Transmitter Emission above 1GHz

Worse case mode:		GFSK(1Mbps)		Test channel:		Lowest	
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Over (dB)	Detector Type	Ant. Pol. H/V
2390	53.71	-9.2	44.51	74	-29.49	**Peak**	**H**
2400	56.07	-9.39	46.68	74	-27.32	Peak	H
4804	52.45	-4.33	48.12	74	-25.88	Peak	H
7206	48.72	1.01	49.73	74	-24.27	Peak	H
2390	52.93	-9.2	43.73	74	-30.27	**Peak**	**V**
2400	52.21	-9.39	42.82	74	-31.18	Peak	V
4804	54.21	-4.33	49.88	74	-24.12	Peak	V
7206	49.12	1.01	50.13	74	-23.87	Peak	V

Worse case mode:		GFSK(1Mbps)		Test channel:		Middle	
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Over (dB)	Detector Type	Ant. Pol. H/V
4880	51.35	-4.11	47.24	74	-26.76	peak	H
7320	51.14	1.51	52.65	74	-21.35	peak	H
4880	52.89	-4.11	48.78	74	-25.22	peak	V
7320	48.50	1.51	50.01	74	-23.99	peak	V

Worse case mode:		GFSK(1Mbps)		Test channel:		Highest	
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Over (dB)	Detector Type	Ant. Pol. H/V
2483.5	54.34	-9.29	45.05	74	-28.95	**Peak**	**H**
4960	51.03	-4.04	46.99	74	-27.01	Peak	H
7440	48.52	1.57	50.09	74	-23.91	Peak	H
2483.5	57.63	-9.29	48.34	74	-25.66	**Peak**	**V**
4960	50.15	-4.04	46.11	74	-27.89	Peak	V
7440	50.14	1.57	51.71	74	-22.29	Peak	V

Worse case mode:		GFSK(2Mbps)		Test channel:		Lowest	
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Over (dB)	Detector Type	Ant. Pol. H/V
2390	54.86	-9.2	45.66	74	-28.34	**Peak**	**H**
2400	55.26	-9.39	45.87	74	-28.13	Peak	H
4804	54.01	-4.33	49.68	74	-24.32	Peak	H
7206	50.30	1.01	51.31	74	-22.69	Peak	H
2390	54.34	-9.2	45.14	74	-28.86	**Peak**	**V**
2400	52.42	-9.39	43.03	74	-30.97	Peak	V
4804	53.63	-4.33	49.30	74	-24.70	Peak	V
7206	50.97	1.01	51.98	74	-22.02	Peak	V

Worse case mode:		GFSK(2Mbps)		Test channel:		Middle	
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Over (dB)	Detector Type	Ant. Pol. H/V
4880	52.97	-4.11	48.86	74	-25.14	peak	H
7320	49.04	1.51	50.55	74	-23.45	peak	H
4880	52.92	-4.11	48.81	74	-25.19	peak	V
7320	49.30	1.51	50.81	74	-23.19	peak	V

Worse case mode:		GFSK(2Mbps)		Test channel:		Highest	
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Over (dB)	Detector Type	Ant. Pol. H/V
2483.5	56.78	-9.29	47.49	74	-26.51	**Peak**	**H**
4960	52.34	-4.04	48.30	74	-25.70	Peak	H
7440	48.53	1.57	50.10	74	-23.90	Peak	H
2483.5	57.24	-9.29	47.95	74	-26.05	**Peak**	**V**
4960	49.49	-4.04	45.45	74	-28.55	Peak	V
7440	48.90	1.57	50.47	74	-23.53	Peak	V

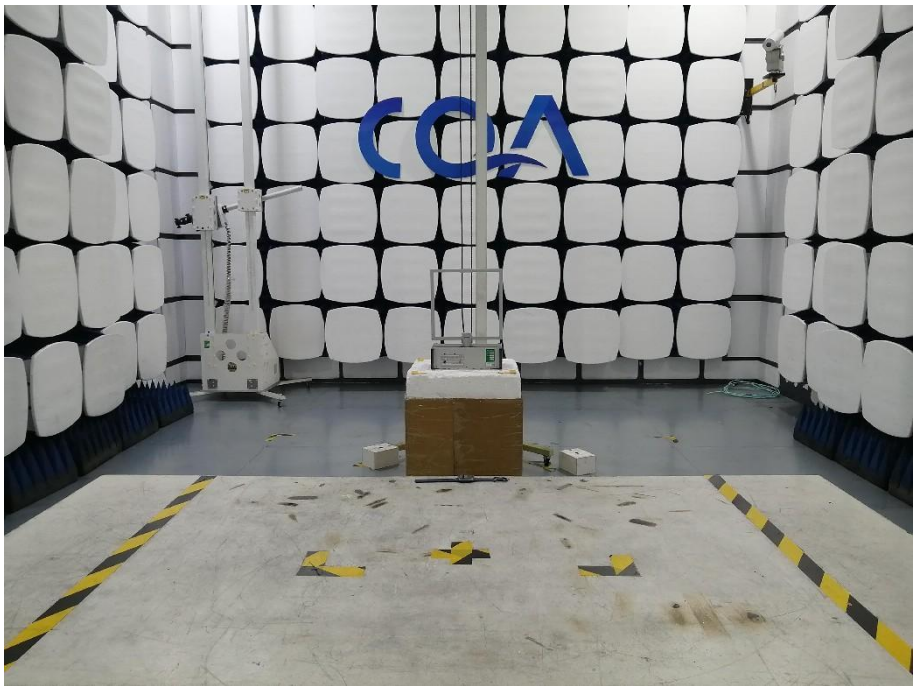
Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
   Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
2) Scan from 9kHz to 25GHz, the disturbance above 10GHz and below 30MHz was very low. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

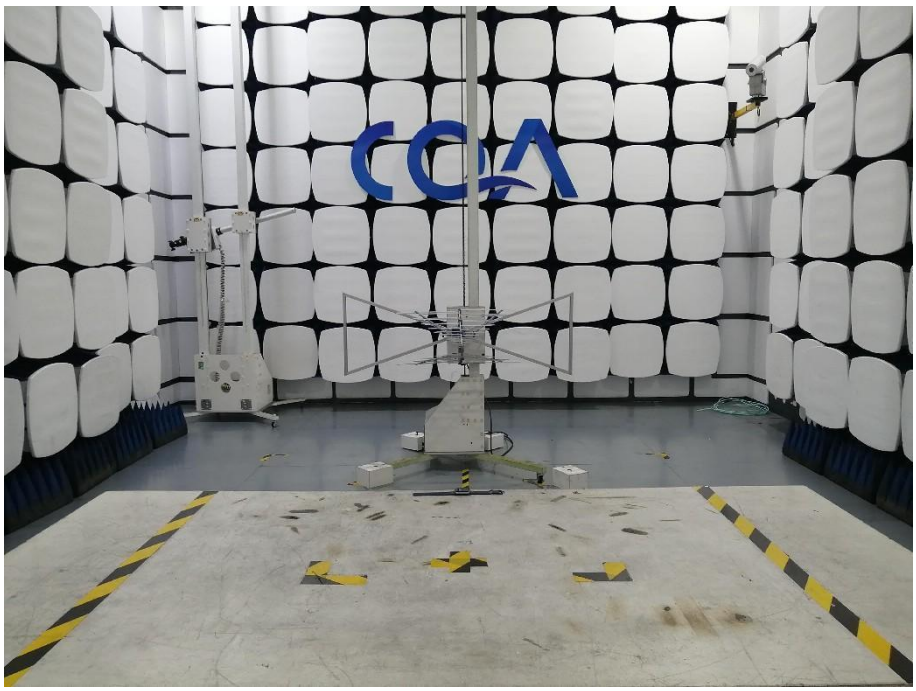
6 Photographs - EUT Test Setup

6.1 Radiated Spurious Emission

9kHz~30MHz:



30MHz~1GHz:

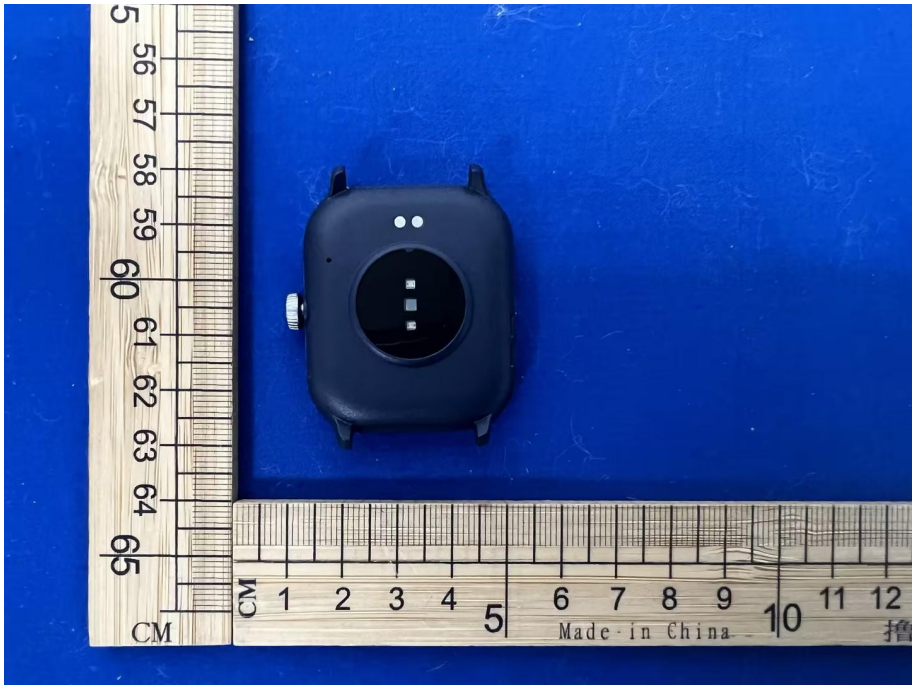


Above 1GHz:

6.2 Conducted Emissions Test Setup

7 Photographs - EUT Constructional Details

1#


CM
Made in China

CM

CM
1
2
3
4
5
6

CM
1
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4
5
6
7

CM
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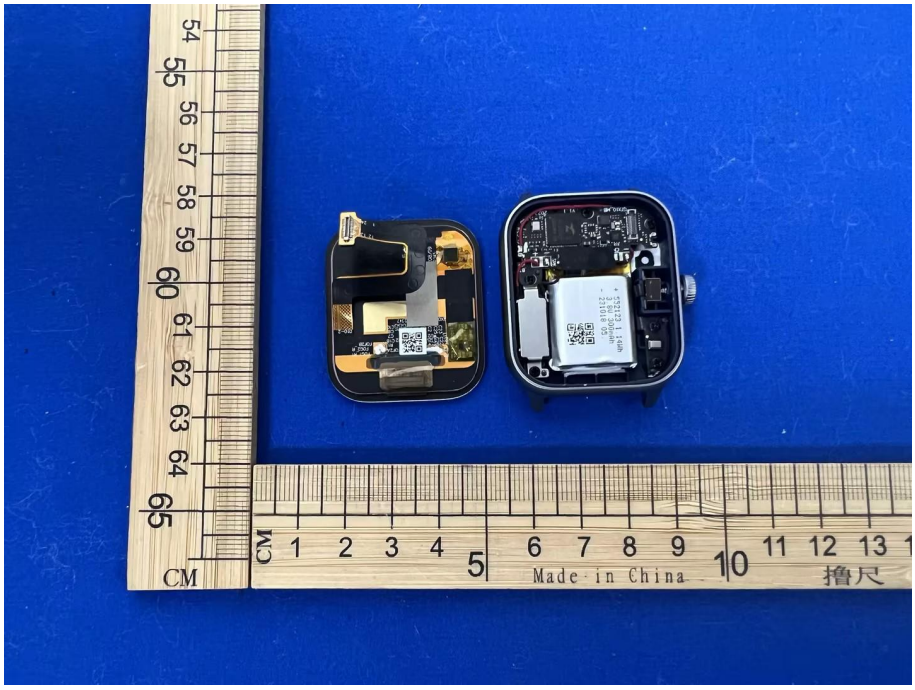
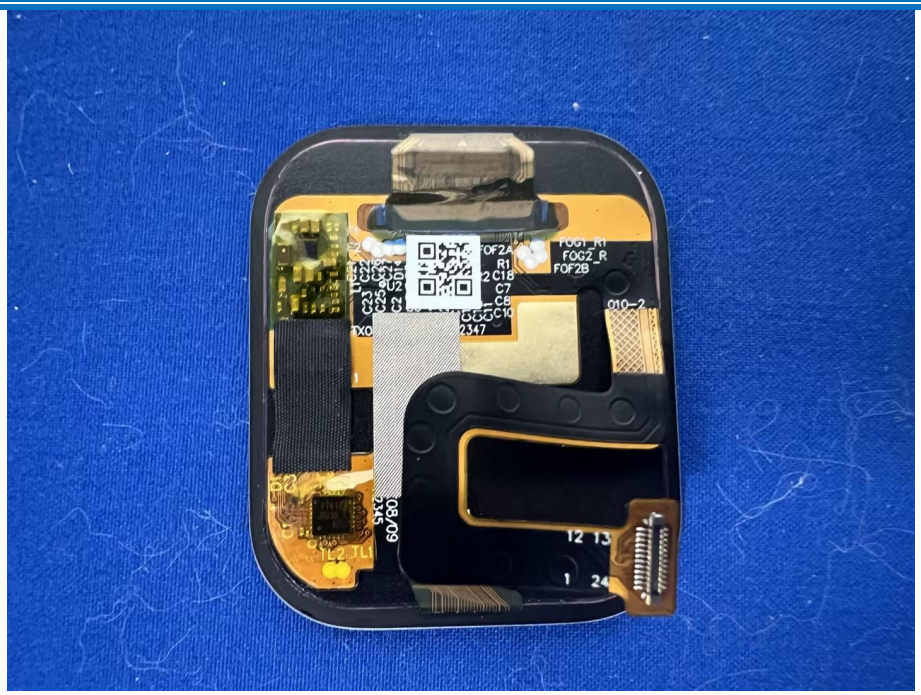
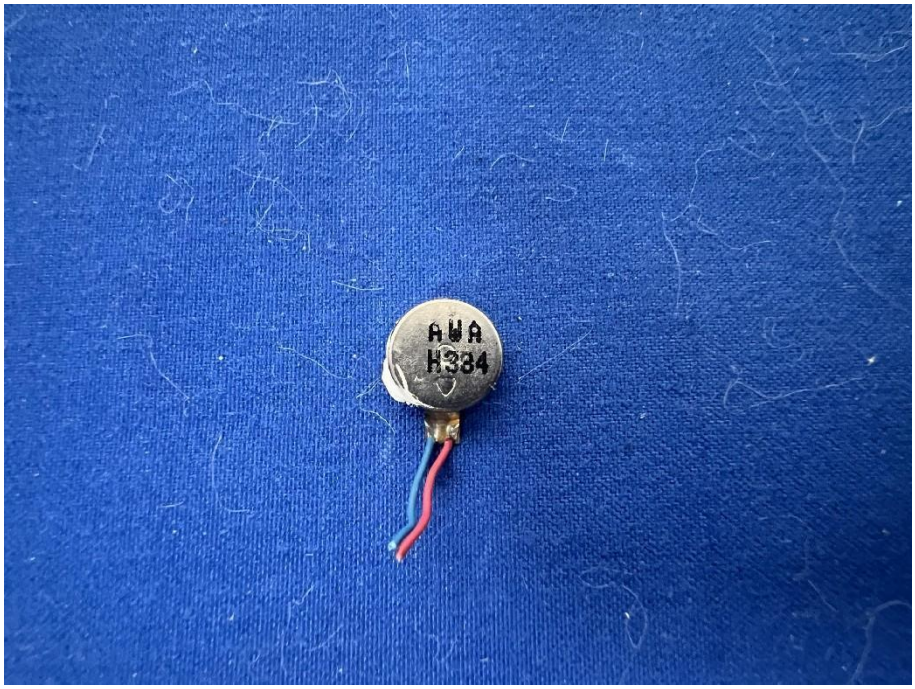
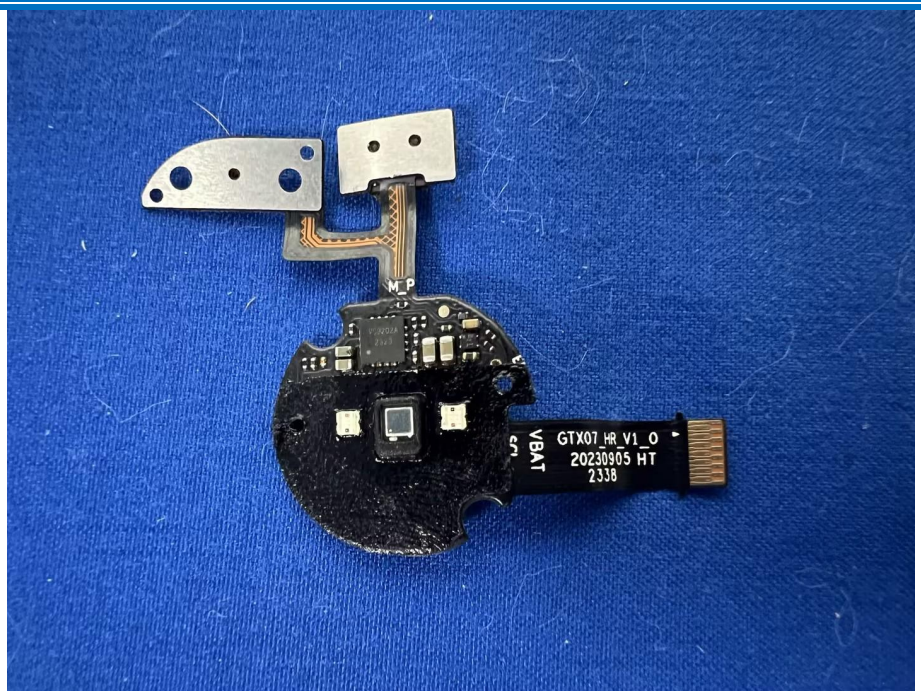
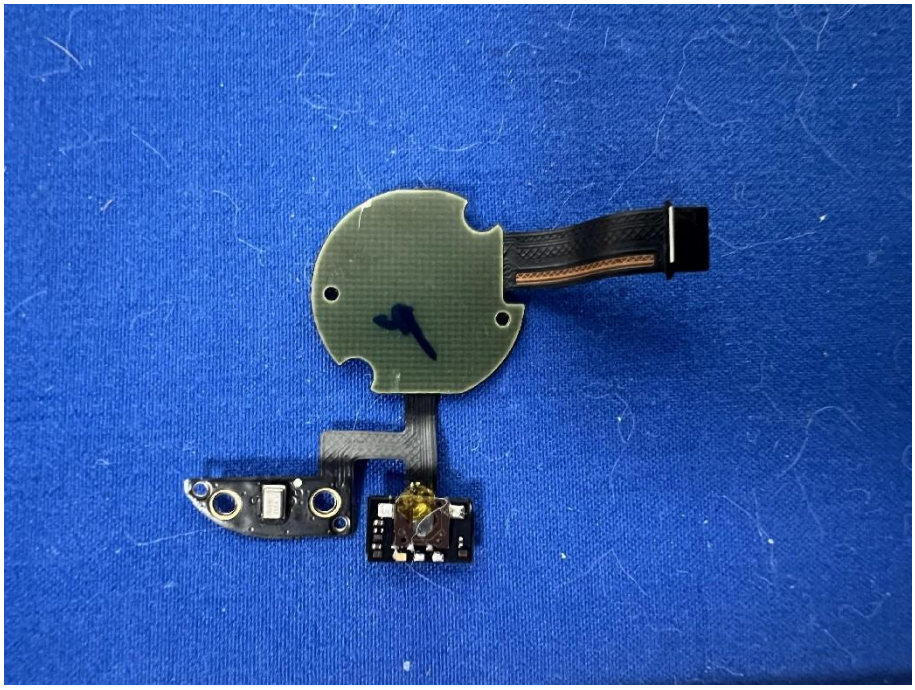
2
3
4
5
6

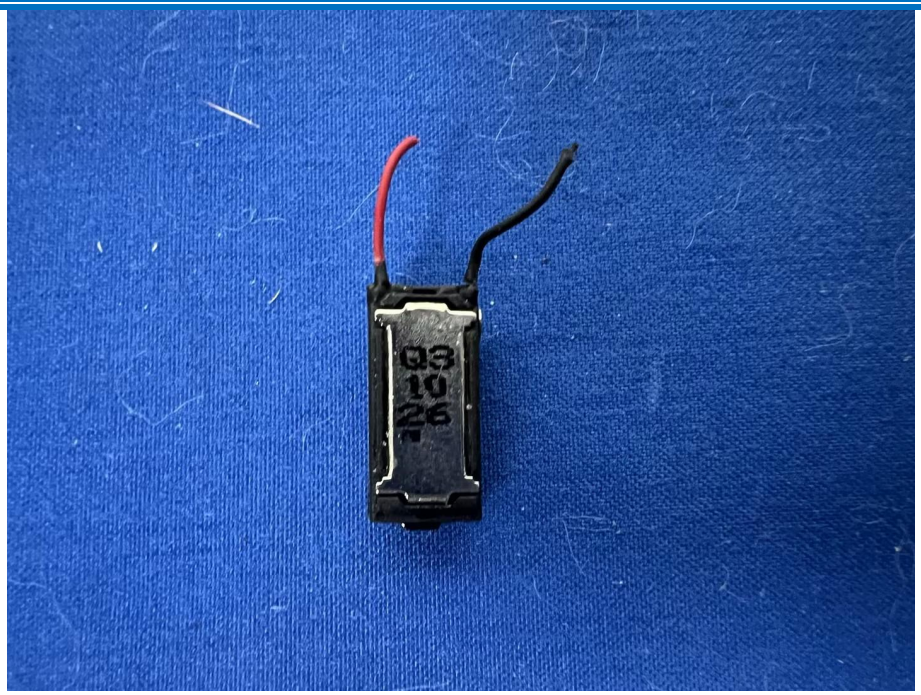

CM
Made in China
撸尺

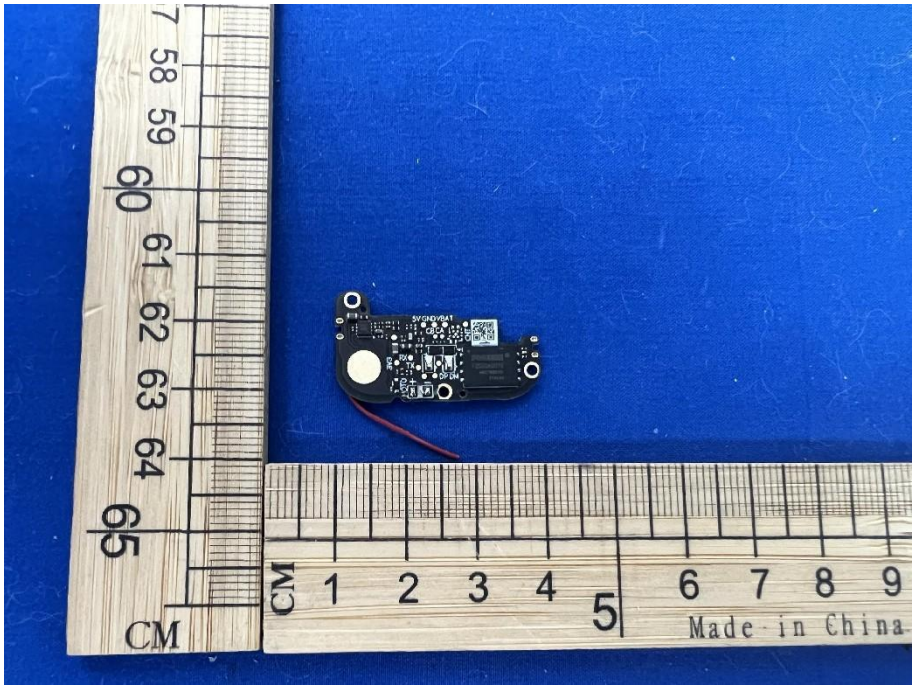

FOG1_R1
FOG2_R
FOF2B
FOF2A
R1
C18
C7
C5
C10
U2
C23
C25
C2
2347
TX0
080/09
12 13
1 24
TL2 TL1


AWA
H384


M_P
VBAT
GTX07_HR_V1_0
20230905 HT
2338




03
10
26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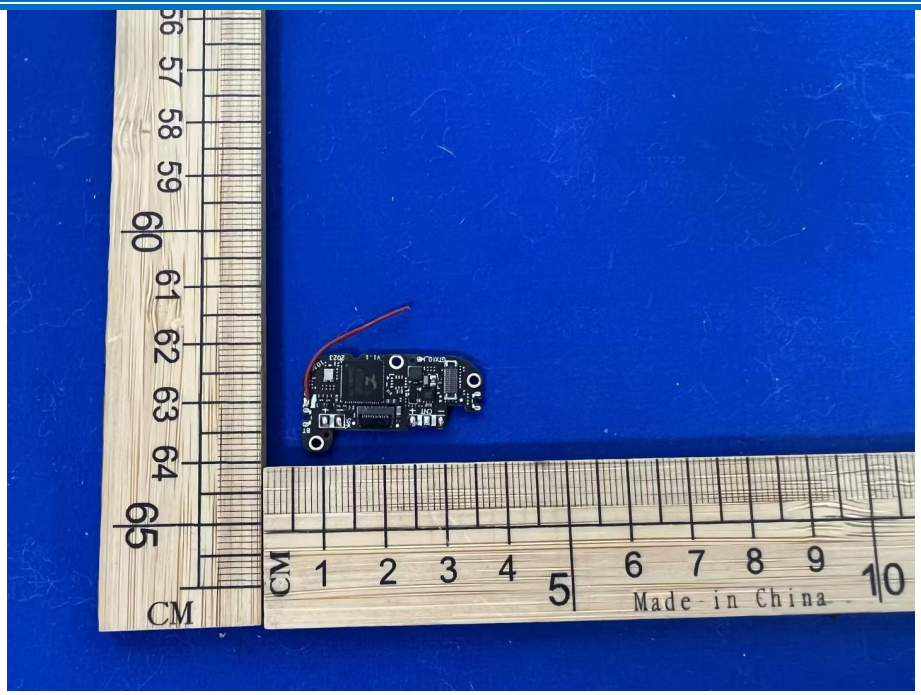
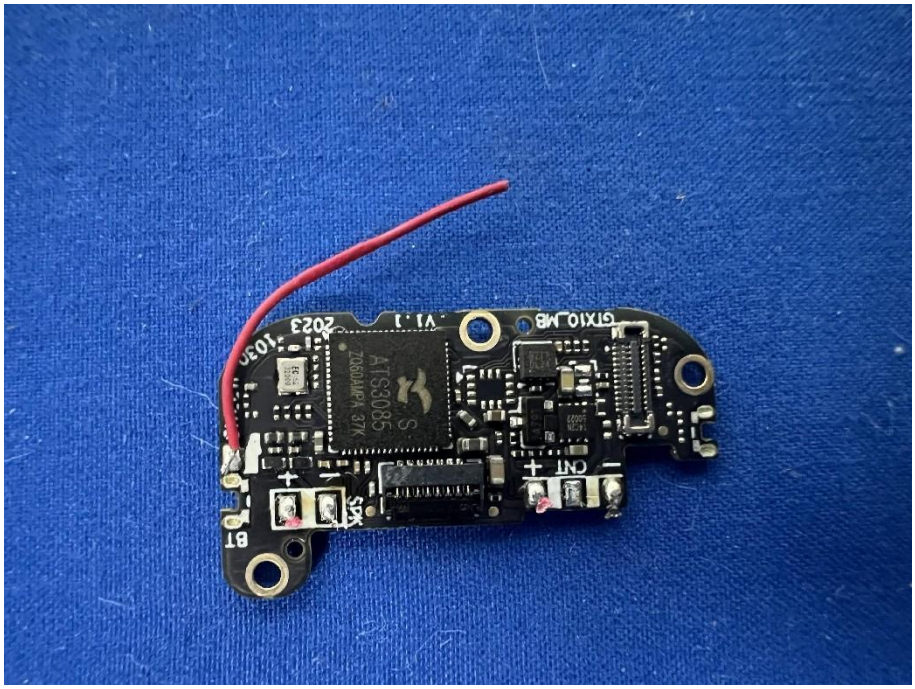
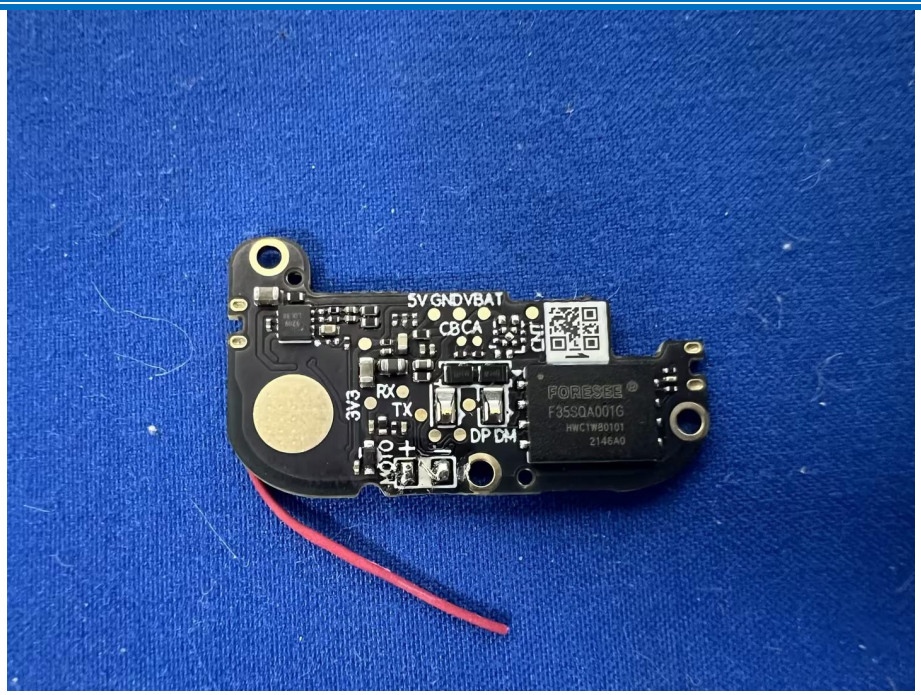
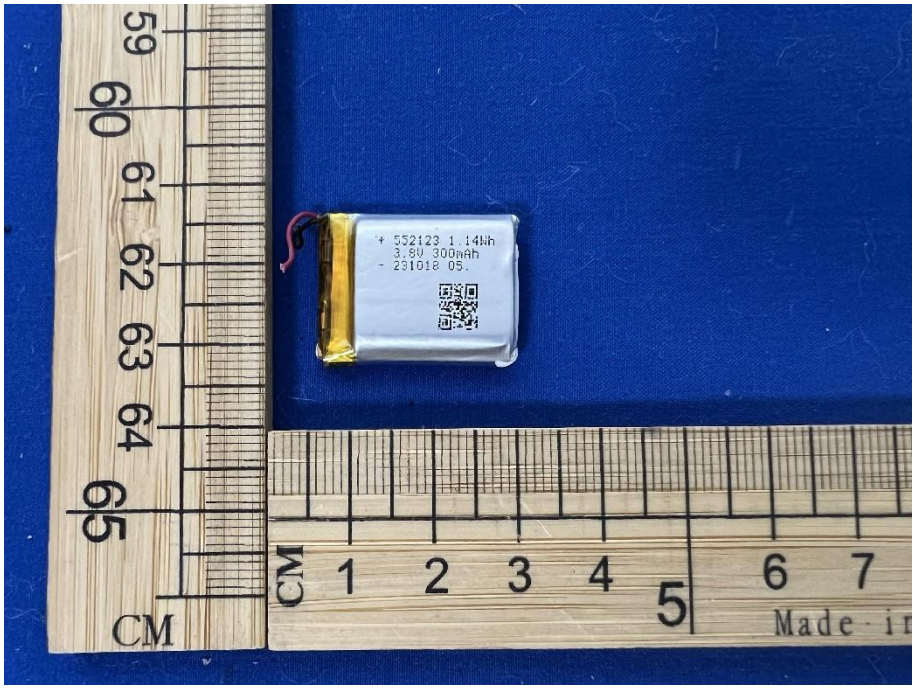
Made in China

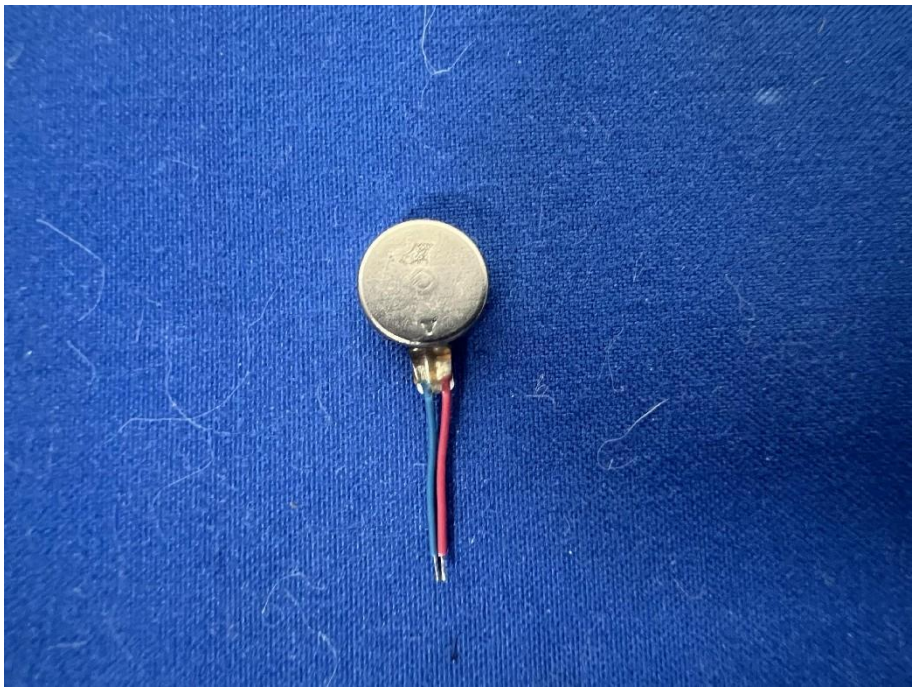

CM
Made in China


GTX10_MB
V1.1
2023
ATS3085
CNT
BT


5V GND VBAT
CB CA
RX
TX
3V3
DP DM
FORESEE
F35SQA001G


552123 1.14Wh
3.8V 300mAh
231018 05.
59
60
61
62
63
64
65
CM
1
2
3
4
5
6
7
Made in

2#



*** END OF REPORT ***