

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-04MB

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

Date of Report: Nov. 14, 2025

Report Number: HS202511135788-1ER

Prepared By :

Shenzhen Huasheng Test Technology Co., Ltd.

**Room1004, NO.8, Chongqing Road, Qiaotou Community, Fuhai Street,
Bao'an District, Shenzhen, Guangdong, China**

Tel: +86-755-2357 0025

Website : www.huashengtest.com

E-mail: huasheng@huashengtest.com



TEST RESULT CERTIFICATION

Applicant : Foshan Gaomaide Information Technology Co., Ltd.
Address : Room 1110, 11th Floor, Building 16, Wanyi Plaza, No. 33 Jianshe Avenue,
Huangqi, Dali Town, Nanhai District, Foshan City
Manufacturer : Foshan Gaomaide Information Technology Co., Ltd.
Address : Room 1110, 11th Floor, Building 16, Wanyi Plaza, No. 33 Jianshe Avenue,
Huangqi, Dali Town, Nanhai District, Foshan City
Product name : Industrial Communication Gateway
PN-04MB, PN-08MB, PN-12MB, PN-08ECAT, ECAT-08PN, PN-08DP,
Product model : EIP-08ECAT, CCL-08ECAT, MBTCP-08ECAT, EIP-08PN, PN-08EIP,
MBTCP-04MB, MBTCP-08MB, MBTCP-12MB
Trade Mark : 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.	RoHS Directive 2011/65/EU Annex II amending Annex(EU)2015/863 and amending Annex (EU)2017/2102&EN IEC 63000:2018 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances -Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content -Di(2-ethylhexyl) phthalate(DEHP),Benzylbutyl phthalate(BBP),Dibutyl phthalate(DBP), Diisobutyl phthalate(DIBP) content	PASS PASS

Prepared by:

Rock Ren
Project Engineer

Reviewed by:

Snow Wu
Project Manager

Approved by:

Smile Xu
Technical Director

**** Modified History ****

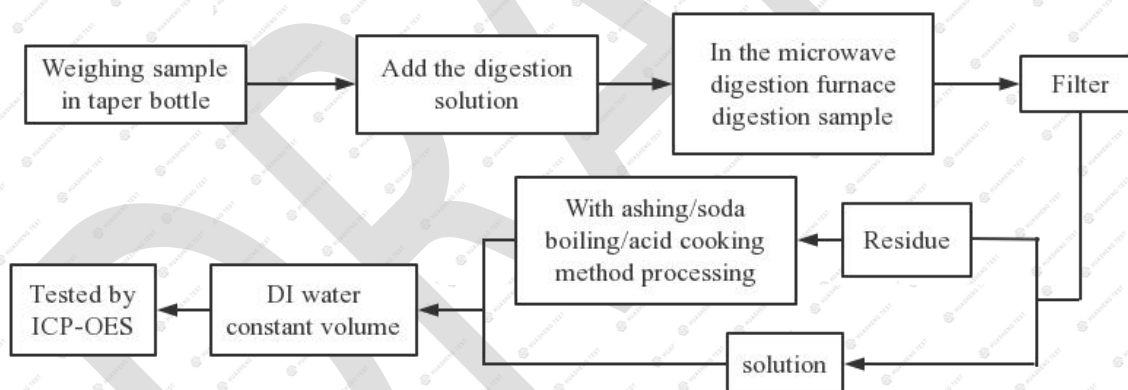
Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	2025/11/14	Smile Xu

1. Test Method(s):

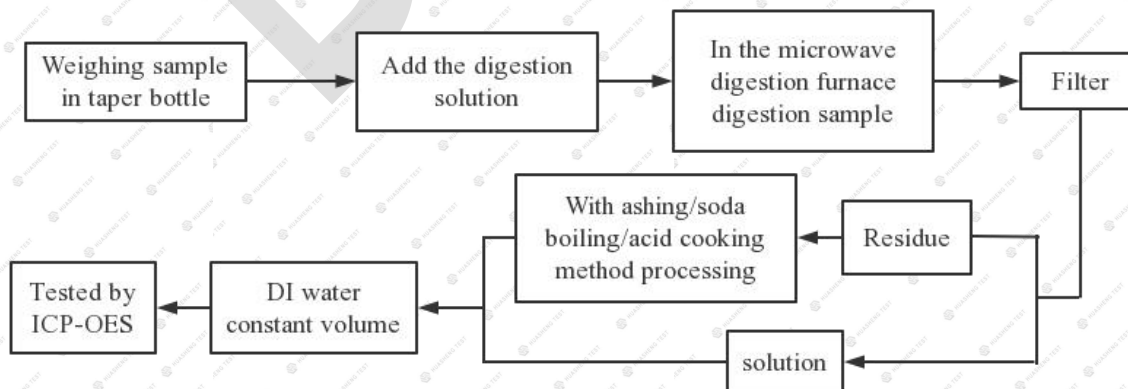
Testing item	Testing Method	Equipment
Screening analysis by XRF		
Lead(Pb) Cadmium(Cd) Mercury(Hg) Chromium(Cr) Bromine(Br)	IEC 62321-3-1-2013	ED-XRF
Chemical testing		
Lead(Pb)	IEC 62321-5-2013	ICP-OES
Cadmium(Cd)	IEC 62321-5-2013	ICP-OES
Mercury(Hg)	IEC 62321-4-2013+A1:2017	ICP-OES
Chromium(Cr VI) 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)

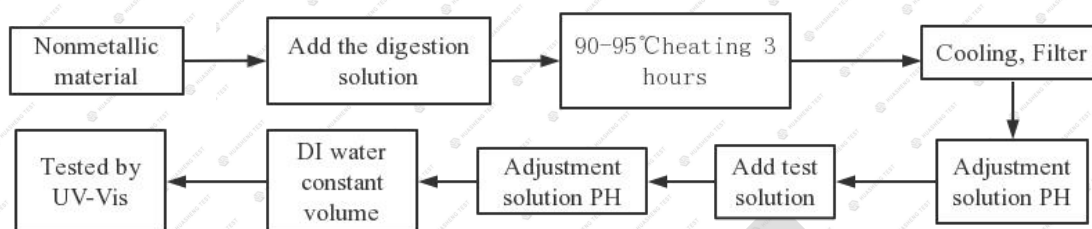


2. Mercury (Hg)

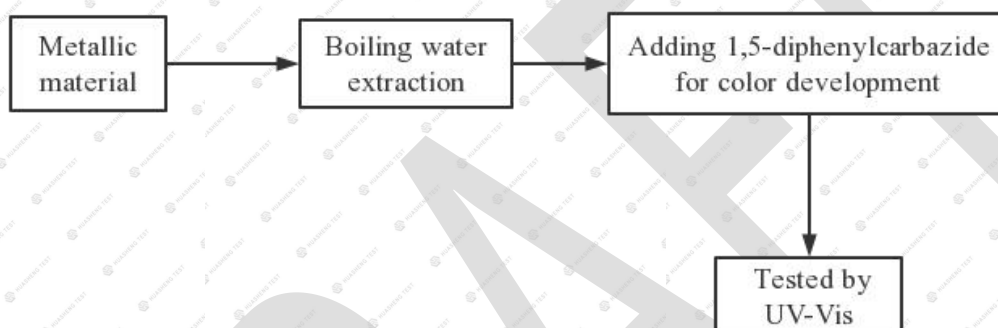




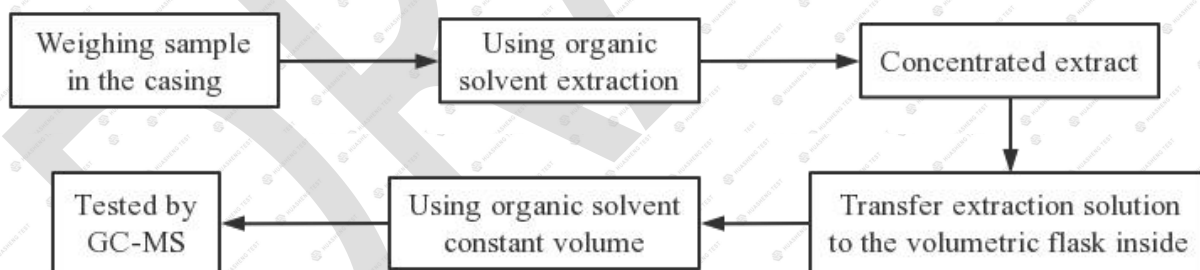
3. Hexavalent Chromium(Cr VI) (Alkaline extraction)



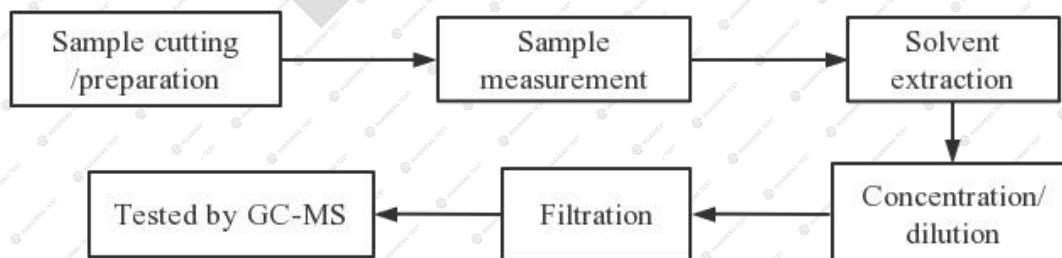
4. Hexavalent Chromium(Cr VI) (Boiling water extraction)



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	Black metal	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	--	--	
		PBDEs		--	
		DEHP	--	--	
		DBP	--	--	
		BBP	--	--	
		DIBP	--	--	
2	Black metal	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	--	--	
		PBDEs		--	
		DEHP	--	--	
		DBP	--	--	
		BBP	--	--	
		DIBP	--	--	
3	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
4	Silvery metal	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	--	--	
		PBDEs		--	
		DEHP	--	--	
		DBP	--	--	
		BBP	--	--	
		DIBP	--	--	
5	Black metal	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	--	--	
		PBDEs		--	
		DEHP	--	--	
		DBP	--	--	
		BBP	--	--	
		DIBP	--	--	
6	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
7	Golden metal	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	--	--	
		PBDEs		--	
		DEHP	--	--	
		DBP	--	--	
		BBP	--	--	
		DIBP	--	--	
8	Black plastic	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	BL	--	
		PBDEs		--	
		DEHP	--	ND	
		DBP	--	ND	
		BBP	--	ND	
		DIBP	--	ND	
9	Red 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
10	Orange plastic	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	BL	--	
		PBDEs		--	
		DEHP	--	ND	
		DBP	--	ND	
		BBP	--	ND	
		DIBP	--	ND	
11	Green plastic	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	BL	--	
		PBDEs		--	
		DEHP	--	ND	
		DBP	--	ND	
		BBP	--	ND	
		DIBP	--	ND	
12	Orange 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	Green plastic	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	BL	--	
		PBDEs		--	
		DEHP	--	ND	
		DBP	--	ND	
		BBP	--	ND	
		DIBP	--	ND	
14	PCB board	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	BL	--	
		PBDEs		--	
		DEHP	--	ND	
		DBP	--	ND	
		BBP	--	ND	
		DIBP	--	ND	
15	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
16	PCB board	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	BL	--	
		PBDEs		--	
		DEHP	--	ND	
		DBP	--	ND	
		BBP	--	ND	
		DIBP	--	ND	
17	Silvery metal	Pb	BL	--	Pass
		Cd	BL	--	
		Hg	BL	--	
		Cr(Cr(VI))	BL	--	
		PBBs	--	--	
		PBDEs		--	
		DEHP	--	--	
		DBP	--	--	
		BBP	--	--	
		DIBP	--	--	
18	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
19	Black 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 Cr⁶⁺.

(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 μ g/cm². 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 μ g/cm².

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 μ g/cm²).

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

-The result between 0.10 μ g/cm² and 0.13 μ g/cm² 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.

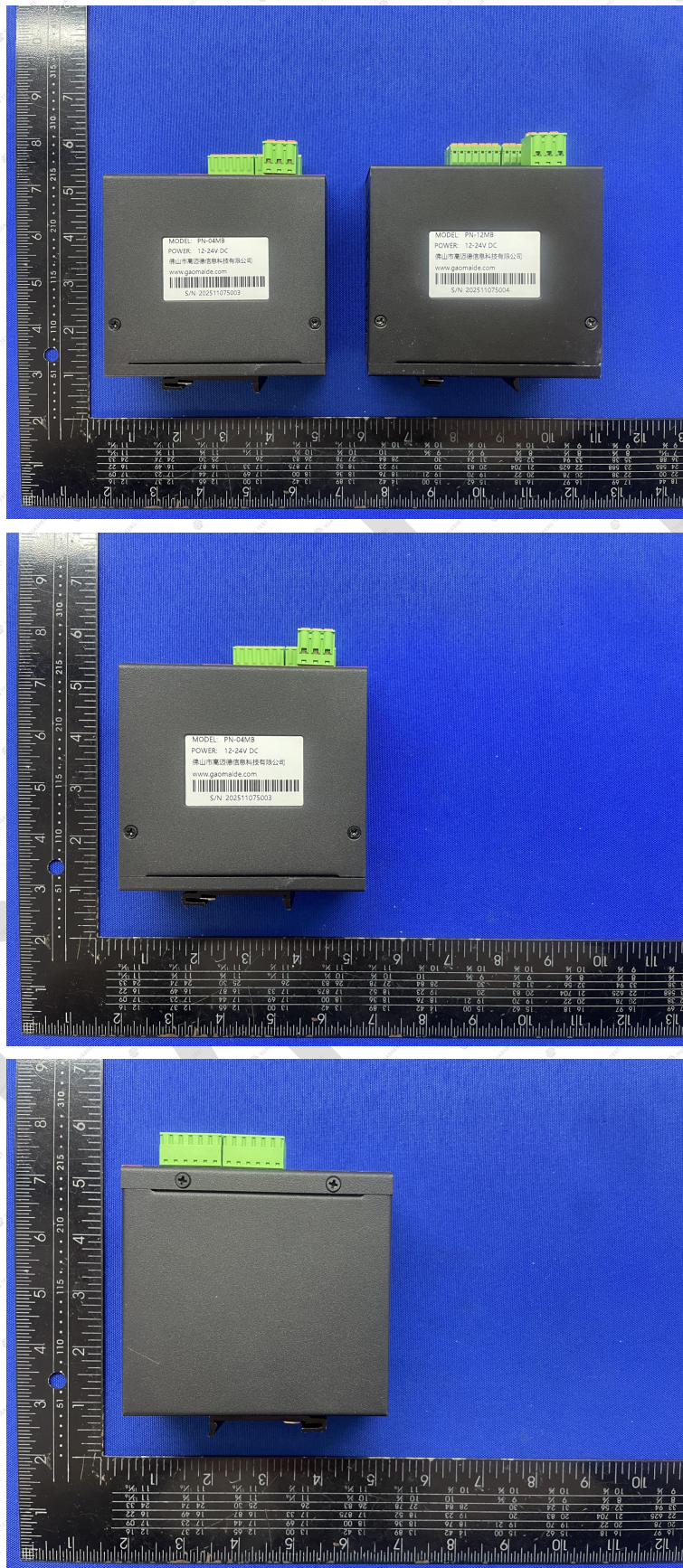
3) As specified by client to test the specified materials only.

(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



Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from HUASHENG TEST, All Test Data Presented in this report is only applicable to presented Test sample.

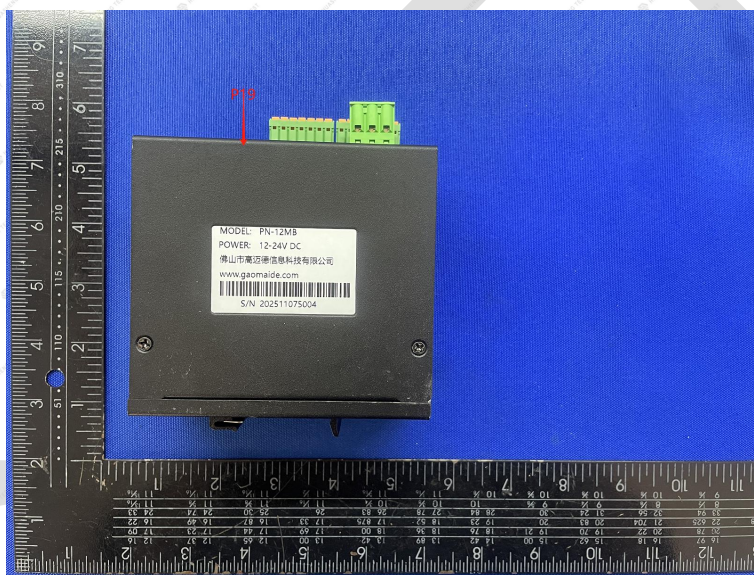
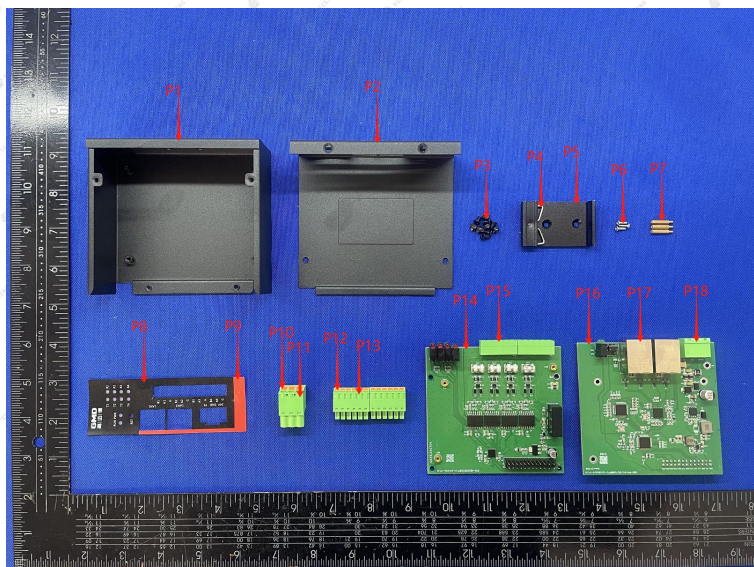
Shenzhen Huasheng Testing Technology Co., Ltd.

Room1004, NO.8, Chongqing Road, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Website: <http://www.huashengtest.com>

Tel: +86-755-2357 0025

E-mail: huasheng@huashengtest.com



End of Report