



校准证书

CALIBRATION CERTIFICATE



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客户信息

Customer Information

客户名称: 深圳市美格信测控技术有限公司
Name

客户地址: 广东省深圳市光明区 盛荟红星创智广场1栋2单元1002
Address

被校测量 器具信息

Information of
Instrument under
Calibration

仪器名称: 音频测试仪
Description

型号规格: PM6181
Model/Type

制造厂商: MegaSig
Manufacturer

出厂编号: L20230301001
Serial No.

管理编号: FZ-TE-001
Asset No.

接收日期: 2023 / 06 / 25
Received Date

接收状态: 正常
As Received

结论: 参照检测/校准结果使用。
Conclusion The test or calibration results are referred to evaluate the validity of instrument measurement.



证书有效性声明:

- 证书首页盖有证书章
- 证书须有唯一防伪码
- 扫描信息与证书一致

校准日期: 2023 / 06 / 26
Cal. Date

签发日期: 2023 / 06 / 27
Issue Date

建议复校日期: 2024 / 06 / 25
Next Cal. Date

校准: 刘金辉
Calibrated by

核验: 周科
Inspected by

签发: 周西平
Approved by (经理)



校准说明

CALIBRATION DIRECTIONS

6. 本次校准所使用的主要标准器具：

Standards Used in the Calibration:

器具名称 Instrument Description	编号 Asset No.	证书编号 Certificate No.	有效期 Due Date	计量特性 Metrological Characteristic	溯源机构 Traceability institutions
多产品校准器	CCIC-DX-1002 M	JL2324383241	2024/03/30	DCV:±1.2×10 ⁻⁵ ; ACV: ±1.2×10 ⁻⁴ ; DCI:±1.0× 10 ⁻⁴ ; ACI:±6×10 ⁻⁴ ; R: ±2.8×10 ⁻⁵	深圳计量院
数字万用表	CCIC-DX-1006 A	S522034585	2023/09/20	DCV:±0.004% ; ACV: ±0.09% ; DCI:±0.05 5% ; ACI:±0.14%	中检计量
失真度测量仪	CCIC-DX-1247	JL2326475881	2024/04/09	失真度MPE:±10%、电 压MPE:±4%	深圳计量院
频率计/Frequency C alibrators	CCIC-WX-1008	WSP202202349	2023/11/15	Frequency:±6×10 ⁻⁸	华南计量院
失真度仪检定装置	CCIC-DX-1106	WWD202203127	2023/10/18	f : ≤±0.1% ; dis : ≤0.0 1% ; v : ≤±0.3%	华南计量院

7.校准地点和环境条件：

Place and environmental conditions:

地点： 本公司无线电实验室 温度： (23.5 ~ 24.5)°C 相对湿度： (58 ~ 68)%

Place of Calibration Temperature Relative Humidity



校准结果

CALIBRATION RESULT

1 外观及功能性检查： 符合要求。

Appearance and function check: Pass.

2 频率测量(Frequency measurement)@0dBm

通道	标准值	示值	误差	U
Channel	Reference	Indication	Error	$k=2$
AI1	(Hz)	(Hz)	(Hz)	(Hz)
balanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
AI1	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
	(Hz)	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
unbalanced	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI2	(Hz)	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
balanced	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
	(Hz)	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000	0.0001
AI2	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
unbalanced	40	40.0000	0.0000	0.0001
	(Hz)	(Hz)	(Hz)	(Hz)
	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
1	1.00000	0.00000	0.00001	



校准结果

CALIBRATION RESULT

	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI3	(Hz)	(Hz)	(Hz)	(Hz)
balanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI3	(Hz)	(Hz)	(Hz)	(Hz)
unbalanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI4	(Hz)	(Hz)	(Hz)	(Hz)
balanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI4	(Hz)	(Hz)	(Hz)	(Hz)
unbalanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001



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CALIBRATION RESULT

	40	40.0000	0.0000	0.0001
AI5	(Hz)	(Hz)	(Hz)	(Hz)
balanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI5	(Hz)	(Hz)	(Hz)	(Hz)
unbalanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI6	(Hz)	(Hz)	(Hz)	(Hz)
balanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001
AI6	(Hz)	(Hz)	(Hz)	(Hz)
unbalanced	20	20.0000	0.0000	0.0001
	400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)
	1	1.00000	0.00000	0.00001
	10	10.0000	0.0000	0.0001
	20	20.0000	0.0000	0.0001
	40	40.0000	0.0000	0.0001



校准结果

CALIBRATION RESULT

AI7	(Hz)	(Hz)	(Hz)	(Hz)	
balanced	20	20.0000	0.0000	0.0001	
	400	100.000	-300.000	0.001	
	(kHz)	(kHz)	(kHz)	(kHz)	
	1	1.00000	0.00000	0.00001	
	10	10.0000	0.0000	0.0001	
	20	20.0000	0.0000	0.0001	
	40	40.0000	0.0000	0.0001	
	AI7	(Hz)	(Hz)	(Hz)	(Hz)
	unbalanced	20	20.0000	0.0000	0.0001
		400	100.000	-300.000	0.001
(kHz)		(kHz)	(kHz)	(kHz)	
1		1.00000	0.00000	0.00001	
10		10.0000	0.0000	0.0001	
20		20.0000	0.0000	0.0001	
40		40.0000	0.0000	0.0001	
AI8		(Hz)	(Hz)	(Hz)	(Hz)
balanced		20	20.0000	0.0000	0.0001
		400	100.000	-300.000	0.001
	(kHz)	(kHz)	(kHz)	(kHz)	
	1	1.00000	0.00000	0.00001	
	10	10.0000	0.0000	0.0001	
	20	20.0000	0.0000	0.0001	
	40	40.0000	0.0000	0.0001	
	AI8	(Hz)	(Hz)	(Hz)	(Hz)
	unbalanced	20	20.0000	0.0000	0.0001
		400	100.000	-300.000	0.001
(kHz)		(kHz)	(kHz)	(kHz)	
1		1.00000	0.00000	0.00001	
10		10.0000	0.0000	0.0001	
20		20.0000	0.0000	0.0001	
40		40.0000	0.0000	0.0001	



校准结果

CALIBRATION RESULT

3 交流电压测量(AC voltage measurement)@1kHz

通道	标准值	示值	误差	U	
Channel	Reference	Indication	Error	$k=2$	
AI1 balanced	(mV)	(mV)	(mV)	(mV)	
	10	9.988	-0.012	0.010	
	100	99.891	-0.109	0.100	
	(V)	(V)	(V)	(V)	
	1	0.9992	-0.0008	0.0010	
	4	3.998	-0.002	0.004	
	AI1 unbalanced	(mV)	(mV)	(mV)	(mV)
		10	9.988	-0.012	0.010
		100	99.891	-0.109	0.100
		(V)	(V)	(V)	(V)
1		0.9992	-0.0008	0.0010	
4		3.998	-0.002	0.004	
AI2 balanced		(mV)	(mV)	(mV)	(mV)
		10	9.988	-0.012	0.010
		100	99.890	-0.110	0.100
		(V)	(V)	(V)	(V)
	1	0.9993	-0.0007	0.0010	
	4	3.999	-0.001	0.004	
	AI2 unbalanced	(mV)	(mV)	(mV)	(mV)
		10	9.987	-0.013	0.010
		100	99.890	-0.110	0.100
		(V)	(V)	(V)	(V)
1		0.9991	-0.0009	0.0010	
4		3.998	-0.002	0.004	
AI3 balanced		(mV)	(mV)	(mV)	(mV)
		10	9.987	-0.013	0.010
		100	99.891	-0.109	0.100
		(V)	(V)	(V)	(V)
	1	0.9992	-0.0008	0.0010	
	4	3.999	-0.001	0.004	



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AI3	(mV)	(mV)	(mV)	(mV)
unbalanced	10	9.988	-0.012	0.010
	100	99.891	-0.109	0.100
	(V)	(V)	(V)	(V)
	1	0.9993	-0.0007	0.0010
	4	3.998	-0.002	0.004
AI4	(mV)	(mV)	(mV)	(mV)
balanced	10	9.987	-0.013	0.010
	100	99.891	-0.109	0.100
	(V)	(V)	(V)	(V)
	1	0.9991	-0.0009	0.0010
	4	3.997	-0.003	0.004
AI4	(mV)	(mV)	(mV)	(mV)
unbalanced	10	9.987	-0.013	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9991	-0.0009	0.0010
	4	3.997	-0.003	0.004
AI5	(mV)	(mV)	(mV)	(mV)
balanced	10	9.989	-0.011	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9991	-0.0009	0.0010
	4	3.998	-0.002	0.004
AI5	(mV)	(mV)	(mV)	(mV)
unbalanced	10	9.988	-0.012	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9991	-0.0009	0.0010
	4	3.999	-0.001	0.004
AI6	(mV)	(mV)	(mV)	(mV)
balanced	10	9.987	-0.013	0.010
	100	99.892	-0.108	0.100



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	(V)	(V)	(V)	(V)
	1	0.9993	-0.0007	0.0010
	4	3.998	-0.002	0.004
AI6	(mV)	(mV)	(mV)	(mV)
unbalanced	10	9.987	-0.013	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9992	-0.0008	0.0010
	4	3.999	-0.001	0.004
AI7	(mV)	(mV)	(mV)	(mV)
balanced	10	9.988	-0.012	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9993	-0.0007	0.0010
	4	3.998	-0.002	0.004
AI7	(mV)	(mV)	(mV)	(mV)
unbalanced	10	9.988	-0.012	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9992	-0.0008	0.0010
	4	3.998	-0.002	0.004
AI8	(mV)	(mV)	(mV)	(mV)
balanced	10	9.987	-0.013	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9992	-0.0008	0.0010
	4	3.997	-0.003	0.004
AI8	(mV)	(mV)	(mV)	(mV)
unbalanced	10	9.989	-0.011	0.010
	100	99.892	-0.108	0.100
	(V)	(V)	(V)	(V)
	1	0.9993	-0.0007	0.0010
	4	3.999	-0.001	0.004



校准结果

CALIBRATION RESULT

4 交流电压测量频率附加误差(AC voltage measurement frequency additional error)@1V

通道	频率	示值	误差	U	
Channel	Frequency	Indication	Error	$k=2$	
AI1	(Hz)	(V)	(dB)	(dB)	
balanced	20	0.9983	-0.010	0.004	
	100	0.9992	0.000	0.004	
	(kHz)	(V)	(dB)	(dB)	
	1(Ref)	0.9992	0.000	0.004	
	10	0.9986	-0.010	0.004	
	20	0.9969	-0.020	0.004	
	40	0.9925	-0.060	0.004	
	AI1	(Hz)	(V)	(dB)	(dB)
	unbalanced	20	0.9983	-0.010	0.004
		100	0.9992	0.000	0.004
(kHz)		(V)	(dB)	(dB)	
1(Ref)		0.9992	0.000	0.004	
10		0.9984	-0.010	0.004	
20		0.9969	-0.020	0.004	
40		0.9923	-0.060	0.004	
AI2		(Hz)	(V)	(dB)	(dB)
balanced		20	0.9984	-0.010	0.004
		100	0.9990	0.000	0.004
	(kHz)	(V)	(dB)	(dB)	
	1(Ref)	0.9991	0.000	0.004	
	10	0.9985	-0.010	0.004	
	20	0.9969	-0.020	0.004	
	40	0.9925	-0.060	0.004	
	AI2	(Hz)	(V)	(dB)	(dB)
	unbalanced	20	0.9984	-0.010	0.004
		100	0.9993	0.000	0.004
(kHz)		(V)	(dB)	(dB)	
1(Ref)		0.9993	0.000	0.004	
10		0.9984	-0.010	0.004	
20		0.9967	-0.020	0.004	



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	40	0.9927	-0.060	0.004
AI3	(Hz)	(V)	(dB)	(dB)
balanced	20	0.9985	0.000	0.004
	100	0.9992	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9990	0.000	0.004
	10	0.9988	0.000	0.004
	20	0.9971	-0.020	0.004
	40	0.9926	-0.060	0.004
AI3	(Hz)	(V)	(dB)	(dB)
unbalanced	20	0.9983	-0.010	0.004
	100	0.9991	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9990	0.000	0.004
	10	0.9987	0.000	0.004
	20	0.9970	-0.020	0.004
	40	0.9926	-0.060	0.004
AI4	(Hz)	(V)	(dB)	(dB)
balanced	20	0.9984	-0.010	0.004
	100	0.9991	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9991	0.000	0.004
	10	0.9988	0.000	0.004
	20	0.9967	-0.020	0.004
	40	0.9923	-0.060	0.004
AI4	(Hz)	(V)	(dB)	(dB)
unbalanced	20	0.9985	-0.010	0.004
	100	0.9991	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9991	0.000	0.004
	10	0.9988	0.000	0.004
	20	0.9967	-0.020	0.004
	40	0.9923	-0.060	0.004



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AI5	(Hz)	(V)	(dB)	(dB)
balanced	20	0.9984	-0.010	0.004
	100	0.9993	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9990	0.000	0.004
	10	0.9985	0.000	0.004
	20	0.9970	-0.020	0.004
	40	0.9927	-0.050	0.004
AI5	(Hz)	(V)	(dB)	(dB)
unbalanced	20	0.9982	-0.010	0.004
	100	0.9994	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9990	0.000	0.004
	10	0.9984	-0.010	0.004
	20	0.9968	-0.020	0.004
	40	0.9925	-0.060	0.004
AI6	(Hz)	(V)	(dB)	(dB)
balanced	20	0.9983	-0.010	0.004
	100	0.9991	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9990	0.000	0.004
	10	0.9985	0.000	0.004
	20	0.9971	-0.020	0.004
	40	0.9926	-0.060	0.004
AI6	(Hz)	(V)	(dB)	(dB)
unbalanced	20	0.9984	-0.010	0.004
	100	0.9993	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9993	0.000	0.004
	10	0.9987	-0.010	0.004
	20	0.9967	-0.020	0.004
	40	0.9924	-0.060	0.004
AI7	(Hz)	(V)	(dB)	(dB)
balanced	20	0.9985	-0.010	0.004



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	100	0.9990	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9993	0.000	0.004
	10	0.9984	-0.010	0.004
	20	0.9968	-0.020	0.004
	40	0.9925	-0.060	0.004
AI7	(Hz)	(V)	(dB)	(dB)
unbalanced	20	0.9983	-0.010	0.004
	100	0.9994	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9990	0.000	0.004
	10	0.9986	0.000	0.004
	20	0.9969	-0.020	0.004
	40	0.9925	-0.060	0.004
AI8	(Hz)	(V)	(dB)	(dB)
balanced	20	0.9982	-0.010	0.004
	100	0.9991	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9994	0.000	0.004
	10	0.9984	-0.010	0.004
	20	0.9971	-0.020	0.004
	40	0.9924	-0.060	0.004
AI8	(Hz)	(V)	(dB)	(dB)
unbalanced	20	0.9982	-0.010	0.004
	100	0.9992	0.000	0.004
	(kHz)	(V)	(dB)	(dB)
	1(Ref)	0.9993	0.000	0.004
	10	0.9988	0.000	0.004
	20	0.9967	-0.020	0.004
	40	0.9923	-0.060	0.004



校准结果

CALIBRATION RESULT

5 失真度测量(Distortion measurement)

通道	频率	标准值	示值	误差	<i>U</i>
Channel	Frequency	Reference	Indication	Error	<i>k=2</i>
A11		(%)	(%)	(%)	(%)
balanced	1kHz	28.70	29.143	0.443	0.861
		19.60	20.369	0.769	0.588
		9.95	10.557	0.607	0.299
		5.000	5.300	0.300	0.150
		2.000	2.124	0.124	0.060
		1.000	1.063	0.063	0.030
		0.5000	0.533	0.033	0.015
		0.2000	0.216	0.016	0.006
		0.1000	0.112	0.012	0.003
		0.0500	0.064	0.014	0.004
		*	0.0300	0.048	0.018
A11		(%)	(%)	(%)	(%)
unbalanced	1kHz	28.70	29.141	0.441	0.861
		19.60	20.367	0.767	0.588
		9.95	10.559	0.609	0.299
		5.000	5.298	0.298	0.150
		2.000	2.126	0.126	0.060
		1.000	1.064	0.064	0.030
		0.5000	0.533	0.033	0.015
		0.2000	0.218	0.018	0.006
		0.1000	0.111	0.011	0.003
		0.0500	0.063	0.013	0.004
		*	0.0300	0.049	0.019
A12		(%)	(%)	(%)	(%)
balanced	1kHz	28.70	29.144	0.444	0.861
		19.60	20.368	0.768	0.588
		9.95	10.559	0.609	0.299
		5.000	5.298	0.298	0.150
		2.000	2.123	0.123	0.060
		1.000	1.063	0.063	0.030



校准结果

CALIBRATION RESULT

		0.5000	0.533	0.033	0.015
		0.2000	0.217	0.017	0.006
		0.1000	0.112	0.012	0.003
		0.0500	0.066	0.016	0.004
	*	0.0300	0.048	0.018	0.003
A12		(%)	(%)	(%)	(%)
unbalanced	1kHz	28.70	29.143	0.443	0.861
		19.60	20.370	0.770	0.588
		9.95	10.558	0.608	0.299
		5.000	5.298	0.298	0.150
		2.000	2.123	0.123	0.060
		1.000	1.061	0.061	0.030
		0.5000	0.533	0.033	0.015
		0.2000	0.216	0.016	0.006
		0.1000	0.113	0.013	0.003
		0.0500	0.066	0.016	0.004
	*	0.0300	0.048	0.018	0.003
A13		(%)	(%)	(%)	(%)
balanced	1kHz	28.70	29.143	0.443	0.861
		19.60	20.369	0.769	0.588
		9.95	10.556	0.606	0.299
		5.000	5.301	0.301	0.150
		2.000	2.126	0.126	0.060
		1.000	1.063	0.063	0.030
		0.5000	0.534	0.034	0.015
		0.2000	0.218	0.018	0.006
		0.1000	0.114	0.014	0.003
		0.0500	0.065	0.015	0.004
	*	0.0300	0.048	0.018	0.003
A13		(%)	(%)	(%)	(%)
unbalanced	1kHz	28.70	29.143	0.443	0.861
		19.60	20.367	0.767	0.588
		9.95	10.557	0.607	0.299
		5.000	5.301	0.301	0.150



校准结果

CALIBRATION RESULT

		2.000	2.122	0.122	0.060
		1.000	1.062	0.062	0.030
		0.5000	0.535	0.035	0.015
		0.2000	0.215	0.015	0.006
		0.1000	0.110	0.010	0.003
		0.0500	0.064	0.014	0.004
	*	0.0300	0.047	0.017	0.003
A14		(%)	(%)	(%)	(%)
balanced	1kHz	28.70	29.142	0.442	0.861
		19.60	20.368	0.768	0.588
		9.95	10.558	0.608	0.299
		5.000	5.298	0.298	0.150
		2.000	2.125	0.125	0.060
		1.000	1.065	0.065	0.030
		0.5000	0.535	0.035	0.015
		0.2000	0.218	0.018	0.006
		0.1000	0.113	0.013	0.003
		0.0500	0.064	0.014	0.004
	*	0.0300	0.047	0.017	0.003
A14		(%)	(%)	(%)	(%)
unbalanced	1kHz	28.70	29.145	0.445	0.861
		19.60	20.367	0.767	0.588
		9.95	10.559	0.609	0.299
		5.000	5.298	0.298	0.150
		2.000	2.123	0.123	0.060
		1.000	1.064	0.064	0.030
		0.5000	0.535	0.035	0.015
		0.2000	0.215	0.015	0.006
		0.1000	0.114	0.014	0.003
		0.0500	0.064	0.014	0.004
	*	0.0300	0.046	0.016	0.003
A15		(%)	(%)	(%)	(%)
balanced	1kHz	28.70	29.141	0.441	0.861
		19.60	20.368	0.768	0.588



校准结果

CALIBRATION RESULT

		9.95	10.559	0.609	0.299
		5.000	5.299	0.299	0.150
		2.000	2.123	0.123	0.060
		1.000	1.065	0.065	0.030
		0.5000	0.531	0.031	0.015
		0.2000	0.214	0.014	0.006
		0.1000	0.112	0.012	0.003
		0.0500	0.066	0.016	0.004
	*	0.0300	0.048	0.018	0.003
AI5		(%)	(%)	(%)	(%)
unbalanced	1kHz	28.70	29.141	0.441	0.861
		19.60	20.370	0.770	0.588
		9.95	10.556	0.606	0.299
		5.000	5.300	0.300	0.150
		2.000	2.122	0.122	0.060
		1.000	1.062	0.062	0.030
		0.5000	0.533	0.033	0.015
		0.2000	0.218	0.018	0.006
		0.1000	0.110	0.010	0.003
		0.0500	0.066	0.016	0.004
	*	0.0300	0.047	0.017	0.003
AI6		(%)	(%)	(%)	(%)
balanced	1kHz	28.70	29.141	0.441	0.861
		19.60	20.370	0.770	0.588
		9.95	10.558	0.608	0.299
		5.000	5.299	0.299	0.150
		2.000	2.123	0.123	0.060
		1.000	1.064	0.064	0.030
		0.5000	0.534	0.034	0.015
		0.2000	0.215	0.015	0.006
		0.1000	0.113	0.013	0.003
		0.0500	0.065	0.015	0.004
	*	0.0300	0.046	0.016	0.003



校准结果

CALIBRATION RESULT

AI6		(%)	(%)	(%)	(%)		
unbalanced	1kHz	28.70	29.142	0.442	0.861		
		19.60	20.368	0.768	0.588		
		9.95	10.558	0.608	0.299		
		5.000	5.299	0.299	0.150		
		2.000	2.122	0.122	0.060		
		1.000	1.062	0.062	0.030		
		0.5000	0.532	0.032	0.015		
		0.2000	0.217	0.017	0.006		
		0.1000	0.113	0.013	0.003		
		0.0500	0.062	0.012	0.004		
		*	0.0300	0.049	0.019	0.003	
		AI7		(%)	(%)	(%)	(%)
		balanced	1kHz	28.70	29.142	0.442	0.861
19.60	20.368			0.768	0.588		
9.95	10.559			0.609	0.299		
5.000	5.302			0.302	0.150		
2.000	2.125			0.125	0.060		
1.000	1.062			0.062	0.030		
0.5000	0.531			0.031	0.015		
0.2000	0.215			0.015	0.006		
0.1000	0.114			0.014	0.003		
0.0500	0.064			0.014	0.004		
*	0.0300			0.049	0.019	0.003	
AI7				(%)	(%)	(%)	(%)
unbalanced	1kHz			28.70	29.141	0.441	0.861
		19.60	20.371	0.771	0.588		
		9.95	10.556	0.606	0.299		
		5.000	5.299	0.299	0.150		
		2.000	2.126	0.126	0.060		
		1.000	1.064	0.064	0.030		
		0.5000	0.535	0.035	0.015		
		0.2000	0.214	0.014	0.006		
		0.1000	0.114	0.014	0.003		



校准结果

CALIBRATION RESULT

		0.0500	0.065	0.015	0.004
	*	0.0300	0.048	0.018	0.003
AI8		(%)	(%)	(%)	(%)
balanced	1kHz	28.70	29.142	0.442	0.861
		19.60	20.367	0.767	0.588
		9.95	10.556	0.606	0.299
		5.000	5.298	0.298	0.150
		2.000	2.126	0.126	0.060
		1.000	1.063	0.063	0.030
		0.5000	0.532	0.032	0.015
		0.2000	0.218	0.018	0.006
		0.1000	0.110	0.010	0.003
		0.0500	0.064	0.014	0.004
	*	0.0300	0.050	0.020	0.003
AI8		(%)	(%)	(%)	(%)
unbalanced	1kHz	28.70	29.145	0.445	0.861
		19.60	20.369	0.769	0.588
		9.95	10.556	0.606	0.299
		5.000	5.302	0.302	0.150
		2.000	2.122	0.122	0.060
		1.000	1.062	0.062	0.030
		0.5000	0.531	0.031	0.015
		0.2000	0.216	0.016	0.006
		0.1000	0.113	0.013	0.003
		0.0500	0.064	0.014	0.004
	*	0.0300	0.047	0.017	0.003

6 输出频率(Output frequency)@0dBm

通道	标称值	实测值	误差	<i>U</i>
Channel	Nominal	Measured	Error	<i>k=2</i>
AO1	(Hz)	(Hz)	(Hz)	(Hz)
balanced	20	19.99977	0.00023	0.00002
	100	99.99974	0.00026	0.00010
	(kHz)	(kHz)	(kHz)	(kHz)
	1	0.999998	0.000002	0.000001



校准结果

CALIBRATION RESULT

	10	9.999986	0.000014	0.000010
	20	19.999978	0.000022	0.000020
	40	39.999922	0.000078	0.000040
AO1	(Hz)	(Hz)	(Hz)	(Hz)
unbalanced	20	19.99978	0.00022	0.00002
	400	99.99973	300.00027	0.00040
	(kHz)	(kHz)	(kHz)	(kHz)
	1	0.999997	0.000003	0.000001
	10	9.999984	0.000016	0.000010
	20	19.999976	0.000024	0.000020
	40	39.999924	0.000076	0.000040
AO2	(Hz)	(Hz)	(Hz)	(Hz)
balanced	20	19.99975	0.00025	0.00002
	100	99.99974	0.00026	0.00010
	(kHz)	(kHz)	(kHz)	(kHz)
	1	0.999999	0.000001	0.000001
	10	9.999985	0.000015	0.000010
	20	19.999977	0.000023	0.000020
	40	39.999922	0.000078	0.000040
AO2	(Hz)	(Hz)	(Hz)	(Hz)
unbalanced	20	19.99977	0.00023	0.00002
	400	99.99972	300.00027	0.00040
	(kHz)	(kHz)	(kHz)	(kHz)
	1	0.999998	0.000002	0.000001
	10	9.999985	0.000015	0.000010
	20	19.999980	0.000020	0.000020
	40	39.999920	0.000080	0.000040

7 输出电压(The output voltage)

通道	标称值	实测值	误差	U
Channel	Nominal	Measured	Error	$k=2$
AO1	(mV)	(mV)	(mV)	(mV)
balanced	10	10.141	-0.141	0.010
	50	50.111	-0.111	0.050
	100	100.206	-0.206	0.100



校准结果

CALIBRATION RESULT

	500	500.97	-0.97	0.50
	(V)	(V)	(V)	(V)
	1	1.00209	-0.00209	0.00100
	2	2.0040	-0.0040	0.0020
	3	3.0053	-0.0053	0.0030
AO1	(mV)	(mV)	(mV)	(mV)
unbalanced	10	10.143	-0.143	0.010
	50	50.109	-0.109	0.050
	100	100.208	-0.208	0.100
	500	500.99	-0.99	0.50
	(V)	(V)	(V)	(V)
	1	1.00209	-0.00209	0.00100
	2	2.0040	-0.0040	0.0020
	3	3.0053	-0.0053	0.0030
AO2	(mV)	(mV)	(mV)	(mV)
balanced	10	10.140	-0.140	0.010
	50	50.109	-0.109	0.050
	100	100.207	-0.207	0.100
	500	500.95	-0.95	0.50
	(V)	(V)	(V)	(V)
	1	1.00211	-0.00211	0.00100
	2	2.0042	-0.0042	0.0020
	3	3.0051	-0.0051	0.0030
AO2	(mV)	(mV)	(mV)	(mV)
unbalanced	10	10.140	-0.140	0.010
	50	50.111	-0.111	0.050
	100	100.206	-0.206	0.100
	500	500.96	-0.96	0.50
	(V)	(V)	(V)	(V)
	1	1.00211	-0.00211	0.00100
	2	2.0040	-0.0040	0.0020
	3	3.0051	-0.0051	0.0030



校准结果

CALIBRATION RESULT

8 输出电压频率响应(Output voltage frequency response)@1V

通道	频率	实测值	误差	U	
Channel	Frequency	Measured	Error	$k=2$	
AO1 balanced	(Hz)	(V)	(dB)	(dB)	
	20	1.0020	0.000	0.004	
	100	1.0019	0.000	0.004	
	(kHz)	(V)	(dB)	(dB)	
	1(Ref)	1.0020	0.000	0.004	
	10	1.0020	0.000	0.004	
	20	1.0020	0.000	0.004	
	40	1.0020	0.000	0.004	
	AO1 unbalanced	(Hz)	(V)	(dB)	(dB)
	20	1.0020	0.000	0.004	
100	1.0020	0.000	0.004		
(kHz)	(V)	(dB)	(dB)		
1(Ref)	1.0021	0.000	0.004		
10	1.0021	0.000	0.004		
20	1.0020	0.000	0.004		
40	1.0021	0.000	0.004		
AO2 balanced	(Hz)	(V)	(dB)	(dB)	
20	1.0020	0.000	0.004		
100	1.0021	0.000	0.004		
(kHz)	(V)	(dB)	(dB)		
1(Ref)	1.0019	0.000	0.004		
10	1.0021	0.000	0.004		
20	1.0021	0.000	0.004		
40	1.0021	0.000	0.004		
AO2 unbalanced	(Hz)	(V)	(dB)	(dB)	
20	1.0020	0.000	0.004		
100	1.0019	0.000	0.004		
(kHz)	(V)	(dB)	(dB)		
1(Ref)	1.0019	0.000	0.004		
10	1.0020	0.000	0.004		
20	1.0018	0.000	0.004		



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CALIBRATION RESULT

40 1.0018 0.000 0.004

9 输出正弦波波形失真度(Output sine wave waveform distortion)

通道	频率	实测值	<i>U</i>	
Channel	Frequency	Measured	<i>k=2</i>	
AO1	(Hz)	(%)	(%)	
balanced	20	0.038	0.010	
	100	0.035	0.010	
	(kHz)	(%)	(%)	
1(Ref)	10	0.038	0.010	
	20	0.042	0.010	
	20	0.039	0.010	
AO1	(Hz)	(%)	(%)	
	unbalanced	20	0.040	0.010
		100	0.035	0.010
(kHz)		(%)	(%)	
1(Ref)	10	0.038	0.010	
	20	0.041	0.010	
	20	0.039	0.010	
AO2	(Hz)	(%)	(%)	
	balanced	20	0.039	0.010
		100	0.036	0.010
(kHz)		(%)	(%)	
1(Ref)	10	0.040	0.010	
	20	0.044	0.010	
	20	0.039	0.010	
AO2	(Hz)	(%)	(%)	
	unbalanced	20	0.039	0.010
		100	0.036	0.010
(kHz)		(%)	(%)	
1(Ref)	10	0.036	0.010	
	20	0.043	0.010	
	20	0.041	0.010	



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说明(Notes)

测量结果的扩展不确定度评定依据JJF1059.1-2012测量不确定度评定与表示.

The expanded measurement uncertainty of the measurement processes are calculated in accordance with JJF1059.1-2012 Evaluation and Expression of Uncertainty in Measurement.

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