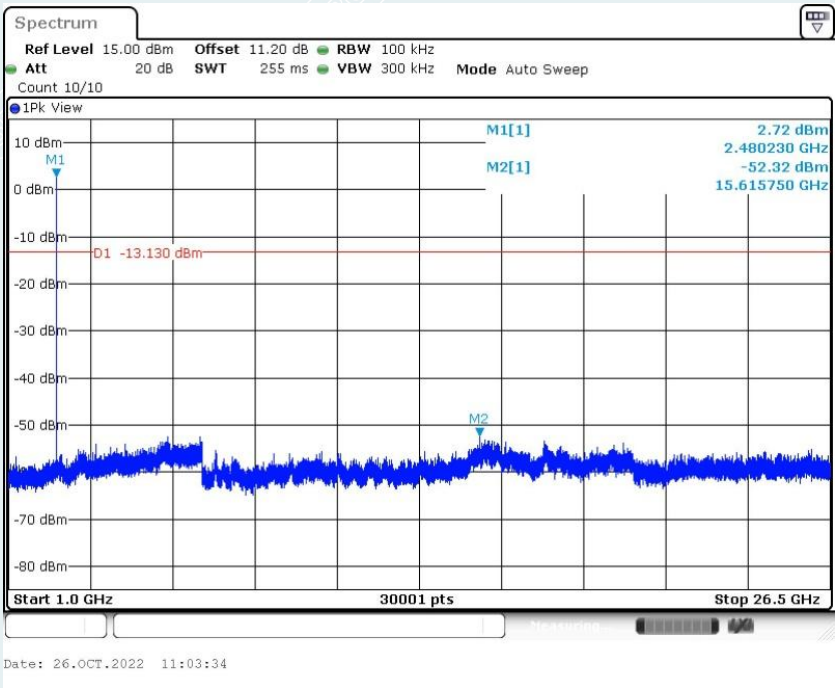




----- The following blanks -----

12. RESTRICTED BANDS OF OPERATION

12.1 LIMITS

Section 15.247(d) 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)).

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	2655 - 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	
13.36 - 13.41			

Frequency (MHz)	Quasi-peak($\mu\text{V}/\text{m}$)	Measurement distance(m)	Quasi-peak(dB $\mu\text{V}/\text{m}$)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30 ~ 88	100	3	40
88~216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

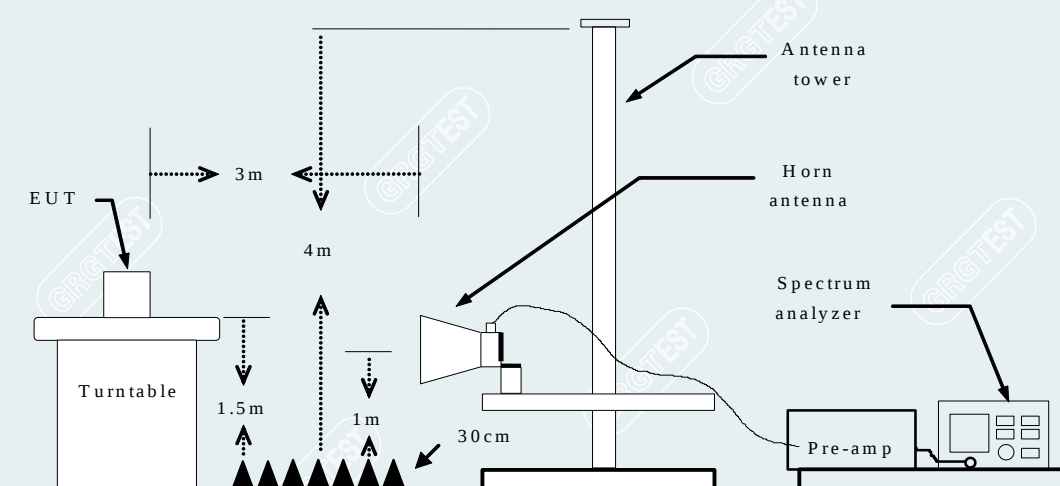
12.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 15.247 Meas Guidance v05r02.

- 1) The EUT is placed on a turntable, which is 1.5m above the ground plane.
- 2) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4) Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - a) PEAK: RBW=1MHz / VBW=1MHz / Sweep=AUTO.
 - b) AVERAGE: RBW=1MHz / VBW=1/T / Sweep=AUTO.

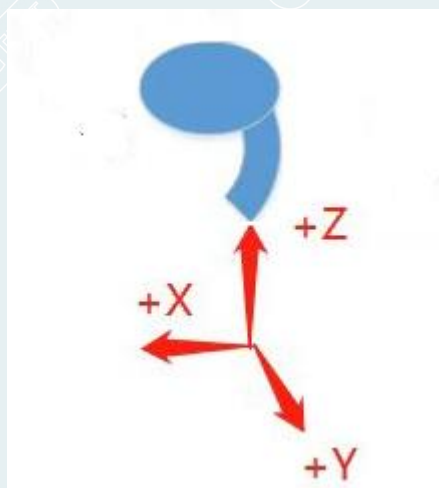
If the EUT is configured to transmit with duty cycle $\geq 98\%$, set $VBW \leq RBW/100$ (i.e., 10kHz) but not less than 10 Hz. If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$, Where T is defined in section 2.8.
- 5) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.

12.3 TEST SETUP



12.4 TEST RESULTS

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 shown the Z position only.



Left earphone

Equipment:	Wireless Earbuds	Test Date	2022-10-22
Model No.:	E507A	Test Engineer:	Yang zhaoyun
Test Voltage:	DC 3.85V	Environmental Conditions	24.5°C/43%RH/101.0kPa

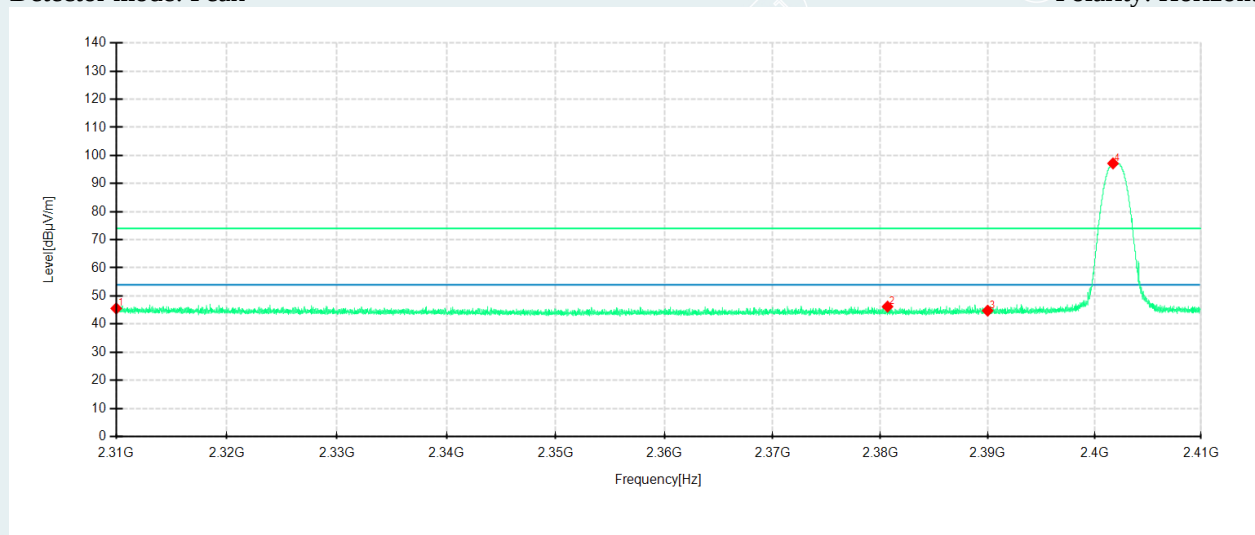
BLE 1M

Lowest Frequency

Frequency 2402MHz

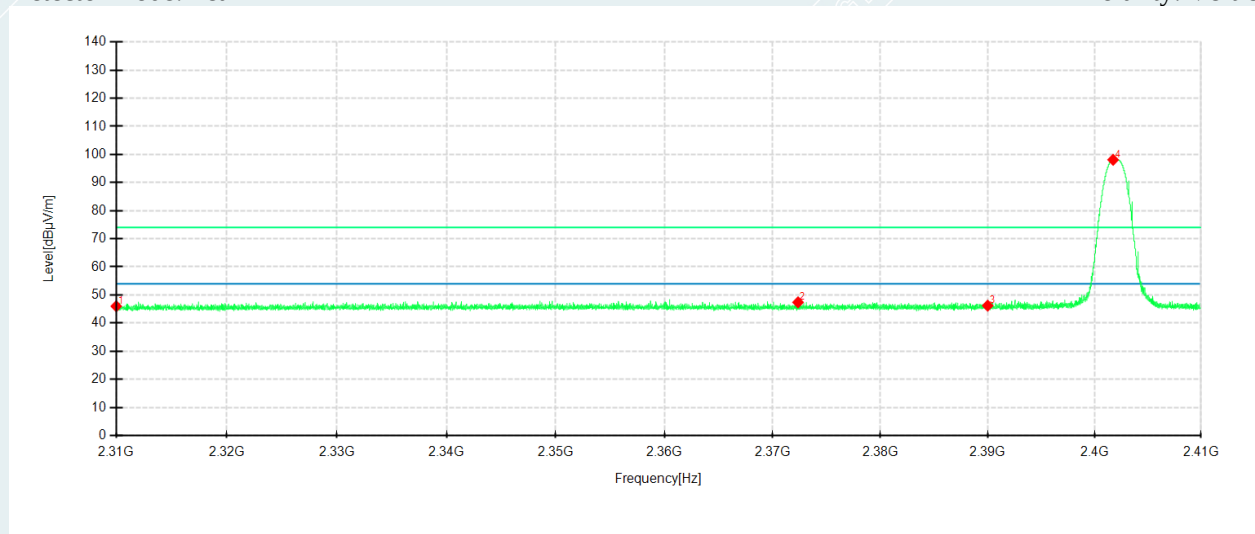
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



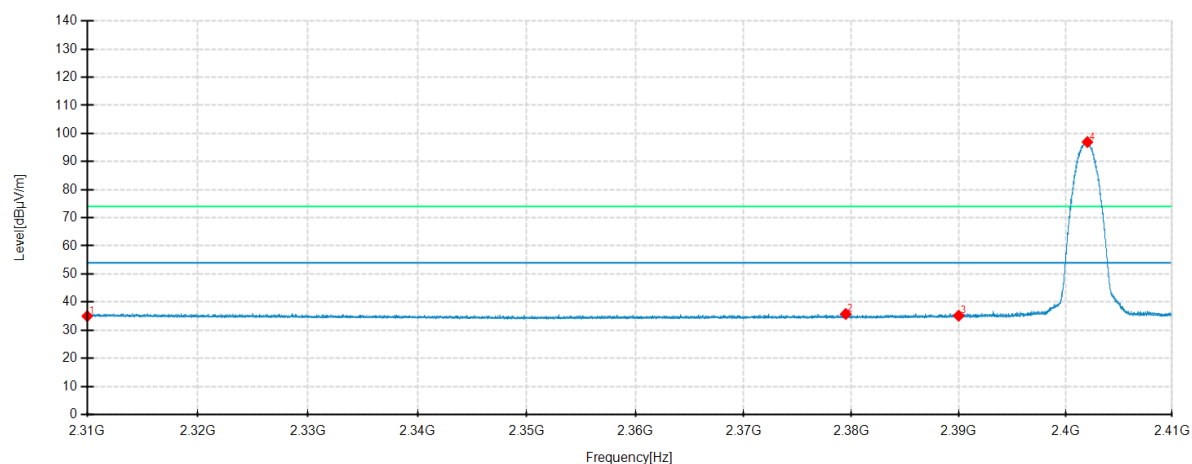
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	45.86	45.57	-0.29	74.00	28.43	200	71	Horizontal	/
2	2380.6671	47.13	46.21	-0.92	74.00	27.79	100	296	Horizontal	/
3	2390.0000	45.63	44.78	-0.85	74.00	29.22	100	171	Horizontal	/
4	2401.7292	97.93	97.17	-0.76	74.00	-23.17	100	319	Horizontal	No limit
1	2310.0000	45.70	45.99	0.29	74.00	28.01	200	172	Vertical	/
2	2372.3562	46.99	47.39	0.40	74.00	26.61	100	186	Vertical	/
3	2390.0000	45.90	46.19	0.29	74.00	27.81	100	186	Vertical	
4	2401.7392	97.89	98.10	0.21	74.00	-24.10	200	214	Vertical	No limit

Lowest Frequency

Frequency 2402MHz

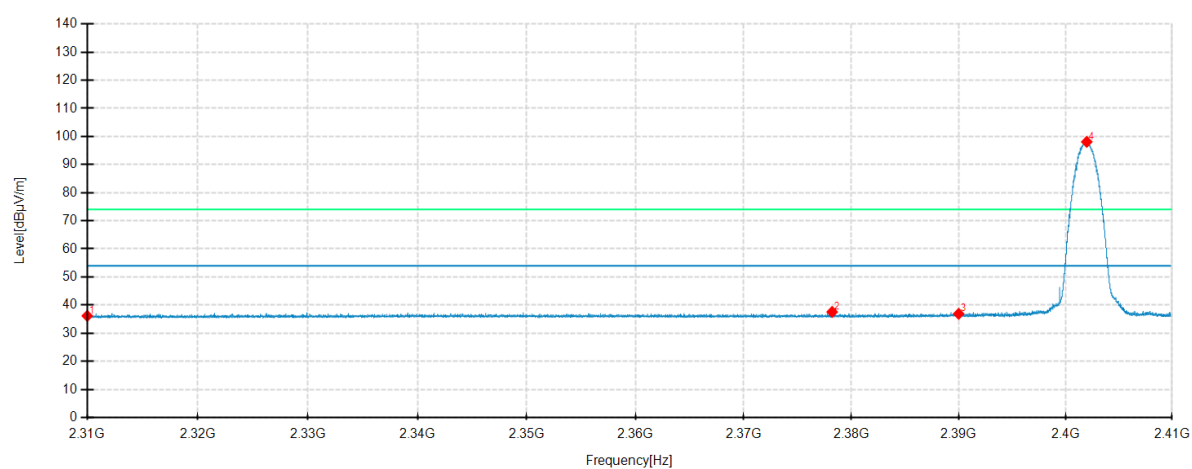
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

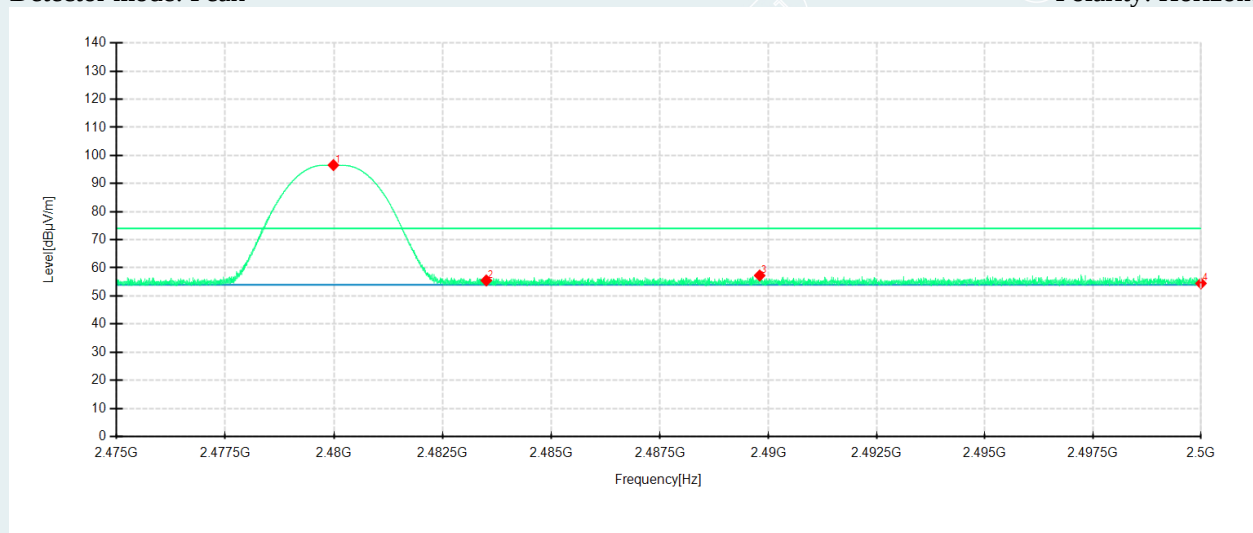
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	35.29	35.00	-0.29	54.00	19.00	100	184	Horizontal	/
2	2379.4769	36.70	35.77	-0.93	54.00	18.23	100	174	Horizontal	/
3	2390.0000	36.00	35.15	-0.85	54.00	18.85	100	174	Horizontal	/
4	2402.0492	97.69	96.94	-0.75	54.00	-42.94	100	321	Horizontal	No limit
1	2310.0000	35.87	36.16	0.29	54.00	17.84	100	188	Vertical	/
2	2378.2168	37.19	37.56	0.37	54.00	16.44	100	188	Vertical	/
3	2390.0000	36.59	36.88	0.29	54.00	17.12	200	171	Vertical	/
4	2401.9892	97.88	98.08	0.20	54.00	-44.08	200	213	Vertical	No limit

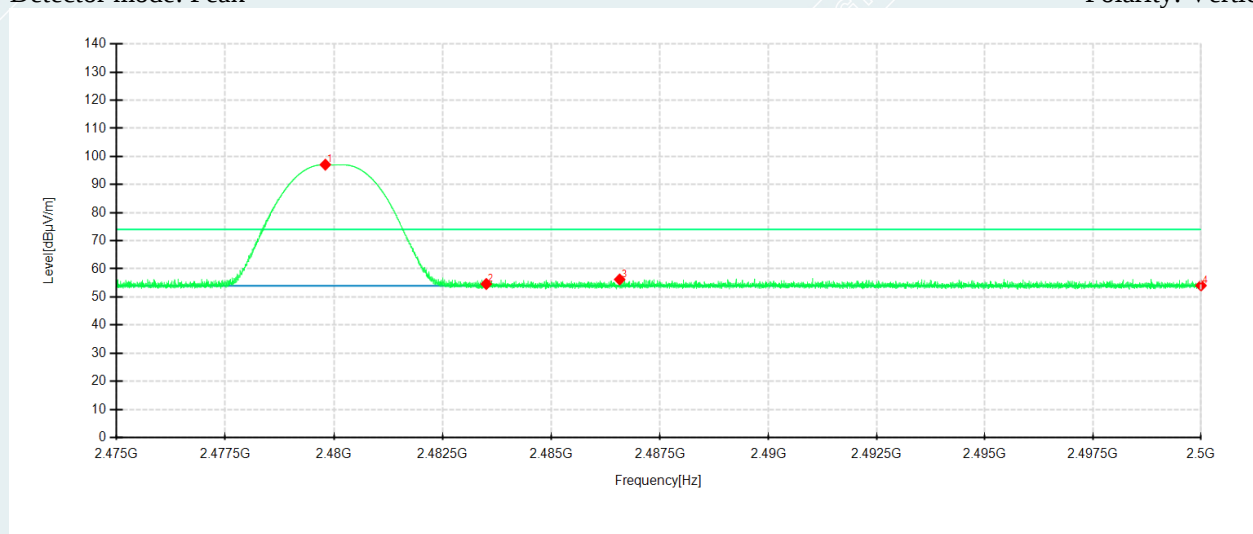
Highest Frequency
Frequency 2480MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



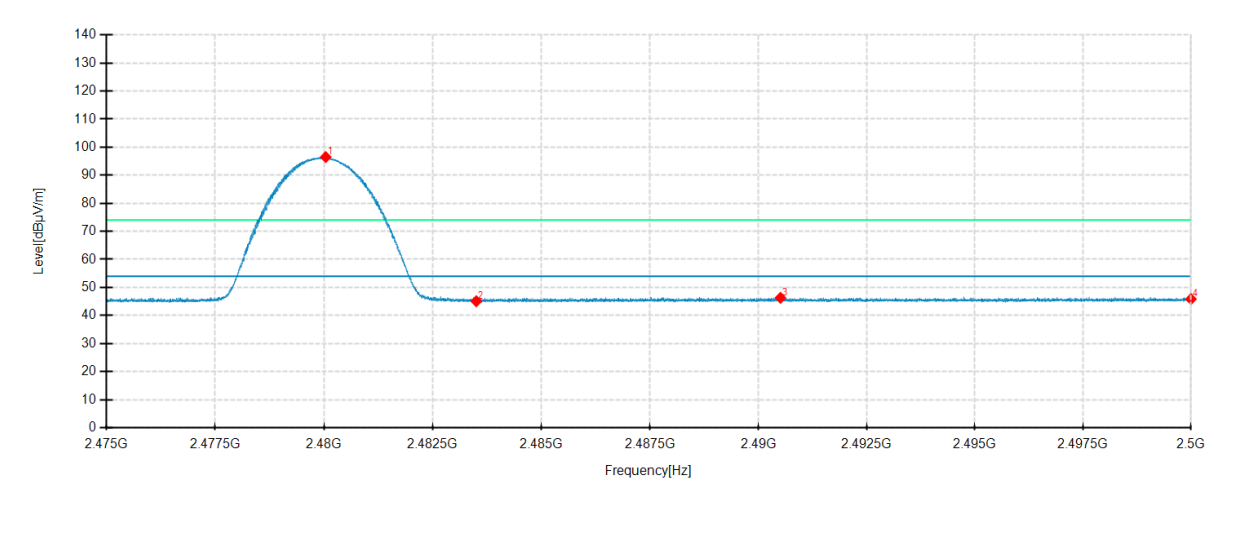
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.9855	86.72	96.57	9.85	74.00	-22.57	200	52	Horizontal	No limit
2	2483.5	45.60	55.52	9.92	74.00	18.48	100	187	Horizontal	/
3	2489.799	47.23	57.28	10.05	74.00	16.72	100	187	Horizontal	/
4	2500	44.23	54.48	10.25	74.00	19.52	100	187	Horizontal	/
1	2479.8005	87.81	97.08	9.27	74.00	-23.08	200	173	Vertical	No limit
2	2483.5	45.33	54.61	9.28	74.00	19.39	100	266	Vertical	/
3	2486.5712	46.94	56.23	9.29	74.00	17.77	100	173	Vertical	/
4	2500	44.71	54.06	9.35	74.00	19.94	100	173	Vertical	/

Highest Frequency

Frequency 2480MHz

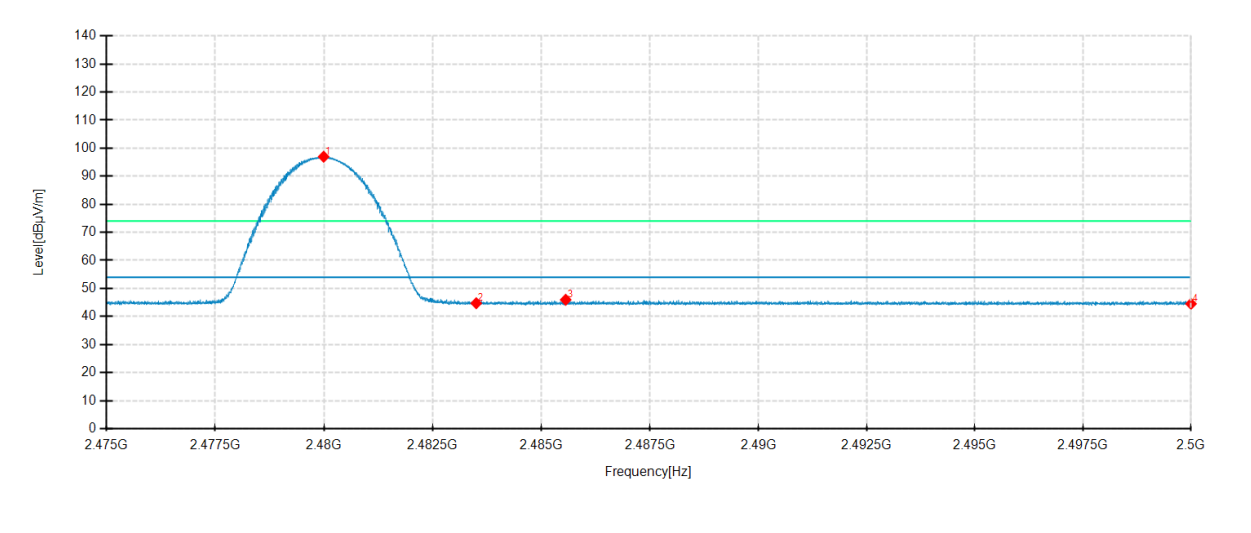
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

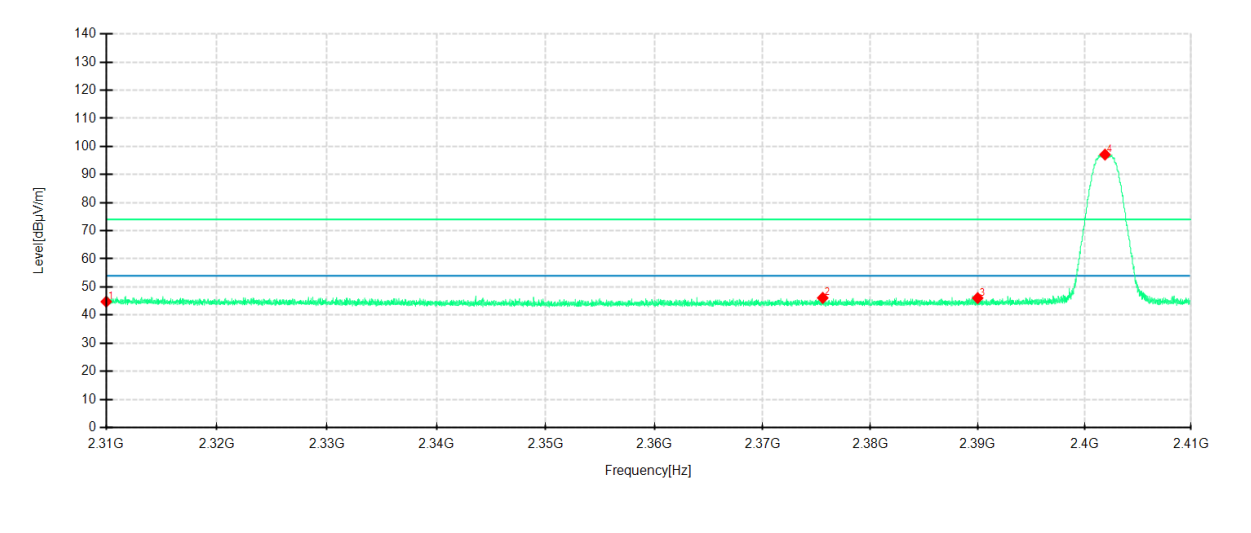
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2480.038	86.62	96.47	9.85	54.00	-42.47	200	173	Horizontal	No limit
2	2483.5	35.16	45.08	9.92	54.00	8.92	100	173	Horizontal	/
3	2490.5091	36.24	46.30	10.06	54.00	7.70	100	278	Horizontal	/
4	2500	35.60	45.85	10.25	54.00	8.15	100	173	Horizontal	/
1	2479.9905	87.69	96.96	9.27	54.00	-42.96	200	187	Vertical	No limit
2	2483.5	35.44	44.72	9.28	54.00	9.28	100	235	Vertical	/
3	2485.5586	36.66	45.95	9.29	54.00	8.05	100	224	Vertical	/
4	2500	35.16	44.51	9.35	54.00	9.49	100	187	Vertical	/

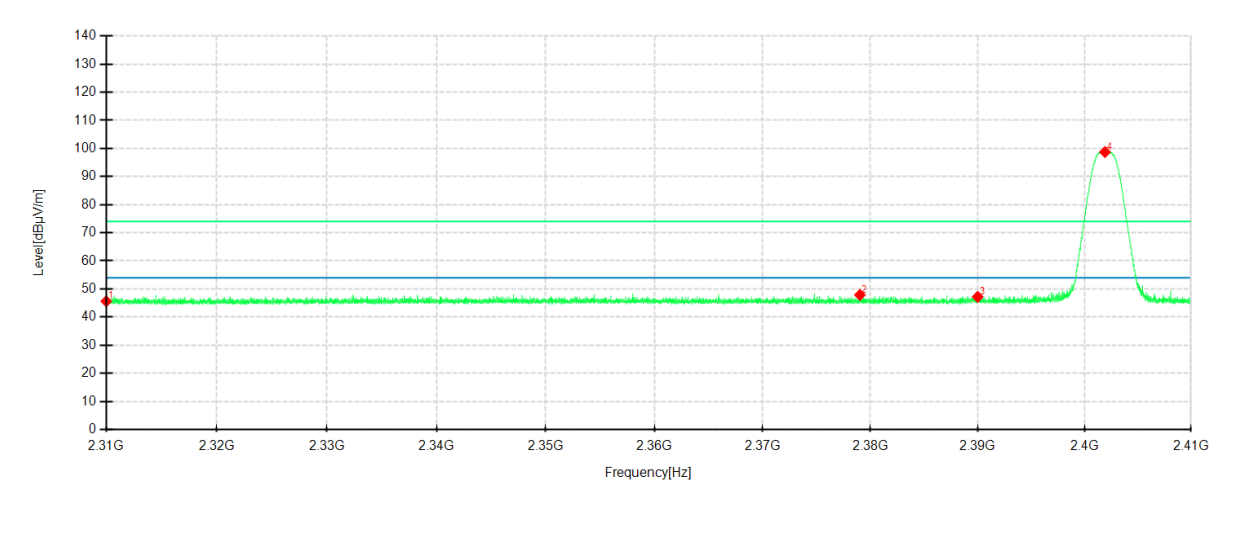
BLE 2M
Lowest Frequency
Frequency 2402MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dB μ V/m	Level dB μ V/m	Factor dB	Limit dB μ V/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	45.05	44.76	-0.29	74.00	29.24	200	61	Horizontal	/
2	2375.5766	47.07	46.11	-0.96	74.00	27.89	200	188	Horizontal	/
3	2390.0000	46.89	46.04	-0.85	74.00	27.96	100	174	Horizontal	/
4	2401.9192	97.85	97.10	-0.75	74.00	-23.10	100	319	Horizontal	No limit
1	2310.0000	45.32	45.61	0.29	74.00	28.39	100	0	Vertical	/
2	2379.0269	47.52	47.88	0.36	74.00	26.12	100	187	Vertical	/
3	2390.0000	46.90	47.19	0.29	74.00	26.81	200	172	Vertical	
4	2401.9192	98.54	98.74	0.20	74.00	-24.74	200	224	Vertical	No limit

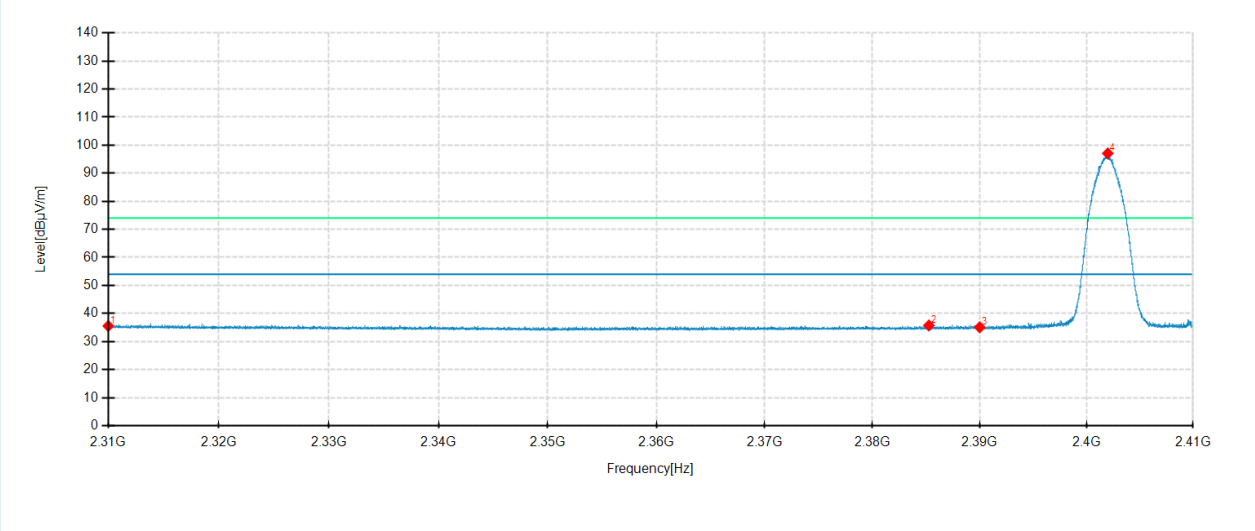
----- The following blanks -----

Lowest Frequency

Frequency 2402MHz

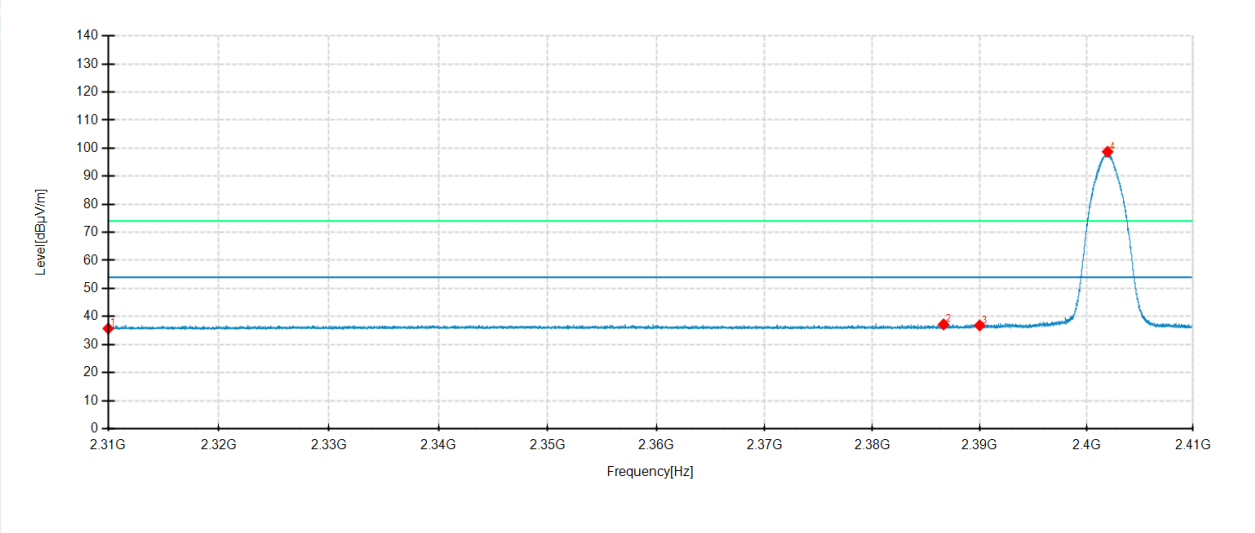
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

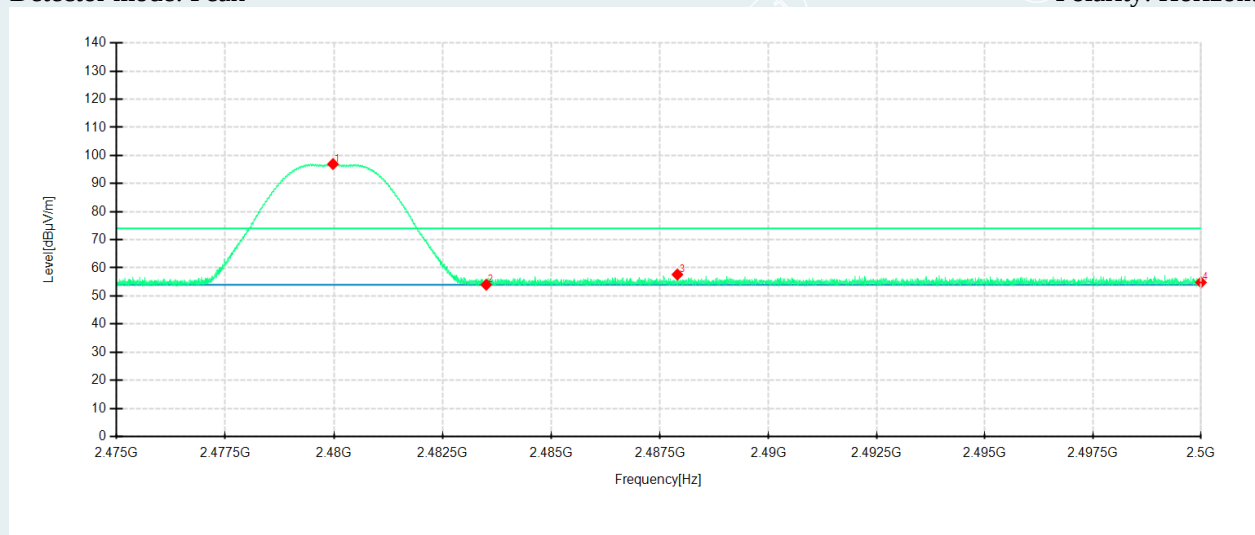
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	35.82	35.53	-0.29	54.00	18.47	100	249	Horizontal	/
2	2385.2675	36.61	35.72	-0.89	54.00	18.28	200	73	Horizontal	/
3	2390.0000	35.92	35.07	-0.85	54.00	18.93	100	331	Horizontal	/
4	2401.9892	97.83	97.08	-0.75	54.00	-43.08	100	321	Horizontal	No limit
1	2310.0000	35.41	35.70	0.29	54.00	18.30	100	40	Vertical	/
2	2386.6277	36.86	37.17	0.31	54.00	16.83	200	236	Vertical	/
3	2390.0000	36.51	36.80	0.29	54.00	17.20	200	172	Vertical	/
4	2401.9792	98.53	98.73	0.20	54.00	-44.73	200	225	Vertical	No limit

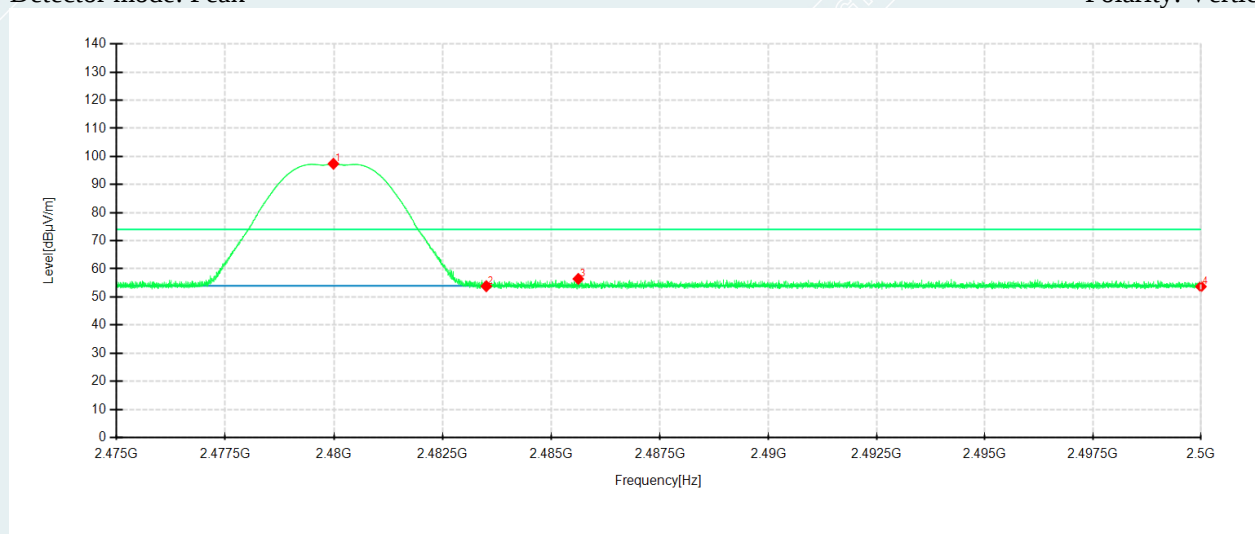
Highest Frequency
Frequency 2480MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



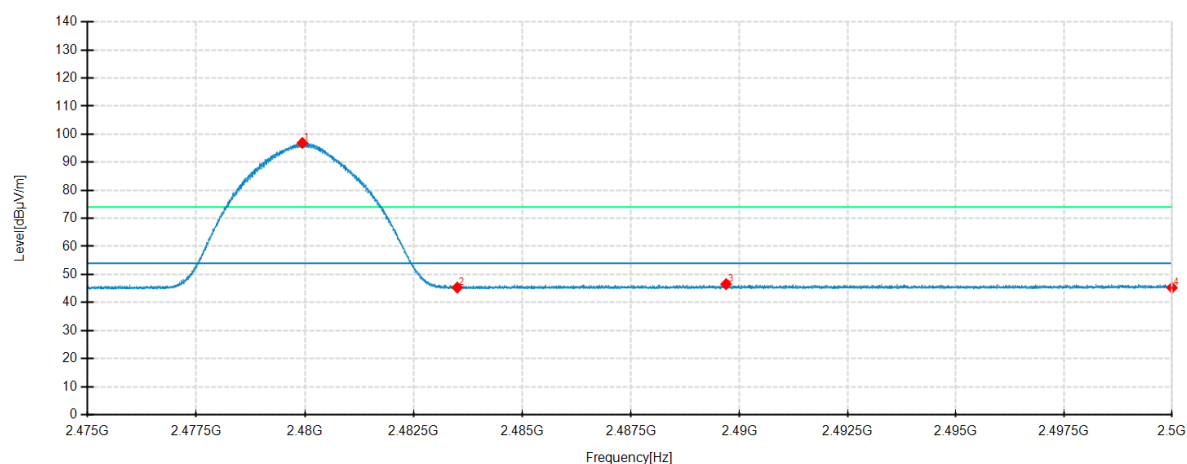
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.9755	87.09	96.94	9.85	74.00	-22.94	200	276	Horizontal	No limit
2	2483.5	44.07	53.99	9.92	74.00	20.01	100	171	Horizontal	/
3	2487.9013	47.61	57.62	10.01	74.00	16.38	100	276	Horizontal	/
4	2500	44.58	54.83	10.25	74.00	19.17	100	171	Horizontal	/
1	2479.9855	88.12	97.39	9.27	74.00	-23.39	200	156	Vertical	No limit
2	2483.5	44.55	53.83	9.28	54.00	0.17	100	146	Vertical	/
3	2485.6186	47.14	56.43	9.29	74.00	17.57	100	44	Vertical	/
4	2500	44.35	53.70	9.35	54.00	0.30	100	189	Vertical	/

Highest Frequency

Frequency 2480MHz

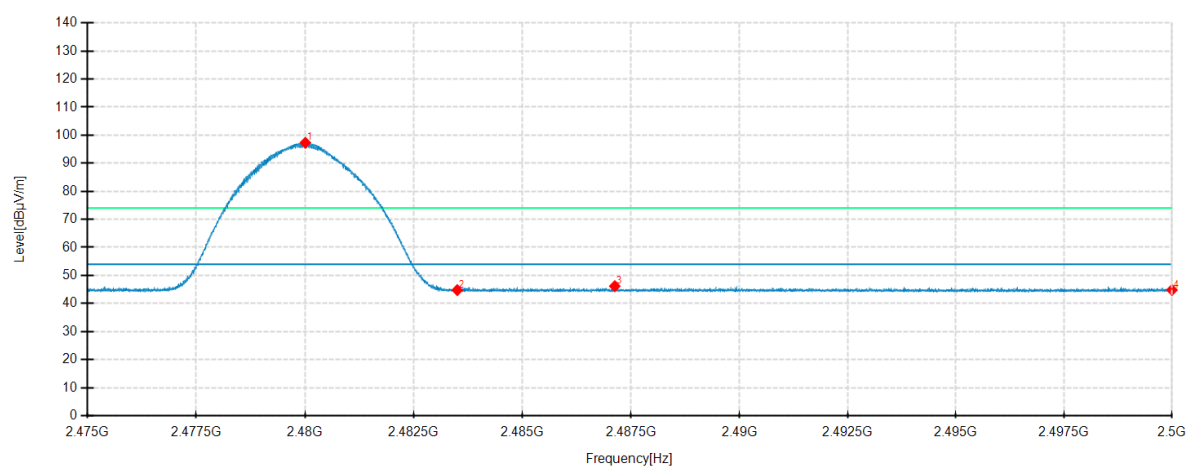
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.938	87.03	96.88	9.85	54.00	-42.88	200	276	Horizontal	No limit
2	2483.5	35.39	45.31	9.92	54.00	8.69	100	276	Horizontal	/
3	2489.694	36.49	46.54	10.05	54.00	7.46	100	172	Horizontal	/
4	2500	35.00	45.25	10.25	54.00	8.75	100	193	Horizontal	/
1	2480.008	88.02	97.29	9.27	54.00	-43.29	200	156	Vertical	No limit
2	2483.5	35.48	44.76	9.28	54.00	9.24	100	188	Vertical	/
3	2487.1262	36.87	46.17	9.30	54.00	7.83	100	22	Vertical	/
4	2500	35.48	44.83	9.35	54.00	9.17	100	54	Vertical	/

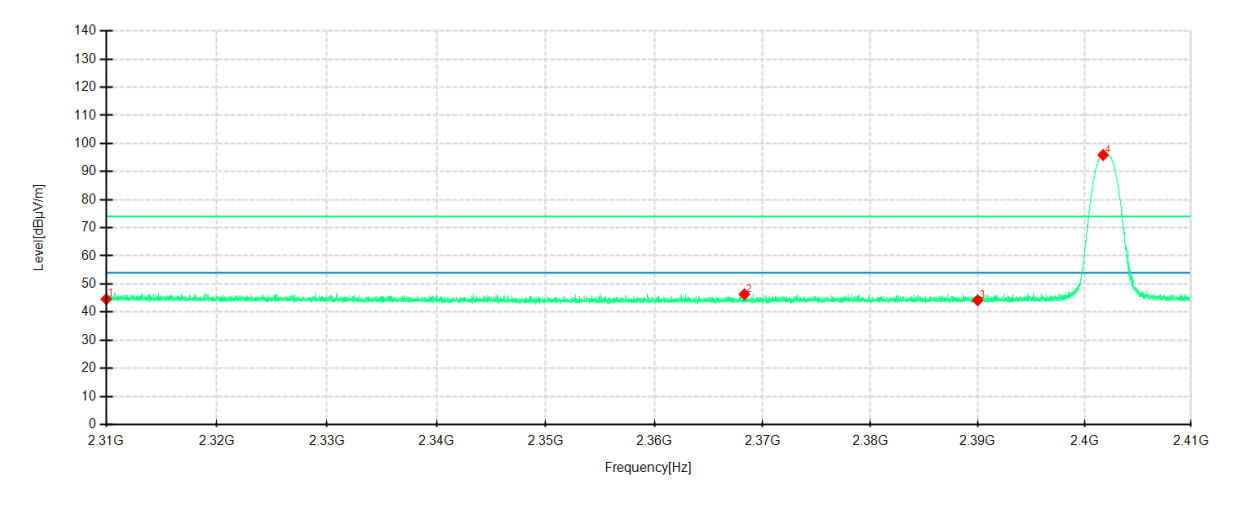
Remark: Max field strength in 3m distance. No any other emission which falls in restricted bands can be detected and be reported.

Right earphone

Equipment:	Wireless Earbuds	Test Date	2022-10-21
Model No.:	E507A	Test Engineer:	Yang zhaoyun
Test Voltage:	DC 3.85V	Environmental Conditions	24.5℃/43%RH/101.0kPa

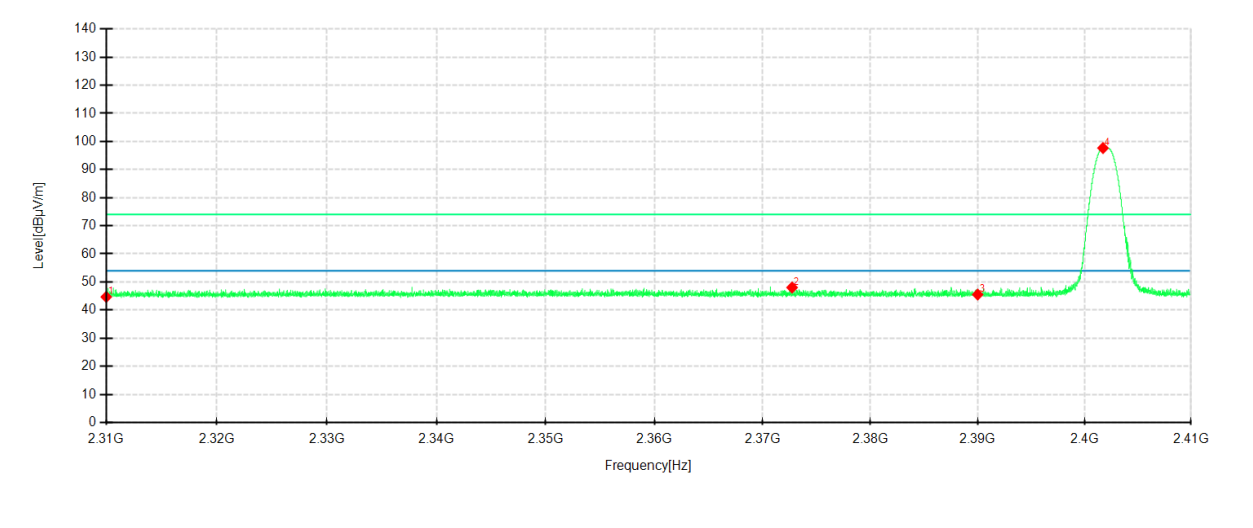
BLE 1M
Lowest Frequency
Frequency 2402MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dB μ V/m	Level dB μ V/m	Factor dB	Limit dB μ V/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	44.90	44.61	-0.29	74.00	29.39	200	0	Horizontal	/
2	2368.3158	47.36	46.34	-1.02	74.00	27.66	100	173	Horizontal	/
3	2390.0000	45.02	44.17	-0.85	74.00	29.83	100	225	Horizontal	/
4	2401.7392	96.65	95.89	-0.76	74.00	-21.89	100	184	Horizontal	No limit
1	2310.0000	44.39	44.68	0.29	74.00	29.32	100	64	Vertical	/
2	2372.7363	47.63	48.03	0.40	74.00	25.97	200	173	Vertical	/
3	2390.0000	45.24	45.53	0.29	74.00	28.47	200	224	Vertical	/
4	2401.7292	97.44	97.65	0.21	74.00	-23.65	200	266	Vertical	No limit

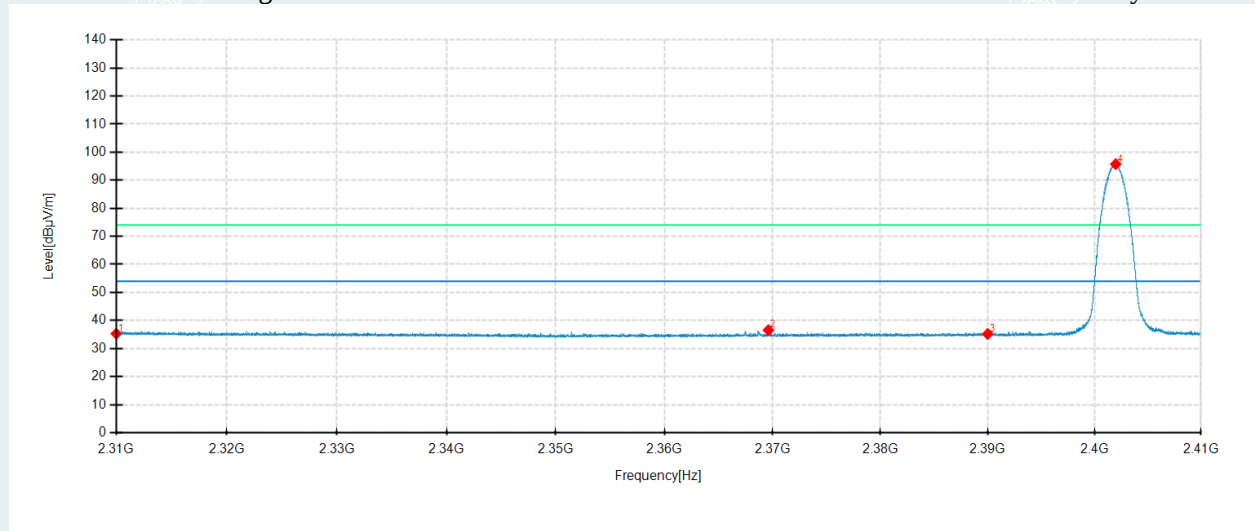
----- The following blanks -----

Lowest Frequency

Frequency 2402MHz

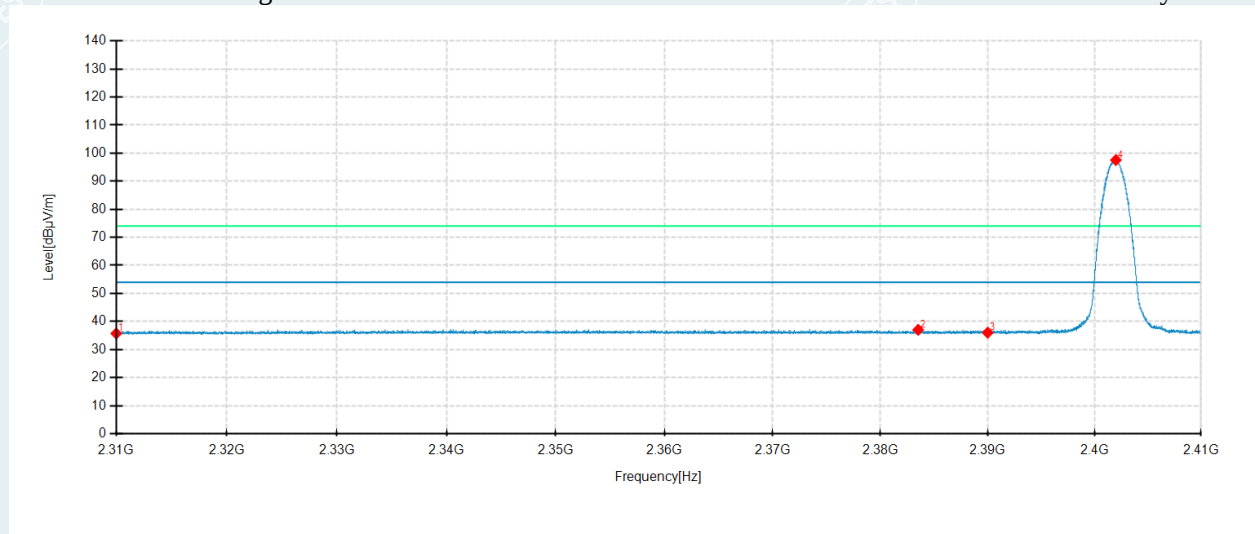
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

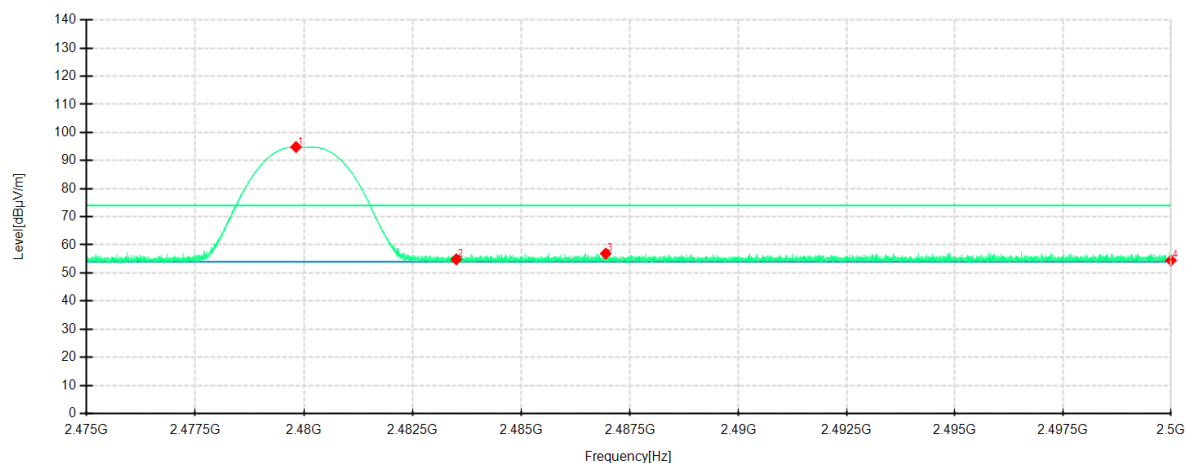
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	35.58	35.29	-0.29	54.00	18.71	100	173	Horizontal	/
2	2369.6160	37.57	36.56	-1.01	54.00	17.44	100	173	Horizontal	/
3	2390.0000	36.03	35.18	-0.85	54.00	18.82	200	55	Horizontal	/
4	2401.9892	96.49	95.74	-0.75	54.00	-41.74	100	183	Horizontal	No limit
1	2310.0000	35.43	35.72	0.29	54.00	18.28	100	96	Vertical	/
2	2383.5174	36.71	37.04	0.33	54.00	16.96	200	326	Vertical	/
3	2390.0000	35.71	36.00	0.29	54.00	18.00	200	326	Vertical	/
4	2401.9992	97.36	97.56	0.20	54.00	-43.56	200	264	Vertical	No limit

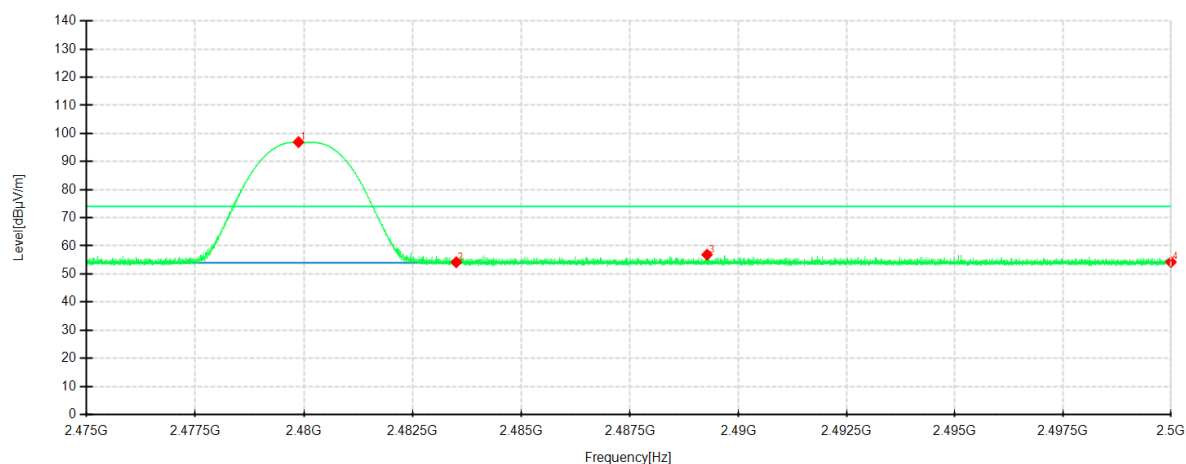
Highest Frequency
Frequency 2480MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



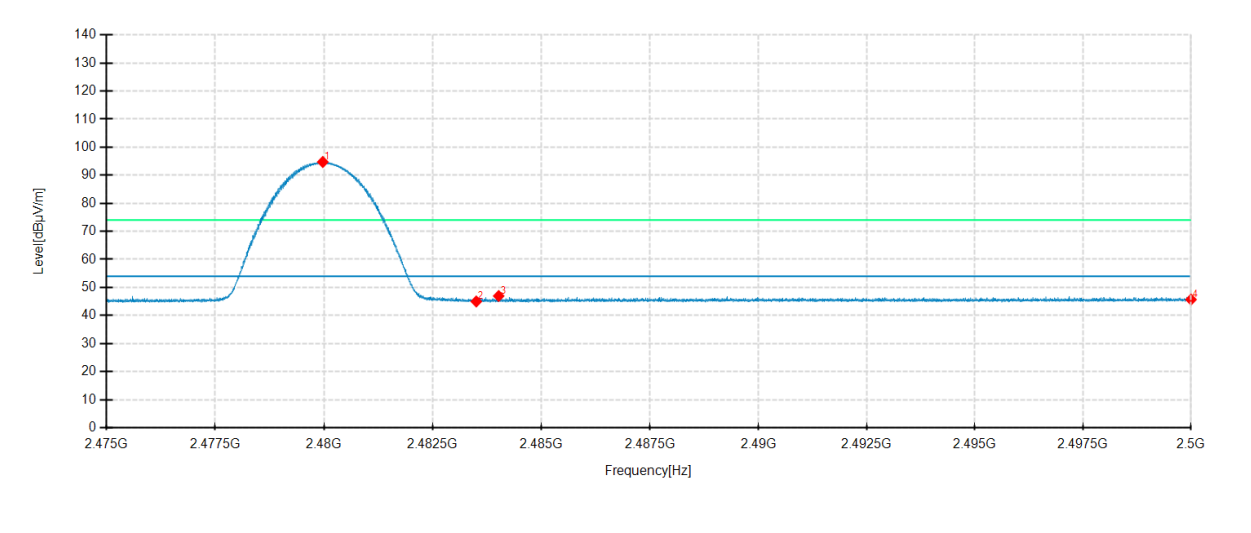
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.8155	84.97	94.82	9.85	74.00	-20.82	200	359	Horizontal	No limit
2	2483.5	44.92	54.84	9.92	74.00	19.16	100	246	Horizontal	/
3	2486.9412	46.90	56.89	9.99	74.00	17.11	100	349	Horizontal	/
4	2500	44.23	54.48	10.25	74.00	19.52	100	172	Horizontal	/
1	2479.873	87.65	96.92	9.27	74.00	-22.92	200	91	Vertical	No limit
2	2483.5	44.88	54.16	9.28	74.00	19.84	100	188	Vertical	/
3	2489.2764	47.55	56.85	9.30	74.00	17.15	100	145	Vertical	/
4	2500	44.88	54.23	9.35	74.00	19.77	100	0	Vertical	/

Highest Frequency

Frequency 2480MHz

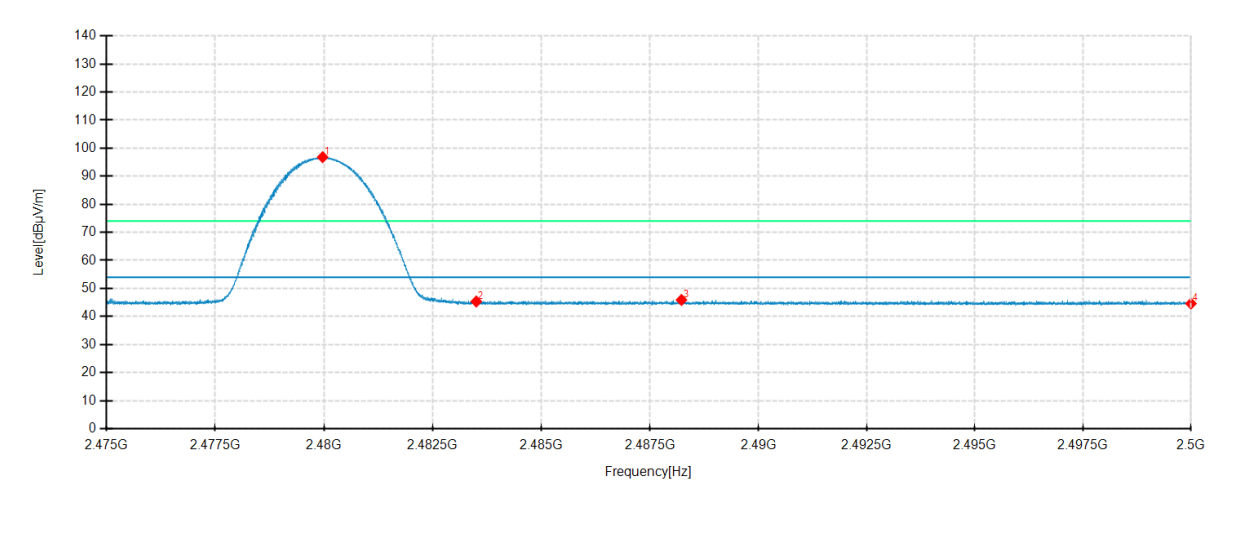
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

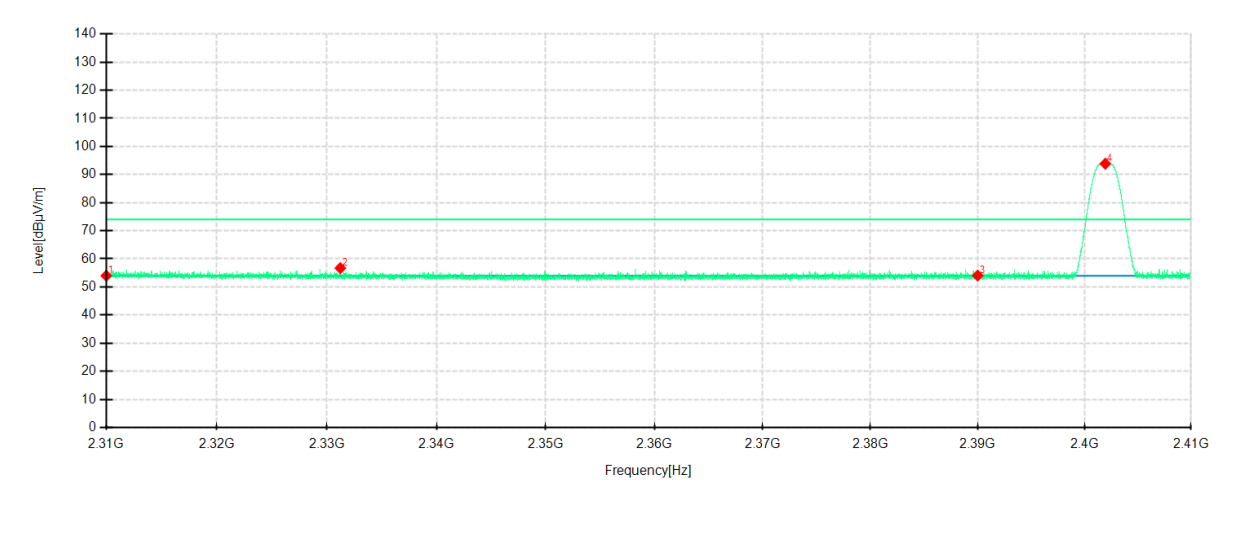
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.9705	84.87	94.72	9.85	54.00	-40.72	200	358	Horizontal	No limit
2	2483.5	35.07	44.99	9.92	54.00	9.01	100	254	Horizontal	/
3	2484.0159	37.03	46.95	9.92	54.00	7.05	100	192	Horizontal	/
4	2500	35.42	45.67	10.25	54.00	8.33	100	223	Horizontal	/
1	2479.968	87.53	96.80	9.27	54.00	-42.80	200	86	Vertical	No limit
2	2483.5	36.05	45.33	9.28	54.00	8.67	100	188	Vertical	/
3	2488.2263	36.59	45.89	9.30	54.00	8.11	100	157	Vertical	/
4	2500	35.25	44.60	9.35	54.00	9.40	100	44	Vertical	/

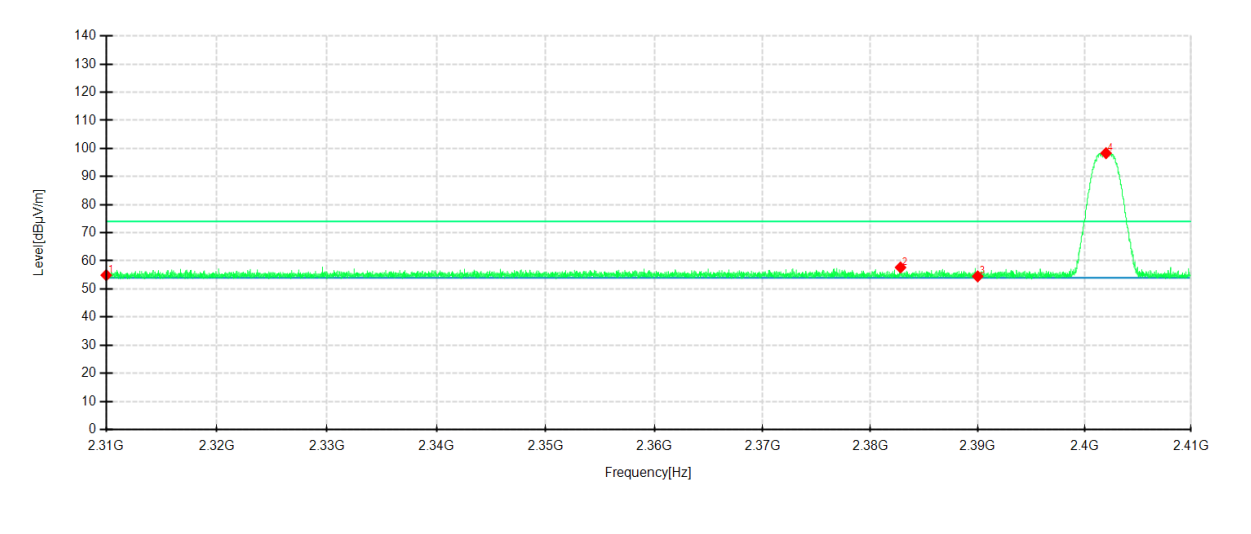
BLE 2M
Lowest Frequency
Frequency 2402MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dB μ V/m	Level dB μ V/m	Factor dB	Limit dB μ V/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310	44.65	54.00	9.35	74.00	20.00	200	360	Horizontal	/
2	2331.2221	47.79	56.70	8.91	74.00	17.30	100	173	Horizontal	/
3	2390	45.12	54.05	8.93	74.00	19.95	100	358	Horizontal	/
4	2401.9492	84.83	93.87	9.04	74.00	-19.87	100	276	Horizontal	No limit
1	2310	44.98	54.91	9.93	74.00	19.09	200	188	Vertical	/
2	2382.8073	47.56	57.65	10.09	74.00	16.35	100	126	Vertical	/
3	2390	44.42	54.49	10.07	74.00	19.51	100	188	Vertical	
4	2402.0192	88.33	98.32	9.99	74.00	-24.32	100	188	Vertical	No limit

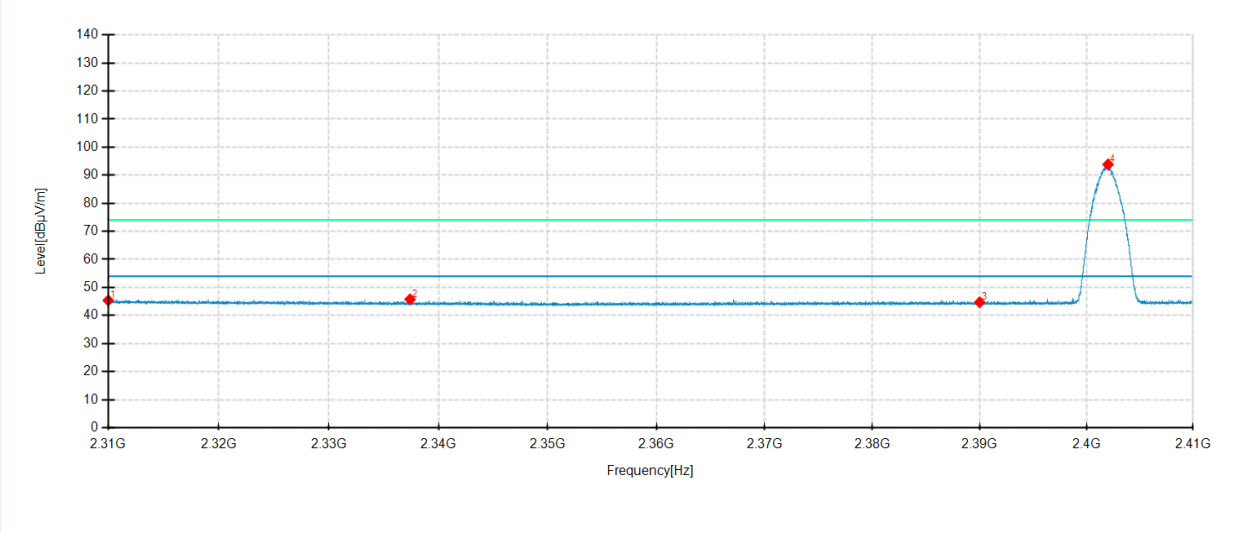
----- The following blanks -----

Lowest Frequency

Frequency 2402MHz

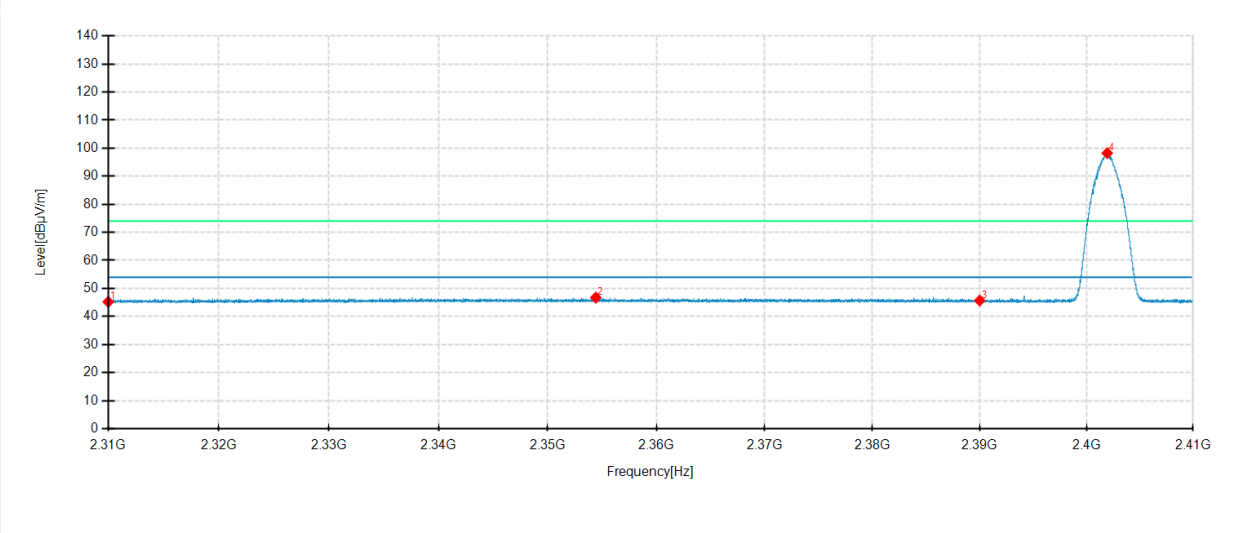
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

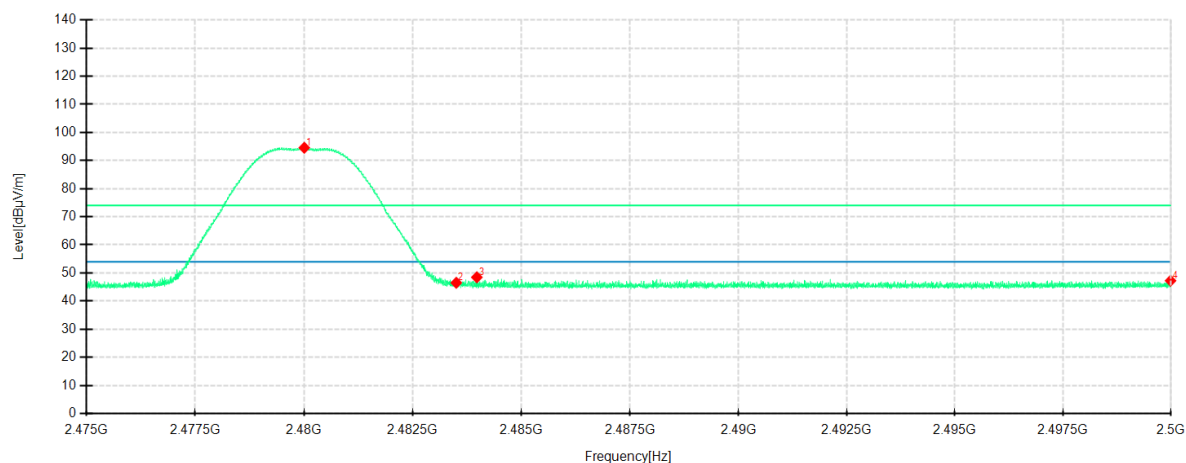
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310	36.05	45.40	9.35	54.00	8.60	200	203	Horizontal	/
2	2337.4027	36.98	45.76	8.78	54.00	8.24	100	223	Horizontal	/
3	2390	35.78	44.71	8.93	54.00	9.29	100	172	Horizontal	/
4	2402.0192	84.80	93.84	9.04	54.00	-39.84	100	277	Horizontal	No limit
1	2310	35.29	45.22	9.93	54.00	8.78	200	187	Vertical	/
2	2354.4244	36.51	46.72	10.21	54.00	7.28	100	74	Vertical	/
3	2390	35.61	45.68	10.07	54.00	8.32	100	187	Vertical	/
4	2401.9392	88.23	98.22	9.99	54.00	-44.22	100	187	Vertical	No limit

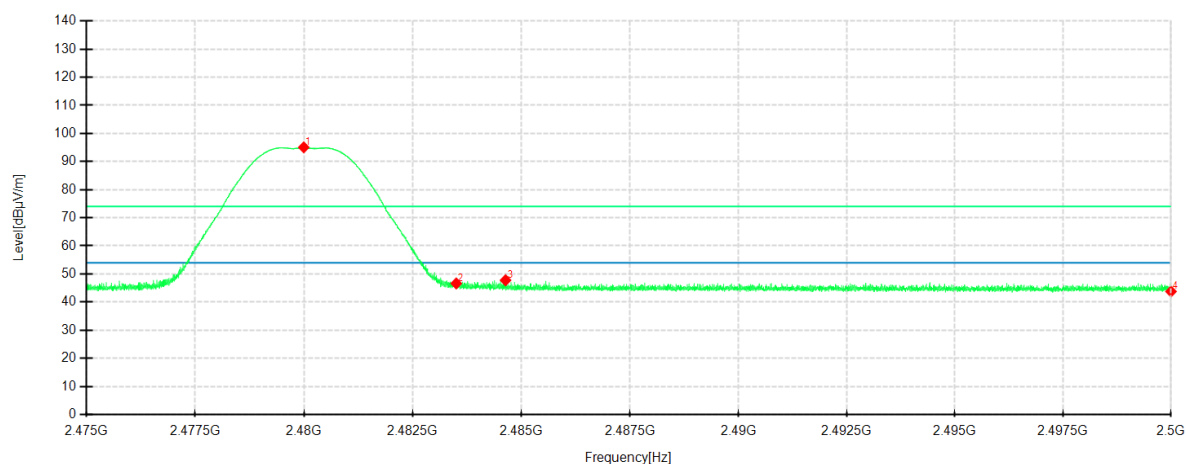
Highest Frequency
Frequency 2480MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



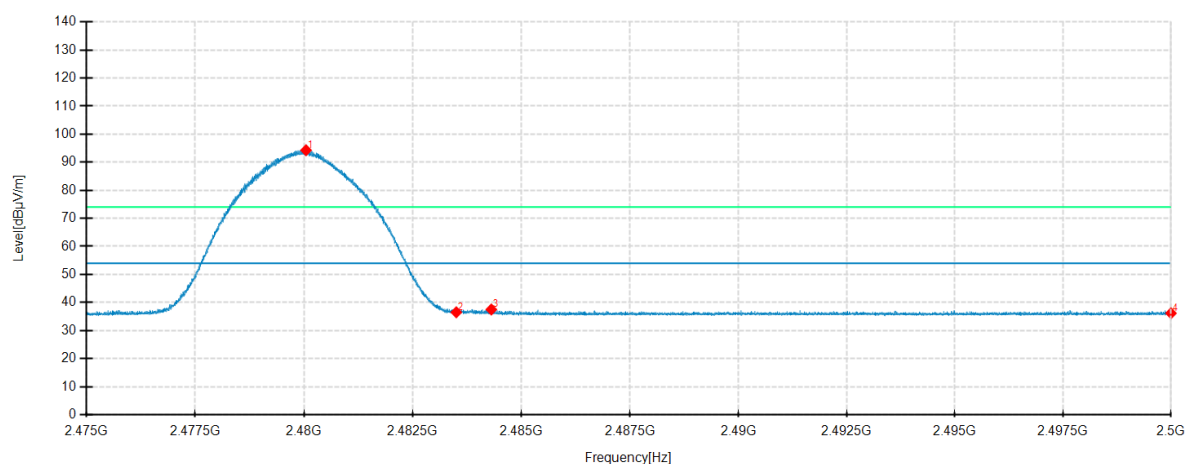
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2480.0055	94.36	94.55	0.19	74.00	-20.55	100	305	Horizontal	No limit
2	2483.5000	46.25	46.51	0.26	74.00	27.49	200	167	Horizontal	/
3	2483.9734	48.19	48.46	0.27	74.00	25.54	200	107	Horizontal	/
4	2499.9900	46.66	47.24	0.58	74.00	26.76	200	96	Horizontal	/
1	2479.9930	95.46	95.07	-0.39	74.00	-21.07	200	233	Vertical	No limit
2	2483.5000	47.01	46.63	-0.38	74.00	27.37	200	223	Vertical	/
3	2484.6335	48.14	47.77	-0.37	74.00	26.23	200	223	Vertical	/
4	2500.0000	44.09	43.77	-0.32	74.00	30.23	100	46	Vertical	/

Highest Frequency

Frequency 2480MHz

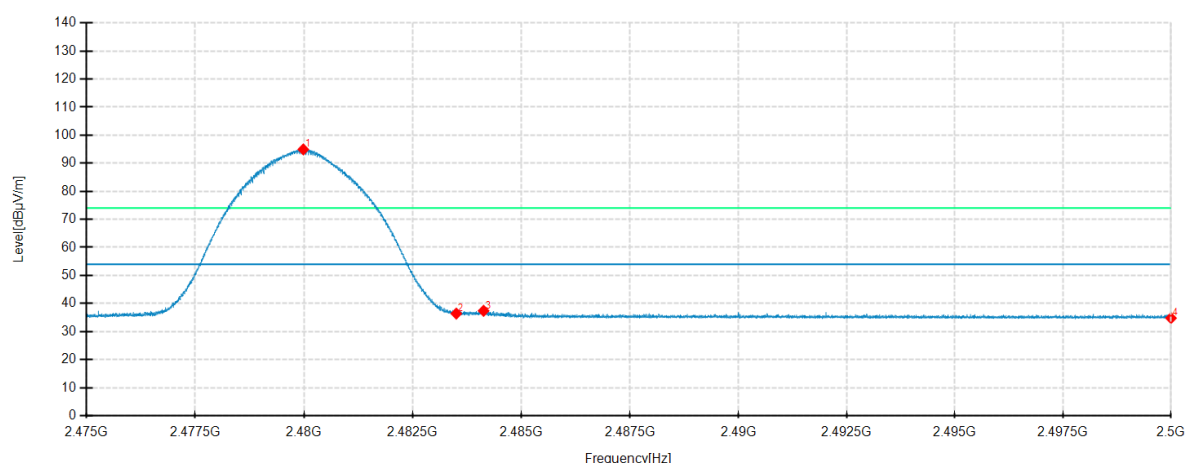
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2480.0455	94.08	94.27	0.19	54.00	-40.27	100	306	Horizontal	No limit
2	2483.5000	36.24	36.50	0.26	54.00	17.50	200	116	Horizontal	/
3	2484.3059	37.22	37.50	0.28	54.00	16.50	100	173	Horizontal	/
4	2500.0000	35.58	36.16	0.58	54.00	17.84	100	285	Horizontal	/
1	2479.9830	95.32	94.93	-0.39	54.00	-40.93	200	233	Vertical	No limit
2	2483.5000	36.77	36.39	-0.38	54.00	17.61	100	187	Vertical	/
3	2484.1284	37.75	37.38	-0.37	54.00	16.62	200	224	Vertical	/
4	2500.0000	35.11	34.79	-0.32	54.00	19.21	100	187	Vertical	/

Remark: Max field strength in 3m distance. No any other emission which falls in restricted bands can be detected and be reported.

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the attached document E20221011998501-9-Test Photo.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E20221011998501-10-EUT Photo.

----- End of Report -----