中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校 准 证 书
CALIBRATION CERTIFICATE

证书编号：2GB25013606-0002
Certificate No.

中国认可
国际互认
校准
CALIBRATION
CNAS L13344

委托单位：Client	石家庄天宸科技有限责任公司
委托方地址：Address	天津市河东区华兴道荣信公寓8门6层
仪器名称：Description	电流注入探头
型号规格：Model/Type	HR-TCICP400M
制造商：Manufacturer	石家庄天宸科技有限责任公司
机身号：Serial No.	TCIP001004
接收日期：Rec. Date	2025-06-30
校准日期：Cal. Date	2025-07-02
签发日期：App. Date	2025-07-03
建议校准周期：Reference Cal. Period	12个月(12 months)
结论：Conclusion	按校准结果使用(Calibrated)

校准：Calibrated by 李轩炜 李轩炜

核验：Inspected by 黄仙健 黄仙健

签发：Approved by 张成 张成

印章：Stamp 中国赛宝实验室计量检测中心 电子报告专用章

扫一扫查真伪

赛宝计量检测中心
总部地址：广州市增城区朱村街朱村大道西78号
实验室地址：广州市增城区朱村街朱村大道西78号
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说　明
DIRECTIONS

1. 本机构是国家市场监管总局授权建立的法定计量检定机构："国家环境综合试验设备计量站"，国家国防科工局授权建立的"国防科技工业4412区域计量站"，本机构质量管理体系符合ISO/IEC 17025:2017标准的要求。

This laboratory is the legal metrological institute authorized by the State Administration for Market Regulation. It is the "Nation Metrology Station of Combined Environmental Testing Equipment". It is the "No. 4412 Regional Metrology Station of Science, Technology and Industry for National Defense" authorized by the State Administration of Science, Technology and Industry for National Defense. The quality management system of this laboratory is in accordance with the ISO/IEC 17025:2017.

2. 本证书中的数据可溯源到国际单位制（SI）单位和/或社会公用计量标准。

The data of the certificate is traceable to the International system of Units（SI）and/or the public metrological standards.

3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes)**：**

- ISO 11452-4-2020 道路车辆——窄带辐射电磁能电气骚扰的零部件试验方法——第 4 部分：线束激励方法：Insertion Loss,Frequency Range:（0 ～120）dB@（5Hz～1GHz）;Transfer Impedance,Frequency Range:（-86～34）dBΩ@(5Hz～1GHz)。

✱ 详细内容请查看CNAS网站中注册编号为L13344的证书附件，超出范围的内容未被认可，其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)

4. 本次校准所使用的主要测量标准及溯源性声明(The main measurement standards used during the calibration and traceability declaration)**：**

名　称 (Description)	证书号/有效期/溯源单位 (Certificate No./Due Date/Traceability to)	技术指标 (Specification)	测量范围 (Measuring Range)
网络分析仪(MY50013004)	4GC24001363-0001/2025-12-27/ 赛宝(广州)	f：$\pm 7\times 10^{-6}$；Output Level Flatness：±0.8 dB；Output Level Linearity：±0.75dB；	f：5Hz~3GHz；Output Level：-20dBm～10dBm；Receiver Magnitude Dynamic：-110dBm～20 dBm

计量溯源性声明(Metrological Traceability Declaration)**：**

被校准器具 Instrument	设备名称 Standard Name	外部机构/溯源证书编号 Institute/Certificate No.
电流注入探头	网络分析仪	航天203所/GFJGJL1002230104571

5. 校准地点(The calibration place)**：**

广州市增城区朱村街朱村大道西78号9栋313室

6. 环境条件(Environmental conditions)**：**

温度(Temperature)：25　　相对湿度(Relative Humidity)：60%　　其它(Other)：/

7. 本证书中给出的扩展不确定度依据JJF1059.1-2012《测量不确定度评定与表示》评定，由合成标准不确定度乘以包含概率约为95%时对应的包含因子*k*得到。

The extended uncertainty given in this certificate is evaluated according to JJF1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor *k* which corresponding to the coverage probability about 95%.

8. 建议校准周期是本实验室依据本证书报告的技术依据和仪器设备常规使用条件给出的建议，供委托方参考。委托方可以根据实际使用情况自行决定样品的校准周期。

The reference calibration period is based on the reference documents and normal operating conditions of the calibrated instrument. It is only for reference. The client may decide the calibration period of the instrument according to the actual use.

注: 1.本证书未经本机构书面授权，不得部分复制。(The certificate shall not be partly reproduced without written approval of the laboratory.)

2.本次校准结果仅与被校物有关。(The results are only related to the items calibrated.)

3."委托方"、"委托方联络信息"由委托方提供，"制造厂"、"型号规格"、"出厂编号"以及"设备编号"为仪器

上标注，委托方对上面内容如有异议，须在收到证书后二十个工作日内提出。
The information Client and Contact Information are provided by client, and the Manufacurer, Model/Type, Serial No. and Equipment No. are marked on the items.Client shall submit any objection within 20 working days after receiving the certificate for the information above.

CEPREI

1 外观与工作正常性检查（Appearance and Function Check）

无影响证书中校准结果准确度的因素和缺陷。

There are no factor and defect that affect the calibration result accuracy of the certificate.

2 转移阻抗(Transfer Impedance)

频率 (Frequency) (MHz)	插入损耗 (Insertion Loss) (dB)	转移阻抗 (Transfer Impedance) (dBΩ)	*U* (*k*=2) (dB)
0.004	38.7	-4.7	1.0
0.01	30.8	3.2	1.0
0.02	24.8	9.2	1.0
0.05	17.1	16.9	1.0
0.1	12.1	21.9	1.0
0.2	9.9	24.1	1.0
0.5	9.5	24.5	1.0
1	9.5	24.5	1.0
2	9.3	24.7	1.0
5	7.9	26.1	1.0
10	6.8	27.2	1.0
15	6.2	27.8	1.0
20	5.9	28.1	1.0
25	5.7	28.3	1.0
30	5.6	28.4	1.0
50	5.2	28.8	1.0
70	5.2	28.8	1.2
100	5.0	29.0	1.2
150	5.0	29.0	1.2
200	4.9	29.1	1.2
250	5.5	28.5	1.2
300	5.5	28.5	1.2
400	6.5	27.5	1.2

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