

A.3 Conducted Spurious Emissions

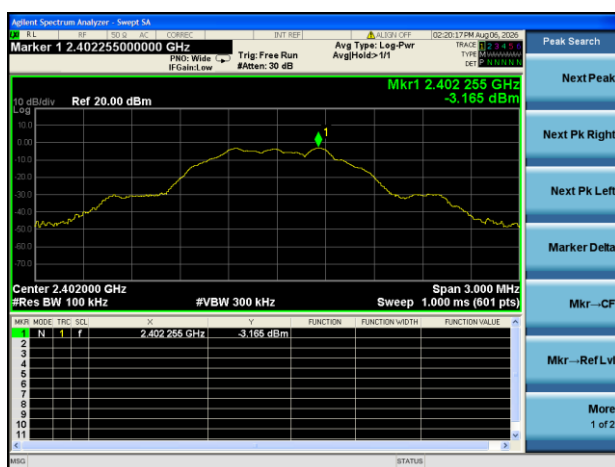
Test Data

GFSK (BLE 1Mbps)				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-41.83	-3.17	-23.17	Pass
Middle Channel	-35.79	-2.99	-22.99	Pass
High Channel	-35.38	-3.09	-23.09	Pass

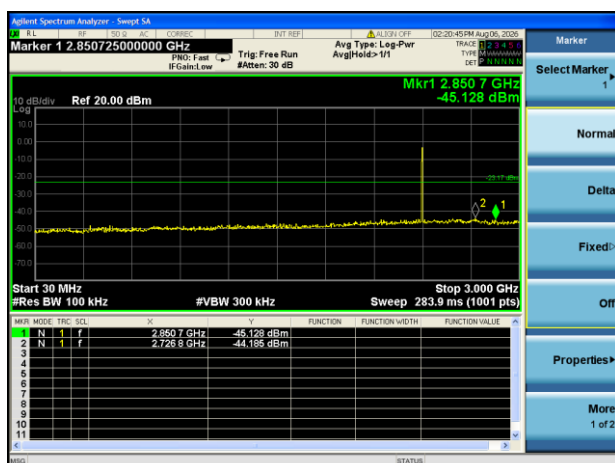
GFSK (BLE 2Mbps)				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-40.47	-2.41	-22.41	Pass
Middle Channel	-39.39	-2.25	-22.25	Pass
High Channel	-35.29	-2.30	-22.30	Pass

Test Plots

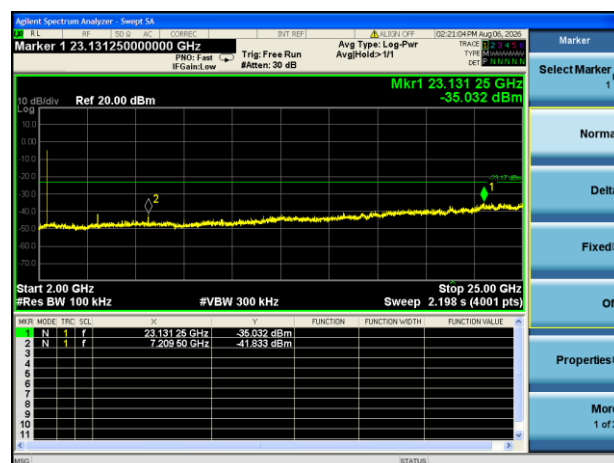
GFSK (BLE 1Mbps) LOW CHANNEL,
CARRIER LEVEL



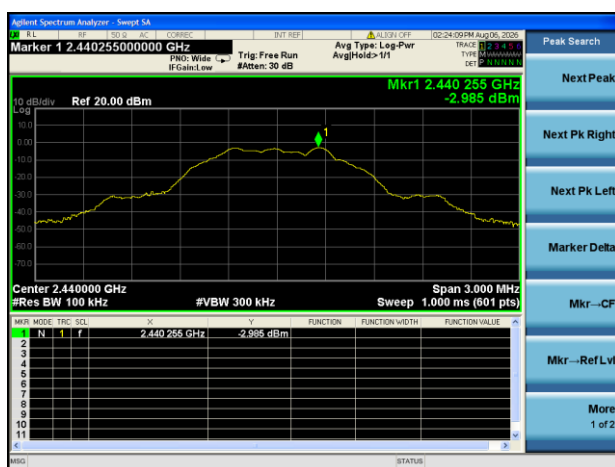
GFSK (BLE 1Mbps) LOW CHANNEL,
SPURIOUS 30 MHz ~ 3 GHz



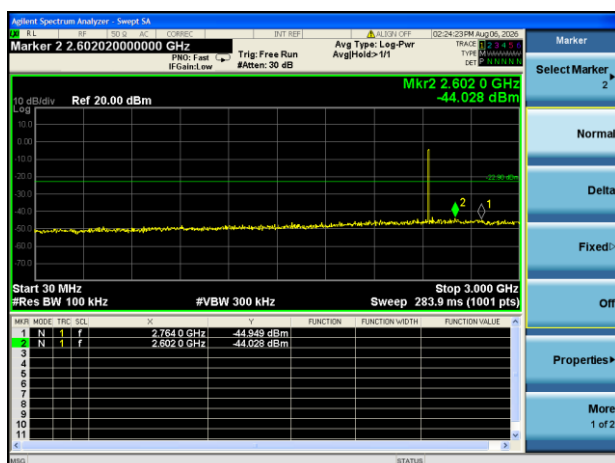
GFSK (BLE 1Mbps) LOW CHANNEL,
SPURIOUS 2 GHz ~ 25 GHz



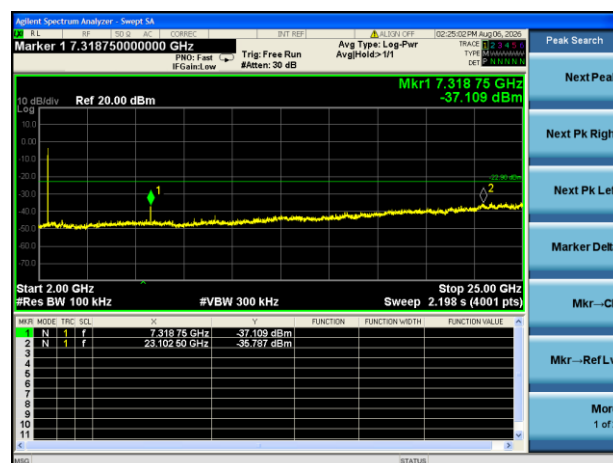
GFSK (BLE 1Mbps) MIDDLE CHANNEL, CARRIER LEVEL



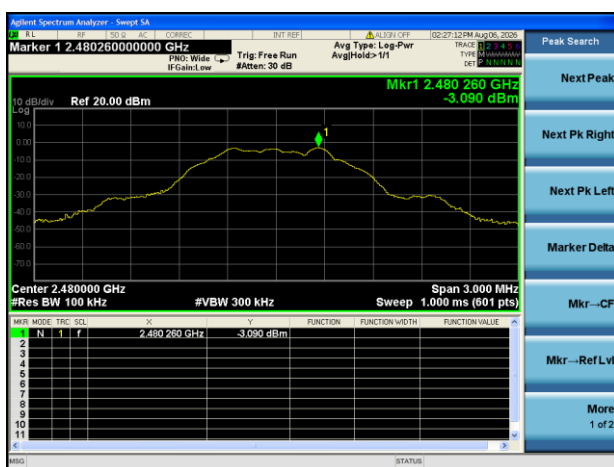
GFSK (BLE 1Mbps) MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



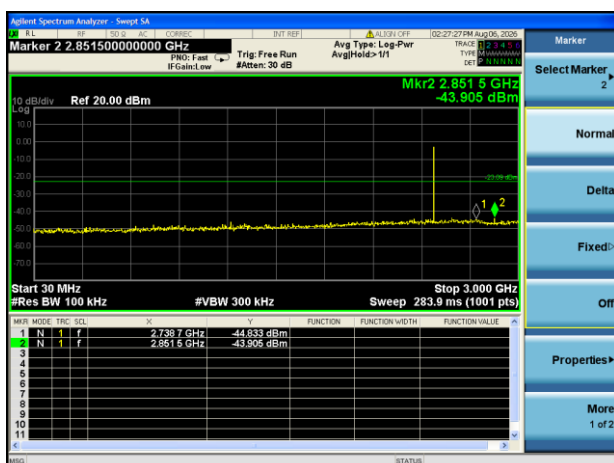
GFSK (BLE 1Mbps) MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



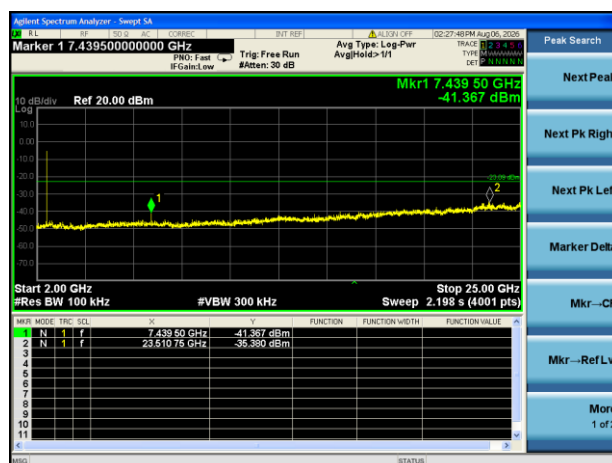
GFSK (BLE 1Mbps) HIGH CHANNEL, CARRIER LEVEL



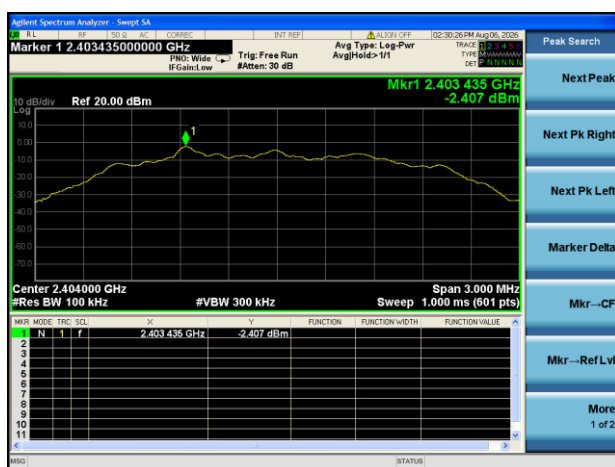
GFSK (BLE 1Mbps) HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



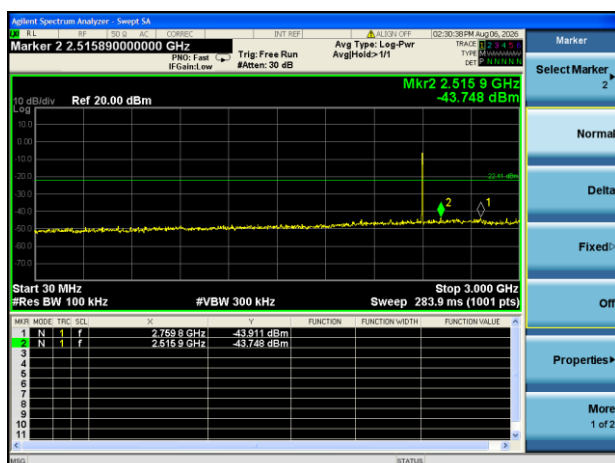
GFSK (BLE 1Mbps) HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



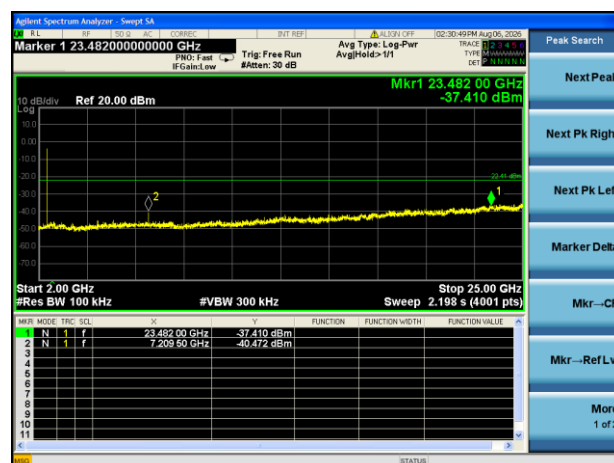
GFSK (BLE 2Mbps) LOW CHANNEL, CARRIER LEVEL



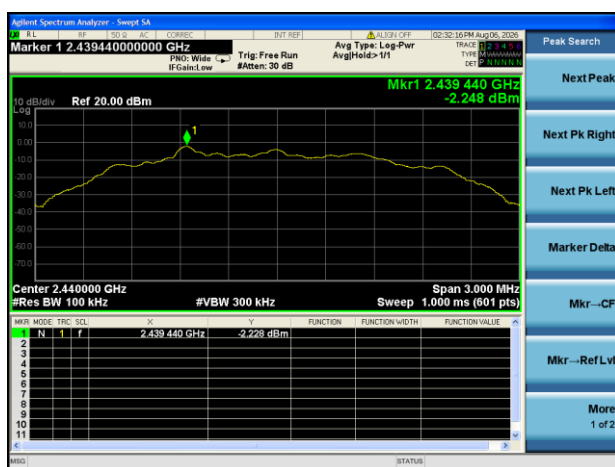
GFSK (BLE 2Mbps) LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



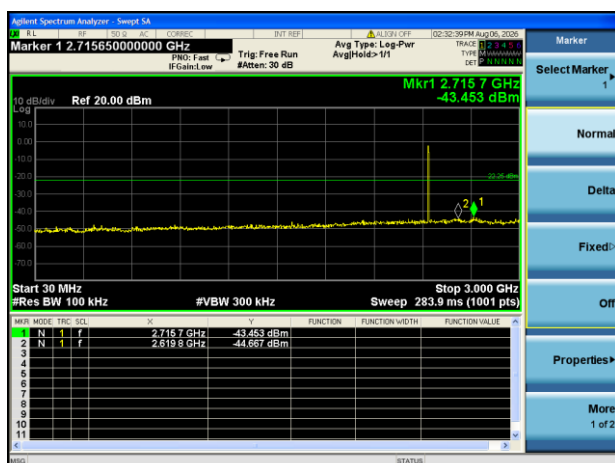
GFSK (BLE 2Mbps) LOW CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



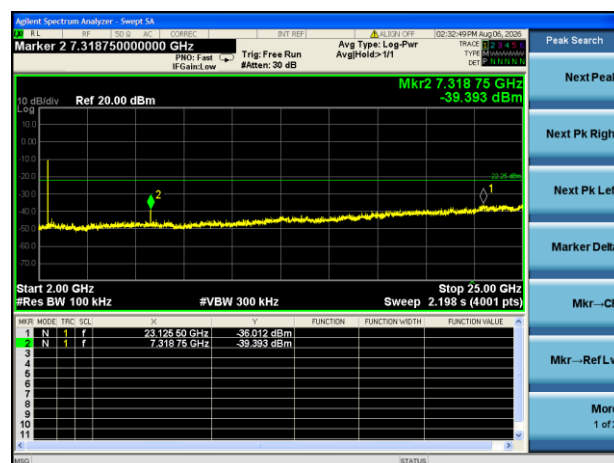
GFSK (BLE 2Mbps) MIDDLE CHANNEL, CARRIER LEVEL



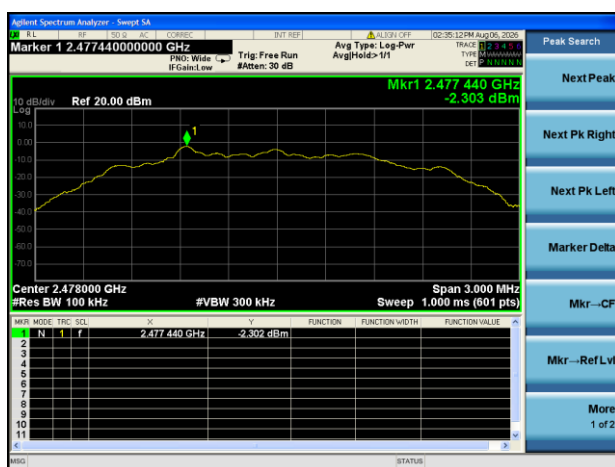
GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



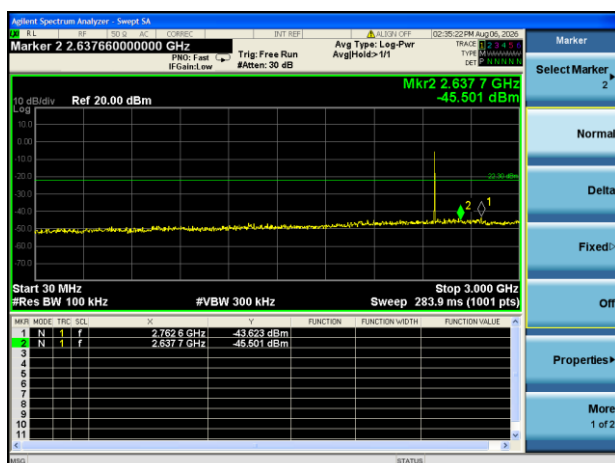
GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



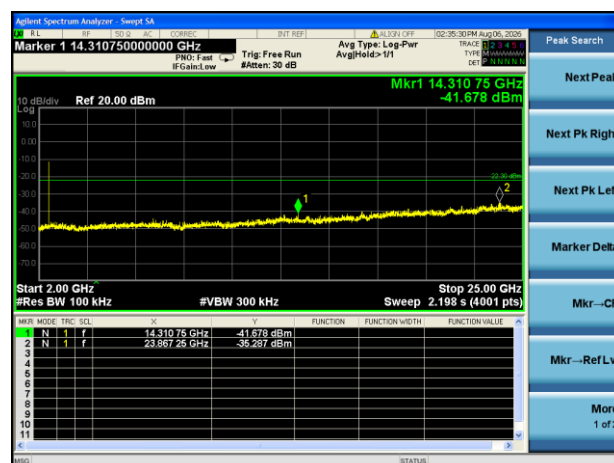
GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER LEVEL



GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



A.4 Band Edge (Authorized-band band-edge)

Note: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

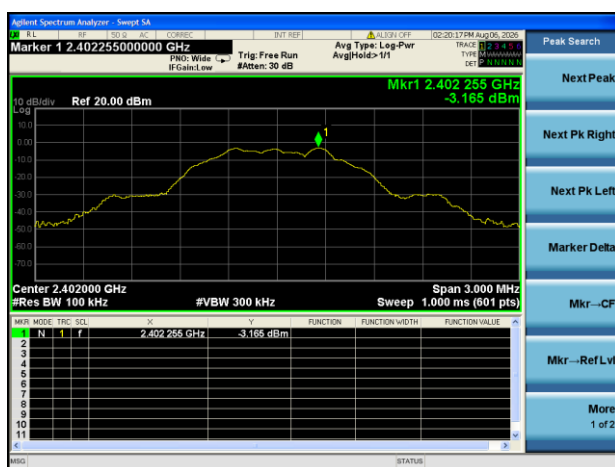
Test Data

GFSK (BLE 1Mbps)				
Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-46.92	-3.17	-23.17	Pass
High Channel	-46.20	-3.09	-23.09	Pass

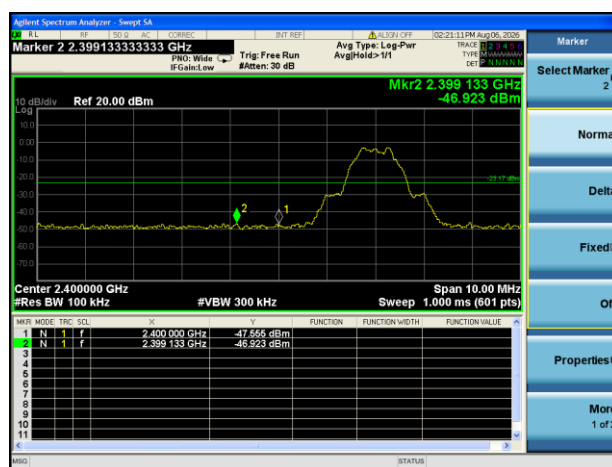
GFSK (BLE 2Mbps)				
Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-47.52	-2.41	-22.41	Pass
High Channel	-46.76	-2.30	-22.30	Pass

Test Plots

GFSK (BLE 1Mbps) LOW CHANNEL, CARRIER LEVEL



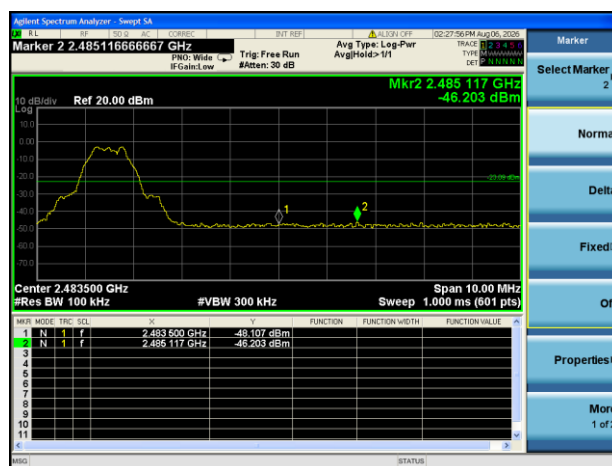
GFSK (BLE 1Mbps) LOW CHANNEL, BAND EDGE



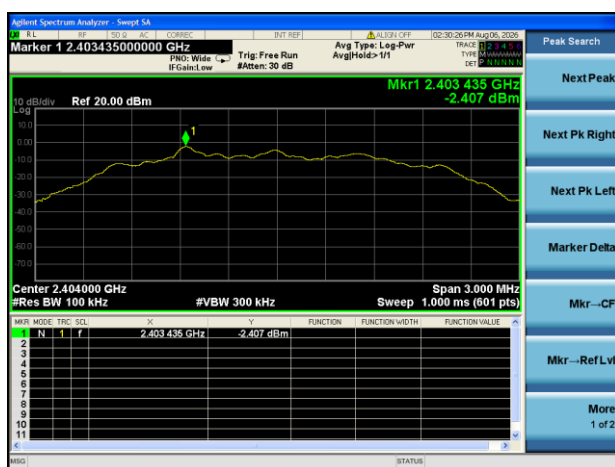
GFSK (BLE 1Mbps) HIGH CHANNEL, CARRIER LEVEL



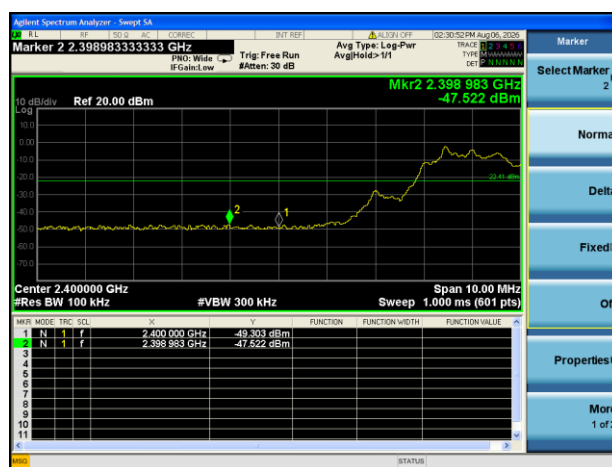
GFSK (BLE 1Mbps) HIGH CHANNEL, BAND EDGE



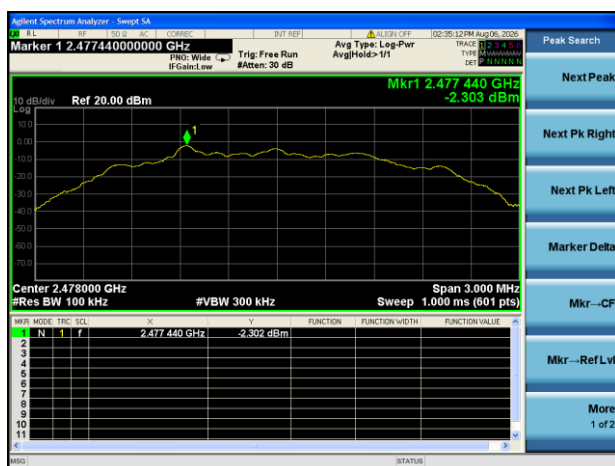
GFSK (BLE 2Mbps) LOW CHANNEL, CARRIER LEVEL



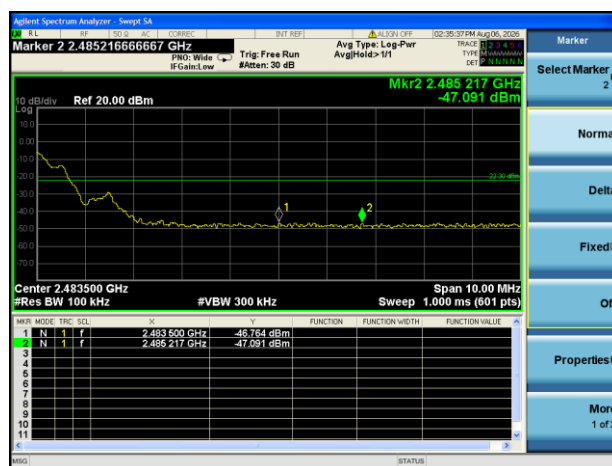
GFSK (BLE 2Mbps) LOW CHANNEL, BAND EDGE



GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER LEVEL



GFSK (BLE 2Mbps) HIGH CHANNEL, BAND EDGE



A.5 Conducted Emissions

Note ¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

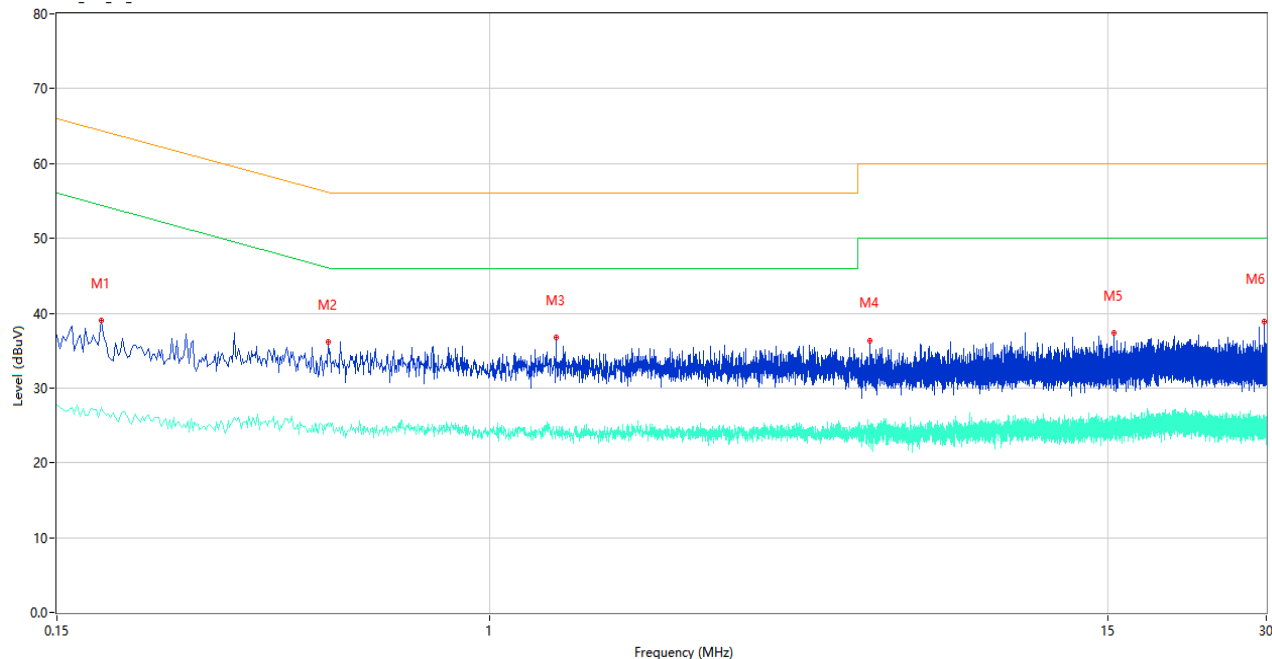
Note ²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note ³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

PHASE L

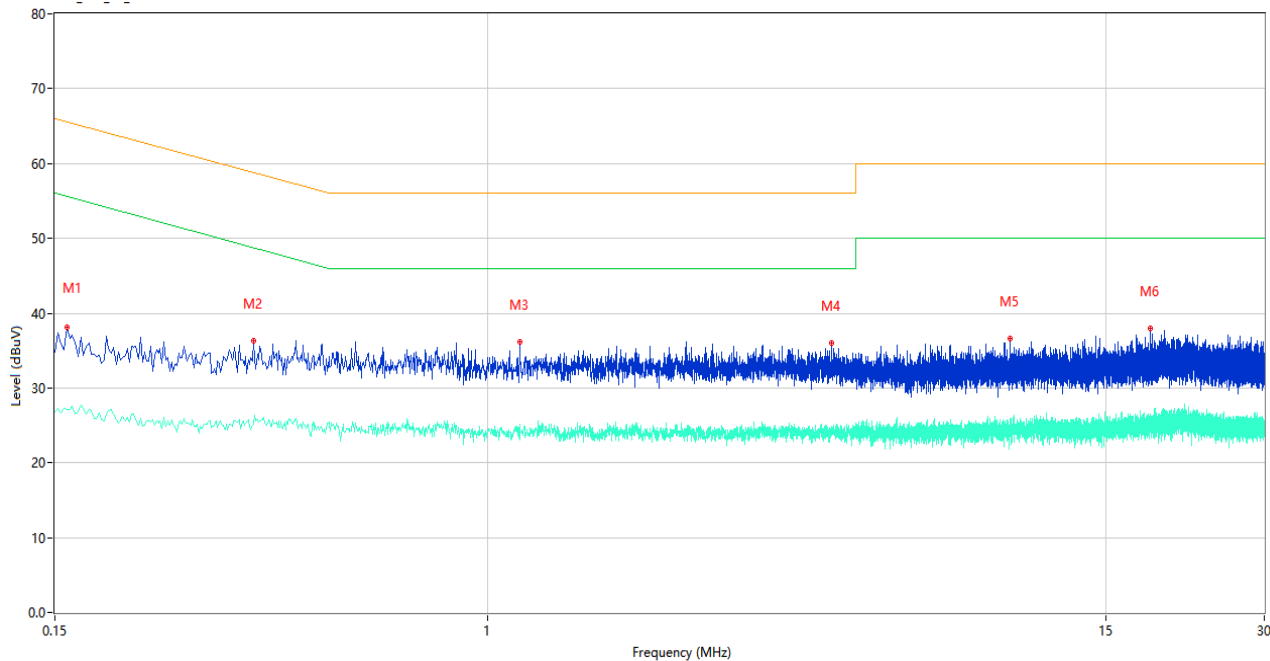
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.182	39.05	9.76	64.39	25.34	Peak	L	Pass
1**	0.182	27.41	9.76	54.39	26.98	AV	L	Pass
2	0.492	36.14	9.97	56.13	19.99	Peak	L	Pass
2**	0.492	25.37	9.97	46.13	20.76	AV	L	Pass
3	1.334	36.78	10.14	56.00	19.22	Peak	L	Pass
3**	1.334	24.34	10.14	46.00	21.66	AV	L	Pass
4	5.294	36.36	10.20	60.00	23.64	Peak	L	Pass
4**	5.294	25.01	10.20	50.00	24.99	AV	L	Pass
5	15.392	37.35	10.77	60.00	22.65	Peak	L	Pass
5**	15.392	25.86	10.77	50.00	24.14	AV	L	Pass
6	29.704	38.82	10.75	60.00	21.18	Peak	L	Pass
6**	29.704	25.50	10.75	50.00	24.50	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.158	38.08	9.77	65.57	27.49	Peak	N	Pass
1**	0.158	27.18	9.77	55.57	28.39	AV	N	Pass
2	0.358	36.26	10.71	58.77	22.51	Peak	N	Pass
2**	0.358	25.22	10.71	48.77	23.55	AV	N	Pass
3	1.150	36.16	10.37	56.00	19.84	Peak	N	Pass
3**	1.150	23.03	10.37	46.00	22.97	AV	N	Pass
4	4.510	36.02	10.38	56.00	19.98	Peak	N	Pass
4**	4.510	24.10	10.38	46.00	21.90	AV	N	Pass
5	9.842	36.55	10.31	60.00	23.45	Peak	N	Pass
5**	9.842	25.54	10.31	50.00	24.46	AV	N	Pass
6	18.206	37.99	11.09	60.00	22.01	Peak	N	Pass
6**	18.206	26.51	11.09	50.00	23.49	AV	N	Pass

A.6 Radiated Spurious Emission

Note ¹: The symbol of "--" in the table which means not application.

Note ²: For the test data above 1 GHz, according the ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note ³: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

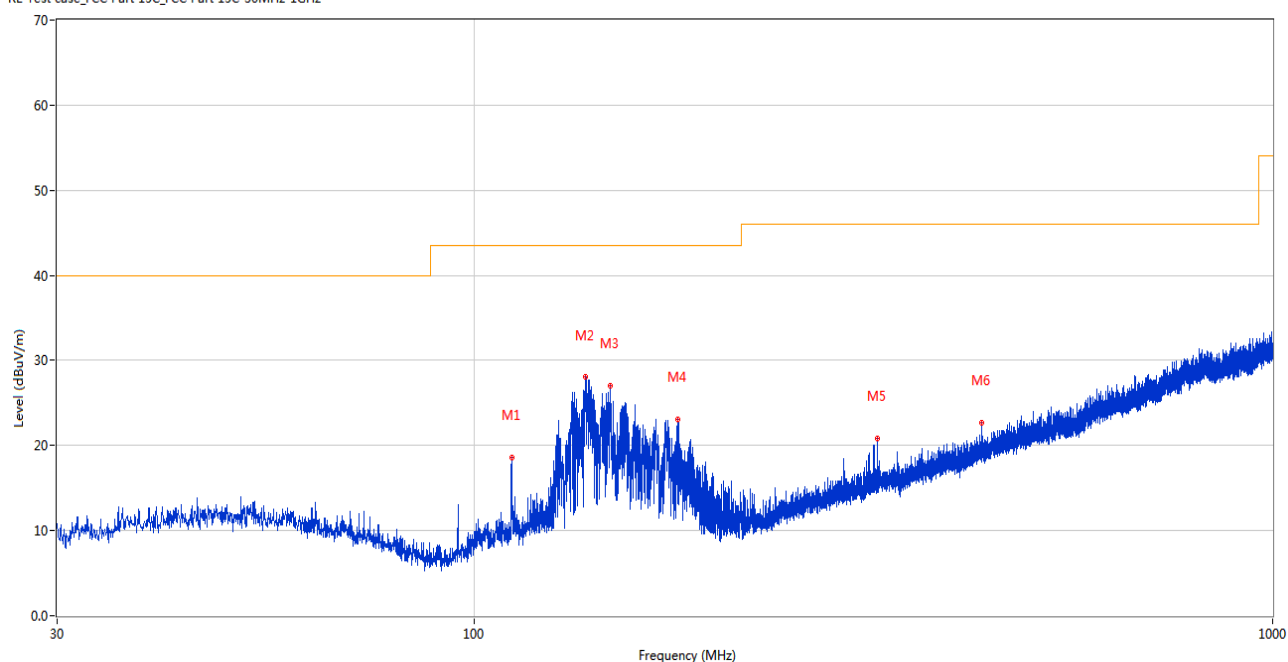
Note ⁴: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and BLE 2M-High channel mode is the worst.

Note ⁵: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV/m) + Factor (dB)

Test Data and Plots

30 MHz to 1 GHz, ANT H

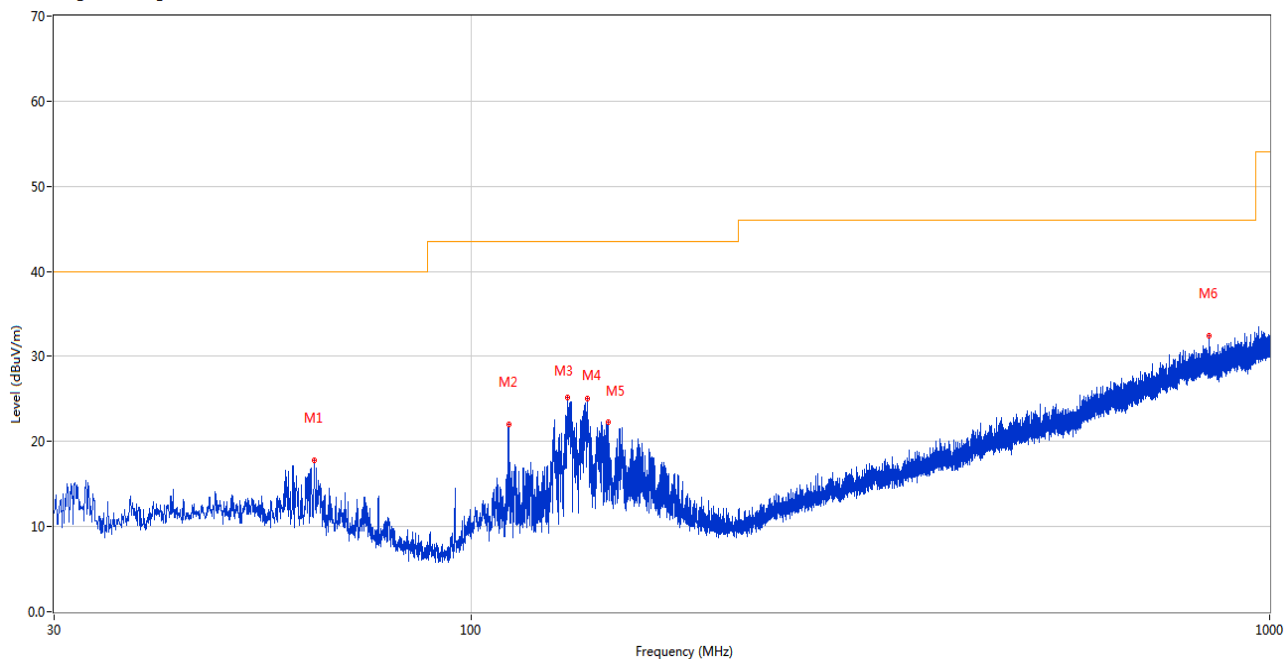
RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	111.335	18.60	-27.53	43.5	24.90	Peak	149.00	200	Horizontal	Pass
2	137.864	28.01	-24.75	43.5	15.49	Peak	0.00	200	Horizontal	Pass
3	148.098	27.00	-23.72	43.5	16.50	Peak	0.00	200	Horizontal	Pass
4	180.010	23.05	-25.37	43.5	20.45	Peak	157.00	200	Horizontal	Pass
5	319.884	20.88	-21.32	46.0	25.12	Peak	197.00	100	Horizontal	Pass
6	432.162	22.69	-17.77	46.0	23.31	Peak	333.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



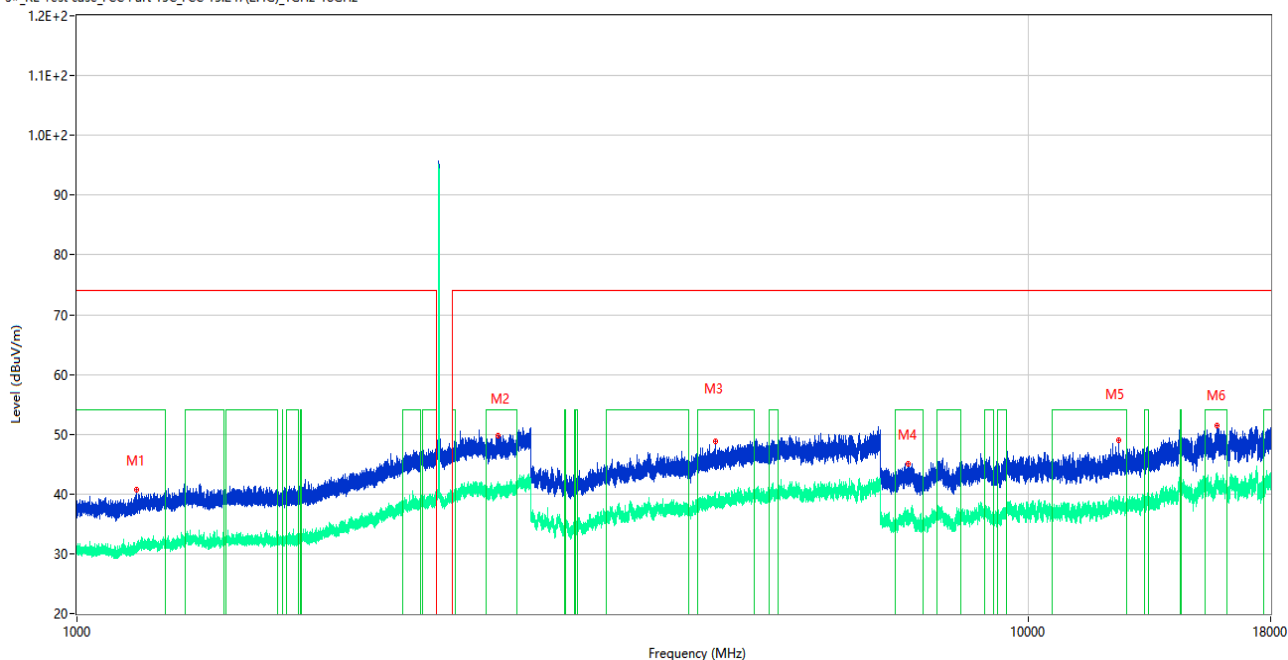
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	63.465	17.75	-26.08	40.0	22.25	Peak	295.00	100	Vertical	Pass
2	111.286	22.05	-27.53	43.5	21.45	Peak	188.00	100	Vertical	Pass
3	131.801	25.15	-25.36	43.5	18.35	Peak	210.00	100	Vertical	Pass
4	139.610	25.05	-24.60	43.5	18.45	Peak	96.00	100	Vertical	Pass
5	148.194	22.30	-23.71	43.5	21.20	Peak	96.00	100	Vertical	Pass
6	839.950	32.43	-8.90	46.0	13.57	Peak	127.00	200	Vertical	Pass

Note¹: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note²: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

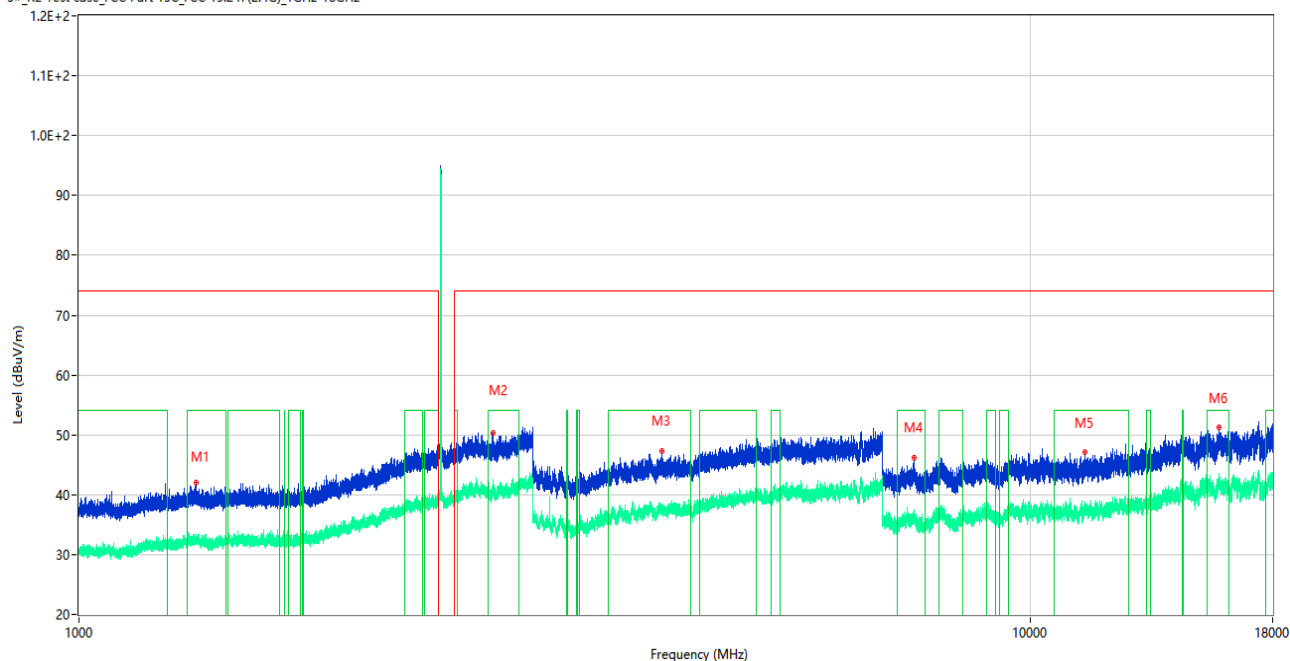
3#_RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1160.049	40.86	74.0	33.14	Peak	34.00	200	Horizontal	Pass
1**	1160.049	31.04	54.0	22.96	AV	34.00	200	Horizontal	Pass
2	2771.447	49.82	74.0	24.18	Peak	203.00	300	Horizontal	Pass
2**	2771.447	41.67	54.0	12.33	AV	203.00	300	Horizontal	Pass
3	4686.607	48.77	74.0	25.23	Peak	187.00	200	Horizontal	Pass
3**	4686.607	38.79	54.0	15.21	AV	187.00	200	Horizontal	Pass
4	7494.390	45.10	74.0	28.90	Peak	184.00	200	Horizontal	Pass
4**	7494.390	36.48	54.0	17.52	AV	184.00	200	Horizontal	Pass
5	12470.008	48.96	74.0	25.04	Peak	103.00	400	Horizontal	Pass
5**	12470.008	38.35	54.0	15.65	AV	103.00	400	Horizontal	Pass
6	15799.020	51.59	74.0	22.41	Peak	176.00	300	Horizontal	Pass
6**	15799.020	42.57	54.0	11.43	AV	176.00	300	Horizontal	Pass

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

3#_RE_Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1325.819	42.01	74.0	31.99	Peak	221.00	400	Vertical	Pass
1**	1325.819	32.49	54.0	21.51	AV	221.00	400	Vertical	Pass
2	2730.272	50.50	74.0	23.51	Peak	95.00	200	Vertical	Pass
2**	2730.272	40.98	54.0	13.02	AV	95.00	200	Vertical	Pass
3	4104.556	47.58	74.0	26.42	Peak	290.00	200	Vertical	Pass
3**	4104.556	37.51	54.0	16.49	AV	290.00	200	Vertical	Pass
4	7558.582	46.29	74.0	27.71	Peak	185.00	400	Vertical	Pass
4**	7558.582	37.32	54.0	16.68	AV	185.00	400	Vertical	Pass
5	11422.790	47.18	74.0	26.82	Peak	234.00	300	Vertical	Pass
5**	11422.790	37.83	54.0	16.17	AV	234.00	300	Vertical	Pass
6	15790.999	51.46	74.0	22.54	Peak	58.00	100	Vertical	Pass
6**	15790.999	42.92	54.0	11.08	AV	58.00	100	Vertical	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1157.088	40.28	74.0	33.72	Peak	136.00	100	Horizontal	Pass
1**	1157.088	30.82	54.0	23.18	AV	136.00	100	Horizontal	Pass
2	2773.144	49.81	74.0	24.19	Peak	46.00	200	Horizontal	Pass
2**	2773.144	41.07	54.0	12.93	AV	46.00	200	Horizontal	Pass
3	4684.062	48.10	74.0	25.90	Peak	93.00	200	Horizontal	Pass
3**	4684.062	38.42	54.0	15.58	AV	93.00	200	Horizontal	Pass
4	7490.855	44.86	74.0	29.14	Peak	94.00	300	Horizontal	Pass
4**	7490.855	35.73	54.0	18.27	AV	94.00	300	Horizontal	Pass
5	12466.655	48.16	74.0	25.84	Peak	344.00	300	Horizontal	Pass
5**	12466.655	37.62	54.0	16.38	AV	344.00	300	Horizontal	Pass
6	15802.246	50.60	74.0	23.40	Peak	198.00	400	Horizontal	Pass
6**	15802.246	42.24	54.0	11.76	AV	198.00	400	Horizontal	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1328.308	41.47	74.0	32.53	Peak	248.00	100	Vertical	Pass
1**	1328.308	32.01	54.0	21.99	AV	248.00	100	Vertical	Pass
2	2726.573	50.27	74.0	23.74	Peak	216.00	300	Vertical	Pass
2**	2726.573	39.99	54.0	14.01	AV	216.00	300	Vertical	Pass
3	4104.599	47.43	74.0	26.57	Peak	22.00	200	Vertical	Pass
3**	4104.599	36.79	54.0	17.21	AV	22.00	200	Vertical	Pass
4	7553.455	45.71	74.0	28.29	Peak	340.00	100	Vertical	Pass
4**	7553.455	37.27	54.0	16.73	AV	340.00	100	Vertical	Pass
5	11417.309	46.62	74.0	27.38	Peak	40.00	100	Vertical	Pass
5**	11417.309	37.78	54.0	16.22	AV	40.00	100	Vertical	Pass
6	15791.723	50.86	74.0	23.14	Peak	33.00	100	Vertical	Pass
6**	15791.723	42.40	54.0	11.60	AV	33.00	100	Vertical	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1154.434	40.53	74.0	33.47	Peak	280.00	400	Horizontal	Pass
1**	1154.434	30.81	54.0	23.19	AV	280.00	400	Horizontal	Pass
2	2768.437	49.71	74.0	24.29	Peak	314.00	200	Horizontal	Pass
2**	2768.437	41.17	54.0	12.83	AV	314.00	200	Horizontal	Pass
3	4686.518	48.47	74.0	25.53	Peak	64.00	200	Horizontal	Pass
3**	4686.518	37.94	54.0	16.06	AV	64.00	200	Horizontal	Pass
4	7488.337	44.17	74.0	29.83	Peak	307.00	300	Horizontal	Pass
4**	7488.337	36.42	54.0	17.58	AV	307.00	300	Horizontal	Pass
5	12470.479	48.44	74.0	25.56	Peak	168.00	400	Horizontal	Pass
5**	12470.479	37.74	54.0	16.26	AV	168.00	400	Horizontal	Pass
6	15799.220	51.51	74.0	22.49	Peak	317.00	300	Horizontal	Pass
6**	15799.220	41.89	54.0	12.11	AV	317.00	300	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.616	41.98	74.0	32.02	Peak	283.00	200	Vertical	Pass
1**	1330.616	32.41	54.0	21.59	AV	283.00	200	Vertical	Pass
2	2729.129	50.46	74.0	23.54	Peak	256.00	200	Vertical	Pass
2**	2729.129	40.95	54.0	13.05	AV	256.00	200	Vertical	Pass
3	4104.720	47.49	74.0	26.51	Peak	348.00	200	Vertical	Pass
3**	4104.720	37.48	54.0	16.52	AV	348.00	200	Vertical	Pass
4	7555.132	46.26	74.0	27.74	Peak	173.00	100	Vertical	Pass
4**	7555.132	37.26	54.0	16.74	AV	173.00	100	Vertical	Pass
5	11415.013	47.16	74.0	26.84	Peak	9.00	300	Vertical	Pass
5**	11415.013	37.82	54.0	16.18	AV	9.00	300	Vertical	Pass
6	15791.653	51.41	74.0	22.59	Peak	304.00	100	Vertical	Pass
6**	15791.653	41.89	54.0	12.11	AV	304.00	100	Vertical	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1286.446	40.45	74.0	33.55	Peak	340.00	100	Horizontal	Pass
1**	1286.446	31.01	54.0	22.99	AV	340.00	100	Horizontal	Pass
2	2772.894	49.15	74.0	24.85	Peak	174.00	100	Horizontal	Pass
2**	2772.894	41.41	54.0	12.59	AV	174.00	100	Horizontal	Pass
3	5167.977	47.88	74.0	26.12	Peak	334.00	200	Horizontal	Pass
3**	5167.977	38.14	54.0	15.86	AV	334.00	200	Horizontal	Pass
4	6809.355	44.60	74.0	29.40	Peak	3.00	200	Horizontal	Pass
4**	6809.355	35.94	54.0	18.06	AV	3.00	200	Horizontal	Pass
5	13468.428	48.39	74.0	25.61	Peak	274.00	400	Horizontal	Pass
5**	13468.428	37.40	54.0	16.60	AV	274.00	400	Horizontal	Pass
6	17470.619	51.43	74.0	22.57	Peak	290.00	200	Horizontal	Pass
6**	17470.619	41.95	54.0	12.05	AV	290.00	200	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1287.335	41.93	74.0	32.07	Peak	112.00	200	Vertical	Pass
1**	1287.335	32.40	54.0	21.60	AV	112.00	200	Vertical	Pass
2	2769.204	50.49	74.0	23.51	Peak	279.00	200	Vertical	Pass
2**	2769.204	40.95	54.0	13.05	AV	279.00	200	Vertical	Pass
3	5171.364	47.50	74.0	26.50	Peak	231.00	200	Vertical	Pass
3**	5171.364	37.48	54.0	16.52	AV	231.00	200	Vertical	Pass
4	6807.279	46.27	74.0	27.73	Peak	358.00	300	Vertical	Pass
4**	6807.279	37.23	54.0	16.77	AV	358.00	300	Vertical	Pass
5	13470.196	47.09	74.0	26.91	Peak	43.00	200	Vertical	Pass
5**	13470.196	37.81	54.0	16.19	AV	43.00	200	Vertical	Pass
6	17469.463	51.42	74.0	22.58	Peak	261.00	100	Vertical	Pass
6**	17469.463	41.90	54.0	12.10	AV	261.00	100	Vertical	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1289.497	40.22	74.0	33.78	Peak	63.00	400	Horizontal	Pass
1**	1289.497	31.02	54.0	22.98	AV	63.00	400	Horizontal	Pass
2	2770.636	49.70	74.0	24.30	Peak	196.00	300	Horizontal	Pass
2**	2770.636	41.02	54.0	12.98	AV	196.00	300	Horizontal	Pass
3	5171.340	48.09	74.0	25.91	Peak	234.00	200	Horizontal	Pass
3**	5171.340	37.97	54.0	16.03	AV	234.00	200	Horizontal	Pass
4	6807.381	44.51	74.0	29.49	Peak	12.00	200	Horizontal	Pass
4**	6807.381	35.72	54.0	18.28	AV	12.00	200	Horizontal	Pass
5	13466.452	48.35	74.0	25.65	Peak	199.00	100	Horizontal	Pass
5**	13466.452	38.13	54.0	15.87	AV	199.00	100	Horizontal	Pass
6	17463.252	51.31	74.0	22.69	Peak	208.00	200	Horizontal	Pass
6**	17463.252	41.72	54.0	12.28	AV	208.00	200	Horizontal	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1286.701	41.99	74.0	32.01	Peak	298.00	100	Vertical	Pass
1**	1286.701	32.47	54.0	21.53	AV	298.00	100	Vertical	Pass
2	2769.640	50.47	74.0	23.53	Peak	244.00	200	Vertical	Pass
2**	2769.640	40.91	54.0	13.09	AV	244.00	200	Vertical	Pass
3	5170.402	47.51	74.0	26.49	Peak	280.00	200	Vertical	Pass
3**	5170.402	37.48	54.0	16.52	AV	280.00	200	Vertical	Pass
4	6805.955	46.25	74.0	27.75	Peak	237.00	200	Vertical	Pass
4**	6805.955	37.26	54.0	16.74	AV	237.00	200	Vertical	Pass
5	13470.299	47.11	74.0	26.89	Peak	264.00	300	Vertical	Pass
5**	13470.299	37.79	54.0	16.21	AV	264.00	300	Vertical	Pass
6	17470.789	51.43	74.0	22.57	Peak	142.00	400	Vertical	Pass
6**	17470.789	41.84	54.0	12.16	AV	142.00	400	Vertical	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1286.413	40.20	74.0	33.80	Peak	269.00	300	Horizontal	Pass
1**	1286.413	30.52	54.0	23.48	AV	269.00	300	Horizontal	Pass
2	2774.474	49.66	74.0	24.34	Peak	288.00	100	Horizontal	Pass
2**	2774.474	40.96	54.0	13.04	AV	288.00	100	Horizontal	Pass
3	5394.406	47.82	74.0	26.18	Peak	35.00	200	Horizontal	Pass
3**	5394.406	38.59	54.0	15.41	AV	35.00	200	Horizontal	Pass
4	6511.866	44.30	74.0	29.70	Peak	50.00	300	Horizontal	Pass
4**	6511.866	35.73	54.0	18.27	AV	50.00	300	Horizontal	Pass
5	13351.544	48.62	74.0	25.38	Peak	219.00	100	Horizontal	Pass
5**	13351.544	37.64	54.0	16.36	AV	219.00	100	Horizontal	Pass
6	17442.836	51.47	74.0	22.53	Peak	233.00	200	Horizontal	Pass
6**	17442.836	42.52	54.0	11.48	AV	233.00	200	Horizontal	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1283.241	42.00	74.0	32.00	Peak	222.00	200	Vertical	Pass
1**	1283.241	32.48	54.0	21.52	AV	222.00	200	Vertical	Pass
2	2772.787	50.45	74.0	23.55	Peak	141.00	300	Vertical	Pass
2**	2772.787	40.95	54.0	13.05	AV	141.00	300	Vertical	Pass
3	5284.686	47.58	74.0	26.42	Peak	333.00	200	Vertical	Pass
3**	5284.686	37.50	54.0	16.50	AV	333.00	200	Vertical	Pass
4	6653.389	46.24	74.0	27.76	Peak	263.00	400	Vertical	Pass
4**	6653.389	37.25	54.0	16.75	AV	263.00	400	Vertical	Pass
5	13303.323	47.10	74.0	26.90	Peak	207.00	100	Vertical	Pass
5**	13303.323	37.76	54.0	16.24	AV	207.00	100	Vertical	Pass
6	17422.693	51.45	74.0	22.55	Peak	66.00	100	Vertical	Pass
6**	17422.693	41.83	54.0	12.17	AV	66.00	100	Vertical	Pass

A.7 Band Edge (Restricted-band band-edge)

Note¹: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

Note²: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

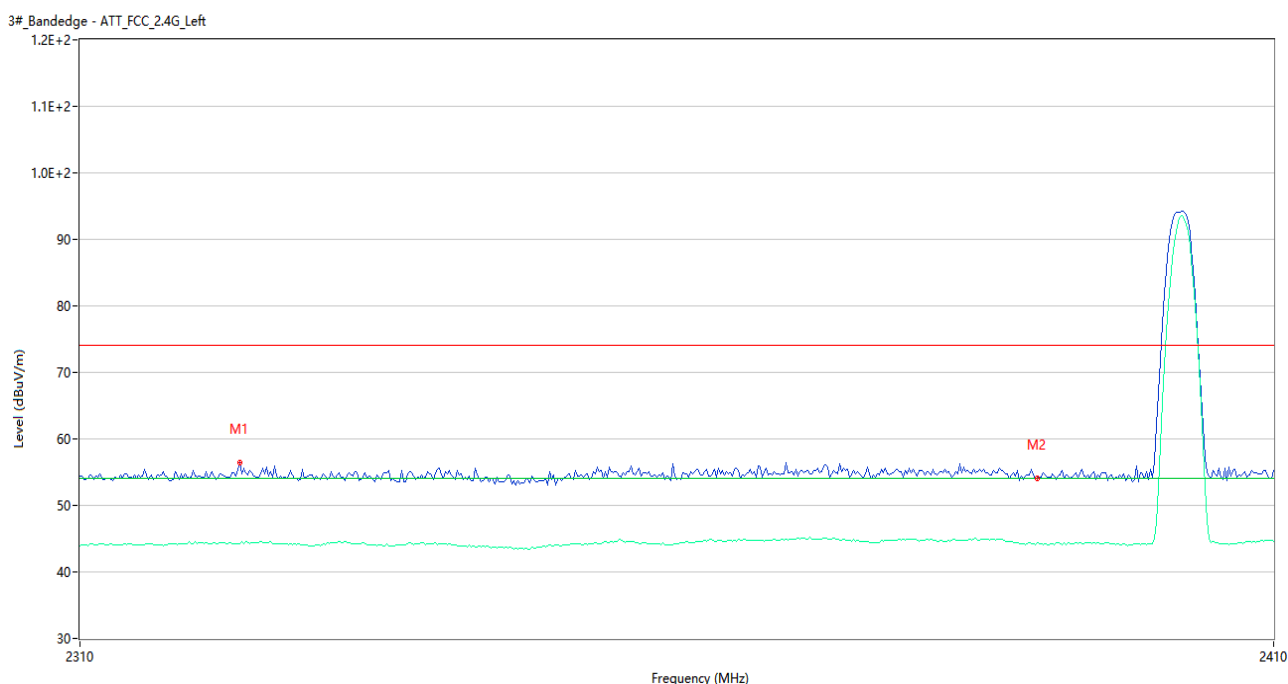
Note³: According the ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note⁴: The Level (dBuV/m) has been corrected by factor.

Note⁵: Both horizontal and vertical directions were pre tested, only the worst configuration has been reported in this report.

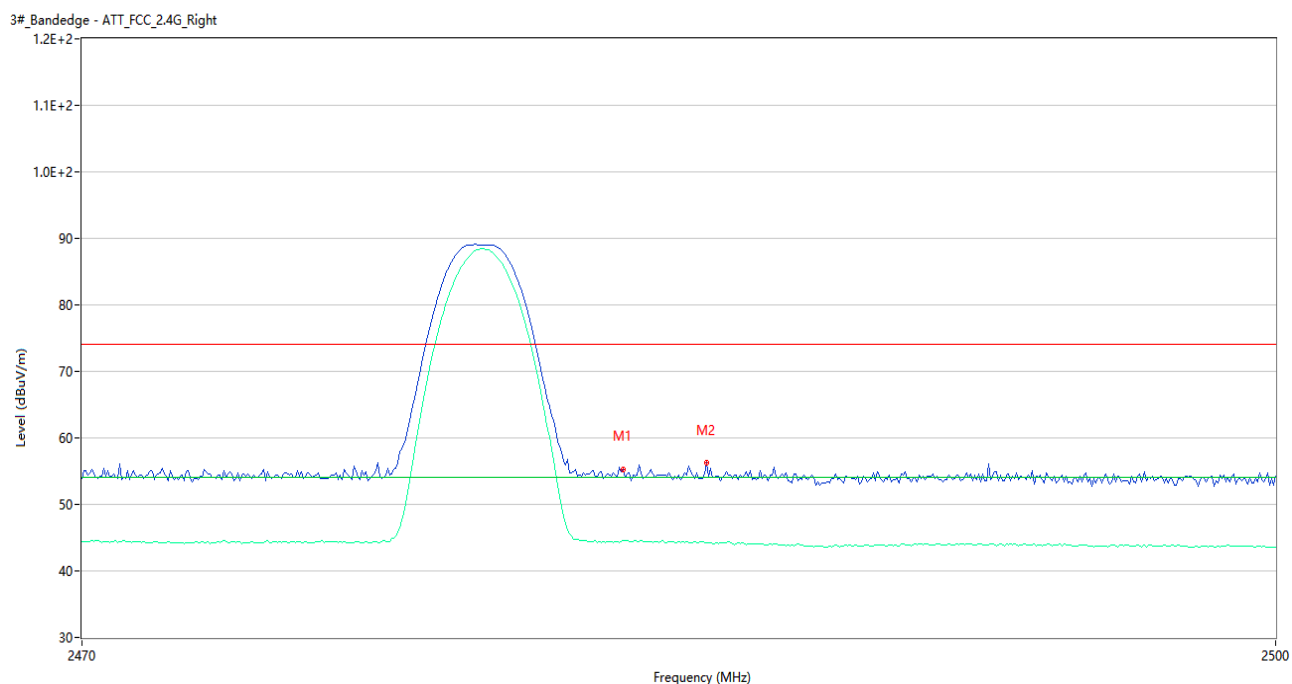
Test Data and Plots

GFSK (BLE 1Mbps) LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2320.612	54.2	74.0	19.80	Peak	20.00	200	Horizontal	Pass
1**	2320.612	41.46	54.0	12.54	AV	20.00	200	Horizontal	Pass
2	2390.000	53.2	74.0	20.80	Peak	33.00	100	Horizontal	Pass
2**	2390.000	42.83	54.0	11.17	AV	33.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	55.18	74.0	18.82	Peak	181.00	100	Horizontal	Pass
1**	2483.500	44.42	54.0	9.58	AV	181.00	100	Horizontal	Pass
2	2487.562	54.69	74.0	19.31	Peak	136.00	200	Horizontal	Pass
2**	2487.562	44.61	54.0	9.39	AV	136.00	200	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2348.530	54.87	74.0	19.13	Peak	215.00	200	Horizontal	Pass
1**	2348.530	42.11	54.0	11.89	AV	215.00	200	Horizontal	Pass
2	2390.000	52.08	74.0	21.92	Peak	120.00	100	Horizontal	Pass
2**	2390.000	41.87	54.0	12.13	AV	120.00	100	Horizontal	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	54.70	74.0	19.30	Peak	324.00	200	Horizontal	Pass
1**	2483.500	42.78	54.0	11.22	AV	324.00	200	Horizontal	Pass
2	2489.386	55.38	74.0	18.62	Peak	129.00	100	Horizontal	Pass
2**	2489.386	42.56	54.0	11.44	AV	129.00	100	Horizontal	Pass

A.8 Power Spectral Density (PSD)

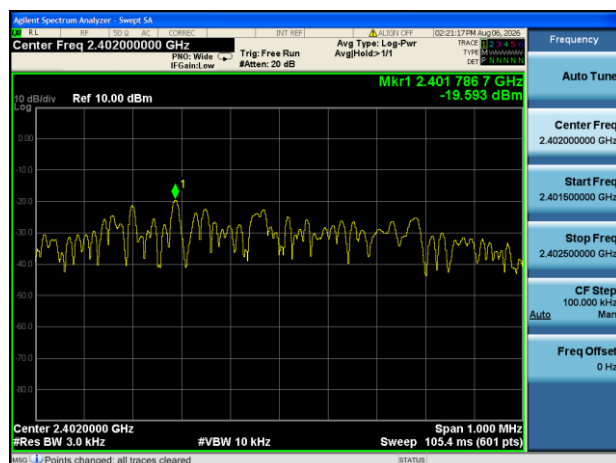
Test Data

GFSK (BLE 1Mbps)			
Channel	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low Channel	-19.59	8	Pass
Middle Channel	-19.48	8	Pass
High Channel	-19.39	8	Pass

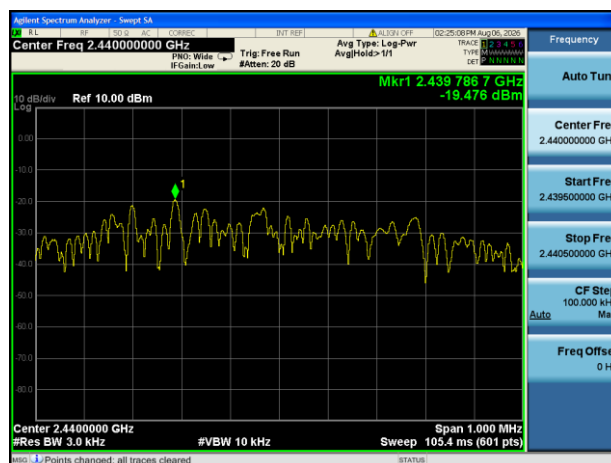
GFSK (BLE 2Mbps)			
Channel	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low Channel	-15.99	8	Pass
Middle Channel	-15.81	8	Pass
High Channel	-15.79	8	Pass

Test Plots

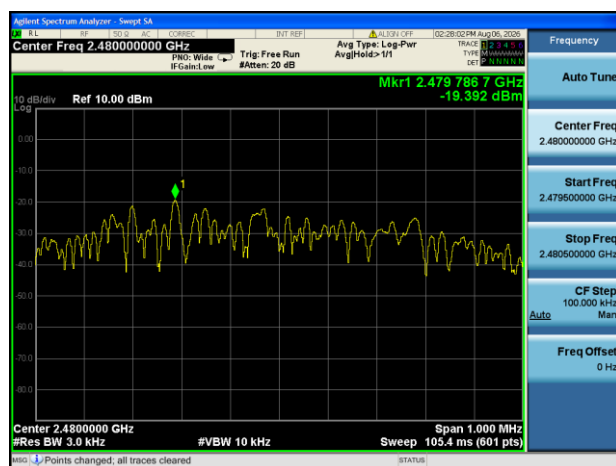
GFSK (BLE 1Mbps) LOW CHANNEL



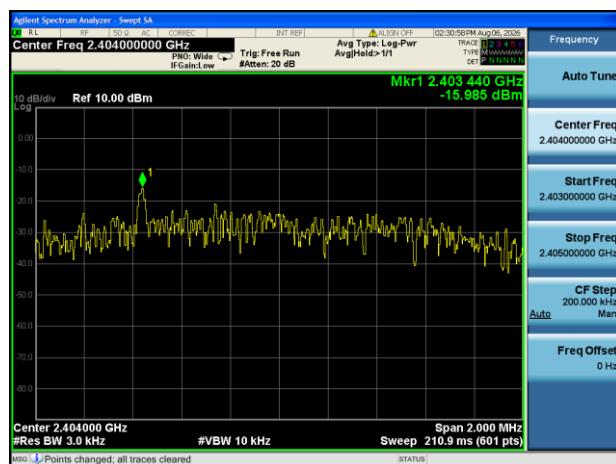
GFSK (BLE 1Mbps) MIDDLE CHANNEL



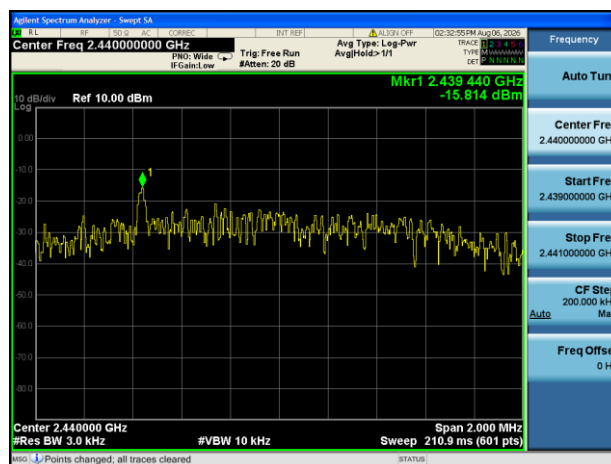
GFSK (BLE 1Mbps) HIGH CHANNEL



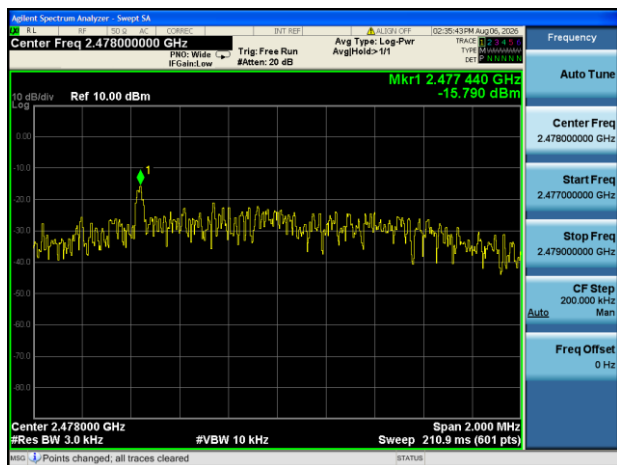
GFSK (BLE 2Mbps) LOW CHANNEL



GFSK (BLE 2Mbps) MIDDLE CHANNEL



GFSK (BLE 2Mbps) HIGH CHANNEL



ANNEX B TEST SETUP PHOTOS

1 Radiated Test Photo

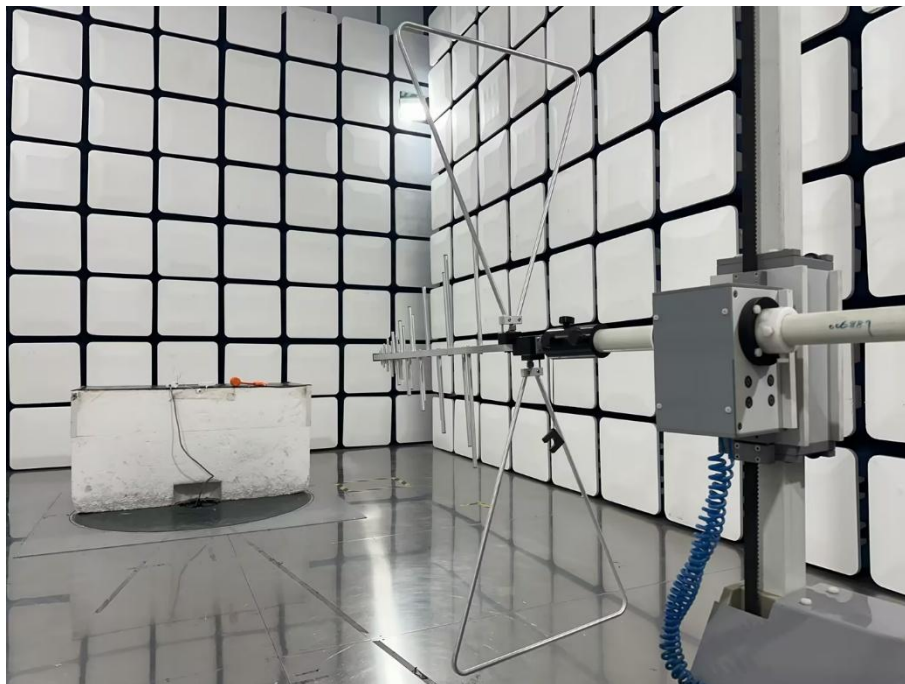
Below 30MHz



Close-up



30MHz-1GHz



Close-up



Above 1GHz

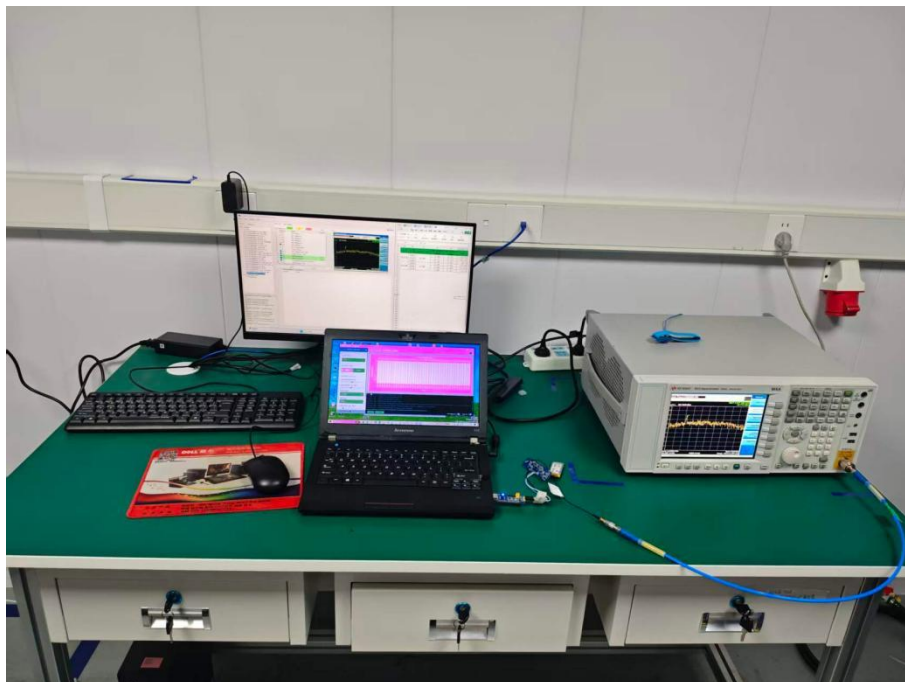


Close-up



2 Conducted Test Photo

Conducted Test-BT

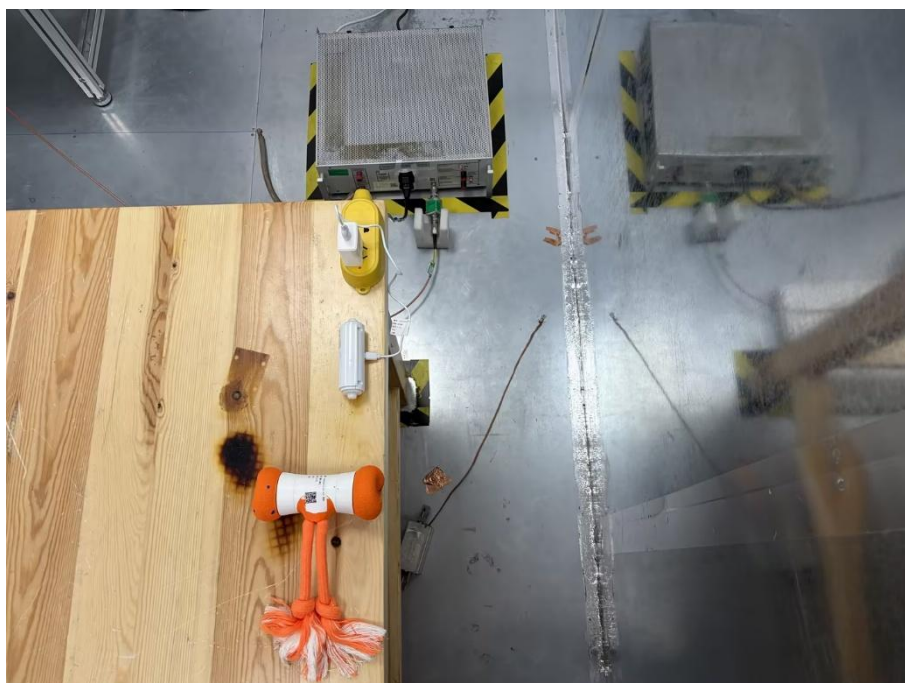


3 Conducted Emissions

Test Photo 1



Test Photo 2

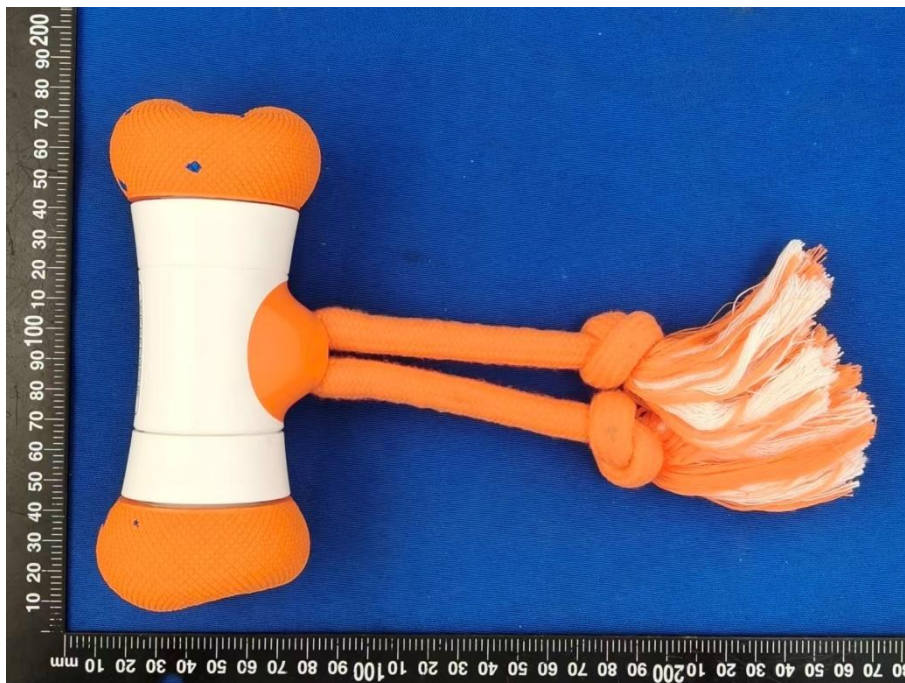


ANNEX C EUT EXTERNAL PHOTOS

FRONT VIEW OF EUT



REAR VIEW OF EUT



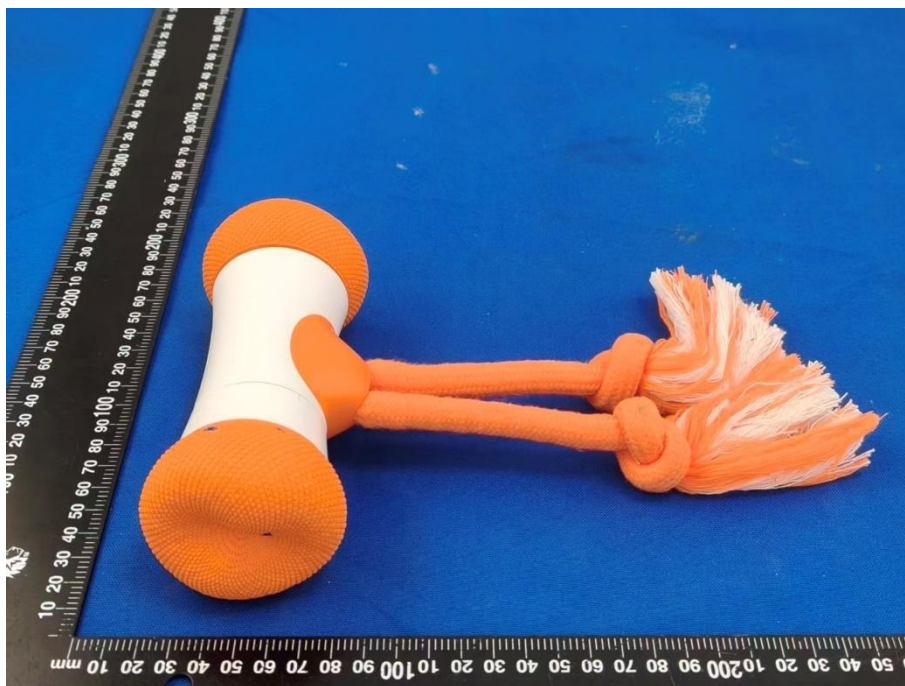
LEFT VIEW OF EUT



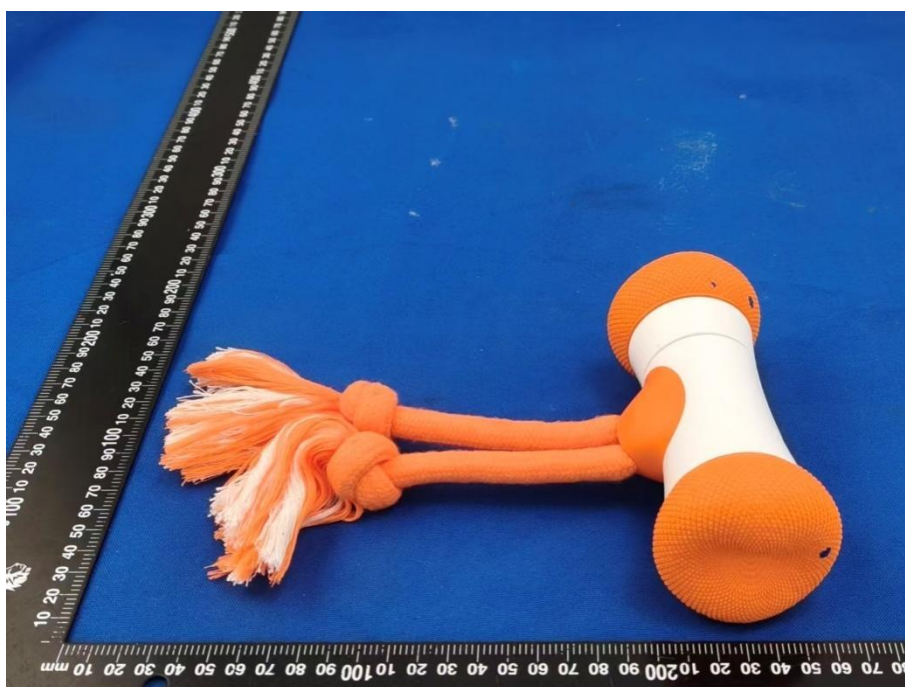
RIGHT VIEW OF EUT

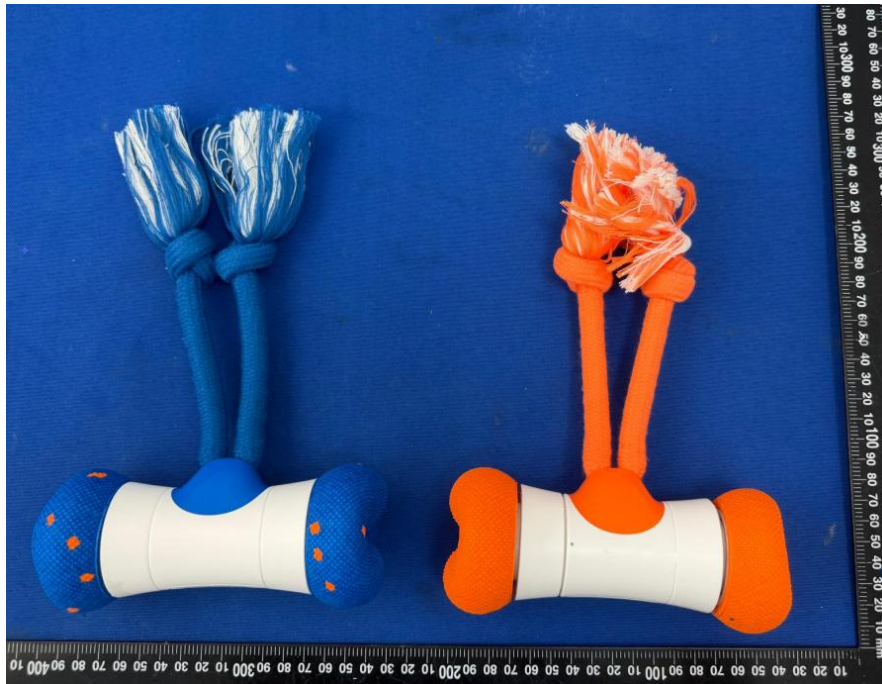


TOP VIEW OF EUT

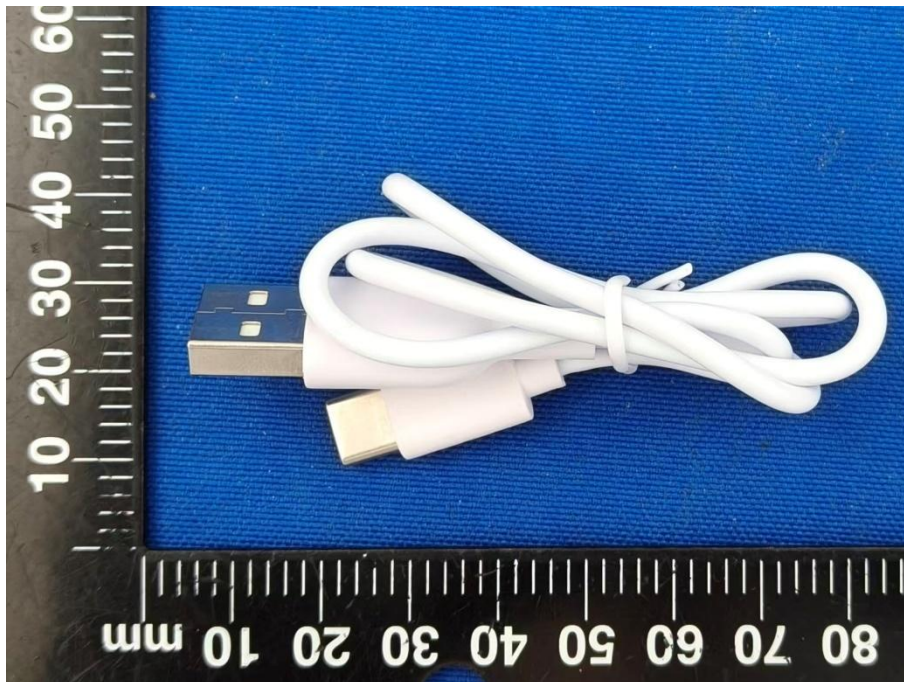


BOTTOM VIEW OF EUT



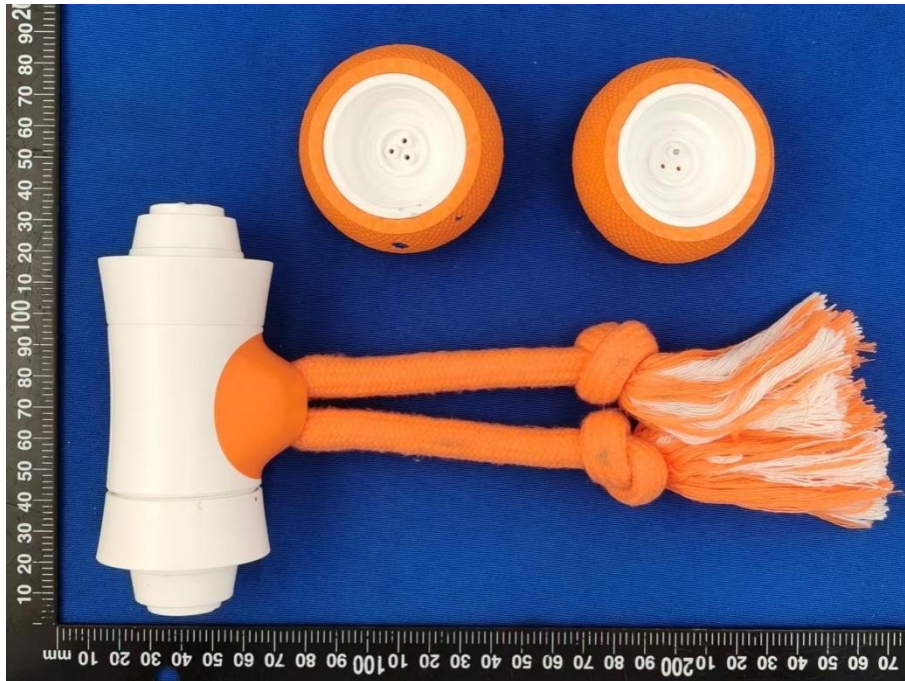


Accessory-USB Cable



ANNEX D EUT INTERNAL PHOTOS

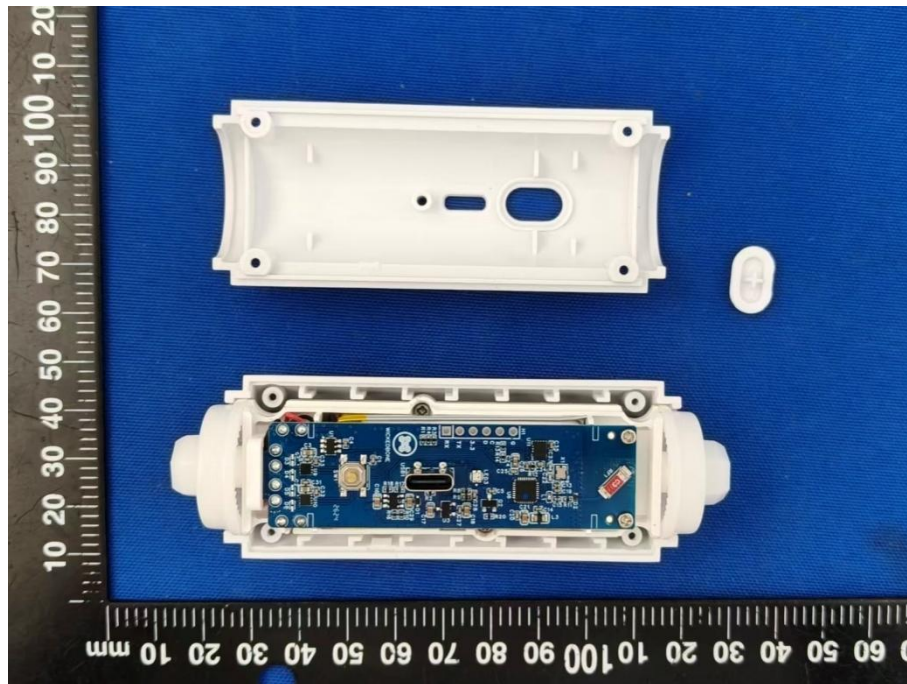
EUT UNCOVER VIEW 1



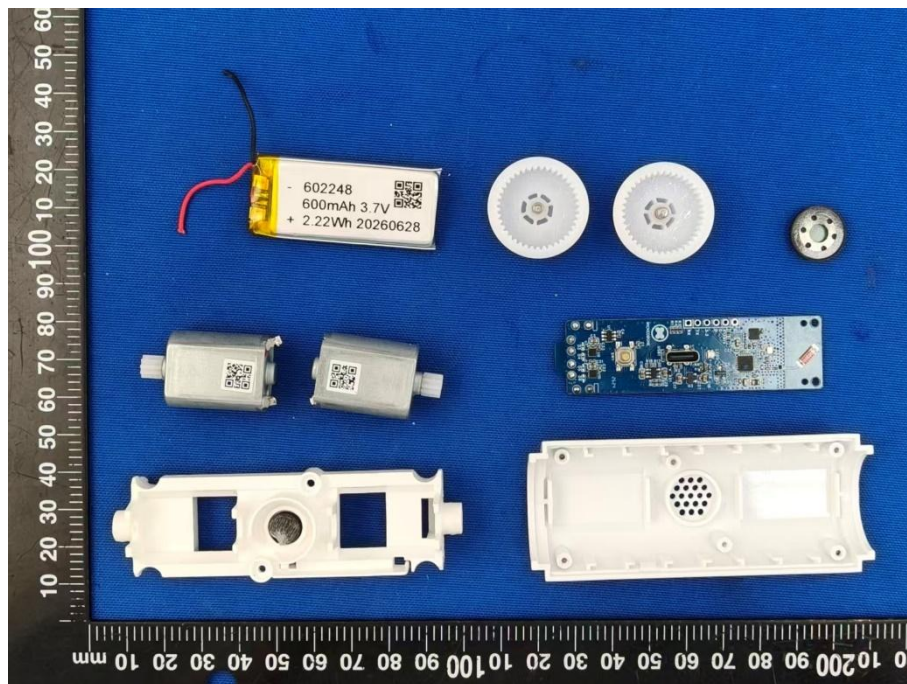
EUT UNCOVER VIEW 2



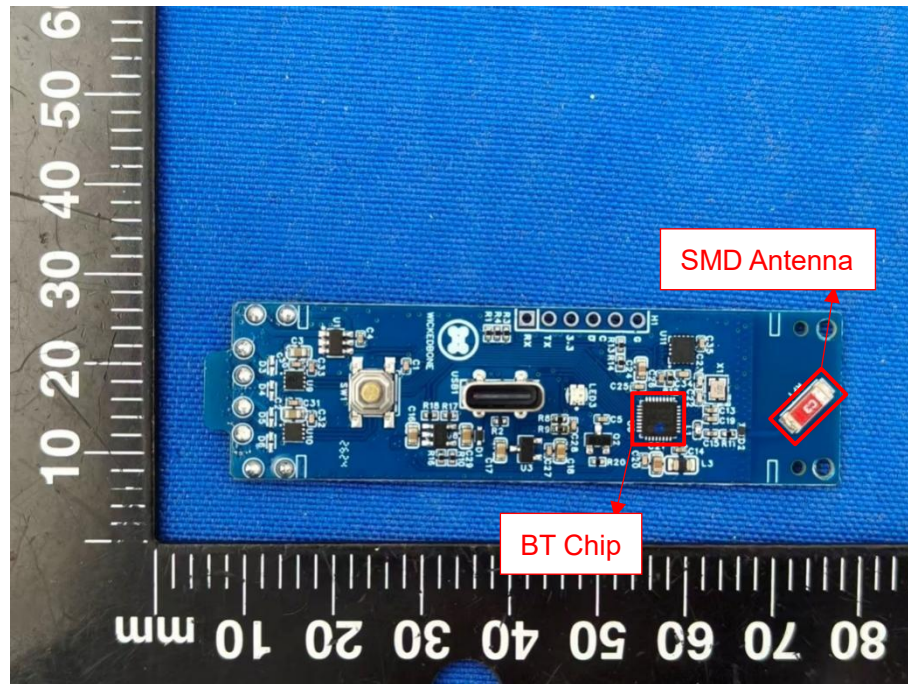
EUT UNCOVER VIEW 3



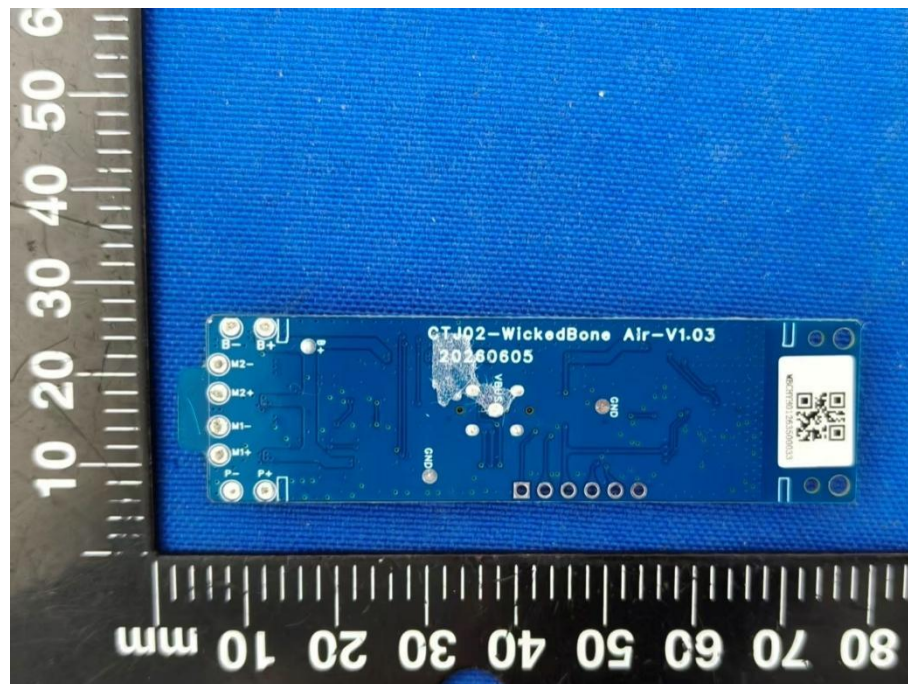
EUT UNCOVER VIEW 4



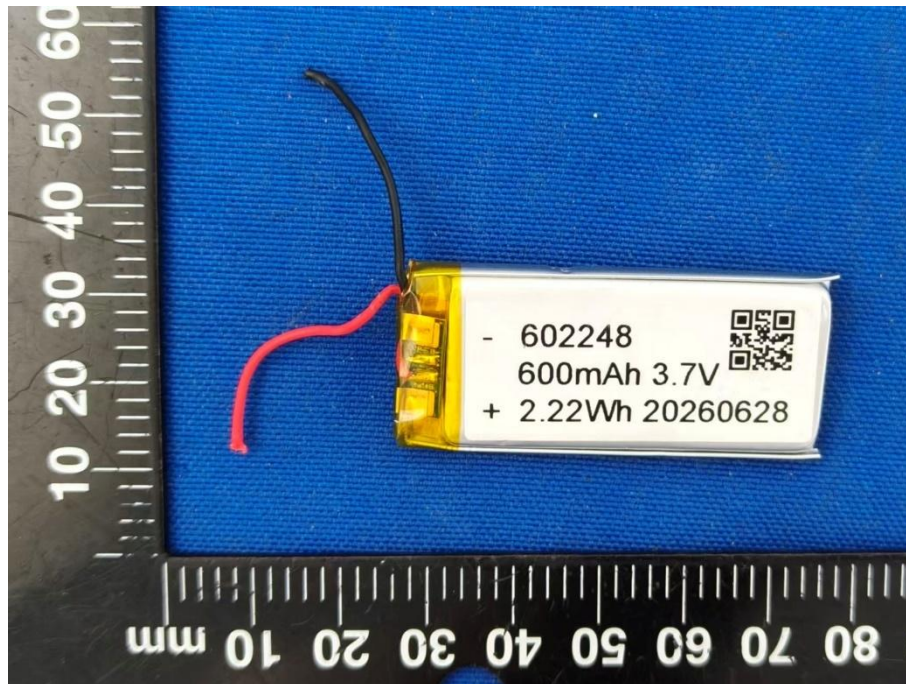
MAIN BOARD TOP VIEW



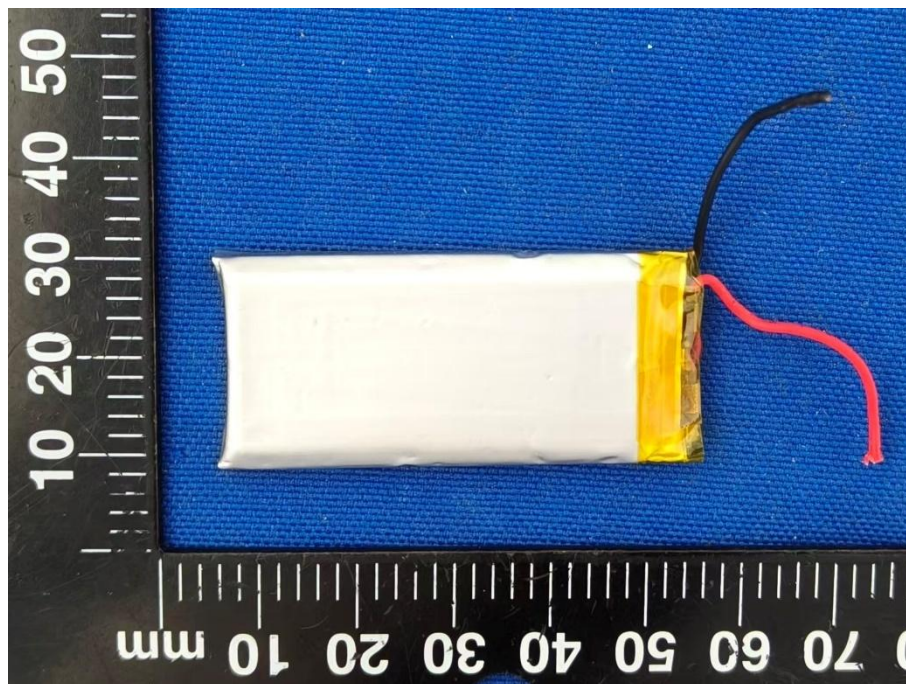
MAIN BOARD REAR VIEW



BATTERY (FRONT)



BATTERY (REAR)



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--END OF REPORT--