

TEST REPORT

Applicant: Shenzhen Ai-Thinker Technology Co., Ltd
Address: 410, Block C, Huafeng Smart Innovation Port, Gushu 2nd Road, Gushu Community, Xixiang Street, Baoan District, Shenzhen, China

The following sample(s) was/were submitted and identified on behalf of the client as:

Product name: Wi-Fi Module
Test model: TG-12F
Serial model: See attachment
Trade mark: B&T/Ai-Thinker
Manufacturer& Factory: Shenzhen Ai-Thinker Technology Co., Ltd
Address: 410, Block C, Huafeng Smart Innovation Port, Gushu 2nd Road, Gushu Community, Xixiang Street, Baoan District, Shenzhen, China
Sample Received Date: Apr. 22, 2022
Testing Period: Apr. 22, 2022~May. 09, 2022

Test Requirement:

As specified by client, to determine the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated, Diphenyl Ethers(PBDEs), Bis-(2-ethylhexyl) Phthalate (DEHP), Benzyl butyl Phthalate (BBP), Dibutyl Phthalate (DBP) and Diisobutyl Phthalate(DIBP) contents in the submitted sample in accordance with RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Test Result(s): Please refer to the following page(s);

Test Method: Please refer to the following page(s);

Compiled by:

Dora

Reviewed by:

Y. Lin

Approved by:

Mark Lin

Date:

2022-05-14

Attachment:

Hi-07S	Hi-07SL	XW-01	XW-01D
PB-03	PB-03F	PB-03M	TB-04
TG-02	TG-02F	TG-02M	Ra-08
Ra-08H	NF-05	NF-05-S	A9G
BG01	Si4432	VC-01	VC-02
ESP-01F	ESP-07S	ESP-12D	ESP-12S
ESP-13	ESP-13U	ESP32-SU	ESP-12K
ESP-C3-M1	ESP-C3-M1-I	ESP-S3-12K	ESP-S3-32S
ESP-84	ESP-84D	ESP-84F	ESP-84M1
ESP-84N	Hi-12F	Hi-12FL	/

Test Result(s):
1. Main test-TG-12F

Part No.	Part Description	Test Items	XRF Screening Result(mg/kg)	Chemical Test Result(mg/kg)	Conclusion
1	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
2	SMD resistor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
3	SMD capacitor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
4	SMD crystal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

5	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
6	Silvery metal cover	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

2. Difference-ESP-01F

7	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
8	SMD chip	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

3. Difference-ESP-07S

9	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
10	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
11	Golden metal shell of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	
12	Golden metal plug pin of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

13	White plastic base of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

4. Difference-ESP-12D

14	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
15	SMD capacitor	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
16	SMD LED	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

17	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

5. Difference-ESP-12S

18	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
19	SMD LED	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
20	SMD chip	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	

6. Difference-ESP-13

21	Green PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
22	SMD capacitor	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
23	SMD chip 1	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
24	SMD chip 2	DEHP	/	N.D.	Pass
		BBP	/	N.D.	
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	

7. Difference-ESP-13U

25	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
26	SMD chip 1	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
27	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
28	Golden metal shell of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

29	Golden metal plug pin of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
30	White plastic base of antenna interface	DBP	/	/	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

8. Difference-ESP32-SU

31	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
32	SMD chip 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

33	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
34	Golden metal shell of antenna interface	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
35	Golden metal plug pin of antenna interface	BBP	/	/	Pass
		DBP	/	/	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
36	White plastic base of antenna interface	DEHP	/	/	Pass
		BBP	/	/	
		DBP	/	/	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

9. Difference-ESP-12K

37	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
38	SMD chip 1	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
39	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
40	SMD chip 3	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

41	SMD crystal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

10. Difference-ESP-C3-M1

42	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
43	SMD crystal	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
44	SMD chip	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

11. Difference-ESP-C3-M1-I

45	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
46	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
47	SMD crystal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
48	Golden metal shell of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

49	Golden metal plug pin of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
50	White plastic base of antenna interface	DBP	/	/	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

12. Difference-ESP-S3-12K

51	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
52	SMD chip 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

53	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
54	SMD crystal	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

13. Difference-ESP-S3-32S

55	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
56	SMD chip 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

57	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
58	SMD crystal	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

14. Difference-ESP-84

59	White PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
60	SMD chip	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

15. Difference-ESP-84D

61	White PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
62	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

16. Difference-ESP-84F

63	White PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
64	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

17. Difference-ESP-84M1

65	White PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
66	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

18. Difference-ESP-84N

67	White PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
68	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

19. Difference-Hi-12F

69	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
70	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
71	SMD inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

20. Difference-Hi-12FL

72	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

73	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
74	SMD inductor	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

21. Difference-Hi-07S

75	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
76	SMD chip	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

77	SMD inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
78	Golden metal shell of antenna interface	DBP	/	/	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
79	Golden metal plug pin of antenna interface	BBP	/	/	Pass
		DBP	/	/	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
80	White plastic base of antenna interface	DEHP	/	/	Pass
		BBP	/	/	
		DBP	/	/	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

22. Difference-Hi-07SL

81	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
82	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
83	SMD inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	
84	Golden metal shell of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

85	Golden metal plug pin of antenna interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
86	White plastic base of antenna interface	DBP	/	/	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

23. Difference-XW-01

87	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
88	SMD chip 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

89	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
90	SMD crystal	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

24. Difference-PB-03

91	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
92	SMD chip	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

25. Difference-PB-03F

93	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
94	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

26. Difference-PB-03M

95	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
96	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

27. Difference-TB-04

97	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
98	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
99	SMD inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	

28. Difference-TG-02

100	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

101	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

29. Difference-TG-02F

102	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
103	SMD chip	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
104	Black PCB	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
105	Black PCB	DEHP	/	N.D.	Pass
		BBP	/	N.D.	
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	

30. Difference-TG-02M

104	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
105	Black PCB	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	

105	SMD chip	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

31. Difference-Ra-08

106	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
107	SMD inductor	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
108	SMD crystal 1	BBP	/	/	Pass
		DBP	/	/	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

109	SMD crystal 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
110	SMD chip 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
111	SMD chip 2	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
112	Black PCB	DEHP	/	N.D.	Pass
		BBP	/	N.D.	
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	

32. Difference-Ra-08H

112	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
113	Black PCB	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	

113	SMD inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
114	SMD crystal 1	DBP	/	/	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
115	SMD crystal 2	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
116	SMD chip 1	DEHP	/	N.D.	Pass
		BBP	/	N.D.	
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	

117	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

33. Difference-NF-05

118	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
119	SMD chip	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
120	Black PCB	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	

34. Difference-NF-05-S

120	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
120	Black PCB	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	

121	Tin solder	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
122	SMD chip	DBP	/	/	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
123	Black plastic of black interface	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
124	Metal plug pin of black interface	DEHP	/	N.D.	Pass
		BBP	/	/	
		DBP	/	/	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	

35. Difference-A9G

125	Green PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
126	SMD capacitor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
127	SMD inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	/	/	
		DIBP	/	/	
		DEHP	/	/	
		BBP	/	/	
		DBP	/	/	
128	SMD oscillator 1	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

129	SMD oscillator 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
130	SMD chip 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
131	SMD chip 2	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
132	SMD chip 3	DEHP	/	N.D.	Pass
		BBP	/	N.D.	
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	

133	SMD chip 4	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

36. Difference-BG01

134	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
135	SMD crystal 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
136	SMD crystal 2	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

137	Blue chip electronic components	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
138	SMD chip	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

37. Difference-Si4432

139	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
140	SMD capacitor	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

141	SMD chip 1	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
142	SMD chip 2	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

38. Difference-VC-01

143	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
144	SMD resistor	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

145	SMD capacitor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
146	SMD chip 1	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
147	SMD chip 2	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

39. Difference-VC-02

148	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

149	SMD resistor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
150	SMD capacitor	DBP	/	N.D.	Pass
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
151	SMD chip 1	BBP	/	N.D.	Pass
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
152	SMD chip 2	DEHP	/	N.D.	Pass
		BBP	/	N.D.	
		DBP	/	N.D.	
		Pb	BL	/	
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	

40. Difference-XW-01D

153	Black PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	IN	N.D.	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
154	SMD chip 1	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
155	SMD chip 2	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	
156	SMD crystal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		DIBP	/	N.D.	
		DEHP	/	N.D.	
		BBP	/	N.D.	
		DBP	/	N.D.	

- Note:
- 1. N.D. = Not Detected (<MDL) MDL = Method Detection Limit
1mg/kg = 1ppm = 0.0001% /=Not Regulated or Not Applicable
 - 2. BL = Below the XRF screening limit
IN = Further chemical test will be conducted when the screening result inconclusive
OL = Further chemical test will be conducted while the result is above the screening limit.
 - 3. For metal samples, the sample is negative for Cr(VI), if the Cr(VI) concentration is less than 0.10 $\mu\text{g}/\text{cm}^2$, the coating is considered a non- Cr(VI) based coating;
The sample is positive for Cr(VI), if the Cr(VI) concentration is greater than 0.13 $\mu\text{g}/\text{cm}^2$,
The sample coating is considered to contain Cr(VI);
The result is considered to be inconclusive, the Cr(VI) concentration is between the 0.10 $\mu\text{g}/\text{cm}^2$ and 0.13 $\mu\text{g}/\text{cm}^2$, unavoidable coating variations may influence the determination.
Because the storage condition and production date of the sample are not known, the test results of the sample of hexavalent chromium can only represent the state of hexavalent chromium in the samples tested.
- Remark:
- 1. When conducting the test for PBBs&PBDEs, XRF was introduced to screen Br Exclusively; When conducting the test for Hexavalent Chromium, XRF was introduced to screen Chromium exclusively.
 - 2. The test results in this report are only responsible for the tested sample. The series model sample only tested the difference part. The other parts are the same material as the test model.
 - 3. According to the same material declaration of client, the test data of sample No.153~156 is from sample No. 87~90.

Test Method:

When screening results exceed the XRF screening limit in IEC 62321-3-1: 2013, further use of chemical methods are required to test the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs) and Polybrominated Diphenyl Ethers(PBDEs)

1. XRF screening limits in mg/kg for regulated elements according to IEC 62321-3-1:2013

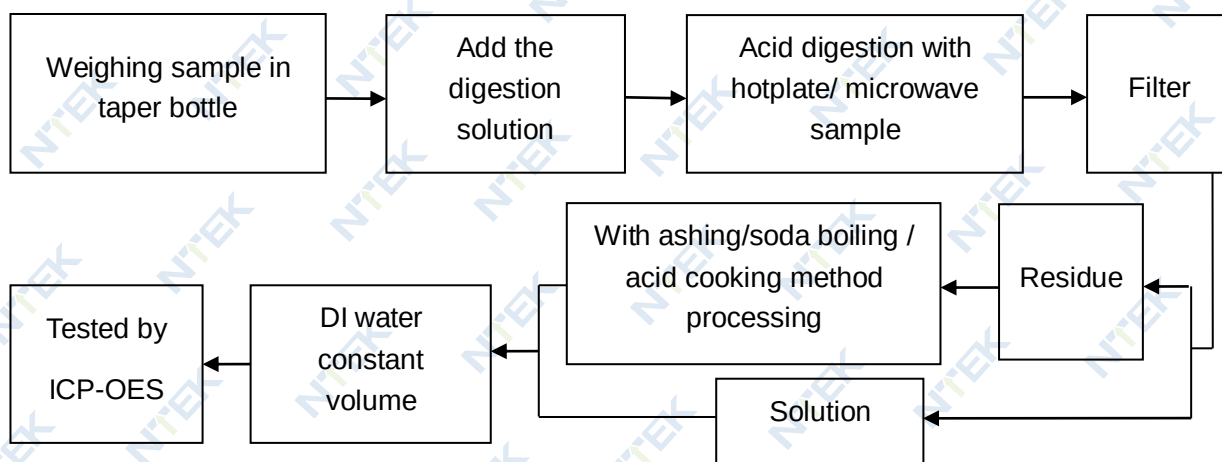
Element	Limit of IEC 62321-3-1:2013 (mg/kg)		
	Polymers	Metals	Composite material
Pb	$BL \leq (700-3\sigma) < X$ $< (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X$ $< (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X$ $< (1500+3\sigma) \leq OL$
Cd	$BL \leq (70-3\sigma) < X$ $(130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X$ $(130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma)$ $\leq OL$
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	$BL \leq (300-3\sigma) < X$	/	$BL \leq (250-3\sigma) < X$
Note: BL= Below the XRF screening limit OL=Over the XRF screening limit X=The symbol "X" marks the region where further investigation is necessary. 3σ =The reproducibility of analytical instruments LOD= Detection limit			

2. Chemical Test

Test item	Test method	Test instrument	MDL	Limit ^Δ
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES	10 mg/kg	1000 mg/kg
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES	10 mg/kg	100 mg/kg
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017	ICP-OES	10 mg/kg	1000 mg/kg
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015 Ed.1.0	UV-Vis	0.10 μg/cm ²	1000 mg/kg
	IEC 62321-7-2:2017 Ed.1.0		8 mg/kg	
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015 Ed.1.0	GC-MS	100 mg/kg	1000 mg/kg
Polybrominated, Diphenyl Ethers(PBDEs)	IEC 62321-6:2015 Ed.1.0	GC-MS	100 mg/kg	1000 mg/kg
Bis-(2-ethylhexyl) Phthalate (DEHP)	IEC 62321-8:2017 Ed.1.0	GC-MS	50 mg/kg	1000 mg/kg
Benzyl butyl Phthalate (BBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	50 mg/kg	1000 mg/kg
Dibutyl Phthalate (DBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	50 mg/kg	1000 mg/kg
Diisobutyl Phthalate (DIBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	50 mg/kg	1000 mg/kg
^Δ Limit is from RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU				

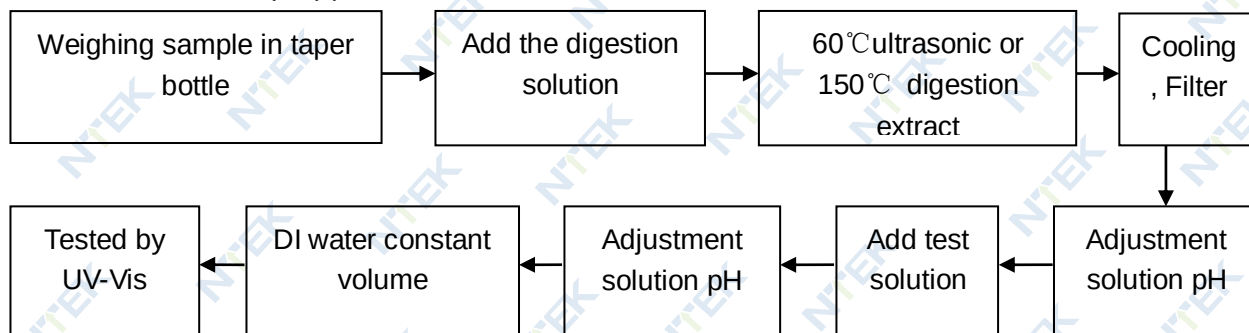
Test Flow:

1. Lead(Pb), Cadmium(Cd) , Mercury (Hg)

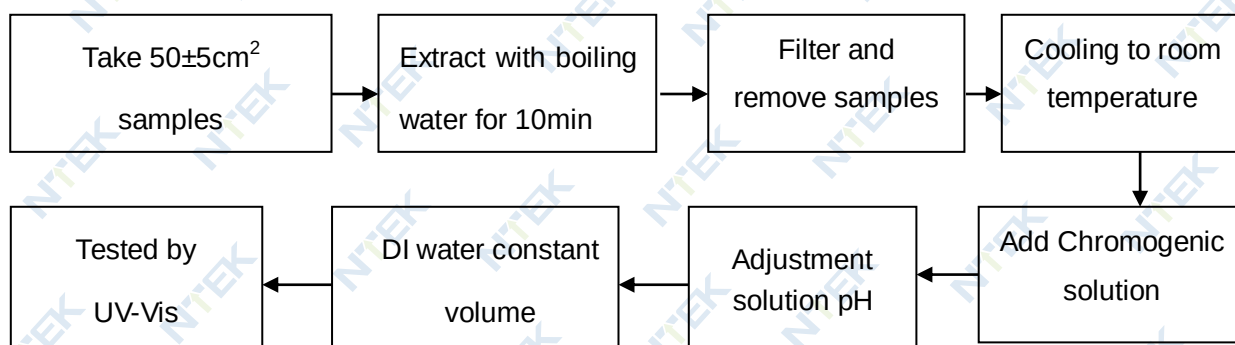


2. Hexavalent Chromium(Cr(VI))

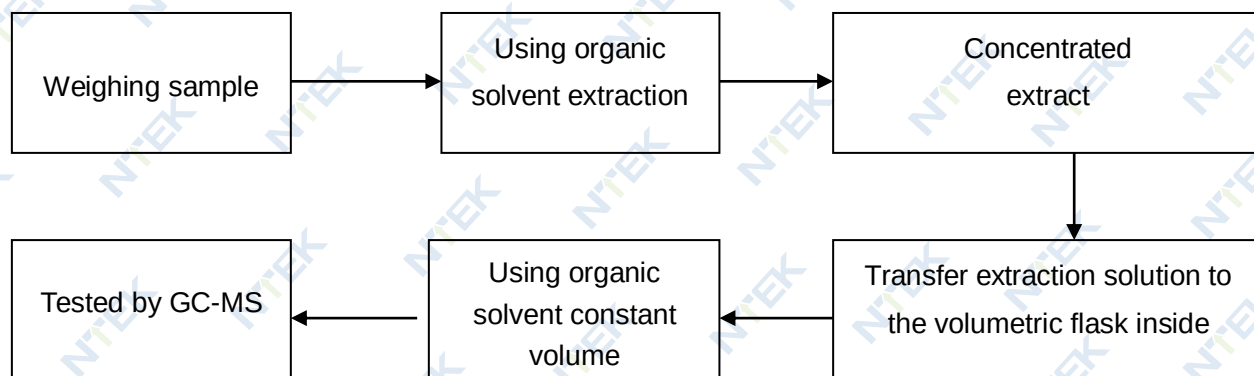
2.1 Non- metal sample(s)



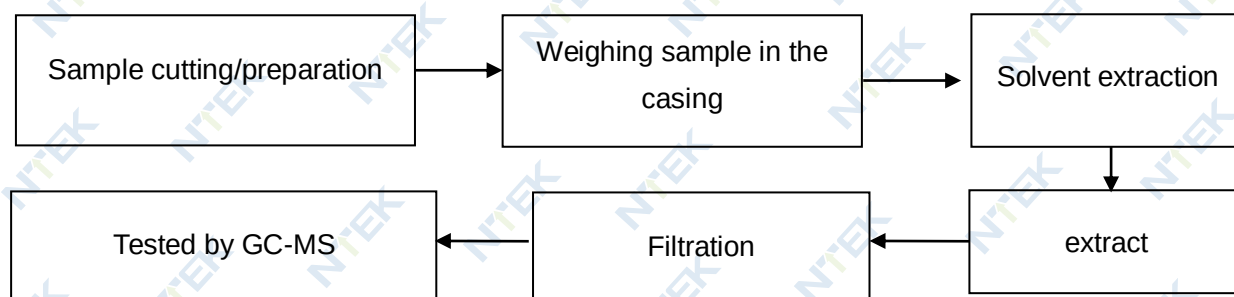
2.2 Metal sample(s)



3. PBBs/ PBDEs



4. Phthalates



Sample photo(s):

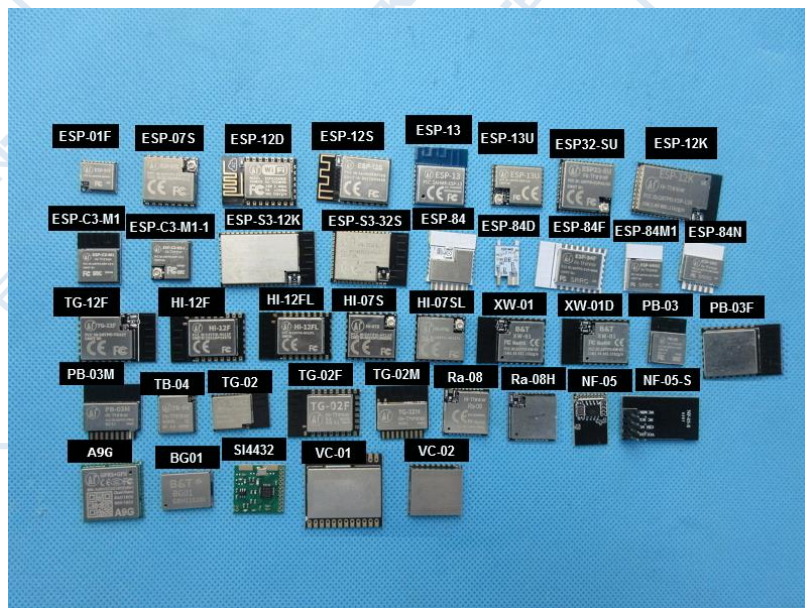


Fig.1

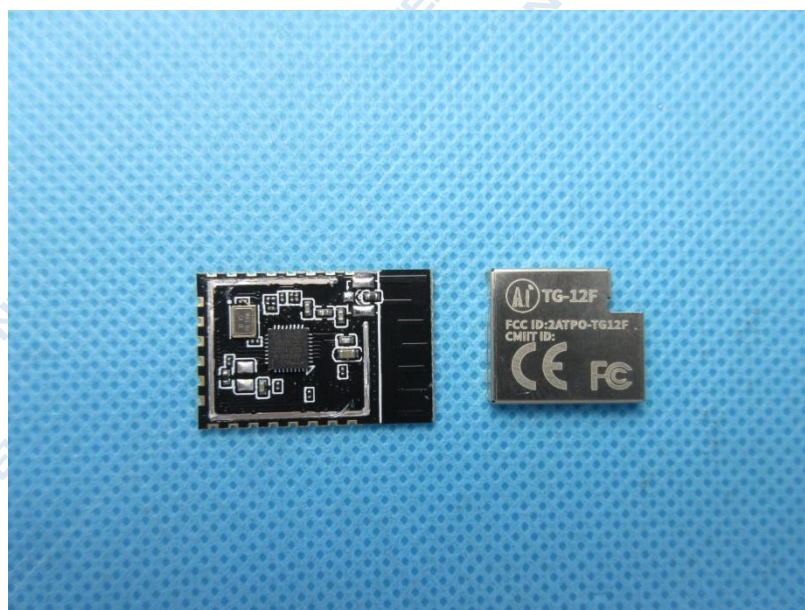


Fig.2(Main test-TG-12F)

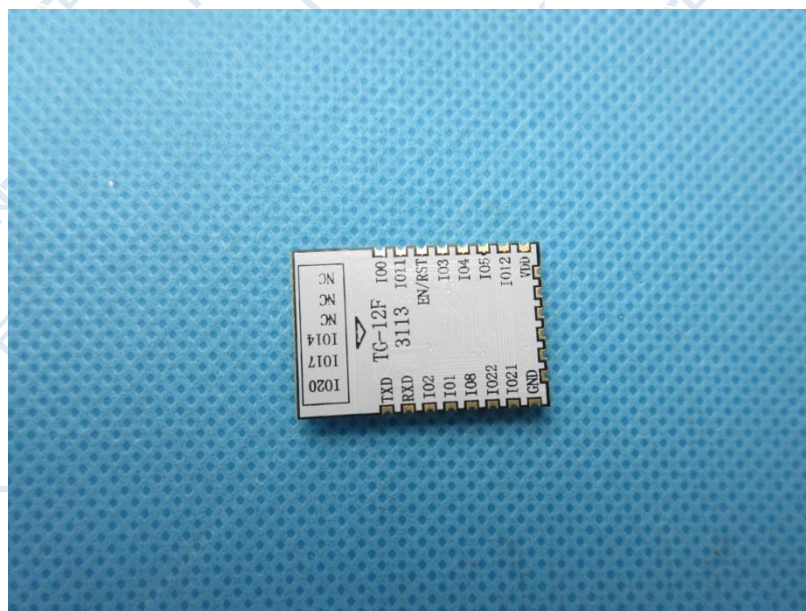


Fig.3 (Main test-TG-12F)

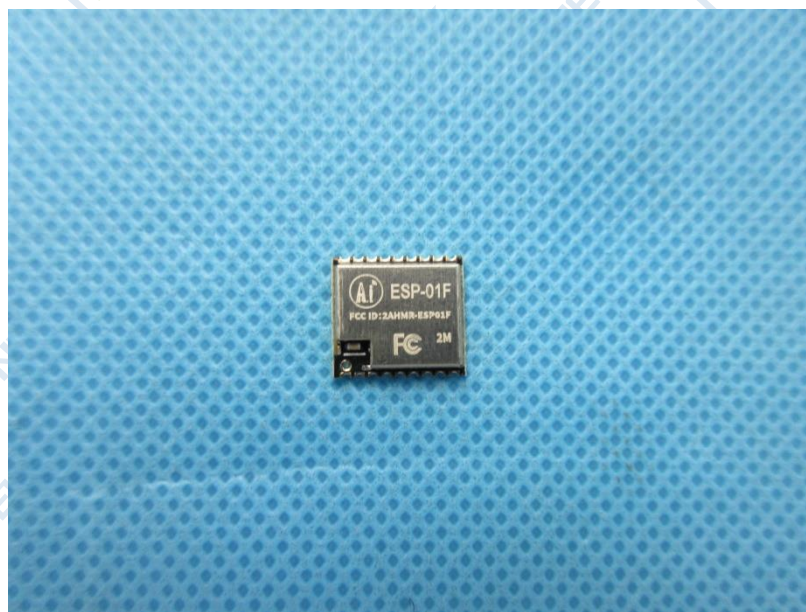


Fig.4(Difference-ESP-01F)

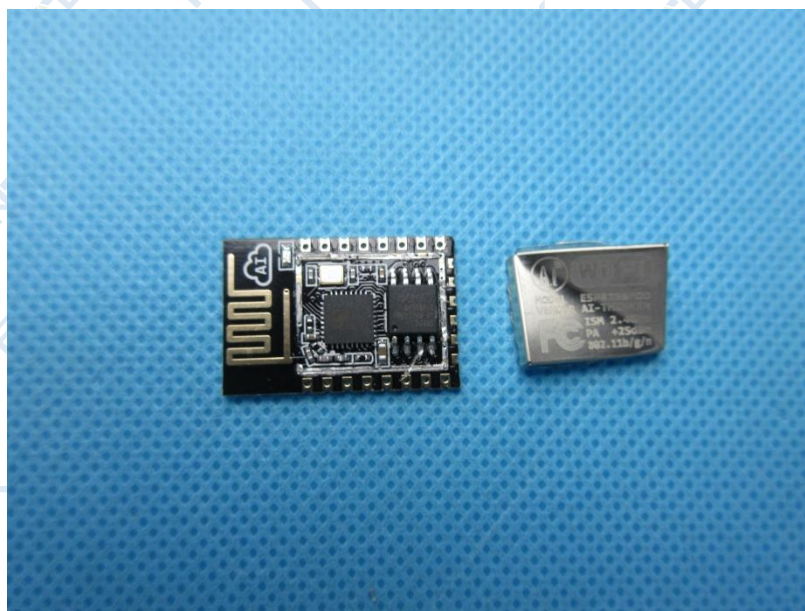


Fig.5 (Difference- ESP-12D)

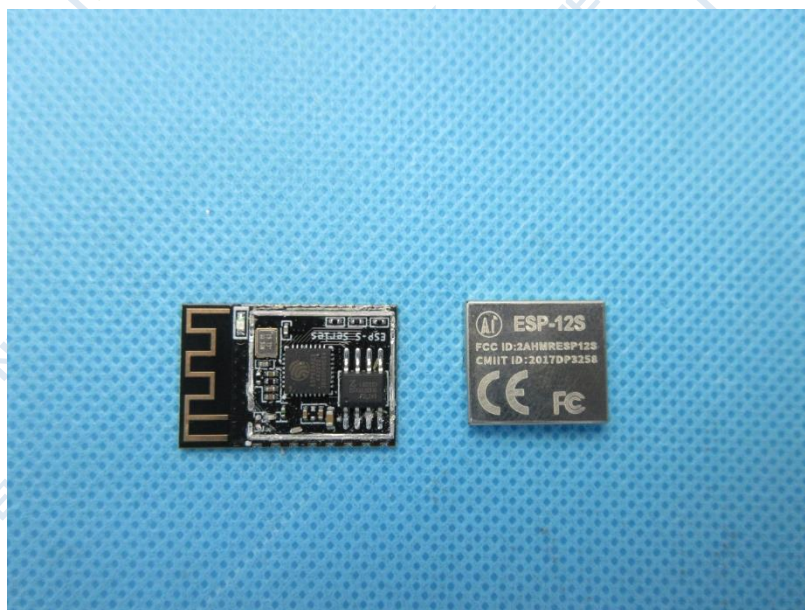


Fig.6 (Difference- ESP-12S)

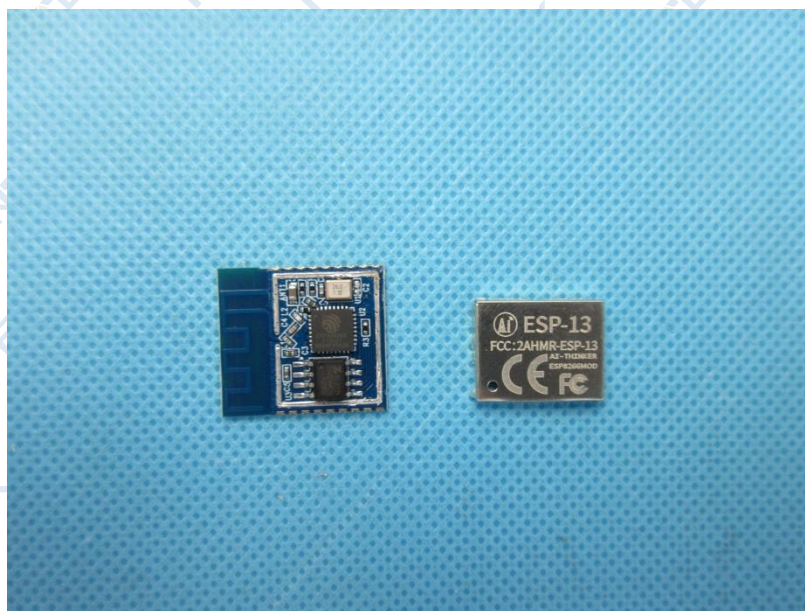


Fig.7 (Difference- ESP-13)

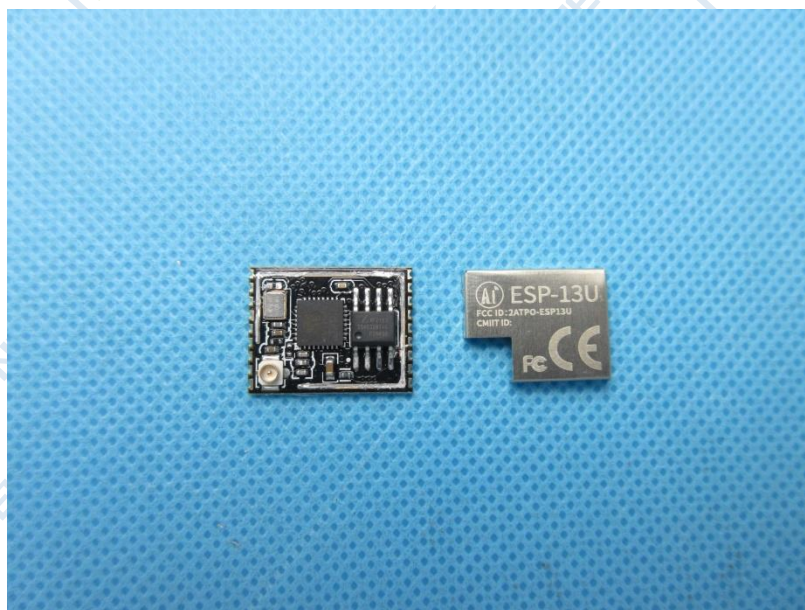


Fig.8 (Difference- ESP-13U)

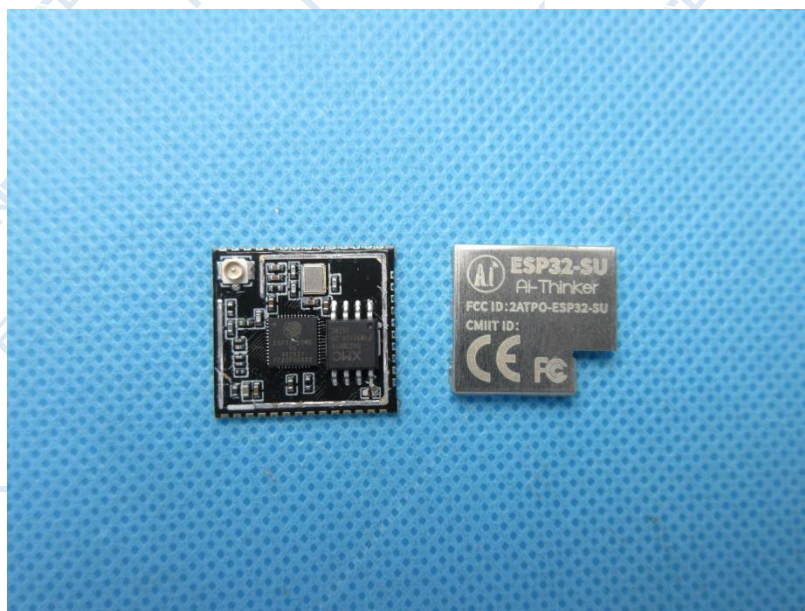


Fig.9 (Difference- ESP32-SU)

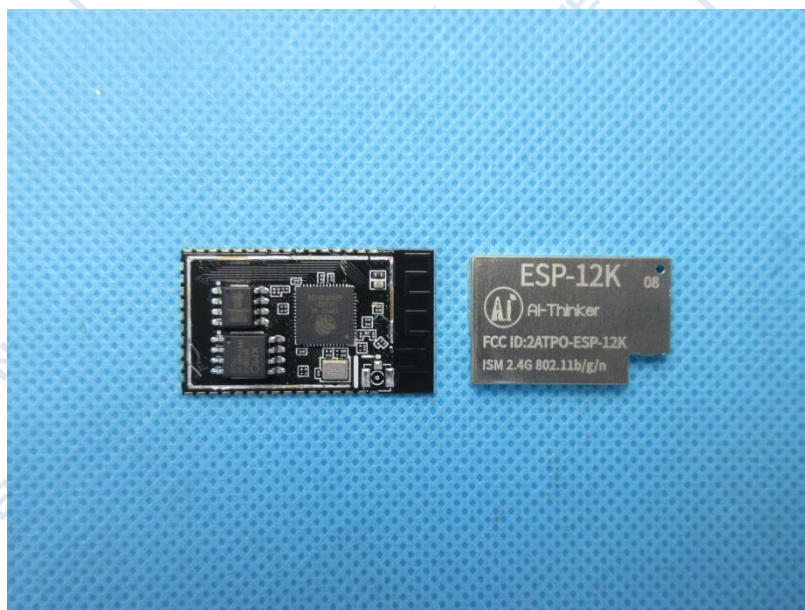


Fig.10 (Difference- ESP-12K)

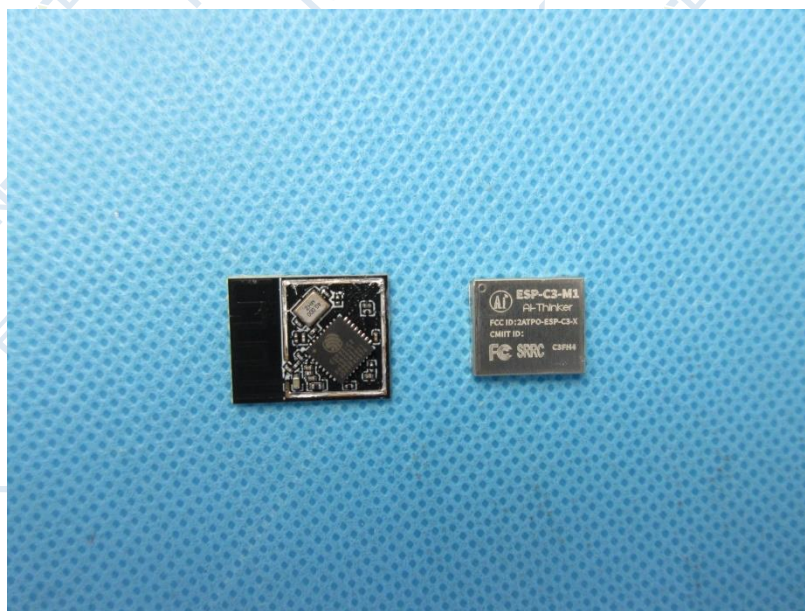


Fig.11 (Difference- ESP-C3-M1)

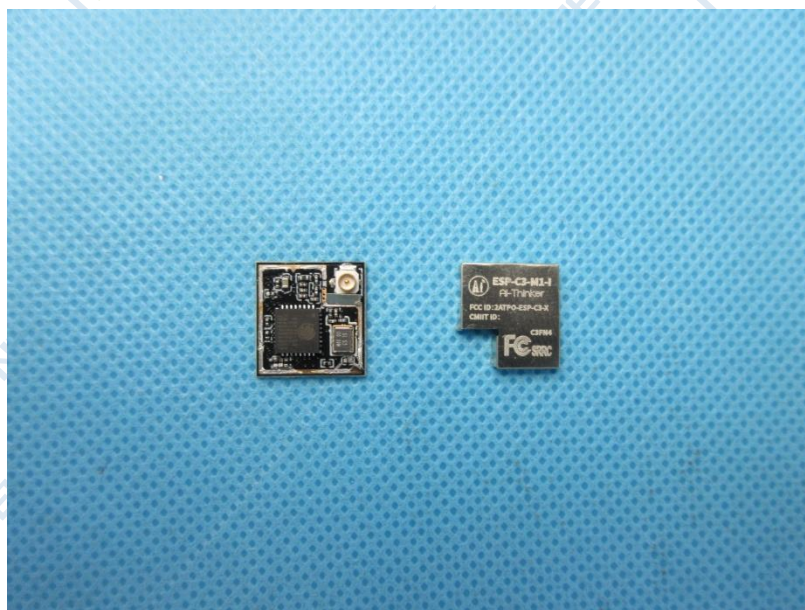


Fig.12 (Difference- ESP-C3-M1-I)

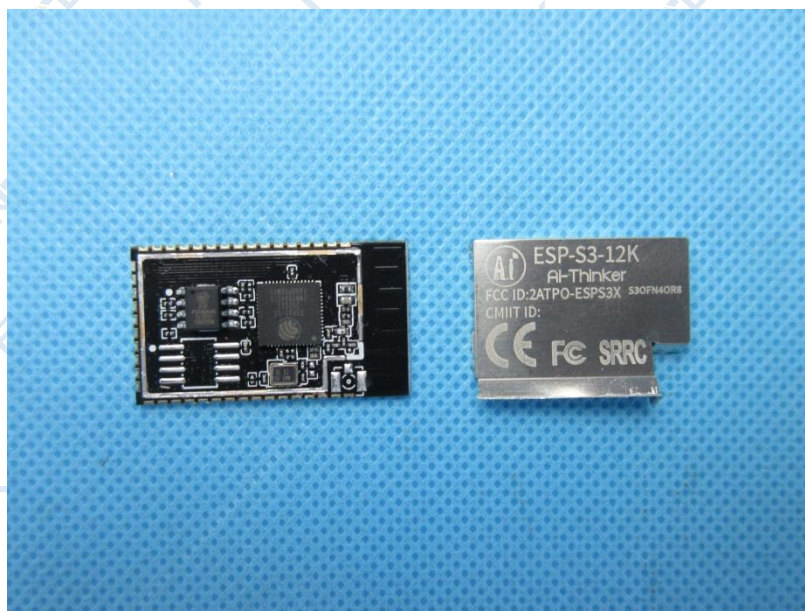


Fig.13 (Difference- ESP-S3-12K)

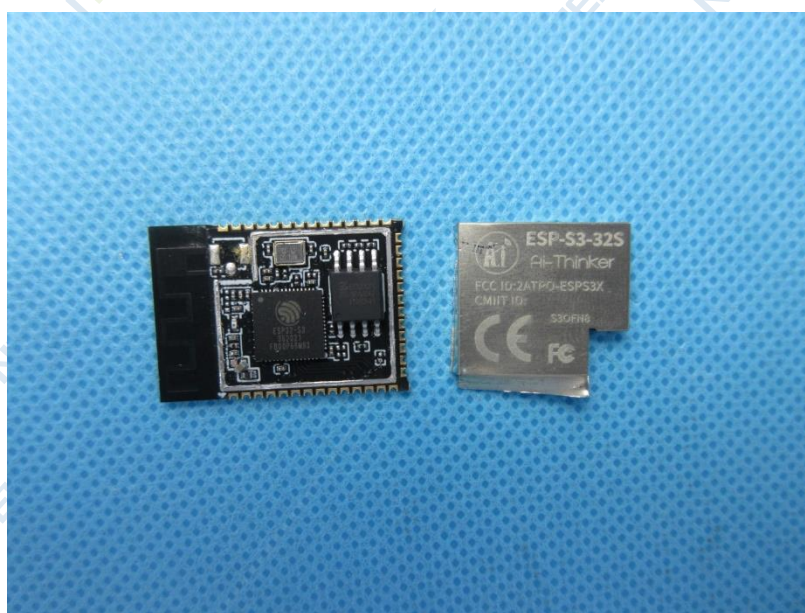


Fig.14 (Difference- ESP-S3-32S)

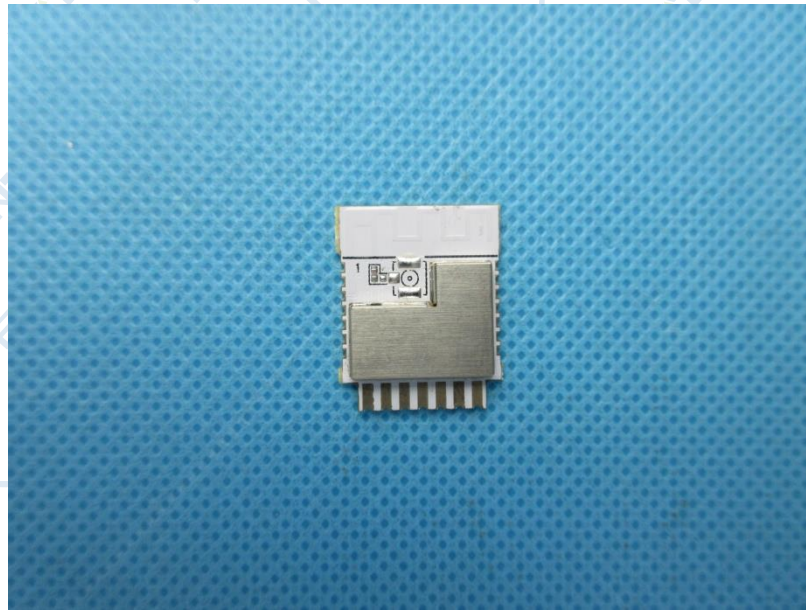


Fig.15 (Difference- ESP-84)

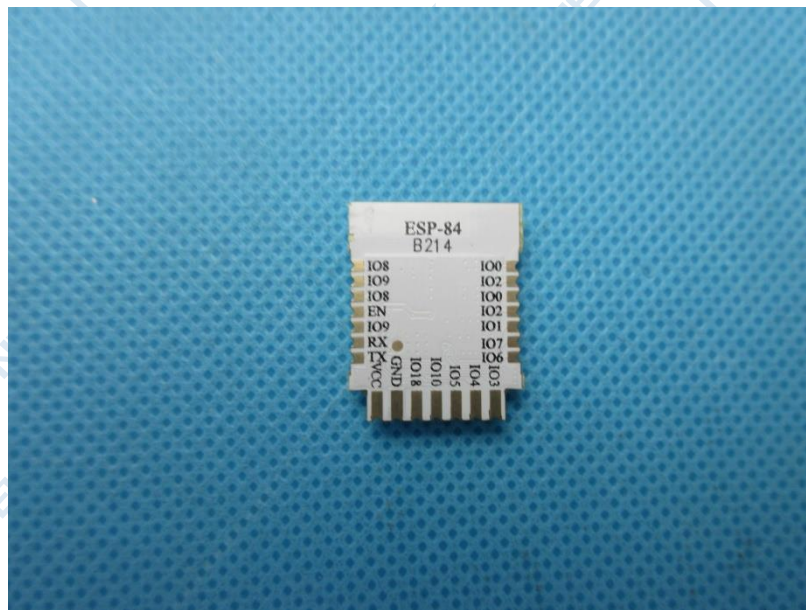


Fig.16 (Difference- ESP-84)

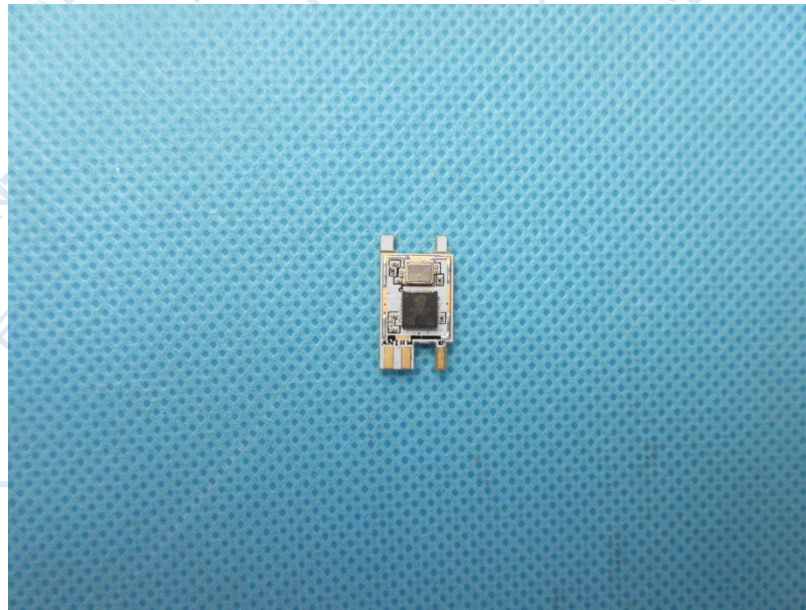


Fig.17 (Difference- ESP-84D)

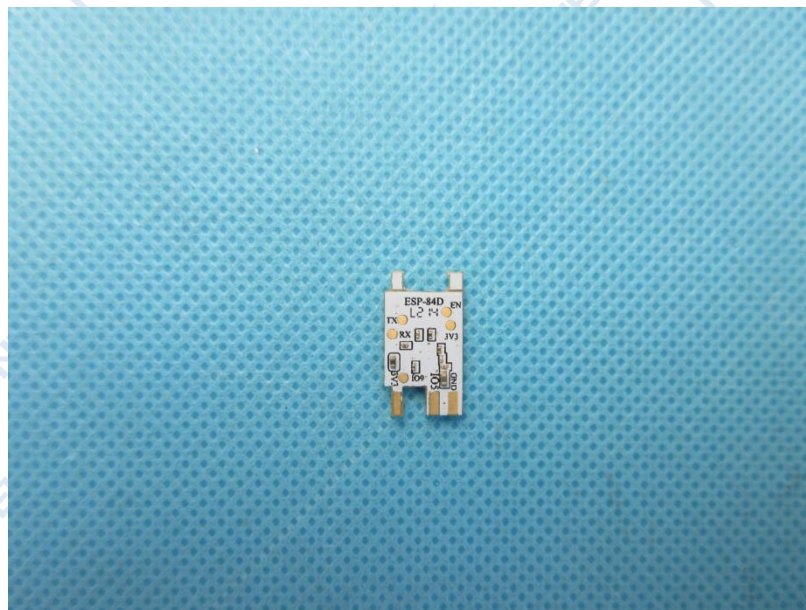


Fig.18 (Difference- ESP-84D)



Fig.19 (Difference- ESP-84F)



Fig.20 (Difference- ESP-84M1)



Fig.21 (Difference- ESP-84N)

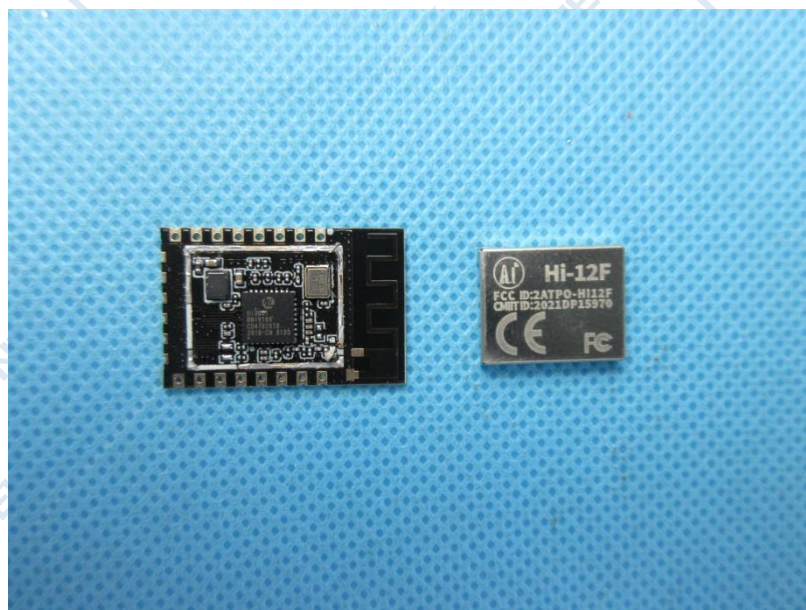


Fig.22 (Difference- Hi-12F)

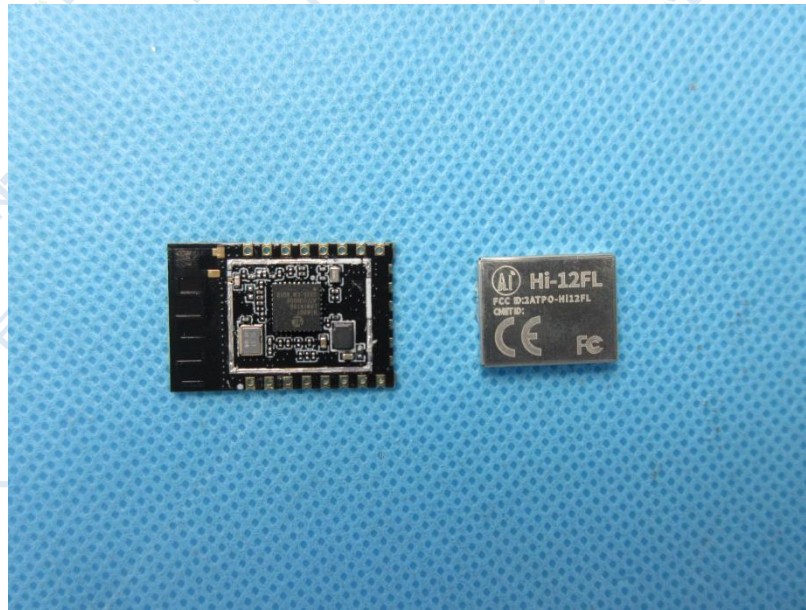


Fig.23 (Difference- HI-12FL)

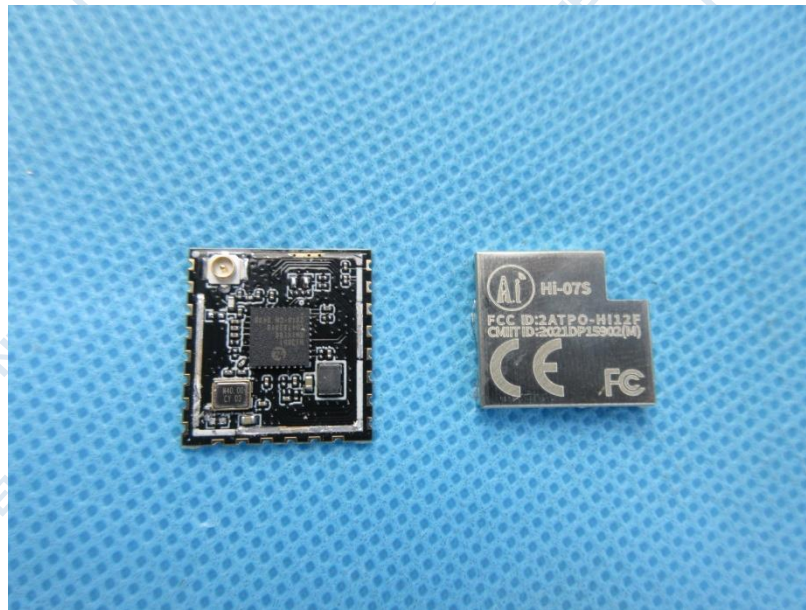


Fig.24 (Difference- HI-07S)

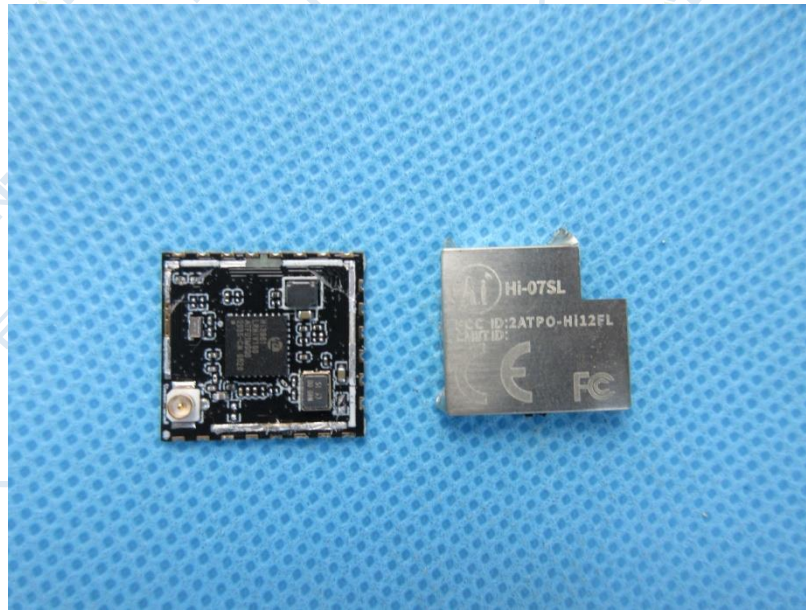


Fig.25 (Difference- Hi-07SL)

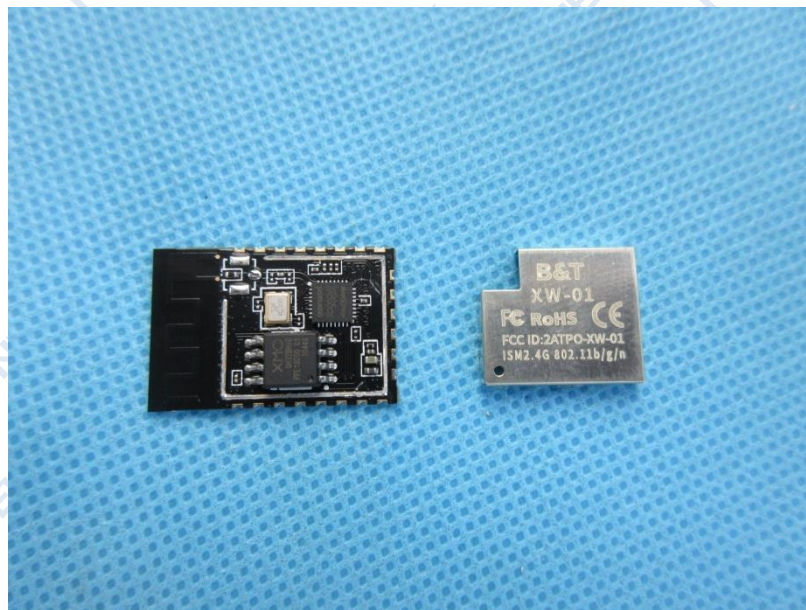


Fig.26 (Difference- XW-01)

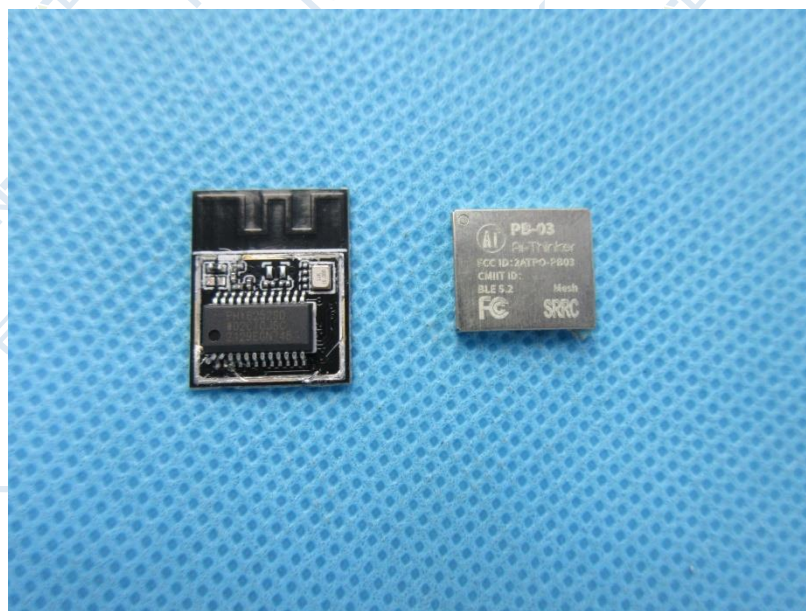


Fig.27 (Difference- PB-03)

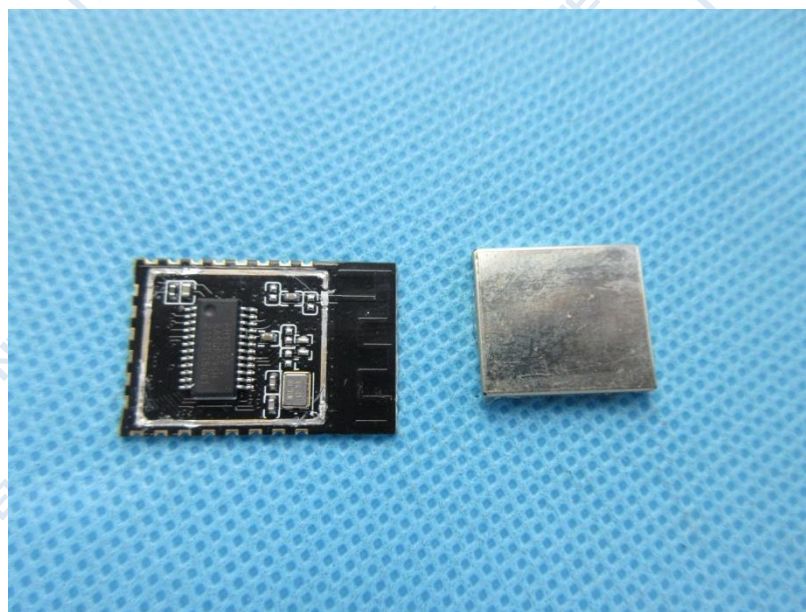


Fig.28 (Difference- PB-03F)

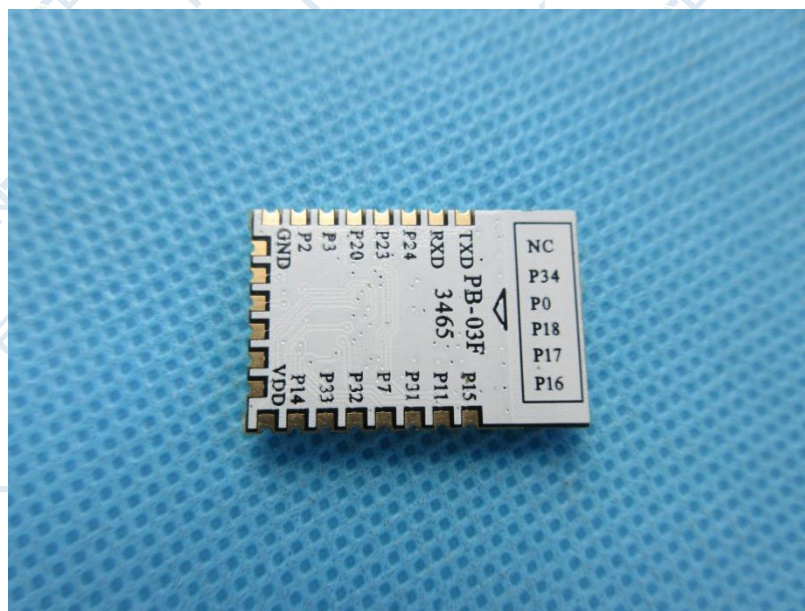


Fig.29 (Difference- PB-03F)



Fig.30 (Difference- PB-03M)

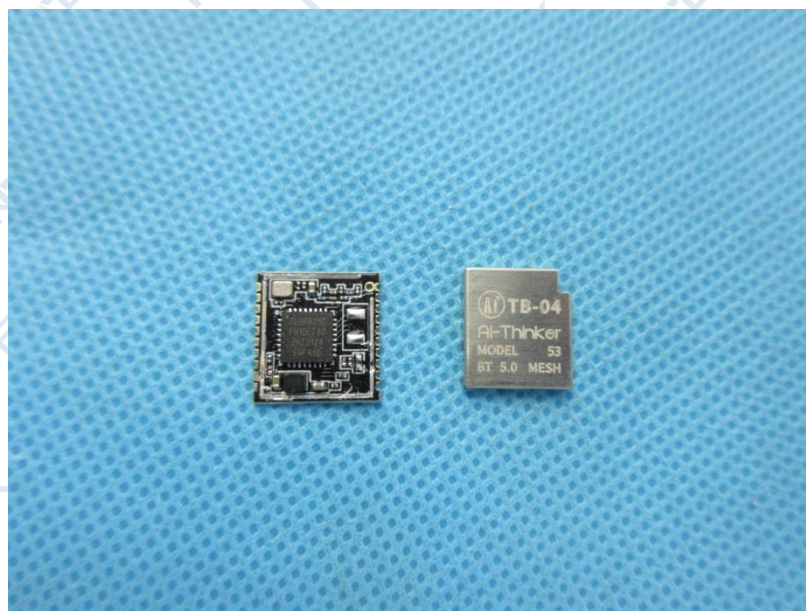


Fig.31 (Difference- TB-04)



Fig.32 (Difference- TG-02)

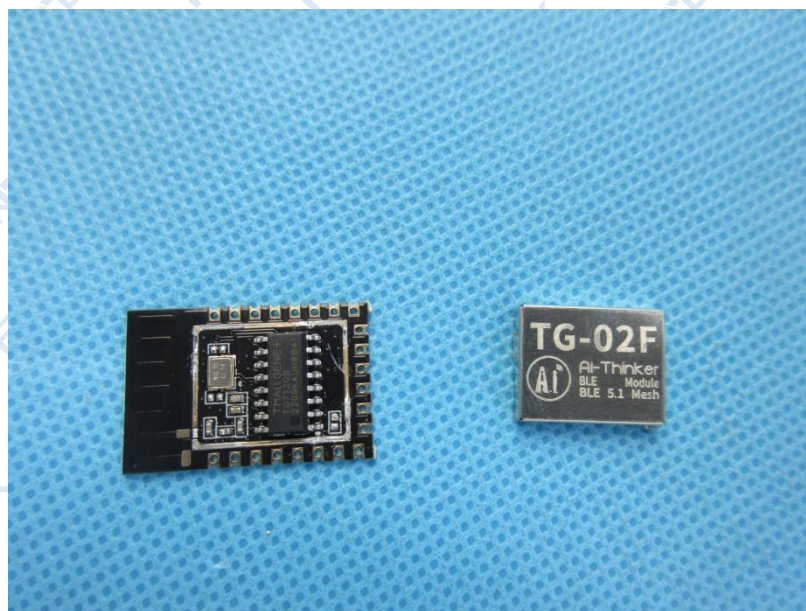


Fig.33 (Difference- TG-02F)



Fig.34 (Difference- TG-02M)

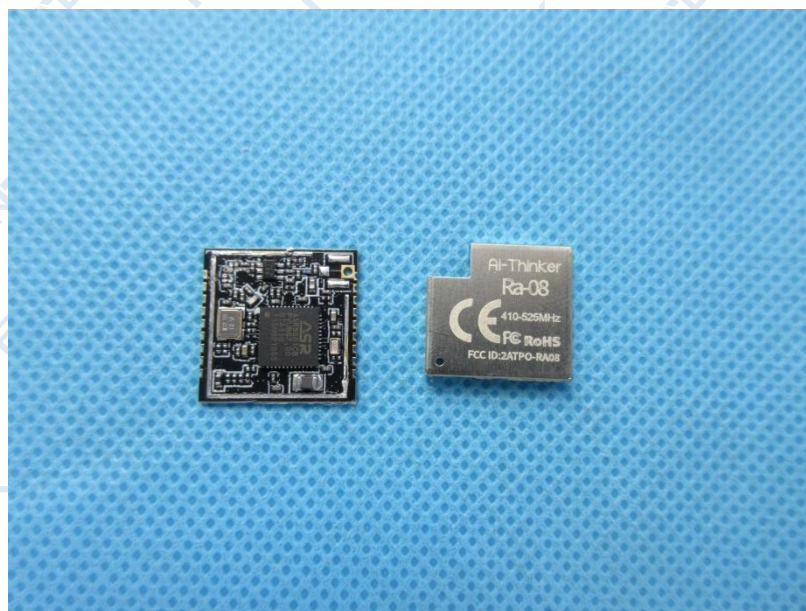


Fig.35 (Difference- Ra-08)

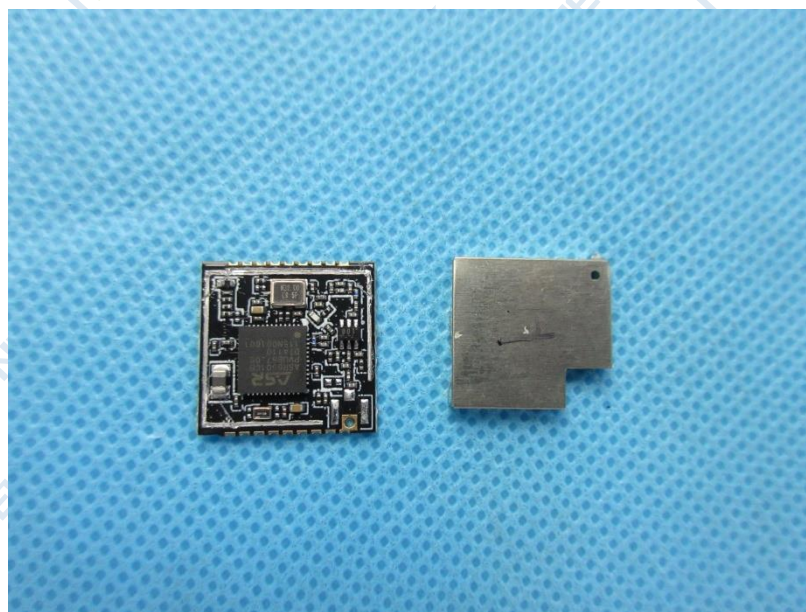


Fig.36 (Difference- Ra-08H)

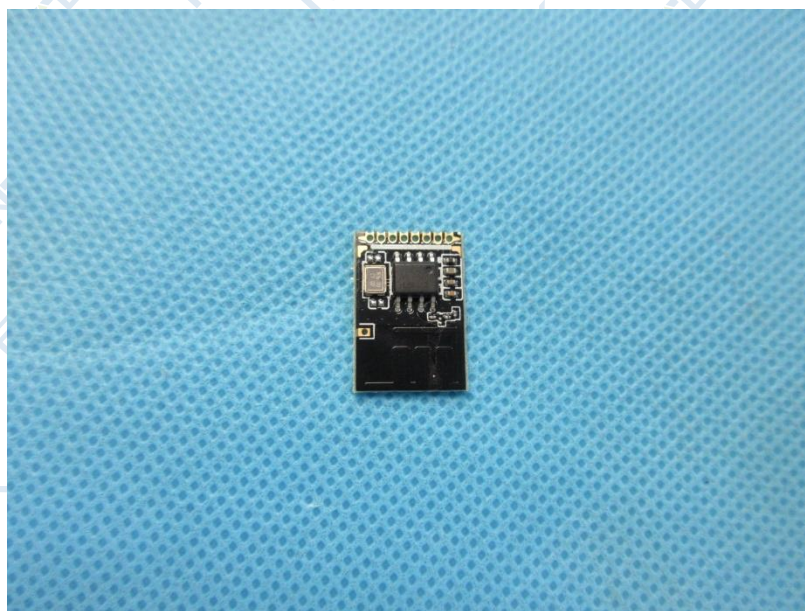


Fig.37 (Difference- NF-05)

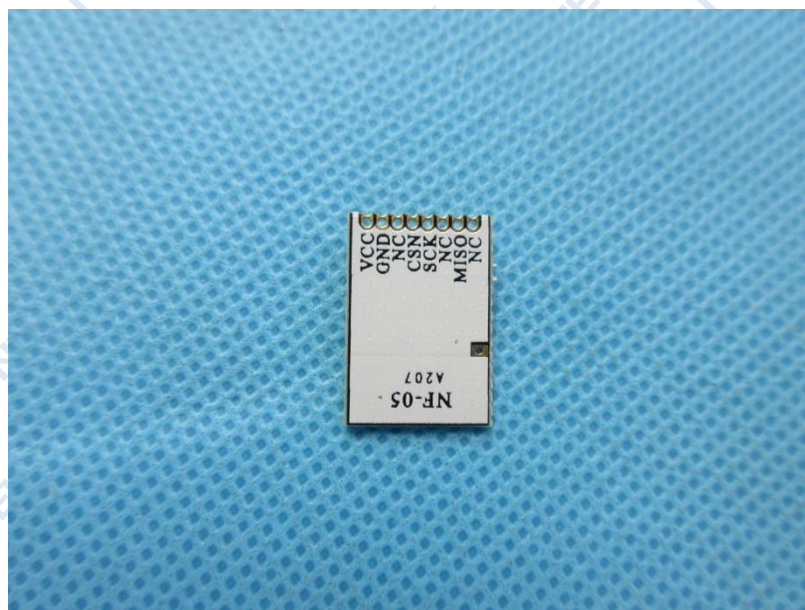


Fig.38 (Difference- NF-05)

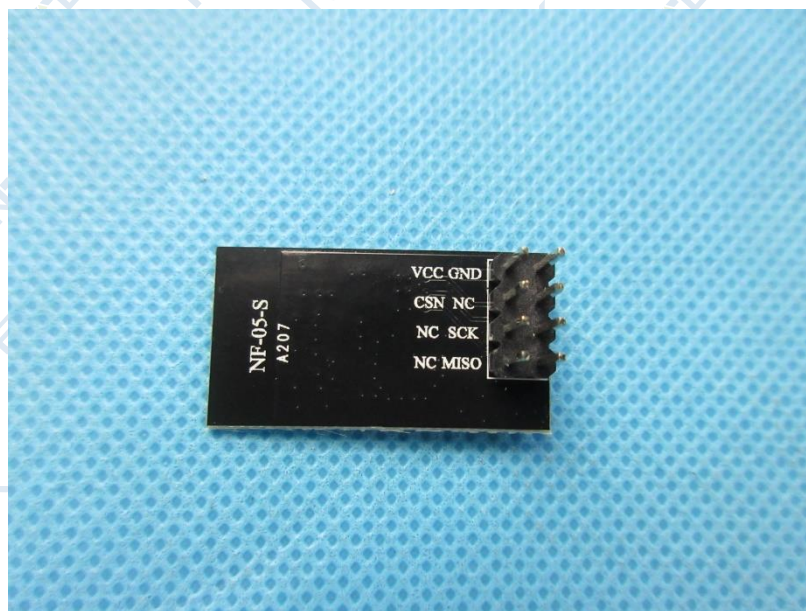


Fig.39 (Difference- NF-05-S)

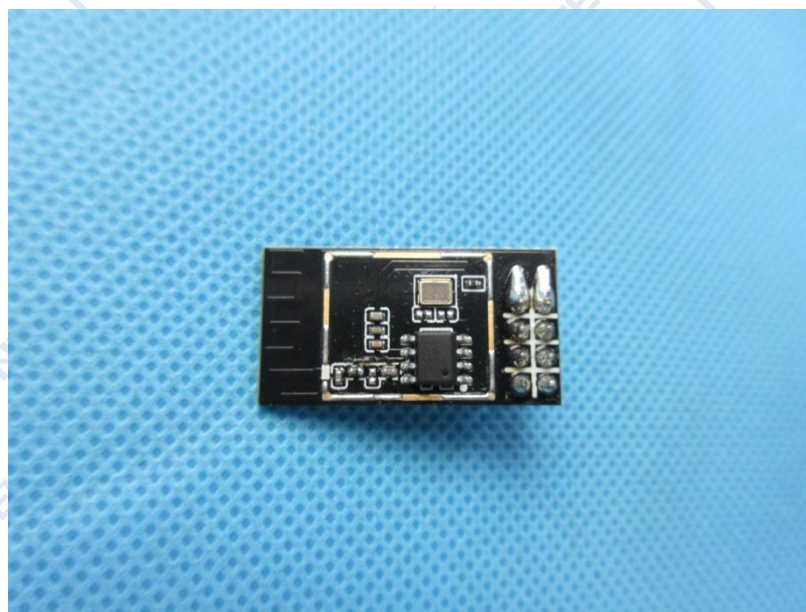


Fig.40 (Difference- NF-05-S)

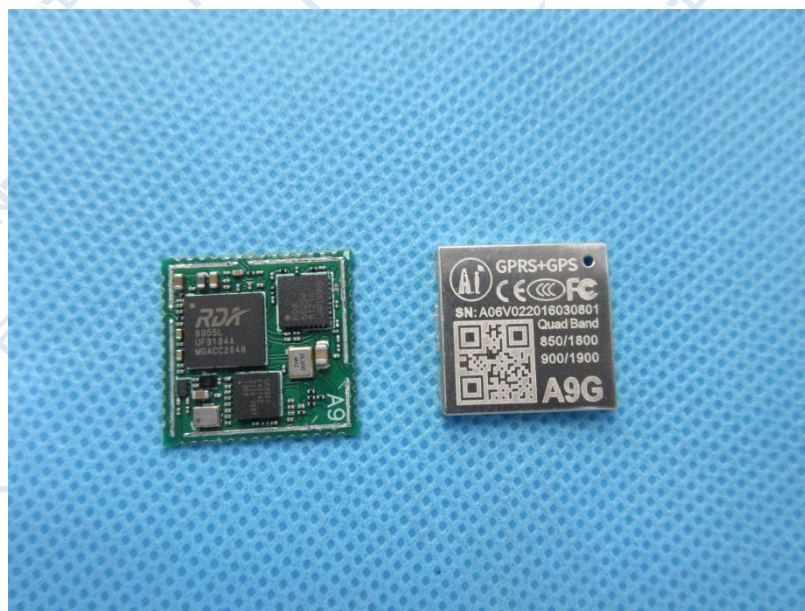


Fig.41 (Difference- A9G)

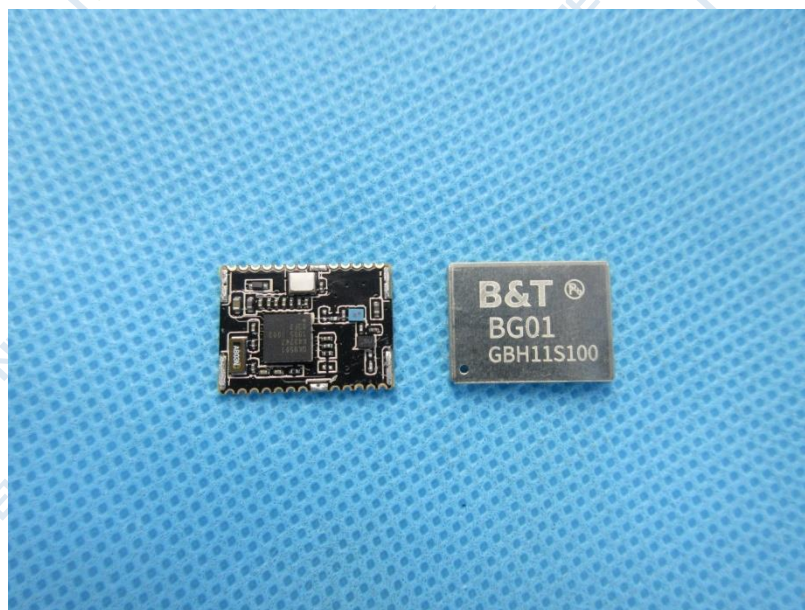


Fig.42 (Difference- BG01)

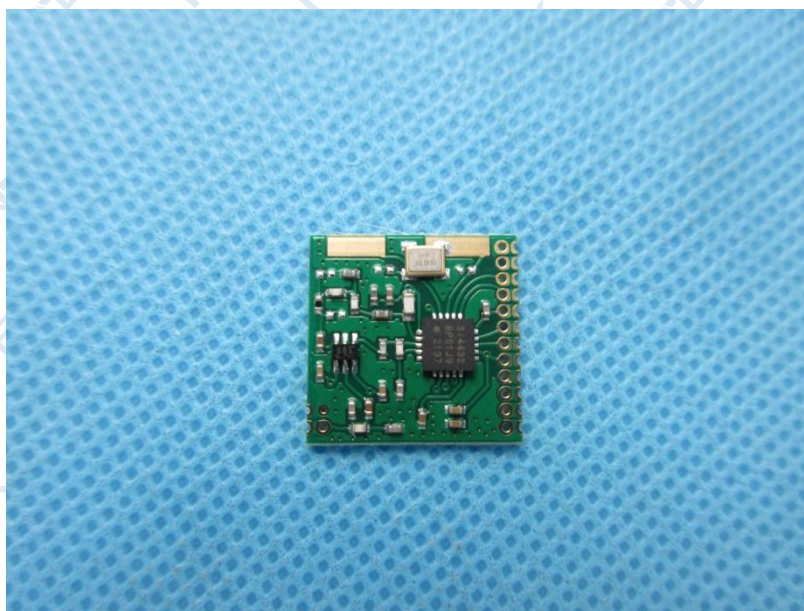


Fig.43 (Difference- Si4432)

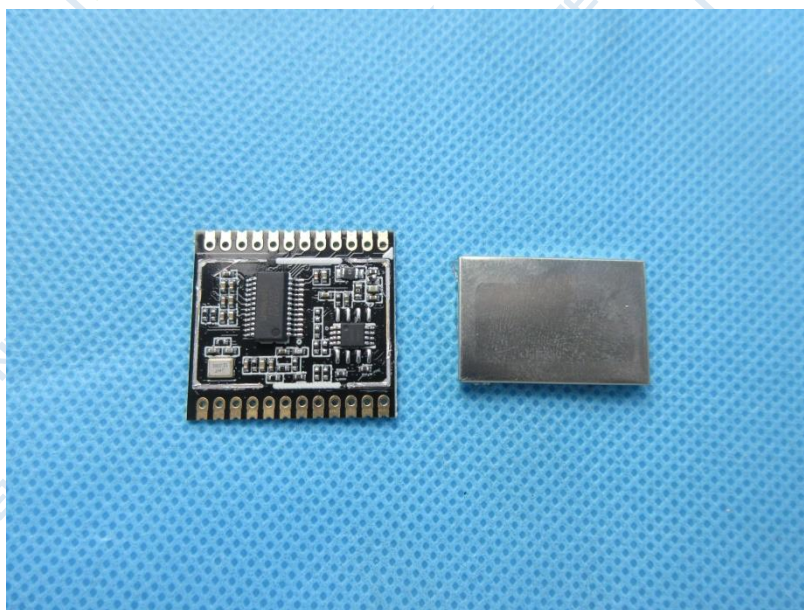


Fig.44 (Difference- VC-01)



Fig.45 (Difference- VC-01)

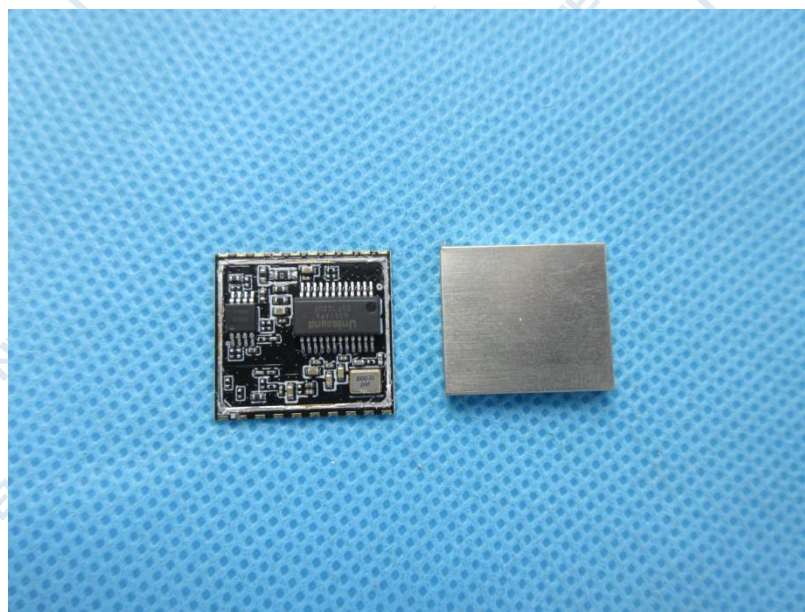


Fig.46 (Difference- VC-02)

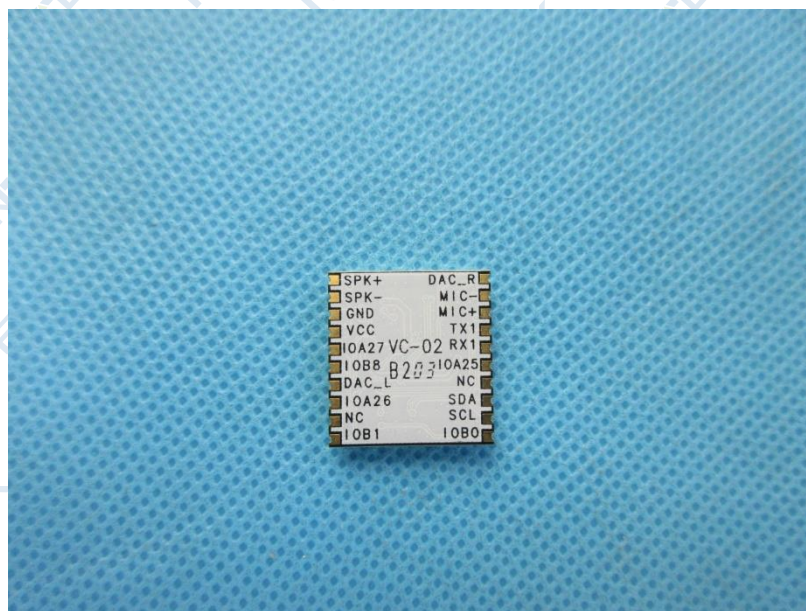


Fig.47 (Difference- VC-02)

****End of Report****

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