{mV}$		2023-05-10
				3.3V~33V, (40Hz~500Hz)	$3.1 \times 10^{-4} U_x + 0.85 \text{mV}$		2023-05-10
				3.3V~33V, (500Hz~10kHz)	$2.0 \times 10^{-4} U_x + 0.53 \text{mV}$		2023-05-10
				33V~330V, (45Hz~5kHz)	$2.1 \times 10^{-4} U_x + 1.5 \text{mV}$		2023-05-10
				33V~330V, (5kHz~10kHz)	$2.2 \times 10^{-4} U_x + 5.4 \text{mV}$		2023-05-10
		交流电流		(1~200) mA, (45Hz~10kHz)	$U_{\text{rel}} = 1.0 \times 10^{-3}$		2023-05-10
		频率		测量: 10Hz~50kHz	$U_{\text{rel}} = 8 \times 10^{-7}$		2023-05-10
				输出: 10Hz~50kHz	$U_{\text{rel}} = 1.4 \times 10^{-7}$		2023-05-10
		温度		热电偶测量: (-200~200) °C	$U = 0.005 \text{ } ^\circ\text{C}$		2023-05-10
				热电偶测量: (200~1300) °C	$U = 0.015 \text{ } ^\circ\text{C}$		2023-05-10
				热电偶测量: (1300~1800) °C	$U = 0.11 \text{ } ^\circ\text{C}$		2023-05-10
				热电偶输出: (-200~200) °C	$U = 0.009 \text{ } ^\circ\text{C}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定国家认可委员会	JLGC-MK	热电偶输出: (200~1300)°C	$U=0.027^{\circ}\text{C}$		2023-05-10
				热电偶输出: (1300~1800)°C	$U=0.068^{\circ}\text{C}$		2023-05-10
				热电阻: (-200~200)°C	$U=0.001^{\circ}\text{C}$		2023-05-10
				热电阻: (200~800)°C	$U=0.017^{\circ}\text{C}$		2023-05-10
17	*泄漏电流测试仪	直流电流	泄漏电流测试仪检定规程 JJG 843	(10~200) μA	$U=0.06\ \mu\text{A}$		2023-05-10
				(0.2~2) mA	$U=0.6\ \mu\text{A}$		2023-05-10
				(2~20) mA	$U=0.006\text{mA}$		2023-05-10
		交流电流		2mA~20mA, (20Hz ~ 100Hz)	$U=1.9 \times 10^{-3} I_x + 2.2\ \mu\text{A}$		2023-05-10
				2mA~20mA, (0.1kHz ~ 5kHz)	$U=6 \times 10^{-4} I_x + 2.2\ \mu\text{A}$		2023-05-10
		交流电压		10V~100V, (50Hz)	$U_{rel}=0.6\%$		2023-05-10
				100V~300V, (50Hz)	$U_{rel}=0.5\%$		2023-05-10
		直流电压		10V~100V	$U_{rel}=0.1\%$		2023-05-10
电阻	800 Ω ~3k Ω	$U_{rel}=0.1\%$	2023-05-10				



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18	*接地电阻表	电阻	接地电阻表检定规程 JJG 366	(0.1~1) Ω	$U_{rel}=0.6\%$	只测数字式接地电阻表	2023-05-10
				(1~100) Ω	$U_{rel}=0.12\%$		2023-05-10
				100 Ω ~10k Ω	$U_{rel}=0.06\%$		2023-05-10
19	*直流电子负载	直流电压	直流电子负载校准规范 JJF 1462	(0.1~1)V	$8.2 \times 10^{-7} U_x + 0.58\text{mV}$		2023-05-10
				(1~10)V	$2 \times 10^{-6} U_x + 0.6\text{mV}$		2023-05-10
				(10~100)V	$4 \times 10^{-6} U_x + 0.0057\text{V}$		2023-05-10
				(100~600)V	$7 \times 10^{-6} U_x + 0.006\text{V}$		2023-05-10
		直流电流		(0.1~1)A	$U=1 \times 10^{-5} I_x + 0.6\text{mA}$		2023-05-10
				(1~10)A	$U=8 \times 10^{-5} I_x + 0.5\text{mA}$		2023-05-10
				(10~100)A	$U=6 \times 10^{-4} I_x + 0.3\text{mA}$		2023-05-10
		直流电阻		(0.1~1) Ω	$U=2 \times 10^{-5} R_x + 0.7\text{m}\Omega$		2023-05-10
				(1~10) Ω	$U=2 \times 10^{-4} R_x + 0.5\text{m}\Omega$		2023-05-10
				(10~100) Ω	$U=1 \times 10^{-4} R_x + 4.8\text{m}\Omega$		2023-05-10



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国 直流功率	合格评定 国家认可 委员会 认可 证书附件	(100~2000) Ω	$U=5 \times 10^{-4} R_x + 0.02 \Omega$		2023-05-10
				(10~100) W	$U=9 \times 10^{-4} P_x + 1.9 \text{mW}$		2023-05-10
				(100~1000) W	$U=2 \times 10^{-4} P_x + 0.081 \text{W}$		2023-05-10
				(1000~5000) W	$U=2 \times 10^{-4} P_x + 0.11 \text{W}$		2023-05-10
20	*接地导通电阻 测试仪	直流电阻	接地导通电阻测试仪检定 规程 JJG 984	(10~100) $\text{m}\Omega$	$U=9 \times 10^{-4} R_x + 0.086 \text{m}\Omega$		2023-05-10
				(100~1000) $\text{m}\Omega$	$U=1.1 \times 10^{-3} R_x + 0.56 \text{m}\Omega$		2023-05-10
		交流电阻		(10~100) $\text{m}\Omega$, (50Hz)	$U=1.0 \times 10^{-3} R_x + 0.086 \text{m}\Omega$		2023-05-10
				(100~1000) $\text{m}\Omega$, (50Hz)	$U=1.5 \times 10^{-3} R_x + 0.5 \text{m}\Omega$		2023-05-10
		直流电流		(1~6) A	$U=0.059 \text{A}$		2023-05-10
				(6~60) A	$U=0.075 \text{A}$		2023-05-10
		交流电流		(1~6) A, (50Hz)	$U=0.060 \text{A}$		2023-05-10
				(6~60) A, (50Hz)	$U=0.12 \text{A}$		2023-05-10
21	*耐压测试仪	直流电压	耐压电压测试仪检定规程 JJG 795	(0.5~10) kV	$2.3 \times 10^{-3} U_x + 5.8 \text{V}$		2023-05-10



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		交流电压	合格评定国家认可委员会 认可证书附件	(10~15) kV	$2.5 \times 10^{-3} U_x + 11V$		2023-05-10
				(0.5~10) kV, (50Hz)	$2.3 \times 10^{-3} U_x + 12V$		2023-05-10
				(10~15) kV, (50Hz)	$2.4 \times 10^{-3} U_x + 23V$		2023-05-10
		直流电流		(0.2~2) mA	$U=3.6 \times 10^{-3} I_x + 0.5 \mu A$		2023-05-10
				(2~20) mA	$U=1.9 \times 10^{-3} I_x + 14 \mu A$		2023-05-10
				(20~400) mA	$U=2.3 \times 10^{-3} I_x + 47 \mu A$		2023-05-10
		交流电流		(0.2~2) mA, (50Hz)	$U=1.5 \times 10^{-3} I_x + 4.2 \mu A$		2023-05-10
				(2~20) mA, (50Hz)	$U=2.9 \times 10^{-3} I_x + 21 \mu A$		2023-05-10
				(20~400) mA, (50Hz)	$U=2.4 \times 10^{-3} I_x + 0.23mA$		2023-05-10
				时间	(10~120) s		$U=2.6 \times 10^{-3} T_x + 0.057s$
22	安规综合测试仪	耐电压直流电压	安规综合测试仪校准规范 JJF(电子) 0004	(0.5~10) kV	$2.3 \times 10^{-3} U_x + 5.8V$		2023-05-10
		耐电压交流电压		(10~15) kV	$2.5 \times 10^{-3} U_x + 11V$		2023-05-10
		(0.5~10) kV, (50Hz)		$2.3 \times 10^{-3} U_x + 12V$	2023-05-10		



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期	
				(10~15) kV, (50Hz)	$2.4 \times 10^{-3} U_x + 23V$		2023-05-10	
		耐电压直流电流		(0.2~2) mA	$U=3.6 \times 10^{-3} I_x + 0.5 \mu A$		2023-05-10	
				(2~20) mA	$U=1.9 \times 10^{-3} I_x + 14 \mu A$		2023-05-10	
				(20~400) mA	$U=2.3 \times 10^{-3} I_x + 47 \mu A$		2023-05-10	
		耐电压交流电流		(0.2~2) mA, (50Hz)	$U=1.5 \times 10^{-3} I_x + 4.2 \mu A$		2023-05-10	
				(2~20) mA, (50Hz)	$U=2.9 \times 10^{-3} I_x + 21 \mu A$		2023-05-10	
				(20~400) mA, (50Hz)	$U=2.4 \times 10^{-3} I_x + 0.23mA$		2023-05-10	
		时间		(10~120) s	$U=2.6 \times 10^{-3} T_x + 0.057s$		2023-05-10	
		绝缘测试电压		(100~1000) V	$0.23\% U_x + 0.64V$		2023-05-10	
					(1~10) kV	$0.38\% U_x + 8.1V$		2023-05-10
		绝缘电阻		40k Ω ~100k Ω	$U=0.28\% R_x + 0.03k \Omega$		2023-05-10	
					100k Ω ~200k Ω	$U=0.15\% R_x + 0.66k \Omega$		2023-05-10
					200k Ω ~1M Ω	$U=0.26\% R_x + 0.40k \Omega$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国	合格评定 国家认可委员会 认可证书附件	1M Ω ~10M Ω	$U=0.46\%R_x+0.40k\Omega$		2023-05-10
				10M Ω ~1G Ω	$U=0.74\%R_x+0.12M\Omega$		2023-05-10
				1G Ω ~10G Ω	$U=1.5\%R_x+2.9M\Omega$		2023-05-10
		接地导通电阻		(10~100)m Ω , (50Hz)	$U=1\times 10^{-3}R_x+0.086m\Omega$		2023-05-10
				(100~1000)m Ω , (50Hz)	$U=1.5\times 10^{-3}R_x+0.5m\Omega$		2023-05-10
		接地导通试验电流		(1~6)A, (50Hz)	$U=0.060A$		2023-05-10
				(6~60)A, (50Hz)	$U=0.12A$		2023-05-10
		泄漏试验电压		10V~300V, (50Hz)	$U_{rel}=0.6\%$		2023-05-10
		泄漏直流电流		(10~200) μ A	$U=0.06\mu A$		2023-05-10
				(0.2~2)mA	$U=0.6\mu A$		2023-05-10
				(2~20)mA	$U=0.006mA$		2023-05-10
		泄漏交流电流		2mA~20mA, (50Hz)	$U=0.04mA$		2023-05-10
		23		跨导放大器	直流电流		多功能标准源校准规范 JJF 1638



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		交流电流	中国合格评定国家认可委员会	0.1A~100A (10Hz~1kHz)	$U_{rel}=1.4 \times 10^{-4}$		2023-05-10
				0.1A~100A (1kHz~5kHz)	$U_{rel}=1.6 \times 10^{-4}$		2023-05-10
				0.1A~100A (5kHz~10kHz)	$U_{rel}=1.8 \times 10^{-4}$		2023-05-10
24	*数字式交流电参数测量仪	交流电压	数字式交流电参数测量仪 校准规范 JJF 1491	10V~20V, (50Hz~800Hz)	$U_{rel}=0.06\%$	只测单相数字式交流电参数测量仪	2023-05-10
				20V~45V, (50Hz~800Hz)	$U_{rel}=0.02\%$		2023-05-10
				45V~1000V, (50Hz~800Hz)	$U_{rel}=0.01\%$		2023-05-10
		交流电流		0.1A~20A, (50Hz~800Hz)	$U=0.007A$		2023-05-10
				20A~40A, (50Hz)	$U=0.06A$		2023-05-10
				40A~80A, (50Hz)	$U=0.6A$		2023-05-10
		交流功率		1.5W~1.2kW, (50Hz)	$U=0.6W$		2023-05-10
				1.2kW~4kW, (50Hz)	$U=1.3W$		2023-05-10
				4kW~8kW, (50Hz)	$U=1.9W$		2023-05-10
				8kW~9.6kW, (50Hz)	$U=9.4W$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		相位		$(-180\sim 180)^\circ$, (50Hz~100Hz)	$U=0.005^\circ$		2023-05-10
		频率		$(-180\sim 180)^\circ$, (100Hz~400Hz)	$U=0.026^\circ$		2023-05-10
				50Hz~800Hz	$U_{rel}=0.01\%$		2023-05-10
四 长度设备							
1	千分尺	长度	千分尺检定规程 JJG 21	(0~25)mm(数显外径千分尺)	$U=0.7\mu\text{m}$	不测校 对杆	2023-05-10
				(25~50)mm(数显外径千分尺)	$U=0.8\mu\text{m}$		2023-05-10
				(50~75)mm(数显外径千分尺)	$U=0.9\mu\text{m}$		2023-05-10
				(75~100)mm(数显外径千分尺)	$U=1.0\mu\text{m}$		2023-05-10
				(0~25)mm(外径千分尺)	$U=1.4\mu\text{m}$		2023-05-10
				(25~50)mm(外径千分尺)	$U=1.4\mu\text{m}$		2023-05-10
				(50~75)mm(外径千分尺)	$U=1.5\mu\text{m}$		2023-05-10
				(75~100)mm(外径千分尺)	$U=1.6\mu\text{m}$		2023-05-10
2	通用卡尺	长度	通用卡尺检定规程 JJG 30	(0~300)mm	$U=0.01\text{mm}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
3	高度卡尺	长度	高度卡尺检定规程 JJG 31	(0~300) mm	$U=0.01\text{mm}$		2023-05-10
				(300~500) mm	$U=0.02\text{mm}$		2023-05-10
五 热学设备							
1	红外辐射温度计	温度	工作用辐射温度计检定规程 JJG 856	(30~100) °C	$U=0.6^\circ\text{C}$		2023-05-10
				(100~300) °C	$U=0.9^\circ\text{C}$		2023-05-10
				(300~500) °C	$U=1.3^\circ\text{C}$		2023-05-10
				(500~600) °C	$U=4^\circ\text{C}$		2023-05-10
				(600~800) °C	$U=5^\circ\text{C}$		2023-05-10
				(800~1000) °C	$U=5^\circ\text{C}$		2023-05-10
2	红外热成像仪	温度	热像仪校准规范 JJF 1187	(30~100) °C	$U=0.7^\circ\text{C}$		2023-05-10
				(100~200) °C	$U=0.9^\circ\text{C}$		2023-05-10
				(200~500) °C	$U=2.2^\circ\text{C}$		2023-05-10
				(500~600) °C	$U=4^\circ\text{C}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
				(600~800) °C	$U=5^{\circ}\text{C}$		2023-05-10
				(800~1000) °C	$U=5^{\circ}\text{C}$		2023-05-10
3	*温度校准仪	温度	温度校准仪校准规范 JJF 1309	(-200~200) °C(热电偶测量)	$U_{\text{rel}}=2.5 \times 10^{-4}$		2023-05-10
				(200~1000) °C(热电偶测量)	$U_{\text{rel}}=6 \times 10^{-5}$		2023-05-10
				(1000~1800) °C(热电偶测量)	$U_{\text{rel}}=5 \times 10^{-5}$		2023-05-10
				(-200~200) °C(热电偶输出)	$U_{\text{rel}}=2.5 \times 10^{-4}$		2023-05-10
				(200~1000) °C(热电偶输出)	$U_{\text{rel}}=6 \times 10^{-5}$		2023-05-10
				(1000~1800) °C(热电偶输出)	$U_{\text{rel}}=5 \times 10^{-5}$		2023-05-10
				(-200~800) °C(热电阻)	$U=1.6 \times 10^{-5} R+0.033^{\circ}\text{C}$		2023-05-10
4	*环境试验设备	温度	环境试验设备温度、湿度校准规范 JJF 1101	(-80~-50) °C	$U=0.5^{\circ}\text{C}$		2023-05-10
				(-50~0) °C	$U=0.5^{\circ}\text{C}$		2023-05-10
				(0~100) °C	$U=0.4^{\circ}\text{C}$		2023-05-10
				(100~250) °C	$U=0.6^{\circ}\text{C}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		湿度	中国合格评定国家认可委员会 JJG-1030	10%RH~60%RH	$U=1.1\%RH$		2023-05-10
				60%RH~80%RH	$U=1.3\%RH$		2023-05-10
				80%RH~95%RH	$U=1.5\%RH$		2023-05-10
5	*恒温槽	温度波动度	恒温槽技术性能测试规范 JJF 1030	$(-60\sim 100)^{\circ}C$	$U=0.007^{\circ}C$		2023-05-10
				$(100\sim 300)^{\circ}C$	$U=0.008^{\circ}C$		2023-05-10
		温度均匀性		$(-60\sim 100)^{\circ}C$	$U=0.005^{\circ}C$		2023-05-10
				$(100\sim 300)^{\circ}C$	$U=0.006^{\circ}C$		2023-05-10
6	*温度显示仪	温度	温度显示仪校准规范 JJF 1664	$(-40\sim 1200)^{\circ}C$ (热电偶 K/J 型)	$U=0.6^{\circ}C$		2023-05-10
				$(100\sim 1600)^{\circ}C$ (热电偶 R 型)	$U=0.4^{\circ}C$		2023-05-10
				$(600\sim 1700)^{\circ}C$ (热电偶 B 型)	$U=0.5^{\circ}C$		2023-05-10
				$(100\sim 1600)^{\circ}C$ (热电偶 S 型)	$U=0.8^{\circ}C$		2023-05-10
				$(-200\sim 0)^{\circ}C$ (热电阻)	$U=0.4^{\circ}C$		2023-05-10
				$(0\sim 800)^{\circ}C$ (热电阻)	$U=0.3^{\circ}C$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
7	干体式温度校准器	温度	干体式温度校准器校准规范 JJF 1257	-50℃ ~ 100℃	$U=0.009^{\circ}\text{C}$		2023-05-10
				100℃ ~ 660℃	$U_{\text{rel}}=0.007\%$		2023-05-10
8	热敏电阻温度计	温度	热敏电阻测温仪校准规范 JJF 1379	(-30~125)℃	$U=0.027^{\circ}\text{C}$		2023-05-10
9	数字温度计	温度	数字温度计校准规范 JJF(苏) 95	(-30~150)℃	$U=0.03^{\circ}\text{C}$		2023-05-10
				(150~400)℃	$U=0.04^{\circ}\text{C}$		2023-05-10
				(400~660)℃	$U=0.06^{\circ}\text{C}$		2023-05-10
六 力学设备							
1	*数字压力计	压力	数字压力计检定规程 JJG 875	(-0.1~0.1)MPa	$U=0.02\text{kPa}$		2023-05-10
				(0.1~0.3)MPa	$U=0.09\text{kPa}$		2023-05-10
				(0.3~0.7)MPa	$U=0.12\text{kPa}$		2023-05-10
				(0.7~2)MPa	$U=0.23\text{kPa}$		2023-05-10
				(2~5)MPa	$U=1.1\text{kPa}$		2023-05-10
				(5~10)MPa	$U=1.8\text{kPa}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
2	扭矩扳子	扭矩	扭矩扳子检定规程 JJG 707	(0.1~1)N·m	$U=4 \times 10^{-3} T_x + 0.0094 N \cdot m$		2023-05-10
				(1~9)N·m	$U_{rel}=1\%$		2023-05-10
				(9~800)N·m	$U_{rel}=0.7\%$		2023-05-10

认可证书附件



No. CNAS L3429

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Name: Tektronix (China) Co., Ltd. Beijing Branch

Address: Room 303, 3/F., Building 7, No.6, Jiuxianqiao Road, Chaoyang District, Beijing, China

Registration No. CNAS L3429

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

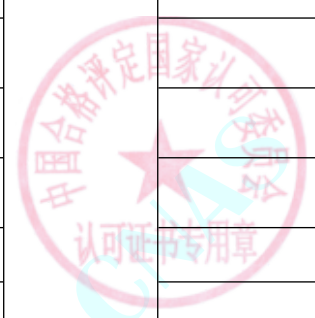
Effective Date: 2023-05-10 Expiry Date: 2029-03-04

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
1 Radio Equipment							
1	*Digital Oscilloscope	Input Resistance	Verification Regulation for Digital Oscilloscope GJB 7691	(40~90)Ω	$U_{rel}=0.25\%$		
				0.9MΩ~1.1MΩ	$U_{rel}=0.12\%$		
		Analog Bandwidth		-3dB~3dB, (10MHz~500MHz)	$U=0.27dB$		
				-3dB~3dB, (500MHz~6GHz)	$U=0.50dB$		
				-3dB~3dB, (6GHz~20GHz)	$U=0.83dB$		
		Voltage		-3dB~3dB, (20GHz~40GHz)	$U=0.90dB$		
				10mV~200V	$U_{rel}=0.03\%$		
Trigger Sensitivity	4.4 mV~5.556V, (10MHz~550 MHz)	$U_{rel}=4\%$					



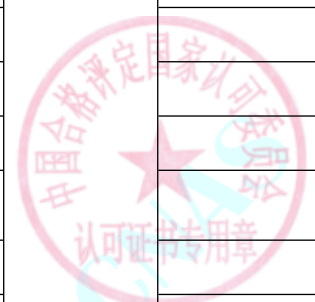
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The scope of the accreditation in Chinese remains the definitive version.

No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date		
			Verification regulation of Oscilloscope Calibrator JJG 278	4.4mV~3.4V, (550MHz~2.5GHz)	$U_{rel}=5\%$				
				4.4mV~2.2V, (2.5 GHz~6.4GHz)	$U_{rel}=5\%$				
		Time		10ns~10ms	$U_{rel}=3 \times 10^{-6}$				
		Rise time		75ps~150ps	$U_{rel}=6\%$				
				150ps~500ps	$U_{rel}=4\%$				
				500ps~50ns	$U_{rel}=2\%$				
		2		*Oscilloscope Calibrator	DC Voltage			(1~100)mV	$U=0.007mV$
								(0.1~1)V	$U_{rel}=4.5 \times 10^{-5}$
								(1~10)V	$U_{rel}=4.0 \times 10^{-5}$
								(10~190)V	$U_{rel}=3.5 \times 10^{-5}$
AC Voltage	(6~10)mV, (1kHz)		$U_{rel}=0.17\%$						
	(0.01~60)V, (1kHz)		$U_{rel}=0.02\%$						
AC Voltage	100mV~1V, (1kHz)		$U_{rel}=0.9\%$						
	(1~4.8)V, (1kHz)		$U_{rel}=0.3\%$						
	(1.9~4.8) V, (45kHz)		$U_{rel}=0.3\%$						
Time	30mV~3V, (50kHz~ 100kHz)		$U_{rel}=0.4\%$						
Time	10ns~10ms	$U_{rel}=1.4 \times 10^{-9}$							
Pulse Width	(4~10) ns	$U=0.065ns$							



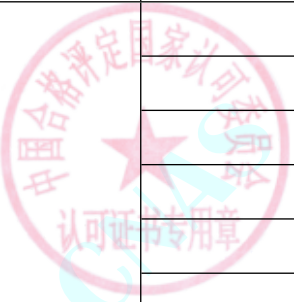
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The scope of the accreditation in Chinese remains the definitive version.

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Sinewave Flatness	Verification Regulation of Function Generators JIG 840	(10~20) ns	$U_{rel}=0.33\%$		
				(20~100) ns	$U_{rel}=0.13\%$		
				-3dB~3dB, (10MHz~500MHz)	$U=0.21dB$		
				-3dB~3dB, (500MHz~3GHz)	$U=0.25dB$		
		Risetime		-3dB~3dB, (3GHz~6GHz)	$U=0.30dB$		
				15ps~75ps	$U=5.5ps$		
				(75~150)ps	$U=12ps$		
		Resistance		(150~500)ps	$U=28ps$		
				(40~90) Ω	$U=0.023\Omega$		
		Capacitance		(0.8~1.2)M Ω	$U=0.0003 M\Omega$		
				(10~35)pF, (1MHz)	$U=0.28pF$		
				(35~90)pF, (1MHz)	$U=0.63pF$		
				Amplitude	(0.02~0.20)V, (1kHz)		
		(0.2~2.5)V, (1kHz)			$1.8 \times 10^{-3}U_x + 28\mu V$		
(2.5~28)V, (1kHz)	$1.6 \times 10^{-3}U_x + 0.15mV$						
DC Voltage	(10~100)mV	$2.6 \times 10^{-4}U_x + 87\mu V$					
	(0.1~1)V	$5.5 \times 10^{-4}U_x + 33\mu V$					
	(1~10)V	$5.8 \times 10^{-4}U_x + 13\mu V$					

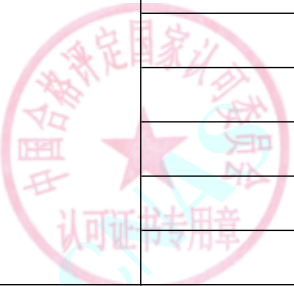


No. CNAS L3429

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

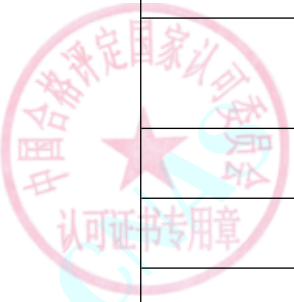
在线扫码获取验证

No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Frequency		1kHz~250MHz	$U_{rel}=2.5 \times 10^{-8}$		
		Sinewave Flatness		-3dB~3dB, (100kHz~250MHz)	$U=0.2\text{dB}$		
		Rise/Fall Time		500ps~50ns	$U_{rel}=4\%$		
		Harmonic		(-20~-90)dBc, (1MHz~250MHz)	$U=0.9\text{dB}$		
		Duty Ratio		10%~90%, (1kHz)	$U_{rel}=0.2\%$		
4	*Pulse Signal Generator	Frequency	Verification Regulation of Pulse Generator JJG 490	10Hz~1kHz	$U_{rel}=5 \times 10^{-8}$		
				1kHz~3GHz	$U_{rel}=2.5 \times 10^{-8}$		
				3GHz~18GHz	$U_{rel}=8 \times 10^{-10}$		
		Time Interval		10ns~100μs	$U_{rel}=0.13\%$		
				100μs~1s	$U_{rel}=2.0 \times 10^{-5}$		
				1s~1000s	$U_{rel}=3.0 \times 10^{-5}$		
		Pulse Amplitude		10mV~200V, (1kHz)	$U_{rel}=0.2\%$		
		Rise time		21ps~100ps	$U=1.5\%T_x+2.0\text{ps}$		
				100ps~10ns	$U=0.13\%T_x+9.2\text{ps}$		
		DC Voltage		(10~100)mV	$2.6 \times 10^{-4}U_x+87\mu\text{V}$		
				(0.1~1)V	$5.5 \times 10^{-4}U_x+33\mu\text{V}$		
				(1~10)V	$5.8 \times 10^{-4}U_x+13\mu\text{V}$		
5	*Sampling Oscilloscope	DC Voltage	Verification Regulation for Sampling Oscilloscope	1mV~5V	$3 \times 10^{-4}U_x+0.05\text{mV}$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date					
		BW	JJG(JG)172	-3dB~3dB, (50MHz~20GHz)	$U=0.5\text{dB}$							
				-3dB~3dB, (20GHz~40GHz)	$U=0.61\text{dB}$							
		Time		50ps~500ps	$U=0.11\%T_x+0.37\text{ps}$							
				500ps~1s	$U_{\text{rel}}=0.06\%$							
		Rise time		17.5ps~50ps	$U=6.5\text{ps}$							
		Input Resistance		(40~90) Ω	$U_{\text{rel}}=0.3\%$							
		6		*Spectrum Analyzer	Frequency			Calibration Specification of Spectrum Analyzer JJF 1396	10Hz~26.5GHz	$U_{\text{rel}}=2 \times 10^{-10}$		
					Power				-10dBm~20dBm, (10MHz~1GHz)	$U=0.26\text{dB}$		
Vertical Display Scale	0dB~90dB, (10MHz~1GHz)		$U=0.04\text{dB}+0.05\text{dB}/10\text{dB}$									
Reference Level	0dBm~-90dBm, (10MHz~1GHz)		$U=0.04\text{dB}+0.05\text{dB}/10\text{dB}$									
Attenuator Switching	-3dB~3dB, (0dB~70dB, 10MHz~1GHz)		$U=0.04\text{dB}$									
Resolution BW Switching	-3dB~3dB, (RBW: 3Hz~10MHz, CF: 10MHz~1GHz)		$U=0.04\text{dB}$									
Input Response	-5dB~5dB, (100kHz~18GHz)		$U=0.06\text{dB}$									
RBW	-5dB~5dB, (18GHz~26.5GHz)		$U=0.10\text{dB}$									
		3Hz~10MHz	$U_{\text{rel}}=2\%$									

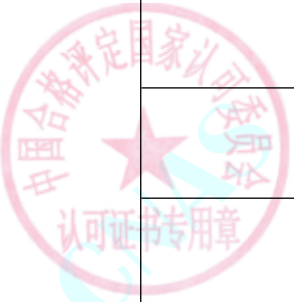


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
7	*Signal Generator	Frequency	Calibration Specification of Signal Generator JJF 1931	5kHz~1MHz	$U_{rel}=1.2 \times 10^{-8}$		
				1MHz~200MHz	$U_{rel}=1.2 \times 10^{-9}$		
				200MHz~26.5GHz	$U_{rel}=8 \times 10^{-10}$		
		Power		-110dBm~20dBm, (100kHz~18GHz)	$U=0.26dB+0.017dB/10dB$		
				-110dBm~20dBm, (18GHz~26.5GHz)	$U=0.39dB+0.017dB/10dB$		
		AM		5%~99%, (CF:0.1MHz~10MHz; Mod Rate: 50Hz~10kHz)	$U_{rel}=0.9%$		
				5%~20%, (CF: 10MHz~3GHz; Mod Rate: 50Hz~100kHz)	$U_{rel}=2.9%$		
				20%~99%, (CF: 10MHz~3GHz; Mod Rate: 50Hz~100kHz)	$U_{rel}=0.6%$		
				5%~20%, (CF: 3GHz~26.5GHz; Mod Rate: 50Hz~100kHz)	$U_{rel}=5.2%$		
				20%~99%, (CF: 3GHz~26.5GHz; Mod Rate: 50Hz~100kHz)	$U_{rel}=1.7%$		
FM	1kHz~400kHz, (CF:10MHz~6.6GHz; Mod Rate: 1kHz~200kHz)	$U_{rel}=1.2%$					

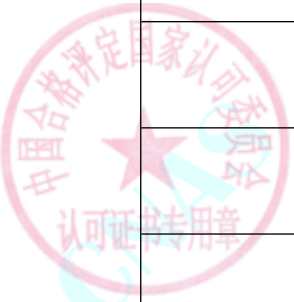


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		PM	Verification Regulation for Network Analyzer JJG(JG) 232	1kHz~400kHz, (CF:6.6GHz~ 26.5GHz;Mod Rate: 1kHz~200kHz)	$U_{rel}=2.9\%$		
				1rad~400rad, (CF:10MHz~ 6.6GHz;Mod Rate: 200Hz~10kHz)	$U_{rel}=1.6\%$		
				2rad~400rad, (CF:6.6GHz~ 13.2GHz;Mod Rate: 200Hz~10kHz)	$U_{rel}=1.6\%$		
				4rad~400rad, (CF:13.2GHz~ 26.5GHz;Mod Rate: 200Hz~10kHz)	$U_{rel}=1.6\%$		
		Harmonic		(-20~-90)dBc, (0.1MHz~26.5GHz)	$U=1.3dB$		
8	*Network Analyzer	SWR	Verification Regulation for Network Analyzer JJG(JG) 232	1.0~2.0, (Coaxial N type, 50MHz~18GHz)	$U_{rel}=5\%$		
				1.0~2.0, (Coaxial 3.5mm, 50MHz~26.5GHz)	$U_{rel}=5\%$		
		Attenuator		0dB~50dB, (Coaxial N type, 50MHz~18GHz)	$U=0.40dB$		
				0dB~40dB, (Coaxial 3.5mm, 50MHz~26.5GHz)	$U=0.40dB$		



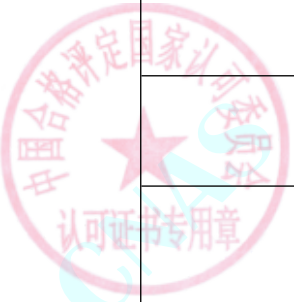
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Phase Shift		-180° ~ 180° , (Coaxial N type, 50MHz~18GHz)	$U=1.0^\circ$		
				-180° ~ 180° , (Coaxial 3.5mm, 50MHz~26.5GHz)	$U=1.0^\circ$		
9	*RF & Microwave Power Sensors	Calibration Factor	Calibration Specification for RF & Microwave Power Sensors JJF 1887	50%~120%, (1mW~10mW, Coaxial N type, 10MHz~50MHz)	$U_{rel}=2.0\%$		
				50%~120%, (1mW~10mW, Coaxial N type, 50MHz~11GHz)	$U_{rel}=1.5\%$		
				50%~120%, (1mW~10mW, Coaxial N type, 11GHz~16GHz)	$U_{rel}=2.2\%$		
				50%~120%, (1mW~10mW, Coaxial N type, 16GHz~18GHz)	$U_{rel}=2.5\%$		
				50%~120%, (1mW~10mW, Coaxial 3.5mm, 10MHz~6GHz)	$U_{rel}=2.0\%$		
				50%~120%, (1mW~10mW, Coaxial 3.5mm, 6GHz~11GHz)	$U_{rel}=2.1\%$		
				50%~120%, (1mW~10mW, Coaxial 3.5mm, 11GHz~18GHz)	$U_{rel}=3.0\%$		

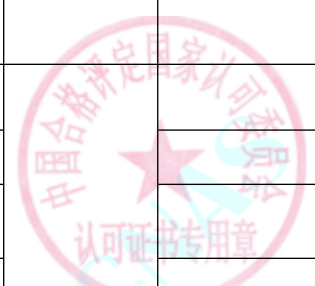


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				50%~120%, (1mW~10mW, Coaxial 3.5mm, 18GHz~26.5GHz)	$U_{rel}=3.6\%$		
		SWR		1.0~2.0, (50MHz~26.5GHz)	$U_{rel}=5\%$		
2 Time and Frequency							
1	*Universal Counter	Reference Frequency	Verification Regulation of Universal Counters JJG 349	5MHz, 10MHz	$U_{rel}=4.6 \times 10^{-10}$		
		Frequency		10Hz~1GHz	$U_{rel}=5 \times 10^{-10}$		
		Period		1ns~100s	$U_{rel}=5 \times 10^{-10}$		
		Time Interval		10ns~1μs	$U=0.2ns$		
				1μs~100μs	$U_{rel}=2 \times 10^{-6}$		
				100μs~100s	$U_{rel}=2 \times 10^{-7}$		
		Sensitivity		(10~100)mV, (10Hz~1MHz)	$U=1mV$		
				-40dBm~10dBm, (1MHz~1GHz)	$U=1dB$		
2	*Microwave Counter	Reference Frequency	Verification Regulation of Microwave Frequency Counters JJG 841	5MHz, 10MHz	$U_{rel}=4.6 \times 10^{-10}$		
		Frequency		100kHz~26.5GHz	$U_{rel}=5 \times 10^{-10}$		
		Sensitivity		(10~100)mV, (100kHz~1MHz)	$U=1mV$		
				-40dBm~10dBm, (1MHz~26.5GHz)	$U=1dB$		

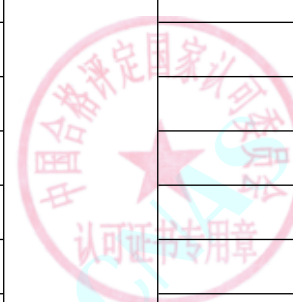


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
3 Electric Equipment							
1	*Digital Multi-Meter	DC Voltage	Calibration Specification for Multimeters JJF 1587	(10~200)mV	$2.4 \times 10^{-6}U_x + 0.071 \mu V$		
				(0.2~2)V	$2.2 \times 10^{-6}U_x + 0.04 \mu V$		
				(2~20)V	$2.1 \times 10^{-6}U_x + 1.0 \mu V$		
				(20~200)V	$2.3 \times 10^{-6}U_x + 4 \mu V$		
				(200~1000)V	$2.4 \times 10^{-6}U_x + 43 \mu V$		
		DC Current		(10~200) μA	$U = 0.58 \times 10^{-5}I_x + 0.02 nA$		
				(0.2~2)mA	$U = 0.66 \times 10^{-5}I_x + 1.2 nA$		
				(2~20)mA	$U = 0.66 \times 10^{-5}I_x + 12 nA$		
				(20~200)mA	$U = 0.88 \times 10^{-5}I_x + 0.13 \mu A$		
				(0.22~2)A	$U = 2.1 \times 10^{-5}I_x + 0.3 \mu A$		
				(2~10)A	$U = 2.7 \times 10^{-5}I_x + 2 \mu A$		
		DC Resistance		(10~20)A	$U = 2.7 \times 10^{-5}I_x + 5 \mu A$		
				1 Ω	$U = 6.5 \mu \Omega$		
				10 Ω	$U = 81 \mu \Omega$		
				100 Ω	$U = 0.61 m\Omega$		
				1k Ω	$U = 6.1 m\Omega$		
				10k Ω	$U = 41 m\Omega$		
		100k Ω	$U = 0.63 \Omega$				

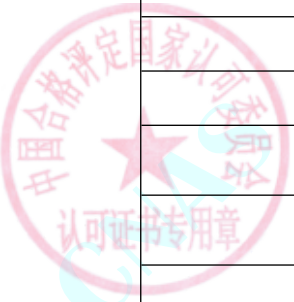


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1MΩ	$U=8.9\Omega$		
				10MΩ	$U=0.10k\Omega$		
				100MΩ	$U=2.7k\Omega$		
				1000MΩ	$U=0.19M\Omega$		
		AC Voltage		10mV~200mV,(10Hz~20Hz)	$2.4 \times 10^{-4}U_x + 2.6\mu V$		
				10mV~200mV,(20Hz~40Hz)	$1.0 \times 10^{-4}U_x + 2.1\mu V$		
				10mV~200mV,(40Hz~20kHz)	$0.47 \times 10^{-4}U_x + 2.2\mu V$		
				10mV~200mV,(20kHz~50kHz)	$0.82 \times 10^{-4}U_x + 2.4\mu V$		
				10mV~200mV,(50kHz~100kHz)	$1.8 \times 10^{-4}U_x + 3.4\mu V$		
				10mV~200mV,(100kHz~300kHz)	$2.9 \times 10^{-4}U_x + 5.1\mu V$		
				0.2V~2V,(10Hz~20Hz)	$2.5 \times 10^{-4}U_x + 0.25\mu V$		
				0.2V~2V,(20Hz~40Hz)	$0.81 \times 10^{-4}U_x + 1.9\mu V$		
				0.2V~2V,(40Hz~20kHz)	$0.29 \times 10^{-4}U_x + 1.6\mu V$		
				0.2V~2V,(20kHz~50kHz)	$0.52 \times 10^{-4}U_x + 1.4\mu V$		
				0.2V~2V,(50kHz~100kHz)	$0.84 \times 10^{-4}U_x + 0.88\mu V$		

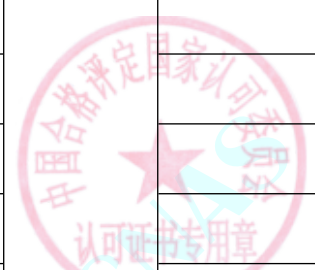


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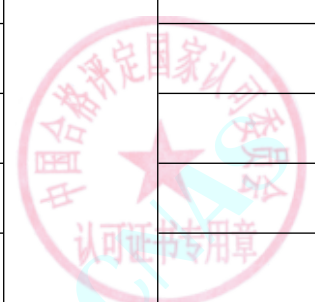
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				0.2V~2V,(100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 0.11 \mu V$		
				0.2V~2V,(300kHz~500kHz)	$3.1 \times 10^{-4} U_x + 2.2 \mu V$		
				0.2V~2V,(500kHz~1MHz)	$1.1 \times 10^{-3} U_x + 3.0 \mu V$		
				2V~20V,(10Hz~20Hz)	$2.4 \times 10^{-4} U_x + 0.52 mV$		
				2V~20V,(20Hz~40Hz)	$0.80 \times 10^{-4} U_x + 15 \mu V$		
				2V~20V,(40Hz~20kHz)	$0.34 \times 10^{-4} U_x + 0.13 \mu V$		
				2V~20V,(20kHz~50kHz)	$0.57 \times 10^{-4} U_x + 0.67 \mu V$		
				2V~20V,(50kHz~100kHz)	$0.96 \times 10^{-4} U_x + 2.8 \mu V$		
				2V~20V,(100kHz~300kHz)	$2.2 \times 10^{-4} U_x + 0.64 \mu V$		
				2V~20V,(300kHz~500kHz)	$4.7 \times 10^{-4} U_x + 10 \mu V$		
				2V~20V,(500kHz~1MHz)	$1.5 \times 10^{-3} U_x + 30 \mu V$		
				20V~200V,(10Hz~20Hz)	$2.6 \times 10^{-4} U_x + 2.4 mV$		
				20V~200V,(20Hz~40Hz)	$0.81 \times 10^{-4} U_x + 1.7 \mu V$		
				20V~200V,(40Hz~20kHz)	$0.39 \times 10^{-4} U_x + 41 \mu V$		
				20V~200V,(20kHz~50kHz)	$0.81 \times 10^{-4} U_x + 1.7 \mu V$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				20V~200V,(50kHz~100kHz)	$1.2 \times 10^{-4} U_x + 31 \mu V$		
				20V~200V,(100kHz~300kHz)	$2.5 \times 10^{-4} U_x + 63 \mu V$		
				200V~1000V,(40Hz~1kHz)	$1.2 \times 10^{-4} U_x + 0.36 mV$		
				200V~1000V,(1kHz~10kHz)	$0.50 \times 10^{-4} U_x + 0.21 mV$		
				200V~1000V,(20kHz~30kHz)	$1.6 \times 10^{-4} U_x + 0.46 mV$		
				200V~700V,(20kHz~50kHz)	$5.8 \times 10^{-4} U_x + 1.5 mV$		
				200V~700V,(50kHz~100kHz)	$5.8 \times 10^{-4} U_x + 6.7 mV$		
				AC Current		(20~200) μA , (10Hz~40Hz)	$U = 4.6 \times 10^{-4} I_x + 2.9 nA$
		(20~200) μA , (40Hz~10kHz)	$U = 0.84 \times 10^{-4} I_x + 3.9 nA$				
		(0.2~2)mA, (10Hz~40Hz)	$U = 5.1 \times 10^{-4} I_x + 1.6 nA$				
		(0.2~2)mA, (40Hz~10kHz)	$U = 0.80 \times 10^{-4} I_x + 42 nA$				
		(2~20)mA, (10Hz~40Hz)	$U = 4.0 \times 10^{-4} I_x + 0.45 \mu A$				
		(2~20)mA, (40Hz~10kHz)	$U = 0.80 \times 10^{-4} I_x + 0.35 \mu A$				
		(20~200)mA, (10Hz~40Hz)	$U = 3.5 \times 10^{-4} I_x + 6.1 \mu A$				

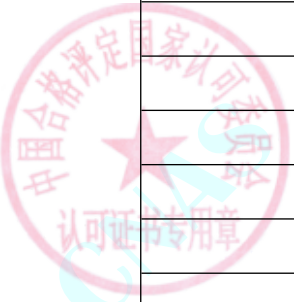


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
2	*Multi-Calibrator			(20~200)mA,(40Hz~10kHz)	$U=0.80 \times 10^{-4} I_x + 3.5 \mu A$		
				(0.2~2)A,(20Hz~40Hz)	$U=1.4 \times 10^{-4} I_x + 11 \mu A$		
				(0.2~2)A,(40Hz~10kHz)	$U=0.80 \times 10^{-4} I_x + 32 \mu A$		
				(2~20)A,(20Hz~40Hz)	$U=0.41 \times 10^{-4} I_x + 0.58 mA$		
				(2~20)A,(40Hz~10kHz)	$U=0.85 \times 10^{-4} I_x + 56 \mu A$		
		DC Voltage	Calibration Specification for Multifunction standard sources JJF 1638, Verification	(10~200)mV	$2.6 \times 10^{-6} U_x + 0.15 \mu V$		
				(0.2~2)V	$2.5 \times 10^{-6} U_x + 0.033 \mu V$		
				(2~20)V	$2.0 \times 10^{-6} U_x$		
				(20~200)V	$2.0 \times 10^{-6} U_x + 11 \mu V$		
				(200~1000)V	$2.6 \times 10^{-6} U_x + 21 \mu V$		
		DC Current	Regulation of Standard Capacitors JJG 183, Verification Regulation for Standard AC Power Source JJG(JG) 6, Calibration Specification of Arbitrary Waveform Generator JJF 1152	(10~200) μA	$U=0.56 \times 10^{-5} I_x + 0.014 nA$		
				(0.2~2)mA	$U=0.64 \times 10^{-5} I_x + 1.3 nA$		
				(2~20)mA	$U=0.64 \times 10^{-5} I_x + 13 nA$		
				(20~200)mA	$U=0.89 \times 10^{-5} I_x + 0.14 \mu A$		
				(0.2~1)A	$U=2.2 \times 10^{-5} I_x$		
				(1~2)A	$U=2.2 \times 10^{-5} I_x + 0.37 \mu A$		
				(2~5)A	$U=2.2 \times 10^{-5} I_x + 2.9 \mu A$		
				(5~10)A	$U=2.7 \times 10^{-5} I_x + 0.11 \mu A$		

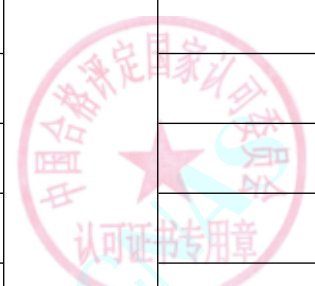


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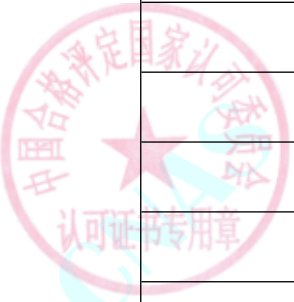
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Current Resistance	ilac-MRA	(10~20)A	$U=2.7 \times 10^{-5} I_x + 4.9 \mu A$		
				1Ω	$U=6.4 \mu \Omega$		
				10Ω	$U=83 \mu \Omega$		
				100Ω	$U=0.61 m\Omega$		
				1kΩ	$U=6.3 m\Omega$		
				10kΩ	$U=41 m\Omega$		
				100kΩ	$U=0.63 \Omega$		
				1MΩ	$U=8.6 \Omega$		
				10MΩ	$U=0.10 k\Omega$		
				100MΩ	$U=1.5 k\Omega$		
				1000MΩ	$U=0.17 M\Omega$		
		AC Voltage	CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	(10~22)mV,(10Hz~20Hz)	$3.2 \times 10^{-4} U_x + 1.3 \mu V$		
				(10~22)mV,(20Hz~40Hz)	$2.1 \times 10^{-4} U_x + 1.3 \mu V$		
				(10~22)mV,(40Hz~20kHz)	$1.3 \times 10^{-4} U_x + 1.1 \mu V$		
				(10~22)mV,(20kHz~50kHz)	$2.2 \times 10^{-4} U_x + 2.0 \mu V$		
				(10~22)mV,(50kHz~100kHz)	$3.2 \times 10^{-4} U_x + 2.6 \mu V$		
				(10~22)mV,(100kHz~300kHz)	$0.9 \times 10^{-3} U_x + 3.0 \mu V$		



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				(10~22)mV,(300kHz~500kHz)	$1.0 \times 10^{-3} U_x + 7.2 \mu V$		
				(10~22)mV,(500kHz~1MHz)	$1.7 \times 10^{-3} U_x + 10 \mu V$		
				(22~70)mV,(10Hz~20Hz)	$3.0 \times 10^{-4} U_x + 1.0 \mu V$		
				(22~70)mV,(20Hz~40Hz)	$1.4 \times 10^{-4} U_x + 1.2 \mu V$		
				(22~70)mV,(40Hz~20kHz)	$0.72 \times 10^{-4} U_x + 1.5 \mu V$		
				(22~70)mV,(20kHz~50kHz)	$1.3 \times 10^{-4} U_x + 2.0 \mu V$		
				(22~70)mV,(50kHz~100kHz)	$2.6 \times 10^{-4} U_x + 2.5 \mu V$		
				(22~70)mV,(100kHz~300kHz)	$5.2 \times 10^{-4} U_x + 4.6 \mu V$		
				(22~70)mV,(300kHz~500kHz)	$7.2 \times 10^{-4} U_x + 7.6 \mu V$		
				(22~70)mV,(500kHz~1MHz)	$1.1 \times 10^{-3} U_x + 9.2 \mu V$		
				(70~220)mV,(10Hz~20Hz)	$2.1 \times 10^{-4} U_x + 1.3 \mu V$		
				(70~220)mV,(20Hz~40Hz)	$0.94 \times 10^{-4} U_x + 1.4 \mu V$		
				(70~220)mV,(40Hz~20kHz)	$0.43 \times 10^{-4} U_x + 1.3 \mu V$		
				(70~220)mV,(20kHz~50kHz)	$0.67 \times 10^{-4} U_x + 2.7 \mu V$		
				(70~220)mV,(50kHz~100kHz)	$1.7 \times 10^{-4} U_x + 1.7 \mu V$		



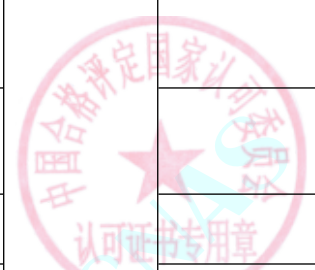
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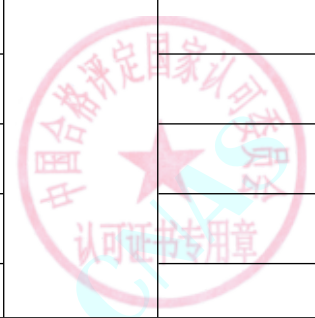
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(70~220)mV,(100kHz~300kHz)	$2.6 \times 10^{-4} U_x + 4.3 \mu V$		
				(70~220)mV,(300kHz~500kHz)	$4.3 \times 10^{-4} U_x + 5.0 \mu V$		
				(70~220)mV,(500kHz~1MHz)	$0.92 \times 10^{-3} U_x + 27 \mu V$		
				(220~700)mV,(10Hz~20Hz)	$2.4 \times 10^{-4} U_x + 0.1 \mu V$		
				(220~700)mV,(20Hz~40Hz)	$0.89 \times 10^{-4} U_x + 0.88 \mu V$		
				(220~700)mV,(40Hz~20kHz)	$0.35 \times 10^{-4} U_x + 2.5 \mu V$		
				(220~700)mV,(20kHz~50kHz)	$0.55 \times 10^{-4} U_x + 1.5 \mu V$		
				(220~700)mV,(50kHz~100kHz)	$0.83 \times 10^{-4} U_x + 2.3 \mu V$		
				(220~700)mV,(100kHz~300kHz)	$1.8 \times 10^{-4} U_x + 5.8 \mu V$		
				(220~700)mV,(300kHz~500kHz)	$3.2 \times 10^{-4} U_x + 6.8 \mu V$		
				(220~700)mV,(500kHz~1MHz)	$0.90 \times 10^{-3} U_x + 60 \mu V$		
				(0.7~2.2)V,(10Hz~20Hz)	$2.2 \times 10^{-4} U_x + 0.33 \mu V$		
				(0.7~2.2)V,(20Hz~40Hz)	$0.72 \times 10^{-4} U_x + 0.50 \mu V$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(0.7~2.2)V,(40Hz~20kHz)	$0.26 \times 10^{-4} U_x + 0.27 \mu V$		
				(0.7~2.2)V,(20kHz~50kHz)	$0.47 \times 10^{-4} U_x + 0.67 \mu V$		
				(0.7~2.2)V,(50kHz~100kHz)	$0.74 \times 10^{-4} U_x + 0.10 mV$		
				(0.7~2.2)V,(100kHz~300kHz)	$1.6 \times 10^{-4} U_x$		
				(0.7~2.2)V,(300kHz~500kHz)	$2.7 \times 10^{-4} U_x + 3.3 \mu V$		
				(0.7~2.2)V,(500kHz~1MHz)	$0.85 \times 10^{-3} U_x + 0.13 mV$		
				(2.2~7)V,(10Hz~20Hz)	$2.2 \times 10^{-4} U_x + 48 \mu V$		
				(2.2~7)V,(20Hz~40Hz)	$0.70 \times 10^{-4} U_x + 10 \mu V$		
				(2.2~7)V,(40Hz~20kHz)	$0.25 \times 10^{-4} U_x + 3.3 \mu V$		
				(2.2~7)V,(20kHz~50kHz)	$0.48 \times 10^{-4} U_x + 7.5 \mu V$		
				(2.2~7)V,(50kHz~100kHz)	$0.85 \times 10^{-4} U_x + 0.75 \mu V$		
				(2.2~7)V,(100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 30 \mu V$		
				(2.2~7)V,(300kHz~500kHz)	$4.1 \times 10^{-4} U_x + 5.5 \mu V$		
				(2.2~7)V,(500kHz~1MHz)	$1.1 \times 10^{-3} U_x + 61 \mu V$		
				(7~22)V,(10Hz~20Hz)	$2.3 \times 10^{-4} U_x$		

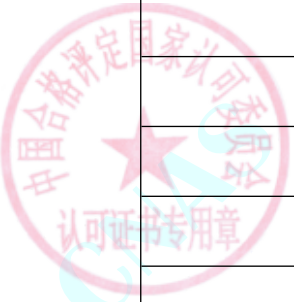


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(7~22)V,(20Hz~40Hz)	$0.70 \times 10^{-4} U_x + 1.7 \mu V$		
				(7~22)V,(40Hz~20kHz)	$0.30 \times 10^{-4} U_x + 5.3 \mu V$		
				(7~22)V,(20kHz~50kHz)	$0.50 \times 10^{-4} U_x + 1.2 \mu V$		
				(7~22)V,(50kHz~100kHz)	$0.84 \times 10^{-4} U_x + 0.33 \mu V$		
				(7~22)V,(100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 3.3 \mu V$		
				(7~22)V,(300kHz~500kHz)	$4.1 \times 10^{-4} U_x + 33 \mu V$		
				(7~22)V,(500kHz~1MHz)	$1.1 \times 10^{-3} U_x + 1.6 mV$		
				(22~70)V,(10Hz~20Hz)	$2.3 \times 10^{-4} U_x + 0.25 mV$		
				(22~70)V,(20Hz~40Hz)	$0.68 \times 10^{-4} U_x + 0.28 mV$		
				(22~70)V,(40Hz~20kHz)	$0.34 \times 10^{-4} U_x + 20 \mu V$		
				(22~70)V,(20kHz~50kHz)	$0.57 \times 10^{-4} U_x + 0.11 mV$		
				(22~70)V,(50kHz~100kHz)	$0.95 \times 10^{-4} U_x + 0.15 mV$		
				(22~70)V,(100kHz~300kHz)	$2.0 \times 10^{-4} U_x + 0.18 mV$		
				(70~220)V,(10Hz~20Hz)	$2.2 \times 10^{-4} U_x + 0.071 mV$		
				(70~220)V,(20Hz~40Hz)	$0.75 \times 10^{-4} U_x + 3.7 \mu V$		



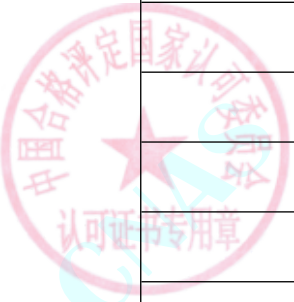
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(70~220)V,(40Hz~20kHz)	$0.34 \times 10^{-4} U_x + 67 \mu V$		
				(70~220)V,(20kHz~50kHz)	$0.69 \times 10^{-4} U_x + 0.17 mV$		
				(70~220)V,(50kHz~100kHz)	$0.98 \times 10^{-4} U_x + 0.33 mV$		
				(70~220)V,(100kHz~300kHz)	$1.9 \times 10^{-4} U_x + 4.7 mV$		
				(200~700)V,(40Hz~1kHz)	$1.0 \times 10^{-4} U_x + 0.18 mV$		
				(200~700)V,(1kHz~10kHz)	$0.46 \times 10^{-4} U_x + 0.19 mV$		
				(200~700)V,(10kHz~50kHz)	$1.3 \times 10^{-4} U_x + 1.0 mV$		
				(200~700)V,(50kHz~100kHz)	$5.0 \times 10^{-4} U_x$		
				(700~1000)V,(40Hz~1kHz)	$0.95 \times 10^{-4} U_x + 5.0 mV$		
				(700~1000)V,(1kHz~20kHz)	$0.34 \times 10^{-4} U_x + 7.2 mV$		
				(700~1000)V,(20kHz~50kHz)	$1.3 \times 10^{-4} U_x + 5.4 mV$		
		AC Current		20μA~1mA,(10Hz~20Hz)	$U = 3.4 \times 10^{-4} I_x + 5.7 nA$		
				20μA~1mA,(20Hz~40Hz)	$U = 1.2 \times 10^{-4} I_x + 8.0 nA$		
				20μA~1mA,(40Hz~10kHz)	$U = 0.72 \times 10^{-4} I_x + 4.8 nA$		
				(1~10)mA,(10Hz~20Hz)	$U = 3.3 \times 10^{-4} I_x + 0.01 \mu A$		



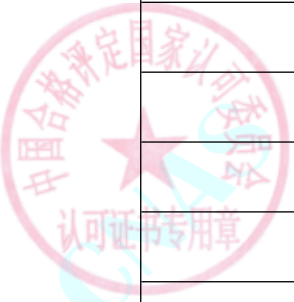
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(1~10)mA,(20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 0.13 \mu A$		
				(1~10)mA,(40Hz~10kHz)	$U=0.43 \times 10^{-4} I_x + 0.01 \mu A$		
				(10~20)mA,(10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 0.42 \mu A$		
				(10~20)mA,(20Hz~40Hz)	$U=0.95 \times 10^{-4} I_x + 0.43 \mu A$		
				(10~20)mA,(40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 0.38 \mu A$		
				(20~50)mA,(10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 0.05 \mu A$		
				(20~50)mA,(20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 0.81 \mu A$		
				(20~50)mA,(40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 0.66 \mu A$		
				(50~100)mA,(10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 2.0 \mu A$		
				(50~100)mA,(20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 1.7 \mu A$		
				(50~100)mA,(40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 1.7 \mu A$		
				(100~200)mA,(10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 4.3 \mu A$		
				(100~200)mA,(20Hz~40Hz)	$U=0.96 \times 10^{-4} I_x + 4.2 \mu A$		
				(100~200)mA,(40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 3.4 \mu A$		
				(200~500)mA,(10Hz~20Hz)	$U=3.3 \times 10^{-4} I_x + 7.1 \mu A$		

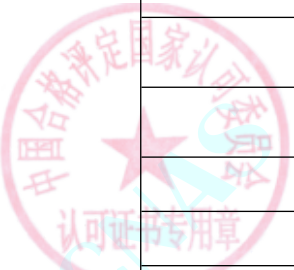


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(200~500)mA,(20Hz~40Hz)	$U=1.0 \times 10^{-4} I_x + 7.8 \mu A$		
				(200~500)mA,(40Hz~10kHz)	$U=0.41 \times 10^{-4} I_x + 6.6 \mu A$		
				(0.5~1)A,(10Hz~20Hz)	$U=2.9 \times 10^{-4} I_x + 22 \mu A$		
				(0.5~1)A,(20Hz~40Hz)	$U=0.91 \times 10^{-4} I_x + 20 \mu A$		
				(0.5~1)A,(40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 17 \mu A$		
				(1~2)A,(10Hz~20Hz)	$U=3.2 \times 10^{-4} I_x + 42 \mu A$		
				(1~2)A,(20Hz~40Hz)	$U=0.95 \times 10^{-4} I_x + 43 \mu A$		
				(1~2)A,(40Hz~10kHz)	$U=0.40 \times 10^{-4} I_x + 34 \mu A$		
				(2~5)A,(40Hz~1kHz)	$U=0.1 \times 10^{-4} I_x + 0.23 mA$		
				(2~5)A,(1kHz~10kHz)	$U=0.35 \times 10^{-4} I_x + 0.11 mA$		
				(5~10)A,(40Hz~1kHz)	$U=0.1 \times 10^{-4} I_x + 0.46 mA$		
				(5~10)A,(1kHz~10kHz)	$U=0.46 \times 10^{-4} I_x + 0.16 mA$		
				(10~20)A,(40Hz~1kHz)	$U=0.19 \times 10^{-4} I_x + 0.89 mA$		
				(10~20)A,(1kHz~10kHz)	$U=0.57 \times 10^{-4} I_x + 0.33 mA$		
		Capacitance		1nF~10nF,(100Hz)	$U_{rel}=0.33\%$		
				10nF~100μF,(100Hz)	$U_{rel}=0.13\%$		
				100μF~1mF,(100Hz)	$U_{rel}=0.40\%$		

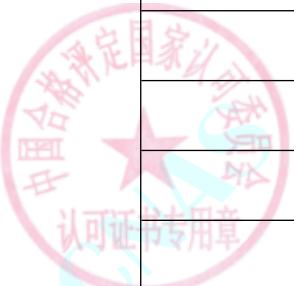


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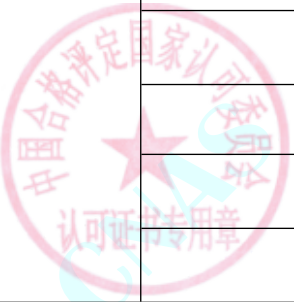
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Frequency	Verification regulation for Precise AC Voltage Calibration Source JJG 410	100pF~300pF,(1kHz)	$U_{rel}=0.33\%$		
				300pF~1μF,(1kHz)	$U_{rel}=0.13\%$		
				1nF~100nF,(10kHz)	$U_{rel}=0.13\%$		
				10Hz~120Hz	$U_{rel}=3.5 \times 10^{-7}$		
				120Hz~2MHz	$U_{rel}=2.5 \times 10^{-8}$		
				(-180~180)°, (5Hz~2kHz)	$U=0.026^\circ$		
		Phase		(-180~180)°, (2kHz~5kHz)	$U=0.11^\circ$		
				(-180~180)°, (5kHz~10kHz)	$U=0.18^\circ$		
				(-180~180)°, (10kHz~50kHz)	$U=0.20^\circ$		
3	*AC Standard Voltage Standard Source	AC Voltage	Verification regulation for Precise AC Voltage Calibration Source JJG 410	1mV~2.2mV,(10Hz~500kHz)	$U_{rel}=0.75\%$		
				1mV~2.2mV, (500kHz~2MHz)	$U_{rel}=0.92\%$		
				1mV~2.2mV,(2MHz~10MHz)	$U_{rel}=1.0\%$		
				1mV~2.2mV,(10MHz~20MHz)	$U_{rel}=1.2\%$		
				1mV~2.2mV,(20MHz~30MHz)	$U_{rel}=1.6\%$		
				2.2mV~7mV,(10Hz~500kHz)	$U_{rel}=0.64\%$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				2.2mV~7mV, (500kHz~2MHz)	$U_{rel}=0.73\%$		
				2.2mV~7mV,(2MHz~10MHz)	$U_{rel}=0.76\%$		
				2.2mV~7mV,(10MHz~20MHz)	$U_{rel}=0.83\%$		
				2.2mV~7mV,(20MHz~30MHz)	$U_{rel}=1.0\%$		
				7mV~22mV,(10Hz~500kHz)	$U_{rel}=0.63\%$		
				7mV~22mV, (500kHz~2MHz)	$U_{rel}=0.70\%$		
				7mV~22mV,(2MHz~10MHz)	$U_{rel}=0.73\%$		
				7mV~22mV,(10MHz~20MHz)	$U_{rel}=0.80\%$		
				7mV~22mV,(20MHz~30MHz)	$U_{rel}=1.0\%$		
				22mV~70mV,(10Hz~500kHz)	$U_{rel}=0.56\%$		
				22mV~70mV, (500kHz~2MHz)	$U_{rel}=0.61\%$		
				22mV~70mV,(2MHz~10MHz)	$U_{rel}=0.66\%$		
				22mV~70mV,(10MHz~20MHz)	$U_{rel}=0.71\%$		
				22mV~70mV,(20MHz~30MHz)	$U_{rel}=0.91\%$		

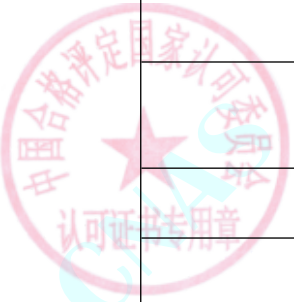


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				70mV~220mV,(10Hz~500kHz)	$U_{rel}=0.48\%$		
				70mV~220mV, (500kHz~2MHz)	$U_{rel}=0.53\%$		
				70mV~ 220mV,(2MHz~10MHz)	$U_{rel}=0.58\%$		
				70mV~ 220mV,(10MHz~20MHz)	$U_{rel}=0.63\%$		
				70mV~ 220mV,(20MHz~30MHz)	$U_{rel}=0.83\%$		
				220mV~ 700mV,(10Hz~500kHz)	$U_{rel}=0.46\%$		
				220mV~700mV, (500kHz~2MHz)	$U_{rel}=0.51\%$		
				220mV~ 700mV,(2MHz~10MHz)	$U_{rel}=0.56\%$		
				220mV~ 700mV,(10MHz~20MHz)	$U_{rel}=0.61\%$		
				220mV~ 700mV,(20MHz~30MHz)	$U_{rel}=0.81\%$		
				0.7V~2.2V,(10Hz~500kHz)	$U_{rel}=0.39\%$		
				0.7V~2.2V, (500kHz~2MHz)	$U_{rel}=0.44\%$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.7V~2.2V,(2MHz~10MHz)	$U_{rel}=0.49\%$		
				0.7V~2.2V,(10MHz~20MHz)	$U_{rel}=0.54\%$		
				0.7V~2.2V,(20MHz~30MHz)	$U_{rel}=0.74\%$		
				2.2V~7V,(10Hz~500kHz)	$U_{rel}=0.38\%$		
				2.2V~7V, (500kHz~2MHz)	$U_{rel}=0.43\%$		
				2.2V~7V,(2MHz~10MHz)	$U_{rel}=0.48\%$		
				2.2V~7V,(10MHz~20MHz)	$U_{rel}=0.53\%$		
				2.2V~7V,(20MHz~30MHz)	$U_{rel}=0.73\%$		
4	*Power Quality Analyzer	AC Voltage	Verification code for Power quality analyzer DL/T 1028	10V~20V, (50Hz~800Hz)	$U_{rel}=0.06\%$	Accredited only for Single-phase Power Quality Analyzer	
				20V~45V, (50Hz~800Hz)	$U_{rel}=0.02\%$		
				45V~1000V, (50Hz~800Hz)	$U_{rel}=0.01\%$		
		Harmonic Voltage		1V~220V, (Fundamental frequency: 50Hz, Harmonic: 2times~60times)	$U_{rel}=0.06\%$		

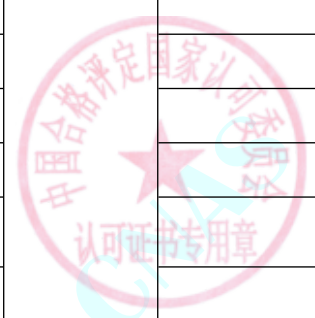


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Harmonic Current		0.1A~5A, (Fundamental frequency: 50Hz, Harmonic: 2times~60times)	$U_{rel}=0.06\%$		
		Frequency		50Hz~800Hz	$U_{rel}=0.01\%$		
5	*DC Digital Nanovoltmeter	DC Voltage	Verification Regulation for DC Nanovoltmeter GJB/J 2656	100μV~1mV	$3.0 \times 10^{-5}U_x + 1.5nV$		
				1mV~10mV	$3.1 \times 10^{-5}U_x + 1.2nV$		
				10mV~100mV	$0.87 \times 10^{-5}U_x + 0.45\mu V$		
				100mV~1V	$0.46 \times 10^{-5}U_x + 1.8\mu V$		
6	*DC Power Supply	DC Voltage	Calibration Specification for DC Stabilized Power Supplies JJF1597	(0.1~10)V	$U=0.87mV$		
				(10~100)V	$3 \times 10^{-6}U_x + 8.7mV$		
				(100~1000)V	$3 \times 10^{-6}U_x + 87mV$		
		DC Current		(0.1~1)A	$U=2.3 \times 10^{-4}I_x + 0.089mA$		
				(1~10)A	$U=2.0 \times 10^{-4}I_x + 0.69mA$		
				(10~100)A	$U=8.0 \times 10^{-4}I_x + 4.0mA$		
		Load Regulation Ratio		(0.1~10)V(CV Model)	$U=0.87mV$		
				(10~100)V(CV Model)	$3 \times 10^{-6}U_x + 8.7mV$		
				(100~1000)V(CV Model)	$3 \times 10^{-6}U_x + 87mV$		
			(0.1~1)A(CC Model)	$U=2.3 \times 10^{-4}I_x + 0.089mA$			

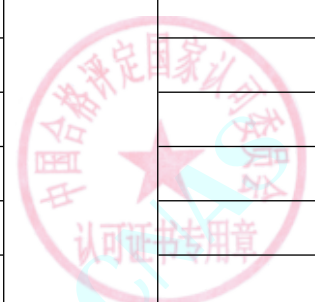


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Line Regulation Ratio		(1~10)A(CC Model)	$U=2.0 \times 10^{-4}I_x+0.69\text{mA}$		
				(10~100)A(CC Model)	$U=8.0 \times 10^{-4}I_x+4.0\text{mA}$		
				(0.1~10)V(CV Model)	$U=0.87\text{mV}$		
				(10~100)V(CV Model)	$3 \times 10^{-6}U_x+8.7\text{mV}$		
				(100~1000)V(CV Model)	$3 \times 10^{-6}U_x+87\text{mV}$		
				(0.1~1)A(CC Model)	$U=2.3 \times 10^{-4}I_x+0.089\text{mA}$		
				(1~10)A(CC Model)	$U=2.0 \times 10^{-4}I_x+0.69\text{mA}$		
				(10~100)A(CC Model)	$U=8.0 \times 10^{-4}I_x+4.0\text{mA}$		
		Ripple Voltage		0.1mV~10mV(RMS)	$U_{\text{rel}}=16\%$		
				10mV~1V(RMS)	$U_{\text{rel}}=10\%$		
7	*Clamp Meter	DC Voltage	Calibration Specification of Clamp Ammeters JJF 1075, Calibration Specification for Multimeters JJF 1587	(1~320)V	$U=0.06\text{V}$		
				(320~1000)V	$U=0.58\text{V}$		
		DC Current		(0.1~3)A	$U=3 \times 10^{-3}I_x+0.06\text{mA}$		
				(3~15)A	$U=3.1 \times 10^{-3}I_x+0.06\text{mA}$		
				(15~50)A	$U=3.2 \times 10^{-3}I_x+0.06\text{A}$		
				(50~150)A	$U=3.3 \times 10^{-3}I_x+0.05\text{A}$		
				(150~500)A	$U=5 \times 10^{-4}I_x+0.05\text{A}$		
				(500~1000)A	$U=3 \times 10^{-3}I_x+0.04\text{A}$		
				DC	(1~100) Ω		



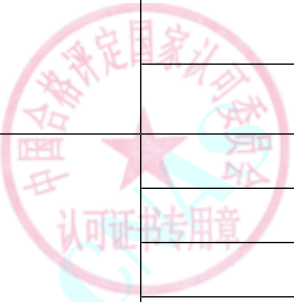
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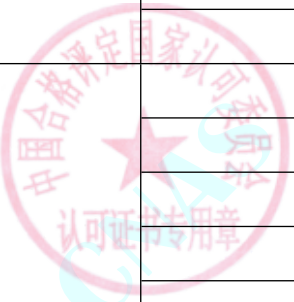
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Resistance	Verification Regulation of DC Shunts JJG1069	(100~1000) Ω	$U=0.6\Omega$		
				(1~100)k Ω	$U=6\Omega\sim 60\Omega$		
		AC Voltage		(1~33)V,(10Hz~1kHz)	$U=0.06V$		
				(33~330)V,(45Hz~1kHz)	$2.4\times 10^{-4}U_x+0.05V$		
				(330~1000)V,(45Hz~1kHz)	$1.3\times 10^{-4}U_x+0.53V$		
		AC Current		(0.1~3)A,(40Hz~1kHz)	$U=6.9\times 10^{-3}I_x+1.2mA$		
				(3~15)A,(40Hz~1kHz)	$U=2.9\times 10^{-3}I_x+2.5mA$		
				(15~50)A,(10Hz~45Hz)	$U=3.0\times 10^{-3}I_x+0.05A$		
				(15~50)A,(45Hz~1kHz)	$U=0.2\times 10^{-3}I_x+0.06A$		
				(50~150)A,(10Hz~45Hz)	$U=3.0\times 10^{-3}I_x+0.02A$		
				(50~150)A,(45Hz~1kHz)	$U=3.1\times 10^{-3}I_x+0.04A$		
				(150~500)A,(45Hz~1kHz)	$U=3.1\times 10^{-3}I_x+0.11A$		
				(500~1000)A,(45Hz~1kHz)	$U=3.2\times 10^{-3}I_x+0.23A$		
		8		*DC Shunt	DC Resistance	Verification Regulation of DC Shunts JJG1069	10k Ω ,(0.1~1)mA
1k Ω ,(1~10)mA	$U_{rel}=3.0\times 10^{-5}$						
100 Ω ,(1~10)mA	$U_{rel}=3.0\times 10^{-5}$						
10 Ω ,(1~10)mA	$U_{rel}=3.0\times 10^{-5}$						



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1 Ω,(0.01~0.1)A	$U_{rel}=3.0 \times 10^{-5}$		
				0.1 Ω,(0.1~1)A	$U_{rel}=3.0 \times 10^{-5}$		
				0.01 Ω,(1~10)A	$U_{rel}=3.5 \times 10^{-5}$		
				0.001 Ω,(10~100)A	$U_{rel}=7.6 \times 10^{-5}$		
9	*Insulation Resistance Meter (Megohmmeter)	Resistance	Verification Regulation of Electronic Insulation Resistance Meters JJG 1005	40kΩ~100kΩ	$U=0.28\%R_x+0.03k\Omega$		
				100kΩ~200kΩ	$U=0.15\%R_x+0.66k\Omega$		
				200kΩ~1MΩ	$U=0.26\%R_x+0.40k\Omega$		
				1MΩ~10MΩ	$U=0.46\%R_x+0.4k\Omega$		
				10MΩ~1GΩ	$U=0.74\%R_x+0.12M\Omega$		
				1GΩ~10GΩ	$U=1.5\%R_x+2.9M\Omega$		
				10GΩ~100GΩ	$U=1.8\%R_x+1.6M\Omega$		
		Voltage		100GΩ~1TΩ	$U=2.9\%R_x+0.29G\Omega$		
				100V~1000V	$0.23\%U_x+0.64V$		
				1000V~10kV	$0.38\%U_x+8.1V$		
10	*DC Resistance Box	Resistance	Verification Regulation of DC Resistance Box JJG 982	(0.1~2)Ω	$U=0.54 \times 10^{-4}R_x+0.28m\Omega$		
				(2~20)Ω	$U=0.22 \times 10^{-4}R_x+0.36m\Omega$		
				(20~200)Ω	$U=0.17 \times 10^{-4}R_x+0.58m\Omega$		
				(0.2~2)kΩ	$U=0.66 \times 10^{-5}R_x+2.5m\Omega$		
				(2~20)kΩ	$U=0.85 \times 10^{-5}R_x+3.4m\Omega$		

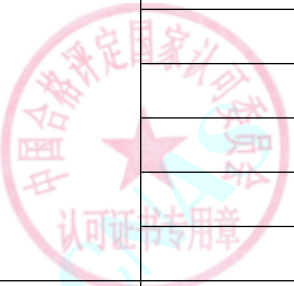


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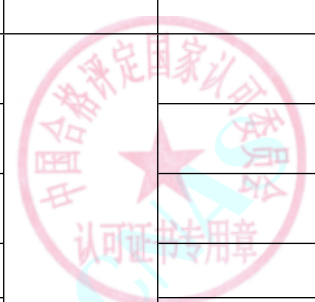
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(20~200)kΩ	$U=0.86 \times 10^{-5} R_x + 45 \text{m}\Omega$		
				(0.2~2)MΩ	$U=1.1 \times 10^{-5} R_x + 0.42 \Omega$		
				(2~10)MΩ	$U=1.6 \times 10^{-5} R_x + 0.1 \text{k}\Omega$		
11	*High Insulation Resistance Meters	Resistance	Verification Regulation of High Insulation Resistance Meters JJG 690	1MΩ~10MΩ	$U_{\text{rel}}=1.2 \times 10^{-4}$		
				10MΩ~1GΩ	$U_{\text{rel}}=2.6 \times 10^{-4}$		
				1GΩ~10GΩ	$U_{\text{rel}}=0.9 \times 10^{-4}$		
				100GΩ	$U_{\text{rel}}=6.0 \times 10^{-4}$		
				1TΩ	$U_{\text{rel}}=6.0 \times 10^{-4}$		
				10TΩ	$U_{\text{rel}}=9.1 \times 10^{-4}$		
		Voltage		100TΩ	$U_{\text{rel}}=2.1 \times 10^{-3}$		
				1V~100V	$U_{\text{rel}}=0.03\%$		
				100V~1000V	$U_{\text{rel}}=0.02\%$		
12	*DC Low Current Meters	DC Current	Verification Regulation for DC Low Current Meters JJG (JG) 200	(0.2~10)μA	$U=2.7 \times 10^{-5} I_x + 16 \text{pA}$		
				(2~200)nA	$U=2.5 \times 10^{-4} I_x + 0.03 \text{pA}$		
				(0.2~2)nA	$U=2.6 \times 10^{-4} I_x + 0.05 \text{pA}$		
				(20~200)pA	$U=2.2 \times 10^{-4} I_x + 0.013 \text{pA}$		
				(2~20)pA	$U=2.6 \times 10^{-4} I_x + 0.003 \text{pA}$		
				1pA	$U_{\text{rel}}=2.4 \times 10^{-3}$		
13	*DC Low Current Reference Source	DC Current	Verification Regulation for DC Low Current Reference	0.2μA~1μA	$U=1.0 \times 10^{-5} I_x + 75 \text{pA}$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
			Source GJB 2213	20nA~200nA	$U=4.0 \times 10^{-4} I_x + 2.7 \text{pA}$		
				2nA~20nA	$U=4.0 \times 10^{-4} I_x + 0.33 \text{pA}$		
				0.2nA~2nA	$U=4.0 \times 10^{-4} I_x + 0.01 \text{pA}$		
				20pA~200pA	$U=5.9 \times 10^{-4} I_x + 0.002 \text{pA}$		
				2pA~20pA	$U_{\text{rel}}=1.0 \times 10^{-3}$		
				1pA	$U_{\text{rel}}=2.0 \times 10^{-3}$		
14	*Multiparameter Physiological Simulators	DC Resistance	Calibration specification for Multiparameter Physiological Simulator JJF 1470	10Ω~10kΩ	$U_{\text{rel}}=1.1 \times 10^{-3}$		
		Voltage		(10~100)kΩ	$U_{\text{rel}}=2 \times 10^{-4}$		
		ECG Frequency		0.5mV~1V	$U_{\text{rel}}=2.5\%$		
		Frequency		(30~300)BPM	$U_{\text{rel}}=0.3\%$		
15	*Wrist Strap and Footwear Tester	DC Resistance	Calibration Specification of Wrist Strap and Footwear Tester JJF(DZ)31502	1kΩ~100MΩ	$U_{\text{rel}}=0.1\%$		
				100MΩ~1000MΩ	$U_{\text{rel}}=0.2\%$		
16	*Process Calibrators	DC Voltage	Calibration Specification for Process Calibrators JJF 1472	Measurement: (10~330)mV	$2.1 \times 10^{-5} U_x + 1.1 \mu\text{V}$		
				Measurement: (0.33~33)V	$1.5 \times 10^{-5} U_x + 3.4 \mu\text{V}$		
				Measurement: (33~330)V	$2.0 \times 10^{-5} U_x + 76 \mu\text{V}$		
				Output: (10~100)mV	$1.4 \times 10^{-5} U_x + 0.45 \mu\text{V}$		
				Output: (0.1~10)V	$1.3 \times 10^{-5} U_x + 0.49 \mu\text{V}$		



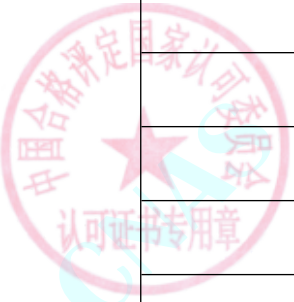
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date	
		DC Current		Output: (10~100)V	$1.5 \times 10^{-5} U_x + 44 \mu V$			
					Measurement: (1~33)mA	$U = 1.0 \times 10^{-4} I_x + 0.18 \mu A$		
					Measurement: (33~330)mA	$U = 1.0 \times 10^{-4} I_x + 2.5 \mu A$		
					Output: (1~10)mA	$U = 1.0 \times 10^{-4} I_x + 0.18 \mu A$		
		DC Resistance		Output: (10~100)mA	$U = 1.0 \times 10^{-4} I_x + 1.8 \mu A$			
					Measurement: (10~100) Ω	$U = 2.7 \times 10^{-5} R_x + 1.6 m\Omega$		
					Measurement: (0.1~1)k Ω	$U = 3.0 \times 10^{-5} R_x + 1.6 m\Omega$		
					Measurement: (1~10)k Ω	$U = 3.0 \times 10^{-5} R_x + 1.2 m\Omega$		
					Output: (10~100) Ω	$U = 1.2 \times 10^{-5} R_x + 0.98 m\Omega$		
					Output: (0.1~1)k Ω	$U = 9.3 \times 10^{-6} R_x + 0.73 m\Omega$		
		AC Voltage		Output: (1~10)k Ω	$U = 4.7 \times 10^{-6} R_x + 62 m\Omega$			
					10mV~330mV, (20Hz~40Hz)	$3.2 \times 10^{-4} U_x + 9.2 \mu V$		
					10mV~330mV, (40Hz~500Hz)	$2.7 \times 10^{-4} U_x + 10 \mu V$		
					10mV~330mV, (500Hz~5kHz)	$1.5 \times 10^{-4} U_x + 7.5 \mu V$		
					10mV~330mV, (5kHz~10kHz)	$1.6 \times 10^{-4} U_x + 6.8 \mu V$		
				0.33V~3.3V, (20Hz~40Hz)	$3.9 \times 10^{-4} U_x + 43 \mu V$			

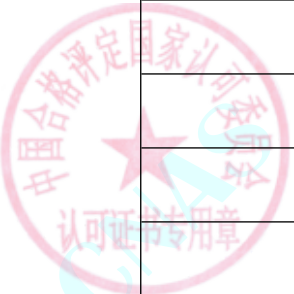


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.33V~3.3V, (40Hz~500Hz)	$3.2 \times 10^{-4} U_x + 41 \mu V$		
				0.33V~3.3V, (500Hz~10kHz)	$1.8 \times 10^{-4} U_x + 56 \mu V$		
				3.3V~33V, (20Hz~40Hz)	$3.9 \times 10^{-4} U_x + 0.30 mV$		
				3.3V~33V, (40Hz~500Hz)	$3.1 \times 10^{-4} U_x + 0.85 mV$		
				3.3V~33V, (500Hz~10kHz)	$2.0 \times 10^{-4} U_x + 0.53 mV$		
				33V~330V, (45Hz~5kHz)	$2.1 \times 10^{-4} U_x + 1.5 mV$		
				33V~330V, (5kHz~10kHz)	$2.2 \times 10^{-4} U_x + 5.4 mV$		
				AC Current	(1~200)mA, (45Hz~10kHz)	$U_{rel} = 1.0 \times 10^{-3}$	
		Frequency	Measure: 10Hz~50kHz	$U_{rel} = 8 \times 10^{-7}$			
			Output: 10Hz~50kHz	$U_{rel} = 1.4 \times 10^{-7}$			
		Temperature	TC Measurement: (-200~200)° C	$U = 0.005^\circ C$			
			TC Measurement: (200~1300)° C	$U = 0.015^\circ C$			
			TC Measurement: (1300~1800)° C	$U = 0.11^\circ C$			
			TC Output: (-200~200)° C	$U = 0.009^\circ C$			



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				TC Output: (200~1300) ° C	$U=0.027^\circ \text{C}$		
				TC Output: (1300~ 1800)° C	$U=0.068^\circ \text{C}$		
				RTD: (-200~200)° C	$U=0.001^\circ \text{C}$		
				RTD: (200~800)° C	$U=0.017^\circ \text{C}$		
17	*Leakage Current Tester	DC Current	Verification Regulation of Leakage Current Tester JJG 843	(10~200) μA	$U=0.06 \mu \text{A}$		
				(0.2~2)mA	$U=0.6 \mu \text{A}$		
				(2~20)mA	$U=0.006\text{mA}$		
		AC Current		2mA~20mA,(20Hz ~ 100Hz)	$U=1.9 \times 10^{-3}I_x+2.2\mu\text{A}$		
				2mA~20mA,(0.1kHz ~ 5kHz)	$U=6 \times 10^{-4}I_x+2.2\mu\text{A}$		
		AC Voltage		10V~100V, (50Hz)	$U_{\text{rel}}=0.6\%$		
				100V~300V, (50Hz)	$U_{\text{rel}}=0.5\%$		
DC Voltage	10V~100V	$U_{\text{rel}}=0.1\%$					
Resistance	800 Ω ~3k Ω	$U_{\text{rel}}=0.1\%$					
18	*Earth Resistance Meter	Resistance	Verification Regulation of Earth Resistance Meters JJG 366	(0.1~1) Ω	$U_{\text{rel}}=0.6\%$	Accredited only for Digital Earth Resistance Meters	
				(1~100) Ω	$U_{\text{rel}}=0.12\%$		
				100 Ω ~10k Ω	$U_{\text{rel}}=0.06\%$		
19	*DC Electronic Load	DC Voltage	Calibration Specification for DC Electronic Loads JJF 1462	(0.1~1)V	$8.2 \times 10^{-7}U_x+0.58\text{mV}$		
				(1~10)V	$2 \times 10^{-6}U_x+0.6\text{mV}$		



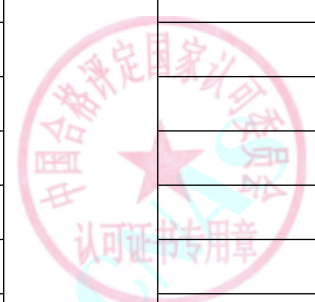
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date			
		DC Current	ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	(10~100)V	$4 \times 10^{-6}U_x + 0.0057V$					
				(100~600)V	$7 \times 10^{-6}U_x + 0.006V$					
				(0.1~1)A	$U = 1 \times 10^{-5}I_x + 0.6mA$					
				(1~10)A	$U = 8 \times 10^{-5}I_x + 0.5mA$					
		DC Resistance		(10~100)A	$U = 6 \times 10^{-4}I_x + 0.3mA$					
				(0.1~1) Ω	$U = 2 \times 10^{-5}R_x + 0.7m\Omega$					
				(1~10) Ω	$U = 2 \times 10^{-4}R_x + 0.5m\Omega$					
				(10~100) Ω	$U = 1 \times 10^{-4}R_x + 4.8m\Omega$					
		DC Power		(100~2000) Ω	$U = 5 \times 10^{-4}R_x + 0.02\Omega$					
				(10~100)W	$U = 9 \times 10^{-4}P_x + 1.9mW$					
				(100~1000)W	$U = 2 \times 10^{-4}P_x + 0.081W$					
		20		*Earth-Continuity Testers	Verification Regulation of Earth-Continuity Testers JJG 984			(1000~5000)W	$U = 2 \times 10^{-4}P_x + 0.11W$	
								DC Resistance	(10~100)m Ω	$U = 9 \times 10^{-4}R_x + 0.086m\Omega$
									(100~1000)m Ω	$U = 1.1 \times 10^{-3}R_x + 0.56m\Omega$
								AC Resistance	(10~100)m Ω , (50Hz)	$U = 1.0 \times 10^{-3}R_x + 0.086m\Omega$
(100~1000)m Ω , (50Hz)	$U = 1.5 \times 10^{-3}R_x + 0.5m\Omega$									
DC Current	(1~6)A		$U = 0.059A$							
	(6~60)A	$U = 0.075A$								
AC Current	(1~6)A, (50Hz)	$U = 0.060A$								



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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(6~60)A, (50Hz)	$U=0.12A$		
21	*Withstanding Voltage Tester	DC Voltage	Verification Regulation of Withstanding Voltage Testers JJG 795	(0.5~10)kV	$2.3 \times 10^{-3}U_x + 5.8V$		
				(10~15)kV	$2.5 \times 10^{-3}U_x + 11V$		
		AC Voltage		(0.5~10)kV, (50Hz)	$2.3 \times 10^{-3}U_x + 12V$		
				(10~15)kV, (50Hz)	$2.4 \times 10^{-3}U_x + 23V$		
		DC Current		(0.2~2)mA	$U=3.6 \times 10^{-3}I_x + 0.5 \mu A$		
				(2~20)mA	$U=1.9 \times 10^{-3}I_x + 14 \mu A$		
				(20~400)mA	$U=2.3 \times 10^{-3}I_x + 47 \mu A$		
		AC Current		(0.2~2)mA, (50Hz)	$U=1.5 \times 10^{-3}I_x + 4.2 \mu A$		
				(2~20)mA, (50Hz)	$U=2.9 \times 10^{-3}I_x + 21 \mu A$		
				(20~400)mA, (50Hz)	$U=2.4 \times 10^{-3}I_x + 0.23mA$		
Time	(10~120)s	$U=2.6 \times 10^{-3}T_x + 0.057s$					
22	Safety Parameter Tester	Withstanding DC Voltage	Calibration Specification for Safety Parameter Tester JJF(DZ) 0004	(0.5~10)kV	$2.3 \times 10^{-3}U_x + 5.8V$		
				(10~15)kV	$2.5 \times 10^{-3}U_x + 11V$		
		Withstanding AC Voltage		(0.5~10)kV, (50Hz)	$2.3 \times 10^{-3}U_x + 12V$		
				(10~15)kV, (50Hz)	$2.4 \times 10^{-3}U_x + 23V$		
		Withstanding DC Current		(0.2~2)mA	$U=3.6 \times 10^{-3}I_x + 0.5 \mu A$		
				(2~20)mA	$U=1.9 \times 10^{-3}I_x + 14 \mu A$		
				(20~400)mA	$U=2.3 \times 10^{-3}I_x + 47 \mu A$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date	
		Withstanding AC Current		(0.2~2)mA, (50Hz)	$U=1.5 \times 10^{-3}I_x+4.2 \mu A$			
					(2~20)mA, (50Hz)	$U=2.9 \times 10^{-3}I_x+21 \mu A$		
					(20~400)mA, (50Hz)	$U=2.4 \times 10^{-3}I_x+0.23mA$		
		Time		(10~120)s	$U=2.6 \times 10^{-3}T_x+0.057s$			
		Insulation DC Voltage		(100~1000)V	$0.23\%U_x+0.64V$			
					(1~10)kV	$0.38\%U_x+8.1V$		
		Insulation Resistance		40k Ω ~100k Ω	$U=0.28\%R_x+0.03k \Omega$			
					100k Ω ~200k Ω	$U=0.15\%R_x+0.66k \Omega$		
					200k Ω ~1M Ω	$U=0.26\%R_x+0.40k \Omega$		
					1M Ω ~10M Ω	$U=0.46\%R_x+0.40k \Omega$		
					10M Ω ~1G Ω	$U=0.74\%R_x+0.12M \Omega$		
					1G Ω ~10G Ω	$U=1.5\%R_x+2.9M \Omega$		
		Earth- Continuity Resistance		(10~100)m Ω , (50Hz)	$U=1 \times 10^{-3}R_x+0.086m \Omega$			
					(100~1000)m Ω , (50Hz)	$U=1.5 \times 10^{-3}R_x+0.5m \Omega$		
		Earth- Continuity Test Current		(1~6)A, (50Hz)	$U=0.060A$			
					(6~60)A, (50Hz)	$U=0.12A$		
		Leakage Test Voltage		10V~300V, (50Hz)	$U_{rel}=0.6\%$			
		Leakage DC Current		(10~200) μA	$U=0.06 \mu A$			
					(0.2~2)mA	$U=0.6 \mu A$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(2~20)mA	$U=0.006\text{mA}$		
		Leakage AC Current		2mA~20mA, (50Hz)	$U=0.04\text{mA}$		
23	Transconductance Amplifier	DC Current	Calibration Specification for Multifunction standard sources JJF 1638	(0.2~100)A	$U_{\text{rel}}=2.6 \times 10^{-5}$		
		AC Current		0.1A~100A(10Hz~1kHz)	$U_{\text{rel}}=1.4 \times 10^{-4}$		
				0.1A~100A(1kHz~5kHz)	$U_{\text{rel}}=1.6 \times 10^{-4}$		
				0.1A~100A(5kHz~10kHz)	$U_{\text{rel}}=1.8 \times 10^{-4}$		
24	*Digital AC Electrical Parameters Meter	AC Voltage	Calibration Specification for Digital AC Electrical Parameters Meter JJF 1491	10V~20V, (50Hz~800Hz)	$U_{\text{rel}}=0.06\%$	Accredited only for Single-phase Digital AC Electrical Parameters Meter	
				20V~45V, (50Hz~800Hz)	$U_{\text{rel}}=0.02\%$		
				45V~1000V, (50Hz~800Hz)	$U_{\text{rel}}=0.01\%$		
		AC Current		0.1A~20A, (50Hz~800Hz)	$U=0.007\text{A}$		
				20A~40A, (50Hz)	$U=0.06\text{A}$		
				40A~80A, (50Hz)	$U=0.6\text{A}$		
		AC Power		1.5W~1.2kW, (50Hz)	$U=0.6\text{W}$		
				1.2kW~4kW, (50Hz)	$U=1.3\text{W}$		
				4kW~8kW, (50Hz)	$U=1.9\text{W}$		
				8kW~9.6kW, (50Hz)	$U=9.4\text{W}$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Phase		(-180~180)°, (50Hz~100Hz)	U=0.005°		
				(-180~180)°, (100Hz~400Hz)	U=0.026°		
		Frequency		50Hz~800Hz	U _{rel} =0.01%		
4 Length Equipment							
1	Micrometer	Length	Verification Regulation of Micrometer JJG 21	(0~25)mm(Digital Outside Micrometers)	U=0.7μm	Do not calibrate the check lever	
				(25~50)mm(Digital Outside Micrometers)	U=0.8μm		
				(50~75)mm(Digital Outside Micrometers)	U=0.9μm		
				(75~100)mm(Digital Outside Micrometers)	U=1.0μm		
				(0~25)mm(Outside Micrometers)	U=1.4μm		
				(25~50)mm(Outside Micrometers)	U=1.4μm		
				(50~75)mm(Outside Micrometers)	U=1.5μm		
				(75~100)mm(Outside Micrometers)	U=1.6μm		
2	Current Caliper	Length	Verification Regulation of Current Calipers JJG 30	(0~300)mm	U=0.01mm		
3	Height Caliper	Length	Verification Regulation of Height Caliper JJG 31	(0~300)mm	U=0.01mm		
				(300~500)mm	U=0.02mm		
5 Temperature Equipment							

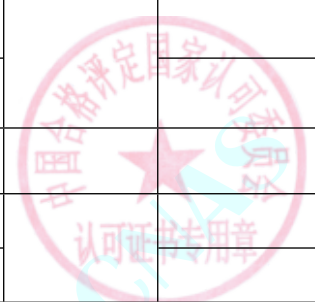


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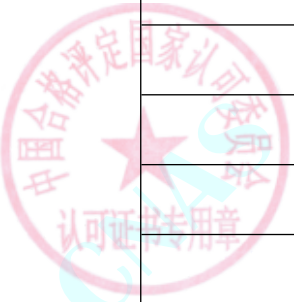
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
1	Radiation Thermometer	Temperature	Verification Regulation of Radiation Thermometers JJG 856	(30~100)° C	U=0.6° C		
				(100~300)° C	U=0.9° C		
				(300~500)° C	U=1.3° C		
				(500~600)° C	U=4° C		
				(600~800)° C	U=5° C		
				(800~1000)° C	U=5° C		
2	Thermal Imager	Temperature	Calibration Specification for Thermal Imagers JJF 1187	(30~100)° C	U=0.7° C		
				(100~200)° C	U=0.9° C		
				(200~500)° C	U=2.2° C		
				(500~600)° C	U=4° C		
				(600~800)° C	U=5° C		
				(800~1000)° C	U=5° C		
3	*Temperature Calibrator	Temperature	Calibration Specification of Temperature Indicators and Simulators by Electrical Simulation and Measurement JJF 1309	(-200~200)° C (TC Measure)	U _{rel} =2.5×10 ⁻⁴		
				(200~1000)° C (TC Measure)	U _{rel} =6×10 ⁻⁵		
				(1000~1800)° C (TC Measure)	U _{rel} =5×10 ⁻⁵		
				(-200~200)° C (TC Generate)	U _{rel} =2.5×10 ⁻⁴		
				(200~1000)° C (TC Generate)	U _{rel} =6×10 ⁻⁵		

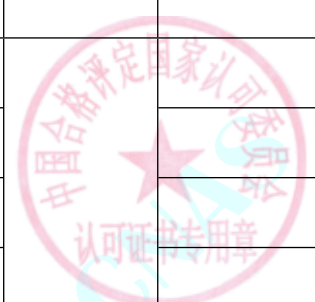


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(1000~1800) °C (TC Generate)	$U_{rel}=5 \times 10^{-5}$		
				(-200~800) °C (RTD)	$U=1.6 \times 10^{-5}R+0.033 \text{ } ^\circ\text{C}$		
4	*The Equipment of the Environmental Testing	Temperature	Calibration Specification for the Equipment of the Environmental Testing for Temperature and Humidity JJF 1101	(-80~-50) °C	$U=0.5 \text{ } ^\circ\text{C}$		
				(-50~0) °C	$U=0.5 \text{ } ^\circ\text{C}$		
				(0~100) °C	$U=0.4 \text{ } ^\circ\text{C}$		
				(100~250) °C	$U=0.6 \text{ } ^\circ\text{C}$		
		Humidity		10%RH~60%RH	$U=1.1\%RH$		
				60%RH~80%RH	$U=1.3\%RH$		
5	*Thermostatic Bath	Temperature fluctuation	Measurement and Test Norm of Thermostatic Bath's Metrological Characteristics JJF 1030	(-60~100) °C	$U=0.007 \text{ } ^\circ\text{C}$		
				(100~300) °C	$U=0.008 \text{ } ^\circ\text{C}$		
		Temperature homogeneity		(-60~100) °C	$U=0.005 \text{ } ^\circ\text{C}$		
				(100~300) °C	$U=0.006 \text{ } ^\circ\text{C}$		
6	*Temperature Indicator	Temperature	Calibration Specification for Temperature Indicators JJF 1664	(-40~1200)°C (TC Type K/J)	$U=0.6 \text{ } ^\circ\text{C}$		
				(100~1600)°C (TC Type R)	$U=0.4 \text{ } ^\circ\text{C}$		
				(600~1700)°C (TC Type B)	$U=0.5 \text{ } ^\circ\text{C}$		
				(100~1600)°C (TC Type S)	$U=0.8 \text{ } ^\circ\text{C}$		

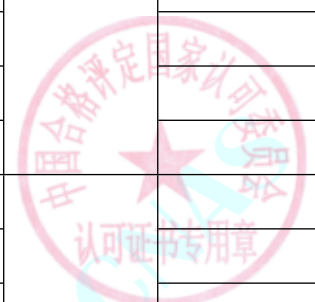


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(-200~0) °C (RTD)	U=0.4°C		
				(0~800) °C (RTD)	U=0.3°C		
7	Temperature Blocks Calibrator	Temperature	Calibration Guideline of the Temperature Block Calibrators JJF 1257	-50°C ~ 100°C 100°C ~ 660°C	U=0.009°C U _{rel} =0.007%		
8		Temperature	Calibration Specification of Thermistor thermometers JJF 1379	(-30~125)°C	U=0.027°C		
9		Temperature	Calibration Specification of Digital thermometers JJF(SU) 95	(-30~150)°C	U=0.03°C		
				(150~400)°C	U=0.04°C		
				(400~660)°C	U=0.06°C		
6 Mechanics Equipment							
1	*Digital Pressure Gauge	Pressure	Verification Regulation of Digital Pressure Gauge JJG 875	(-0.1~0.1)MPa	U=0.02kPa		
				(0.1~0.3)MPa	U=0.09kPa		
				(0.3~0.7)MPa	U=0.12kPa		
				(0.7~2)MPa	U=0.23kPa		
				(2~5)MPa	U=1.1kPa		
				(5~10)MPa	U=1.8kPa		
2	Torque Wrench	Torque	Verification Regulation of Torque Wrenches JJG 707	(0.1~1)N•m	U=4×10 ⁻³ T _x +0.0094N•m		
				(1~9)N•m	U _{rel} =1%		
				(9~800)N•m	U _{rel} =0.7%		



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名称：泰克科技（中国）有限公司北京分公司

地址：上海市闵行区兴梅路 485 号 4 楼 407 室

注册号：CNAS L3429

认可依据：ISO/IEC 17025:2017 以及 CNAS 特定认可要求

生效日期：2023 年 05 月 10 日 截止日期：2029 年 03 月 04 日

附件 5 认可的校准和测量能力范围

注：“测量仪器名称”栏仪器名称前标注*的项目可开展现场校准。

序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 (k=2)	说明	生效日期
一 无线电设备							
1	*数字示波器	输入电阻	数字示波器检定规程 GJB 7691	(40~90) Ω	$U_{rel}=0.25\%$		2023-05-10
				0.9MΩ~1.1MΩ	$U_{rel}=0.12\%$		2023-05-10
		频带宽度		-3dB~3dB (10MHz~500MHz)	$U=0.27dB$		2023-05-10
				-3dB~3dB (500MHz~6GHz)	$U=0.50dB$		2023-05-10
				-3dB~3dB (6GHz~20GHz)	$U=0.83dB$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		电压	合格评定 认可	10 mV~200V	$U_{rel}=0.03\%$		2023-05-10
		触发灵敏度		4.4 mV~5.556V , (10MHz~550 MHz)	$U_{rel}=4\%$		2023-05-10
				4.4mV~3.4V , (550MHz~ 2.5GHz)	$U_{rel}=5\%$		2023-05-10
		时基		4.4mV~2.2V , (2.5 GHz~ 6.4GHz)	$U_{rel}=5\%$		2023-05-10
				0.45ns~50s	$U_{rel}=3 \times 10^{-6}$		2023-05-10
				75ps~150ps	$U_{rel}=6\%$		2023-05-10
				150ps~500ps	$U_{rel}=4\%$		2023-05-10
		上升时间		500ps~50ns	$U_{rel}=2\%$		2023-05-10
二 电学设备							
1	*数字多用表	直流电压	数字多用表校准规范 JJF 1587	(10~220)mV	$U_{rel}=6.7 \times 10^{-5}$		2023-05-10
				(0.22~2.2)V	$U_{rel}=1.3 \times 10^{-5}$		2023-05-10
				(2.2~11)V	$U_{rel}=7.9 \times 10^{-6}$		2023-05-10
				(11~22)V	$U_{rel}=8.0 \times 10^{-6}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		直流电流	JJG 124-2005 直流电流	(22~220) V	$U_{rel}=9.7 \times 10^{-6}$		2023-05-10
				(220~1000) V	$U_{rel}=1.1 \times 10^{-5}$		2023-05-10
				(10~220) μ A	$U_{rel}=9.3 \times 10^{-4}$		2023-05-10
				(0.22~2.2) mA	$U_{rel}=1.3 \times 10^{-4}$		2023-05-10
				(2.2~22) mA	$U_{rel}=8.1 \times 10^{-5}$		2023-05-10
				(22~100) mA	$U_{rel}=1.3 \times 10^{-4}$		2023-05-10
				(100~220) mA	$U_{rel}=3.4 \times 10^{-4}$		2023-05-10
				(0.22~1) A	$U_{rel}=4.0 \times 10^{-4}$		2023-05-10
				(1~2.2) A	$U_{rel}=1.2 \times 10^{-4}$		2023-05-10
				(2.2~10) A	$U_{rel}=5.4 \times 10^{-4}$		2023-05-10
		直流电阻	JJG 100-2005 直流电阻	1 Ω	$U=0.00013 \Omega$		2023-05-10
				1.9 Ω	$U=0.00021 \Omega$		2023-05-10
				10 Ω	$U=0.00026 \Omega$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定国家认可委员会 认可证书附件	JJG-1001-2010	19Ω	$U=0.00065\Omega$		2023-05-10
				100Ω	$U=0.0011\Omega$		2023-05-10
				190Ω	$U=0.0022\Omega$		2023-05-10
				1kΩ	$U=0.0089\Omega$		2023-05-10
				1.9kΩ	$U=0.020\Omega$		2023-05-10
				10kΩ	$U=0.091\Omega$		2023-05-10
				19kΩ	$U=0.31\Omega$		2023-05-10
				100kΩ	$U=1.4\Omega$		2023-05-10
				190kΩ	$U=7.7\Omega$		2023-05-10
				1MΩ	$U=24\Omega$		2023-05-10
				1.9MΩ	$U=0.20k\Omega$		2023-05-10
				10MΩ	$U=0.47k\Omega$		2023-05-10
				19MΩ	$U=8.7k\Omega$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会 交流电压	JJG-1001-2015 合格评定 认可委员会	100M Ω	$U=21k\Omega$		2023-05-10
				(10~22)mV, (10Hz~20Hz)	$U_{rel}=2.2 \times 10^{-3}$		2023-05-10
				(10~22)mV, (20Hz~40Hz)	$U_{rel}=2.1 \times 10^{-3}$		2023-05-10
				(10~22)mV, (40Hz~20kHz)	$U_{rel}=2.0 \times 10^{-3}$		2023-05-10
				(10~22)mV, (20kHz~50kHz)	$U_{rel}=2.1 \times 10^{-3}$		2023-05-10
				(10~22)mV, (50kHz~100kHz)	$U_{rel}=2.8 \times 10^{-3}$		2023-05-10
				(10~22)mV, (100kHz~300kHz)	$U_{rel}=5.5 \times 10^{-3}$		2023-05-10
				(10~22)mV, (300kHz~500kHz)	$U_{rel}=2.4 \times 10^{-3}$		2023-05-10
				(22~220)mV, (10Hz~20Hz)	$U_{rel}=1.0 \times 10^{-3}$		2023-05-10
				(22~220)mV, (20Hz~40Hz)	$U_{rel}=6.5 \times 10^{-4}$		2023-05-10
				(22~220)mV, (40Hz~20kHz)	$U_{rel}=5.1 \times 10^{-4}$		2023-05-10
				(22~220)mV, (20kHz~50kHz)	$U_{rel}=6.5 \times 10^{-4}$		2023-05-10
				(22~220)mV, (50kHz~100kHz)	$U_{rel}=1.5 \times 10^{-3}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1001-2010 《通用计量术语及定义》	(22~220) mV, (100kHz~300kHz)	$U_{rel}=2.2 \times 10^{-3}$		2023-05-10
				(22~220) mV, (300kHz~500kHz)	$U_{rel}=3.0 \times 10^{-3}$		2023-05-10
				(0.22~2.2) V, (10Hz~20Hz)	$U_{rel}=4.8 \times 10^{-4}$		2023-05-10
				(0.22~2.2) V, (20Hz~40Hz)	$U_{rel}=4.6 \times 10^{-4}$		2023-05-10
				(0.22~2.2) V, (40Hz~20kHz)	$U_{rel}=1.8 \times 10^{-4}$		2023-05-10
				(0.22~2.2) V, (20kHz~50kHz)	$U_{rel}=1.6 \times 10^{-4}$		2023-05-10
				(0.22~2.2) V, (50kHz~100kHz)	$U_{rel}=2.8 \times 10^{-4}$		2023-05-10
				(0.22~2.2) V, (100kHz~300kHz)	$U_{rel}=8.5 \times 10^{-4}$		2023-05-10
				(0.22~2.2) V, (300kHz~500kHz)	$U_{rel}=2.0 \times 10^{-3}$		2023-05-10
				(2.2~22) V, (10Hz~20Hz)	$U_{rel}=4.8 \times 10^{-4}$		2023-05-10
				(2.2~22) V, (20Hz~40Hz)	$U_{rel}=6.5 \times 10^{-4}$		2023-05-10
				(2.2~22) V, (40Hz~20kHz)	$U_{rel}=1.8 \times 10^{-4}$		2023-05-10
				(2.2~22) V, (20kHz~50kHz)	$U_{rel}=1.4 \times 10^{-4}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	JJG-1001-2010 交流电压源校准规范	(2.2~22) V, (50kHz~100kHz)	$U_{rel}=2.2 \times 10^{-4}$		2023-05-10
				(2.2~22) V, (100kHz~300kHz)	$U_{rel}=6.0 \times 10^{-4}$		2023-05-10
				(2.2~22) V, (300kHz~500kHz)	$U_{rel}=2.0 \times 10^{-3}$		2023-05-10
				(22~220) V, (10Hz~20Hz)	$U_{rel}=3.8 \times 10^{-4}$		2023-05-10
				(22~220) V, (20Hz~40Hz)	$U_{rel}=3.4 \times 10^{-4}$		2023-05-10
				(22~220) V, (40Hz~20kHz)	$U_{rel}=1.9 \times 10^{-4}$		2023-05-10
				(22~220) V, (20kHz~50kHz)	$U_{rel}=1.5 \times 10^{-4}$		2023-05-10
				(22~220) V, (50kHz~100kHz)	$U_{rel}=2.5 \times 10^{-4}$		2023-05-10
				(22~220) V, (100kHz~300kHz)	$U_{rel}=1.3 \times 10^{-3}$		2023-05-10
				(220~1000) V, (15Hz~50Hz)	$U_{rel}=3.4 \times 10^{-4}$		2023-05-10
				(220~1000) V, (50Hz~1kHz)	$U_{rel}=1.2 \times 10^{-4}$		2023-05-10
				(220~1000) V, (1kHz~20kHz)	$U_{rel}=1.5 \times 10^{-4}$		2023-05-10
				(220~1000) V, (20kHz~30kHz)	$U_{rel}=5.0 \times 10^{-4}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		交流电流	中国合格评定 认可委员会	(220~750)V, (30kHz~50kHz)	$U_{rel}=5.1 \times 10^{-4}$		2023-05-10
				(220~750)V, (50kHz~100kHz)	$U_{rel}=1.9 \times 10^{-3}$		2023-05-10
				(10~22)mA, (10Hz~20Hz)	$U_{rel}=3.1 \times 10^{-4}$		2023-05-10
				(10~22)mA, (20Hz~40Hz)	$U_{rel}=2.2 \times 10^{-4}$		2023-05-10
				(10~22)mA, (40Hz~1kHz)	$U_{rel}=1.8 \times 10^{-4}$		2023-05-10
				(10~22)mA, (1kHz~5kHz)	$U_{rel}=2.7 \times 10^{-4}$		2023-05-10
				(10~22)mA, (5kHz~10kHz)	$U_{rel}=1.6 \times 10^{-3}$		2023-05-10
				(22~220)mA, (10Hz~20Hz)	$U_{rel}=4.7 \times 10^{-4}$		2023-05-10
				(22~220)mA, (20Hz~40Hz)	$U_{rel}=7.0 \times 10^{-4}$		2023-05-10
				(22~220)mA, (40Hz~1kHz)	$U_{rel}=2.7 \times 10^{-4}$		2023-05-10
				(22~220)mA, (1kHz~5kHz)	$U_{rel}=3.9 \times 10^{-4}$		2023-05-10
				(22~220)mA, (5kHz~10kHz)	$U_{rel}=1.6 \times 10^{-3}$		2023-05-10
				(0.22~2.2)A, (20Hz~1kHz)	$U_{rel}=7.5 \times 10^{-4}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定 认可委员会	合格评定 认可委员会	(0.22~2.2)A, (1kHz~5kHz)	$U_{rel}=8.5 \times 10^{-4}$		2023-05-10
				(0.22~2.2)A, (5~10)kHz	$U_{rel}=8.0 \times 10^{-3}$		2023-05-10
				(2.2~10)A, (20Hz~1kHz)	$U_{rel}=5.4 \times 10^{-4}$		2023-05-10
				(2.2~10)A, (1kHz~5kHz)	$U_{rel}=1.1 \times 10^{-3}$		2023-05-10
				(2.2~10)A, (5kHz~10kHz)	$U_{rel}=3.9 \times 10^{-3}$		2023-05-10
2	直流电阻箱	电阻	直流电阻箱检定规程 JJG 982	(1~10) Ω	$U_{rel}=7.5 \times 10^{-5}$		2023-05-10
				(10~100) Ω	$U_{rel}=3.9 \times 10^{-5}$		2023-05-10
				(0.1~1)k Ω	$U_{rel}=1.5 \times 10^{-5}$		2023-05-10
				(1~10)k Ω	$U_{rel}=1.4 \times 10^{-5}$		2023-05-10
				(10~100)k Ω	$U_{rel}=1.5 \times 10^{-5}$		2023-05-10
				(0.1~1)M Ω	$U_{rel}=2.7 \times 10^{-5}$		2023-05-10
				(1~10)M Ω	$U_{rel}=1.1 \times 10^{-4}$		2023-05-10
3	*钳形电流表	直流电流	钳形电流表校准规范 JJF 1075	(0.1~15)A	$U_{rel}=1.6 \times 10^{-3}$		2023-05-10



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国	合格评定 国家认可委员会 认可证书附件	(15~50) A	$U_{rel}=2.3 \times 10^{-3}$		2023-05-10
				(50~500) A	$U_{rel}=1.0 \times 10^{-3}$		2023-05-10
				(500~1000) A	$U_{rel}=1.1 \times 10^{-3}$		2023-05-10
				(100~300) mA, (45Hz~400Hz)	$U_{rel}=1.5 \times 10^{-3}$		2023-05-10
		交流电流		(0.3~3) A, (45Hz~400Hz)	$U_{rel}=2.6 \times 10^{-3}$		2023-05-10
				(3~15) A, (45Hz~400Hz)	$U_{rel}=3.3 \times 10^{-3}$		2023-05-10
				(15~50) A, (45Hz~400Hz)	$U_{rel}=3.1 \times 10^{-3}$		2023-05-10
				(50~150) A, (45Hz~400Hz)	$U_{rel}=2.0 \times 10^{-3}$		2023-05-10
				(150~500) A, (45Hz~400Hz)	$U_{rel}=1.4 \times 10^{-3}$		2023-05-10
				(500~1000) A, (45Hz~400Hz)	$U_{rel}=1.6 \times 10^{-3}$		2023-05-10
4	*过程仪表校验仪	直流电压	过程仪表校验仪校准规范 JJF 1472	(10~330) mV (测量)	$U_{rel}=2.3 \times 10^{-5}$		2023-05-10
				(0.33~3.3) V (测量)	$U_{rel}=2.8 \times 10^{-5}$		2023-05-10
				(3.3~33) V (测量)	$U_{rel}=2.5 \times 10^{-5}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国	合格评定国家认可委员会 认可证书附件	(33~300)V(测量)	$U_{rel}=1.5 \times 10^{-5}$		2023-05-10
				(0.01~0.1)V(输出)	$U_{rel}=8.5 \times 10^{-5}$		2023-05-10
				(0.1~1)V(输出)	$U_{rel}=2.2 \times 10^{-5}$		2023-05-10
				(1~10)V(输出)	$U_{rel}=3.1 \times 10^{-5}$		2023-05-10
				(10~100)V(输出)	$U_{rel}=2.1 \times 10^{-5}$		2023-05-10
		直流电流		(1~3.3)mA(测量)	$U_{rel}=6 \times 10^{-4}$		2023-05-10
				(3.3~33)mA(测量)	$U_{rel}=2.4 \times 10^{-4}$		2023-05-10
				(33~100)mA(测量)	$U_{rel}=2.8 \times 10^{-4}$		2023-05-10
				(1~10)mA(输出)	$U_{rel}=5.9 \times 10^{-4}$		2023-05-10
				(10~100)mA(输出)	$U_{rel}=9.2 \times 10^{-5}$		2023-05-10
		直流电阻		(1~33) Ω (测量)	$U_{rel}=1.3 \times 10^{-3}$		2023-05-10
				(33~330) Ω (测量)	$U_{rel}=2.0 \times 10^{-4}$		2023-05-10
				(0.33~3.3)k Ω (测量)	$U_{rel}=2.9 \times 10^{-4}$		2023-05-10



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国	合格评定 国家认可委员会 认可	(3.3~10)k Ω (测量)	$U_{rel}=1.2\times 10^{-4}$		2023-05-10
				(1~10) Ω (输出)	$U_{rel}=5.8\times 10^{-4}$		2023-05-10
				(10 Ω ~10k Ω)(输出)	$U_{rel}=2.9\times 10^{-4}$		2023-05-10
	交流电压			(10~330)mV, (10Hz~45Hz)(测量/输出)	$U_{rel}=1.7\times 10^{-3}$		2023-05-10
				(10~330)mV, (45Hz~10kHz)(测量/输出)	$U_{rel}=1.2\times 10^{-3}$		2023-05-10
				(0.33~330)V, (10Hz~100kHz)(测量/输出)	$U_{rel}=2.2\times 10^{-3}$		2023-05-10
	频率			10Hz~100Hz(测量)	$U_{rel}=8.3\times 10^{-4}$		2023-05-10
				0.1kHz~10kHz(测量)	$U_{rel}=6\times 10^{-4}$		2023-05-10
				10kHz~50kHz(测量)	$U_{rel}=4\times 10^{-4}$		2023-05-10
	温度			10Hz~50kHz(输出)	$U_{rel}=5.8\times 10^{-4}$		2023-05-10
				(-200~200) $^{\circ}$ C(热电偶测量)	$U=0.09^{\circ}$ C		2023-05-10
				(200~1000) $^{\circ}$ C(热电偶测量)	$U=0.09^{\circ}$ C		2023-05-10
			(1000~1300) $^{\circ}$ C(热电偶测量)	$U=0.12^{\circ}$ C		2023-05-10	



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国合格评定认可委员会	JJF 1181-2018	(1300~1800)°C(热电偶测量)	$U=0.19^{\circ}\text{C}$		2023-05-10
				(-200~200)°C(热电偶输出)	$U=0.07^{\circ}\text{C}$		2023-05-10
				(200~1000)°C(热电偶输出)	$U=0.07^{\circ}\text{C}$		2023-05-10
				(1000~1300)°C(热电偶输出)	$U=0.08^{\circ}\text{C}$		2023-05-10
				(1300~1800)°C(热电偶输出)	$U=0.12^{\circ}\text{C}$		2023-05-10
				(-200~200)°C(热电阻)(测量/输出)	$U=0.01^{\circ}\text{C}$		2023-05-10
				(200~800)°C(热电阻)(测量/输出)	$U=0.02^{\circ}\text{C}$		2023-05-10
5	*直流稳定电源	直流电压	直流稳定电源校准规范 JJF 1597	(0.1~1)V	$U_{\text{rel}}=1.9\times 10^{-3}$		2023-05-10
				(1~10)V	$U_{\text{rel}}=2.9\times 10^{-4}$		2023-05-10
				(10~100)V	$U_{\text{rel}}=1.9\times 10^{-4}$		2023-05-10
				(100~500)V	$U_{\text{rel}}=2.3\times 10^{-5}$		2023-05-10
		直流电流		(10~100)mA	$U_{\text{rel}}=1.2\times 10^{-4}$		2023-05-10
				(0.1~1)A	$U_{\text{rel}}=1.9\times 10^{-3}$		2023-05-10



序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期
		中国 合格评定 国家认可 委员会 认可 证书附件	JJG-1001A	(1~20)A	$U_{rel}=2.1 \times 10^{-4}$		2023-05-10
	负载调整率			(0.1 ~ 1)V(恒压模式)	$U_{rel}=1.9 \times 10^{-3}$		2023-05-10
				(1 ~ 10)V(恒压模式)	$U_{rel}=2.9 \times 10^{-4}$		2023-05-10
				(10 ~ 100)V(恒压模式)	$U_{rel}=1.9 \times 10^{-4}$		2023-05-10
				(100 ~ 300)V(恒压模式)	$U_{rel}=2.3 \times 10^{-5}$		2023-05-10
				(10~100)mA(恒流模式)	$U_{rel}=1.2 \times 10^{-4}$		2023-05-10
				(0.1~1)A(恒流模式)	$U_{rel}=1.9 \times 10^{-3}$		2023-05-10
				(1~20)A(恒流模式)	$U_{rel}=2.1 \times 10^{-4}$		2023-05-10
		电压调整率	(10~ 100)mV(恒压模式)	$U_{rel}=5.8 \times 10^{-4}$		2023-05-10	
	(0.1 ~ 1)V(恒压模式)		$U_{rel}=1.9 \times 10^{-3}$		2023-05-10		
	(1 ~ 10)V(恒压模式)		$U_{rel}=2.9 \times 10^{-4}$		2023-05-10		
	(10 ~ 100)V(恒压模式)		$U_{rel}=1.9 \times 10^{-4}$		2023-05-10		
	(100~ 500)V(恒压模式)		$U_{rel}=2.3 \times 10^{-5}$		2023-05-10		



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序号	测量仪器名称	被测量	校准规范	测量范围	扩展不确定度 ($k=2$)	说明	生效日期	
6	*数字直流电压 电流源	中国	合格评定 国家认可委员会 认可证书附件	(10~100)mA(恒流模式)	$U_{rel}=1.2 \times 10^{-4}$		2023-05-10	
				(0.1~1)A(恒流模式)	$U_{rel}=1.9 \times 10^{-3}$		2023-05-10	
				(1~20)A(恒流模式)	$U_{rel}=2.1 \times 10^{-4}$		2023-05-10	
		直流电压	多功能标准源校准规范 JJF 1638		(10~100)mV	$U_{rel}=2.8 \times 10^{-4}$		2023-05-10
					(0.1~1)V	$U_{rel}=8.4 \times 10^{-5}$		2023-05-10
					(1~10)V	$U_{rel}=5.1 \times 10^{-5}$		2023-05-10
					(10~100)V	$U_{rel}=9.5 \times 10^{-5}$		2023-05-10
					(100~1000)V	$U_{rel}=9.6 \times 10^{-5}$		2023-05-10
					直流电流			(10~100) μ A
(0.1~10)mA	$U_{rel}=9.4 \times 10^{-5}$		2023-05-10					
(10~100)mA	$U_{rel}=1 \times 10^{-4}$		2023-05-10					
(0.1~10)A	$U_{rel}=1.9 \times 10^{-4}$		2023-05-10					



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Name: Tektronix (China) Co., Ltd. Beijing Branch

Address: Room 407, 4/F., No.485, Xingmei Road, Minhang District, Shanghai, China

Registration No. CNAS L3429

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

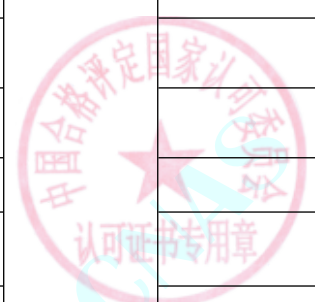
Effective Date: 2023-05-10 Expiry Date: 2029-03-04

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
1 Radio Equipment							
1	*Digital Oscilloscope	Input Resistance	Verification Regulation for Digital Oscilloscope GJB 7691	(40~90) Ω	$U_{rel}=0.25\%$		
				0.9M Ω ~ 1.1M Ω	$U_{rel}=0.12\%$		
		Bandwidth		-3dB~3dB(10MHz~500MHz)	$U=0.27dB$		
				-3dB~3dB(500MHz~6GHz)	$U=0.50dB$		
				-3dB~3dB(6GHz~20GHz)	$U=0.83dB$		
		Voltage		10 mV~200V	$U_{rel}=0.03\%$		
		Trigger Sensitivity		4.4 mV~5.556V (10MHz~550 MHz)	$U_{rel}=4\%$		
				4.4mV~3.4V (550MHz~2.5GHz)	$U_{rel}=5\%$		



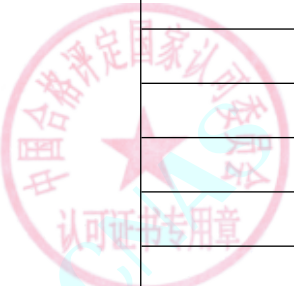
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				4.4mV~2.2V, (2.5GHz~6.4GHz)	$U_{rel}=5\%$		
		time base		0.45ns~50s	$U_{rel}=3 \times 10^{-6}$		
		Rise time		75ps~150ps	$U_{rel}=6\%$		
				150ps~500ps	$U_{rel}=4\%$		
				500ps~50ns	$U_{rel}=2\%$		
2 Electric Equipment							
1	*Digital Multi-Meter	DC Voltage	Calibration Specification for Multimeters JJF 1587	(10~220)mV	$U_{rel}=6.7 \times 10^{-5}$		
				(0.22~2.2)V	$U_{rel}=1.3 \times 10^{-5}$		
				(2.2~11)V	$U_{rel}=7.9 \times 10^{-6}$		
				(11~22)V	$U_{rel}=8.0 \times 10^{-6}$		
				(22~220)V	$U_{rel}=9.7 \times 10^{-6}$		
				(220~1000)V	$U_{rel}=1.1 \times 10^{-5}$		
		DC Current		(10~220) μ A	$U_{rel}=9.3 \times 10^{-4}$		
				(0.22~2.2)mA	$U_{rel}=1.3 \times 10^{-4}$		
				(2.2~22)mA	$U_{rel}=8.1 \times 10^{-5}$		
				(22~100)mA	$U_{rel}=1.3 \times 10^{-4}$		
				(100~220)mA	$U_{rel}=3.4 \times 10^{-4}$		
				(0.22~1)A	$U_{rel}=4.0 \times 10^{-4}$		
				(1~2.2)A	$U_{rel}=1.2 \times 10^{-4}$		



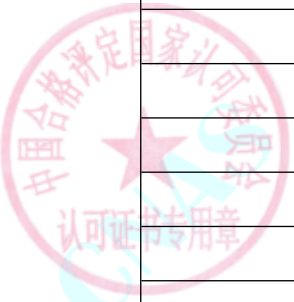
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(2.2~10)A	$U_{rel}=5.4 \times 10^{-4}$		
		DC Resistance		1Ω	$U=0.00013\Omega$		
				1.9Ω	$U=0.00021\Omega$		
				10Ω	$U=0.00026\Omega$		
				19Ω	$U=0.00065\Omega$		
				100Ω	$U=0.0011\Omega$		
				190Ω	$U=0.0022\Omega$		
				1kΩ	$U=0.0089\Omega$		
				1.9kΩ	$U=0.020\Omega$		
				10kΩ	$U=0.091\Omega$		
				19kΩ	$U=0.31\Omega$		
				100kΩ	$U=1.4\Omega$		
				190kΩ	$U=7.7\Omega$		
				1MΩ	$U=24\Omega$		
				1.9MΩ	$U=0.20k\Omega$		
				10MΩ	$U=0.47k\Omega$		
				19MΩ	$U=8.7k\Omega$		
			100MΩ	$U=21k\Omega$			
		AC Voltage		(10~22)mV,(10Hz~20Hz)	$U_{rel}=2.2 \times 10^{-3}$		

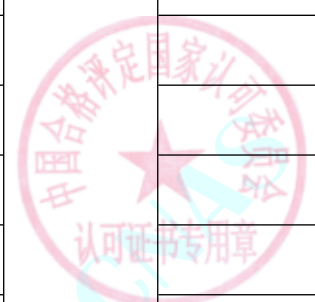


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(10~22)mV,(20Hz~40Hz)	$U_{rel}=2.1 \times 10^{-3}$		
				(10~22)mV,(40Hz~20kHz)	$U_{rel}=2.0 \times 10^{-3}$		
				(10~22)mV,(20kHz~50kHz)	$U_{rel}=2.1 \times 10^{-3}$		
				(10~22)mV,(50kHz~100kHz)	$U_{rel}=2.8 \times 10^{-3}$		
				(10~22)mV,(100kHz~300kHz)	$U_{rel}=5.5 \times 10^{-3}$		
				(10~22)mV,(300kHz~500kHz)	$U_{rel}=2.4 \times 10^{-3}$		
				(22~220)mV,(10Hz~20Hz)	$U_{rel}=1.0 \times 10^{-3}$		
				(22~220)mV,(20Hz~40Hz)	$U_{rel}=6.5 \times 10^{-4}$		
				(22~220)mV,(40Hz~20kHz)	$U_{rel}=5.1 \times 10^{-4}$		
				(22~220)mV,(20kHz~50kHz)	$U_{rel}=6.5 \times 10^{-4}$		
				(22~220)mV,(50kHz~100kHz)	$U_{rel}=1.5 \times 10^{-3}$		
				(22~220)mV,(100kHz~300kHz)	$U_{rel}=2.2 \times 10^{-3}$		
				(22~220)mV,(300kHz~500kHz)	$U_{rel}=3.0 \times 10^{-3}$		
				(0.22~2.2)V,(10Hz~20Hz)	$U_{rel}=4.8 \times 10^{-4}$		
				(0.22~2.2)V,(20Hz~40Hz)	$U_{rel}=4.6 \times 10^{-4}$		

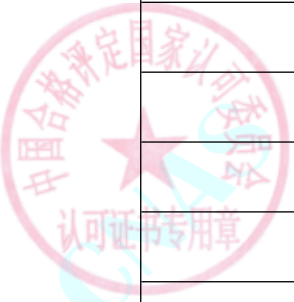


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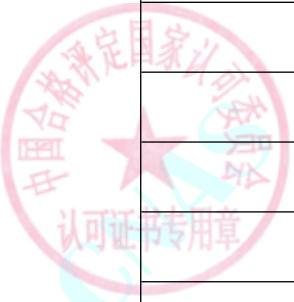
No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(0.22~2.2)V,(40Hz~20kHz)	$U_{rel}=1.8 \times 10^{-4}$		
				(0.22~2.2)V,(20kHz~50kHz)	$U_{rel}=1.6 \times 10^{-4}$		
				(0.22~2.2)V,(50kHz~100kHz)	$U_{rel}=2.8 \times 10^{-4}$		
				(0.22~2.2)V,(100kHz~300kHz)	$U_{rel}=8.5 \times 10^{-4}$		
				(0.22~2.2)V,(300kHz~500kHz)	$U_{rel}=2.0 \times 10^{-3}$		
				(2.2~22)V,(10Hz~20Hz)	$U_{rel}=4.8 \times 10^{-4}$		
				(2.2~22)V,(20Hz~40Hz)	$U_{rel}=6.5 \times 10^{-4}$		
				(2.2~22)V,(40Hz~20kHz)	$U_{rel}=1.8 \times 10^{-4}$		
				(2.2~22)V,(20kHz~50kHz)	$U_{rel}=1.4 \times 10^{-4}$		
				(2.2~22)V,(50kHz~100kHz)	$U_{rel}=2.2 \times 10^{-4}$		
				(2.2~22)V,(100kHz~300kHz)	$U_{rel}=6.0 \times 10^{-4}$		
				(2.2~22)V,(300kHz~500kHz)	$U_{rel}=2.0 \times 10^{-3}$		
				(22~220)V,(10Hz~20Hz)	$U_{rel}=3.8 \times 10^{-4}$		
				(22~220)V,(20Hz~40Hz)	$U_{rel}=3.4 \times 10^{-4}$		
				(22~220)V,(40Hz~20kHz)	$U_{rel}=1.9 \times 10^{-4}$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(22~220)V,(20kHz~50kHz)	$U_{rel}=1.5 \times 10^{-4}$		
				(22~220)V,(50kHz~100kHz)	$U_{rel}=2.5 \times 10^{-4}$		
				(22~220)V,(100kHz~300kHz)	$U_{rel}=1.3 \times 10^{-3}$		
				(220~1000)V,(15Hz~50Hz)	$U_{rel}=3.4 \times 10^{-4}$		
				(220~1000)V,(50Hz~1kHz)	$U_{rel}=1.2 \times 10^{-4}$		
				(220~1000)V,(1kHz~20kHz)	$U_{rel}=1.5 \times 10^{-4}$		
				(220~1000)V,(20kHz~30kHz)	$U_{rel}=5.0 \times 10^{-4}$		
				(220~750)V,(30kHz~50kHz)	$U_{rel}=5.1 \times 10^{-4}$		
				(220~750)V,(50kHz~100kHz)	$U_{rel}=1.9 \times 10^{-3}$		
		AC Current		(10~22)mA,(10Hz~20Hz)	$U_{rel}=3.1 \times 10^{-4}$		
				(10~22)mA,(20Hz~40Hz)	$U_{rel}=2.2 \times 10^{-4}$		
				(10~22)mA,(40Hz~1kHz)	$U_{rel}=1.8 \times 10^{-4}$		
				(10~22)mA,(1kHz~5kHz)	$U_{rel}=2.7 \times 10^{-4}$		
				(10~22)mA,(5kHz~10kHz)	$U_{rel}=1.6 \times 10^{-3}$		
				(22~220)mA,(10Hz~20Hz)	$U_{rel}=4.7 \times 10^{-4}$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(22~220)mA,(20Hz~40Hz)	$U_{rel}=7.0 \times 10^{-4}$		
				(22~220)mA,(40Hz~1kHz)	$U_{rel}=2.7 \times 10^{-4}$		
				(22~220)mA,(1kHz~5kHz)	$U_{rel}=3.9 \times 10^{-4}$		
				(22~220)mA,(5kHz~10kHz)	$U_{rel}=1.6 \times 10^{-3}$		
				(0.22~2.2)A,(20Hz~1kHz)	$U_{rel}=7.5 \times 10^{-4}$		
				(0.22~2.2)A,(1kHz~5kHz)	$U_{rel}=8.5 \times 10^{-4}$		
				(0.22~2.2)A,(5~10)kHz)	$U_{rel}=8.0 \times 10^{-3}$		
				(2.2~10)A,(20Hz~1kHz)	$U_{rel}=5.4 \times 10^{-4}$		
				(2.2~10)A,(1kHz~5kHz)	$U_{rel}=1.1 \times 10^{-3}$		
				(2.2~10)A,(5kHz~10kHz)	$U_{rel}=3.9 \times 10^{-3}$		
				2	DC Resistance Box		
(10~100) Ω	$U_{rel}=3.9 \times 10^{-5}$						
(0.1~1)k Ω	$U_{rel}=1.5 \times 10^{-5}$						
(1~10)k Ω	$U_{rel}=1.4 \times 10^{-5}$						
(10~100)k Ω	$U_{rel}=1.5 \times 10^{-5}$						
(0.1~1)M Ω	$U_{rel}=2.7 \times 10^{-5}$						

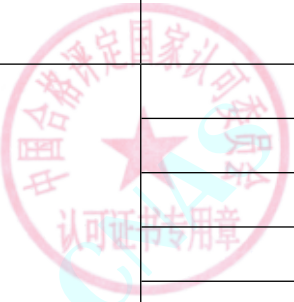


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(1~10)MΩ	$U_{rel}=1.1 \times 10^{-4}$		
3	*Clamp Meter	DC Current	Calibration Specification of Clamp Ammeters JJF 1075	(0.1~15)A	$U_{rel}=1.6 \times 10^{-3}$		
				(15~50)A	$U_{rel}=2.3 \times 10^{-3}$		
				(50~500)A	$U_{rel}=1.0 \times 10^{-3}$		
				(500~1000)A	$U_{rel}=1.1 \times 10^{-3}$		
		AC Current		(100~300)mA,(45Hz~400Hz)	$U_{rel}=1.5 \times 10^{-3}$		
				(0.3~3)A,(45Hz~400Hz)	$U_{rel}=2.6 \times 10^{-3}$		
				(3~15)A,(45Hz~400Hz)	$U_{rel}=3.3 \times 10^{-3}$		
				(15~50)A,(45Hz~400Hz)	$U_{rel}=3.1 \times 10^{-3}$		
				(50~150)A,(45Hz~400Hz)	$U_{rel}=2.0 \times 10^{-3}$		
				(150~500)A,(45Hz~400Hz)	$U_{rel}=1.4 \times 10^{-3}$		
4	*Process calibrators	DC Voltage	Calibration Specification for Process Calibrators JJF 1472	(10~330)mV(Measure)	$U_{rel}=2.3 \times 10^{-5}$		
				(0.33~3.3)V(Measure)	$U_{rel}=2.8 \times 10^{-5}$		
				(3.3~33)V(Measure)	$U_{rel}=2.5 \times 10^{-5}$		
				(33~300)V(Measure)	$U_{rel}=1.5 \times 10^{-5}$		
				(0.01~0.1)V(Source)	$U_{rel}=8.5 \times 10^{-5}$		

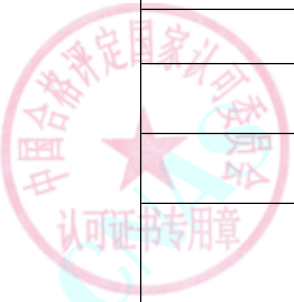


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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		DC Current		(0.1~1)V(Source)	$U_{rel}=2.2 \times 10^{-5}$		
				(1~10)V(Source)	$U_{rel}=3.1 \times 10^{-5}$		
				(10~100)V(Source)	$U_{rel}=2.1 \times 10^{-5}$		
				(1~3.3)mA(Measure)	$U_{rel}=6 \times 10^{-4}$		
				(33~330)mA(Measure)	$U_{rel}=2.4 \times 10^{-4}$		
				(33~100)mA(Measure)	$U_{rel}=2.8 \times 10^{-4}$		
				(1~10)mA(Source)	$U_{rel}=5.9 \times 10^{-4}$		
		DC Resistance		(10~100)mA(Source)	$U_{rel}=9.2 \times 10^{-5}$		
				(1~33) Ω (Measure)	$U_{rel}=1.3 \times 10^{-4}$		
				(33~330) Ω (Measure)	$U_{rel}=2.0 \times 10^{-4}$		
				(0.33~3.3)k Ω (Measure)	$U_{rel}=2.9 \times 10^{-4}$		
				(3.3~10)k Ω (Measure)	$U_{rel}=1.2 \times 10^{-4}$		
				(1~10) Ω (Source)	$U_{rel}=5.8 \times 10^{-4}$		
		AC Voltage		(10 Ω ~10k Ω)(Source)	$U_{rel}=2.9 \times 10^{-4}$		
				(10~330)mV,(10Hz~45Hz)(Measure/Source)	$U_{rel}=1.7 \times 10^{-3}$		
(10~330)mV,(45Hz~10kHz)(Measure/Source)	$U_{rel}=1.2 \times 10^{-3}$						
	(0.33~330)V,(10Hz~100kHz)(Measure/Source)	$U_{rel}=2.2 \times 10^{-3}$					

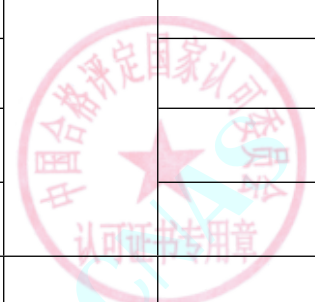


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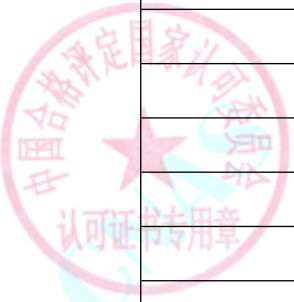
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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Frequency	ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE	10Hz~100Hz(Measure)	$U_{rel}=8.3 \times 10^{-4}$		
				0.1kHz~10kHz(Measure)	$U_{rel}=6 \times 10^{-4}$		
				10kHz~50kHz(Measure)	$U_{rel}=4 \times 10^{-4}$		
				10Hz~50kHz(Source)	$U_{rel}=5.8 \times 10^{-4}$		
		Temperature		(-200~200)° C(TC Measure)	$U=0.09^\circ C$		
				(200~1000)° C(TC Measure)	$U=0.09^\circ C$		
				(1000~1300)° C(TC Measure)	$U=0.12^\circ C$		
				(1300~1800)° C(TC Measure)	$U=0.19^\circ C$		
				(-200~200)° C(TC Source)	$U=0.07^\circ C$		
				(200~1000)° C(TC Source)	$U=0.07^\circ C$		
				(1000~1300)° C(TC Source)	$U=0.08^\circ C$		
				(1300~1800)° C(TC Source)	$U=0.12^\circ C$		
				(-200~200)° C(RTD) (Measure/Source)	$U=0.01^\circ C$		
				(200~800)° C(RTD) (Measure/Source)	$U=0.02^\circ C$		
5	*DC Stabilized Power Supplies	DC Voltage	Calibration Specification for DC Stabilized Power Supplies JJF 1597	0.1~1)V	$U_{rel}=1.9 \times 10^{-3}$		
				1~10)V	$U_{rel}=2.9 \times 10^{-4}$		



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date	
		DC Current		(10~100)V	$U_{rel}=1.9 \times 10^{-4}$			
					(100~500)V	$U_{rel}=2.3 \times 10^{-5}$		
					(10~100)mA	$U_{rel}=1.2 \times 10^{-4}$		
					(0.1~1)A	$U_{rel}=1.9 \times 10^{-3}$		
					(1~20)A	$U_{rel}=2.1 \times 10^{-4}$		
		Load Regulation Rate		(0.1 ~ 1)V(CV Model)	$U_{rel}=1.9 \times 10^{-3}$			
					(1 ~ 10)V(CV Model)	$U_{rel}=2.9 \times 10^{-4}$		
					(10 ~ 100)V(CV Model)	$U_{rel}=1.9 \times 10^{-4}$		
					(100 ~ 300)V(CV Model)	$U_{rel}=2.3 \times 10^{-5}$		
					(10~100)mA(CC Model)	$U_{rel}=1.2 \times 10^{-4}$		
					(0.1~1)A(CC Model)	$U_{rel}=1.9 \times 10^{-3}$		
		Voltage Regulation Rate		(1~20)A(CC Model)	$U_{rel}=2.1 \times 10^{-4}$			
					(10~ 100)mV(CV Model)	$U_{rel}=5.8 \times 10^{-4}$		
					(0.1 ~ 1)V(CV Model)	$U_{rel}=1.9 \times 10^{-3}$		
					(1 ~ 10)V(CV Model)	$U_{rel}=2.9 \times 10^{-4}$		
					(10 ~ 100)V(CV Model)	$U_{rel}=1.9 \times 10^{-4}$		
					(100~ 500)V(CV Model)	$U_{rel}=2.3 \times 10^{-5}$		
				(10~100)mA(CC Model)	$U_{rel}=1.2 \times 10^{-4}$			
				(0.1~1)A(CC Model)	$U_{rel}=1.9 \times 10^{-3}$			



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No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(1~20)A(CC Model)	$U_{rel}=2.1 \times 10^{-4}$		
6	*Digital DC Voltage Current Source	DC Voltage	Calibration Specification for Multifunction Standard Source JJF 1638	(10~100)mV	$U_{rel}=2.8 \times 10^{-4}$		
				(0.1~1)V	$U_{rel}=8.4 \times 10^{-5}$		
				(1~10)V	$U_{rel}=5.1 \times 10^{-5}$		
				(10~100)V	$U_{rel}=9.5 \times 10^{-5}$		
				(100~1000)V	$U_{rel}=9.6 \times 10^{-5}$		
		DC Current		(10~100) μ A	$U_{rel}=2.8 \times 10^{-4}$		
				(0.1~10)mA	$U_{rel}=9.4 \times 10^{-5}$		
				(1~10)mA	$U_{rel}=1 \times 10^{-4}$		
				(0.1~10)A	$U_{rel}=1.9 \times 10^{-4}$		



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