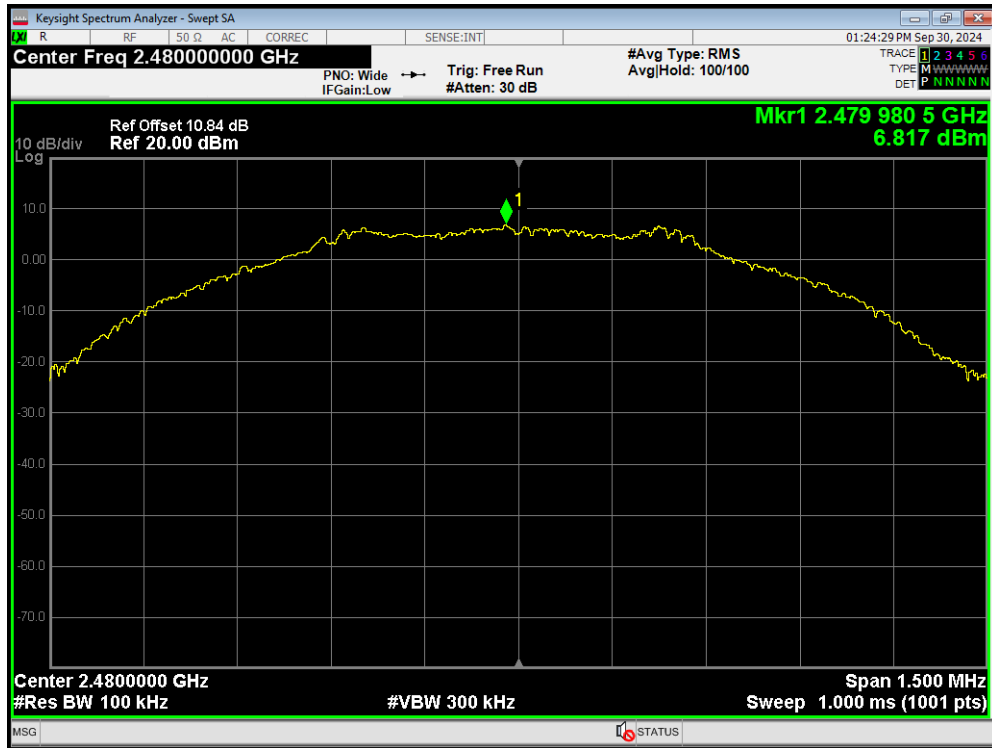
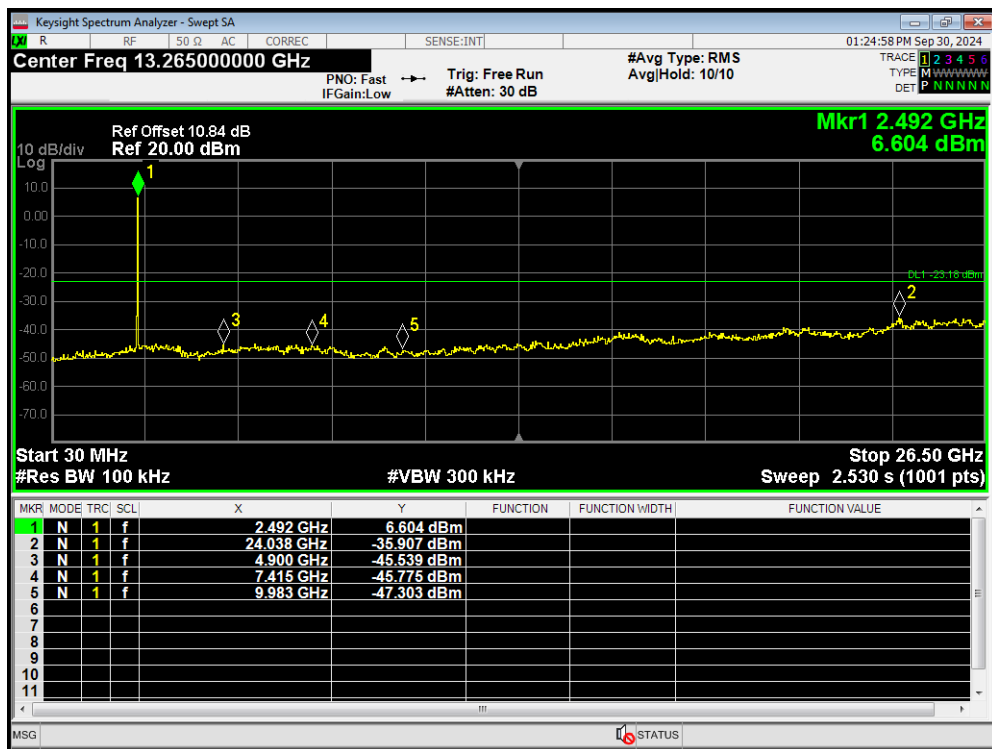


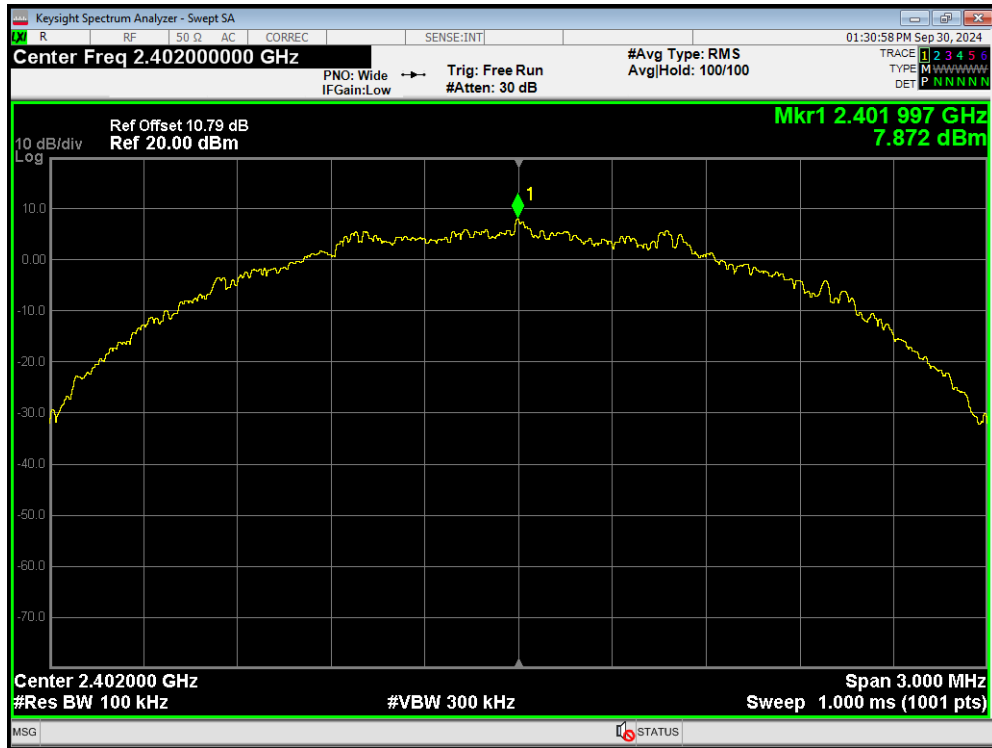
Tx. Spurious Bluetooth LE (1M) 2480MHz Ref



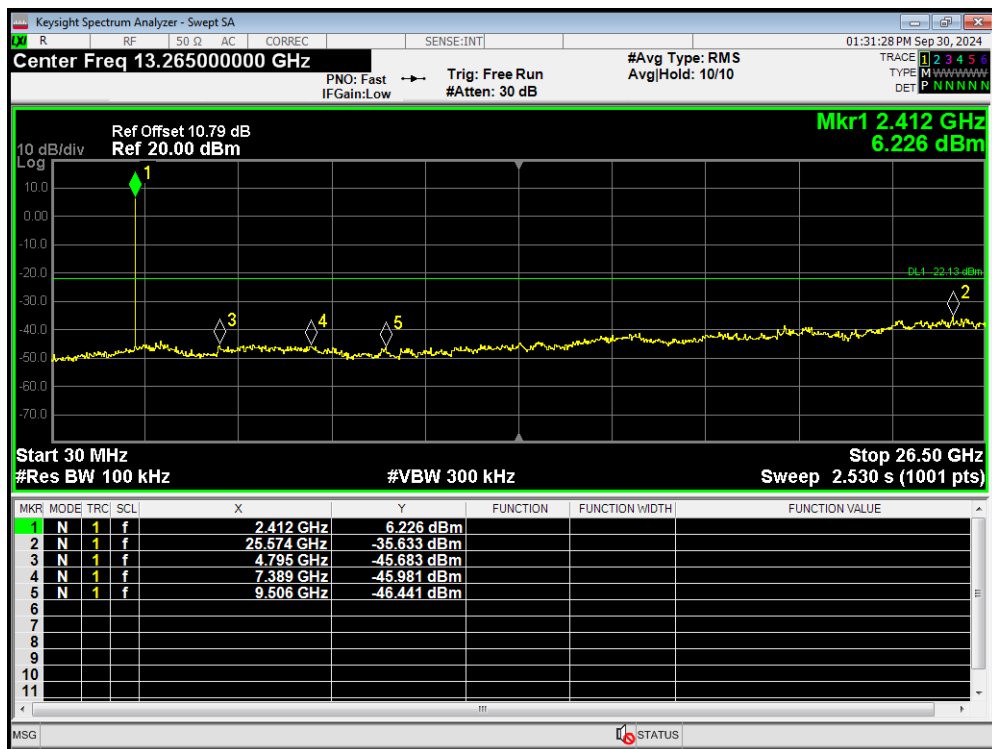
Tx. Spurious Bluetooth LE (1M) 2480MHz Emission



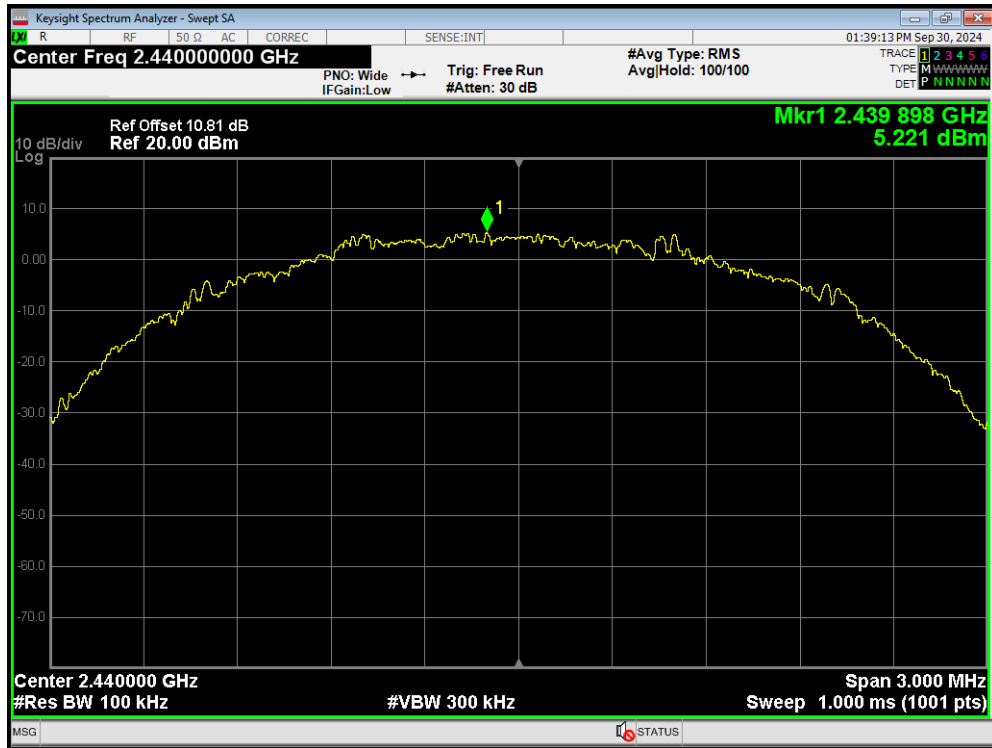
Tx. Spurious Bluetooth LE (2M) 2402MHz Ref



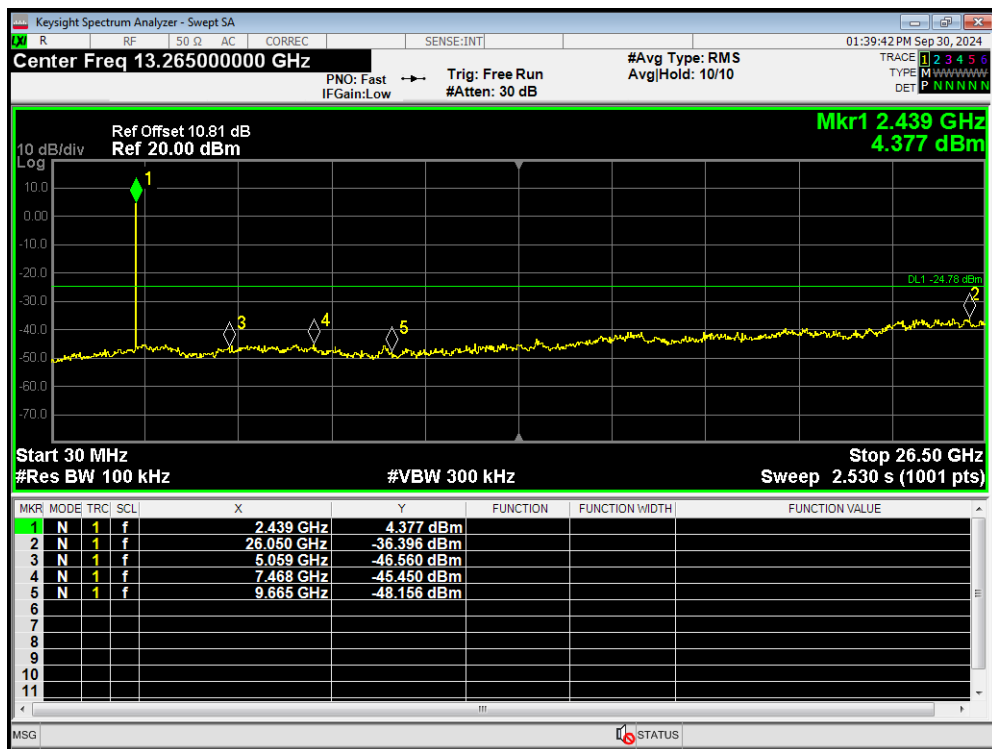
Tx. Spurious Bluetooth LE (2M) 2402MHz Emission



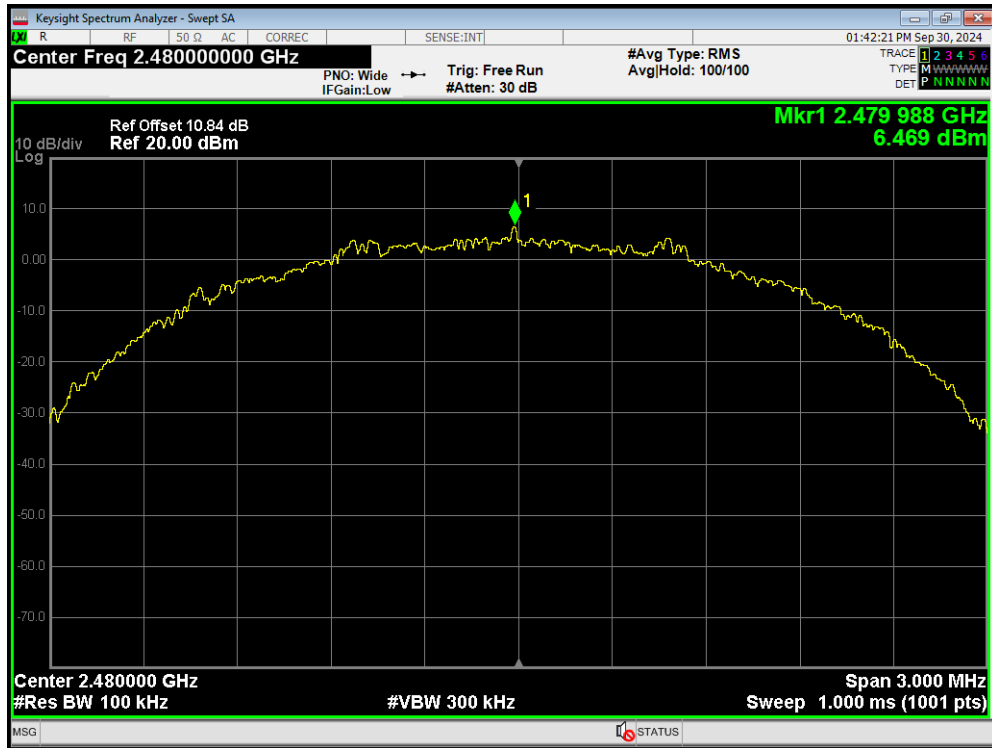
Tx. Spurious Bluetooth LE (2M) 2440MHz Ref



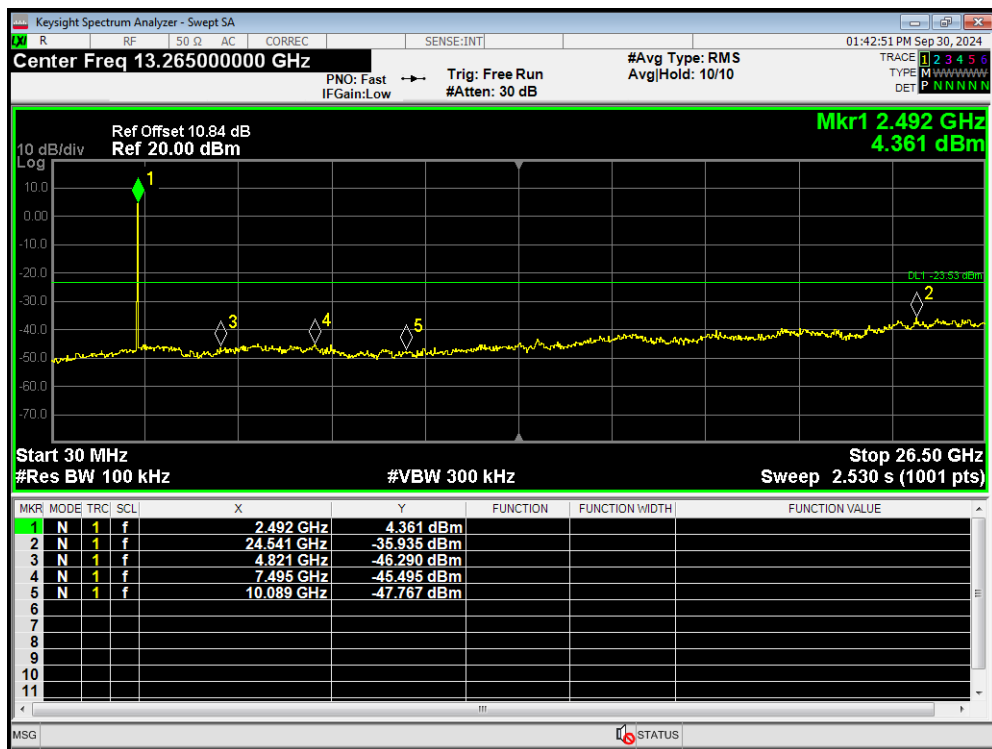
Tx. Spurious Bluetooth LE (2M) 2440MHz Emission



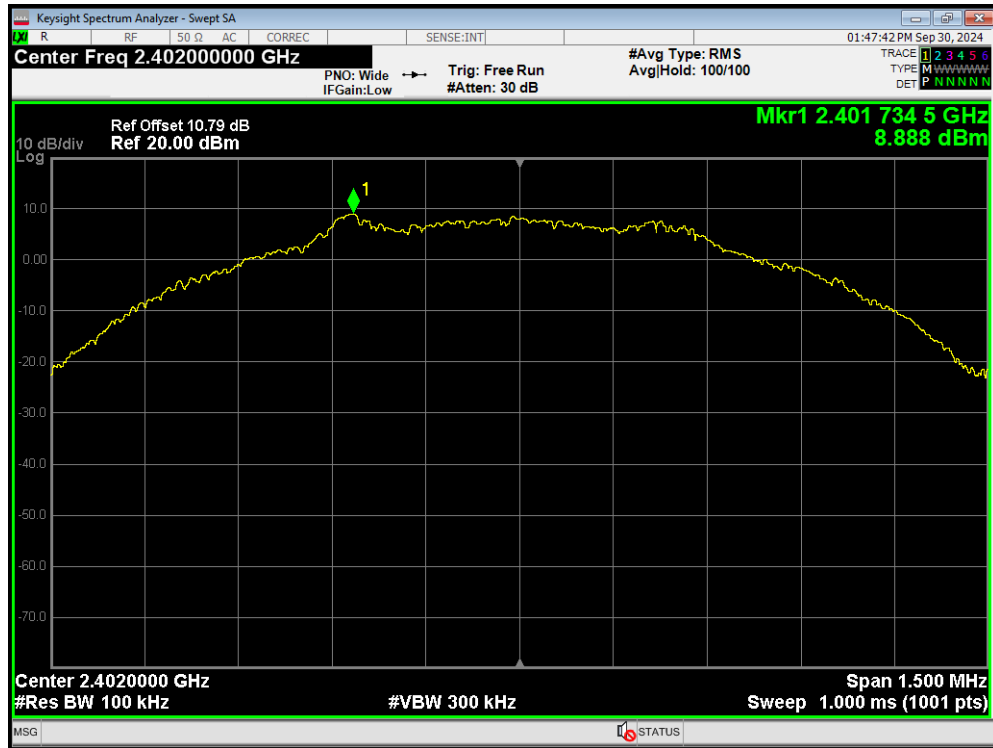
Tx. Spurious Bluetooth LE (2M) 2480MHz Ref



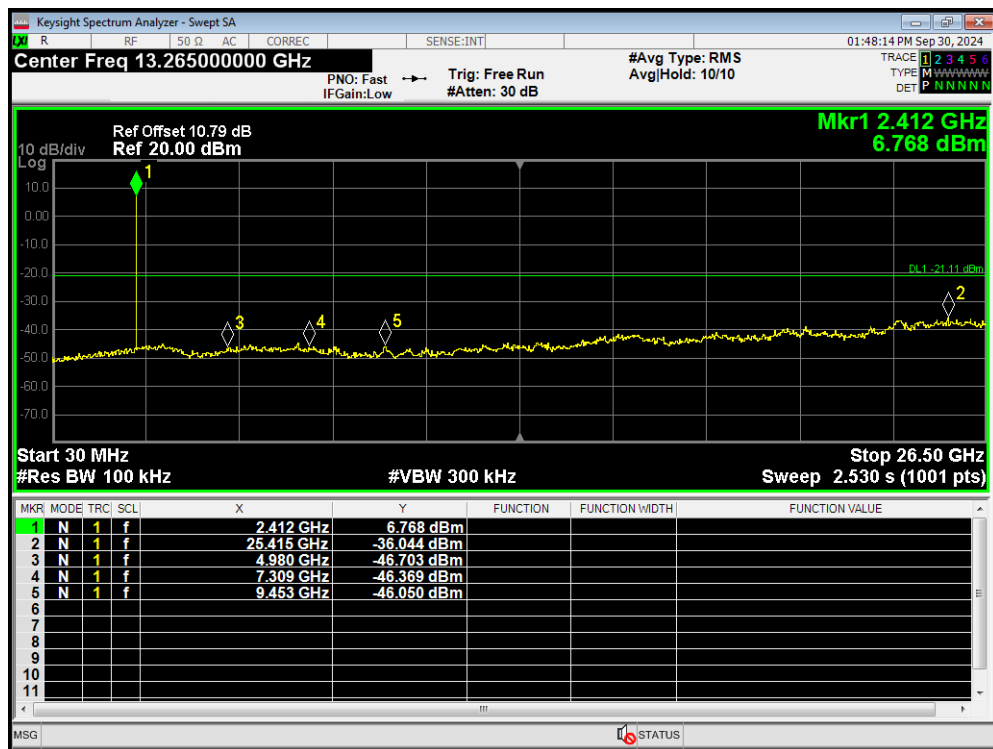
Tx. Spurious Bluetooth LE (2M) 2480MHz Emission



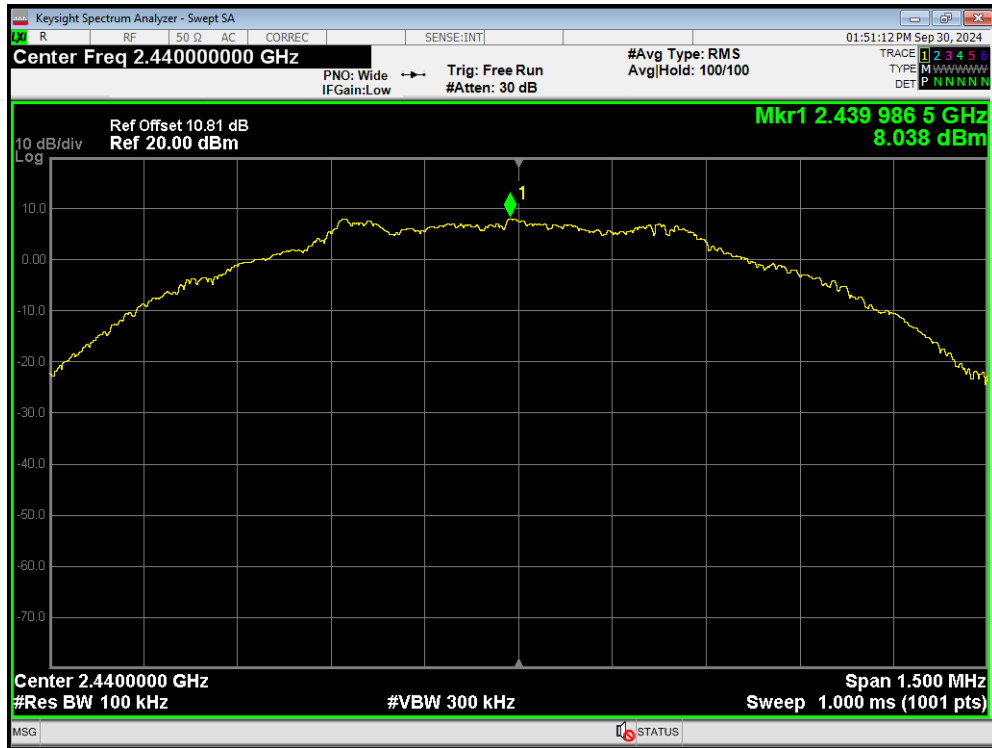
Tx. Spurious Bluetooth LE (S=2) 2402MHz Ref



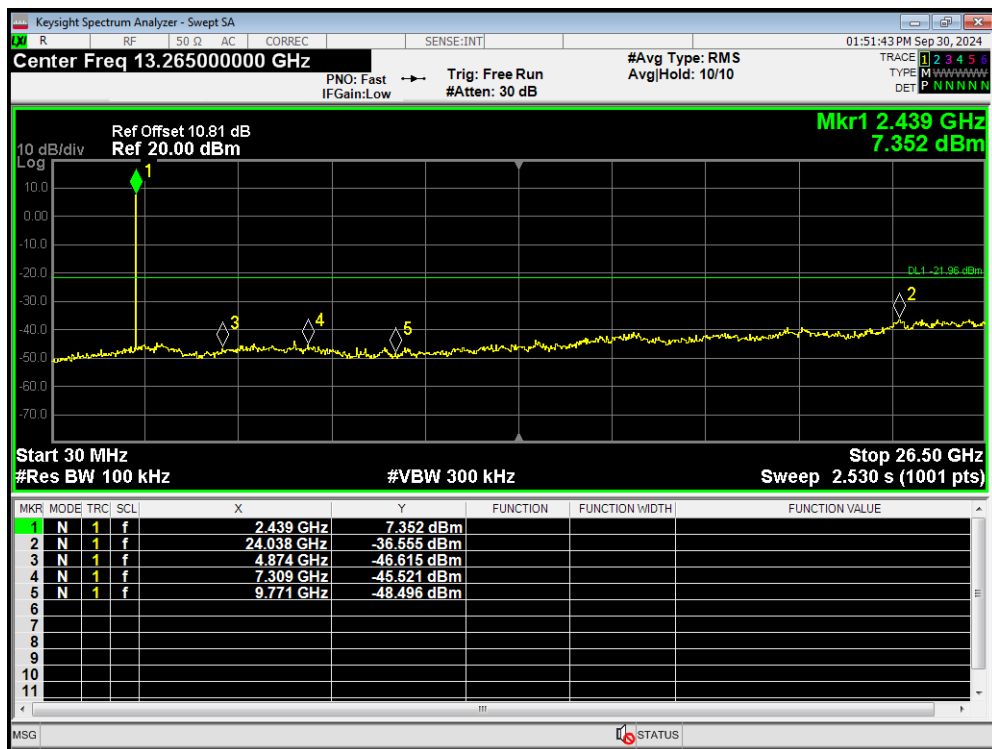
Tx. Spurious Bluetooth LE (S=2) 2402MHz Emission



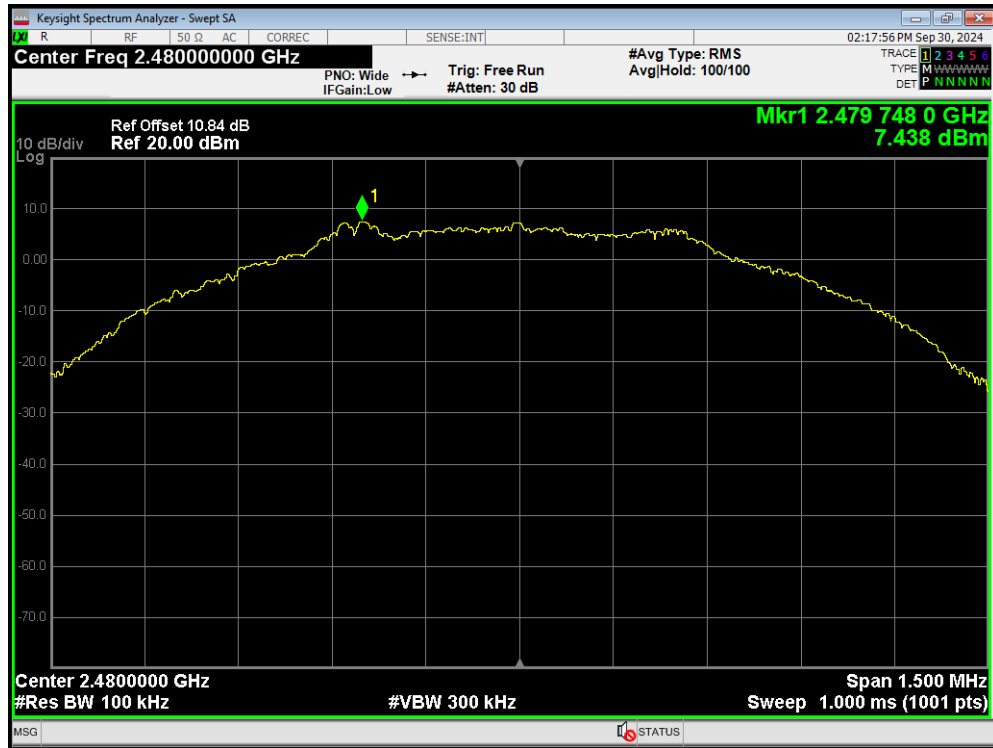
Tx. Spurious Bluetooth LE (S=2) 2440MHz Ref



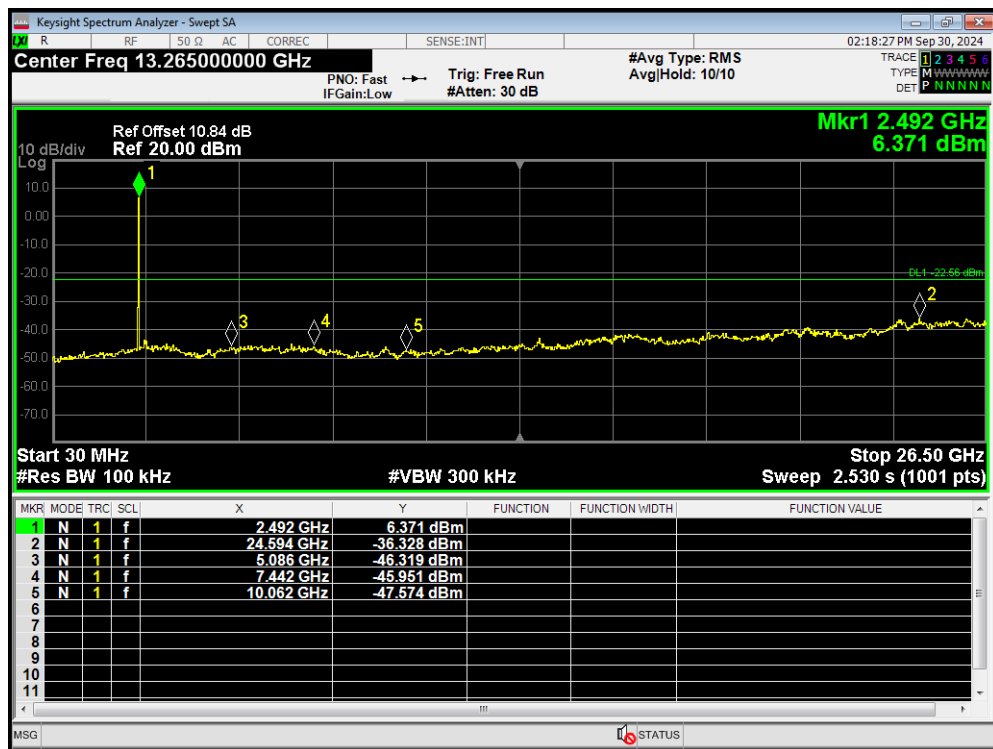
Tx. Spurious Bluetooth LE (S=2) 2440MHz Emission



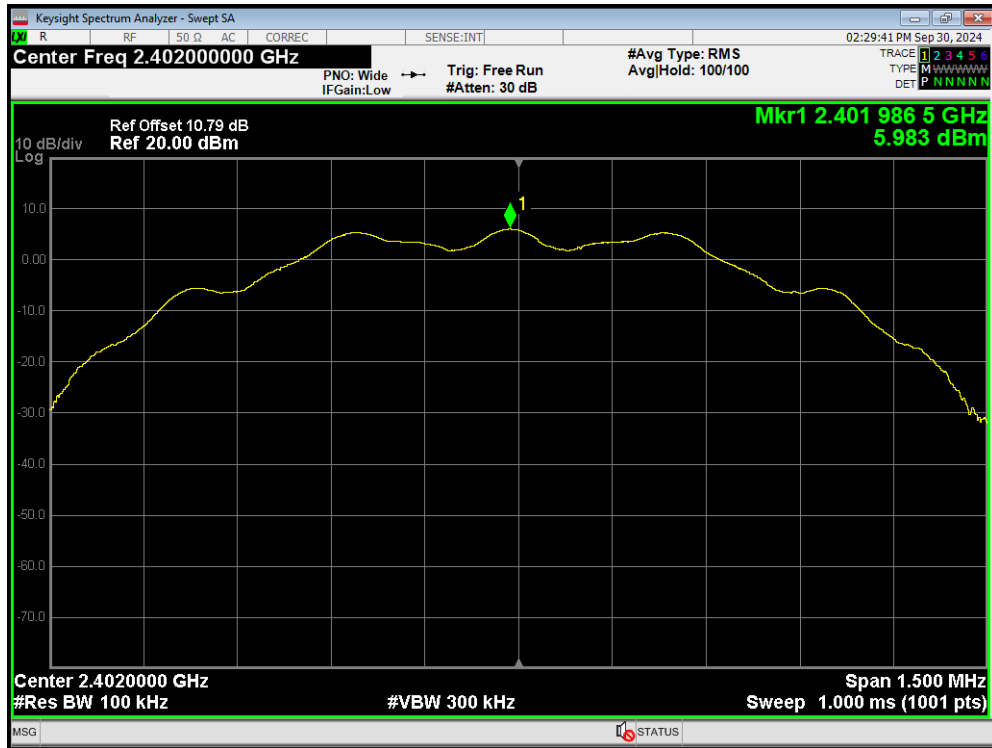
Tx. Spurious Bluetooth LE (S=2) 2480MHz Ref



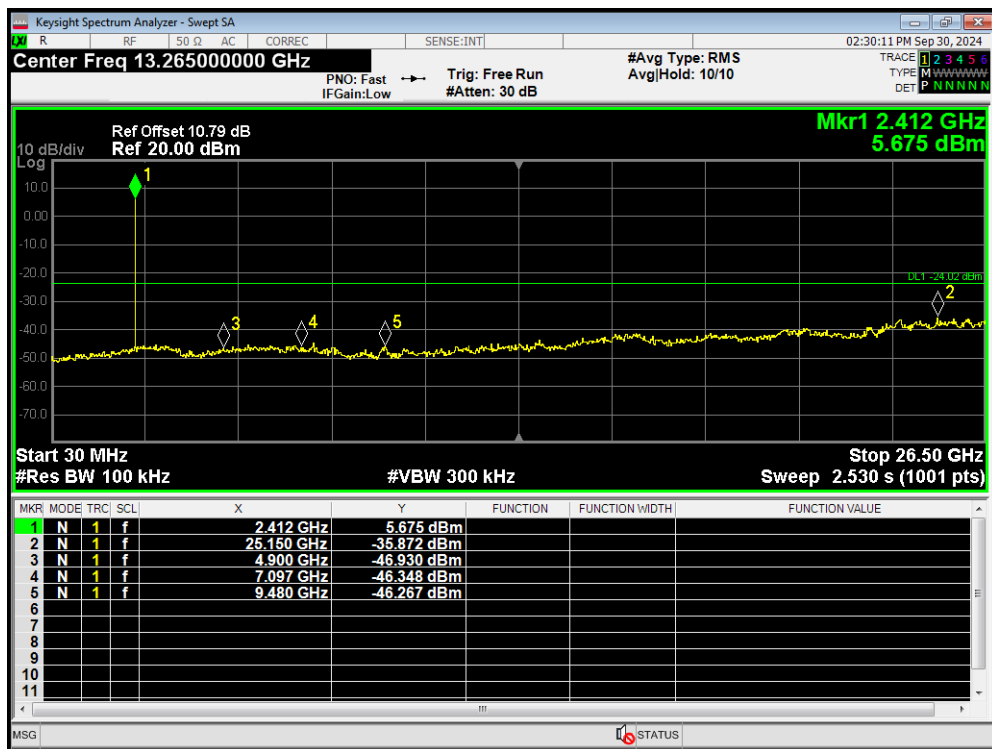
Tx. Spurious Bluetooth LE (S=2) 2480MHz Emission



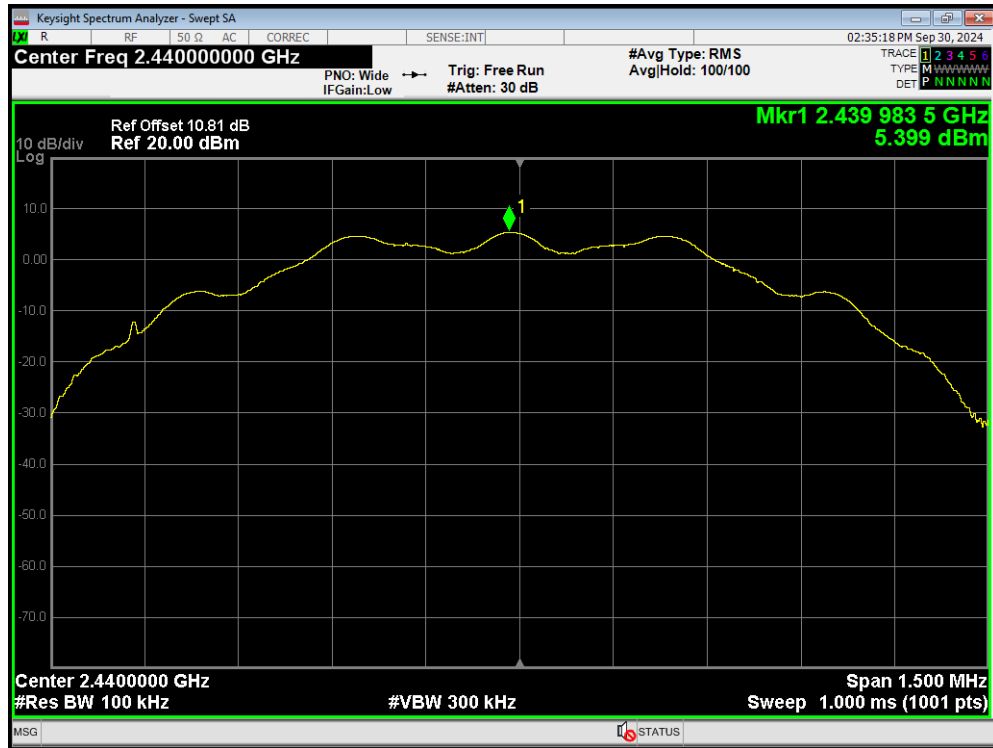
Tx. Spurious Bluetooth LE (S=8) 2402MHz Ref



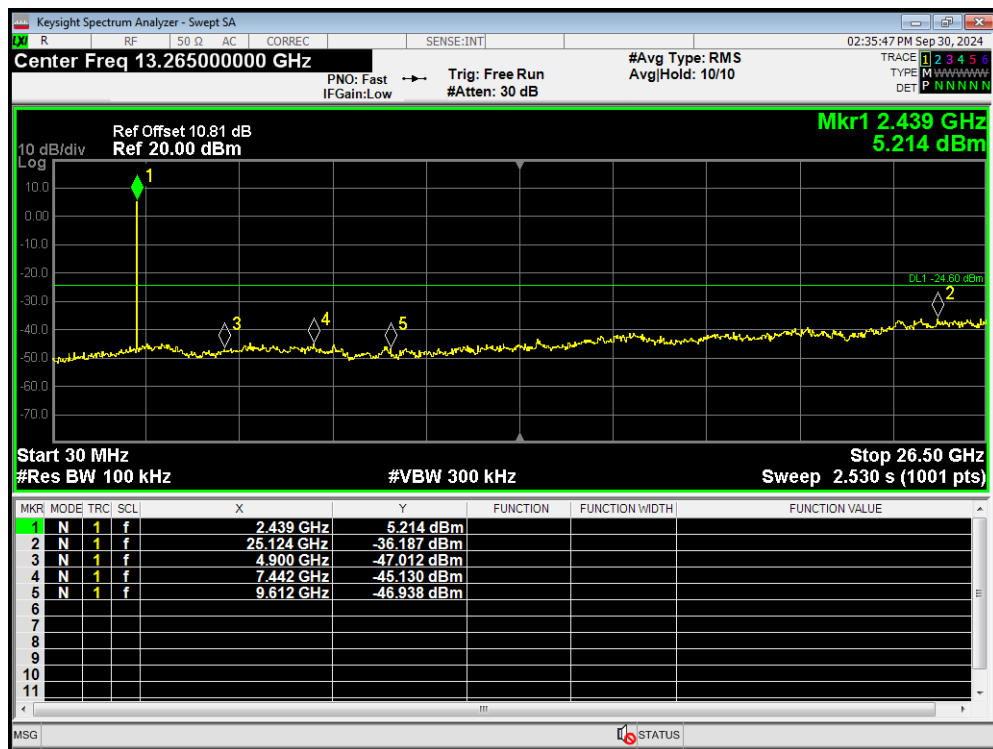
Tx. Spurious Bluetooth LE (S=8) 2402MHz Emission



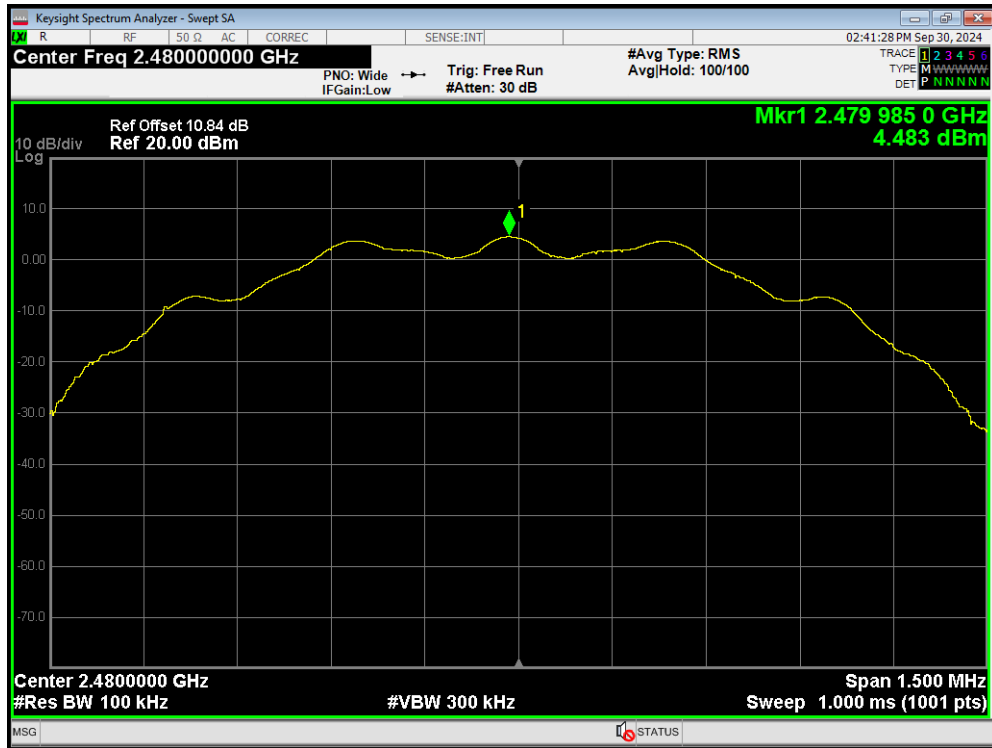
Tx. Spurious Bluetooth LE (S=8) 2440MHz Ref



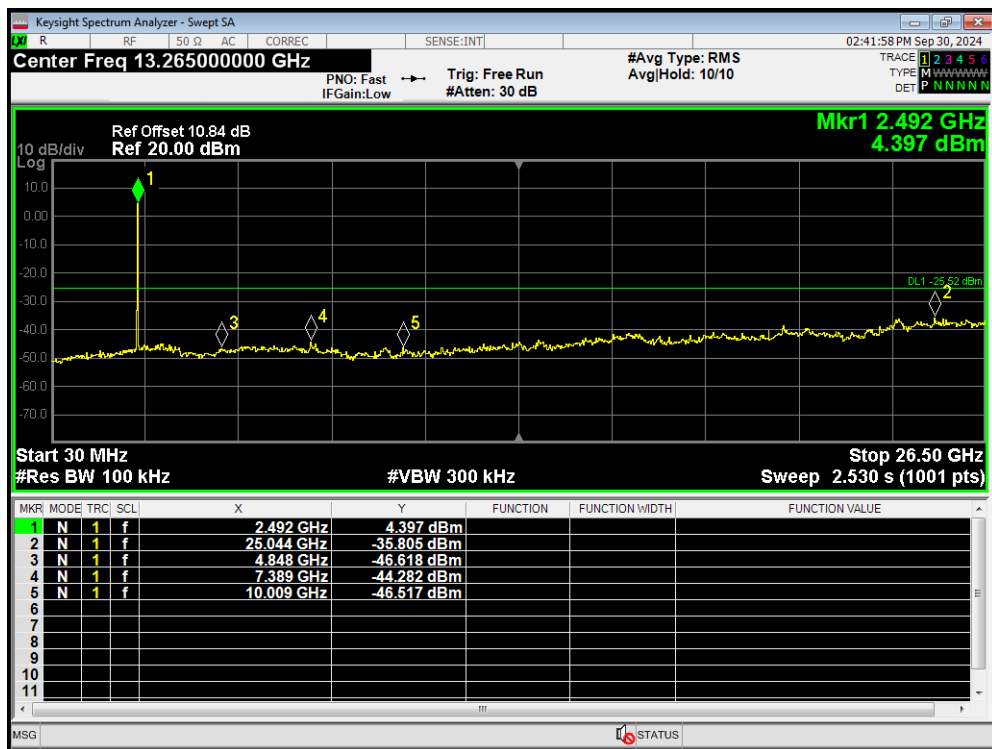
Tx. Spurious Bluetooth LE (S=8) 2440MHz Emission



Tx. Spurious Bluetooth LE (S=8) 2480MHz Ref



Tx. Spurious Bluetooth LE (S=8) 2480MHz Emission



5.6. Unwanted Emission

Ambient Condition

Temperature	Relative humidity
15°C ~ 35°C	20% ~ 80%

Method of Measurement

The test set-up was made in accordance to the general provisions of ANSI C63.10.

The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna.

The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing. Sweep the Restricted Band and the emissions less than 20 dB below the permissible value are reported.

The radiated emissions measurements were made in a typical installation configuration.

Sweep the whole frequency band through the range from 9 kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

This method refer to ANSI C63.10.

The procedure for peak unwanted emissions measurements above 1000 MHz is as follows:

Set the spectrum analyzer in the following:

9kHz~150 kHz

RBW=200Hz, VBW=1kHz/ Sweep=AUTO

150 kHz~30MHz

RBW=9kHz, VBW=30kHz,/ Sweep=AUTO

Below 1GHz

RBW=100kHz / VBW=300kHz / Sweep=AUTO

a) Peak emission levels are measured by setting the instrument as follows:

Above 1GHz

PEAK: RBW=1MHz VBW=3MHz/ Sweep=AUTO

b) Average emission levels are measured by setting the instrument as follows:

Above 1GHz

AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO

c) Detector: The measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage

averaging. Log or dB averaging shall not be used.)

e) Sweep time = auto.

f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of $1 / D$, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)

g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is $[10 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.

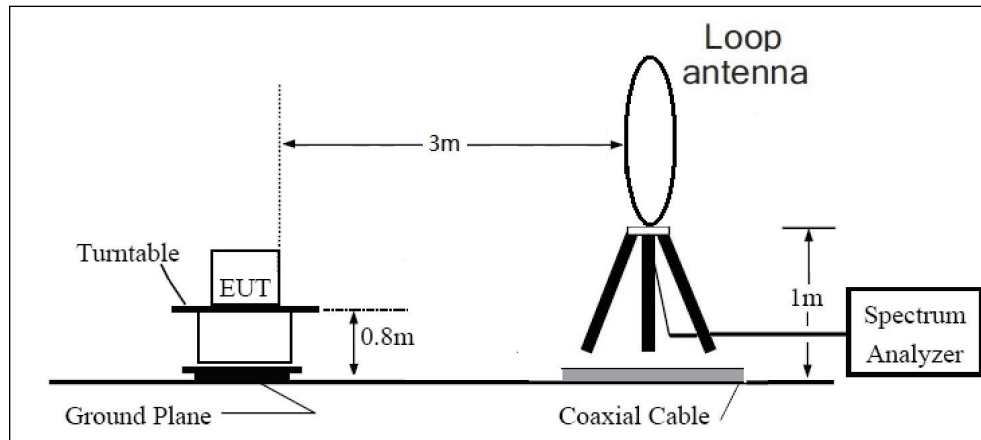
2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is $[20 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.

3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission.

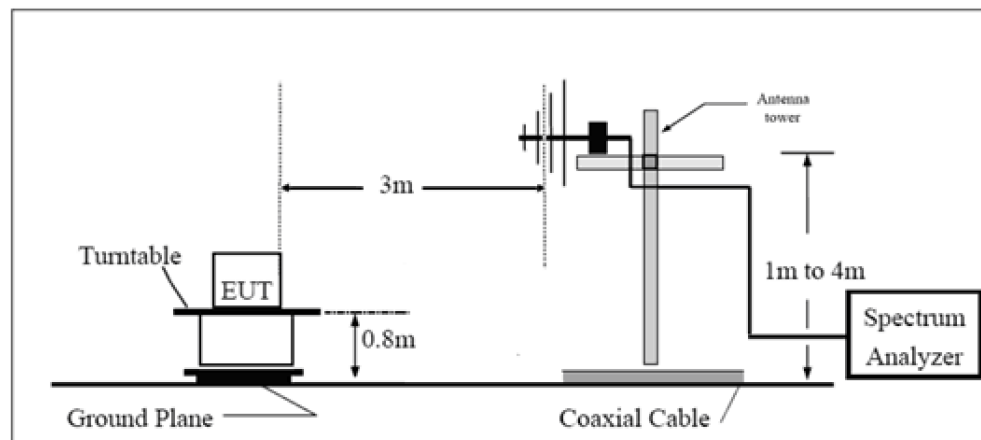
The test is in transmitting mode.

Test Setup

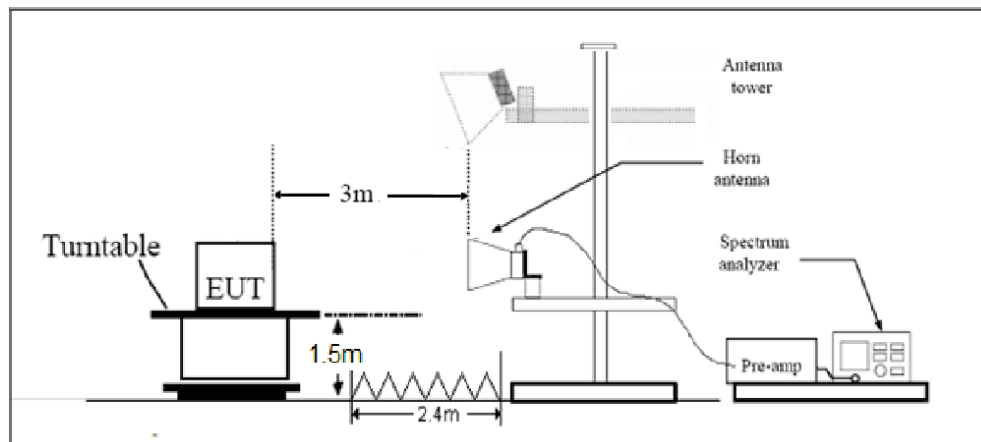
9kHz~ 30MHz



30MHz~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 15.247(d) specifies that “In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).”

Limit in restricted band

Frequency of emission (MHz)	Field strength(μ V/m)	Field strength(dB μ V/m)
0.009–0.490	2400/F(kHz)	/
0.490–1.705	24000/F(kHz)	/
1.705–30.0	30	/
30-88	100	40
88-216	150	43.5
216-960	200	46
Above960	500	54

§15.35(b)

There is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

Peak Limit=74 dB μ V/m

Average Limit=54 dB μ V/m

Spurious Radiated Emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
9kHz-30MHz	3.55 dB
30MHz-200MHz	4.17 dB
200MHz-1GHz	4.84 dB
1-18GHz	4.35 dB
18-26.5GHz	5.90 dB
26.5GHz~40GHz	5.92 dB

Test Results:

The following graphs display the maximum values of horizontal and vertical by software.
Blue trace uses the peak detection, Green trace uses the average detection.

Wi-Fi 2.4G

Site SH-CB02

Polarization: **Horizontal**

Temperature: 24.1 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

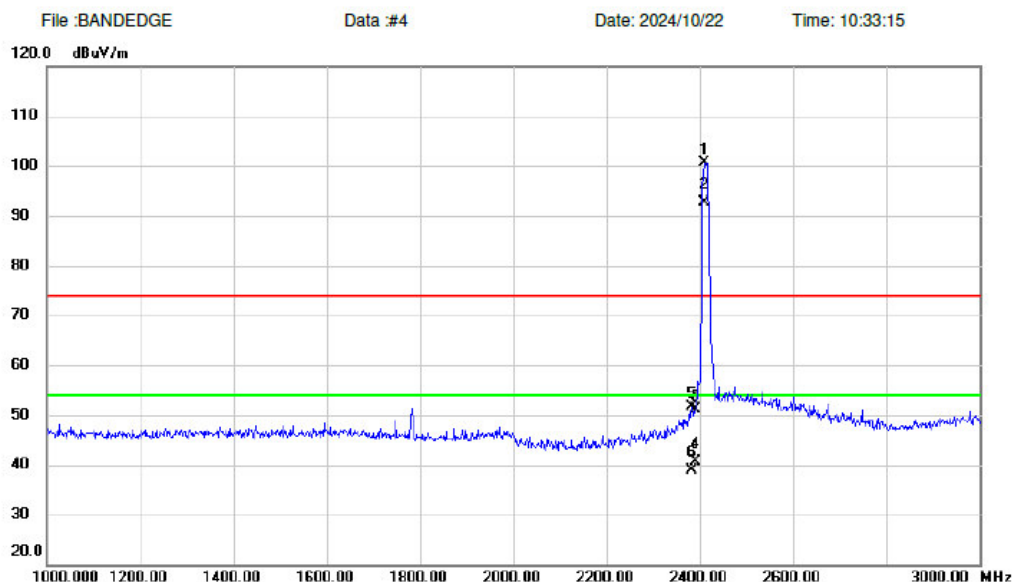
Distance: 3m

M/N:

Mode: TX_B_2412

Note: TP=0

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2410.000	68.26	32.45	100.71	74.00	26.71	peak	
2	*	2410.000	60.30	32.45	92.75	54.00	38.75	AVG	
3		2390.000	18.85	32.37	51.22	74.00	-22.78	peak	
4		2390.000	8.30	32.37	40.67	54.00	-13.33	AVG	
5		2382.000	19.41	32.34	51.75	74.00	-22.25	peak	
6		2382.000	6.54	32.34	38.88	54.00	-15.12	AVG	

Site SH-CB02

Polarization: **Vertical**

Temperature: 24.1 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

EUT: 100

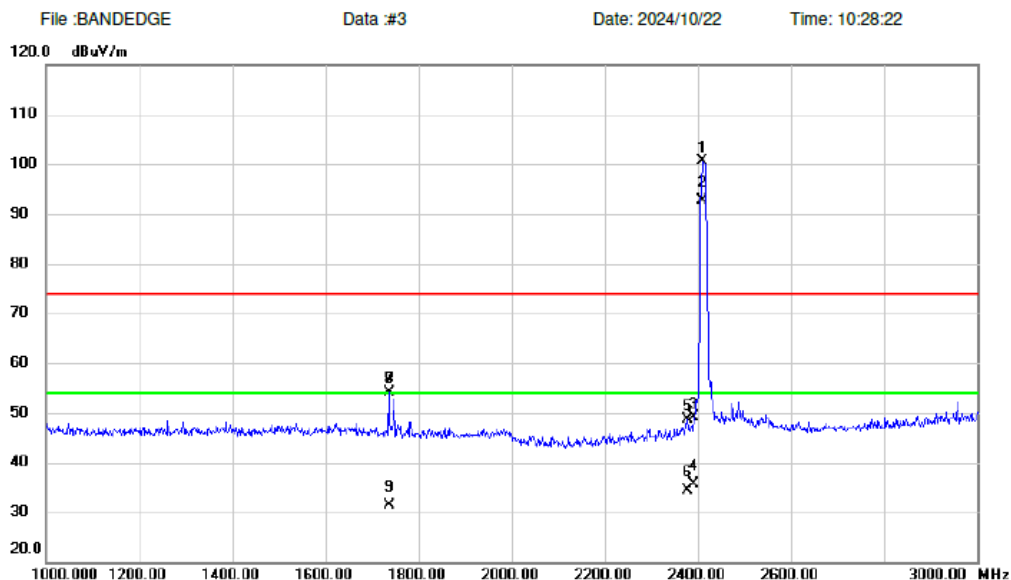
Distance: 3m

M/N:

Mode: TX_B_2412

Note: TP=0

Radiated Emission Measurement



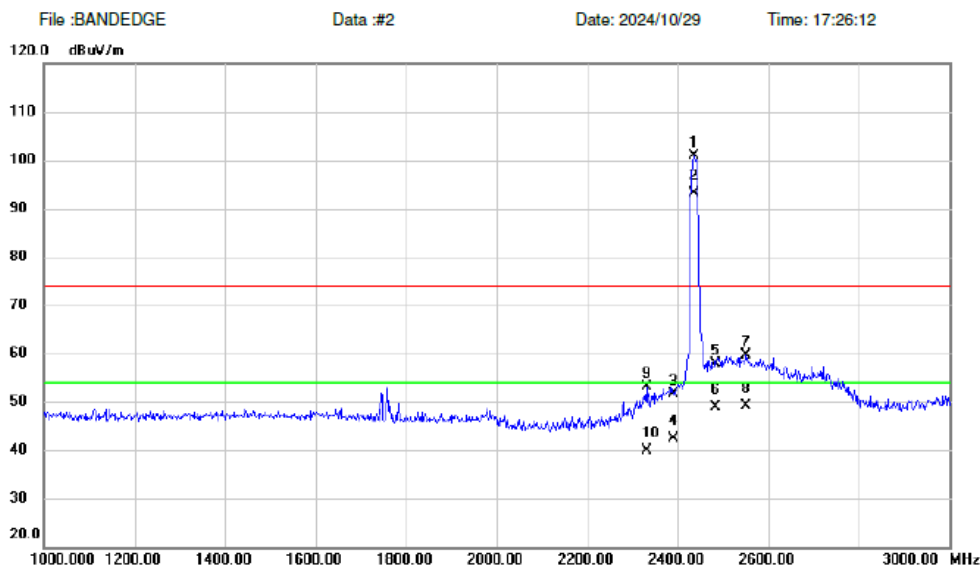
No. Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
	MHz	dBuV		dBuV/m	dBuV/m	dB		
1 X	2410.000	68.29	32.45	100.74	74.00	26.74	peak	
2 *	2410.000	60.18	32.45	92.63	54.00	38.63	AVG	
3	2390.000	16.65	32.37	49.02	74.00	-24.98	peak	
4	2390.000	3.34	32.37	35.71	54.00	-18.29	AVG	
5	2378.000	16.19	32.32	48.51	74.00	-25.49	peak	
6	2378.000	2.01	32.32	34.33	54.00	-19.67	AVG	
7	1737.000	23.94	30.10	54.04	74.00	-19.96	peak	
8	1737.000	23.94	30.10	54.04	74.00	-19.96	peak	
9	1737.000	1.40	30.10	31.50	54.00	-22.50	AVG	

Site SH-CB02
Limit: FCC RF_15.247_3M_(Peak)
M/N:
Note: TP=0

Polarization: **Horizontal**
Power: DC 3V
Distance: 3m
Mode: TX_B_2437

Temperature: 22.6 (C)
Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2435.000	68.24	32.55	100.79	74.00	26.79	peak	
2	*	2435.000	60.47	32.55	93.02	54.00	39.02	AVG	
3		2390.000	19.36	32.37	51.73	74.00	-22.27	peak	
4		2390.000	10.07	32.37	42.44	54.00	-11.56	AVG	
5		2483.500	25.21	32.75	57.96	74.00	-16.04	peak	
6		2483.500	16.23	32.75	48.98	54.00	-5.02	AVG	
7		2551.000	26.46	33.05	59.51	74.00	-14.49	peak	
8		2551.000	16.05	33.05	49.10	54.00	-4.90	AVG	
9		2331.000	21.03	32.13	53.16	74.00	-20.84	peak	
10		2331.000	7.72	32.13	39.85	54.00	-14.15	AVG	

Site SH-CB02

Polarization: **Vertical**

Temperature: 22.6 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

EUT: 888

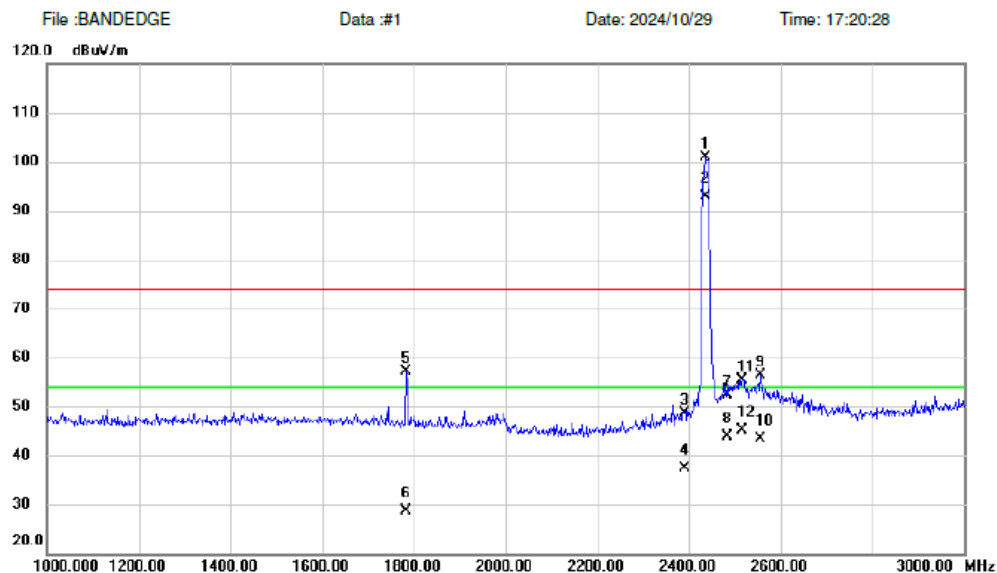
Distance: 3m

M/N:

Mode: TX_B_2437

Note: TP=0

Radiated Emission Measurement



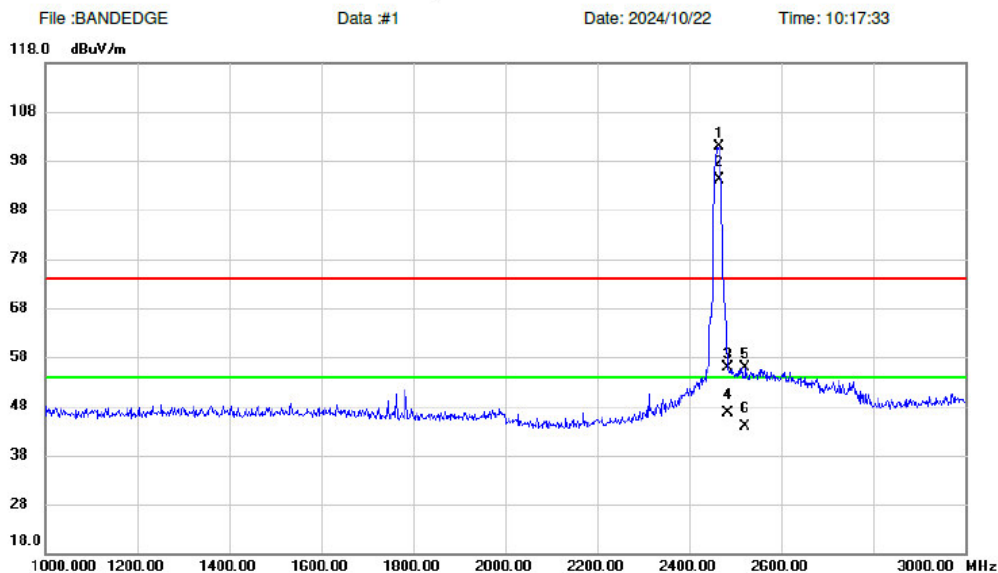
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
		MHz	dBuV		dBuV/m	dBuV/m	dB		
1	X	2436.000	68.36	32.55	100.91	74.00	26.91	peak	
2	*	2436.000	60.44	32.55	92.99	54.00	38.99	AVG	
3		2390.000	16.23	32.37	48.60	74.00	-25.40	peak	
4		2390.000	5.00	32.37	37.37	54.00	-16.63	AVG	
5		1783.000	26.81	30.22	57.03	74.00	-16.97	peak	
6		1783.000	-1.51	30.22	28.71	54.00	-25.29	AVG	
7		2483.500	19.61	32.75	52.36	74.00	-21.64	peak	
8		2483.500	11.01	32.75	43.76	54.00	-10.24	AVG	
9		2556.000	23.36	33.07	56.43	74.00	-17.57	peak	
10		2556.000	10.41	33.07	43.48	54.00	-10.52	AVG	
11		2517.000	22.59	32.89	55.48	74.00	-18.52	peak	
12		2517.000	12.27	32.89	45.16	54.00	-8.84	AVG	

Site SH-CB02
Limit: FCC RF_15.247_3M_(Peak)
M/N:
Note: TP=0

Polarization: **Horizontal**
Power: DC 3V
Distance: 3m
Mode: TX_B_2462

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



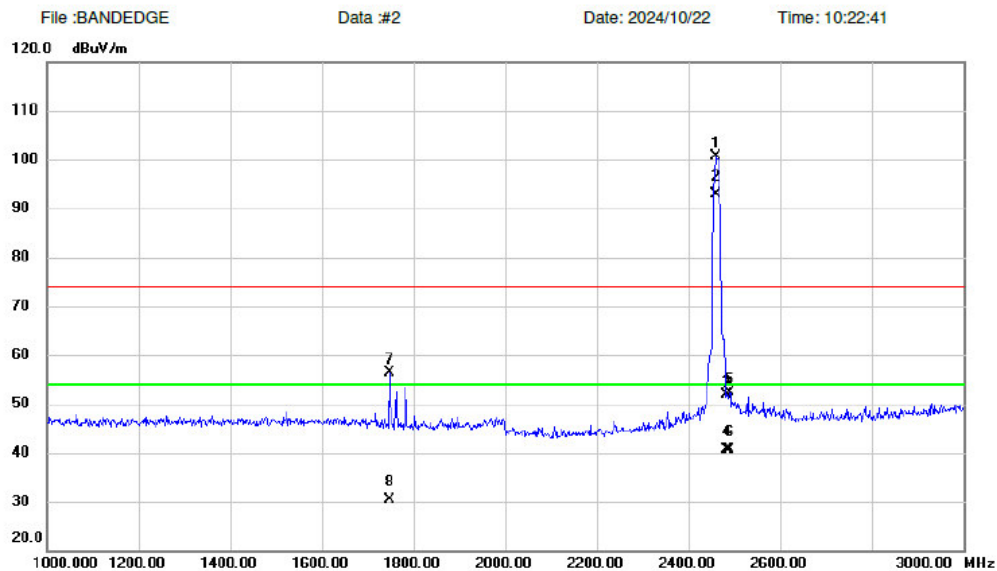
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2465.000	68.16	32.67	100.83	74.00	26.83	peak	
2	*	2465.000	61.52	32.67	94.19	54.00	40.19	AVG	
3		2483.500	23.11	32.75	55.86	74.00	-18.14	peak	
4		2483.500	13.76	32.75	46.51	54.00	-7.49	AVG	
5		2522.000	23.02	32.91	55.93	74.00	-18.07	peak	
6		2522.000	10.87	32.91	43.78	54.00	-10.22	AVG	

Site SH-CB02
Limit: FCC RF_15.247_3M_(Peak)
M/N:
Note: TP=0

Polarization: **Vertical**
Power: DC 3V
Distance: 3m
Mode: TX_B_2462

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2461.000	68.09	32.66	100.75	74.00	26.75	peak	
2	*	2461.000	60.31	32.66	92.97	54.00	38.97	AVG	
3		2483.500	19.13	32.75	51.88	74.00	-22.12	peak	
4		2483.500	7.98	32.75	40.73	54.00	-13.27	AVG	
5		2488.000	19.51	32.76	52.27	74.00	-21.73	peak	
6		2488.000	7.97	32.76	40.73	54.00	-13.27	AVG	
7		1747.000	26.32	30.13	56.45	74.00	-17.55	peak	
8		1747.000	0.26	30.13	30.39	54.00	-23.61	AVG	

Site SH-CB02

Polarization: **Horizontal**

Temperature: 24.1 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

EUT: 15247

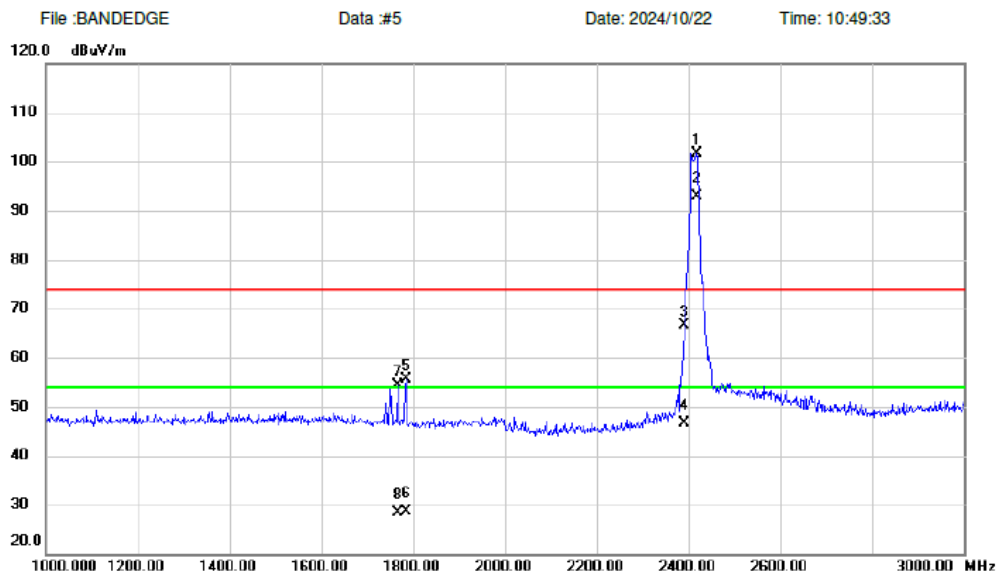
Distance: 3m

M/N:

Mode: TX_G_2412

Note: TP=7

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2417.000	69.20	32.48	101.68	74.00	27.68	peak	
2	*	2417.000	60.34	32.48	92.82	54.00	38.82	AVG	
3		2390.000	34.21	32.37	66.58	74.00	-7.42	peak	
4		2390.000	14.23	32.37	46.60	54.00	-7.40	AVG	
5		1784.000	25.36	30.23	55.59	74.00	-18.41	peak	
6		1784.000	-1.52	30.23	28.71	54.00	-25.29	AVG	
7		1766.000	24.15	30.18	54.33	74.00	-19.67	peak	
8		1766.000	-1.71	30.18	28.47	54.00	-25.53	AVG	

Site SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

M/N:

Note: TP=7

Polarization: **Vertical**

Power: DC 3V

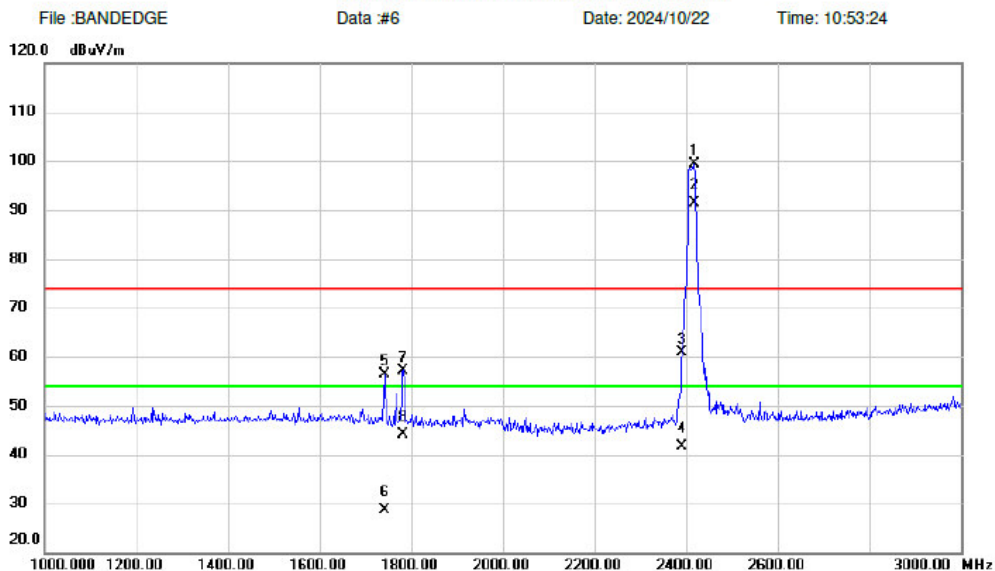
Distance: 3m

Mode: TX_G_2412

Temperature: 24.1 (C)

Humidity: 53 %

Radiated Emission Measurement



Site SH-CB02

Polarization: **Horizontal**

Temperature: 22.6 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

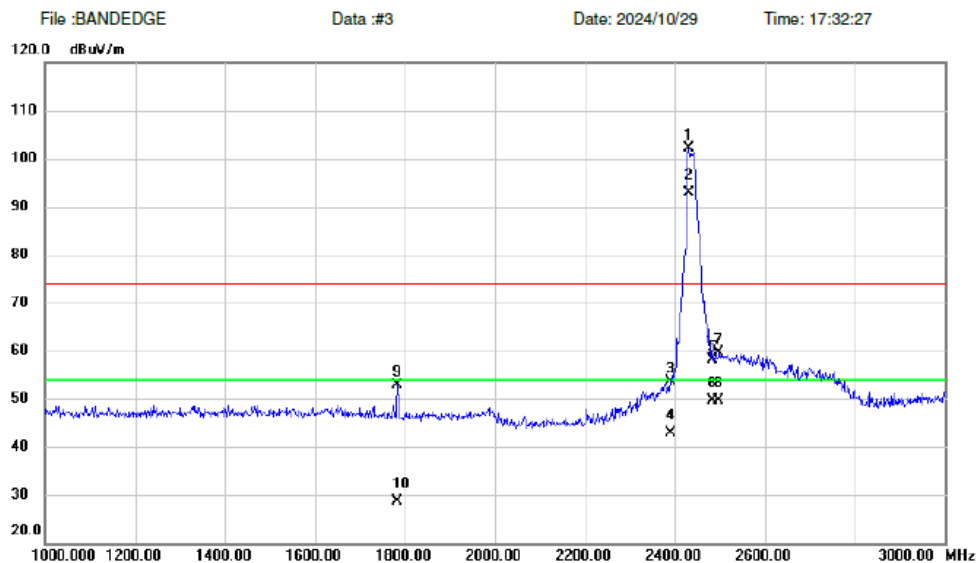
M/N:

Distance: 3m

Mode: TX_G_2437

Note: TP=0

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2431.000	69.60	32.54	102.14	74.00	28.14	peak	
2	*	2431.000	60.34	32.54	92.88	54.00	38.88	AVG	
3		2390.000	21.35	32.37	53.72	74.00	-20.28	peak	
4		2390.000	10.52	32.37	42.89	54.00	-11.11	AVG	
5		2483.500	25.47	32.75	58.22	74.00	-15.78	peak	
6		2483.500	16.84	32.75	49.59	54.00	-4.41	AVG	
7		2498.000	26.91	32.80	59.71	74.00	-14.29	peak	
8		2498.000	16.74	32.80	49.54	54.00	-4.46	AVG	
9		1782.000	22.67	30.22	52.89	74.00	-21.11	peak	
10		1782.000	-1.52	30.22	28.70	54.00	-25.30	AVG	

Site SH-CB02

Polarization: **Vertical**

Temperature: 22.6 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

EUT: 888

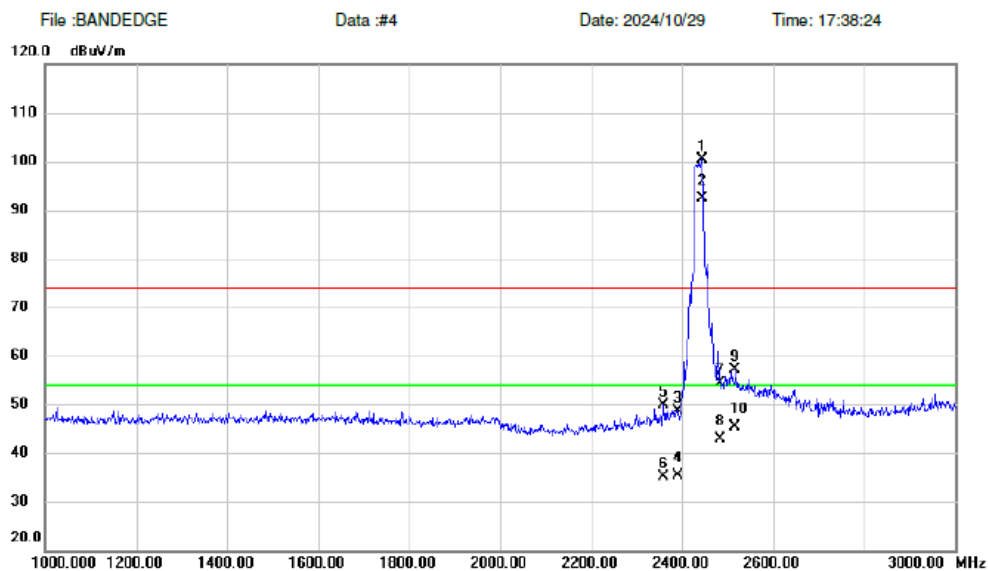
Distance: 3m

M/N:

Mode: TX_G_2437

Note: TP=0

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2445.000	67.91	32.59	100.50	74.00	26.50	peak	
2	*	2445.000	59.84	32.59	92.43	54.00	38.43	AVG	
3		2390.000	16.17	32.37	48.54	74.00	-25.46	peak	
4		2390.000	3.00	32.37	35.37	54.00	-18.63	AVG	
5		2359.000	17.57	32.25	49.82	74.00	-24.18	peak	
6		2359.000	2.97	32.25	35.22	74.00	-38.78	peak	
7		2483.500	21.70	32.75	54.45	74.00	-19.55	peak	
8		2483.500	10.01	32.75	42.76	54.00	-11.24	AVG	
9		2517.000	24.22	32.89	57.11	74.00	-16.89	peak	
10		2517.000	12.44	32.89	45.33	54.00	-8.67	AVG	

Site SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

M/N:

Note: TP=13

Polarization: **Horizontal**

Power: DC 3V

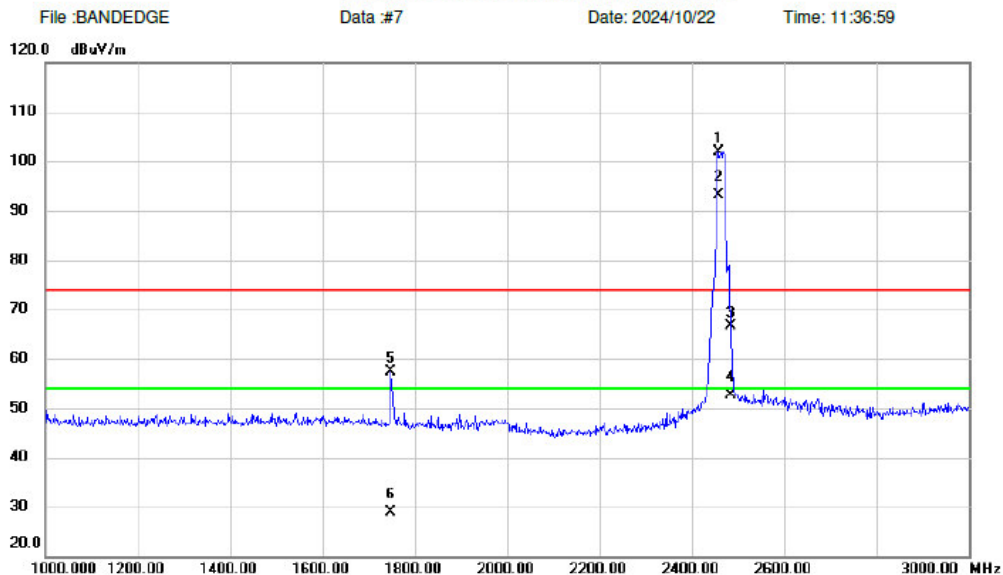
Distance: 3m

Mode: TX_G_2462

Temperature: 24.1 (C)

Humidity: 53 %

Radiated Emission Measurement



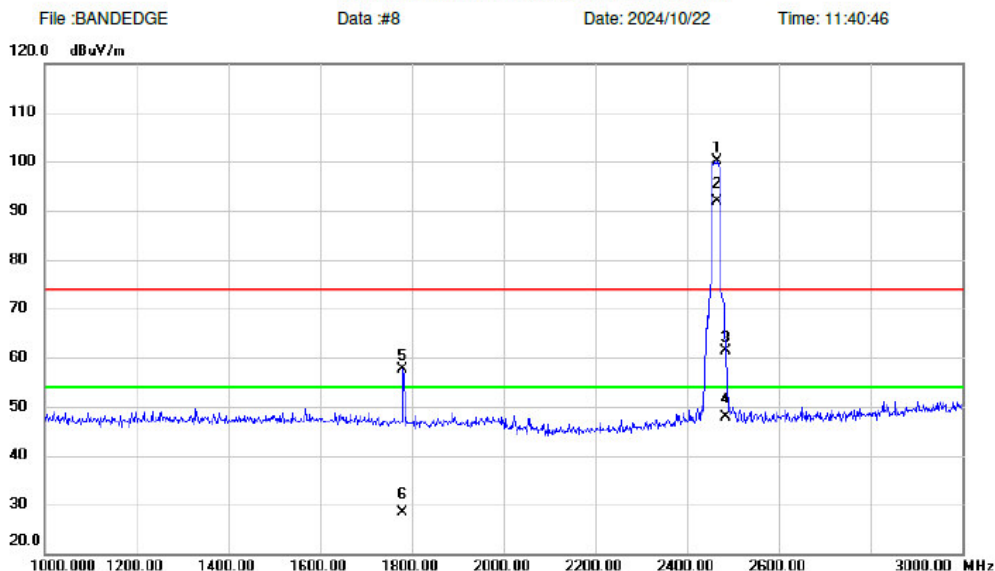
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1 X	2457.000	69.24	32.64	101.88	74.00	27.88	peak	
2 *	2457.000	60.37	32.64	93.01	54.00	39.01	AVG	
3	2483.500	33.97	32.75	66.72	74.00	-7.28	peak	
4	2483.500	19.99	32.75	52.74	54.00	-1.26	AVG	
5	1749.000	27.15	30.13	57.28	74.00	-16.72	peak	
6	1749.000	-1.35	30.13	28.78	54.00	-25.22	AVG	

Site SH-CB02
Limit: FCC RF_15.247_3M_(Peak)
M/N:
Note: TP=13

Polarization: **Vertical**
Power: DC 3V
Distance: 3m
Mode: TX_G_2462

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



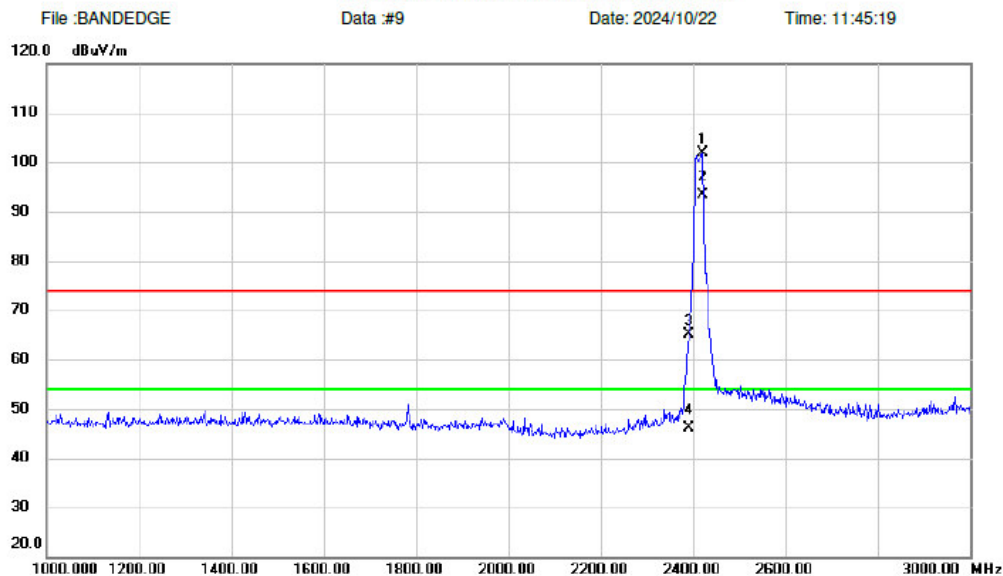
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2466.000	67.46	32.67	100.13	74.00	26.13	peak	
2	*	2466.000	59.25	32.67	91.92	54.00	37.92	AVG	
3		2483.500	28.73	32.75	61.48	74.00	-12.52	peak	
4		2483.500	15.24	32.75	47.99	54.00	-6.01	AVG	
5		1781.000	27.51	30.22	57.73	74.00	-16.27	peak	
6		1781.000	-1.94	30.22	28.28	54.00	-25.72	AVG	

Site: SH-CB02
Limit: FCC RF_15.247_3M_(Peak)
M/N:
Note: TP=0

Polarization: **Horizontal**
Power: DC 3V
Distance: 3m
Mode: TX_N20_2412

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2419.000	69.41	32.49	101.90	74.00	27.90	peak	
2	*	2419.000	61.00	32.49	93.49	54.00	39.49	AVG	
3		2390.000	32.83	32.37	65.20	74.00	-8.80	peak	
4		2390.000	13.74	32.37	46.11	54.00	-7.89	AVG	

Site SH-CB02

Polarization: **Vertical**

Temperature: 24.1 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

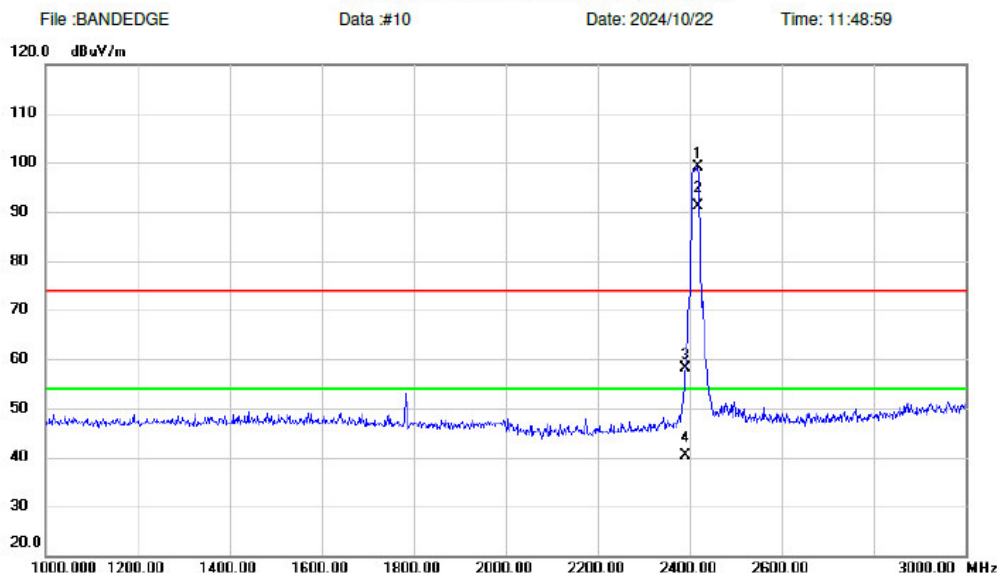
Distance: 3m

M/N:

Mode: TX_N20_2412

Note: TP=0

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2417.000	66.58	32.48	99.06	74.00	25.06	peak	
2	*	2417.000	58.58	32.48	91.06	54.00	37.06	AVG	
3		2390.000	25.82	32.37	58.19	74.00	-15.81	peak	
4		2390.000	7.97	32.37	40.34	54.00	-13.66	AVG	

Site SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

EUT: 8888

M/N:

Note: TP=0

Polarization: **Horizontal**

Power: DC 3V

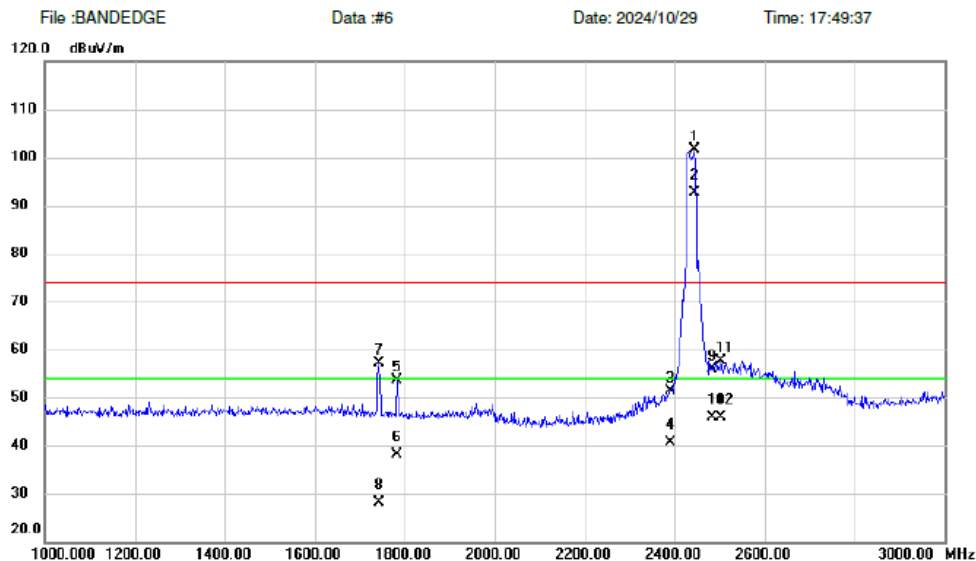
Distance: 3m

Mode: TX_N20_2437

Temperature: 22.6 (C)

Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV		dBuV/m	dBuV/m	dB		
1	X	2443.000	69.14	32.58	101.72	74.00	27.72	peak	
2	*	2443.000	59.97	32.58	92.55	54.00	38.55	AVG	
3		2390.000	19.09	32.37	51.46	74.00	-22.54	peak	
4		2390.000	8.30	32.37	40.67	54.00	-13.33	AVG	
5		1782.000	23.45	30.22	53.67	74.00	-20.33	peak	
6		1782.000	8.01	30.22	38.23	54.00	-15.77	AVG	
7		1742.000	27.03	30.11	57.14	74.00	-16.86	peak	
8		1742.000	-2.09	30.11	28.02	54.00	-25.98	AVG	
9		2483.500	23.17	32.75	55.92	74.00	-18.08	peak	
10		2483.500	13.23	32.75	45.98	54.00	-8.02	AVG	
11		2503.000	24.90	32.83	57.73	74.00	-16.27	peak	
12		2503.000	13.09	32.83	45.92	54.00	-8.08	AVG	

Site SH-CB02

Polarization: **Vertical**

Temperature: 22.6 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

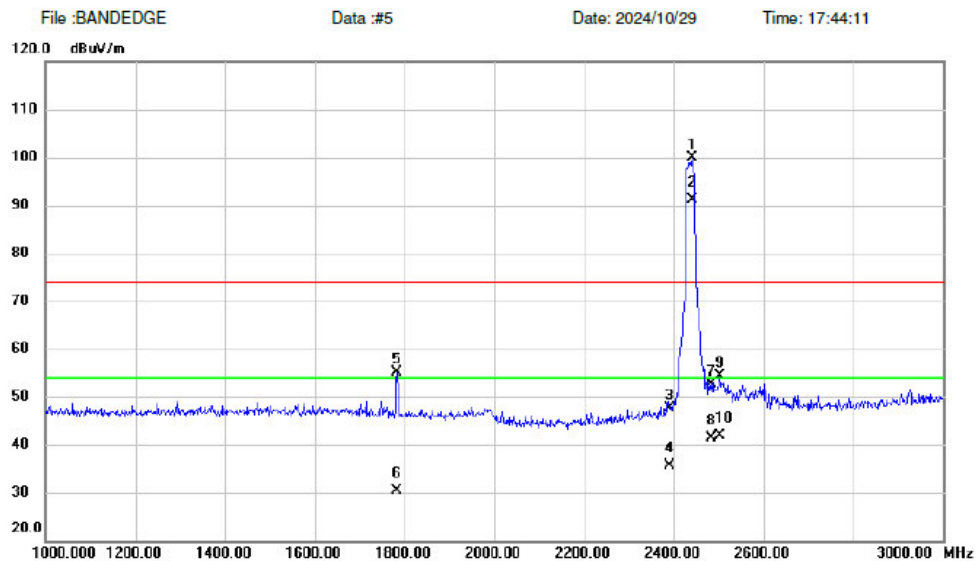
Humidity: 53 %

M/N:

Mode: TX_N20_2437

Note: TP=0

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2441.000	67.31	32.57	99.88	74.00	25.88	peak	
2	*	2441.000	58.52	32.57	91.09	54.00	37.09	AVG	
3		2390.000	15.32	32.37	47.69	74.00	-26.31	peak	
4		2390.000	3.22	32.37	35.59	54.00	-18.41	AVG	
5		1782.000	24.97	30.22	55.19	74.00	-18.81	peak	
6		1782.000	0.16	30.22	30.38	54.00	-23.62	AVG	
7		2483.500	19.87	32.75	52.62	74.00	-21.38	peak	
8		2483.500	8.57	32.75	41.32	54.00	-12.68	AVG	
9		2503.000	21.56	32.83	54.39	74.00	-19.61	peak	
10		2503.000	9.12	32.83	41.95	54.00	-12.05	AVG	

Site SH-CB02

Polarization: **Horizontal**

Temperature: 24.1 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

EUT: 905

Distance: 3m

M/N:

Mode: TX_N20_2462

Note: TP=1

Radiated Emission Measurement

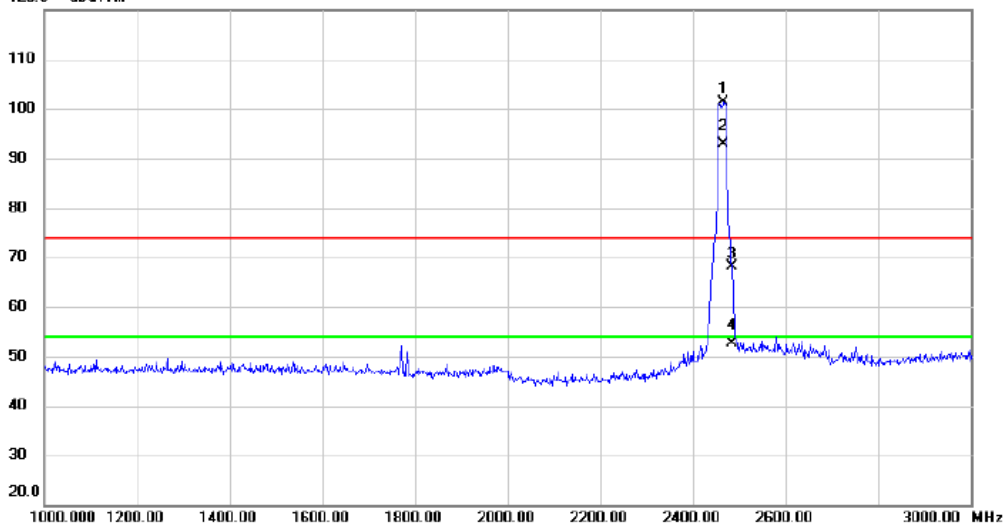
File :BANDEGE

Data :#11

Date: 2024/10/22

Time: 13:23:32

120.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2466.000	68.71	32.67	101.38	74.00	27.38	peak	
2	*	2466.000	60.13	32.67	92.80	54.00	38.80	AVG	
3		2483.500	35.31	32.75	68.06	74.00	-5.94	peak	
4		2483.500	19.82	32.75	52.57	54.00	-1.43	AVG	

Site SH-CB02

Polarization: **Vertical**

Temperature: 24.1 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

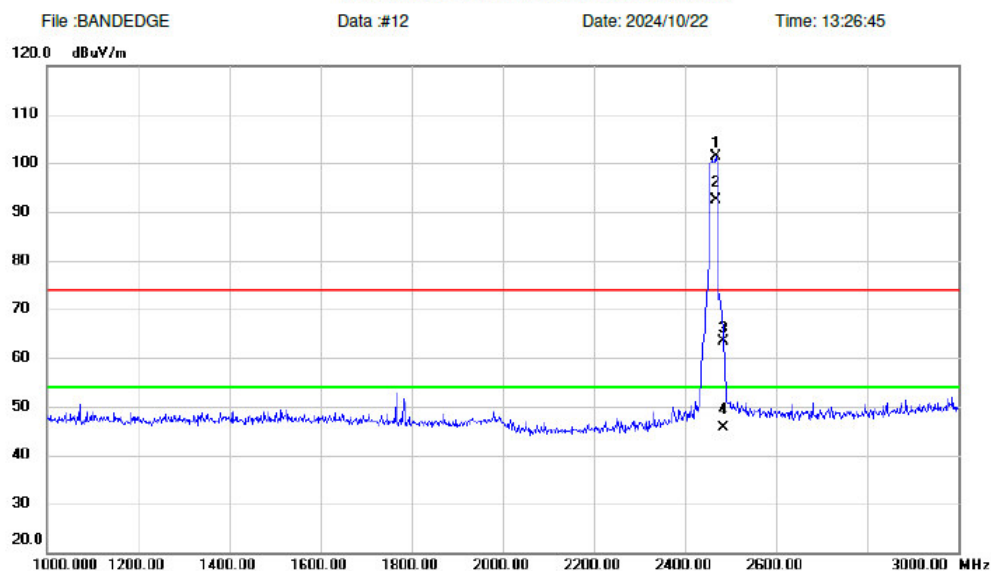
Distance: 3m

M/N:

Mode: TX_N20_2462

Note: TP=1

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2468.000	68.74	32.69	101.43	74.00	27.43	peak	
2	*	2468.000	59.61	32.69	92.30	54.00	38.30	AVG	
3		2483.500	30.68	32.75	63.43	74.00	-10.57	peak	
4		2483.500	12.76	32.75	45.51	54.00	-8.49	AVG	

Bluetooth LE

Site SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

IS2701-2016

M/N:

Note: TP=11

Polarization: **Horizontal**

Power: DC 3V

Distance: 3m

Mode: TX_1M_2402

Temperature: 24.1 (C)

Humidity: 53 %

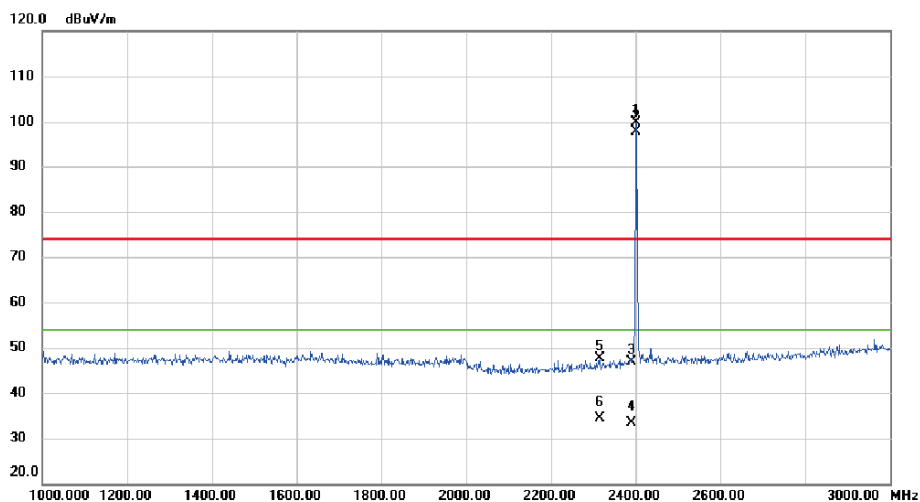
Radiated Emission Measurement

File :BANEDGE

Data :#2

Date: 2024/10/22

Time: 13:35:34



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2402.000	67.44	32.42	99.86	74.00	25.86	peak	
2	*	2402.000	65.23	32.42	97.65	54.00	43.65	AVG	
3		2390.000	14.40	32.37	46.77	74.00	-27.23	peak	
4		2390.000	0.97	32.37	33.34	54.00	-20.66	AVG	
5		2315.000	15.51	32.07	47.58	74.00	-26.42	peak	
6		2315.000	2.22	32.07	34.29	54.00	-19.71	AVG	

Site: SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

M/N:

M/N:

Note: TP=11

Polarization: **Vertical**

Power: DC 3V

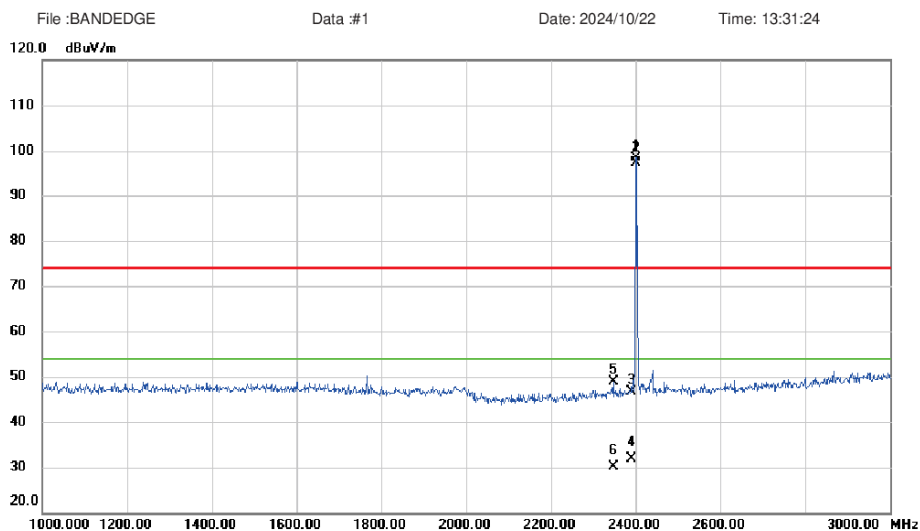
Distance: 3m

Mode: TX_1M_2402

Temperature: 24.1 (C)

Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2402.000	65.96	32.42	98.38	74.00	24.38	peak	
2	*	2402.000	64.65	32.42	97.07	54.00	43.07	AVG	
3		2390.000	14.17	32.37	46.54	74.00	-27.46	peak	
4		2390.000	-0.46	32.37	31.91	54.00	-22.09	AVG	
5		2347.000	16.56	32.20	48.76	74.00	-25.24	peak	
6		2347.000	-2.07	32.20	30.13	54.00	-23.87	AVG	

Site: SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

P/N: 010

M/N:

Note: TP=11

Polarization: **Horizontal**

Power: DC 3V

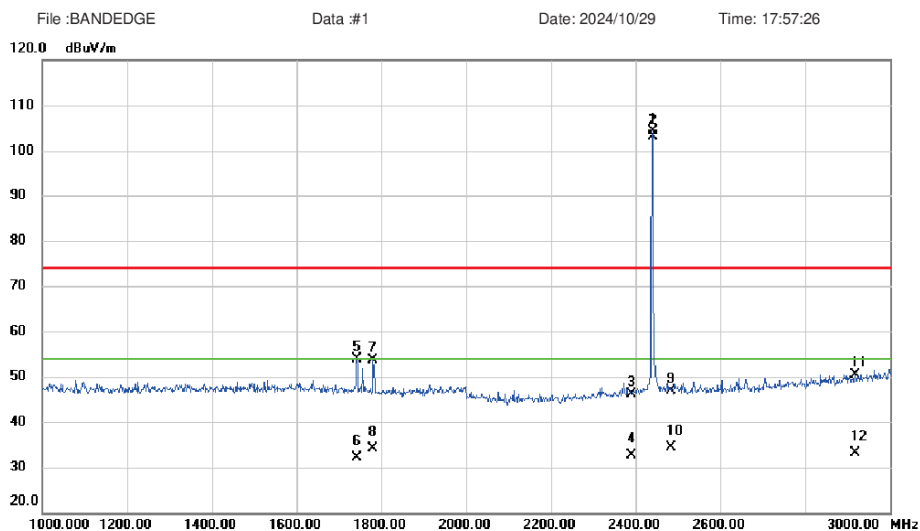
Distance: 3m

Mode: TX_1M_2440

Temperature: 22.6 (C)

Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2440.000	71.73	32.57	104.30	74.00	30.30	peak	
2	*	2440.000	70.63	32.57	103.20	54.00	49.20	AVG	
3		2390.000	13.78	32.37	46.15	74.00	-27.85	peak	
4		2390.000	0.24	32.37	32.61	54.00	-21.39	AVG	
5		1742.000	23.67	30.11	53.78	74.00	-20.22	peak	
6		1742.000	2.02	30.11	32.13	54.00	-21.87	AVG	
7		1781.000	23.39	30.22	53.61	74.00	-20.39	peak	
8		1781.000	4.01	30.22	34.23	54.00	-19.77	AVG	
9		2483.500	14.21	32.75	46.96	74.00	-27.04	peak	
10		2483.500	1.73	32.75	34.48	54.00	-19.52	AVG	
11		2919.000	15.73	34.73	50.46	74.00	-23.54	peak	
12		2919.000	-1.69	34.73	33.04	54.00	-20.96	AVG	

Site SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

RFN: 010

M/N:

Note: TP=11

Polarization: **Vertical**

Power: DC 3V

Distance: 3m

Mode: TX_1M_2440

Temperature: 22.6 (C)

Humidity: 53 %

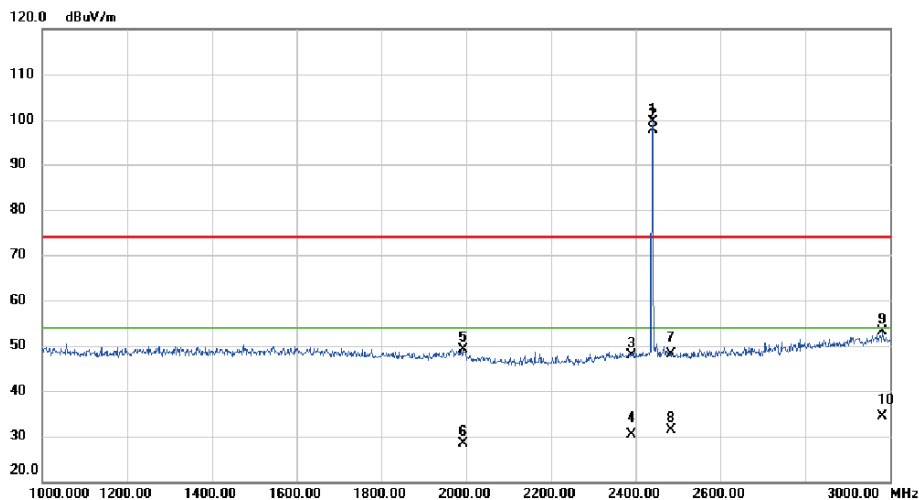
Radiated Emission Measurement

File :BANEDGE

Data :#2

Date: 2024/10/29

Time: 18:53:20



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2440.000	67.06	32.57	99.63	74.00	25.63	peak	
2	*	2440.000	65.15	32.57	97.72	54.00	43.72	AVG	
3		2390.000	15.55	32.37	47.92	74.00	-26.08	peak	
4		2390.000	-2.04	32.37	30.33	54.00	-23.67	AVG	
5		1992.000	18.37	30.79	49.16	74.00	-24.84	peak	
6		1992.000	-2.30	30.79	28.49	74.00	-45.51	peak	
7		2483.500	15.30	32.75	48.05	54.00	-5.95	AVG	
8		2483.500	-1.40	32.75	31.35	74.00	-42.65	peak	
9		2982.000	18.07	35.02	53.09	74.00	-20.91	peak	
10		2982.000	-0.53	35.02	34.49	54.00	-19.51	AVG	

Site: SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

P/N: 010

M/N:

Note: TP=11

Polarization: **Horizontal**

Power: DC 3V

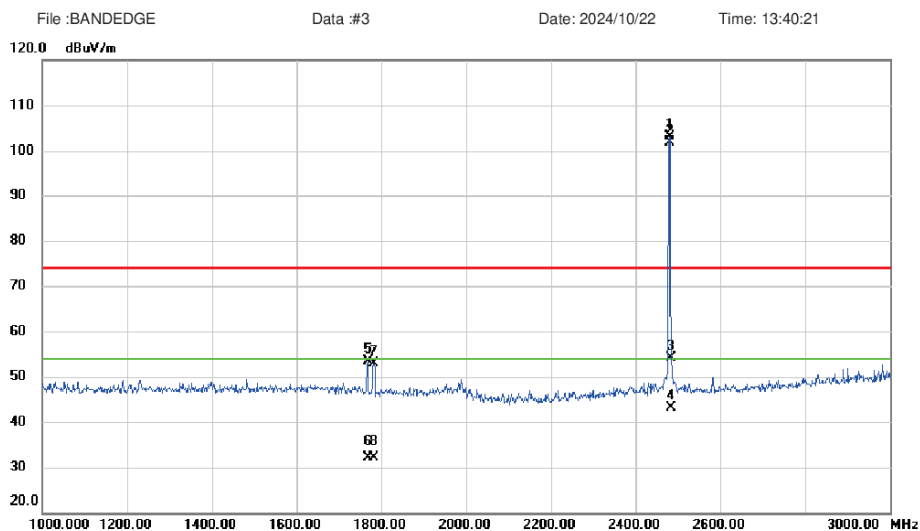
Distance: 3m

Mode: TX_1M_2480

Temperature: 24.1 (C)

Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2480.000	70.45	32.73	103.18	74.00	29.18	peak	
2	X	2480.000	69.12	32.73	101.85	74.00	27.85	peak	
3		2483.500	21.41	32.75	54.16	74.00	-19.84	peak	
4		2483.500	10.43	32.75	43.18	74.00	-30.82	peak	
5		1768.000	23.25	30.18	53.43	74.00	-20.57	peak	
6		1768.000	1.85	30.18	32.03	54.00	-21.97	AVG	
7		1783.000	22.72	30.22	52.94	74.00	-21.06	peak	
8		1783.000	1.80	30.22	32.02	54.00	-21.98	AVG	

Site: SH-CB02

Limit: FCC RF_15.247_3M_(Peak)

P/N: 000

M/N:

Note: TP=11

Polarization: **Vertical**

Power: DC 3V

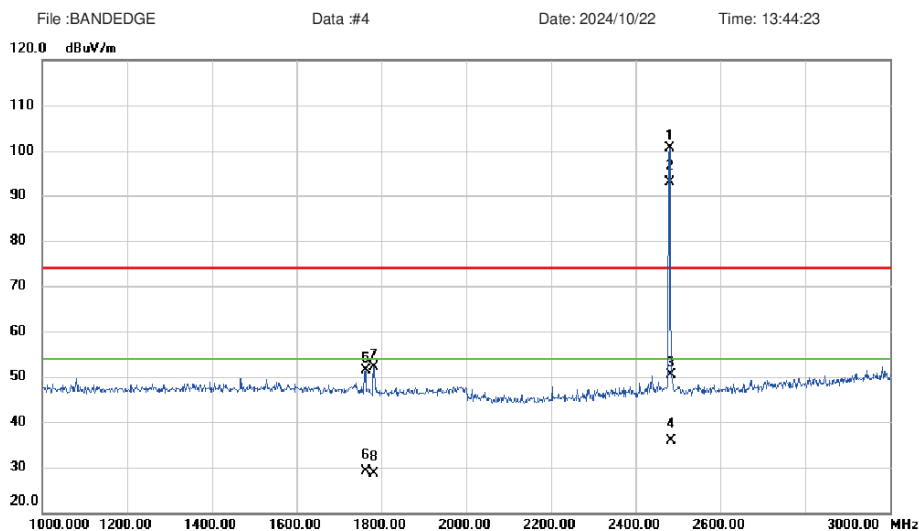
Distance: 3m

Mode: TX_1M_2480

Temperature: 24.1 (C)

Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2480.000	67.85	32.73	100.58	74.00	26.58	peak	
2	*	2480.000	60.06	32.73	92.79	54.00	38.79	AVG	
3		2483.500	17.56	32.75	50.31	74.00	-23.69	peak	
4		2483.500	3.05	32.75	35.80	54.00	-18.20	AVG	
5		1763.000	21.32	30.17	51.49	74.00	-22.51	peak	
6		1763.000	-0.97	30.17	29.20	54.00	-24.80	AVG	
7		1782.000	21.83	30.22	52.05	74.00	-21.95	peak	
8		1782.000	-1.60	30.22	28.62	54.00	-25.38	AVG	

Result of RE

Test result

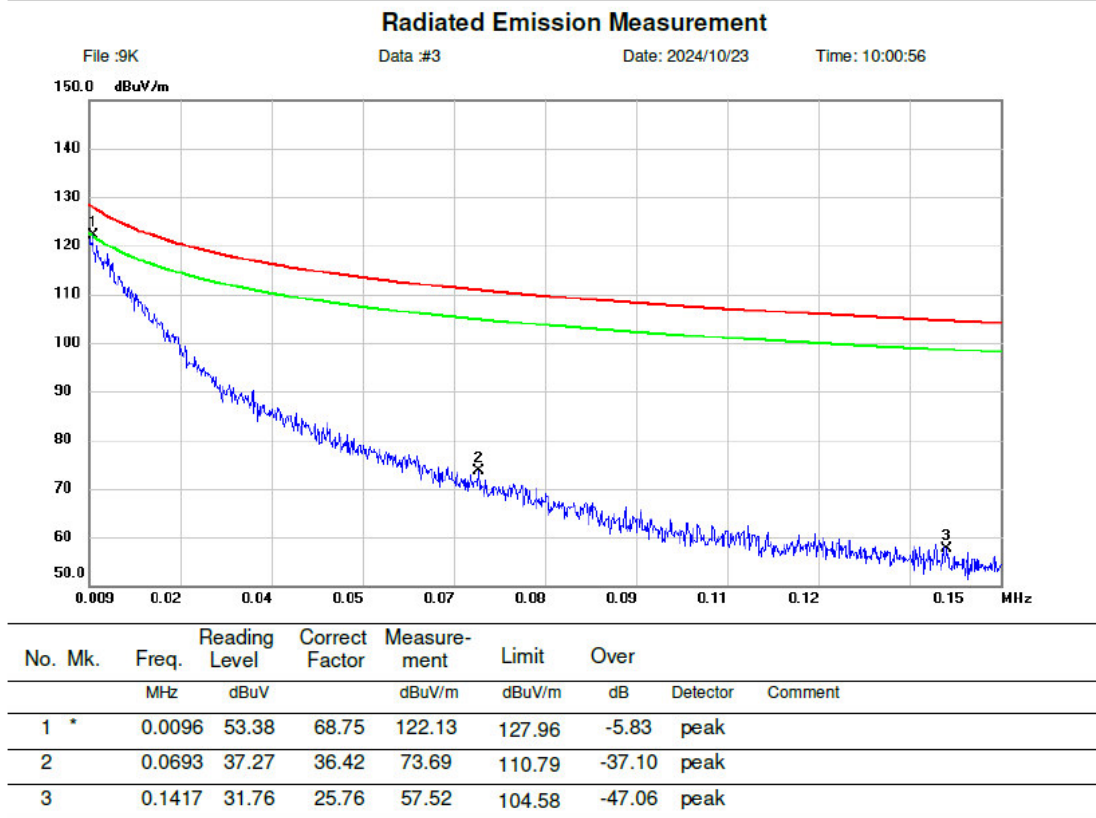
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, The following graphs display the maximum values of horizontal and vertical by software.

Continuous TX mode:

Wi-Fi 2.4G

During the test, the Radiates Emission from 9KHz to 1GHz was performed in all modes with all channels, 802.11b, Channel 11 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Site: SH-CB02	Polarization: Horizontal	Temperature: 22.5 (C)
Limit: FCC 15.209_3m(QP&AVG)_new	Power: DC 3V	Humidity: 47 %
M/N:	Distance: 3m	
Note: TP=0	Mode: TX_B_2462	



Site SH-CB02

Polarization: *Horizontal*

Temperature: 22.5 (C)

Limit: FCC 15.209_3m(QP&AVG)_new

Power: DC 3V

Humidity: 47 %

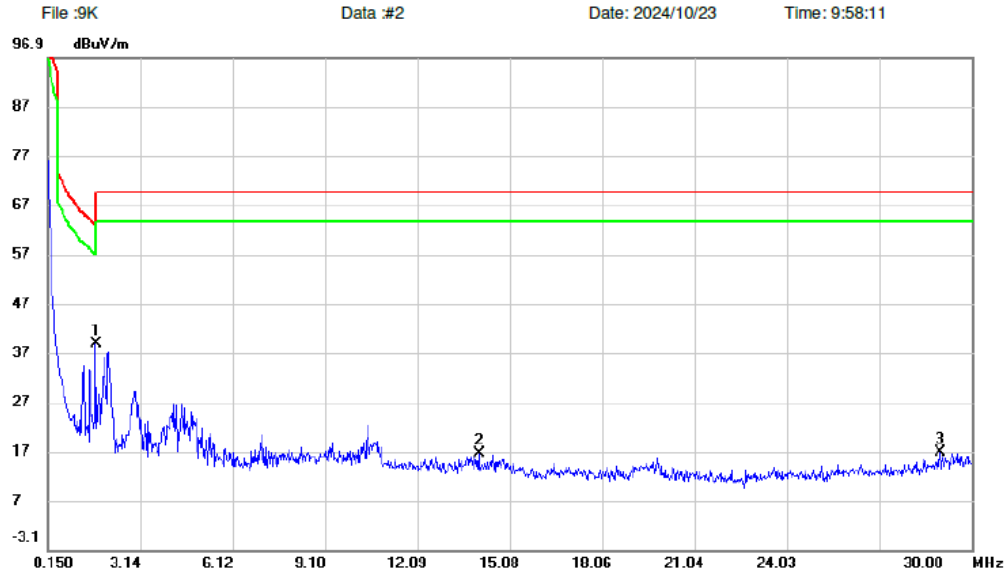
EUT: 9K

Distance: 3m

M/N:

Mode: TX_B_2462

Note: TP=0

Radiated Emission Measurement


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector Comment
1	*	1.7022	36.76	1.94	38.70	62.98	-24.28	peak
2		14.0900	18.58	-2.14	16.44	69.54	-53.10	peak
3		28.9851	19.74	-3.08	16.66	69.54	-52.88	peak

Site SH-CB02

Limit: FCC 15.209_3m(QP&AVG)_new

EUT: 9K

M/N:

Note: TP=0

Polarization: **Vertical**

Power: DC 3V

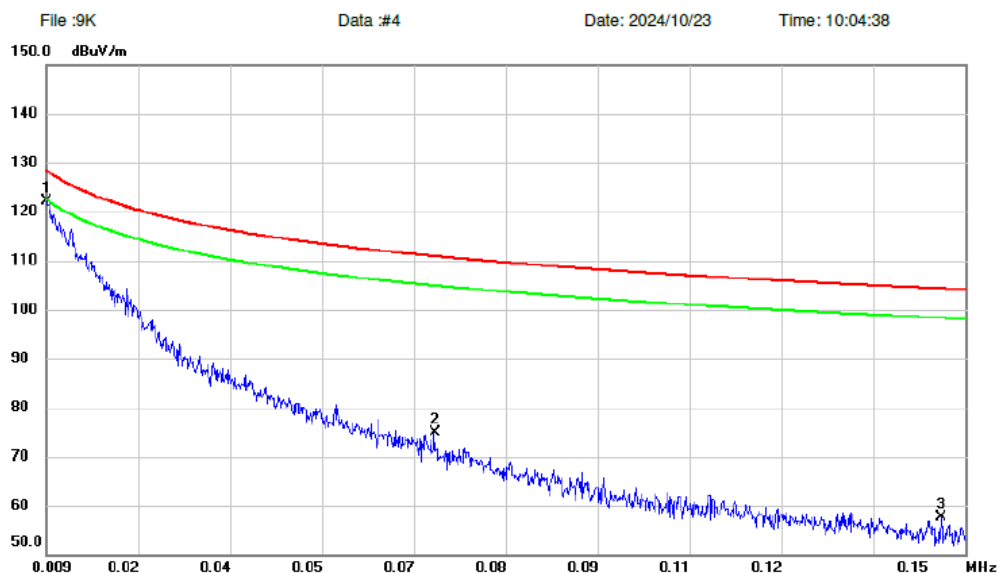
Distance: 3m

Mode: TX_B_2462

Temperature: 22.5 (C)

Humidity: 47 %

Radiated Emission Measurement



No. Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
	MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0090	52.08	69.99	122.07	128.52	-6.45	peak	
2	0.0686	38.29	36.61	74.90	110.88	-35.98	peak	
3	0.1463	32.33	25.42	57.75	104.30	-46.55	peak	

Site SH-CB02

Polarization: *Vertical*

Temperature: 22.5 (C)

Limit: FCC 15.209_3m(QP&AVG)_new

Power: DC 3V

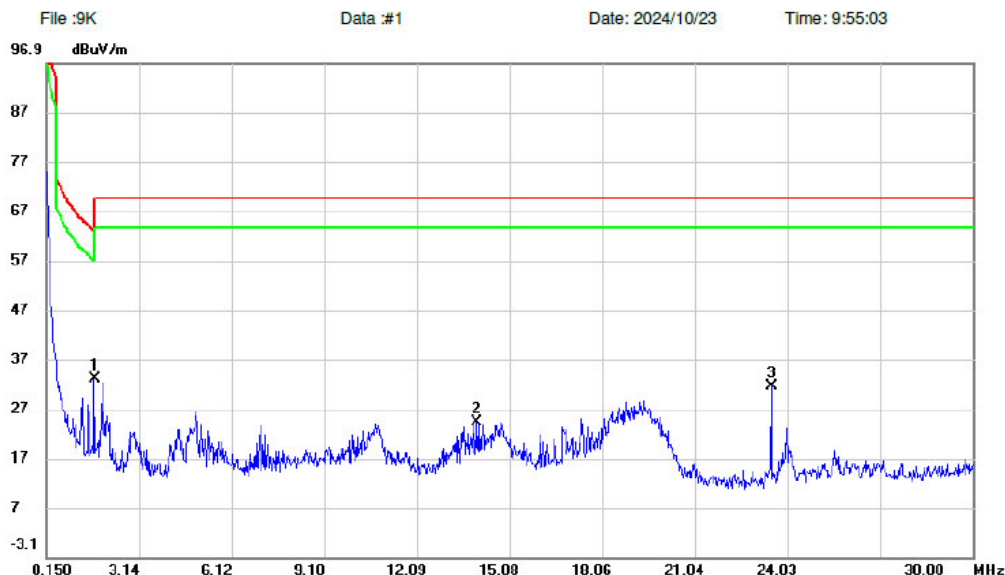
Humidity: 47 %

M/N:

Distance: 3m

Mode: TX_B_2462

Note: TP=0

Radiated Emission Measurement


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector	Comment
1	*	1.7022	31.18	1.94	33.12	62.98	-29.86	peak	
2		14.0303	26.47	-2.13	24.34	69.54	-45.20	peak	
3		23.5224	36.43	-4.92	31.51	69.54	-38.03	peak	

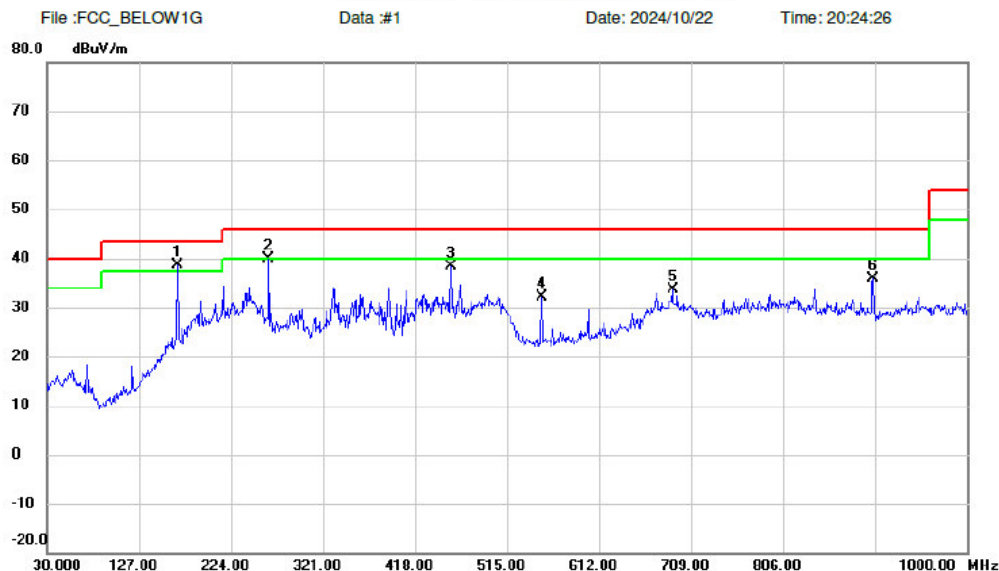
Site SH-CB02
Limit: FCC Class B 3m Radiation

M/N:
Note: TP=0

Polarization: **Horizontal**
Power: DC 3V
Distance: 3m
Mode: TX_B_2412

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



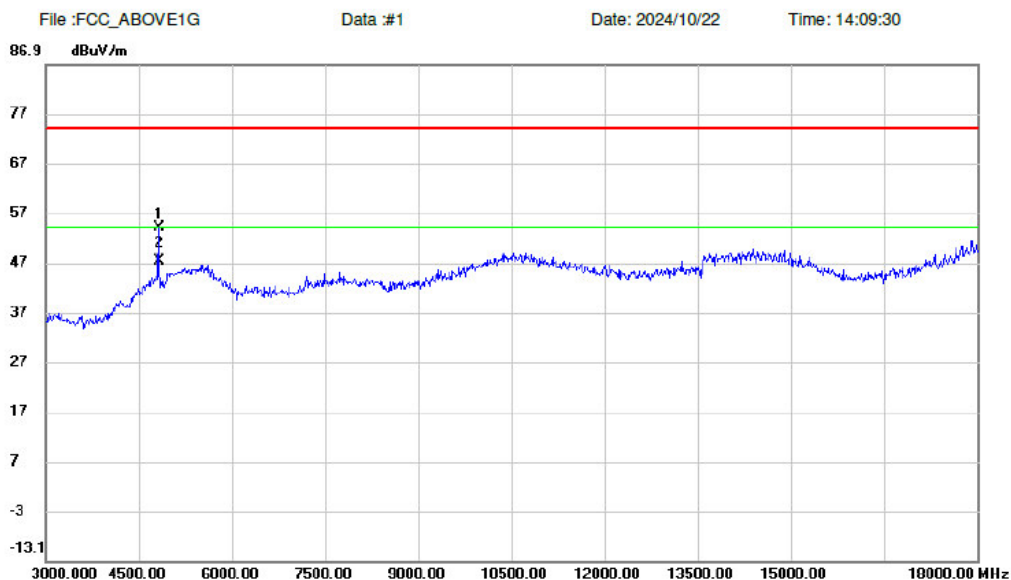
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	167.7400	55.07	-16.40	38.67	43.50	-4.83	peak	
2		263.7700	56.58	-16.59	39.99	46.00	-6.01	peak	
3		455.8300	49.80	-11.47	38.33	46.00	-7.67	peak	
4		551.8600	42.06	-10.02	32.04	46.00	-13.96	peak	
5		689.6000	40.98	-7.33	33.65	46.00	-12.35	peak	
6		901.0600	40.94	-5.06	35.88	46.00	-10.12	peak	

Site SH-CB02
Limit: FCC RF_15.247_3M_(Peak)
M/N:
Note: TP=0

Polarization: *Horizontal*
Power: DC 3V
Distance: 3m
Mode: TX_B_2412

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



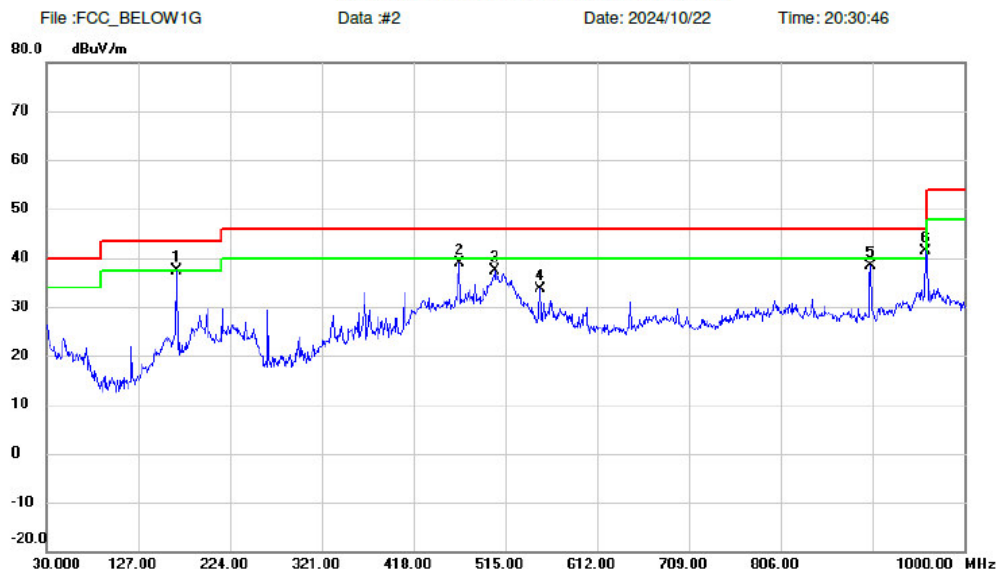
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	63.07	-8.98	54.09	74.00	-19.91	peak	
2	*	4824.000	56.23	-8.98	47.25	54.00	-6.75	AVG	

Site SH-CB02
Limit: FCC Class B 3m Radiation
M/N:
Note: TP=0

Polarization: **Vertical**
Power: DC 3V
Distance: 3m
Mode: TX_B_2412

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



Site SH-CB02

Polarization: **Vertical**

Temperature: 24.1 (C)

Limit: FCC RF_15.247_3M_(Peak)

Power: DC 3V

Humidity: 53 %

Distance: 3m

M/N:

Mode: TX_B_2412

Note: TP=0

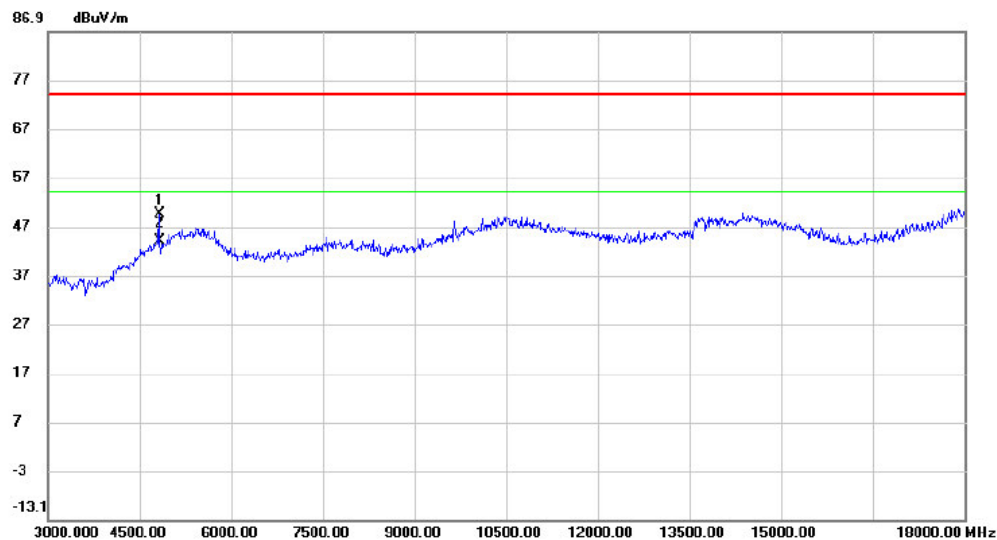
Radiated Emission Measurement

File :FCC_ABOVE1G

Data :#2

Date: 2024/10/22

Time: 14:14:39



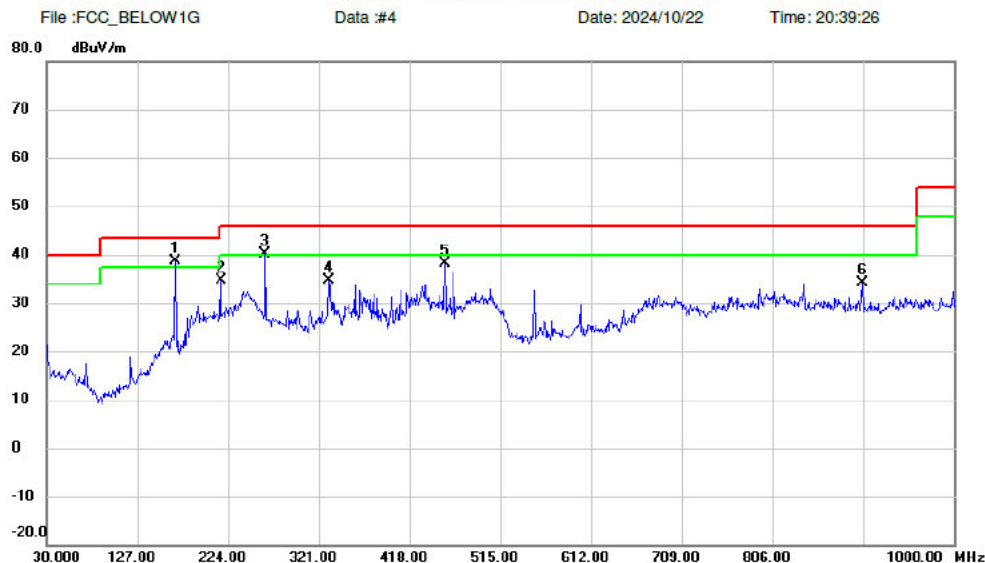
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV		dBuV/m	dBuV/m	dB	Detector Comment
1		4824.000	58.53	-8.98	49.55	74.00	-24.45	peak
2	*	4824.000	53.01	-8.98	44.03	54.00	-9.97	AVG

Site SH-CB02
Limit: FCC Class B 3m Radiation
M/N:
Note: TP=0

Polarization: *Horizontal*
Power: DC 3V
Distance: 3m
Mode: TX_B_2437

Temperature: 24.1 (C)
Humidity: 53 %

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	167.7400	55.08	-16.40	38.68	43.50	-4.82	peak	
2		216.2400	53.90	-19.31	34.59	46.00	-11.41	peak	
3	!	263.7700	56.66	-16.59	40.07	46.00	-5.93	peak	
4		331.6700	49.10	-14.55	34.55	46.00	-11.45	peak	
5		455.8300	49.72	-11.47	38.25	46.00	-7.75	peak	
6		902.0300	39.27	-5.04	34.23	46.00	-11.77	peak	