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：2JB25006520-0001
Certificate No.

中国认可
国际互认
校准
CALIBRATION
CNAS L13344

委托单位：耕興股份有限公司/Sporton International Inc.
Client

委托方地址：桃園市龜山區華亞一路52號/Huaya 1st Rd., Guishan Dist No. 52 Taoyuan City 333
Address

仪器名称：多通道信號分析儀
Description

型号/规格：labCORE
Model/Type

制造商：HEAD acoustics
Manufacturer

出厂编号：77000342
Serial No.

管理号：/
Asset No.

接收日期：2025-07-28
Rec. Date

校准日期：2025-07-29
Cal. Date

签发日期：2025-08-01
App. Date

建议校准周期：12个月(12 months)
Reference Cal. Period

结论：所校准项目符合技术要求(The calibrated items meet the technical requirements)
Conclusion

校准：曹慧慧
Calibrated by

核验：徐俊
Inspected by

签发：胡爱军
Approved by

印章：
Stamp

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：江苏省苏州市高新区泰山路601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)**：**

- JJF 1288-2011 多通道声分析仪校准规范： Sound pressure level:(20～130)dB;Voltage:1mV～100V;Frequency:1Hz～30kHz;Total distortion:(0.01～100)%

* 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)
信号发生器(338511)	4JC25000172-0001/2026-03-30/赛宝(苏州)	频率响应：1Hz~200KHz±0.2dB	频率：1Hz~200kHz；电压：0.1V~15V

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.
多通道信號分析儀	信号发生器	中国计量院/SPss2023-01464

5. 校准地点(The calibration place)**：**

苏州市高新区泰山路601号2号楼二楼2205室

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

温度(Temperature)：21.6　　相对湿度(Relative Humidity)：45%　　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. 证书中"P"、"合格"代表"测量结果在允许范围内"，"F"、"不合格"代表"测量结果不在允许范围内"，"N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考，使用人员应结合实际测量的要求合理使用，如考虑测量结果测量不确定度的影响等。

"P" and "Pass" in this certificate stand for "Low Limit≤the measured value ≤High Limit", "F" and "Fail" stand for "the measured value＜Low Limit or the measured value＞High Limit", "N/A" stands for "Not Applicable or The technical specification has not been confirmed etc".The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.

9. 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 线性度(Linearity) 频率(Frequency): 1000 Hz

通道（Channel）	标准值 (Reference) (dB)	示值 (Indication) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail) (P/F)	*U* (*k*=2) (dB)
CH1	94.0	94.0	0.0	±1.1	P	0.2
	84.0	84.0	0.0	±1.1	P	0.2
	74.0	74.0	0.0	±1.1	P	0.2
	64.0	64.0	0.0	±1.1	P	0.2
	54.0	54.0	0.0	±1.1	P	0.2
	44.0	44.0	0.0	±1.1	P	0.2
	34.0	34.0	0.0	±1.1	P	0.2
CH2	94.0	94.0	0.0	±1.1	P	0.2
	84.0	84.0	0.0	±1.1	P	0.2
	74.0	74.0	0.0	±1.1	P	0.2
	64.0	64.0	0.0	±1.1	P	0.2
	54.0	54.0	0.0	±1.1	P	0.2
	44.0	44.0	0.0	±1.1	P	0.2
	34.0	34.0	0.0	±1.1	P	0.2

CEPREI

3 A计权特性 (A Weighting Characteristic)

1 通道(Channel 1)

频率 (Frequency) (Hz)	示值 (Indication) (dB)	标准值 (Reference) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail)	*U* (*k*=2) (dB)
20	-50.6	-50.5	-0.1	±2.5	P	0.2
25	-44.8	-44.7	-0.1	-2.0,+2.5	P	0.2
31.5	-39.2	-39.4	0.2	±2.0	P	0.2
40	-34.6	-34.6	0.0	±1.5	P	0.2
50	-30.2	-30.2	0.0	±1.5	P	0.2
63	-26.2	-26.2	0.0	±1.5	P	0.2
80	-22.5	-22.5	0.0	±1.5	P	0.2
100	-19.1	-19.1	0.0	±1.5	P	0.2
125	-16.1	-16.1	0.0	±1.5	P	0.2
160	-13.3	-13.4	0.1	±1.5	P	0.2
200	-10.9	-10.9	0.0	±1.5	P	0.2
250	-8.5	-8.6	0.1	±1.4	P	0.2
315	-6.6	-6.6	0.0	±1.4	P	0.2
400	-4.8	-4.8	0.0	±1.4	P	0.2
500	-3.2	-3.2	0.0	±1.4	P	0.2
630	-1.9	-1.9	0.0	±1.4	P	0.2
800	-0.8	-0.8	0.0	±1.4	P	0.2
1000	0.0	0.0	0.0	±1.1	P	0.2
1250	0.6	0.6	0.0	±1.4	P	0.2
1600	1.0	1.0	0.0	±1.6	P	0.2
2000	1.2	1.2	0.0	±1.6	P	0.2
2500	1.3	1.3	0.0	±1.6	P	0.2
3150	1.2	1.2	0.0	±1.6	P	0.2
4000	1.0	1.0	0.0	±1.6	P	0.2
5000	0.5	0.5	0.0	±2.1	P	0.2
6300	0.0	-0.1	0.1	-2.6,+2.1	P	0.2
8000	-1.0	-1.1	0.1	-3.1,+2.1	P	0.2
10000	-2.5	-2.5	0.0	-3.6,+2.6	P	0.2
12500	-4.3	-4.3	0.0	-6.0,+3.0	P	0.2
16000	-6.6	-6.6	0.0	-17.0,+3.5	P	0.2
20000	-9.3	-9.3	0.0	-∞,+4.0	P	0.2

3 A计权特性 (A Weighting Characteristic)

2 通道(Channel 2)

频率 (Frequency) (Hz)	示值 (Indication) (dB)	标准值 (Reference) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail)	*U* (*k*=2) (dB)
20	-50.6	-50.5	-0.1	± 2.5	P	0.2
25	-44.8	-44.7	-0.1	-2.0,+2.5	P	0.2
31.5	-39.2	-39.4	0.2	± 2.0	P	0.2
40	-34.6	-34.6	0.0	± 1.5	P	0.2
50	-30.2	-30.2	0.0	± 1.5	P	0.2
63	-26.2	-26.2	0.0	± 1.5	P	0.2
80	-22.5	-22.5	0.0	± 1.5	P	0.2
100	-19.1	-19.1	0.0	± 1.5	P	0.2
125	-16.1	-16.1	0.0	± 1.5	P	0.2
160	-13.3	-13.4	0.1	± 1.5	P	0.2
200	-10.9	-10.9	0.0	± 1.5	P	0.2
250	-8.6	-8.6	0.0	± 1.4	P	0.2
315	-6.6	-6.6	0.0	± 1.4	P	0.2
400	-4.9	-4.8	-0.1	± 1.4	P	0.2
500	-3.2	-3.2	0.0	± 1.4	P	0.2
630	-1.9	-1.9	0.0	± 1.4	P	0.2
800	-0.8	-0.8	0.0	± 1.4	P	0.2
1000	0.0	0.0	0.0	± 1.1	P	0.2
1250	0.6	0.6	0.0	± 1.4	P	0.2
1600	1.0	1.0	0.0	± 1.6	P	0.2
2000	1.2	1.2	0.0	± 1.6	P	0.2
2500	1.3	1.3	0.0	± 1.6	P	0.2
3150	1.2	1.2	0.0	± 1.6	P	0.2
4000	1.0	1.0	0.0	± 1.6	P	0.2
5000	0.5	0.5	0.0	± 2.1	P	0.2
6300	-0.1	-0.1	0.0	-2.6,+2.1	P	0.2
8000	-1.1	-1.1	0.0	-3.1,+2.1	P	0.2
10000	-2.5	-2.5	0.0	-3.6,+2.6	P	0.2
12500	-4.3	-4.3	0.0	-6.0,+3.0	P	0.2
16000	-6.6	-6.6	0.0	-17.0,+3.5	P	0.2
20000	-9.3	-9.3	0.0	-∞,+4.0	P	0.2

4 C计权特性 (C Weighting Characteristic)

1 通道(Channel 1)

频率 (Frequency) (Hz)	示值 (Indication) (dB)	标准值 (Reference) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail)	*U* (*k*=2) (dB)
20	-6.3	-6.2	-0.1	±2.5	P	0.2
25	-4.5	-4.4	-0.1	-2.0,+2.5	P	0.2
31.5	-3.0	-3.0	0.0	±2.0	P	0.2
40	-2.0	-2.0	0.0	±1.5	P	0.2
50	-1.3	-1.3	0.0	±1.5	P	0.2
63	-0.8	-0.8	0.0	±1.5	P	0.2
80	-0.5	-0.5	0.0	±1.5	P	0.2
100	-0.3	-0.3	0.0	±1.5	P	0.2
125	-0.2	-0.2	0.0	±1.5	P	0.2
160	-0.1	-0.1	0.0	±1.5	P	0.2
200	0.0	0.0	0.0	±1.5	P	0.2
250	0.0	0.0	0.0	±1.4	P	0.2
315	0.0	0.0	0.0	±1.4	P	0.2
400	0.0	0.0	0.0	±1.4	P	0.2
500	0.0	0.0	0.0	±1.4	P	0.2
630	0.0	0.0	0.0	±1.4	P	0.2
800	0.0	0.0	0.0	±1.4	P	0.2
1000	0.0	0.0	0.0	±1.1	P	0.2
1250	0.0	0.0	0.0	±1.4	P	0.2
1600	-0.1	-0.1	0.0	±1.6	P	0.2
2000	-0.2	-0.2	0.0	±1.6	P	0.2
2500	-0.3	-0.3	0.0	±1.6	P	0.2
3150	-0.5	-0.5	0.0	±1.6	P	0.2
4000	-0.8	-0.8	0.0	±1.6	P	0.2
5000	-1.3	-1.3	0.0	±2.1	P	0.2
6300	-2.1	-2.0	-0.1	-2.6,+2.1	P	0.2
8000	-3.0	-3.0	0.0	-3.1,+2.1	P	0.2
10000	-4.4	-4.4	0.0	-3.6,+2.6	P	0.2
12500	-6.2	-6.2	0.0	-6.0,+3.0	P	0.2
16000	-8.5	-8.5	0.0	-17.0,+3.5	P	0.2
20000	-11.2	-11.2	0.0	-∞,+4.0	P	0.2

4 C计权特性 (C Weighting Characteristic)

2 通道(Channel 2)

频率 (Frequency) (Hz)	示值 (Indication) (dB)	标准值 (Reference) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail)	*U* (*k*=2) (dB)
20	-6.3	-6.2	-0.1	±2.5	P	0.2
25	-4.5	-4.4	-0.1	-2.0,+2.5	P	0.2
31.5	-3.0	-3.0	0.0	±2.0	P	0.2
40	-2.0	-2.0	0.0	±1.5	P	0.2
50	-1.3	-1.3	0.0	±1.5	P	0.2
63	-0.8	-0.8	0.0	±1.5	P	0.2
80	-0.5	-0.5	0.0	±1.5	P	0.2
100	-0.3	-0.3	0.0	±1.5	P	0.2
125	-0.2	-0.2	0.0	±1.5	P	0.2
160	-0.1	-0.1	0.0	±1.5	P	0.2
200	0.0	0.0	0.0	±1.5	P	0.2
250	0.0	0.0	0.0	±1.4	P	0.2
315	0.0	0.0	0.0	±1.4	P	0.2
400	0.0	0.0	0.0	±1.4	P	0.2
500	0.0	0.0	0.0	±1.4	P	0.2
630	0.0	0.0	0.0	±1.4	P	0.2
800	0.0	0.0	0.0	±1.4	P	0.2
1000	0.0	0.0	0.0	±1.1	P	0.2
1250	0.0	0.0	0.0	±1.4	P	0.2
1600	-0.1	-0.1	0.0	±1.6	P	0.2
2000	-0.2	-0.2	0.0	±1.6	P	0.2
2500	-0.3	-0.3	0.0	±1.6	P	0.2
3150	-0.5	-0.5	0.0	±1.6	P	0.2
4000	-0.8	-0.8	0.0	±1.6	P	0.2
5000	-1.3	-1.3	0.0	±2.1	P	0.2
6300	-2.0	-2.0	0.0	-2.6,+2.1	P	0.2
8000	-3.0	-3.0	0.0	-3.1,+2.1	P	0.2
10000	-4.4	-4.4	0.0	-3.6,+2.6	P	0.2
12500	-6.2	-6.2	0.0	-6.0,+3.0	P	0.2
16000	-8.5	-8.5	0.0	-17.0,+3.5	P	0.2
20000	-11.2	-11.2	0.0	-∞,+4.0	P	0.2

5 Z计权特性 (C Weighting Characteristic)

1 通道(Channel 1)

频率 (Frequency) (Hz)	示值 (Indication) (dB)	标准值 (Reference) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail)	*U* (*k*=2) (dB)
20	-0.1	0.0	-0.1	±2.5	P	0.2
25	-0.1	0.0	-0.1	-2.0,+2.5	P	0.2
31.5	0.0	0.0	0.0	±2.0	P	0.2
40	0.0	0.0	0.0	±1.5	P	0.2
50	0.0	0.0	0.0	±1.5	P	0.2
63	0.0	0.0	0.0	±1.5	P	0.2
80	0.0	0.0	0.0	±1.5	P	0.2
100	0.0	0.0	0.0	±1.5	P	0.2
125	0.0	0.0	0.0	±1.5	P	0.2
160	0.0	0.0	0.0	±1.5	P	0.2
200	0.0	0.0	0.0	±1.5	P	0.2
250	0.0	0.0	0.0	±1.4	P	0.2
315	0.0	0.0	0.0	±1.4	P	0.2
400	0.0	0.0	0.0	±1.4	P	0.2
500	0.0	0.0	0.0	±1.4	P	0.2
630	0.0	0.0	0.0	±1.4	P	0.2
800	0.0	0.0	0.0	±1.4	P	0.2
1000	0.0	0.0	0.0	±1.1	P	0.2
1250	0.0	0.0	0.0	±1.4	P	0.2
1600	0.0	0.0	0.0	±1.6	P	0.2
2000	0.0	0.0	0.0	±1.6	P	0.2
2500	0.0	0.0	0.0	±1.6	P	0.2
3150	0.0	0.0	0.0	±1.6	P	0.2
4000	0.0	0.0	0.0	±1.6	P	0.2
5000	0.0	0.0	0.0	±2.1	P	0.2
6300	0.0	0.0	0.0	-2.6,+2.1	P	0.2
8000	0.0	0.0	0.0	-3.1,+2.1	P	0.2
10000	0.0	0.0	0.0	-3.6,+2.6	P	0.2
12500	0.0	0.0	0.0	-6.0,+3.0	P	0.2
16000	0.0	0.0	0.0	-17.0,+3.5	P	0.2
20000	0.0	0.0	0.0	-∞,+4.0	P	0.2

5 Z计权特性 (Z Weighting Characteristic)

2 通道(Channel 2)

频率 (Frequency) (Hz)	示值 (Indication) (dB)	标准值 (Reference) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail)	*U* (*k*=2) (dB)
20	-0.1	0.0	-0.1	± 2.5	P	0.2
25	-0.1	0.0	-0.1	-2.0,+2.5	P	0.2
31.5	0.0	0.0	0.0	± 2.0	P	0.2
40	0.0	0.0	0.0	± 1.5	P	0.2
50	0.0	0.0	0.0	± 1.5	P	0.2
63	0.0	0.0	0.0	± 1.5	P	0.2
80	0.0	0.0	0.0	± 1.5	P	0.2
100	0.0	0.0	0.0	± 1.5	P	0.2
125	0.0	0.0	0.0	± 1.5	P	0.2
160	0.0	0.0	0.0	± 1.5	P	0.2
200	0.0	0.0	0.0	± 1.5	P	0.2
250	0.0	0.0	0.0	± 1.4	P	0.2
315	0.0	0.0	0.0	± 1.4	P	0.2
400	0.0	0.0	0.0	± 1.4	P	0.2
500	0.0	0.0	0.0	± 1.4	P	0.2
630	0.0	0.0	0.0	± 1.4	P	0.2
800	0.0	0.0	0.0	± 1.4	P	0.2
1000	0.0	0.0	0.0	± 1.1	P	0.2
1250	0.0	0.0	0.0	± 1.4	P	0.2
1600	0.0	0.0	0.0	± 1.6	P	0.2
2000	0.0	0.0	0.0	± 1.6	P	0.2
2500	0.0	0.0	0.0	± 1.6	P	0.2
3150	0.0	0.0	0.0	± 1.6	P	0.2
4000	0.0	0.0	0.0	± 1.6	P	0.2
5000	0.0	0.0	0.0	± 2.1	P	0.2
6300	0.0	0.0	0.0	-2.6,+2.1	P	0.2
8000	0.0	0.0	0.0	-3.1,+2.1	P	0.2
10000	0.0	0.0	0.0	-3.6,+2.6	P	0.2
12500	0.0	0.0	0.0	-6.0,+3.0	P	0.2
16000	0.0	0.0	0.0	-17.0,+3.5	P	0.2
20000	0.0	0.0	0.0	-∞,+4.0	P	0.2