

## 校准证书

## CALIBRATION CERTIFICATE

证书编号  
Certificate No.

C2303310620001

第 1 页 共 5 页  
Page of委托单位  
Customer

深圳市知用电子有限公司

委托单位地址  
Address

深圳市龙岗区龙城街道黄阁路441号龙岗天安数码创业园一号厂房A1702-1单元

器具名称  
Name of Instrument功率吸收钳  
Absorbing Clamp型号规格  
Model

EM5018

制造商  
Manufacturer

知用(CYBERTEK)

出厂编号  
Serial No.

EM501822204

管理编号  
Management No.

-----

接收日期  
Received Date

2023/03/31

校准日期  
Calibration Date

2023/04/08

发布日期  
Issue Date

2023/04/17

建议下次校准日期  
Next Calibration Date

2024/04/07



批准

Approved by

耿虎

审核

Inspected by

曾财萍

校准

Calibrated by

蔡源培

地址：广东省深圳市宝安区新安街道兴东社区华测检测大楼

邮政编码(Post No.): 518101

Address: CTI Building, Xingdong Community, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

电话(Tel): 86-755-33682045 传真(Fax): 86-755-33683385 电子邮箱(E-mail): calibration@cti-cert.com

说明

DIRECTIONS

证书编号 C2303310620001  
Certificate No.

第 2 页 共 5 页  
Page of

1. 本证书校准结果均可溯源至国际单位制（SI）单位。  
The results are traceable to International System of Units(SI).
2. 证书未盖本公司报告专用章及骑缝章无效。未经本公司书面批准，不得部分复制此证书。  
Any certificate is deemed to be invalid without both the dedicated certificate seal and its across-page seal. This certificate shall not be copied partly without the written approval of CTI.
3. 本证书校准结果只与受校准仪器有关。如证书中的英文内容与中文内容有差异，以中文为准。  
The results relate only to the items calibrated.In case of any discrepancy between the English version and Chinese version of the certificate(if generated),the Chinese version shall prevail.
4. 本次校准的技术依据：  
Reference documents for the calibration  
JJF 1155-2006 (30MHz-1.0GHz)吸收式功率钳校准规范
5. 本次校准所使用的主要计量标准器具：  
Main standards of mearsurement used in the calibration

| 名称/型号规格<br>Name/Model | 编号<br>Serial No. | 证书号/溯源机构<br>Certificate No./Traceability to | 有效期<br>Due Date | 计量特性<br>Technical Characteristic                                                                                                                                                                                                                                                                                                                    |
|-----------------------|------------------|---------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 信号分析仪<br>N9030A       | MY54490588       | J22X10268<br>中国泰尔实验室                        | 2023/11/06      | 频率输出:U=0.1Hz;频率读数:U=0.04kHz~4MHz;<br>扫频宽度:U=0.10Hz~1.0MHz;分辨率<br>宽带:U=0.07Hz~20kHz;<br>噪声边带:U=1.4dB;分辨率宽带转<br>换:U=0.01dB;<br>显示平均噪声电平:U=1.8dB;二次调<br>谐失真:U=1.8dB;<br>输入频响:U=0.22dB;绝对幅<br>度:U=0.20dB;<br>均方根值误差矢量幅<br>度:U=0.58%~1.2%;均方根值幅度误<br>差:U=1.2%;<br>均方根值相位误差:U=0.36deg;频率<br>误差:U=1.2Hz~3.4Hz;<br>邻道功率比:U=0.50dB;波形质<br>量:U=0.0015;<br>k=2 |

说明

DIRECTIONS

证书编号 C2303310620001  
Certificate No.

第 3 页 共 5 页  
Page of

| 名称/型号规格<br>Name/Model | 编号<br>Serial No. | 证书号/溯源机构<br>Certificate No./Traceability to | 有效期<br>Due Date | 计量特性<br>Technical Characteristic |
|-----------------------|------------------|---------------------------------------------|-----------------|----------------------------------|
|-----------------------|------------------|---------------------------------------------|-----------------|----------------------------------|

|                 |            |                            |            |                                                                                                                                    |
|-----------------|------------|----------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------|
| 信号发生器<br>N5182B | MY53051890 | WWS202200561<br>广东省计量科学研究院 | 2023/06/15 | 电平: $U=0.40\text{dB}$ , $k=2$ ;<br>频率: $U_{\text{rel}}=1.0\text{E-}09$ , $k=2$ ;<br>均方根误差矢量幅度: $U_{\text{rel}}=1.0\%$ ,<br>$k=2$ ; |
|-----------------|------------|----------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------|

6. 校准地点、环境条件:  
Place and environment condition during calibration  
地点: EMC实验室  
Place  
温度: 20.1°C  
Temperature

相对湿度: 50%RH  
R.H.

校准结果  
RESULTS OF CALIBRATION

证书编号 C2303310620001  
Certificate No.

第 4 页 共 5 页  
Page of

1 外观及工作正常性检查:正常  
Appearance and Performance checked:Normal

2 钳插入损耗  
Clamp Insert Loss

| 测试频率<br>Frequency<br>(MHz) | 插入损耗<br>Insertion Loss<br>(dB) | 扩展不确定度<br>$U(k=2)$<br>(dB) |
|----------------------------|--------------------------------|----------------------------|
| 30                         | 20.1                           | 2.0                        |
| 40                         | 19.6                           | 2.0                        |
| 50                         | 19.3                           | 2.0                        |
| 60                         | 19.2                           | 2.0                        |
| 70                         | 19.2                           | 2.0                        |
| 80                         | 19.1                           | 2.0                        |
| 90                         | 18.1                           | 2.0                        |
| 100                        | 17.8                           | 2.0                        |
| 120                        | 16.5                           | 2.0                        |
| 150                        | 16.8                           | 2.0                        |
| 180                        | 16.8                           | 2.0                        |
| 200                        | 16.3                           | 2.0                        |
| 220                        | 16.8                           | 2.0                        |
| 250                        | 16.8                           | 2.0                        |
| 280                        | 17.5                           | 2.0                        |
| 300                        | 17.2                           | 2.0                        |
| 350                        | 18.1                           | 2.0                        |
| 400                        | 18.4                           | 2.0                        |
| 450                        | 18.5                           | 2.0                        |
| 500                        | 18.7                           | 2.0                        |
| 550                        | 18.3                           | 2.0                        |
| 600                        | 18.8                           | 2.0                        |
| 650                        | 19.1                           | 2.0                        |
| 700                        | 19.2                           | 2.0                        |
| 750                        | 19.5                           | 2.0                        |

校准结果  
RESULTS OF CALIBRATION



证书编号 C2303310620001  
Certificate No.

第 5 页 共 5 页  
Page of

| 测试频率      | 插入损耗           | 扩展不确定度   |
|-----------|----------------|----------|
| Frequency | Insertion Loss | $U(k=2)$ |
| (MHz)     | (dB)           | (dB)     |
| 800       | 19.7           | 2.0      |
| 850       | 19.8           | 2.0      |
| 900       | 20.0           | 2.0      |
| 950       | 20.2           | 2.0      |
| 1000      | 20.5           | 2.0      |

说明(Notes):

- 1、本次校准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。  
Expanded uncertainty of measurement according to JJF1059.1-2012 Evaluation and Expression of Uncertainty in Measurement.
- 以下空白  
Blank below