

# 校准证书

CALIBRATION CERTIFICATE



证书编号: JL2233170131

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客户名称 : 深圳市美格信测控技术有限公司  
Name of Customer

客户地址 : 深圳市光明区玉塘街道田寮社区同仁路盛荟红星创智广场 1002  
Address of Customer

计量器具名称 : 音频分析仪  
Name of Instrument

型号/规格 : PM6687  
Type/Specification

出厂编号 : Y20221018001  
Serial No

资产编号 : -----  
Asset No

制造单位 : MegaSig  
Manufacture

校准依据 : JJF1395-2013 音频分析仪校准规范  
Calibrated in Accordance to

(校准专用章)  
Stamp

批准人 : 刘明夏  
Approved by

签名 : 刘明夏  
Signature

核验员 : 黄琰  
Checked by

校准员 : 庄宇峰  
Calibrated by

校准日期 : 2022 年 10 月 28 日  
Operation Date Year Month Day

建议复校日期: 2023 年 10 月 27 日  
Suggested Recal.Date Year Month Day

签发日期 : 2022 年 11 月 09 日  
Issue Date Year Month Day

报告首页背面“重要声明”是报告的组成部分,任何未包含“重要声明”内容的复制均为不完整复制。

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The relevant content and effectiveness is subject to the electronic version of the original report which was only applied for. When an electronic report and a paper report are applied for at the same time, the electronic report is only a copy of the paper report, and the relevant content and effectiveness is subject to the paper report.
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### 获得的国家、省、市专业站 Establishment of Following Institutions

国家数字电子产品质量检验检测中心  
National Digital Electronic Product Testing Center (NETC)  
国家营养食品质量检验检测中心(广东)  
National Nutrition Food Testing Center (Guangdong)  
国家体育用品质量检验检测中心(广东)  
National Sports Product Testing Center (Guangdong)  
国家环保产品质量检验检测中心(广东)  
National Environmental Product Testing Center (Guangdong)  
国家分布式光伏发电系统质量检验检测中心(广东)  
National Distributed Photovoltaic Power Generation System Testing Center (Guangdong)  
国家电动汽车电池及充电系统产业计量测试中心  
National Metrology Center for Electric Vehicle Battery and Charging System Industry  
国家民用无人机产品质量检验检测中心(广东)  
National Civil Unmanned Aerial Vehicle Product Testing Center (Guangdong)  
国家高新技术计量站  
National Hi-tech Metrology Station  
国家医疗器械产业计量测试中心  
National Metrology and Testing Center for Medical Device Industry  
国家计量数据科学中心深圳分中心  
National Metrology Data Science Center (Shenzhen)  
国家城市能源计量中心(深圳)  
National Urban Energy Measurement Center (Shenzhen)  
中国轻工业联合会家具质量监督检测深圳站  
Accredited Testing Station (Shenzhen) for Furniture by China National Light Industry Council (CNLIC)  
广东省质量监督食品检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Food (Shenzhen)  
广东省质量监督生态纺织服装产品检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Ecological Textile and Garment Products (Shenzhen)  
广东省质量监督皮革制品检验站  
Guangdong Quality Supervision and Inspection Institution for Leather Products  
广东省质量监督家具检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Furniture Products (Shenzhen)  
广东省质量监督学生用品检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Student's Articles (Shenzhen)  
广东省质量监督自行车检验站  
Guangdong Quality Supervision and Inspection Institution for Bicycle Quality  
广东省质量监督钟表检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Horological Products (Shenzhen)  
广东省质量监督节能环保产品(安全性能)检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Safety Performance of Environmental Protection and Energy Saving Products (Shenzhen)  
广东省质量监督眼镜检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Eyewear Products (Shenzhen)  
广东省质量监督电磁兼容检验站  
Guangdong Quality Supervision and Inspection Institution for Electromagnetic Compatibility  
广东省质量监督综合布线系统检验站  
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深圳市纤维纺织检验所  
Shenzhen Quality Inspection Institution for Fiber and Textile  
深圳市建材产品质量监督检验站  
Shenzhen Quality Supervision and Inspection Institution for Building Materials  
深圳市消防产品燃烧性能检测中心  
Shenzhen Testing Center for Burning Behavior of Fire Protection Products

### 联系方式 Contact Information

联系电话 Contact Tel.: 0755-26941696 26941546(龙珠) 27591789(宝安) 82426246(八卦岭) 28932280(龙岗) 0769-21684525(东莞)  
传真电话 Fax No.: 0755-27591716(宝安) 82408176(八卦岭) 28932840(龙岗) 0769-21684527(东莞)  
投诉及证书/报告真伪查询电话 Complaint Tel.: 400-900-8999 按5 Email: complaint@smq.com.cn

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### 校准用主要计量标准装置信息

#### Main Standard Devices Used

名称 Equipment Name	测量范围 Measuring Range	不确定度/准确度等级/ 最大允许误差 Uncertainty/Accuracy Class/ Maximum Permissible Error	计量标准考核证书号 Certificate No	有效期至 Due Date
_____	_____	_____	_____	_____

### 校准用主要标准器信息

#### Main Standards of Measurement Used

名称 Equipment Name	测量范围 Measuring Range	不确定度/准确度等级/ 最大允许误差 Uncertainty/Accuracy Class/ Maximum Permissible Error	设备编号 Equipment No	证书号/溯源单位 Certificate No/ Traceability to	有效期至 Due Date
音频分析仪	频率:20Hz~ 100kHz,失真 :0.003%~100%,交 流电平:0.3mV~ 300V,直流电平 :10mV~300V	频率:±4E-05,失真:±1dB,交流 电平:±2%,直流电平:±1%	SB3465	JL2229397691/ 深圳检测院	2023-10-08
多功能校准器	电压(0~1000)V,电 流(0~20)A,电阻(0 ~400)MΩ.方波 20V/div,时标(2ns~ 5s)/div,上升时间 1ns,稳幅信号 600MHz	DCV:±0.006%,ACV:±0.04%,DCI :±0.02%,ACI:±0.07%;R:±0.02% .方波电压:±0.25%,时标:2.5E- 05	SB5988	223102109/深 圳检测院	2023-05-22
数字万用表	ACU:(0.1 μV~ 750V);DCU:(0.1 μV ~ 1000V);ACI:(0.1nA ~3A);DCI:(0.1nA~ 3A);R:(0.1mΩ~ 1000MΩ)	ACU:±0.06%R;DCU:±0.003%R; ACI:±0.1%R;DCI:±0.05%R;R:±0 .01%R	SB6064	213212612/深 圳检测院	2022-12-30
频率计	频率:1Hz~12.4GHz	频率:±1E-08	SB0608	WSP202201757 /广东省计量院	2023-08-08
全自动失真度标 准检定装置	0.003%~100%	±0.5%	SB11838	WWD20220285 0/广东省计量 院	2023-09-19

#### 附加说明

Appended Directions

委托日期:  
Application Date

2022 年 10 月 19 日

校准地点:  
Operation Location

本院无线电实验室

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## 附加说明 Appended Directions

环境条件:  
Operation Environment

温度 21°C 相对湿度 58%

符合性及限制使用说明:  
Statement of Compliance and Limitation

参见校准结果使用(Use refering to the results of Calibration)

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1 外观及工作正常性检查: 正常

Check on Appearance and Function: Pass

2 ANALOG OUTPUT

2.1 频率准确度(Frequency Accuracy)

	标称值 Nominal	实测值 Measured	误差 Error
CH1	(Hz)	(Hz)	(Hz)
	20	19.999988	1.2E-05
	100	99.999907	9.3E-05
	(kHz)	(kHz)	(kHz)
	1	1.00000028	-2.8E-07
	10	10.0000032	-3.2E-06
	50	50.0000143	-1.4E-05
	90	90.0000257	-2.6E-05
	(Hz)	(Hz)	(Hz)
CH2	20	19.999395	6.05E-04
	100	99.999921	7.9E-05
	(kHz)	(kHz)	(kHz)
	1	1.00000072	-7.20E-07
	10	9.99996543	3.457E-05
	50	50.0000075	-7.484E-06
	90	90.0000134	-1.339E-05

2.2 幅度准确度(Amplitude Accuracy)(1kHz)

	标称值 Nominal	实测值 Measured	误差 Error
CH1	(mV)(rms)	(mV)(rms)	(mV)(rms)

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CH2	10	10.003	-0.003
	50	49.999	0.001
	100	100.011	-0.011
	500	500.04	-0.040
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.00012	-0.0001
	2	1.9999	0.0001
	5	4.9997	0.0003
	10	10.0002	-0.0002
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.001	-0.001
	50	50	0.000
	100	100.009	-0.009
	500	500.08	-0.080
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0001	-0.0001
	2	1.9997	0.0003
	5	4.9997	0.0003
	10	10.0001	-0.0001

2.3 幅度平坦度(Amplitude Flatness)

	频率	平坦度
	Frequency	Flatness
CH1	(Hz)	(dB)
	20	-0.014
	100	-0.002
	(kHz)	(dB)
	1	0.000(Ref)
	10	-0.002
	20	-0.004
	50	0.009
CH2	(Hz)	(dB)
	20	-0.014

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100	-0.002
(kHz)	(dB)
1	0.000(Ref)
10	-0.005
20	-0.018
50	-0.101

2.4 失真(Distortion)

	测量带宽 Meas BW	频率 Frequency	失真 Distortion
CH1	(kHz)	(Hz)	(%)
	20	20	0.0003
	20	100	0.0002
		(kHz)	(%)
	20	1	0.0002
	20	10	0.0002
	20	20	0.0002
CH2	(kHz)	(Hz)	(%)
	20	20	0.0002
	20	100	0.0002
		(kHz)	(%)
	20	1	0.0002
	20	10	0.0002
	20	20	0.0002

3 ANALOG INPUT

3.1 频率准确度(Frequency Accuracy)

	标准值 Standard	示值 Indication	误差 Error
CH1	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000

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CH2	100	100.000	0.000
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	19.9810	-0.0190
	100	100.001	0.001
CH3	(kHz)	(kHz)	(kHz)
	1	0.99999	-0.00001
	10	10.0000	0.0000
	20	20.0000	0.0000
	50	50.0001	0.0001
	90	90.0002	0.0002
	(Hz)	(Hz)	(Hz)
	20	20.0002	0.0002
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
CH4	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0002	0.0002
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
CH5	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0000	0.0000
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000
	100	100.000	0.000



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CH6	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0001	0.0001
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
CH7	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0000	0.0000
	50	50.0002	0.0002
	90	90.0004	0.0004
	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
CH8	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0002	0.0002
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
CH9	20	20.0001	0.0001
	50	50.0000	0.0000
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0003	0.0003
	100	100.000	0.000
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000

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CH10	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0001	0.0001
	90	90.0004	0.0004
	(Hz)	(Hz)	(Hz)
	20	20.0003	0.0003
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
CH11	20	20.0000	0.0000
	50	50.0001	0.0001
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
CH12	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0001	0.0001
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0000	0.0000
CH13	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0280	0.0280
	100	100.000	0.000
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001

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CH14	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	19.9999	-0.0001
	100	100.000	0.000
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
CH15	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0190	0.0190
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
CH16	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0001	0.0001
	20	20.0003	0.0003
	50	50.0003	0.0003
	90	90.0005	0.0005
	(Hz)	(Hz)	(Hz)
CH17	20	20.0001	0.0001
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003

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CH18	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000
	100	99.999	-0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
CH19	(Hz)	(Hz)	(Hz)
	20	20.0001	0.0001
	100	100.000	0.000
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
CH20	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0001	0.0001
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
CH21	50	50.0000	0.0000
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0003	0.0003
	100	100.000	0.000
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
CH22	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	19.9998	-0.0002

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CH23	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0002	0.0002
	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0002	0.0002
	100	100.001	0.001
CH24	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0002	0.0002
	90	90.0003	0.0003
	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000
	100	100.001	0.001
	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000
	10	10.0000	0.0000
	20	20.0001	0.0001
	50	50.0000	0.0000
	90	90.0003	0.0003

3.2 幅度准确度(Amplitude Accuracy)(at 1 kHz)

	标准值 Standard	示值 Indication	误差 Error
CH1	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.000	0.000
	100	99.959	-0.041
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000

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CH2	10	10.000	0.000
	20	20.005	0.005
	50	50.007	0.007
	100	100.007	0.007
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.004	0.004
	100	100.012	0.012
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.001	0.001
CH3	20	20.006	0.006
	50	50.007	0.007
	100	100.015	0.015
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.001	0.001
	100	99.999	-0.001
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
	20	20.003	0.003
CH4	50	50.006	0.006
	100	100.001	0.001
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.002	0.002
	100	99.999	-0.001
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
	20	20.000	0.000
	50	50.001	0.001
CH5	100	100.002	0.002
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.001	0.001
	100	99.974	-0.026
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	9.997	-0.003
	20	20.004	0.004

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CH6	50	50.007	0.007
	100	99.975	-0.025
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.001	0.001
	100	99.961	-0.039
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	9.997	-0.003
	20	19.989	-0.011
	50	49.979	-0.021
CH7	100	99.967	-0.033
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.005	0.005
	100	99.962	-0.038
	(V)(rms)	(V)(rms)	(V)(rms)
	1	0.999	-0.001
	10	9.996	-0.004
	20	19.991	-0.009
	50	49.976	-0.024
	100	99.953	-0.047
CH8	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.002	0.002
	100	99.953	-0.047
	(V)(rms)	(V)(rms)	(V)(rms)
	1	0.999	-0.001
	10	9.995	-0.005
	20	19.976	-0.024
	50	49.963	-0.037
	100	99.950	-0.050
CH9	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	9.999	-0.001
	100	99.992	-0.008
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
	20	20.000	0.000
	50	50.001	0.001
	100	100.001	0.001

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CH10	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.000	0.000
	100	99.993	-0.007
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
	20	20.000	0.000
	50	49.998	-0.002
	100	100.001	0.001
CH11	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.002	0.002
	100	99.991	-0.009
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
	20	20.001	0.001
	50	50.003	0.003
	100	100.008	0.008
CH12	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.002	0.002
	100	99.992	-0.008
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.001	0.001
	20	20.002	0.002
	50	50.007	0.007
	100	100.011	0.011
CH13	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.002	0.002
	100	99.993	-0.007
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
	20	20.003	0.003
	50	50.007	0.007
	100	100.012	0.012
CH14	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.005	0.005



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CH15	100	99.983	-0.017
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
	20	20.001	0.001
	50	50.006	0.006
	100	100.010	0.010
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.001	0.001
	100	100.002	0.002
CH16	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.001	0.001
	20	20.002	0.002
	50	50.005	0.005
	100	100.014	0.014
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.006	0.006
	100	100.000	0.000
	(V)(rms)	(V)(rms)	(V)(rms)
CH17	1	1.000	0.000
	10	10.001	0.001
	20	20.004	0.004
	50	50.005	0.005
	100	100.013	0.013
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.001	0.001
	100	99.997	-0.003
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
CH18	10	10.000	0.000
	20	19.995	-0.005
	50	50.001	0.001
	100	100.008	0.008
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.004	0.004
	100	99.990	-0.010
	(V)(rms)	(V)(rms)	(V)(rms)

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CH19	1	1.000	0.000
	10	10.001	0.001
	20	20.001	0.001
	50	50.006	0.006
	100	100.010	0.010
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.004	0.004
	100	100.001	0.001
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
CH20	10	10.000	0.000
	20	20.003	0.003
	50	50.005	0.005
	100	100.011	0.011
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.009	0.009
	100	99.993	-0.007
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	10.000	0.000
CH21	20	20.000	0.000
	50	50.007	0.007
	100	100.008	0.008
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.001	0.001
	100	99.983	-0.017
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	9.999	-0.001
	20	20.000	0.000
CH22	50	50.000	0.000
	100	100.001	0.001
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.000	0.000
	100	99.971	-0.029
	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.000	0.000
	10	9.999	-0.001

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CH23	20	19.993	-0.007
	50	49.994	-0.006
	100	99.991	-0.009
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.005	0.005
	100	99.953	-0.047
	(V)(rms)	(V)(rms)	(V)(rms)
	1	0.999	-0.001
	10	9.996	-0.004
	20	19.989	-0.011
CH24	50	49.982	-0.018
	100	99.953	-0.047
	(mV)(rms)	(mV)(rms)	(mV)(rms)
	10	10.002	0.002
	100	99.953	-0.047
	(V)(rms)	(V)(rms)	(V)(rms)
	1	0.999	-0.001
	10	9.995	-0.005
	20	19.992	-0.008
	50	49.983	-0.017
	100	99.950	-0.050

3.3 频率响应(Frequency Response)(DC coupling)

	频率 Frequency	标准值 Standard	示值 Indication	误差 Error
CH1	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	1.000	0.000
	100	1.0000	1.000	0.000
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000

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CH2	50	1.0000	1.001	0.001
	80	1.0000	1.001	0.001
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	1.000	0.000
	20	1.0000	1.000	0.000
CH3	50	1.0000	0.998	-0.002
	80	1.0000	1.000	0.000
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
CH4	50	1.0000	0.998	-0.002
	80	1.0000	0.994	-0.006
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	0.999	-0.001
	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
CH5	50	1.0000	1.001	0.001
	80	1.0000	1.000	0.000
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000

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CH6	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
	50	1.0000	1.001	0.001
	80	1.0000	0.999	-0.001
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
CH7	10	1.0000	1.000	0.000
	20	1.0000	1.000	0.000
	50	1.0000	1.000	0.000
	80	1.0000	0.997	-0.003
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.997	-0.003
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
CH8	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
	50	1.0000	0.997	-0.003
	80	1.0000	0.997	-0.003
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	0.999	-0.001
CH9	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
	50	1.0000	1.000	0.000
	80	1.0000	0.998	-0.002
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000

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CH10	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	0.999	-0.001
	50	1.0000	1.000	0.000
	80	1.0000	0.998	-0.002
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
CH11	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	1.000	0.000
	20	1.0000	0.999	-0.001
	50	1.0000	1.000	0.000
	80	1.0000	0.998	-0.002
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
CH12	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	0.999	-0.001
	50	1.0000	1.000	0.000
	80	1.0000	0.999	-0.001
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.993	-0.007
	100	1.0000	0.997	-0.003
	500	1.0000	0.997	-0.003
CH13	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.997	-0.003
	20	1.0000	0.997	-0.003
	50	1.0000	0.998	-0.002
	80	1.0000	1.013	0.013
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.999	-0.001

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CH14	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	0.999	-0.001
	50	1.0000	1.000	0.000
	80	1.0000	0.997	-0.003
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
CH15	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	0.999	-0.001
	50	1.0000	0.999	-0.001
	80	1.0000	0.995	-0.005
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
CH16	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	0.999	-0.001
	50	1.0000	1.000	0.000
	80	1.0000	0.997	-0.003
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	0.999	-0.001
	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
	50	1.0000	1.001	0.001
	80	1.0000	1.001	0.000

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CH17	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	1.000	0.000
	20	1.0000	0.999	-0.001
	50	1.0000	1.001	0.001
	80	1.0000	0.999	-0.001
CH18	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
	50	1.0000	1.001	0.001
	80	1.0000	1.000	0.000
CH19	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
	50	1.0000	1.000	0.000
	80	1.0000	1.000	0.000
CH20	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	0.999	-0.001
	10	1.0000	1.000	0.000
	20	1.0000	1.000	0.000



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CH21	50	1.0000	1.001	0.001
	80	1.0000	0.999	-0.001
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	0.999	-0.001
	20	1.0000	1.000	0.000
CH22	50	1.0000	1.000	0.000
	80	1.0000	0.998	-0.002
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	1.000	0.000
	500	1.0000	1.000	0.000
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	1.000	0.000
	20	1.0000	1.000	0.000
CH23	50	1.0000	1.000	0.000
	80	1.0000	0.998	-0.002
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	1.000	0.000
	10	1.0000	1.000	0.000
	20	1.0000	1.000	0.000
CH24	50	1.0000	1.000	0.000
	80	1.0000	0.998	-0.002
	(Hz)	(V)(rms)	(V)(rms)	(V)(rms)
	20	1.0000	0.995	-0.005
	100	1.0000	0.999	-0.001
	500	1.0000	0.999	-0.001
	(kHz)	(V)(rms)	(V)(rms)	(V)(rms)
	1	1.0000	0.999	-0.001

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10	1.0000	0.999	-0.001
20	1.0000	1.000	0.000
50	1.0000	1.000	0.000
80	1.0000	0.997	-0.003

3.4 失真测量(Distortion Measurement)

	频率 Frequency	标准值 Standard	示值 Indication	误差 Error
		(%)	(%)	(%)
CH1	400 Hz	28.70	28.9594	0.2594
		19.60	19.7575	0.1575
		10.00	10.0246	0.0246
		5.000	5.0328	0.0328
		2.000	2.0147	0.0147
		1.000	1.0071	0.0071
		0.500	0.5032	0.0032
		0.200	0.2010	0.0010
		0.100	0.1003	0.0003
		0.0500	0.0500	0.0000
		0.0300	0.0299	-0.0001
	1 kHz	28.70	28.9192	0.2192
		19.60	19.6984	0.0984
		10.00	9.8487	-0.1513
		5.000	4.9243	-0.0757
		2.000	1.9692	-0.0308
CH2	400 Hz	1.000	0.9844	-0.0156
		0.500	0.4917	-0.0083
		0.200	0.1965	-0.0035
		0.100	0.0980	-0.0020
		0.0500	0.0488	-0.0012
	1 kHz	0.0300	0.0291	-0.0009
		28.70	28.9349	0.2349
		19.60	19.7435	0.1435
		10.00	10.0177	0.0177

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CH3	1 kHz	5.000	5.0283	0.0283
		2.000	2.0131	0.0131
		1.000	1.0064	0.0064
		0.500	0.5027	0.0027
		0.200	0.2008	0.0008
		0.100	0.1001	0.0001
		0.0500	0.0499	-0.0001
		0.0300	0.0298	-0.0002
		28.70	28.8643	0.1643
		19.60	19.6215	0.0215
	400 Hz	10.00	9.9554	-0.0446
		5.000	4.9978	-0.0022
		2.000	2.0004	0.0004
		1.000	1.0001	0.0001
		0.500	0.4998	-0.0002
		0.200	0.1996	-0.0004
		0.100	0.0995	-0.0005
		0.0500	0.0496	-0.0004
		0.0300	0.0295	-0.0005
		28.70	0.9376	-27.7624
	1 kHz	19.60	19.7455	0.1455
		10.00	10.0153	0.0153
		5.000	5.0149	0.0149
		2.000	2.0181	0.0181
		1.000	1.0082	0.0082
		0.500	0.5034	0.0034
		0.200	0.2013	0.0013
		0.100	0.1004	0.0004
		0.0500	0.0498	-0.0002
		0.0300	0.0298	-0.0002
		28.70	28.8140	0.1140
		19.60	19.6180	0.0180
		10.00	9.9767	-0.0233
		5.000	4.9965	-0.0035
		2.000	2.0003	0.0003
		1.000	1.0023	0.0023
		0.500	0.4998	-0.0002
		0.200	0.1996	-0.0004

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CH4	400 Hz	0.100	0.0999	-0.0001
		0.0500	0.0495	-0.0005
		0.0300	0.0296	-0.0004
		28.70	28.7169	0.0169
		19.60	19.5982	-0.0018
		10.00	9.9430	-0.0570
		5.000	4.9905	-0.0095
		2.000	1.9981	-0.0019
		1.000	0.9990	-0.0010
		0.500	0.4991	-0.0009
	1 kHz	0.200	0.2021	0.0021
		0.100	0.1011	0.0011
		0.0500	0.0505	0.0005
		0.0300	0.0302	0.0002
		28.70	28.7464	0.0464
		19.60	19.6194	0.0194
		10.00	9.9549	-0.0451
		5.000	4.9956	-0.0044
		2.000	2.0006	0.0006
		1.000	1.0001	0.0001
CH5	400 Hz	0.500	0.4997	-0.0003
		0.200	0.1996	-0.0004
		0.100	0.0996	-0.0004
		0.0500	0.0496	-0.0004
		0.0300	0.0296	-0.0004
		28.70	28.9479	0.2479
		19.60	19.7493	0.1493
		10.00	10.0147	0.0147
		5.000	5.0342	0.0342
		2.000	2.0203	0.0203
	1 kHz	1.000	1.0069	0.0069
		0.500	0.5028	0.0028
		0.200	0.2009	0.0009
		0.100	0.1004	0.0004
		0.0500	0.0499	-0.0001
		0.0300	0.0298	-0.0002
		28.70	28.7464	0.0464
		19.60	19.6167	0.0167

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CH6	400 Hz	10.00	1.0443	-8.9557
		5.000	4.9956	-0.0044
		2.000	2.0001	0.0001
		1.000	1.0001	0.0001
		0.500	0.4997	-0.0003
		0.200	0.1996	-0.0004
		0.100	0.0996	-0.0004
		0.0500	0.0496	-0.0004
		0.0300	0.0296	-0.0004
		28.70	28.9376	0.2376
		19.60	19.7843	0.1843
		10.00	10.0165	0.0165
		5.000	5.0476	0.0476
		2.000	2.0173	0.0173
		1.000	1.0059	0.0059
	1 kHz	0.500	0.5033	0.0033
		0.200	0.2014	0.0014
		0.100	0.1007	0.0007
		0.0500	0.0503	0.0003
		0.0300	0.0301	0.0001
		28.70	28.7446	0.0446
		19.60	19.6176	0.0176
		10.00	9.9538	-0.0462
		5.000	4.9918	-0.0082
		2.000	1.9985	-0.0015
		1.000	0.9992	-0.0008
		0.500	0.4992	-0.0008
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
CH7	400 Hz	0.0300	0.0295	-0.0005
		28.70	28.8793	0.1793
		19.60	19.8076	0.2076
		10.00	10.0473	0.0473
		5.000	5.0345	0.0345
		2.000	2.0158	0.0158
		1.000	1.0076	0.0076
		0.500	0.5045	0.0045

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CH8	1 kHz	0.200	0.2021	0.0021
		0.100	0.1011	0.0011
		0.0500	0.0505	0.0005
		0.0300	0.0302	0.0002
		28.70	28.7242	0.0242
		19.60	19.6016	0.0016
		10.00	9.9448	-0.0552
		5.000	4.9917	-0.0083
		2.000	1.9986	-0.0014
		1.000	0.9991	-0.0009
		0.500	0.4992	-0.0008
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
	400 Hz	28.70	28.7153	0.0153
		19.60	19.5967	-0.0033
		10.00	9.9423	-0.0577
		5.000	4.9905	-0.0095
		2.000	1.9998	-0.0002
		1.000	1.0076	0.0076
		0.500	0.5045	0.0045
		0.200	0.2021	0.0021
		0.100	0.1011	0.0011
		0.0500	0.0505	0.0005
		0.0300	0.0302	0.0002
		28.70	28.7236	0.0236
CH9	1 kHz	19.60	19.6020	0.0020
		10.00	9.9445	-0.0555
		5.000	4.9913	-0.0087
		2.000	1.9984	-0.0016
		1.000	0.9992	-0.0008
		0.500	0.4992	-0.0008
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
	400 Hz	28.70	28.9371	0.2371

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CH10	1 kHz	19.60	19.7314	0.1314
		10.00	10.0207	0.0207
		5.000	5.0314	0.0314
		2.000	2.0162	0.0162
		1.000	1.0083	0.0083
		0.500	0.5033	0.0033
		0.200	0.2012	0.0012
		0.100	0.1011	0.0011
		0.0500	0.0503	0.0003
		0.0300	0.0293	-0.0007
		28.70	28.7216	0.0216
		19.60	19.6073	0.0073
	400 Hz	10.00	9.9444	-0.0556
		5.000	4.9913	-0.0087
		2.000	1.9983	-0.0017
		1.000	0.9991	-0.0009
		0.500	0.4992	-0.0008
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.9376	0.2376
		19.60	19.7843	0.1843
		10.00	10.0165	0.0165
	1 kHz	5.000	5.0476	0.0476
		2.000	2.0131	0.0131
		1.000	1.0064	0.0064
		0.500	0.5027	0.0027
		0.200	0.1995	-0.0005
		0.100	0.0996	-0.0004
		0.0500	0.0498	-0.0003
		0.0300	0.0298	-0.0002
		28.70	28.7207	0.0207
		19.60	19.6006	0.0006
		10.00	9.9444	-0.0556
		5.000	4.9912	-0.0088
		2.000	1.9982	-0.0018
		1.000	0.9991	-0.0009

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CH11	400 Hz	0.500	0.4992	-0.0008
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0496	-0.0004
		0.0300	0.0289	-0.0011
		28.70	28.7145	0.0145
		19.60	19.5960	-0.0040
		10.00	9.9423	-0.0577
		5.000	4.9909	-0.0091
		2.000	2.0158	0.0158
	1 kHz	1.000	1.0001	0.0001
		0.500	0.4998	-0.0002
		0.200	0.1996	-0.0004
		0.100	0.0995	-0.0005
		0.0500	0.0496	-0.0004
		0.0300	0.0302	0.0002
		28.70	28.7189	0.0189
		19.60	19.5995	-0.0005
		10.00	9.9447	-0.0553
		5.000	4.9910	-0.0090
CH12	400 Hz	2.000	1.9982	-0.0018
		1.000	0.9991	-0.0009
		0.500	0.4991	-0.0009
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.8793	0.1793
		19.60	19.8076	0.2076
		10.00	10.0473	0.0473
	1 kHz	5.000	5.0345	0.0345
		2.000	2.0158	0.0158
		1.000	1.0076	0.0076
		0.500	0.5045	0.0045
		0.200	0.2021	0.0021
		0.100	0.1011	0.0011
		0.0500	0.0505	0.0005
		0.0300	0.0302	0.0002



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CH13	1 kHz	28.70	28.7242	0.0242
		19.60	19.6016	0.0016
		10.00	9.9448	-0.0552
		5.000	4.9972	-0.0028
		2.000	2.0015	0.0015
		1.000	1.0005	0.0005
		0.500	0.5000	0.0000
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
	400 Hz	28.70	28.9479	0.2479
		19.60	19.7314	0.1314
		10.00	10.0147	0.0147
		5.000	5.0342	0.0342
		2.000	2.0203	0.0203
		1.000	0.9988	-0.0012
		0.500	0.4991	-0.0009
		0.200	0.2014	0.0014
		0.100	0.1007	0.0007
		0.0500	0.0503	0.0003
		0.0300	0.0301	0.0001
	1 kHz	28.70	28.7348	0.0348
		19.60	19.6087	0.0087
		10.00	9.9512	-0.0488
		5.000	4.9967	-0.0033
		2.000	2.0005	0.0005
		1.000	1.0003	0.0003
		0.500	0.4998	-0.0002
		0.200	0.1998	-0.0002
0.100		0.0998	-0.0002	
0.0500		0.0497	-0.0003	
0.0300		0.0297	-0.0003	
CH14	400 Hz	28.70	28.7876	0.0876
		19.60	19.7843	0.1843
		10.00	10.0165	0.0165
		5.000	5.0345	0.0345
		2.000	2.0158	0.0158

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CH15	1 kHz	1.000	1.0076	0.0076
		0.500	0.5043	0.0043
		0.200	0.2008	0.0008
		0.100	0.1001	0.0001
		0.0500	0.0497	-0.0003
		0.0300	0.0297	-0.0003
		28.70	28.7169	0.0169
		19.60	19.5982	-0.0018
		10.00	9.9430	-0.0570
		5.000	4.9905	-0.0095
		2.000	1.9981	-0.0019
		1.000	0.9990	-0.0010
		0.500	0.4991	-0.0009
		0.200	0.1994	-0.0006
		0.100	0.0994	-0.0006
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
	400 Hz	28.70	28.8793	0.1793
		19.60	19.8076	0.2076
		10.00	10.0473	0.0473
		5.000	5.0345	0.0345
		2.000	1.9986	-0.0014
		1.000	0.9991	-0.0009
		0.500	0.4992	-0.0008
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0498	-0.0003
		0.0300	0.0298	-0.0002
	1 kHz	28.70	28.7152	0.0152
		19.60	19.5967	-0.0033
		10.00	9.9423	-0.0577
		5.000	4.9905	-0.0095
		2.000	1.9998	-0.0002
		1.000	0.9989	-0.0011
		0.500	0.4991	-0.0009
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005

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CH16	400 Hz	0.0300	0.0295	-0.0005
		28.70	28.7079	0.0079
		19.60	19.5919	-0.0081
		10.00	9.9394	-0.0606
		5.000	4.9893	-0.0107
		2.000	1.9979	-0.0021
		1.000	0.9988	-0.0012
		0.500	0.4999	-0.0001
		0.200	0.1995	-0.0005
		0.100	0.0997	-0.0003
		0.0500	0.0496	-0.0004
		0.0300	0.0298	-0.0003
	1 kHz	28.70	28.7153	0.0153
		19.60	19.5966	-0.0034
		10.00	9.9427	-0.0573
		5.000	4.9903	-0.0097
		2.000	1.9979	-0.0021
		1.000	0.9989	-0.0011
		0.500	0.4991	-0.0009
		0.200	0.1993	-0.0007
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7140	0.0140
CH17	400 Hz	19.60	19.5958	-0.0042
		10.00	9.9417	-0.0584
		5.000	4.9899	-0.0101
		2.000	2.0046	0.0046
		1.000	1.0020	0.0020
		0.500	0.5007	0.0007
		0.200	0.2000	0.0000
		0.100	0.0999	-0.0001
	1 kHz	0.0500	0.0498	-0.0002
		0.0300	0.0298	-0.0002
		28.70	28.7152	0.0152
		19.60	19.5952	-0.0048
		10.00	9.9423	-0.0577
		5.000	4.9901	-0.0099

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CH18	400 Hz	2.000	1.9978	-0.0022
		1.000	0.9988	-0.0012
		0.500	0.4991	-0.0009
		0.200	0.1994	-0.0006
		0.100	0.0994	-0.0006
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7101	0.0101
		19.60	19.5922	-0.0078
		10.00	9.9401	-0.0599
		5.000	5.0012	0.0012
		2.000	2.0022	0.0022
	1 kHz	1.000	1.0012	0.0012
		0.500	0.5003	0.0003
		0.200	0.1998	-0.0002
		0.100	0.0997	-0.0003
		0.0500	0.0497	-0.0003
		0.0300	0.0297	-0.0003
		28.70	28.7145	0.0145
		19.60	19.5960	-0.0040
		10.00	9.9423	-0.0577
		5.000	4.9909	-0.0091
		2.000	1.9978	-0.0022
		1.000	0.9989	-0.0011
CH19	400 Hz	0.500	0.4990	-0.0010
		0.200	0.1993	-0.0007
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7178	0.0178
		19.60	19.5923	-0.0077
		10.00	9.9403	-0.0597
		5.000	4.9891	-0.0109
		2.000	2.0015	0.0015
		1.000	1.0005	0.0005
		0.500	0.5000	0.0000
		0.200	0.1995	-0.0005
		0.100	0.0996	-0.0004

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CH20	1 kHz	0.0500	0.0498	-0.0003
		0.0300	0.0298	-0.0002
		28.70	28.7140	0.0140
		19.60	19.5958	-0.0042
		10.00	9.9417	-0.0584
		5.000	4.9899	-0.0101
		2.000	1.9979	-0.0021
		1.000	0.9988	-0.0012
		0.500	0.4990	-0.0010
		0.200	0.1993	-0.0007
	400 Hz	0.100	0.0994	-0.0006
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7132	0.0132
		19.60	19.5987	-0.0013
		10.00	9.9443	-0.0557
		5.000	4.9906	-0.0094
		2.000	1.9979	-0.0021
		1.000	0.9988	-0.0012
		0.500	0.4999	-0.0001
CH21	1 kHz	0.200	0.1995	-0.0005
		0.100	0.0997	-0.0003
		0.0500	0.0496	-0.0004
		0.0300	0.0298	-0.0003
		28.70	28.7145	0.0145
		19.60	19.5937	-0.0063
		10.00	9.9411	-0.0589
		5.000	4.9853	-0.0147
		2.000	1.9976	-0.0024
		1.000	0.9988	-0.0012
	400 Hz	0.500	0.4990	-0.0010
		0.200	0.1993	-0.0007
		0.100	0.0994	-0.0006
		0.0500	0.0498	-0.0002
		0.0300	0.0295	-0.0005
		28.70	28.8167	0.1167
		19.60	19.6667	0.0667
		10.00	9.9789	-0.0211

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CH22	1 kHz	5.000	5.0073	0.0073
		2.000	2.0046	0.0046
		1.000	1.0020	0.0020
		0.500	0.4992	-0.0008
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0496	-0.0004
		0.0300	0.0298	-0.0002
		28.70	28.7119	0.0119
		19.60	19.5936	-0.0064
	400 Hz	10.00	9.9408	-0.0592
		5.000	4.9894	-0.0106
		2.000	1.9976	-0.0024
		1.000	0.9987	-0.0013
		0.500	0.4990	-0.0010
		0.200	0.1993	-0.0007
		0.100	0.0994	-0.0006
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7773	0.0773
	1 kHz	19.60	19.6451	0.0451
		10.00	9.9667	-0.0333
		5.000	4.9967	-0.0033
		2.000	2.0005	0.0005
		1.000	0.9989	-0.0011
		0.500	0.4991	-0.0009
		0.200	0.1994	-0.0006
		0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0297	-0.0003
		28.70	28.7178	0.0178
		19.60	19.5923	-0.0077
		10.00	9.9403	-0.0597
		5.000	4.9891	-0.0109
		2.000	1.9977	-0.0023
		1.000	0.9987	-0.0013
		0.500	0.4990	-0.0010
		0.200	0.1999	-0.0001

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CH23	400 Hz	0.100	0.0994	-0.0006
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7659	0.0659
		19.60	19.6287	0.0287
		10.00	9.9567	-0.0433
		5.000	4.9972	-0.0028
		2.000	2.0005	0.0005
		1.000	0.9990	-0.0010
		0.500	0.4991	-0.0009
		0.200	0.1994	-0.0006
		0.100	0.0994	-0.0006
	1 kHz	0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7101	0.0101
		19.60	19.5922	-0.0078
		10.00	9.9401	-0.0599
		5.000	4.9891	-0.0109
		2.000	1.9976	-0.0024
		1.000	0.9987	-0.0013
		0.500	0.4989	-0.0011
		0.200	0.1993	-0.0007
		0.100	0.0994	-0.0006
		0.0500	0.0495	-0.0005
CH24	400 Hz	0.0300	0.0295	-0.0005
		28.70	28.7207	0.0207
		19.60	19.6006	0.0006
		10.00	9.9444	-0.0556
		5.000	4.9912	-0.0088
		2.000	1.9982	-0.0018
		1.000	0.9989	-0.0011
		0.500	0.4991	-0.0009
		0.200	0.1994	-0.0006
	1 kHz	0.100	0.0995	-0.0005
		0.0500	0.0495	-0.0005
		0.0300	0.0295	-0.0005
		28.70	28.7079	0.0079
		19.60	19.5919	-0.0081

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10.00	9.9394	-0.0606
5.000	4.9893	-0.0107
2.000	1.9975	-0.0025
1.000	0.9987	-0.0013
0.500	0.4990	-0.0010
0.200	0.1993	-0.0007
0.100	0.0994	-0.0006
0.0500	0.0495	-0.0005
0.0300	0.0295	-0.0005

\*3.5 空闲噪声(Idle noise)

示值  
Indication

	(μV)
CH1	1.204
CH2	1.231
CH3	1.206
CH4	1.319
CH5	1.339
CH6	1.358
CH7	1.344
CH8	1.532
CH9	1.332
CH10	1.268
CH11	1.404
CH12	1.450
CH13	1.383
CH14	1.315
CH15	1.207
CH16	1.360
CH17	1.292
CH18	1.266
CH19	1.484
CH20	1.526



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CH21	1.306
CH22	1.433
CH23	1.301
CH24	1.363

注:

Notes:

1 本次校准的测量不确定度说明

Measurement Uncertainty in the Calibration

1.1 依据 JJF 1059.1-2012 测量不确定度评定与表示

According to JJF 1059.1-2012 Evaluation and Expression of Uncertainty in Measurement

1.2 本次测量结果的扩展不确定度(  $k=2$  )

The Expanded Uncertainty of the Measurement Results

1.3 源输出频率测量结果的相对扩展不确定度:  $U_{\text{rel}} = 2 \times 10^{-7}$

Related Expanded Uncertainty of Output Frequency:  $U_{\text{rel}} = 2 \times 10^{-7}$

1.4 源输出正弦波电压测量结果的扩展不确定度:

20 Hz ~ 20 kHz :  $U_{\text{rel}} = 0.2 \%$

>20 kHz ~ 50 kHz :  $U_{\text{rel}} = 0.2 \%$

>50 kHz ~ 100 kHz :  $U_{\text{rel}} = 0.8 \%$

Related Expanded Uncertainty of Output Voltage:

20 Hz ~ 20 kHz :  $U_{\text{rel}} = 0.2 \%$

>20 kHz ~ 50 kHz :  $U_{\text{rel}} = 0.2 \%$

>50 kHz ~ 100 kHz :  $U_{\text{rel}} = 0.8 \%$

1.5 源输出正弦波失真测量结果的相对扩展不确定度:  $U_{\text{rel}} = 15\%$

Related Expanded Uncertainty of Output Sinewave Distortion:  $U_{\text{rel}} = 15\%$

1.6 失真测量测量结果的相对扩展不确定度:

0.3 % ~ 30 % :  $U_{\text{rel}} = 1.2 \%$

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0.05 % ~ <0.3 % :  $U_{\text{rel}} = 1.4 \%$

0.03 % :  $U_{\text{rel}} = 2.7 \%$

Related Expanded Uncertainty of Distortion Measurement:

0.3 % ~ 30 % :  $U_{\text{rel}} = 1.2 \%$

0.05 % ~ <0.3 % :  $U_{\text{rel}} = 1.4 \%$

0.03 % :  $U_{\text{rel}} = 2.7 \%$

1.7 交流电压测量测量结果的相对扩展不确定度:

10 Hz ~ 3 kHz :  $U_{\text{rel}} = 0.1 \%$

>3 kHz ~ 10 kHz :  $U_{\text{rel}} = 0.1 \%$

>10 kHz ~ 30 kHz :  $U_{\text{rel}} = 0.2 \%$

>30 kHz ~ 50 kHz :  $U_{\text{rel}} = 0.3 \%$

>50 kHz ~ 100 kHz :  $U_{\text{rel}} = 0.6 \%$

Related Expanded Uncertainty of ACV Measurement:

10 Hz ~ 3 kHz :  $U_{\text{rel}} = 0.1 \%$

>3 kHz ~ 10 kHz :  $U_{\text{rel}} = 0.1 \%$

>10 kHz ~ 30 kHz :  $U_{\text{rel}} = 0.2 \%$

>30 kHz ~ 50 kHz :  $U_{\text{rel}} = 0.3 \%$

>50 kHz ~ 100 kHz :  $U_{\text{rel}} = 0.6 \%$

1.8 频率测量测量结果的相对扩展不确定度:  $U_{\text{rel}} = 2 \times 10^{-7}$

Related Expanded Uncertainty of Frequency Measurement:  $U_{\text{rel}} = 2 \times 10^{-7}$

2 校准结果页中单项结论的判断依据: 仪器技术说明书提供的最大允许误差要求

Basis for the conclusion: Technical Specification of the Instrument

3 标记“#”校准参量(或测量范围)不在CNAS认可范围内

Calibrated Parameters (or Measuring Ranges) marked by "#" are not included in the  
Certificated Range of CNAS.