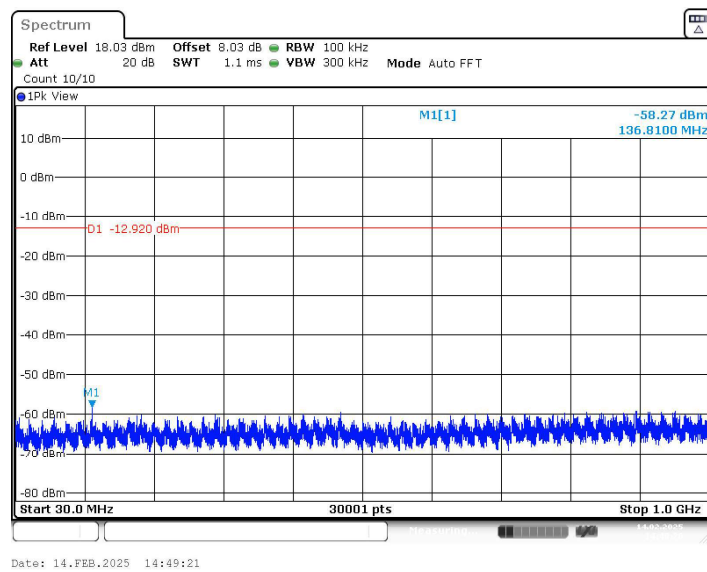
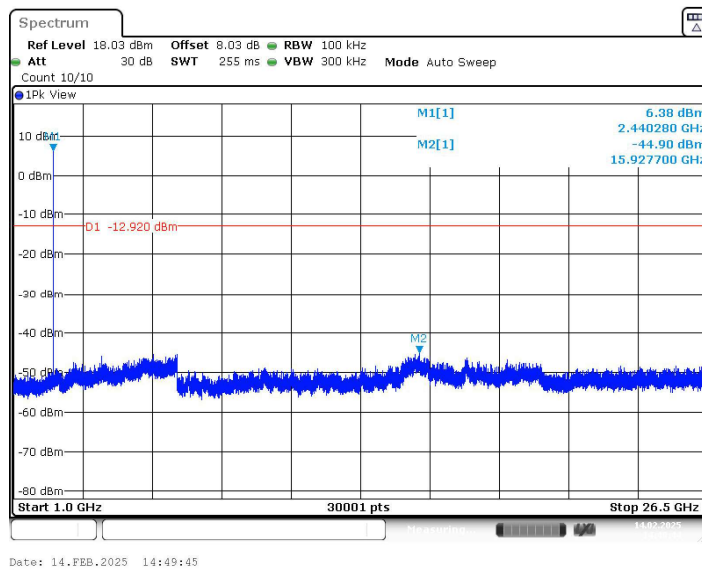
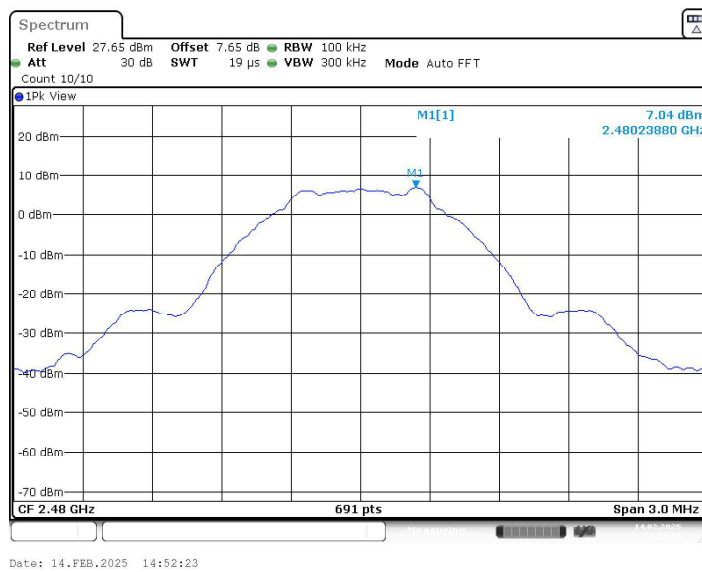


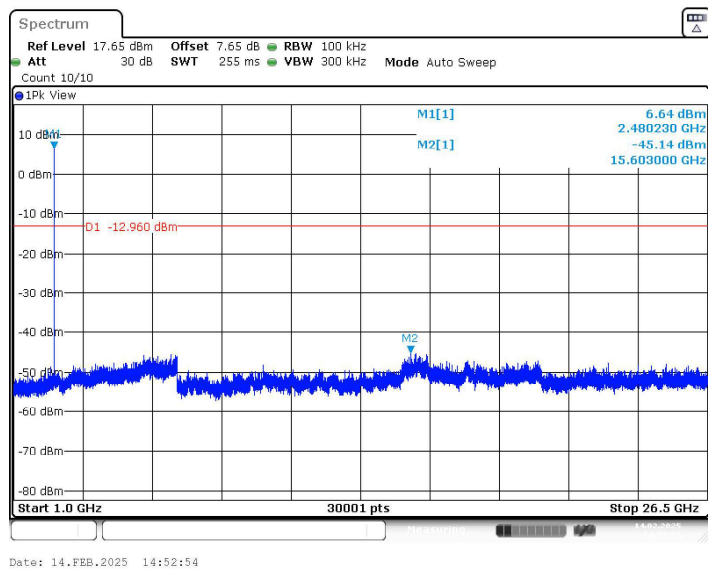
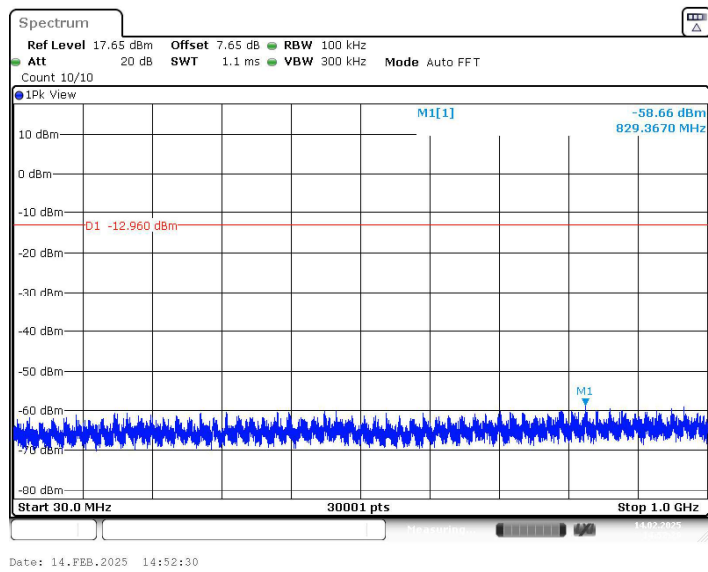
Middle Frequency (2440MHz)





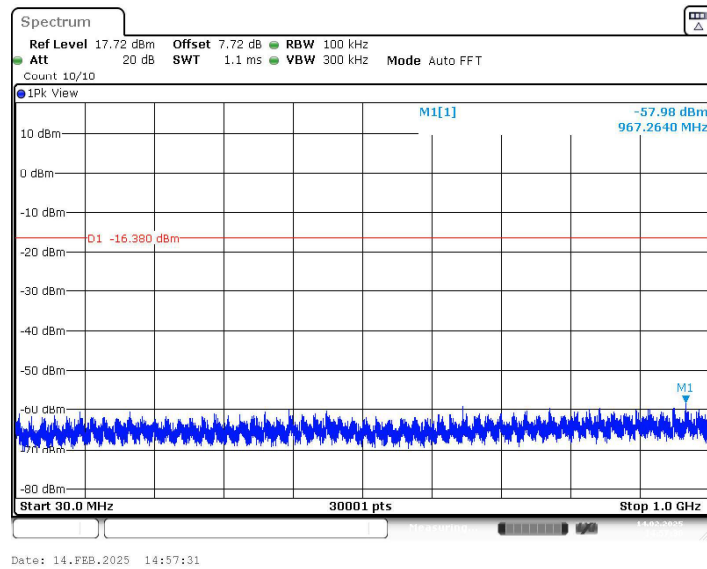
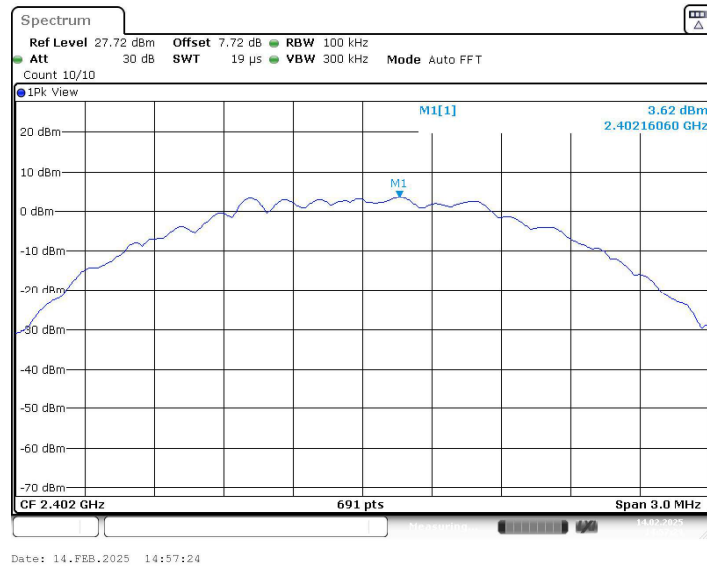
Highest Frequency (2480MHz)

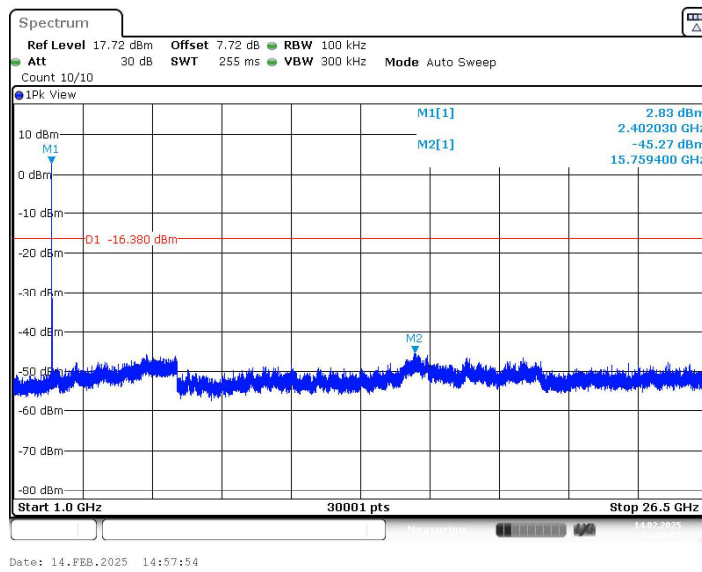




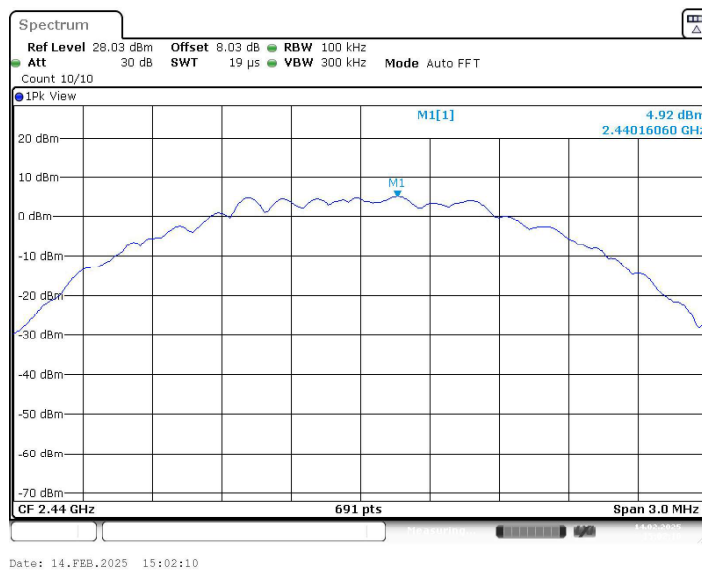
BLE_2M

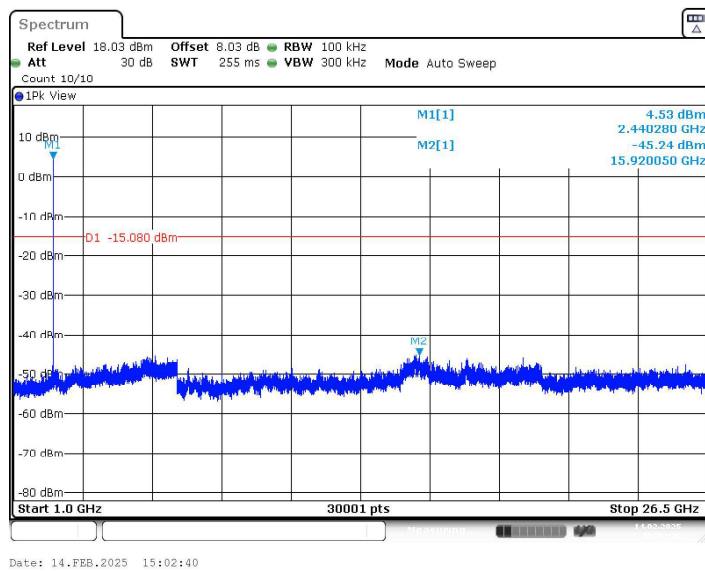
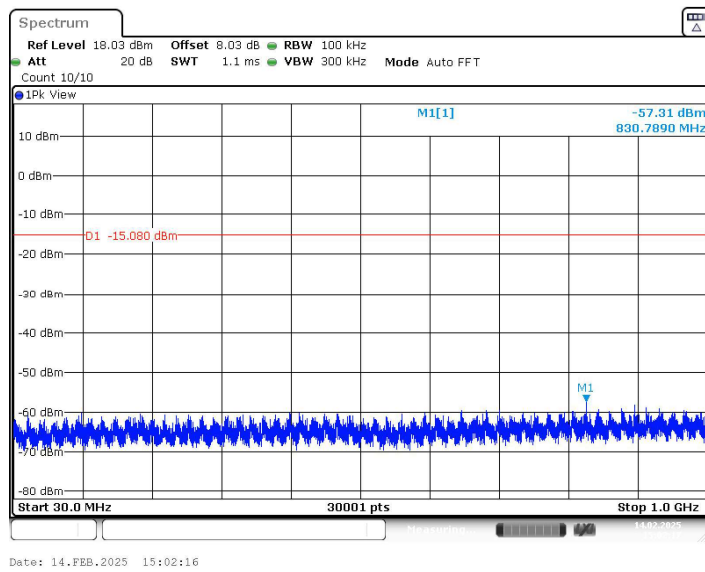
Lowest Frequency (2402MHz)



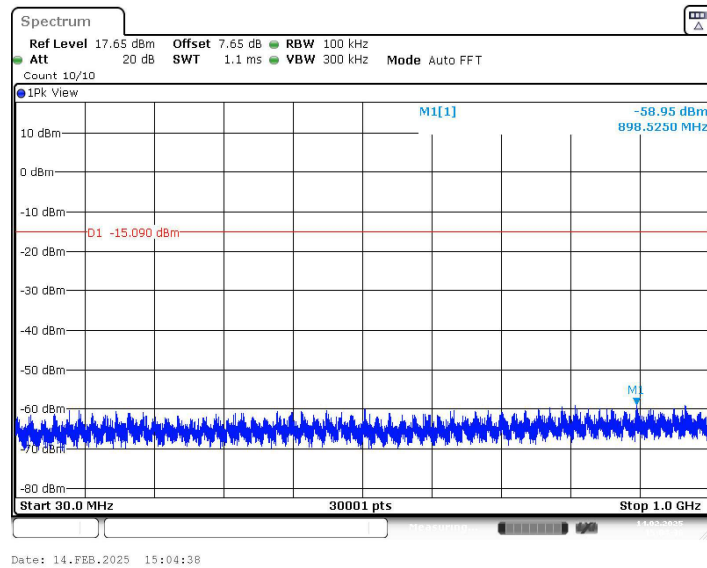
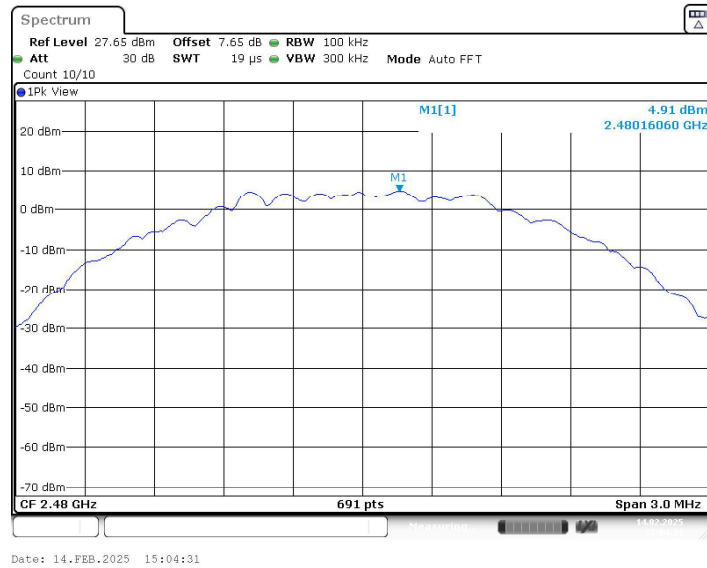


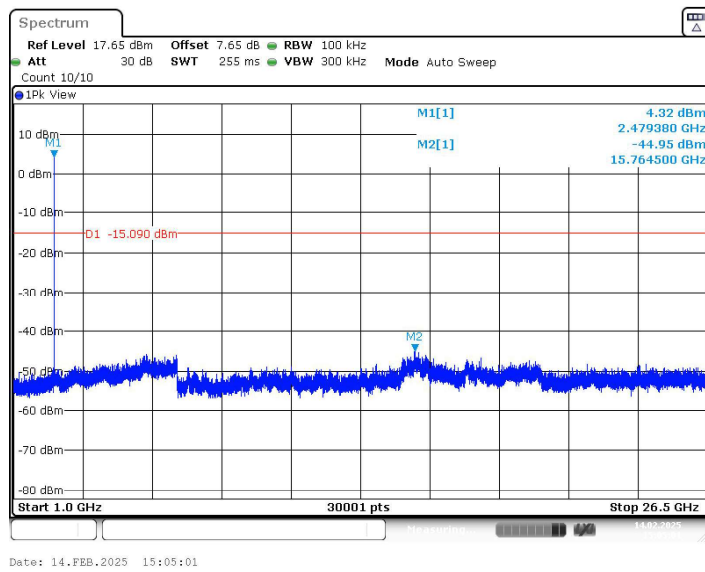
Middle Frequency (2440MHz)





Highest Frequency (2480MHz)





7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2. Test Procedure Used

ANSI C63.10-2013 – Section 6.6.4.3

7.6.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold

- Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

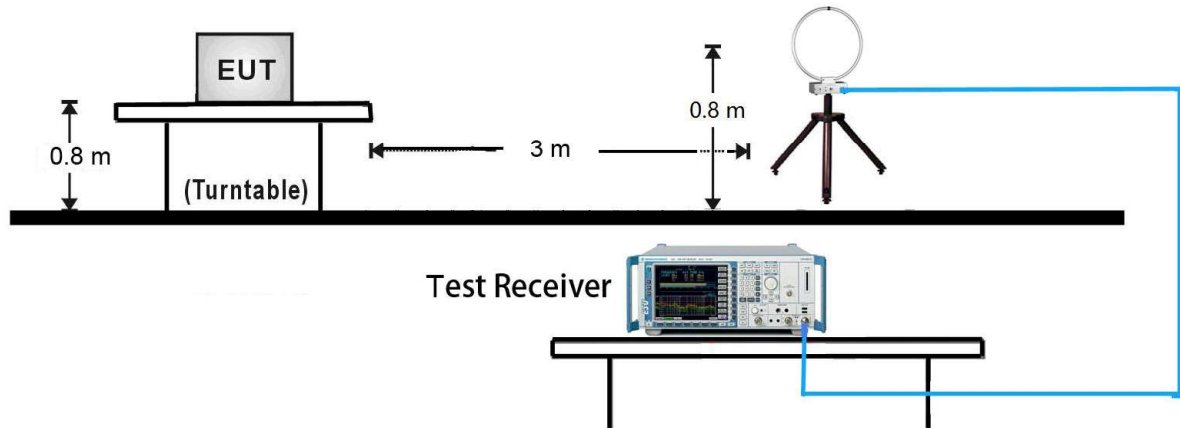
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

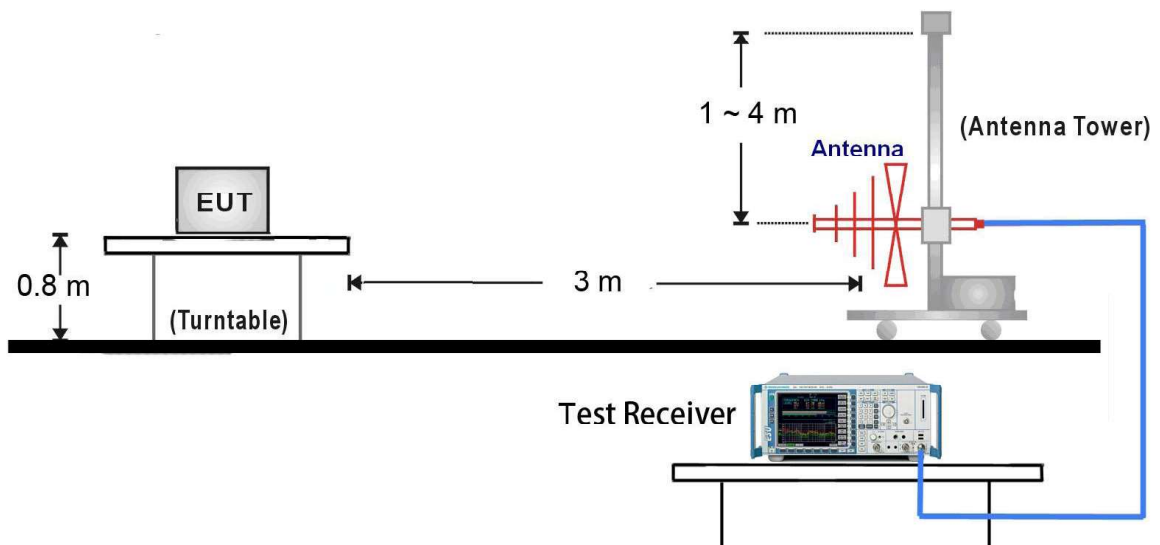
- Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- RBW = 1MHz
- VBW = 3MHz
- Detector = Power Average (RMS)
- Number of sweep point = 2001 (Number of sweep points must be $\geq 2 \times \text{span} / \text{RBW}$)
- Sweep time = auto
- Trace (RMS) averaging was performed over at least 100 traces.

7.6.4. Test Setup

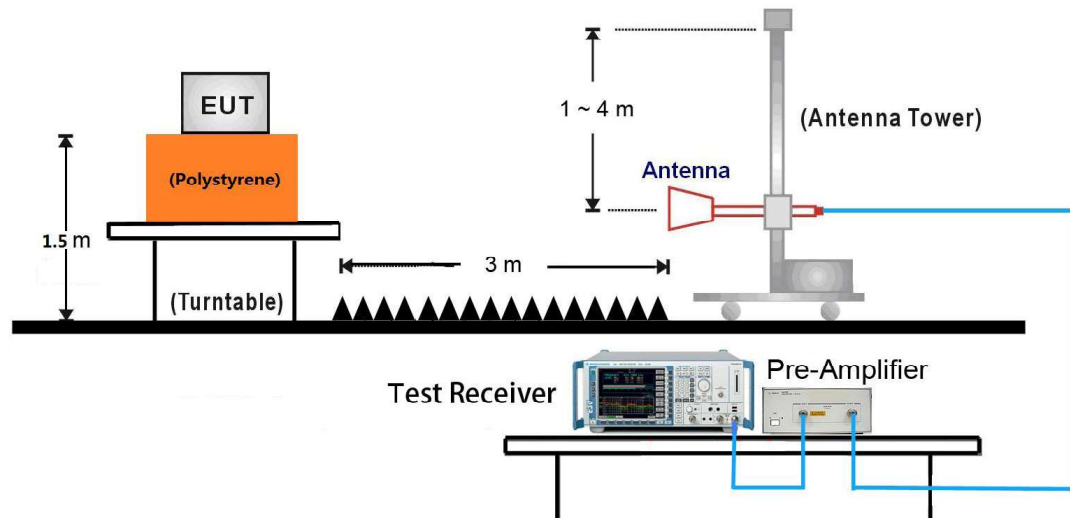
9kHz ~ 30MHz Test Setup:



30MHz ~ 1GHz Test Setup:

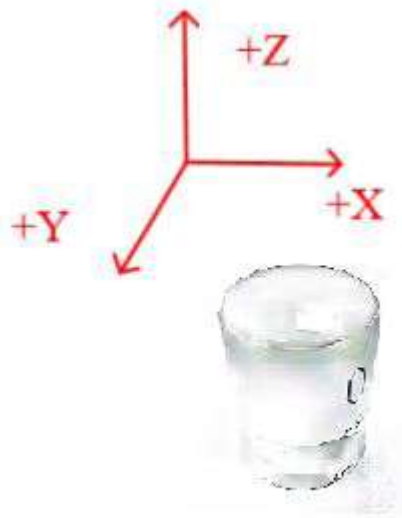


1GHz ~ 26.5GHz Test Setup:



7.6.5. Test Result

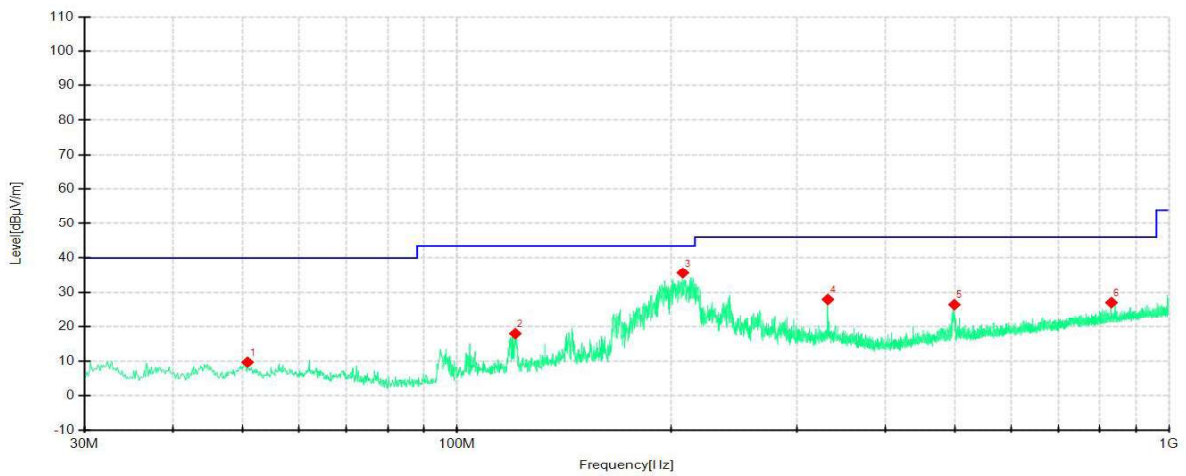
The test are under 3-axes(X, Y, Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand). After pre-test, it was found that the worse radiation emission was get at the Z position. So the data was shown the Z position only.



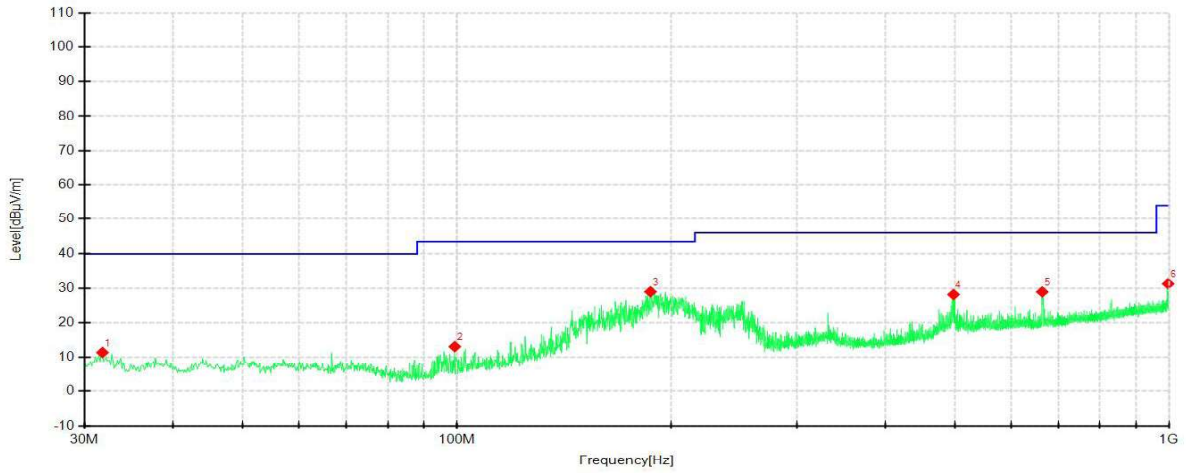
Below 1GHz

Note: Pre-scan all modes, only the worst case (TX_BLE_1M_2440MHz) is recorded, in this report.

Power supply:	DC 3V	Environmental Conditions:	22.1°C/57%RH/101.1kPa
Test Engineer:	Stone Zhang	Test Date:	2025-06-30



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	50.8576	38.61	9.72	-28.89	40.00	30.28	QP	200	112	Horizontal	PASS
2	120.8276	48.36	17.93	-30.43	43.50	25.57	QP	200	166	Horizontal	PASS
3	207.6535	66.84	35.50	-31.34	43.50	8.00	QP	100	195	Horizontal	PASS
4	331.9502	54.33	27.96	-26.37	46.00	18.04	QP	100	37	Horizontal	PASS
5	499.6600	48.20	26.49	-21.71	46.00	19.51	QP	100	247	Horizontal	PASS
6	830.2288	43.68	27.07	-16.61	46.00	18.93	QP	100	24	Horizontal	PASS



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	31.8190	40.75	11.41	-29.34	40.00	28.59	QP	100	233	Vertical	PASS
2	99.3637	45.19	13.11	-32.08	43.50	30.39	QP	100	114	Vertical	PASS
3	187.0384	59.46	28.94	-30.52	43.50	14.56	QP	100	22	Vertical	PASS
4	498.2048	49.84	28.13	-21.71	46.00	17.87	QP	100	360	Vertical	PASS
5	663.7317	47.50	28.88	-18.62	46.00	17.12	QP	100	339	Vertical	PASS
6	997.0896	45.58	31.22	-14.36	54.00	22.78	QP	100	114	Vertical	PASS

Remark:

- 1 No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Radiated emissions measured in frequency range from 9kHz to 1GHz were made with an instrument using Quasi-peak detector mode.
- 3 The IF bandwidth of Receiver between 30MHz to 1GHz was 120kHz.

1GHz-18GHz:

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Note: pre-scan all test modes and recorded the worst case BLE_1M test results in the report.

Mode: TX/ BLE_1M

Lowest Frequency (2402MHz)

Environment: 15.4°C/32%RH/102.6kPa

Tested By: Stone Zhang

/

Voltage: DC 3V

Date: 2025-03-18

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1888.8000	48.26	43.87	-4.39	74.00	30.13	100	142	Horizontal
2	3373.0000	54.92	41.88	-13.04	74.00	32.12	100	324	Horizontal
3	4803.0000	58.55	51.01	-7.54	74.00	22.99	100	26	Horizontal
4	7627.0000	51.93	53.36	1.43	74.00	20.64	100	131	Horizontal
5	13302.0000	52.16	66.17	14.01	74.00	7.83	100	56	Horizontal
6	15691.0000	56.70	67.12	10.42	74.00	6.88	100	0	Horizontal

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4803.7650	-7.54	55.41	47.87	54.00	6.13	155	20.7	Horizontal
2	7598.6350	1.43	30.55	31.98	54.00	22.02	100	109.5	Horizontal
3	13263.8800	14.01	23.17	37.18	54.00	16.82	134	37.5	Horizontal
4	15686.2350	10.42	25.93	36.35	54.00	17.65	100	236.9	Horizontal

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2853.0000	49.69	48.37	-1.32	74.00	25.63	100	203	Vertical
2	3989.0000	55.38	45.26	-10.12	74.00	28.74	100	290	Vertical
3	4803.0000	55.13	48.09	-7.04	74.00	25.91	100	141	Vertical
4	7615.0000	51.91	53.40	1.49	74.00	20.60	100	276	Vertical
5	13224.0000	52.09	65.28	13.19	74.00	8.72	100	35	Vertical
6	15250.0000	53.73	67.43	13.70	74.00	6.57	100	65	Vertical

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2848.7890	-1.32	34.35	33.03	54.00	20.97	110	215.2	Vertical
2	4803.6950	-7.04	49.88	42.84	54.00	11.16	100	123.4	Vertical
3	7636.2650	1.49	30.42	31.91	54.00	22.09	184	314.4	Vertical
4	13277.7800	13.19	23.45	36.64	54.00	17.36	100	328.5	Vertical
5	15261.4800	13.70	23.60	37.30	54.00	16.70	100	88.6	Vertical

Mode: TX/ BLE_1M

Middle Frequency (2440MHz)

Environment: 15.4°C/32%RH/102.6kPa

Voltage: DC 3V

Tested By: Stone Zhang

Date: 2025-05-17

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1534.0000	49.70	41.70	-8.00	74.00	32.30	100	340	Horizontal
2	1907.0000	47.31	43.16	-4.15	74.00	30.84	100	326	Horizontal
3	4880.0000	48.73	41.50	-7.23	74.00	32.50	100	78	Horizontal
4	6684.0000	44.76	43.97	-0.79	74.00	30.03	100	241	Horizontal
5	7319.0000	49.52	50.66	1.14	74.00	23.34	200	20	Horizontal
6	11381.0000	37.84	48.59	10.75	74.00	25.41	100	358	Horizontal

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7339.2350	1.14	30.24	31.38	54.00	22.62	200	338.6	Horizontal
2	11383.1450	10.75	24.40	35.15	54.00	18.85	100	70.8	Horizontal

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1535.6000	47.50	39.87	-7.63	74.00	34.13	100	190	Vertical
2	1828.8000	50.96	45.09	-5.87	74.00	28.91	200	243	Vertical
3	2938.8000	46.95	46.53	-0.42	74.00	27.47	100	259	Vertical
4	4936.0000	48.37	41.38	-6.99	74.00	32.62	200	79	Vertical
5	7319.0000	51.47	53.04	1.57	74.00	20.96	100	50	Vertical
6	8490.0000	42.89	47.15	4.26	74.00	26.85	100	64	Vertical

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7354.5850	1.57	29.94	31.51	54.00	22.49	100	74.7	Vertical