



校准证书

Certification of Calibration

| | |
|-------------------|--|
| 产品 <i>Product</i> | 函数/任意波形发生器 |
| | <i>Function/Arbitrary Waveform Generator</i> |
| 规格型号 <i>Model</i> | DG1022 |
| 序列号 <i>S/N</i> | DG1D160700338 |

校准结果:
Calibration Results

合格
PASS

校准日期:
Calibration Date

2020年12月28日

校准:
Operator

刘剑

审核:
Checked by

李英德

签发:
Issuer

孙同

地址:
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校准使用仪器

Calibration equipment

| | 型号/规格 <i>Model</i> | 编号 <i>SN</i> | 证书号 <i>Cert.No.</i> | 有效期至 <i>Due Date</i> |
|-------|-----------------------|-----------------|---------------------|-------------------------|
| 频率计 | 53210A | MY50002025 | 20002844-0001 | 2021/6/10 |
| 数字万用表 | DM3068 | DM30174200664 | 2JB19041688-0001 | 2021/10/14 |
| 功率计 | N1914A+ | MY54120032 | 801295669 | 2021/10/20 |
| 功率传感器 | E9304A | MY52160027 | 801295674-001 | 2021/10/20 |

校准依据文档 *Reference Document*

DG1000系列函数/任意波形发生器用户手册

User's Guide for DG1000 Series

《RIGOL函数/任意波形发生器校准规范》

*RIGOL Function/Arbitrary Waveform Generator specifications*校准环境 *Environment Condition at Calibration*温度 *Temperature* (23 ± 5) °C相对湿度 *Relative Humidity* (40 to 70)% RH

校准结论

Calibration results:

所校准的项目符合规定的校准指标

The calibration of the projects meet the required calibration standards

建议下次校准时间

The Next Cal Date Recommended

2021年12月27日

Year Month Day



校准结果

Calibration Results

CH1正弦波输出电压(CH1 Sine Amplitude) HIGH Z

| 频率 <i>Frequency</i> | 幅度 (Vpp) <i>Amplitude</i> | 下限 (Vpp) <i>Min</i> | 测量值 (Vpp) <i>Value</i> | 上限 (Vpp) <i>Max</i> | 结论 <i>P/F</i> |
|------------------------|------------------------------|------------------------|---------------------------|------------------------|------------------|
| 1kHz | 0.004 | 0.003 | 0.0036 | 0.005 | Pass |
| 1kHz | 0.038 | 0.037 | 0.0380 | 0.039 | Pass |
| 1kHz | 0.058 | 0.056 | 0.0580 | 0.060 | Pass |
| 1kHz | 0.062 | 0.060 | 0.0619 | 0.064 | Pass |
| 1kHz | 0.126 | 0.124 | 0.1262 | 0.128 | Pass |
| 1kHz | 0.198 | 0.195 | 0.1980 | 0.201 | Pass |
| 1kHz | 0.202 | 0.199 | 0.2018 | 0.205 | Pass |
| 1kHz | 0.376 | 0.371 | 0.3769 | 0.381 | Pass |
| 1kHz | 0.598 | 0.591 | 0.5978 | 0.605 | Pass |
| 1kHz | 0.602 | 0.595 | 0.6013 | 0.609 | Pass |
| 1kHz | 1.250 | 1.237 | 1.2524 | 1.263 | Pass |
| 1kHz | 1.998 | 1.977 | 1.9977 | 2.019 | Pass |
| 1kHz | 2.002 | 1.981 | 1.9994 | 2.023 | Pass |
| 1kHz | 3.750 | 3.712 | 3.7602 | 3.788 | Pass |
| 1kHz | 5.998 | 5.938 | 5.9978 | 6.058 | Pass |
| 1kHz | 6.002 | 5.942 | 5.9807 | 6.062 | Pass |
| 1kHz | 11.250 | 11.139 | 11.3227 | 11.361 | Pass |
| 1kHz | 20.000 | 19.803 | 20.0020 | 20.197 | Pass |



校准结果

Calibration Results

CH2正弦波输出电压(CH2 Sine Amplitude) HIGH Z

| 频率 <i>Frequency</i> | 幅度 (mVpp) <i>Amplitude</i> | 下限 (mVpp) <i>Min</i> | 测量值 (mVpp) <i>Value</i> | 上限 (mVpp) <i>Max</i> | 结论 <i>P/F</i> |
|------------------------|----------------------------------|-------------------------|----------------------------|-------------------------|------------------|
| 1kHz | 0.004 | 0.003 | 0.0036 | 0.005 | Pass |
| 1kHz | 0.038 | 0.037 | 0.0380 | 0.039 | Pass |
| 1kHz | 0.058 | 0.056 | 0.0580 | 0.060 | Pass |
| 1kHz | 0.062 | 0.060 | 0.0618 | 0.064 | Pass |
| 1kHz | 0.126 | 0.124 | 0.1262 | 0.128 | Pass |
| 1kHz | 0.198 | 0.195 | 0.1979 | 0.201 | Pass |
| 1kHz | 0.202 | 0.199 | 0.2018 | 0.205 | Pass |
| 1kHz | 0.376 | 0.371 | 0.3770 | 0.381 | Pass |
| 1kHz | 0.598 | 0.591 | 0.5979 | 0.605 | Pass |
| 1kHz | 0.602 | 0.595 | 0.6015 | 0.609 | Pass |
| 1kHz | 1.250 | 1.237 | 1.2513 | 1.263 | Pass |
| 1kHz | 1.998 | 1.977 | 1.9974 | 2.019 | Pass |
| 1kHz | 2.002 | 1.981 | 1.9997 | 2.023 | Pass |
| 1kHz | 3.750 | 3.712 | 3.7595 | 3.788 | Pass |
| 1kHz | 5.998 | 5.938 | 5.9972 | 6.058 | Pass |



校准结果

Calibration Results

CH1低频幅度平坦度(CH1 Low Amplitude Flatness) HIGH Z

| 频率 (kHz) <i>Frequency</i> | 幅度 (Vpp) <i>Amplitude</i> | 下限 (Vpp) <i>Min</i> | 测量值 (Vpp) <i>Value</i> | 上限 (Vpp) <i>Max</i> | 结论 <i>P/F</i> |
|---------------------------------|------------------------------|------------------------|---------------------------|------------------------|------------------|
| 1.3 | 0.56 | 0.554 | 0.5605 | 0.565 | Pass |
| 30 | 0.56 | 0.554 | 0.5599 | 0.565 | Pass |
| 80 | 0.56 | 0.554 | 0.5598 | 0.565 | Pass |
| 1.5 | 1.70 | 1.679 | 1.7002 | 1.712 | Pass |
| 28 | 1.70 | 1.679 | 1.6985 | 1.712 | Pass |
| 80 | 1.70 | 1.679 | 1.6967 | 1.712 | Pass |
| 1.5 | 5.60 | 5.539 | 5.6075 | 5.649 | Pass |
| 30 | 5.60 | 5.539 | 5.6026 | 5.649 | Pass |
| 85 | 5.60 | 5.539 | 5.6025 | 5.649 | Pass |

CH2低频幅度平坦度(CH2 Low Amplitude Flatness) HIGH Z

| 频率 (kHz) <i>Frequency</i> | 幅度 (Vpp) <i>Amplitude</i> | 下限 (Vpp) <i>Min</i> | 测量值 (Vpp) <i>Value</i> | 上限 (Vpp) <i>Max</i> | 结论 <i>P/F</i> |
|---------------------------------|------------------------------|------------------------|---------------------------|------------------------|------------------|
| 1.3 | 0.56 | 0.554 | 0.5604 | 0.565 | Pass |
| 30 | 0.56 | 0.554 | 0.5603 | 0.565 | Pass |
| 80 | 0.56 | 0.554 | 0.5600 | 0.565 | Pass |
| 1.5 | 1.70 | 1.680 | 1.7002 | 1.713 | Pass |
| 28 | 1.70 | 1.680 | 1.6998 | 1.713 | Pass |
| 80 | 1.70 | 1.680 | 1.6982 | 1.713 | Pass |



校准结果

Calibration Results

CH1高频幅度平坦度(CH1 High Amplitude Flatness) 50Ω

| 频率 (kHz) <i>Frequency</i> | 幅度 (dBm) <i>Amplitude</i> | 下限 (dBm) <i>Min</i> | 测量值 (dBm) <i>Value</i> | 上限 (dBm) <i>Max</i> | 结论 <i>P/F</i> |
|---------------------------------|------------------------------|------------------------|---------------------------|------------------------|------------------|
| 100 | 1.85 | 1.75 | 1.86 | 1.95 | Pass |
| 505 | 1.85 | 1.75 | 1.86 | 1.95 | Pass |
| 1035 | 1.85 | 1.75 | 1.86 | 1.95 | Pass |
| 4905 | 1.85 | 1.75 | 1.85 | 1.95 | Pass |
| 9056 | 1.85 | 1.75 | 1.84 | 1.95 | Pass |
| 15560 | 1.85 | 1.65 | 1.83 | 2.05 | Pass |
| 21155 | 1.85 | 1.65 | 1.83 | 2.05 | Pass |
| 24995 | 1.85 | 1.65 | 1.83 | 2.05 | Pass |
| 100 | 11.85 | 11.75 | 11.89 | 11.95 | Pass |
| 505 | 11.85 | 11.75 | 11.89 | 11.95 | Pass |
| 1035 | 11.85 | 11.75 | 11.91 | 11.95 | Pass |
| 4905 | 11.85 | 11.75 | 11.92 | 11.95 | Pass |
| 9056 | 11.85 | 11.75 | 11.92 | 11.95 | Pass |
| 15560 | 11.85 | 11.65 | 11.91 | 12.05 | Pass |
| 21155 | 11.85 | 11.65 | 11.91 | 12.05 | Pass |
| 24995 | 11.85 | 11.65 | 11.93 | 12.05 | Pass |
| 100 | 17.88 | 17.78 | 17.88 | 17.98 | Pass |
| 505 | 17.88 | 17.78 | 17.88 | 17.98 | Pass |
| 1035 | 17.88 | 17.78 | 17.87 | 17.98 | Pass |
| 4905 | 17.88 | 17.78 | 17.85 | 17.98 | Pass |
| 9056 | 17.88 | 17.78 | 17.85 | 17.98 | Pass |
| 15560 | 17.88 | 17.68 | 17.85 | 18.08 | Pass |
| 21155 | 17.88 | 17.68 | 17.87 | 18.08 | Pass |
| 24995 | 17.88 | 17.68 | 17.88 | 18.08 | Pass |



校准结果

Calibration Results

CH2高频幅度平坦度(CH2 High Amplitude Flatness) 50Ω

| 频率 (kHz) <i>Frequency</i> | 幅度 (dBm) <i>Amplitude</i> | 下限 (dBm) <i>Min</i> | 测量值 (dBm) <i>Value</i> | 上限 (dBm) <i>Max</i> | 结论 <i>P/F</i> |
|---------------------------------|------------------------------|------------------------|---------------------------|------------------------|------------------|
| 100 | 1.85 | 1.75 | 1.83 | 1.95 | Pass |
| 505 | 1.85 | 1.75 | 1.84 | 1.95 | Pass |
| 1035 | 1.85 | 1.75 | 1.85 | 1.95 | Pass |
| 4905 | 1.85 | 1.75 | 1.85 | 1.95 | Pass |
| 9056 | 1.85 | 1.75 | 1.84 | 1.95 | Pass |
| 15560 | 1.85 | 1.65 | 1.83 | 2.05 | Pass |
| 21155 | 1.85 | 1.65 | 1.83 | 2.05 | Pass |
| 24995 | 1.85 | 1.65 | 1.84 | 2.05 | Pass |
| 100 | 11.85 | 11.75 | 11.91 | 11.95 | Pass |
| 505 | 11.85 | 11.75 | 11.91 | 11.95 | Pass |
| 1035 | 11.85 | 11.75 | 11.93 | 11.95 | Pass |
| 4905 | 11.85 | 11.75 | 11.91 | 11.95 | Pass |
| 9056 | 11.85 | 11.75 | 11.92 | 11.95 | Pass |
| 15560 | 11.85 | 11.65 | 11.97 | 12.05 | Pass |
| 21155 | 11.85 | 11.65 | 11.99 | 12.05 | Pass |
| 24995 | 11.85 | 11.65 | 12.00 | 12.05 | Pass |

其它测试 (Other Tests)

| 测试项目 <i>Calibration Items</i> | 结论 <i>P/F</i> |
|---------------------------------|---------------|
| 屏幕 <i>Screen Test</i> | Pass |
| 键盘 <i>Keyboard Test</i> | Pass |
| USB接口 <i>USB Test</i> | Pass |
| 10MHz-in接口 <i>10MHz-in Test</i> | Pass |
| 外调制接口 <i>modulation in</i> | Pass |
| Trig/FSK | Pass |
| 同步接口 <i>Sync out Test</i> | Pass |