



# Test Report



**Report No.:** PTC25032012703C-EN01

**Issue Date:** Apr. 02, 2025

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**Applicant:** HANGZHOU YINFU TECHNOLOGY CO.,LTD

**Address:** Room 1006, Building 7, Xingyun Kunpeng Center, No. 112, Jinjiadu Road, Liangzhu Street, Yuhang District, Hangzhou City, Zhejiang , China

The following merchandise was (were) submitted and identified by client as:

**Sample Name:** Network cameras

**Test Sample Model:** IPC-BF3821E-ZAS-PV

**Other Sample Model:** Please refer to next page

**Manufacturer:** HANGZHOU YINFU TECHNOLOGY CO.,LTD

**Address:** Room 1006, Building 7, Xingyun Kunpeng Center, No. 112, Jinjiadu Road, Liangzhu Street, Yuhang District, Hangzhou City, Zhejiang , China

**Sample Received Date:** Mar. 25, 2025

**Completed Date:** Apr. 02, 2025

**Test Requested:** As specified by client, with reference to RoHS Directive 2011/65/EU and its subsequent amendments regulation EU No.2015/863.(Lead (Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr<sup>6+</sup>), PBBs and PBDEs, Phthalates (DBP, BBP,DEHP,DIBP))

**Conclusion(s):** According to the test results of below test parameters, the tested materials of submitted samples complied with the requirements for RoHS Directive 2011/65/EU and its subsequent amendments regulation EU No.2015/863.

**Test Result(s) and Test Method(s):**Please refer to next page(s).

Prepared by: Anne

Checked by:Crystal

Approved by: Miya

Anne

Crystal

Miya



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## Other Sample Model:

IPC-BF32XXX-XXX, IPC-BF32XXX-XXX-L, IPC-BF32XXX-XXX-PV, IPC-BF34XXX-XXX,  
IPC-BF34XXX-XXX-L, IPC-BF34XXX-XXX-PV, IPC-BF35XXX-XXX, IPC-BF35XXX-XXX-L,  
IPC-BF35XXX-XXX-PV, IPC-BF36XXX-XXX, IPC-BF36XXX-XXX-L, IPC-BF36XXX-XXX-PV,  
IPC-BF38XXX-XXX, IPC-BF38XXX-XXX-L, IPC-BF38XXX-XXX-PV, IPC-BF28XXX-XXX,  
IPC-BF28XXX-XXX-L, IPC-BF28XXX-XXX-PV, IPC-DF32XXX-XXX, IPC-DF32XXX-XXX-L,  
IPC-DF32XXX-XXX-PV, IPC-DF34XXX-XXX, IPC-DF34XXX-XXX-L, IPC-DF34XXX-XXX-PV,  
IPC-DF35XXX-XXX, IPC-DF35XXX-XXX-L, IPC-DF35XXX-XXX-PV, IPC-DF36XXX-XXX,  
IPC-DF36XXX-XXX-L, IPC-DF36XXX-XXX-PV, IPC-DF38XXX-XXX, IPC-DF38XXX-XXX-L,  
IPC-DF38XXX-XXX-PV, IPC-DF28XXX-XXX, IPC-DF28XXX-XXX-L, IPC-DF28XXX-XXX-PV,  
IPC-EF32XXX-XXX, IPC-EF32XXX-XXX-L, IPC-EF32XXX-XXX-PV, IPC-EF34XXX-XXX,  
IPC-EF34XXX-XXX-L, IPC-EF34XXX-XXX-PV, IPC-EF35XXX-XXX, IPC-EF35XXX-XXX-L,  
IPC-EF35XXX-XXX-PV, IPC-EF36XXX-XXX, IPC-EF36XXX-XXX-L, IPC-EF36XXX-XXX-PV,  
IPC-EF38XXX-XXX, IPC-EF38XXX-XXX-L, IPC-EF38XXX-XXX-PV, IPC-EF28XXX-XXX,  
IPC-EF28XXX-XXX-L, IPC-EF28XXX-XXX-PV, IPC-BF32XXX-XXX-L-B, IPC-BF32XXX-XXX-PV-B,  
IPC-BF34XXX-XXX-L-B, IPC-BF34XXX-XXX-PV-B, IPC-BF35XXX-XXX-L-B, IPC-BF35XXX-XXX-PV-B,  
IPC-BF36XXX-XXX-L-B, IPC-BF36XXX-XXX-PV-B, IPC-BF38XXX-XXX-L-B, IPC-BF38XXX-XXX-PV-B,  
IPC-BF28XXX-XXX-L-B, IPC-BF28XXX-XXX-PV-B, IPC-DF32XXX-XXX-L-B, IPC-DF32XXX-XXX-PV-B,  
IPC-DF34XXX-XXX-L-B, IPC-DF34XXX-XXX-PV-B, IPC-DF35XXX-XXX-L-B, IPC-DF35XXX-XXX-PV-B,  
IPC-DF36XXX-XXX-L-B, IPC-DF36XXX-XXX-PV-B, IPC-DF38XXX-XXX-L-B, IPC-DF38XXX-XXX-PV-B,  
IPC-DF28XXX-XXX-L-B, IPC-DF28XXX-XXX-PV-B, IPC-EF32XXX-XXX-L-B, IPC-EF32XXX-XXX-PV-B,  
IPC-EF34XXX-XXX-L-B, IPC-EF34XXX-XXX-PV-B, IPC-EF35XXX-XXX-L-B, IPC-EF35XXX-XXX-PV-B,  
IPC-EF36XXX-XXX-L-B, IPC-EF36XXX-XXX-PV-B, IPC-EF38XXX-XXX-L-B, IPC-EF38XXX-XXX-PV-B,  
IPC-EF28XXX-XXX-L-B, IPC-EF28XXX-XXX-PV-B

**Test Result(s) and Test Method(s):**Please refer to next page(s).

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## Test Result(s):

### 1.1) RoHS Directive 2011/65/EU -(Lead (Pb)/Cadmium(Cd)/Mercury(Hg)/Hexavalent Chromium(Cr<sup>6+</sup>)/PBBs/PBDEs)

Test Method: IEC 62321-3-1: 2013, IEC 62321-5: 2013, IEC 62321-6:2015, analyzed by EDXRF & ICP-OES & GC-MS.

No.	Materials Description	EDXRF Result(s) (mg/kg)					Chemical Result (mg/kg)	Conclusion
		Pb	Cd	Hg	Cr	Br		
1	Silver metal with white coating (shell)	BL	BL	BL	BL	--	--	PASS
2	Silver metal with black coating (frame)	BL	BL	BL	BL	--	--	PASS
3	Silver metal with white coating (bracket)	BL	BL	BL	BL	--	--	PASS
4	Transparent glass (camera)	BL	BL	BL	BL	BL	--	PASS
5	Black plastic (frame)	BL	BL	BL	BL	BL	--	PASS
6	Silver metal (Phillips screw)	BL	BL	BL	BL	--	--	PASS
7	Silver metal (hex screw)	BL	BL	BL	BL	--	--	PASS
8	Black foam (buffer pad, base)	BL	BL	BL	BL	BL	--	PASS
9	White soft plastic (wire jacket)	BL	BL	BL	BL	BL	--	PASS
10	White soft plastic (thread stop)	BL	BL	BL	BL	BL	--	PASS
11	Silver metal (female plug)	BL	BL	BL	BL	--	--	PASS
12	White soft plastic (female shell)	BL	BL	BL	BL	BL	--	PASS
13	White soft plastic (network interface, shell)	BL	BL	BL	BL	BL	--	PASS
14	White plastic (network interface)	BL	BL	BL	BL	BL	--	PASS
15 <sup>E</sup>	Gold metal (bolt)	IN	BL	BL	BL	--	Pb:31529	PASS
16	Silver metal (bracket)	BL	BL	BL	BL	--	--	PASS
17	Black PCB(SC-SENSOR -CB-V01-RA PCB)	BL	BL	BL	BL	IN	PBBs:N.D. PBDEs:N.D.	PASS
18	Black PCB	BL	BL	BL	BL	IN	PBBs:N.D.	PASS

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No.	Materials Description	EDXRF Result(s) (mg/kg)					Chemical Result (mg/kg)	Conclusion
		Pb	Cd	Hg	Cr	Br		
	(SY56805-PB-V01-RC PCB)						PBDEs:N.D.	
19	Black PCB(NT93560 MB-V04-RF PCB)	BL	BL	BL	BL	IN	PBBs:N.D. PBDEs:N.D.	PASS
20	Black FPC(FPC -45PIN-B-V01-RA )	BL	BL	BL	BL	BL	--	PASS

- Note:**
1. mg/kg = milligram per kilogram (ppm).
  2. N.D. = Not Detected
  3. The result are obtained by EDXRF for primary screening, if the result exceeds the below limit (BL), and further chemical testing.
  4. For EDXRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine.
  5. "E"= This material is tin-lead solder or metal alloy proved by client,lead in tin-lead solder or copper alloy is exempted on the requirements of RoHS directive (EU Directive 2011/65/EU).

## Screening limits in mg/kg for regulated elements in various matrices

Elements	Polymer	Metal	Composite Materials
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
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	$BL \leq (300-3\sigma) < X$	--	$BL \leq (250-3\sigma) < X$

BL = Below Limit, OL = Over Limit, IN = Inconclusive, LOD = Limit of Detection

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## Chemical Testing - Detection Limit & 2011/65/EU Limit:

Name of Chemicals	Method Detection Limit (mg/kg)	2011/65/EU Limit (mg/kg)
Lead (Pb)	5	1000
Cadmium (Cd)	5	100
Mercury (Hg)	5	1000
Chromium VI (Cr VI)	Non-metal: 5 Metal: Negative	Non-metal: 1000 Metal: Negative
Polybromobiphenyls (PBBs) -Bromobiphenyl (MonoBB) -Dibromobiphenyl (DiBB) -Tribromobiphenyl (TriBB) -Tetrabromobiphenyl (TetraBB) -Pentabromobiphenyl (PentaBB) -Hexabromobiphenyl (HexaBB) -Heptabromobiphenyl (HeptaBB) -Octabromobiphenyl (OctaBB) -Nonabromobiphenyl (NonaBB) -Decabromobiphenyl (DecaBB)	Each 5	Sum: 1 000
Polybromodiphenyl ethers (PBDEs) -Bromodiphenyl ether (MonoBDE) -Dibromodiphenyl ether (DiBDE) -Tribromodiphenyl ether (TriBDE) -Tetrabromodiphenyl ether (TetraBDE) -Pentabromodiphenyl ether (PentaBDE) -Hexabromodiphenyl ether (HexaBDE) -Heptabromodiphenyl ether (HeptaBDE) -Octabromodiphenyl ether (OctaBDE) -Nonabromodiphenyl ether (NonaBDE) -Decabromodiphenyl ether (DecaBDE)	Each 5	Sum: 1 000

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## Test Result(s):

### 1.2) RoHS Directive 2011/65/EU and its subsequent amendments regulation EU No.2015/863 - (Phthalates DIBP,DBP, BBP, DEHP)

Method: IEC 62321-8: 2017, analyzed by Gas Chromatograph-Mass Spectrometry (GC-MS).

Substances	DBP	BBP	DEHP	DIBP	Conclusion
CAS No.	84-74-2	85-68-7	117-81-7	84-69-5	
Limit(s) (mg/kg)	1000	1000	1000	1000	
MDL (mg/kg)	50	50	50	50	
Material No.	Result (mg/kg)				
5+8+10	N.D.	N.D.	N.D.	N.D.	PASS
9	N.D.	N.D.	N.D.	N.D.	PASS
12+13+4	N.D.	N.D.	N.D.	N.D.	PASS
14	N.D.	N.D.	N.D.	N.D.	PASS
17+18+19	N.D.	N.D.	N.D.	N.D.	PASS
20	N.D.	N.D.	N.D.	N.D.	PASS

- Note:**
1. mg/kg = milligram per kilogram (ppm).
  2. N.D. = Not Detected (< MDL).
  3. MDL = Method Detection Limit.

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## Test Material List

The following materials apply only to the samples submitted for phthalates testing.

Material No.	Description (Location)
4	Transparent glass (camera)
5	Black plastic (frame)
8	Black foam (buffer pad, base)
9	White soft plastic (wire jacket)
10	White soft plastic (thread stop)
12	White soft plastic (female shell)
13	White soft plastic (network interface, shell)
14	White plastic (network interface)
17	Black PCB(SC-SENSOR -CB-V01-RA PCB)
18	Black PCB (SY56805-PB-V01-RC PCB)
19	Black PCB(NT93560 MB-V04-RF PCB)
20	Black FPC(FPC -45PIN-B-V01-RA )

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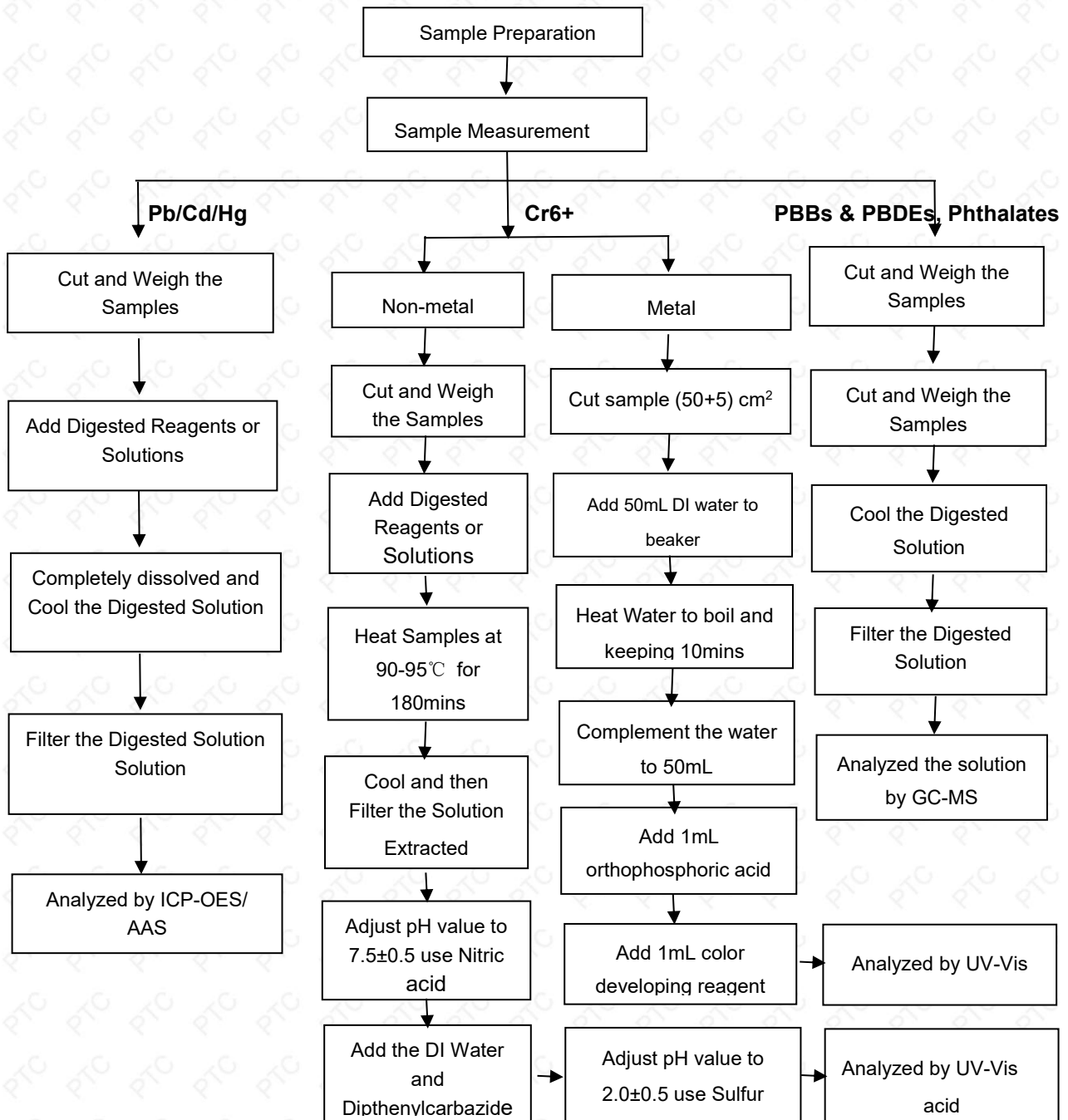
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## Pb/Cd/Hg/Cr6+/PBBs/PBDEs , Phthalates Testing Flow Chart



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Photo(s) of Sample:



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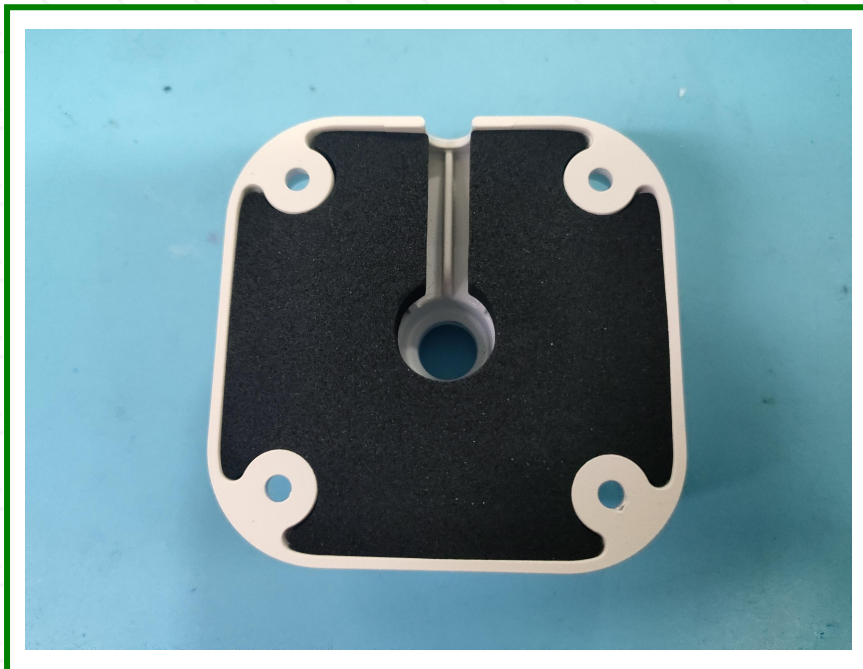


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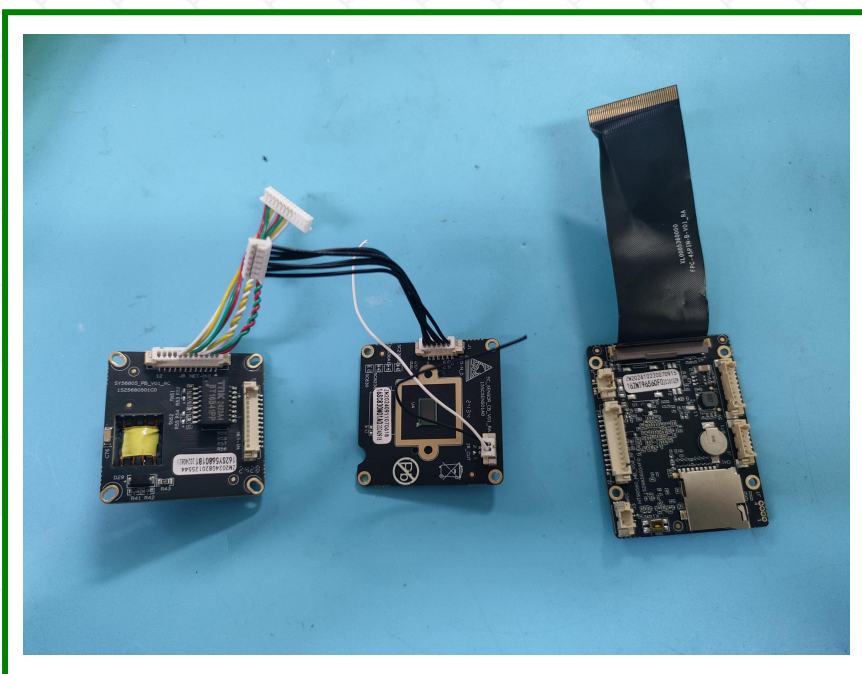
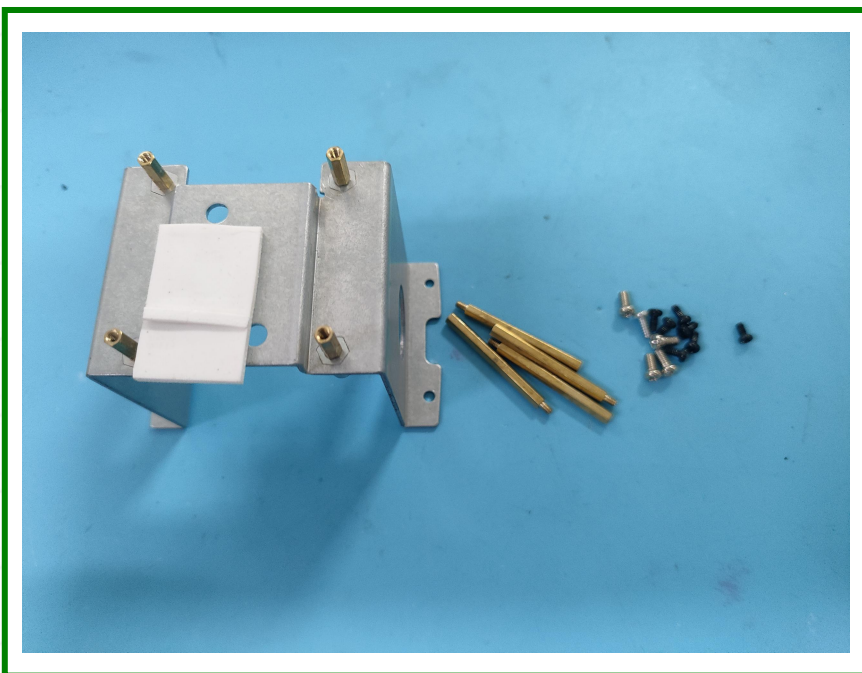


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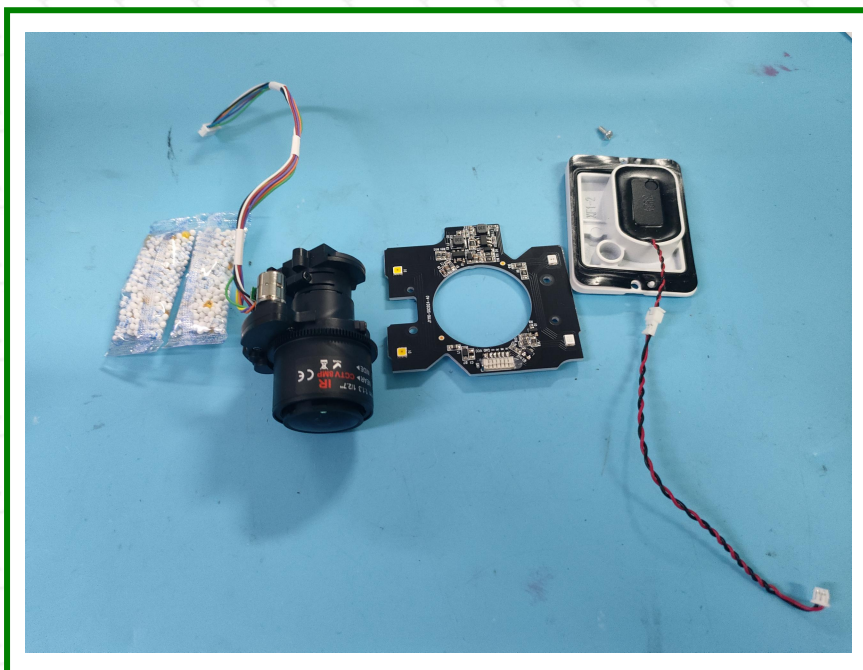
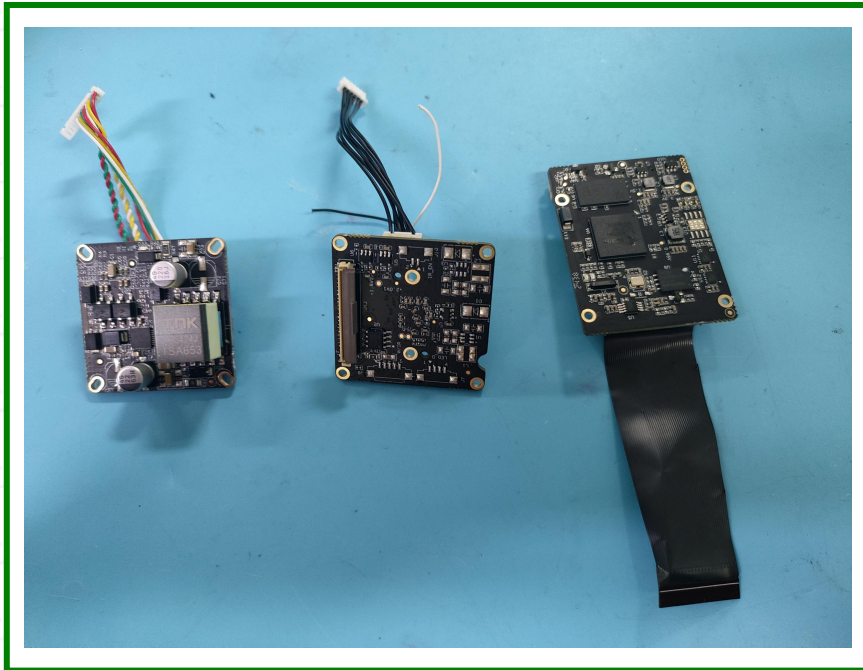


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\*\*\*End of Report\*\*\*

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