检测报告

Test Report

报告编号：NAP2601004101E　　第 1页/共 4页
Report No.：NAP2601004101E　　Page 1 of 4

申请单位：
Applicant:
地　　址：
Address:

以下测试之样品及样品信息由申请单位提供并确认：
The following test sample information is provided and confirmed by the applicant:

样品名称： Sample Name:	锂离子聚合物电池 Li-ion Polymer Battery
型　　号： Model:	602030
样品描述： Sample description:	3.7V 300mAh
制 造 商： Manufacturer:	
制造商地址： Manufacturer address:	

样品接收日期： Date of sample(s) received:	2026/01/05 Jan.05,2026
测试周期： Date of Test Period:	2026/01/05 ~ 2026/01/08 Jan.05,2026 ~ Jan.08,2026
报告日期： Date of Report:	2026/01/08 Jan.08,2026

测试要求 TEST REQUESTED	**结论 CONCLUSION**
1. 欧洲议会和理事会法规(EU) 2023/1542 -电池和废电池中的重金属含量 REGULATION (EU) 2023/1542 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - Heavy Metals Content in Batteries and Waste Batteries.	合格 PASS

新亚太检测技术服务（中山）有限公司
NAP Testing Technology Service (Zhongshan) Co., LTD

Lian Yi

练 艺 Lian Yi
授权签字人 Authorized Signatory

NAP Testing Technology Service (Zhongshan) Co., LTD
Inspection & Testing Services

检测报告
Test Report

测试结果：
TEST RESULTS:

1. 欧洲议会和理事会法规(EU) 2023/1542 -电池和废电池中的重金属含量
REGULATION (EU) 2023/1542 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - Heavy Metals Content in Batteries and Waste Batteries

测试方法：参考 IEC 62321-5:2013, IEC 62321-4:2017，采用 ICP-OES 进行分析测试。
Test Method: Refer to IEC 62321-5:2013, IEC 62321-4:2017, analyzed by ICP-OES.

分析物 Analyte	报告限 Reporting Limit, %	样品 Sample, %	要求（最大值） Requirement (Max.), %
总铅 Total Lead(Pb)	0.0005	N.D.	0.01
总镉 Total Cadmium(Cd)	0.0005	N.D.	0.002
总汞 Total Mercury (Hg)	0.0002	N.D.	0.0005
判定 Rating		合格 PASS	-

备注 Remark(s):
1. N.D.=未检出；MDL=检出限。
   N.D.=Not Detected; MDL= Method Detection Limits。
2. 所有浓度均以百分比（%）表示
   All concentrations expressed in percentage (%)
3. 测试结果仅适用于被测试的项目。
   The test results only apply to the items tested.

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地址：广东省中山市板芙镇里溪村里溪大道 81 号厂房 4 层、5 层
Add：4th floor Zone A and 5th floor, Site no. 81, Lixi Avenue, Banfu Borough, Zhongshan City, Guangdong Province, China

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根据(EU) 2023/1542 附件 1 物质限制

According to the (EU) 2023/1542 Annex Ⅰ Restriction On Substances:

物质或物质组的名称 Designation of the substance or group of substances	限制条件 Conditions of restriction
Mercury（汞） CAS No 7439-97-6 EC No 231-106-7 and its compounds（和它的化合物）	电池，无论是否安装在器具、轻型运输工具或其他车辆上，按重量计汞含量不得超过 0.0005%(以金属汞表示)。 Batteries, whether or not incorporated into appliances, light means of transport or other vehicles, shall not contain more than 0,0005 % of mercury (expressed as mercury metal) by weight.
Cadmium（镉） CAS No 7440-43-9 EC No 231-152-8 and its compounds（和它的化合物）	便携式电池，无论是否安装在器具、轻型运输工具或其他车辆上，其镉含量(以金属镉表示)的重量不得超过 0.002%。 Portable batteries, whether or not incorporated into appliances, light means of transport or other vehicles, shall not contain more than 0,002 % of cadmium (expressed as cadmium metal) by weight.
Lead（铅） CAS No 7439-92-1 EC No 231-100-4 and its compounds（和它的化合物）	1. 从 2024 年 8 月 18 日起，便携式电池，无论是否安装在电器中，含铅量不得超过 0.01%(以金属铅表示)。 1. From 18 August 2024, portable batteries, whether or not incorporated into appliances, shall not contain more than 0,01 % of lead (expressed as lead metal) by weight. 2. 在 2028 年 8 月 18 日之前，第 1 点规定的限制不适用于便携式锌空气按钮电池。 2. The restriction set out in point 1 shall not apply to portable zinc-air button cells until 18 August 2028.

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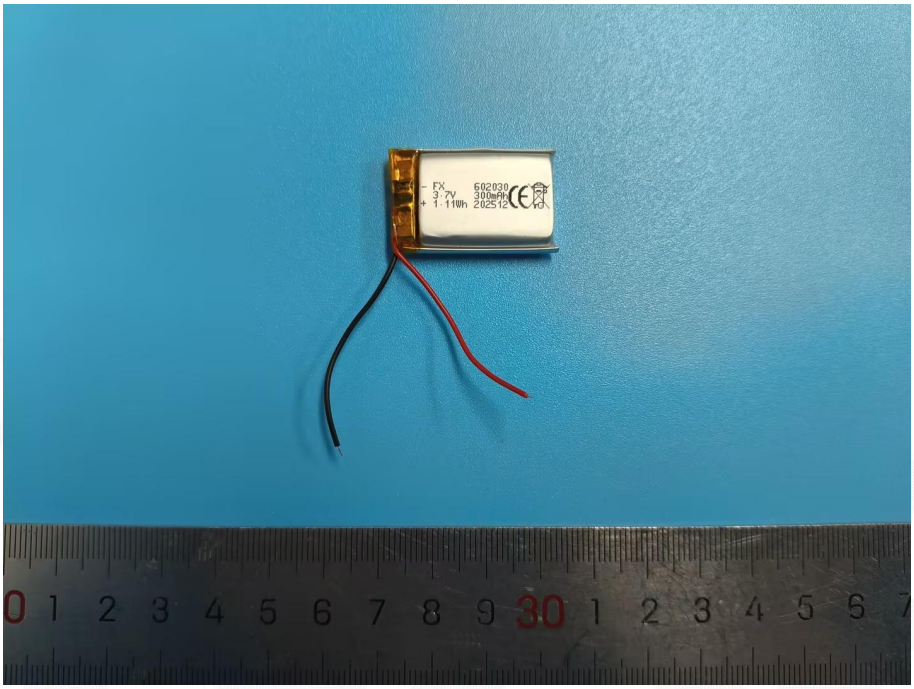
样品图片：
Photo(s) of test sample(s):



********** 报告结束 **********
********** End of Report **********

新亚太检测技术服务（中山）有限公司
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TEST REPORT
IEC 62133-2
Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems

Report Number.....:	ECT20241113025Add1
Date of issue.....:	2025-11-11
Total number of pages.....:	8 pages
Tested by (name + signature).....:	Chen Qiubo
Checked by (name + signature).....:	Eddie.Shi
Approved by (name + signature)...:	Eric.Ren

Applicant's name.....:	
Address.....:	

Test specification:	
Standard.....:	IEC 62133-2: 2017, IEC 62133-2:2017/AMD1:2021
Test procedure.....:	Type Test
Test result.....:	Pass
Non-standard test method.....:	N/A

Testing laboratory.....:	Shenzhen ECT Testing Technology Co.,Ltd
Address.....:	B202, Block A.B, Huijuxinqiao 107 Chuangzhi Park, No.18, Shangnan Shangliao Industrial Road, Shangliao Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, China
Testing location.....:	As above

Test item description.....:	Li-ion Battery
Trade Mark.....:	N/A
Manufacturer.....:	Same as applicant
Model/Type reference.....:	602030
Ratings.....:	3.7V, 300mAh, 1.11Wh

Note:
This report shall not be reproduced except in full, without the written approval of Shenzhen ECT Testing Technology Co.,Ltd This report may be altered or revised by Shenzhen ECT Testing Technology Co.,Ltd personnel only, and shall be noted in the revision section of the report. The test result in the report only apply to the tested samples.

List of Attachments (including a total number of pages in each attachment):
Attachment 1: Photo Documentation (6 to 8 pages).

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
See previous report ECT20241113025.	See previous report ECT20241113025.

Summary of compliance with National Differences (List of countries addressed):

N/A

☒ **The product fulfils the requirements of EN 62133-2:2017, EN 62133-2:2017/A1:2021.**

Use of uncertainty of measurement for decisions on conformity (decision rule):

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other: N/A (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:
The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.
IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

+(Red) -(Black)
Li-ion Battery
Model: 602030
3.7V, 300mAh, 1.11Wh
1INP6/21/31 YYYY/MM/DD

CAUTION
Do not disassemble or use if expansion or deformation occurs
Do not cause a short circuit
Do not place at high temperature
Battery is prohibited to use after immersing

Remark:
“YYYY” means year for manufacture;
“MM” means month for manufacture;
“DD” means day for manufacture.

Test item particulars..... :	
Classification of installation and use.....:	To be defined in final product
Supply Connection.....:	DC lead wire
Recommend charging method declared by the manufacturer.....:	Charging the battery with 150mA constant current and 4.2V constant voltage until the current reduces to 3mA at ambient 20°C±5°C
Discharge current (0,2 It A).....:	60mA
Specified final voltage..... :	2.75V
Upper limit charging voltage per cell.....:	4.2V
Maximum charging current..... :	300mA
Charging temperature upper limit.....:	45°C
Charging temperature lower limit..... :	0°C
Polymer cell electrolyte type.....:	☐ gel ☐ solid ☒ N/A
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing..... :	
Date of receipt of test item.....:	**N/A**
Date (s) of performance of tests.....:	**N/A**

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Name and address of factory (ies).....:	Same as applicant

General product information and other remarks:

See previous report ECT20241113025.

The main features of the cell in the battery are shown as below (clause 7.1.1):

See previous report ECT20241113025.

Construction:

See previous report ECT20241113025.

Circuit diagram:

See previous report ECT20241113025.

Description of change(s):

1. Added Label according to customer's request, see Attachment 1 of the report for details.

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments	Result
1	N/A	No safety related tests were considered necessary.	P

History of amendments and modifications:

Ref. No. ECT20241113025, 2024-12-05 (original test report)
Ref. No. ECT20241113025Add1, 2025-11-11 (1st Added label)

This report is based on the report numbered ECT20241113025, Without the original report, this report is invalid.

Product: Li-ion Battery

Type Designation: 602030

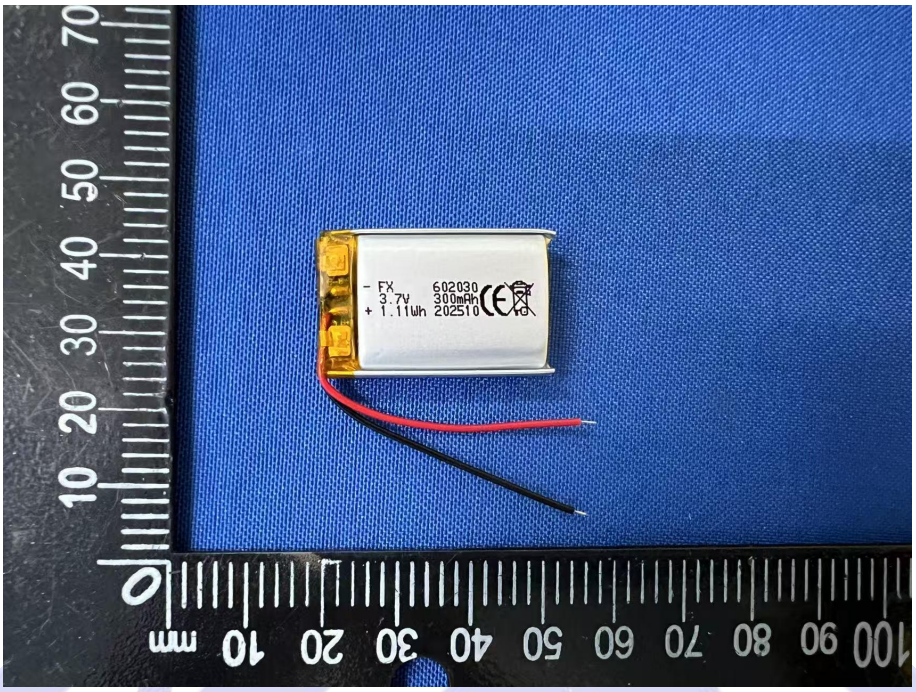

Figure 1 Front view of battery

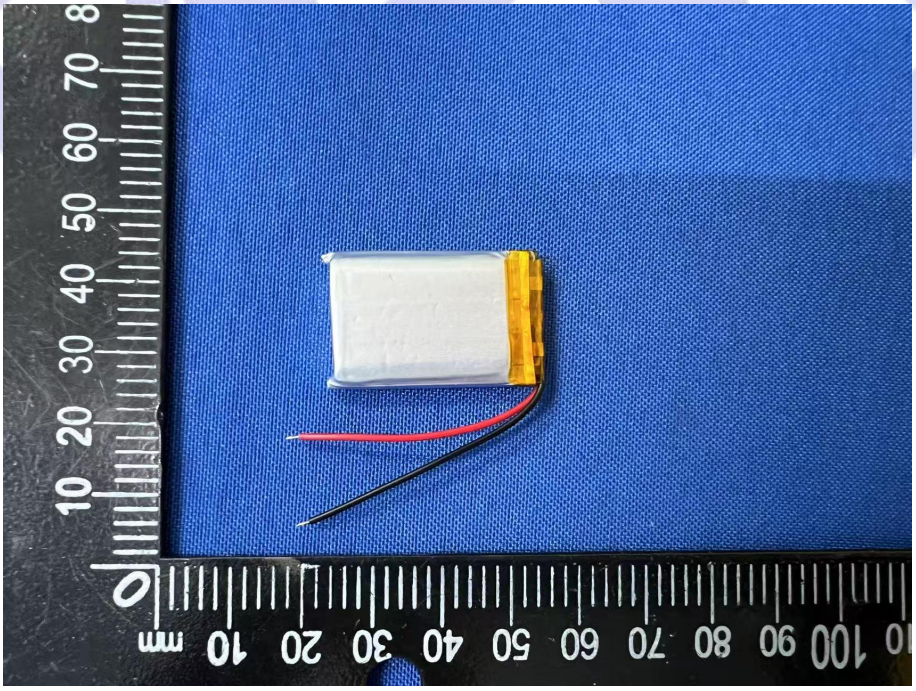

Figure 2 Back view of battery

Product: Li-ion Battery

Type Designation: 602030

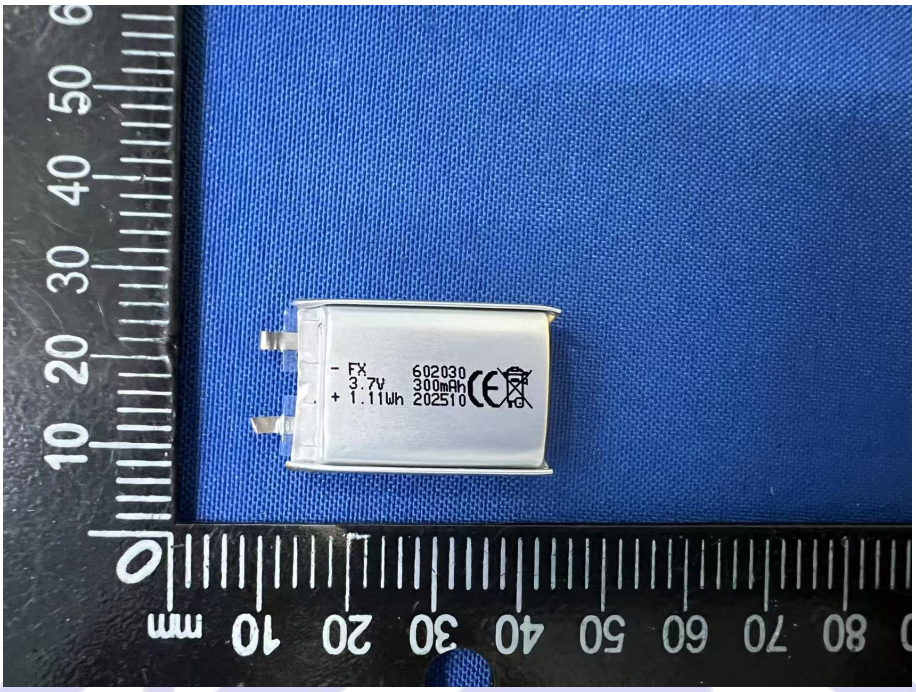

Figure 3 Front view of cell

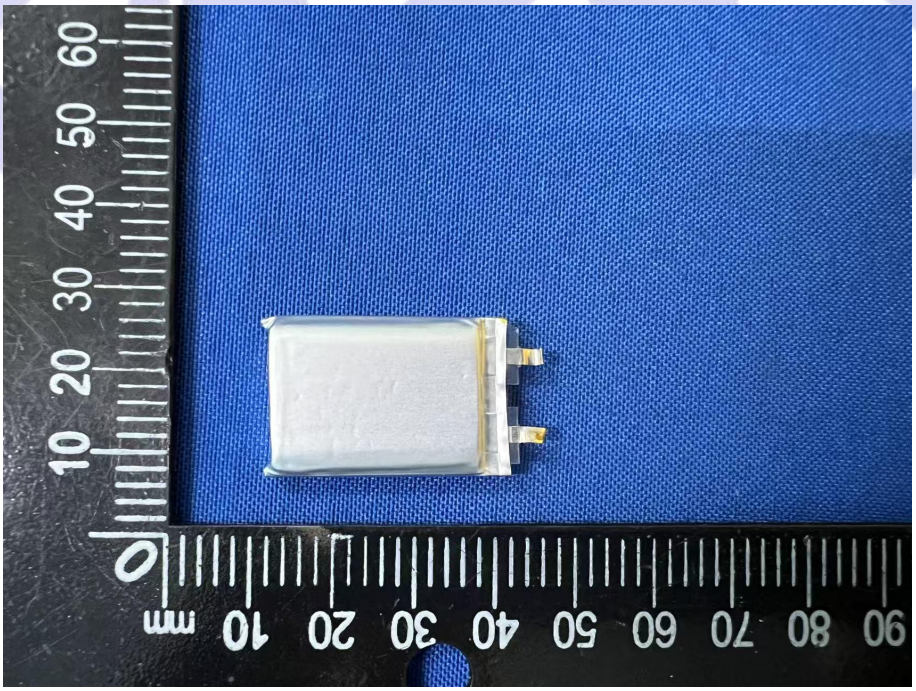

Figure 4 Back view of cell

Product: Li-ion Battery

Type Designation: 602030

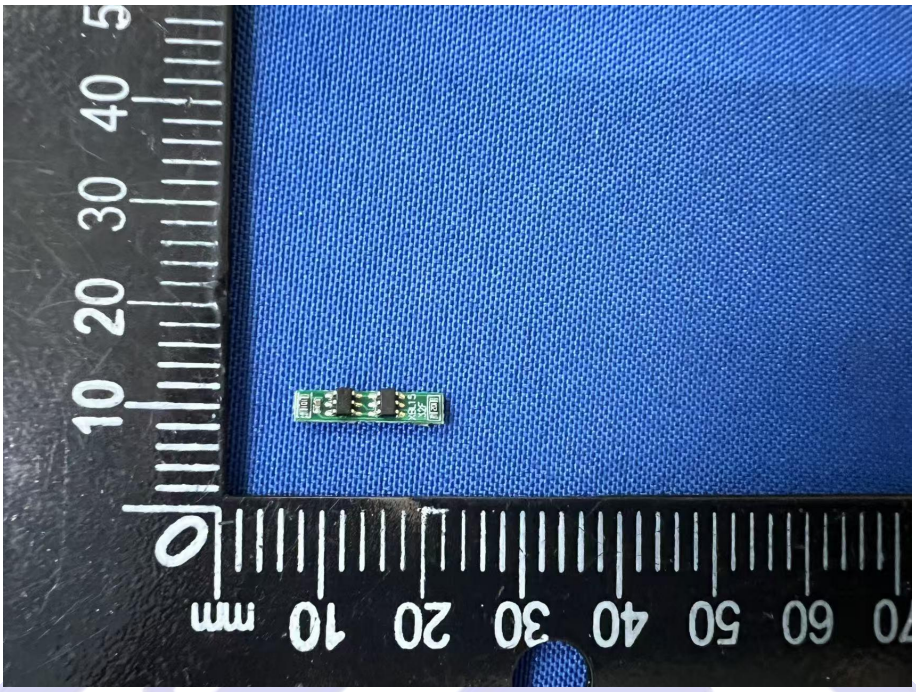

Figure 5 Front view of PCM

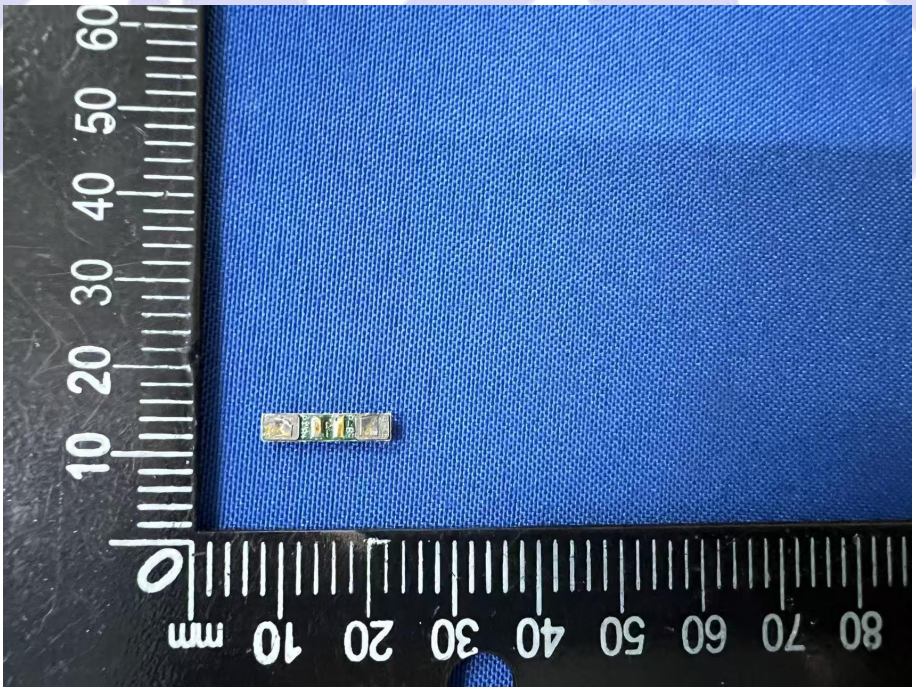

Figure 6 Back view of PCM

-- End of Report --