

# RoHS TEST REPORT

Prepared for :

**Foshan Gaomaide Information Technology Co., Ltd.**

**Room 1110, 11th Floor, Building 16, Wanyi Plaza, No. 33 Jianshe Avenue, Huangqi,  
Dali Town, Nanhai District, Foshan City**

**Product: Industrial Communication Gateway**

**Trade Mark: N/A**

**Model Name: PN-01MB**

**Date of Test: Nov. 10, 2025- Nov. 14, 2025**

**Date of Report: Nov. 14, 2025**

**Report Number: HS202511135787-1ER**

Prepared By :

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## TEST RESULT CERTIFICATION

|                      |   |                                                                                                                             |
|----------------------|---|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>     | : | Foshan Gaomaide Information Technology Co., Ltd.                                                                            |
| <b>Address</b>       | : | Room 1110, 11th Floor, Building 16, Wanyi Plaza, No. 33 Jianshe Avenue,<br>Huangqi, Dali Town, Nanhai District, Foshan City |
| <b>Manufacturer</b>  | : | Foshan Gaomaide Information Technology Co., Ltd.                                                                            |
| <b>Address</b>       | : | Room 1110, 11th Floor, Building 16, Wanyi Plaza, No. 33 Jianshe Avenue,<br>Huangqi, Dali Town, Nanhai District, Foshan City |
| <b>Product name</b>  | : | Industrial Communication Gateway                                                                                            |
| <b>Product model</b> | : | PN-01MB, PN-01CAN, PN-CANOPEN, ECAT-CANOPEN, ECAT-01CAN,<br>ECAT-01MB, PN-MBTCP, PN-01MB-R, PN-MBTCP-R                      |
| <b>Trade Mark</b>    | : | N/A                                                                                                                         |

**Date of Sample Received** : Nov. 10, 2025  
**Testing Period** : Nov. 10, 2025- Nov. 14, 2025

## Conclusion

According to client's request to conduct below tests in the selected parts of the submitted sample:

| No. | TEST ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RESULT                                      |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 1.  | <p>RoHS Directive 2011/65/EU Annex II amending Annex(EU)2015/863 and amending Annex (EU)2017/2102&amp;EN IEC 63000:2018 Technical documentation for the assessmentof electrica and electronic products with respect to the restriction of hazardous substances</p> <p>-Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content</p> <p>-Di(2-ethylhexyl) phthalate(DEHP),Benzylbutyl phthalate(BBP),Dibutyl phthalate(DBP), Diisobutyl phthalate(DIBP) content</p> | <p>-</p> <p><b>PASS</b><br/><b>PASS</b></p> |

## Project Engineer

## Project Manager

Technical Director

**\*\* Modified History \*\***

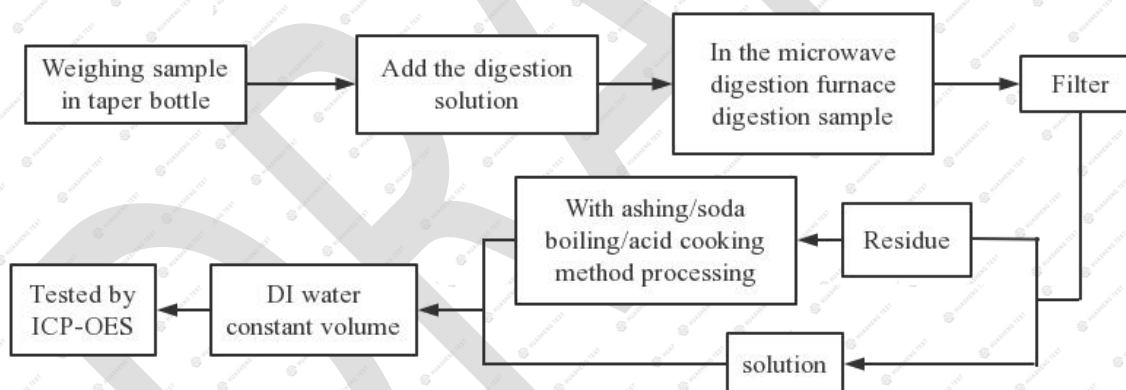
| Revision     | Description                 | Issued Data | Remark   |
|--------------|-----------------------------|-------------|----------|
| Revision 1.0 | Initial Test Report Release | 2025/11/14  | Smile Xu |
|              |                             |             |          |
|              |                             |             |          |

## 1. Test Method(s):

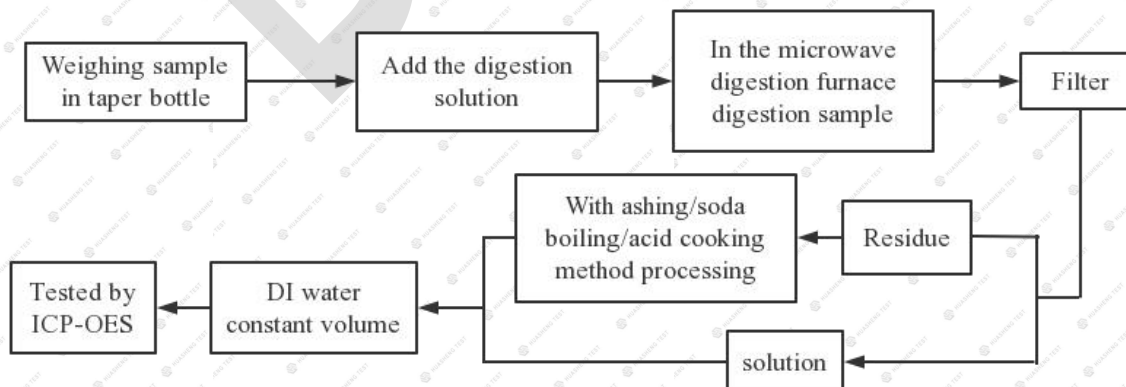
| Testing item                                                          | Testing Method           | Equipment |
|-----------------------------------------------------------------------|--------------------------|-----------|
| Screening analysis by XRF                                             |                          |           |
| Lead(Pb)<br>Cadmium(Cd)<br>Mercury(Hg)<br>Chromium(Cr)<br>Bromine(Br) | IEC 62321-3-1-2013       | ED-XRF    |
| Chemical testing                                                      |                          |           |
| Lead(Pb)                                                              | IEC 62321-5-2013         | ICP-OES   |
| Cadmium(Cd)                                                           | IEC 62321-5-2013         | ICP-OES   |
| Mercury(Hg)                                                           | IEC 62321-4-2013+A1:2017 | ICP-OES   |
| Chromium(Cr VI) for plastic                                           | IEC 62321-7-2:2017       | UV-Vis    |
| Chromium(Cr VI) for coating on metals                                 | IEC 62321-7-1:2015       | UV-Vis    |
| PBBs/ PBDEs                                                           | IEC 62321-6:2015         | GC-MS     |
| DEHP/DBP/BBP/ DIBP                                                    | IEC 62321-8:2017         | GC-MS     |

## 2. Test Flow:

### 1. Lead(Pb), Cadmium(Cd)

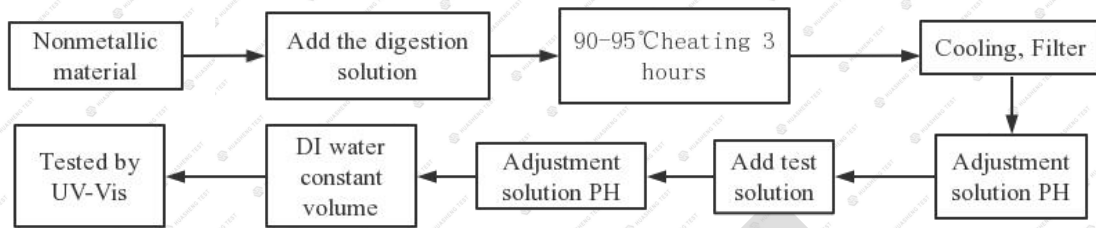


### 2. Mercury (Hg)

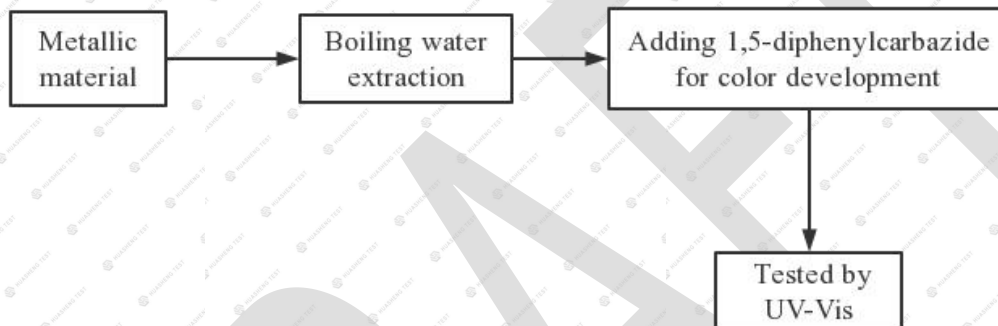




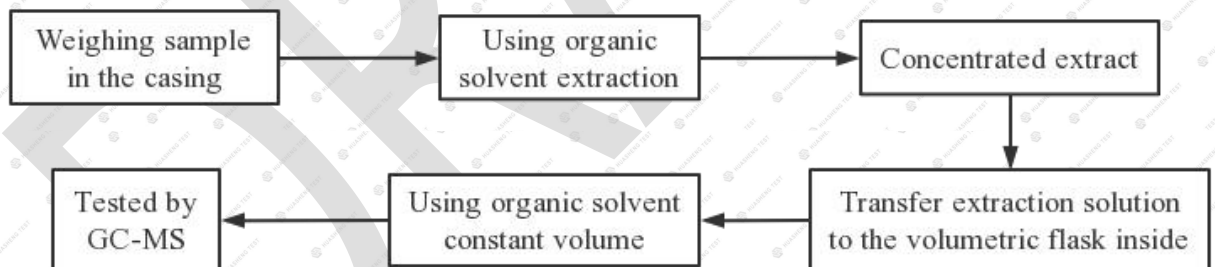
### 3. Hexavalent Chromium(Cr VI) (Alkaline extraction)



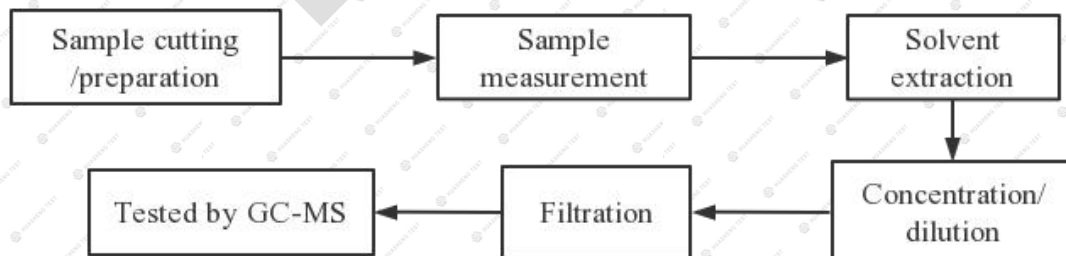
### 4. Hexavalent Chromium(Cr VI) (Boiling water extraction)



### 5. PBBs/ PBDEs



### 6. DEHP/ BBP/ DBP/ DIBP





## 3. Test Results:

| Part No. | Sample Description | Test item  | XRF Result | Chemical Test (mg/kg) | Conclusion |
|----------|--------------------|------------|------------|-----------------------|------------|
| 1        | Blue metal         | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |
| 2        | Blue metal         | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |
| 3        | Blue metal         | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |



| Part No. | Sample Description | Test item  | XRF Result | Chemical Test (mg/kg) | Conclusion |
|----------|--------------------|------------|------------|-----------------------|------------|
| 4        | Silvery metal      | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |
| 5        | Silvery metal      | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |
| 6        | Black metal        | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |



| Part No. | Sample Description | Test item  | XRF Result | Chemical Test (mg/kg) | Conclusion |
|----------|--------------------|------------|------------|-----------------------|------------|
| 7        | Black metal        | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |
| 8        | PCB board          | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | BL         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | ND                    |            |
|          |                    | DBP        | --         | ND                    |            |
|          |                    | BBP        | --         | ND                    |            |
|          |                    | DIBP       | --         | ND                    |            |
| 9        | Silvery metal      | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |



| Part No. | Sample Description | Test item  | XRF Result | Chemical Test (mg/kg) | Conclusion |
|----------|--------------------|------------|------------|-----------------------|------------|
| 10       | Green plastic      | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | BL         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | ND                    |            |
|          |                    | DBP        | --         | ND                    |            |
|          |                    | BBP        | --         | ND                    |            |
|          |                    | DIBP       | --         | ND                    |            |
| 11       | Orange plastic     | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | BL         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | ND                    |            |
|          |                    | DBP        | --         | ND                    |            |
|          |                    | BBP        | --         | ND                    |            |
|          |                    | DIBP       | --         | ND                    |            |
| 12       | Green plastic      | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | BL         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | ND                    |            |
|          |                    | DBP        | --         | ND                    |            |
|          |                    | BBP        | --         | ND                    |            |
|          |                    | DIBP       | --         | ND                    |            |



| Part No. | Sample Description | Test item  | XRF Result | Chemical Test (mg/kg) | Conclusion |
|----------|--------------------|------------|------------|-----------------------|------------|
| 13       | Blue metal case    | Pb         | BL         | --                    | Pass       |
|          |                    | Cd         | BL         | --                    |            |
|          |                    | Hg         | BL         | --                    |            |
|          |                    | Cr(Cr(VI)) | BL         | --                    |            |
|          |                    | PBBs       | --         | --                    |            |
|          |                    | PBDEs      |            | --                    |            |
|          |                    | DEHP       | --         | --                    |            |
|          |                    | DBP        | --         | --                    |            |
|          |                    | BBP        | --         | --                    |            |
|          |                    | DIBP       | --         | --                    |            |

**Remark:**

1) (a) It is the result on total Br while test item on restricted substances is PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr<sup>6+</sup>.

(b) Results are obtained by XRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC62321-3-1:2013 (unit: mg/kg).

| Element | Polymers                                             | Metals                                               | Composite Material                                   |
|---------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| Cd      | $BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$   | $BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$   | $LOD < X < (150+3\sigma) \leq OL$                    |
| Pb      | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$ |
| Hg      | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$ |
| Cr      | $BL \leq (700-3\sigma) < X$                          | $BL \leq (700-3\sigma) < X$                          | $BL \leq (500-3\sigma) < X$                          |
| Br      | $BL \leq (300-3\sigma) < X$                          | NA                                                   | $BL \leq (250-3\sigma) < X$                          |

(c) OL=Over Limit, BL=Below Limit, X=inconclusive, LOD=Limit of Detection, NA=not applicable, -- = No Testing

(d) The XRF screening test for RoHS elements-The reading may be different to the actual content in the sample be of non-uniformity composition

2) (a) mg/kg=ppm=0.0001%, N.D.=not detected (<MDL)

(b) Unit and Method Detection Limit(MDL) in wet chemical test

| Test Items | Unit  | MDL | Limit |
|------------|-------|-----|-------|
| Pb         | mg/kg | 2   | 1000  |
| Cd         | mg/kg | 2   | 100   |
| Hg         | mg/kg | 2   | 1000  |
| DBP        | mg/kg | 30  | 1000  |
| BBP        | mg/kg | 30  | 1000  |
| DEHP       | mg/kg | 30  | 1000  |
| DIBP       | mg/kg | 30  | 1000  |

The MDL for single compound of PBBs & PBDEs is 20mg/kg, MDL of  $Cr^{6+}$  for metal sample is 0.10 $\mu$ g/cm<sup>2</sup>. and MDL of  $Cr^{6+}$  for polymer & composite sample is 8 mg/kg.

(c) Metal sample:

-The sample is positive for  $Cr^{6+}$  if the  $Cr^{6+}$  concentration is greater than 0.13  $\mu$ g/cm<sup>2</sup>.

The sample coating is considered to contain  $Cr^{6+}$ .

-The sample is negative for  $Cr^{6+}$  if  $Cr^{6+}$  is ND (concentration less than 0.10  $\mu$ g/cm<sup>2</sup>).

The coating is considered a non-  $Cr^{6+}$  based coating

-The result between 0.10  $\mu$ g/cm<sup>2</sup> and 0.13  $\mu$ g/cm<sup>2</sup> is considered to be inconclusive, unavoidable coating variations may influence the determination

Information on storage conditions and production date of the tested sample is unavailable and thus  $Cr^{6+}$  results represent status of the sample at the time of testing.

3) As specified by client to test the specified materials only.

(4) \*=According to the declaration from the client, Lead (Pb) in the sample are exempted by EU RoHS Directive 2011/65/EU based on ANNEX III 6(c): Copper alloy containing no more than 4% lead by weigh

(5) #=According to the declaration from the client, Lead (Pb) in the sample are exempted by EU RoHS Directive 2011/65/EU based on ANNEX III 7(c)-I, Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors



## Photograph of Sample



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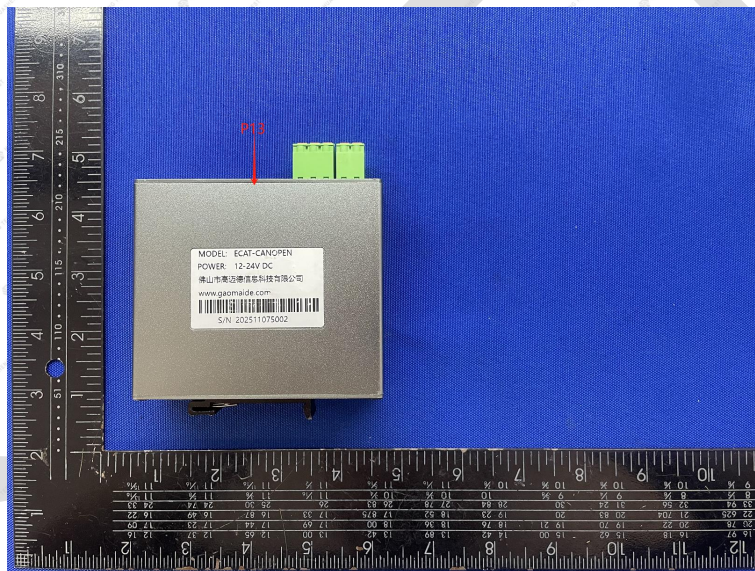
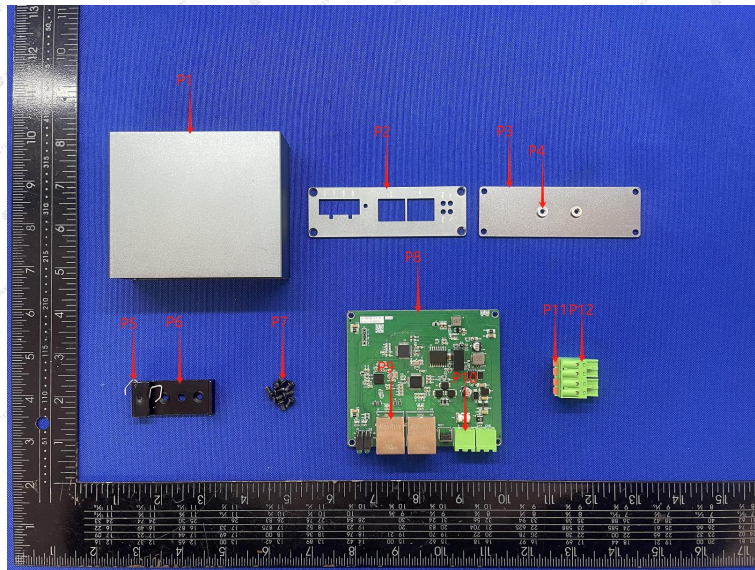
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\*\*\*End of Report\*\*\*