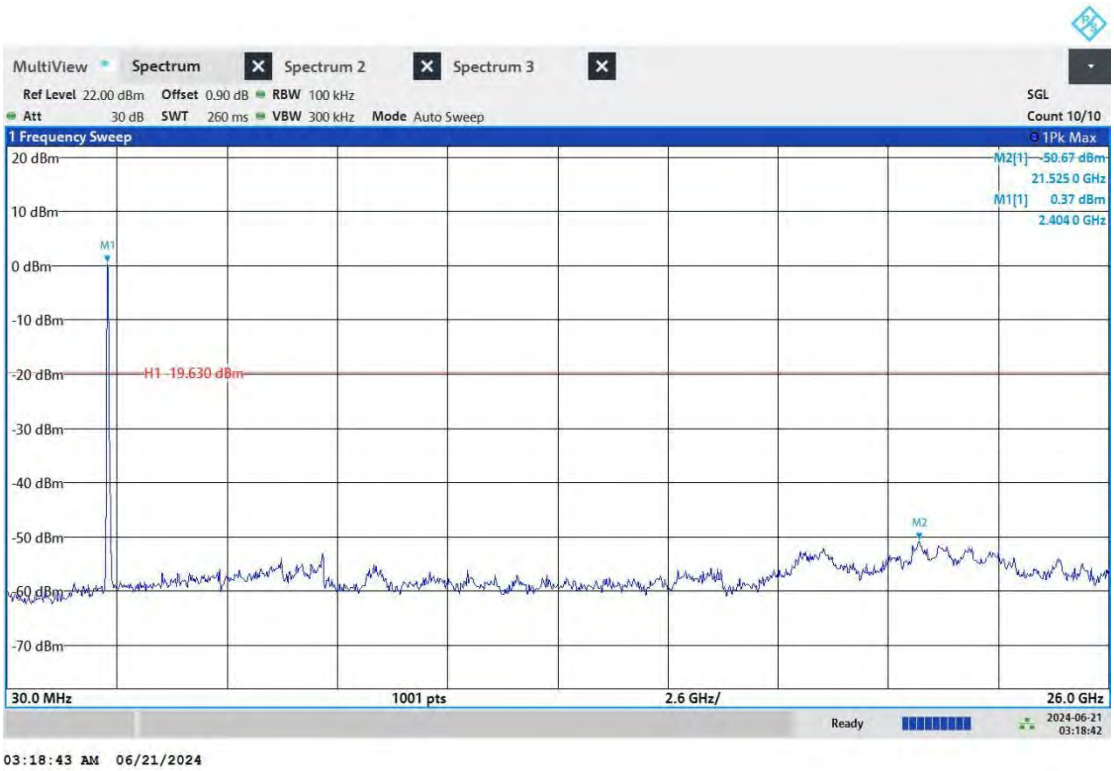
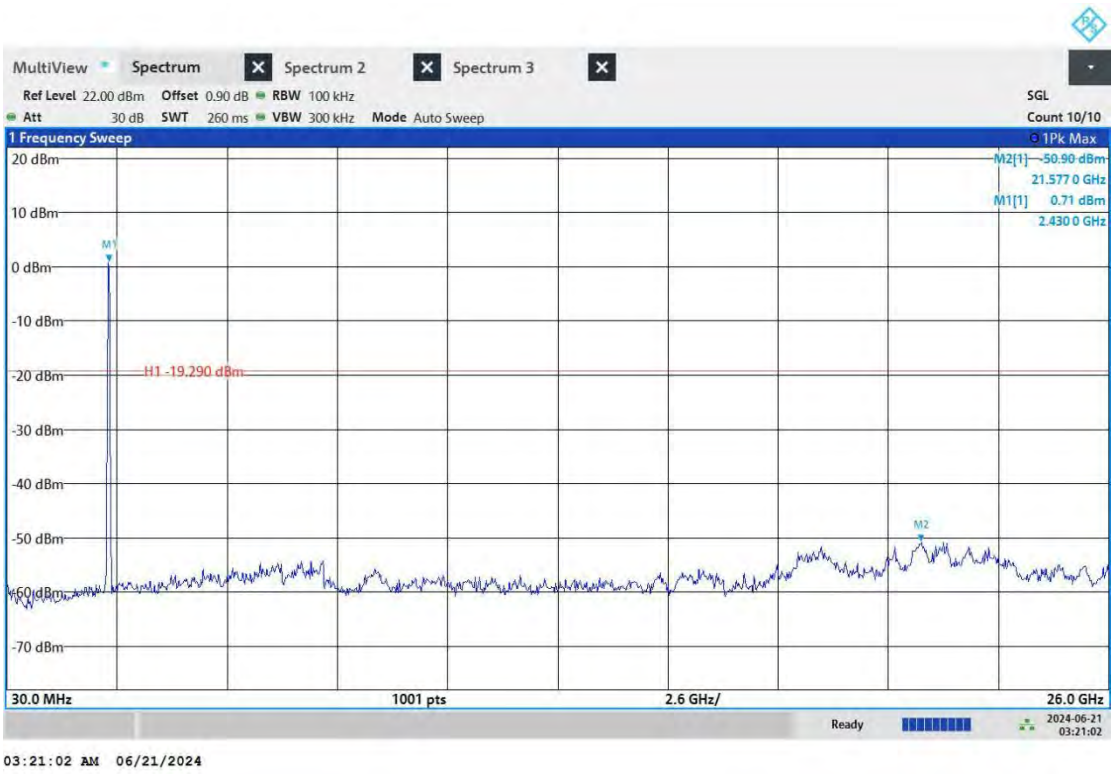
11N20_Ant0_2462_30~260000

11N40_Ant0_2422_30~260000



11N40_Ant0_2437_30~260000



11N40_Ant0_2452_30~260000

20M

RBW 100.000 kHz

VBW 300.000 kHz

40M

RBW 100.000 kHz

VBW 300.000 kHz

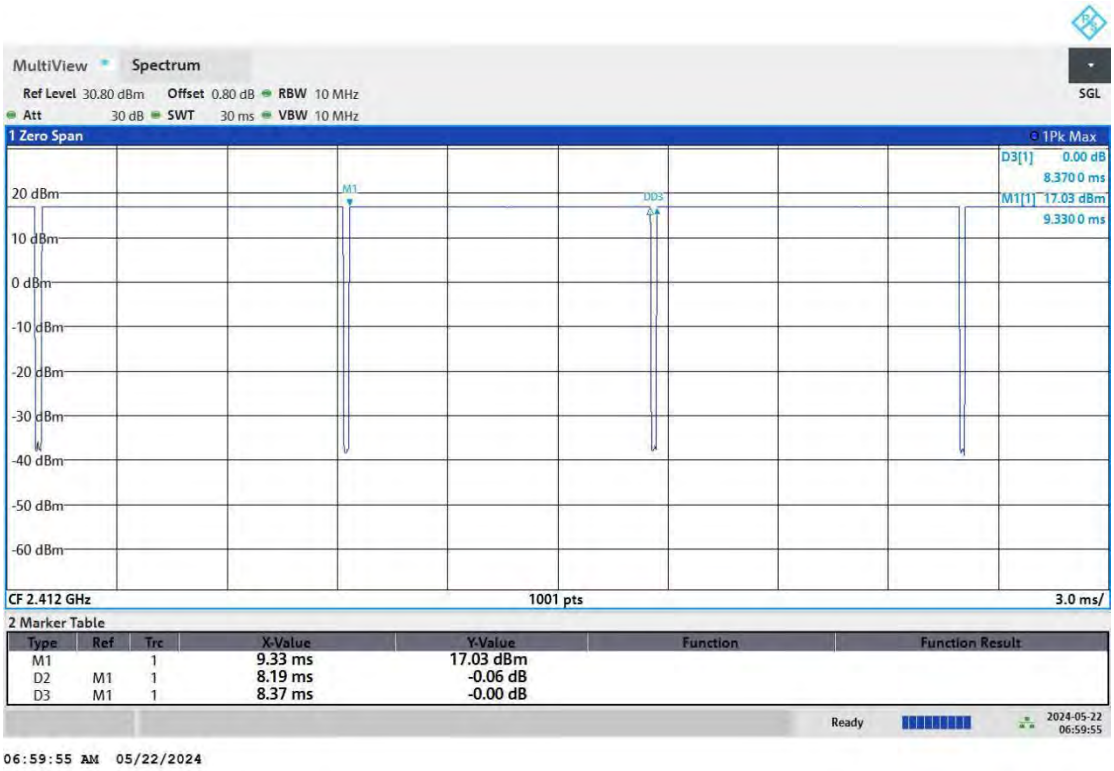
DUTY CYCLE

TEST RESULT

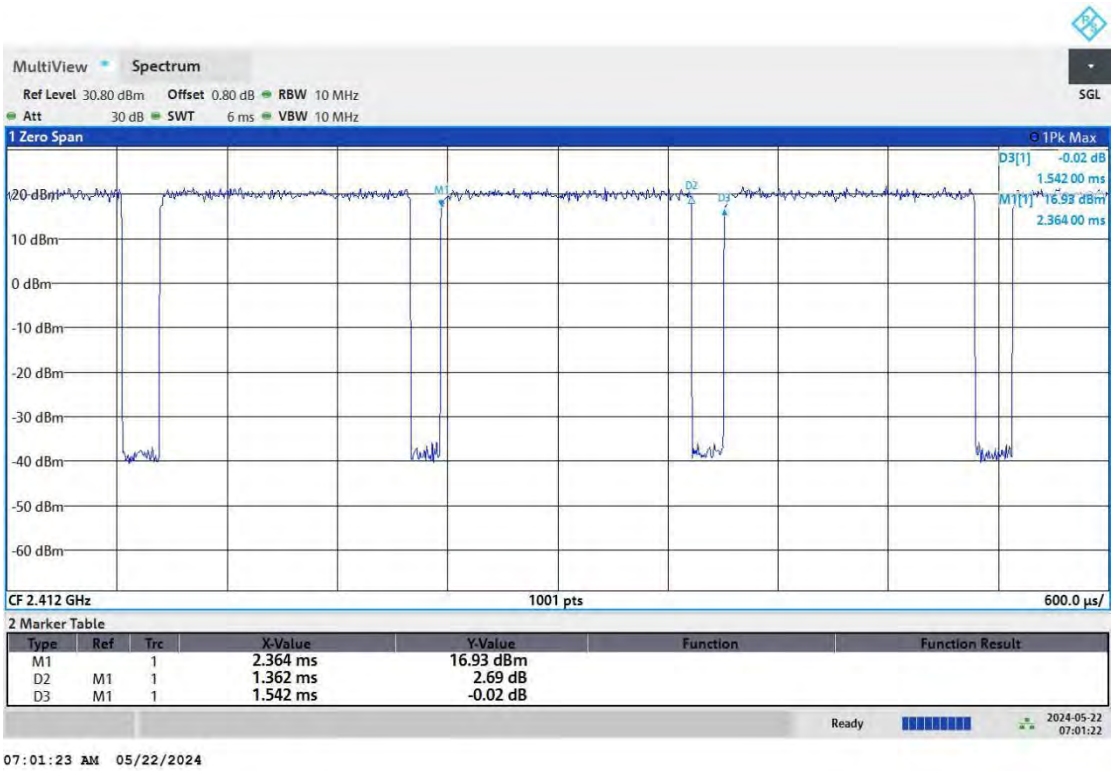
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	dutycycle factor
11B	Ant0	2412	8.1900	8.3700	97.85%	0.09
11G	Ant0	2412	1.3620	1.5420	88.33%	0.54
11N20	Ant0	2412	1.1520	1.1970	96.24%	0.17
11N40	Ant0	2422	0.5735	0.7810	73.43%	1.34

TEST GRAPHS

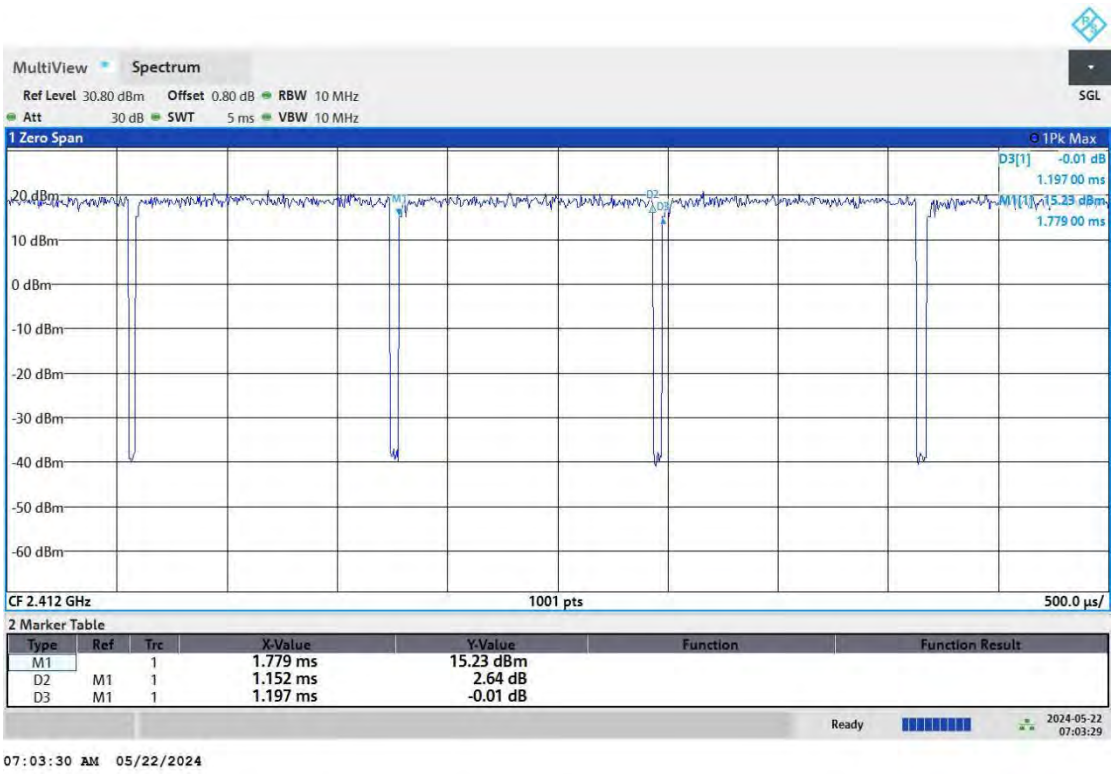
11B_Ant0_2412



11G_Ant0_2412



11N20_Ant0_2412



11N40_Ant0_2422

MultiView
Spectrum
Ref Level 30.80 dBm Offset 0.80 dB RBW 10 MHz
Att 30 dB SWT 2.5 ms VBW 10 MHz
SGL
1 Zero Span
1Pk Max
D3[1] 0.04 dB
781.00 µs
M1[1] 10.55 dBm
876.50 µs
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
CF 2.412 GHz
1001 pts
250.0 µs/
2 Marker Table
Type Ref Trc X-Value Y-Value Function Function Result
M1 1 876.5 µs 10.55 dBm
D2 M1 1 573.5 µs 2.74 dB
D3 M1 1 781.0 µs 0.04 dB
Ready
2024-05-22
07:04:58
07:04:58 AM 05/22/2024

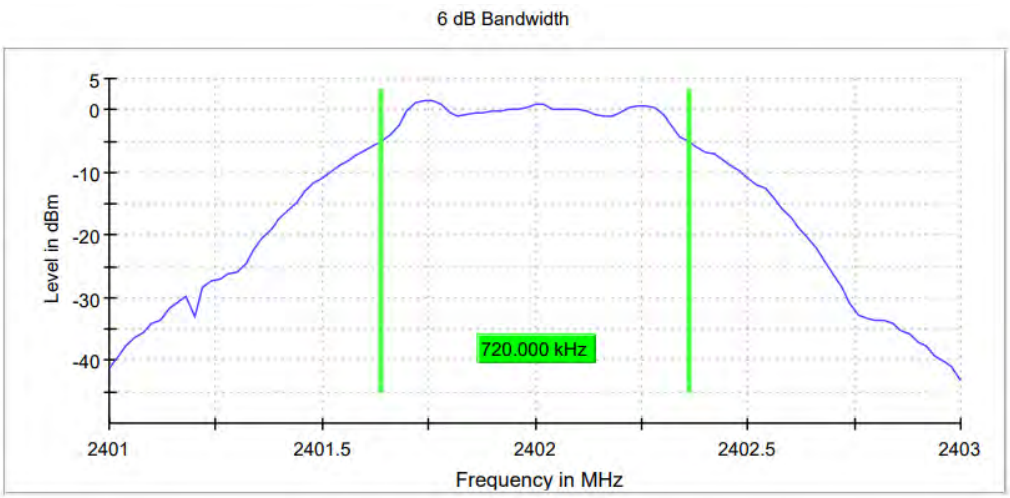
7 APPENDIX 2 BLE

DTS BANDWIDTH

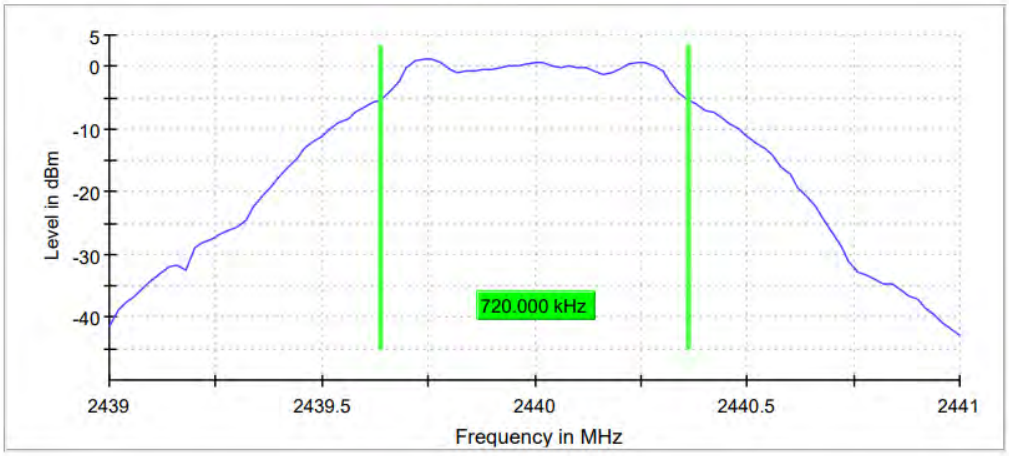
TEST RESULT

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.720	2401.640	2402.360	0.5	PASS
		2440	0.720	2439.640	2440.360	0.5	PASS
		2480	0.720	2479.640	2480.360	0.5	PASS
BLE_2M	Ant1	2404	1.280	2403.360	2404.640	0.5	PASS
		2440	1.280	2439.360	2440.640	0.5	PASS
		2478	1.280	2477.360	2478.640	0.5	PASS
BLE-S2	Ant1	2402	0.720	2401.640	2402.360	0.5	PASS
		2440	0.700	2439.660	2440.360	0.5	PASS
		2480	0.700	2479.660	2480.360	0.5	PASS
BLE_S8	Ant1	2402	0.660	2401.660	2402.320	0.5	PASS
		2440	0.660	2439.660	2440.320	0.5	PASS
		2480	0.640	2479.680	2480.320	0.5	PASS

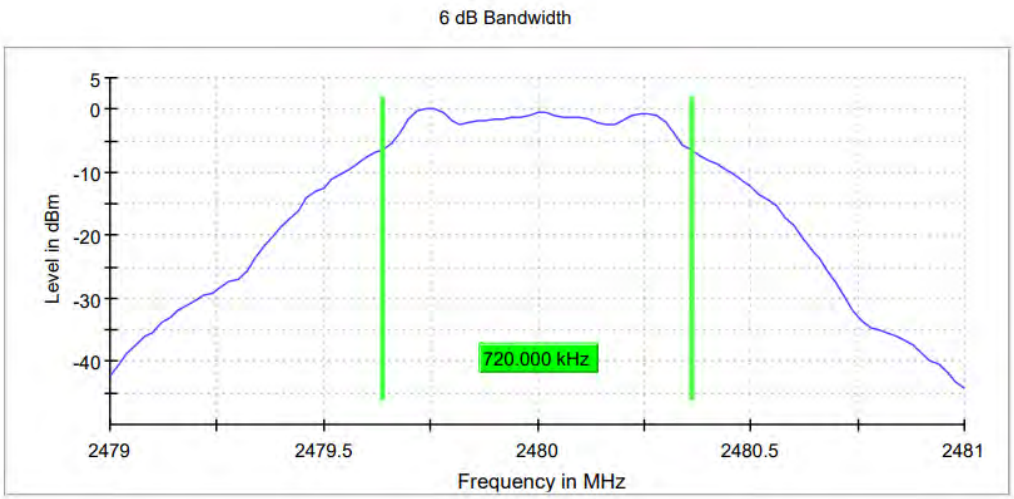
TEST GRAPHS



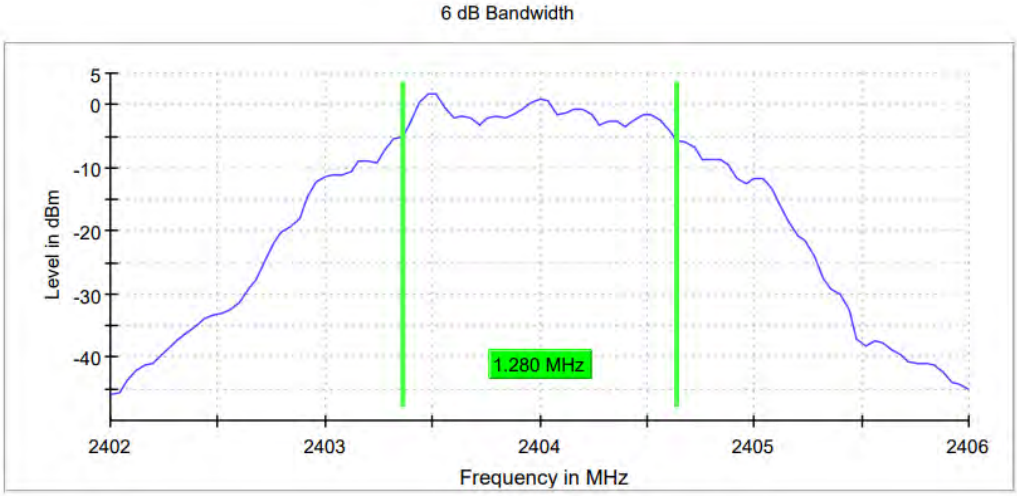
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440

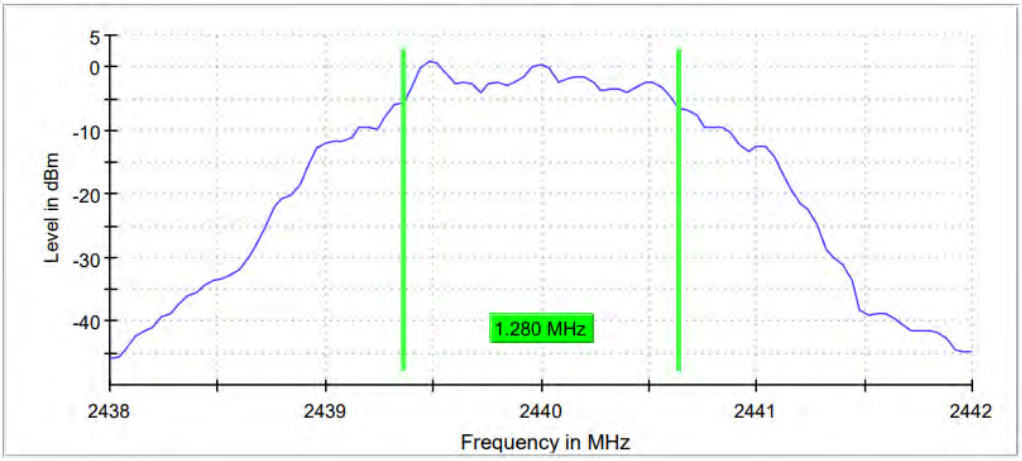


BLE_1M_Ant1_2480



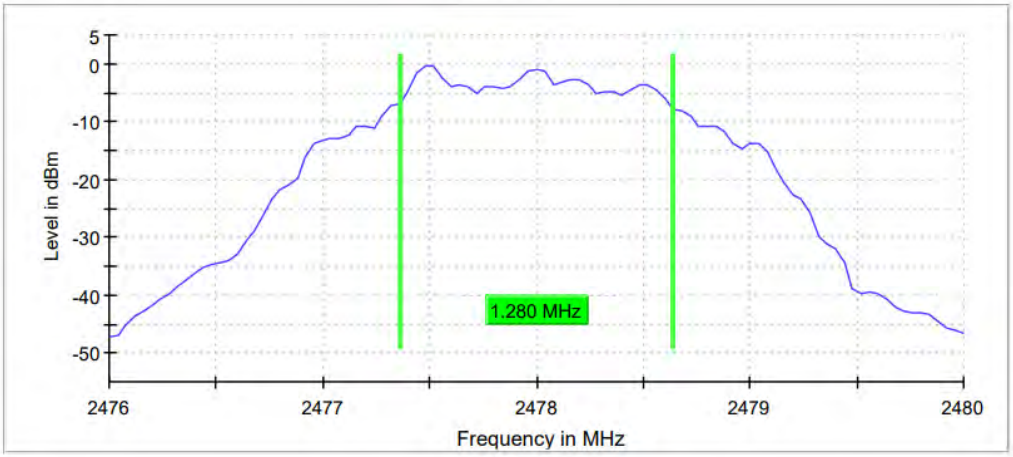
BLE_2M_Ant1_2404

6 dB Bandwidth



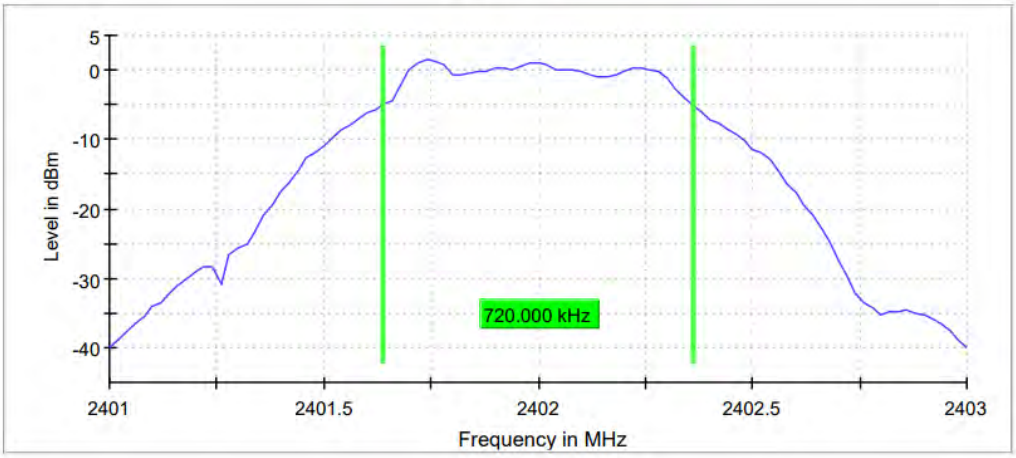
BLE_2M_Ant1_2440

6 dB Bandwidth

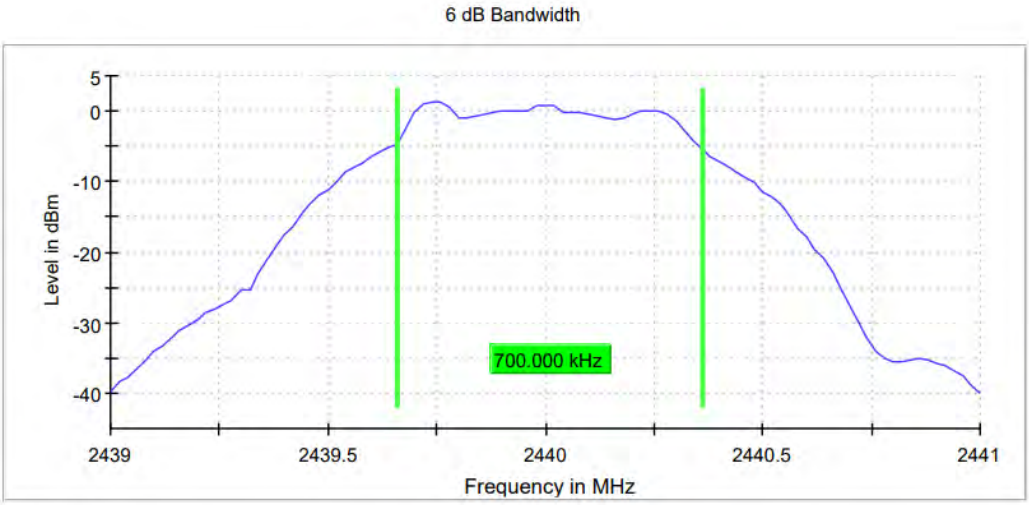


BLE_2M_Ant1_2478

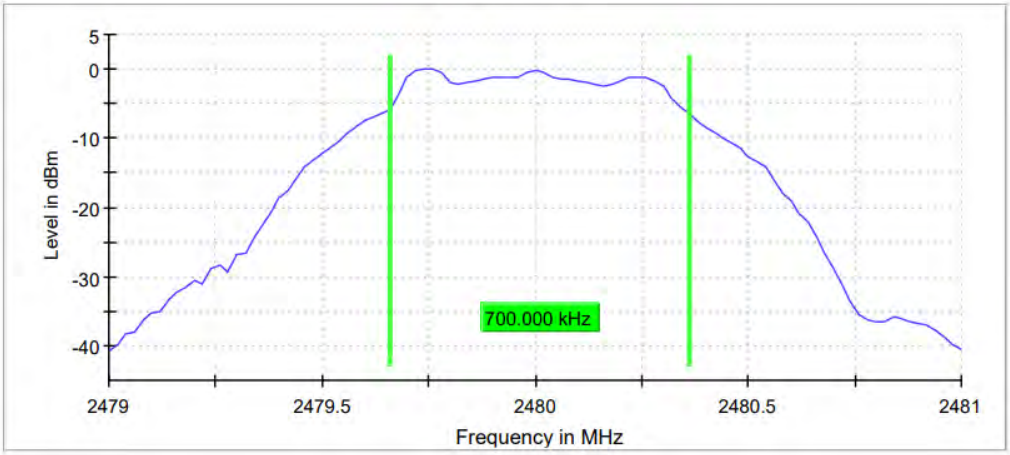
6 dB Bandwidth



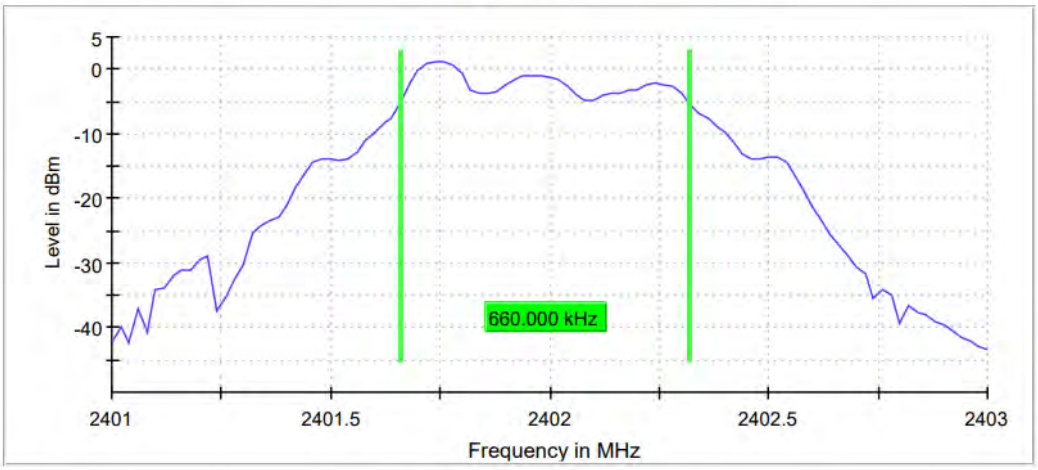
BLE_S2_Ant1_2402



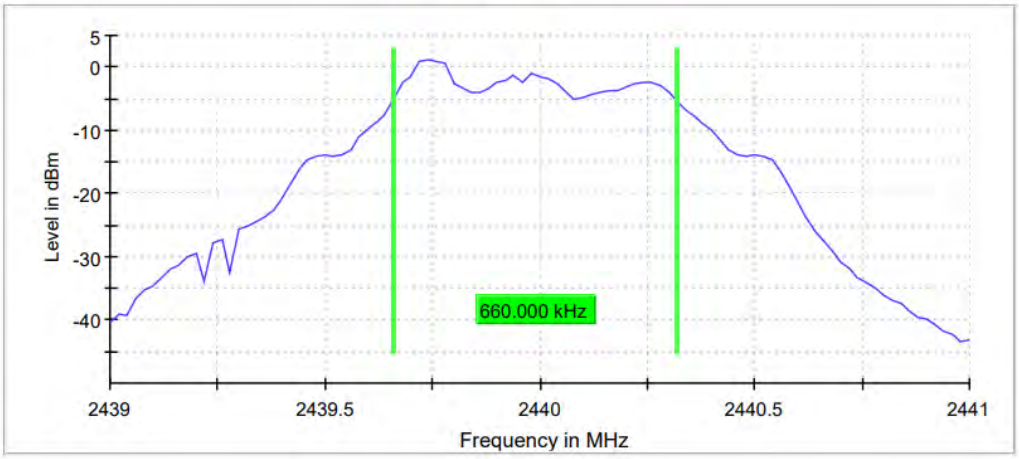
BLE_S2_Ant1_2440



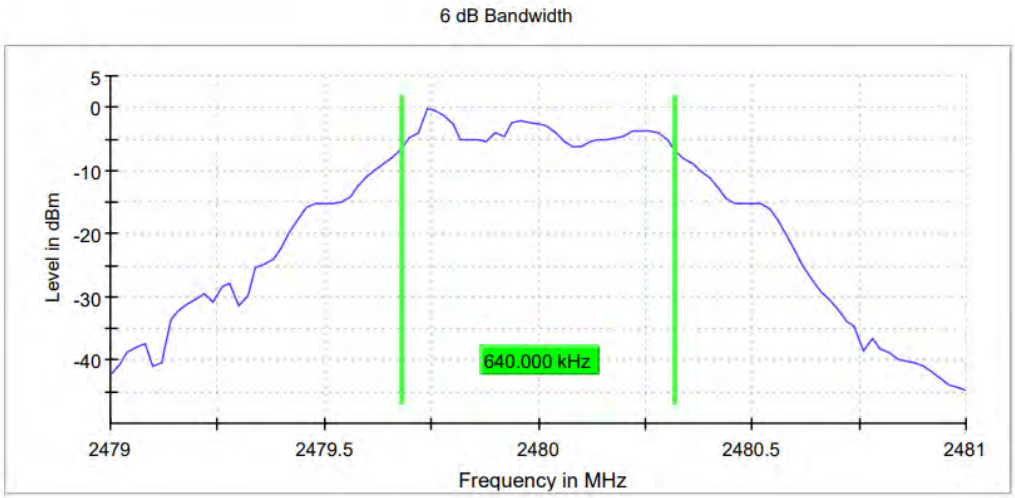
BLE_S2_Ant1_2480



BLE_S8_Ant1_2402



BLE_S8_Ant1_2440



BLE_S8_Ant1_2480

RBW 100.000 kHz

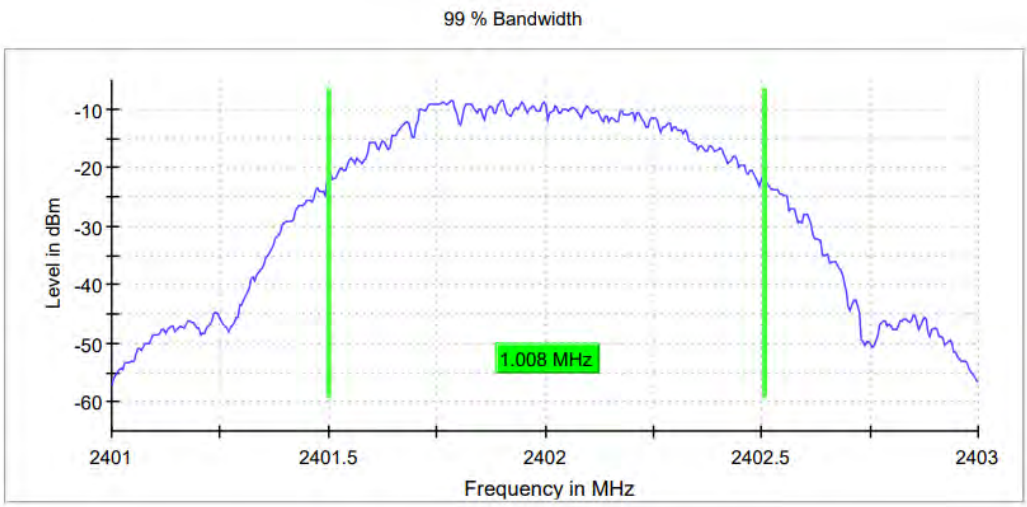
VBW 300.000 kHz

OCCUPIED CHANNEL BANDWIDTH

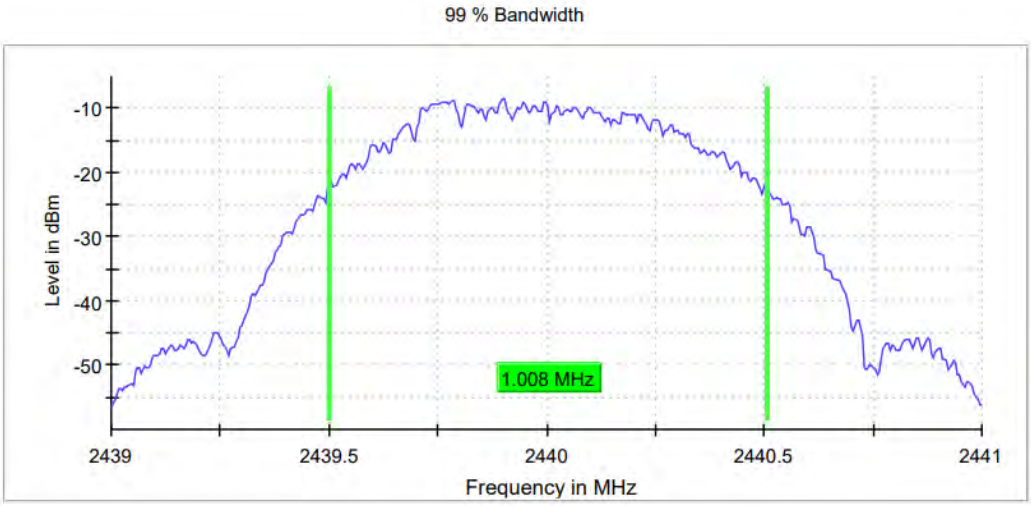
TEST RESULT

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.008	2401.501	2402.509	2400-24835	PASS
		2440	1.008	2439.501	2440.509	2400-24835	PASS
		2480	1.008	2479.501	2480.509	2400-24835	PASS
BLE_2M	Ant1	2404	2.005	2403.013	2405.018	2400-24835	PASS
		2440	2.015	2439.003	2441.018	2400-24835	PASS
		2478	2.015	2477.003	2479.018	2400-24835	PASS
BLE-S2	Ant1	2402	0.997	2401.501	2402.498	2400-24835	PASS
		2440	1.003	2439.496	2440.499	2400-24835	PASS
		2480	1.003	2479.496	2480.499	2400-24835	PASS
BLE_S8	Ant1	2402	1.033	2401.481	2402.514	2400-24835	PASS
		2440	1.033	2439.481	2440.514	2400-24835	PASS
		2480	1.033	2479.481	2480.514	2400-24835	PASS

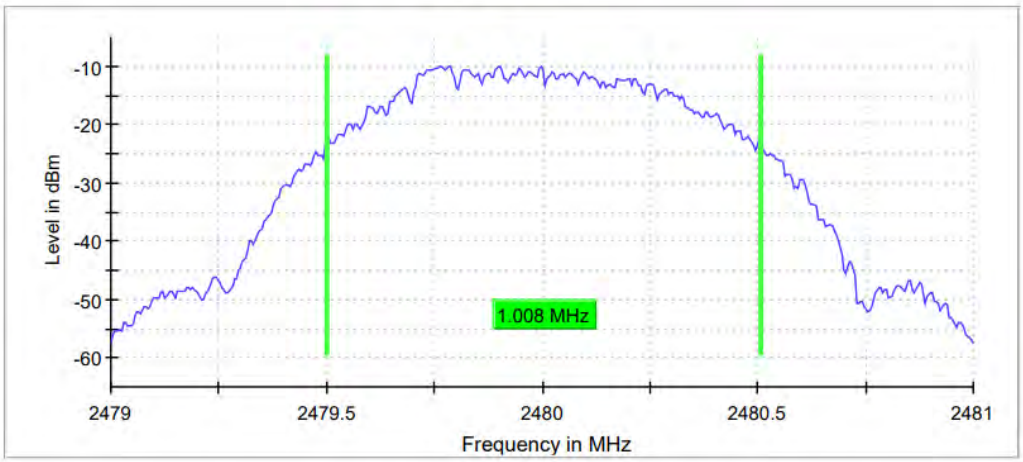
TEST GRAPHS



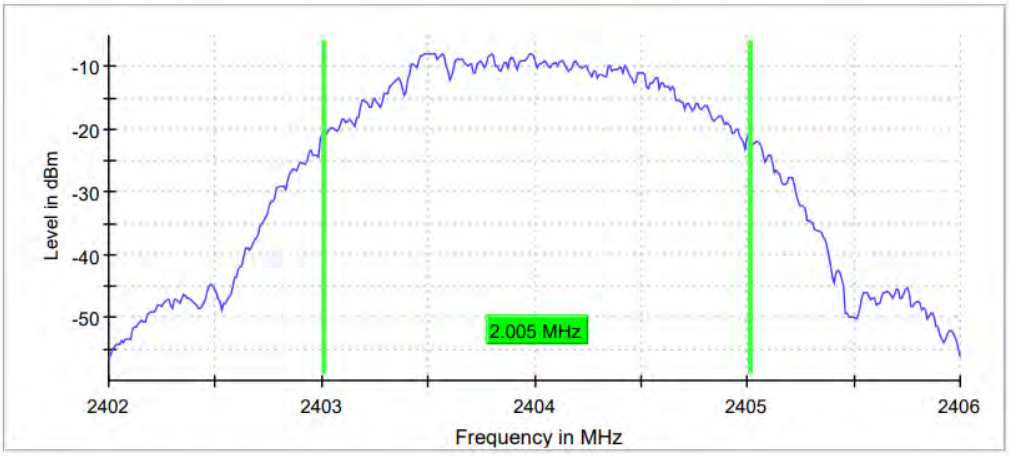
BLE_1M_Ant1_2402



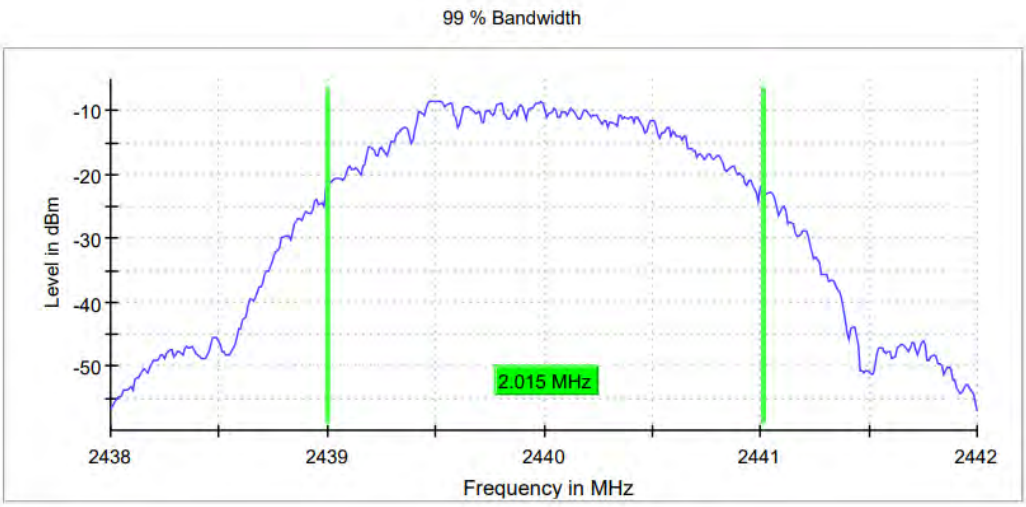
BLE_1M_Ant1_2440



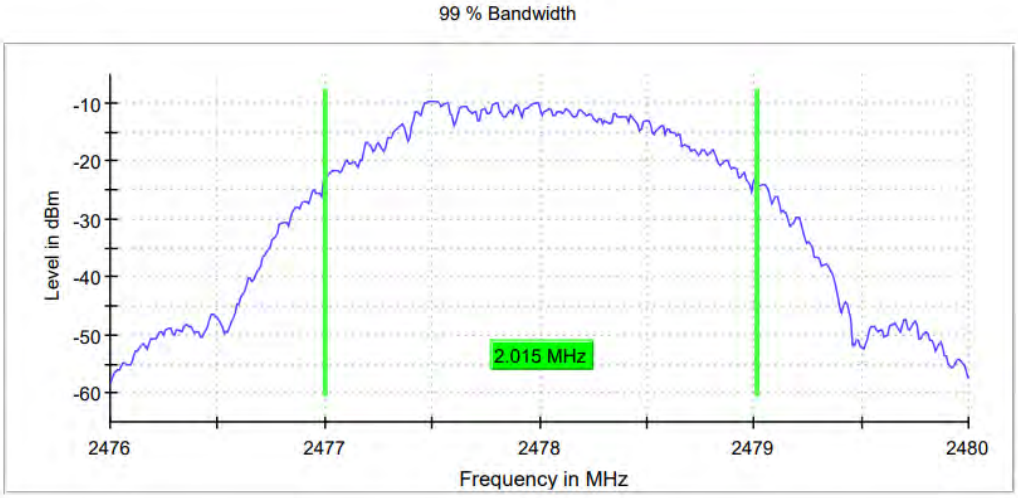
BLE_1M_Ant1_2480



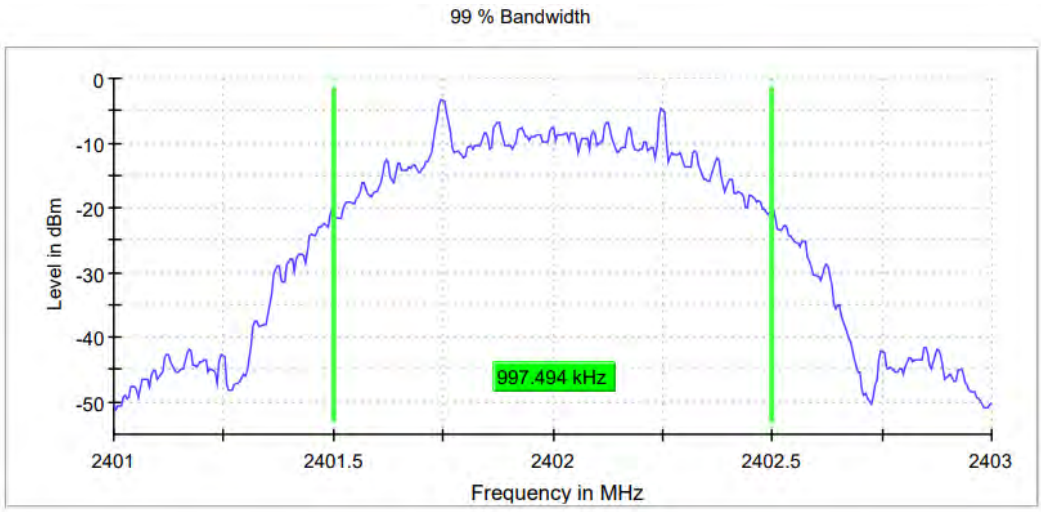
BLE_2M_Ant1_2404



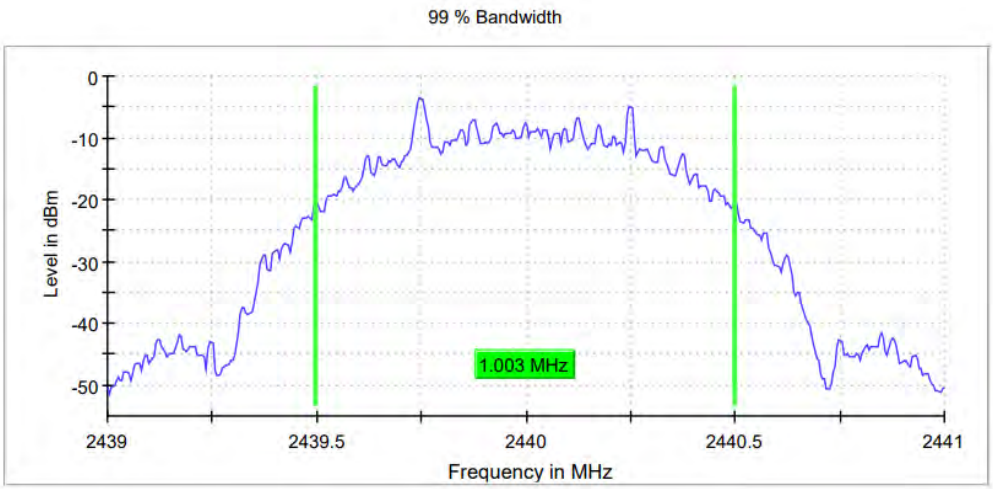
BLE_2M_Ant1_2440



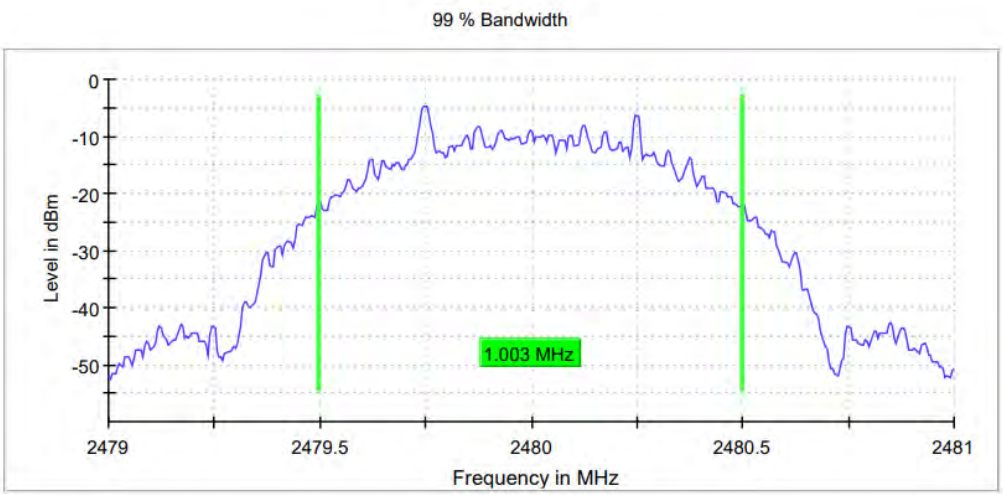
BLE_2M_Ant1_2478



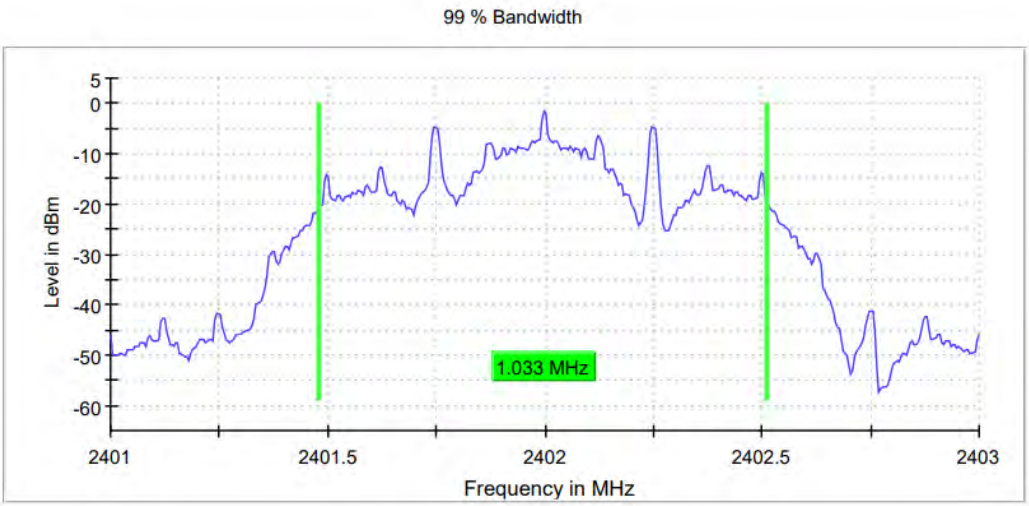
BLE_S2_Ant1_2402



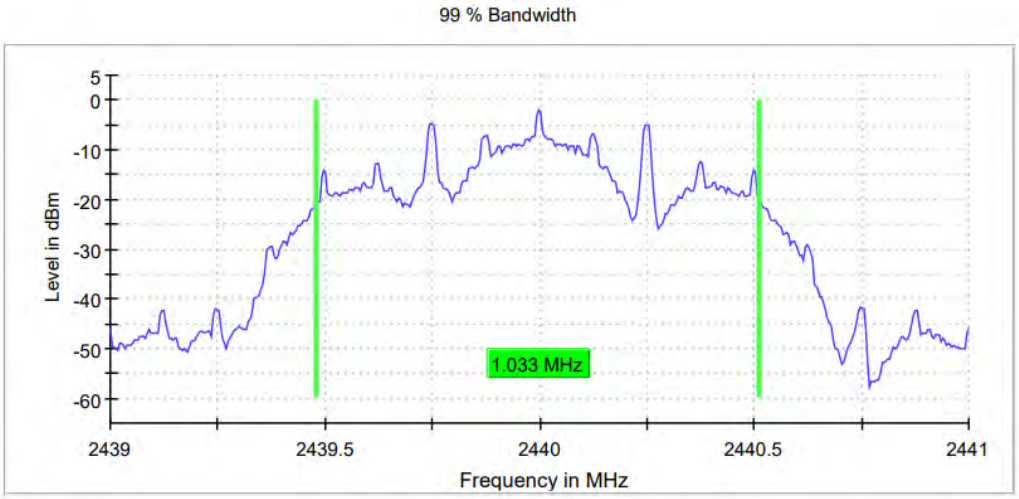
BLE_S2_Ant1_2440



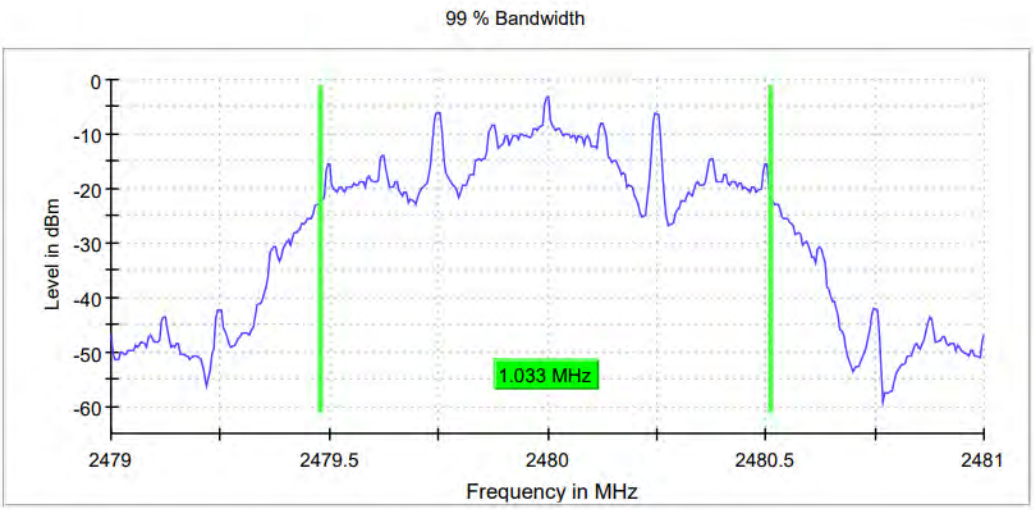
BLE_S2_Ant1_2480



BLE_S8_Ant1_2402



BLE_S8_Ant1_2440



BLE_S8_Ant1_2480

1M

RBW 10.000 kHz

VBW 30.000 kHz

2M

RBW 20.000 kHz

VBW 100.000 kHz

MAXIMUM CONDUCTED OUTPUT POWER

TEST RESULT

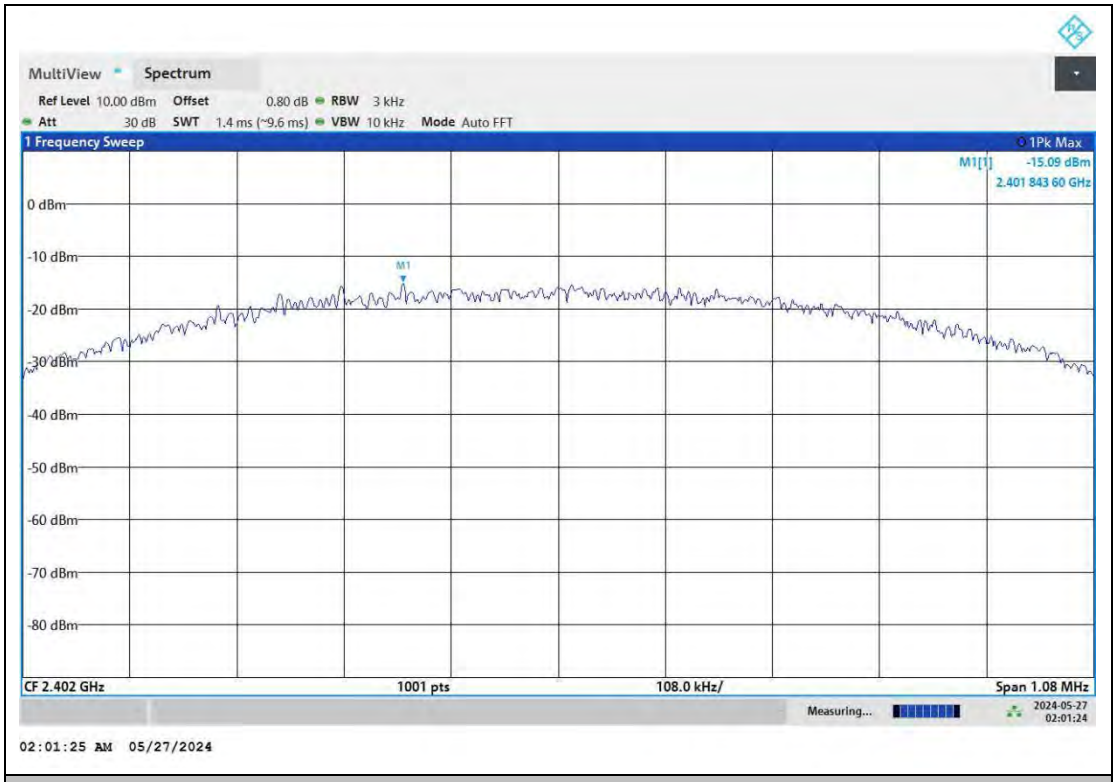
TestMode	Antenna	Channel	Average power [dBm]	Peak power [dBm]	Peak power [mw]	Limit [dBm]	Verdict	Power Setting
BLE_1M	Ant1	2402	1.18	2.05	1.60	≤30	PASS	Defult
		2440	0.97	1.99	1.58	≤30	PASS	Defult
		2480	-0.08	0.64	1.16	≤30	PASS	Defult
BLE_2M	Ant1	2402	1.76	2.52	1.79	≤30	PASS	Defult
		2440	0.91	1.87	1.54	≤30	PASS	Defult
		2480	-0.23	0.52	1.13	≤30	PASS	Defult
BLE_125k	Ant1	2402	1.33	1.99	1.58	≤30	PASS	Defult
		2440	0.92	1.78	1.51	≤30	PASS	Defult
		2480	-0.15	0.49	1.12	≤30	PASS	Defult
BLE_500K	Ant1	2402	1.34	2.09	1.62	≤30	PASS	Defult
		2440	0.92	1.93	1.56	≤30	PASS	Defult
		2480	-0.13	0.63	1.16	≤30	PASS	Defult

MAXIMUM POWER SPECTRAL DENSITY

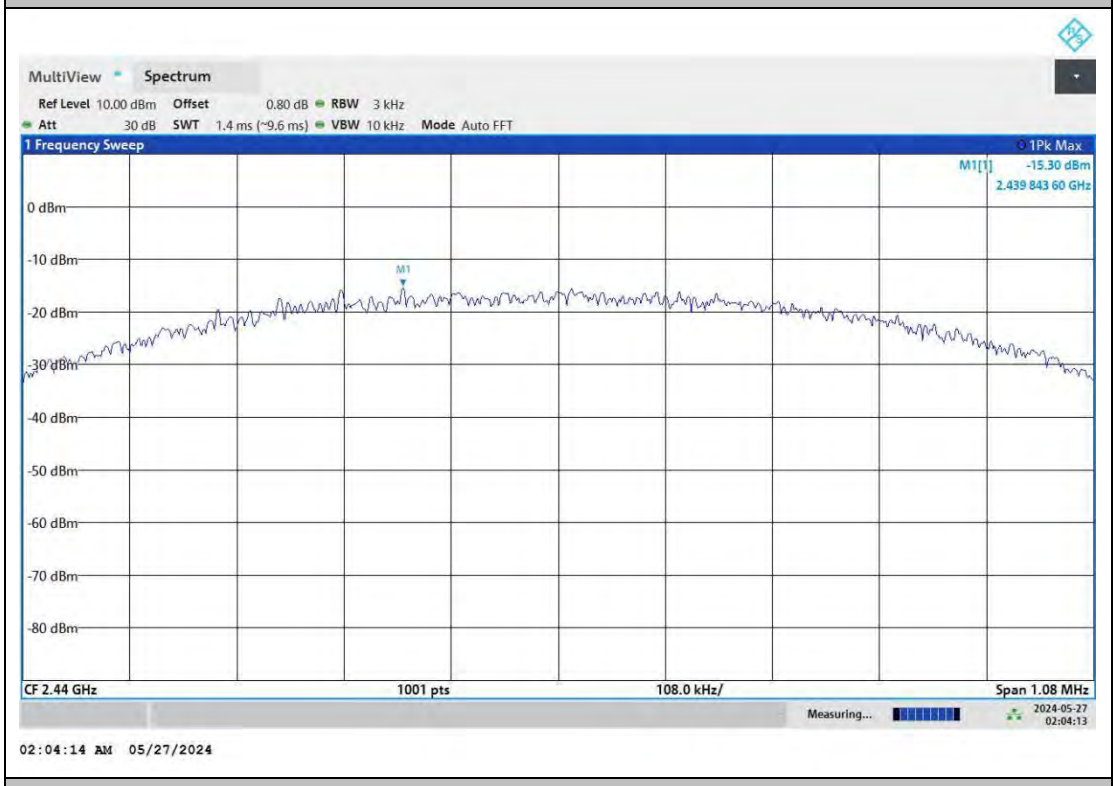
TEST RESULT

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.09	≤8	PASS
		2440	-15.30	≤8	PASS
		2480	-16.29	≤8	PASS
BLE_2M	Ant1	2402	-17.82	≤8	PASS
		2440	-18.46	≤8	PASS
		2480	-19.53	≤8	PASS
BLE_S2	Ant1	2402	-7.63	≤8	PASS
		2440	-5.94	≤8	PASS
		2480	-8.39	≤8	PASS
BLE_S8	Ant1	2402	-4.95	≤8	PASS
		2440	-5.16	≤8	PASS
		2480	-6.14	≤8	PASS

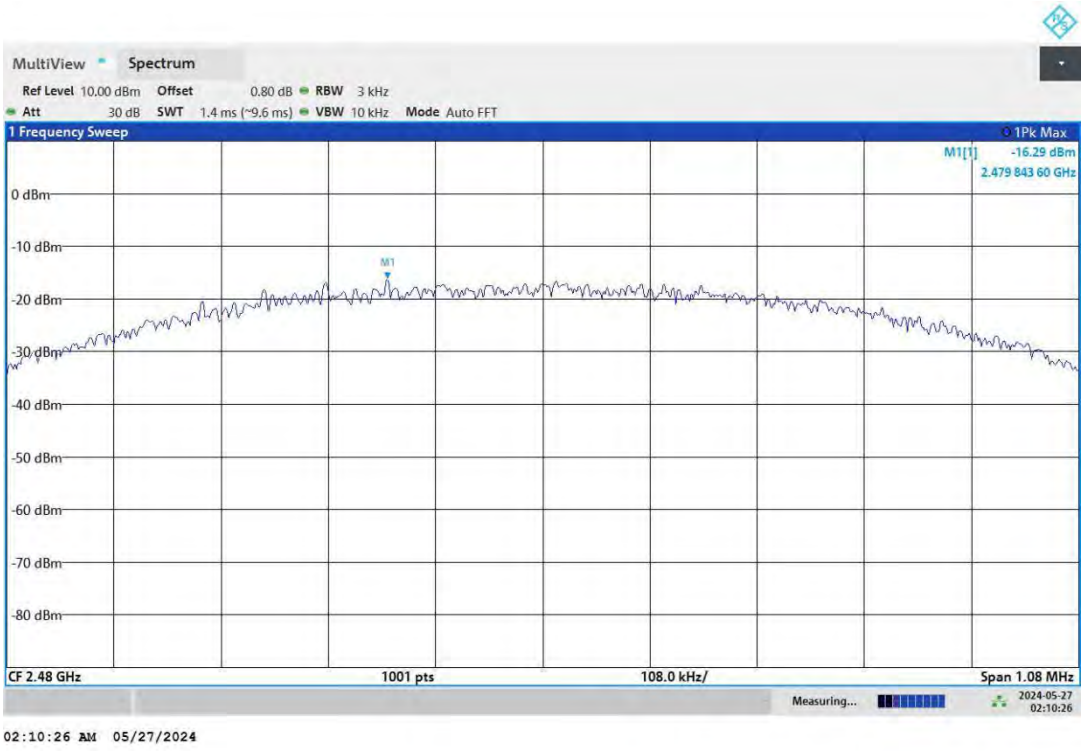
TEST GRAPHS



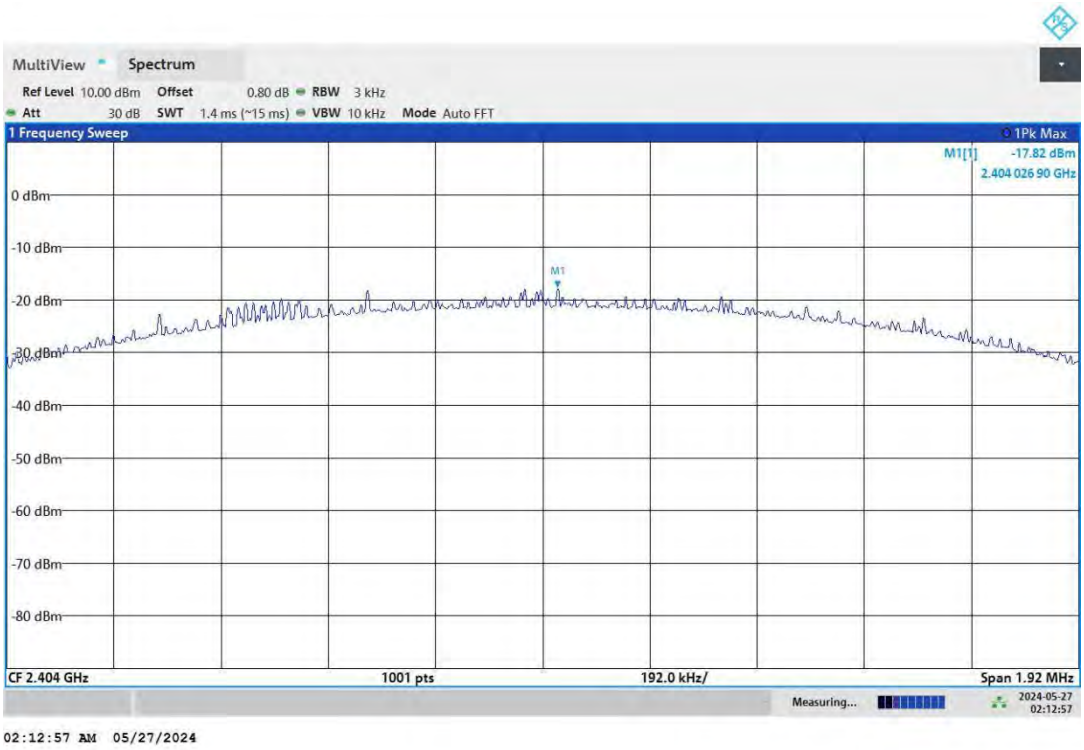
BLE_1M_Ant1_2402



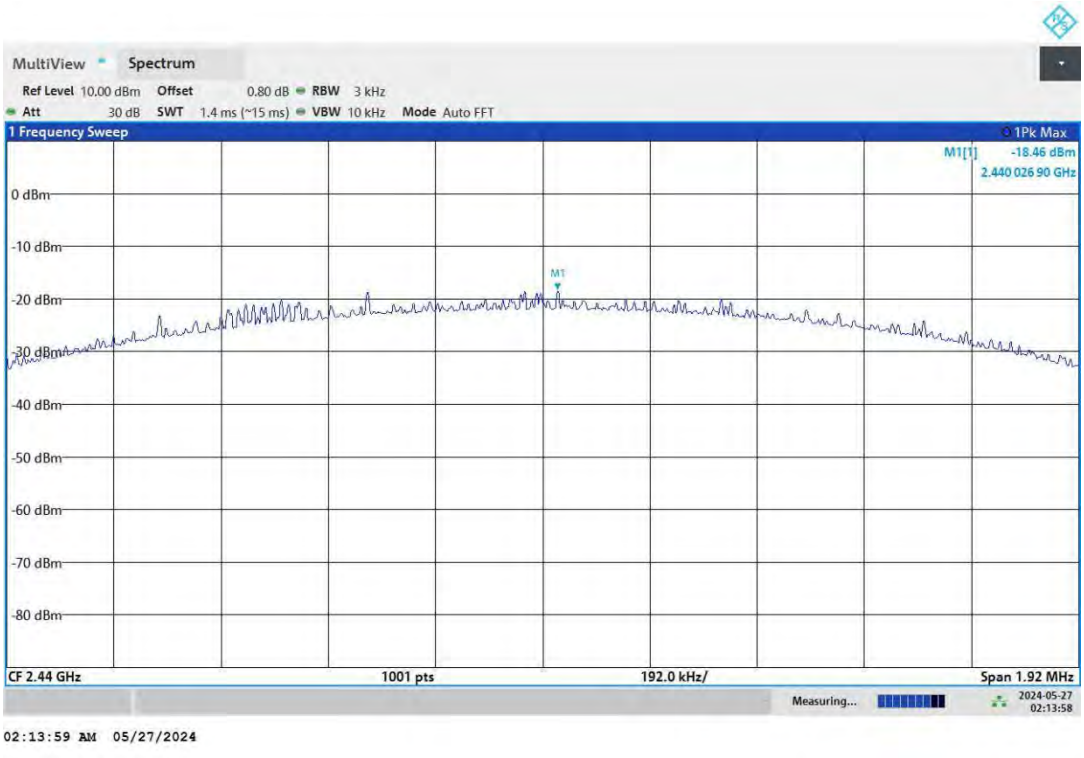
BLE_1M_Ant1_2440



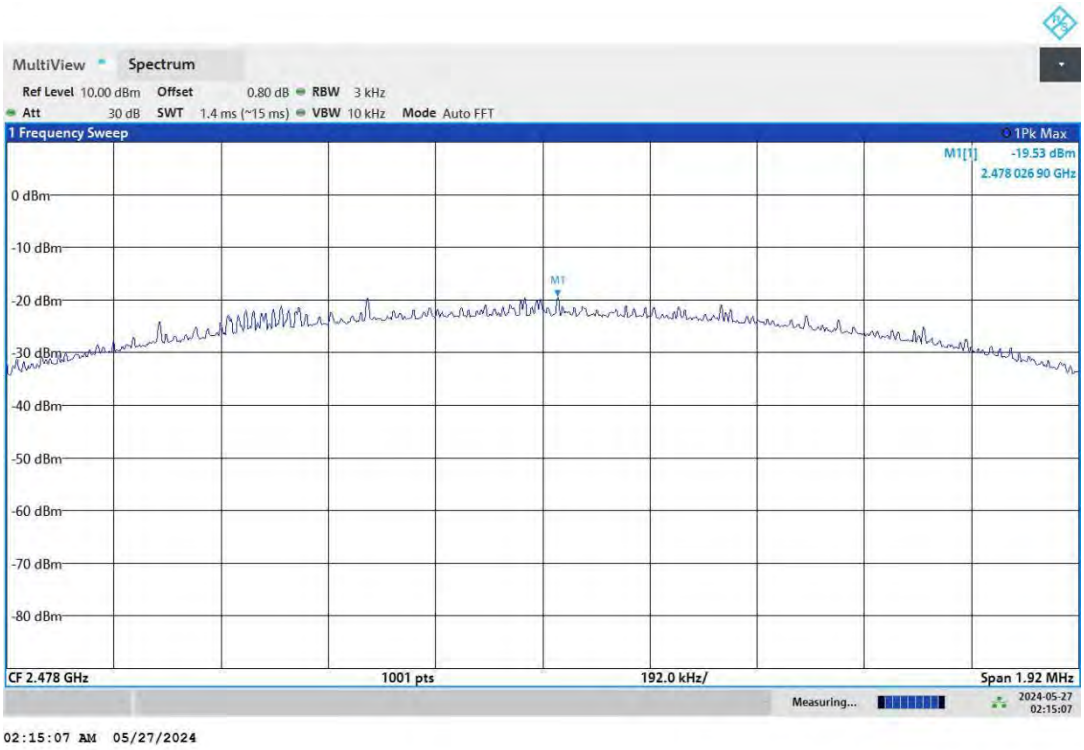
BLE_1M_Ant1_2480



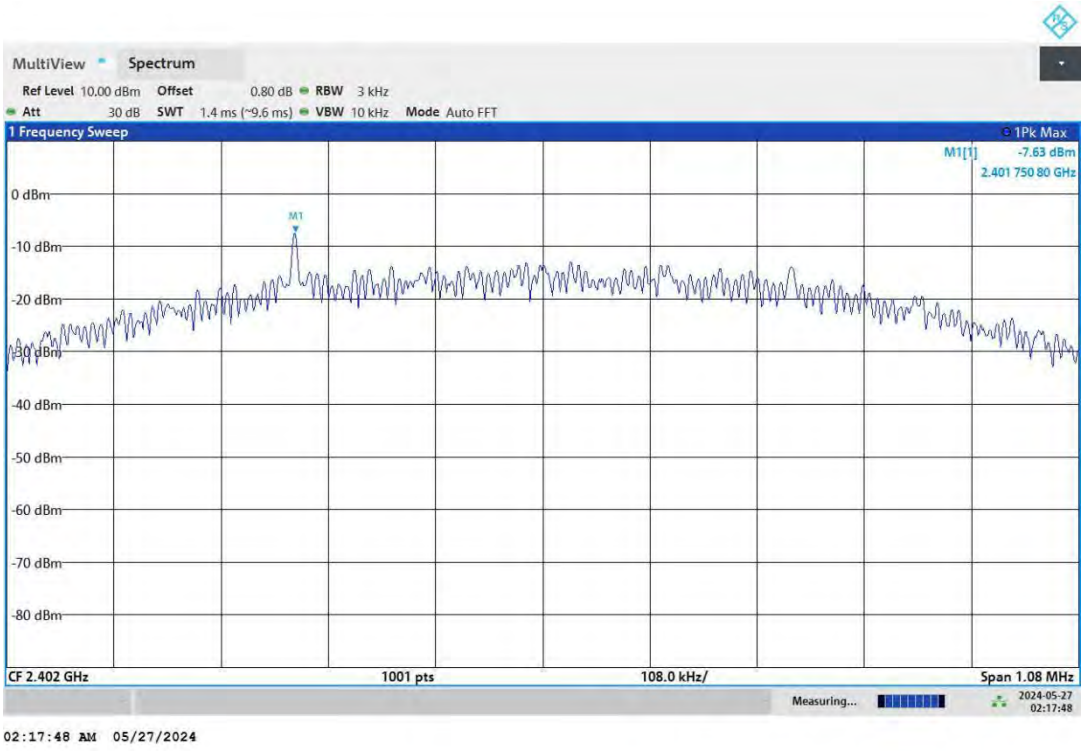
BLE_2M_Ant1_2404



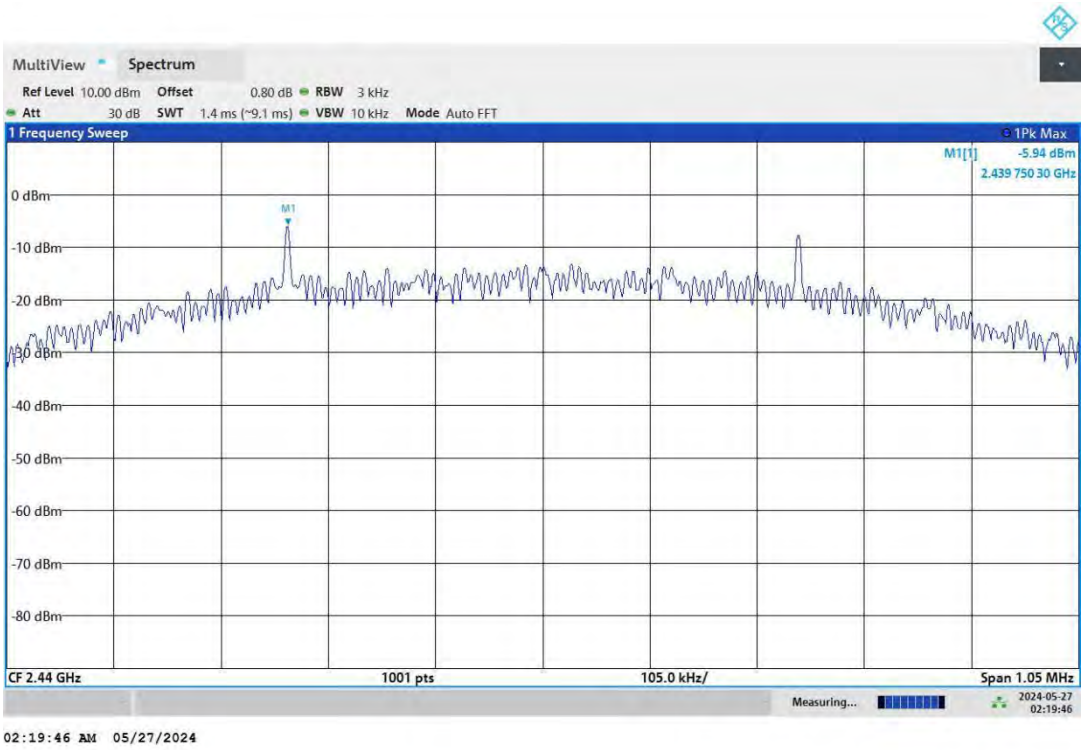
BLE_2M_Ant1_2440



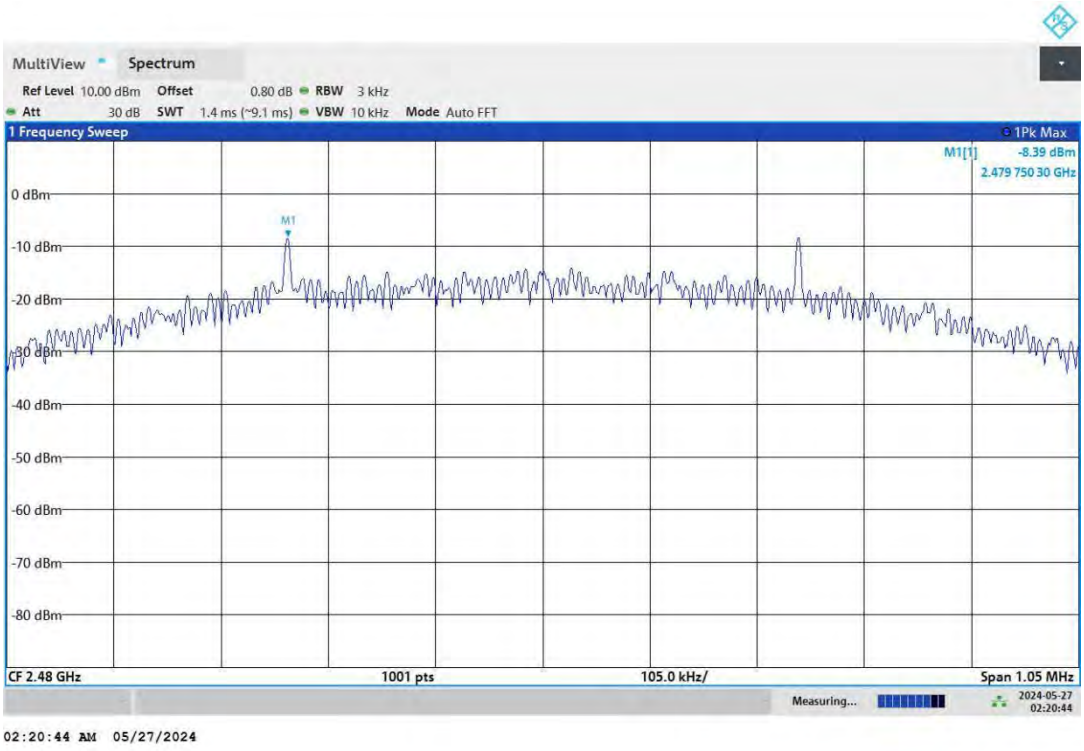
BLE_2M_Ant1_2478



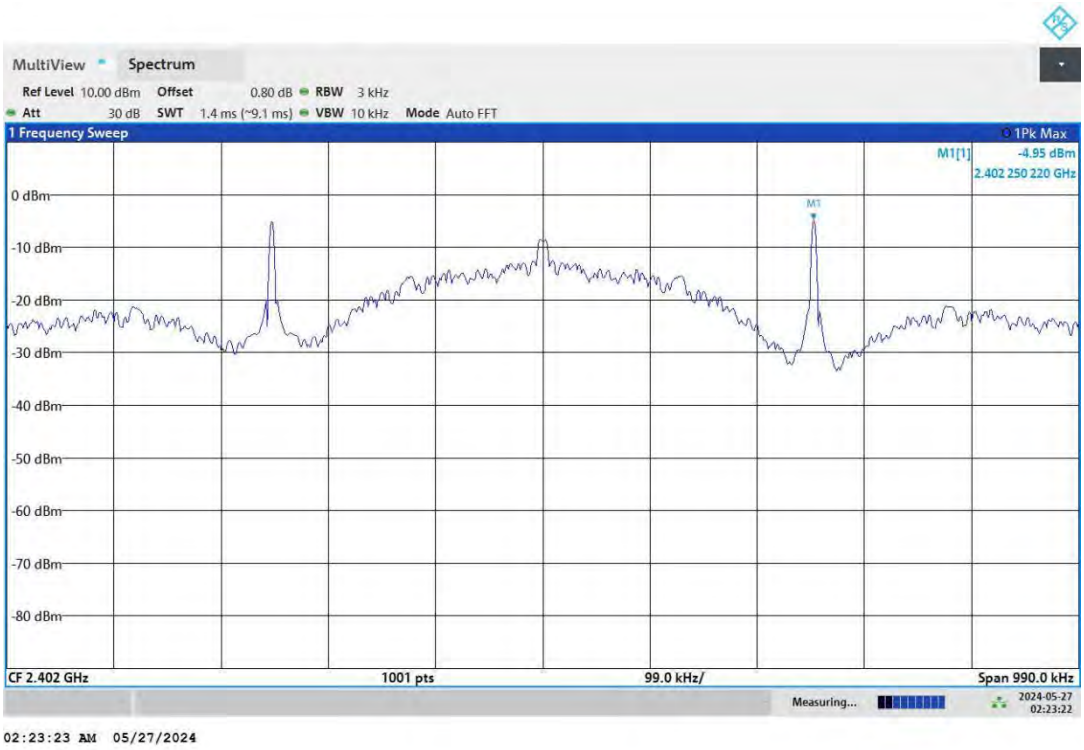
BLE_S2_Ant1_2402



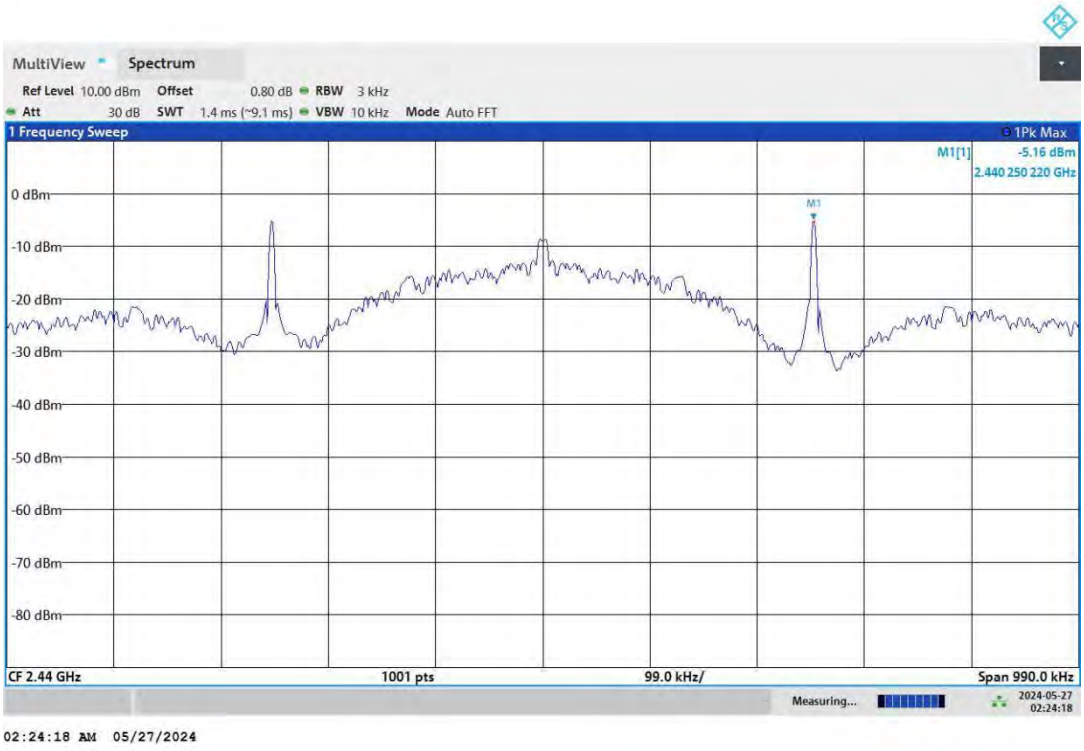
BLE_S2_Ant1_2440



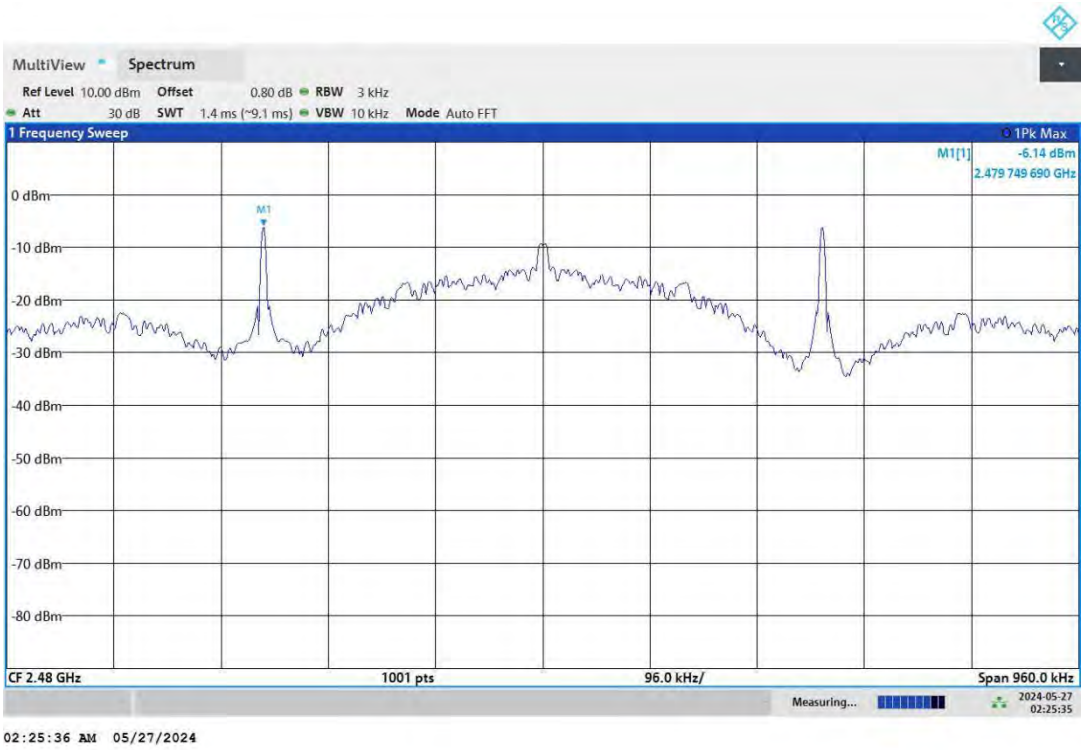
BLE_S2_Ant1_2480



BLE_S8_Ant1_2402



BLE_S8_Ant1_2440



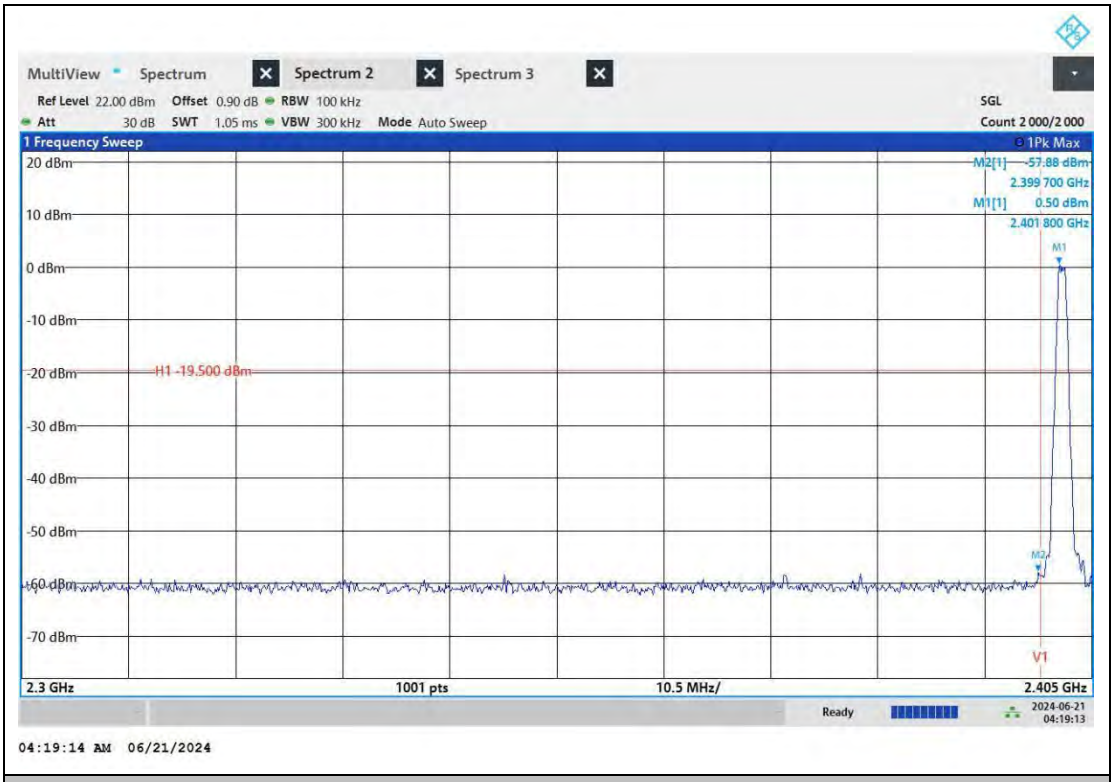
BLE_S8_Ant1_2480

BAND EDGE MEASUREMENTS

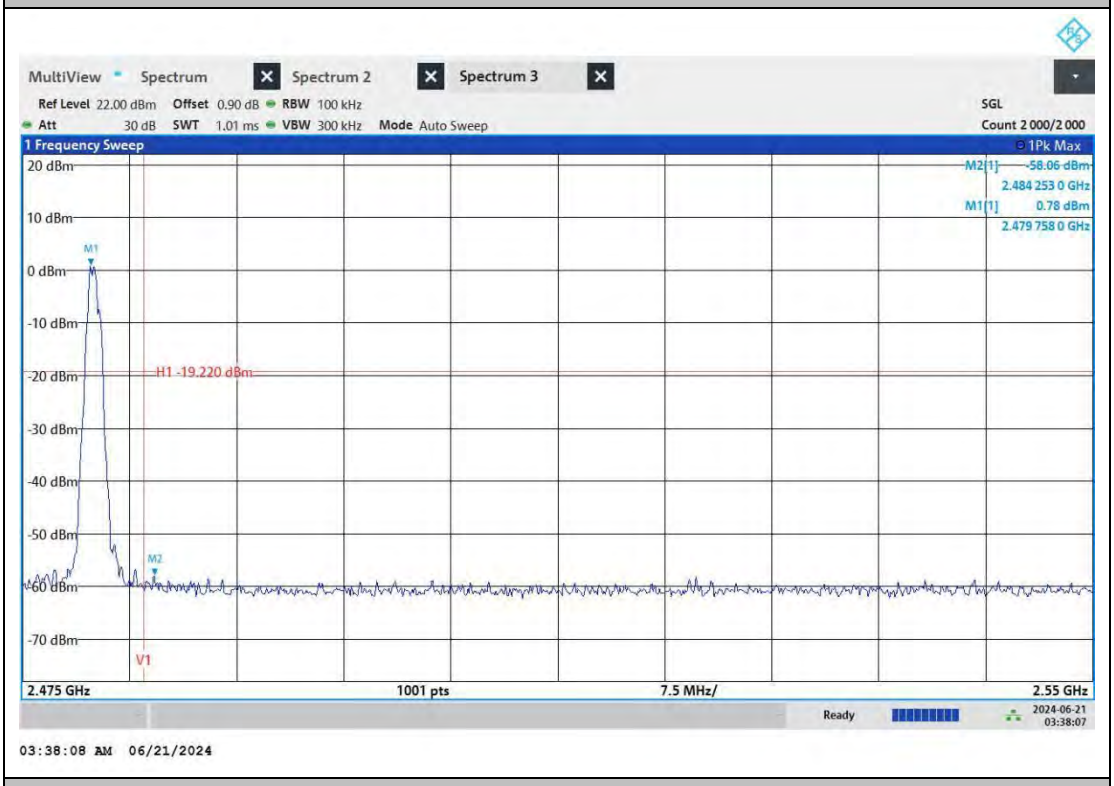
TEST RESULT

TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	See test graph	See test graph	PASS
		High	2480	See test graph	See test graph	PASS

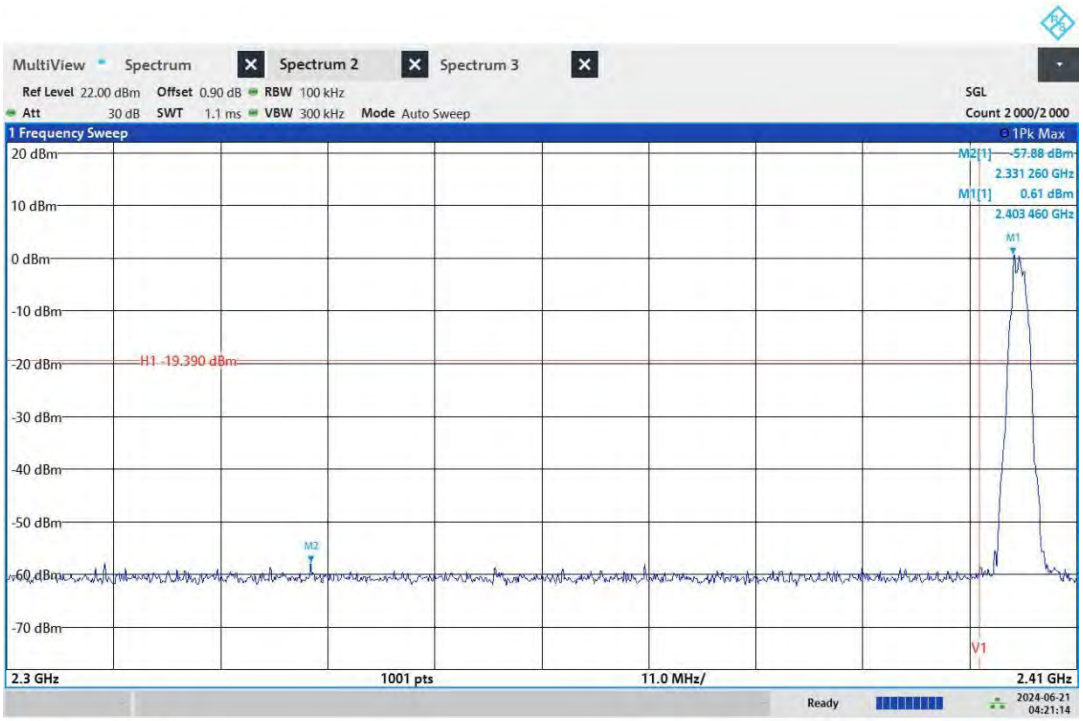
TEST GRAPHS



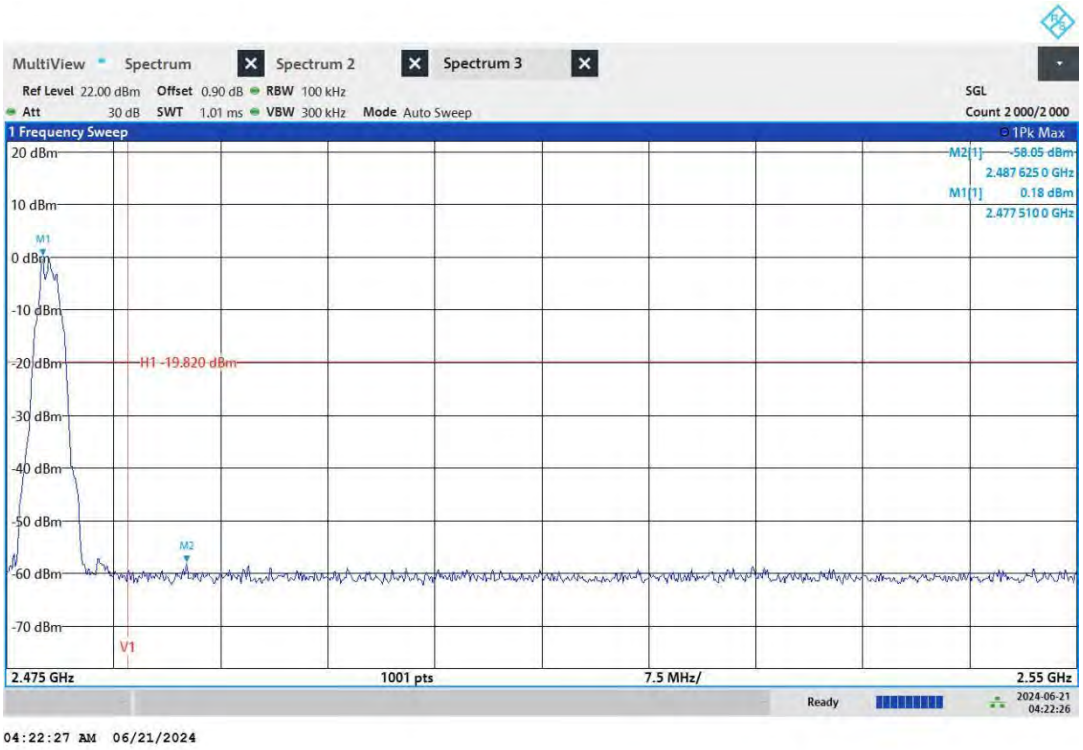
BLE_1M_Ant1_Low_2402



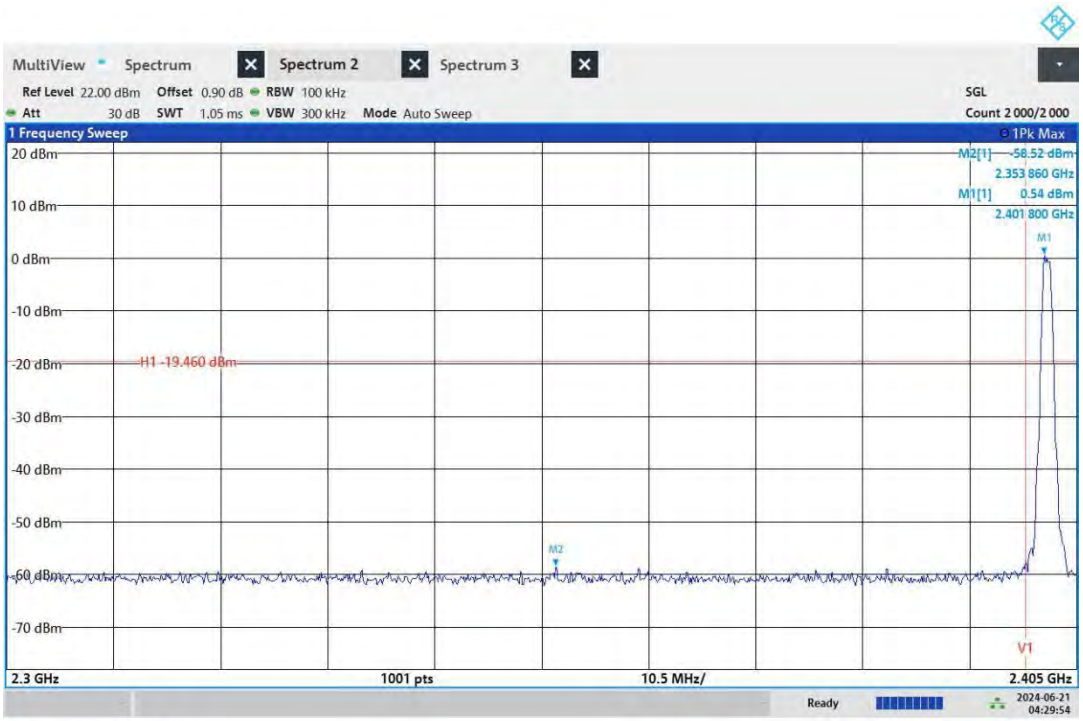
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2404

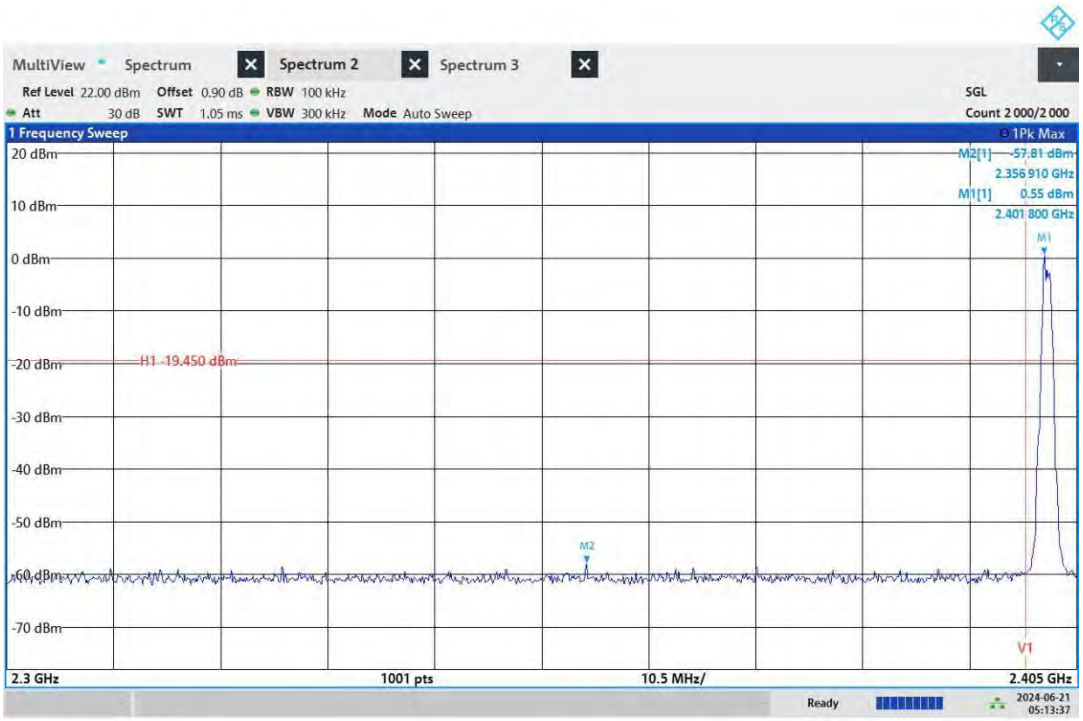


BLE_2M_Ant1_High_2478

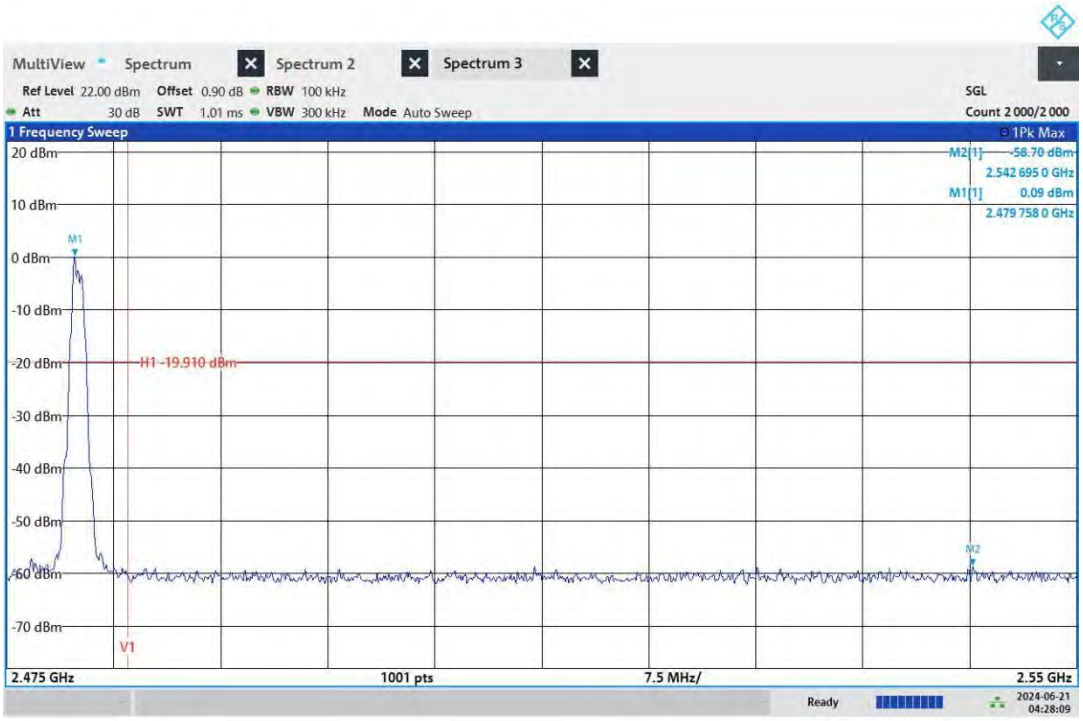


BLE_S2_Ant1_Low_2402

BLE_S2_Ant1_High_2480



BLE_S8_Ant1_Low_2402



BLE_S8_Ant1_High_2480

RBW 100.000 kHz

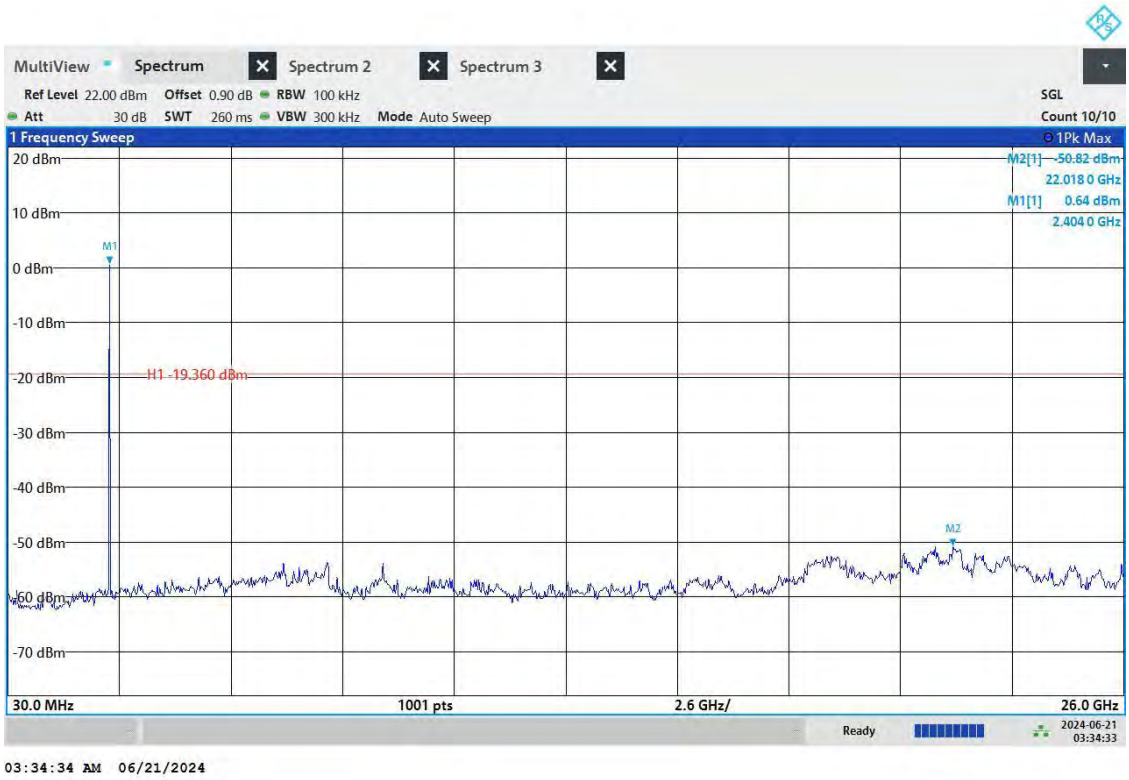
VBW 300.000 kHz

CONDUCTED SPURIOUS EMISSION

TEST RESULT

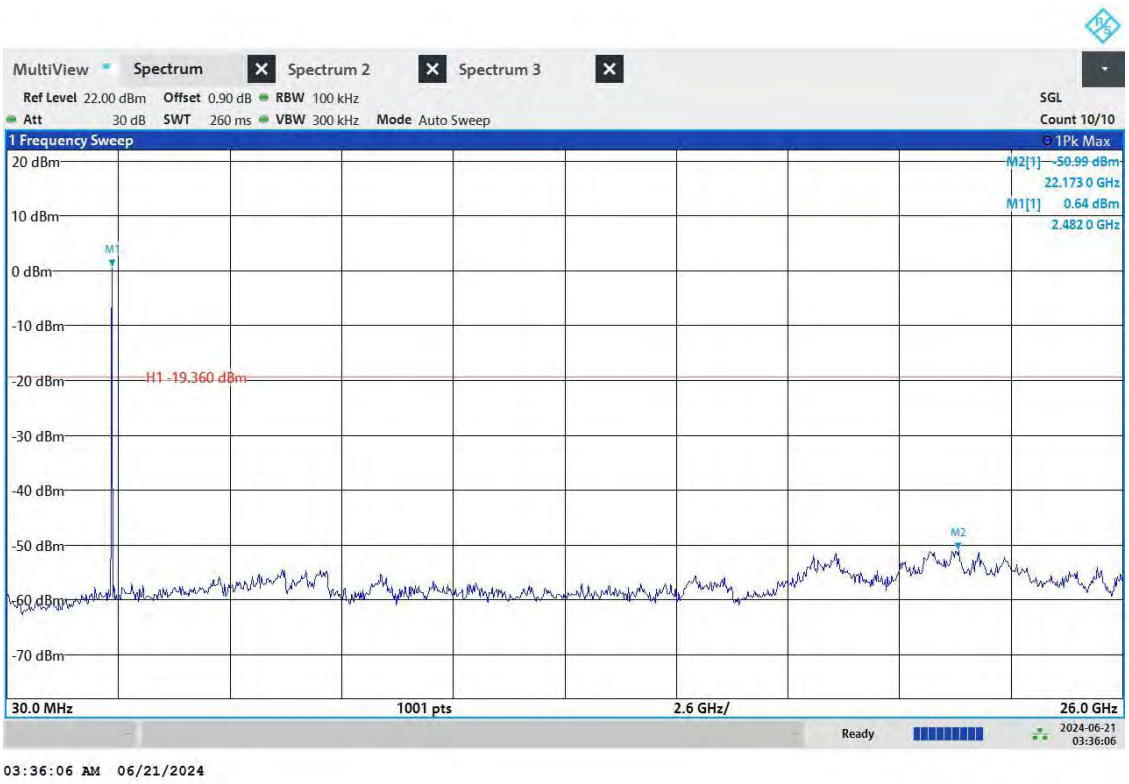
TestMode	Antenna	Channel	FreqRange [MHz]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~26500	See test graph	See test graph	PASS
		2440	30~26500	See test graph	See test graph	PASS
		2480	30~26500	See test graph	See test graph	PASS

TEST GRAPHS



BLE_1M_Ant1_2402_30~26500

BLE_1M_Ant1_2440_30~26500



BLE_1M_Ant1_2480_30~26500

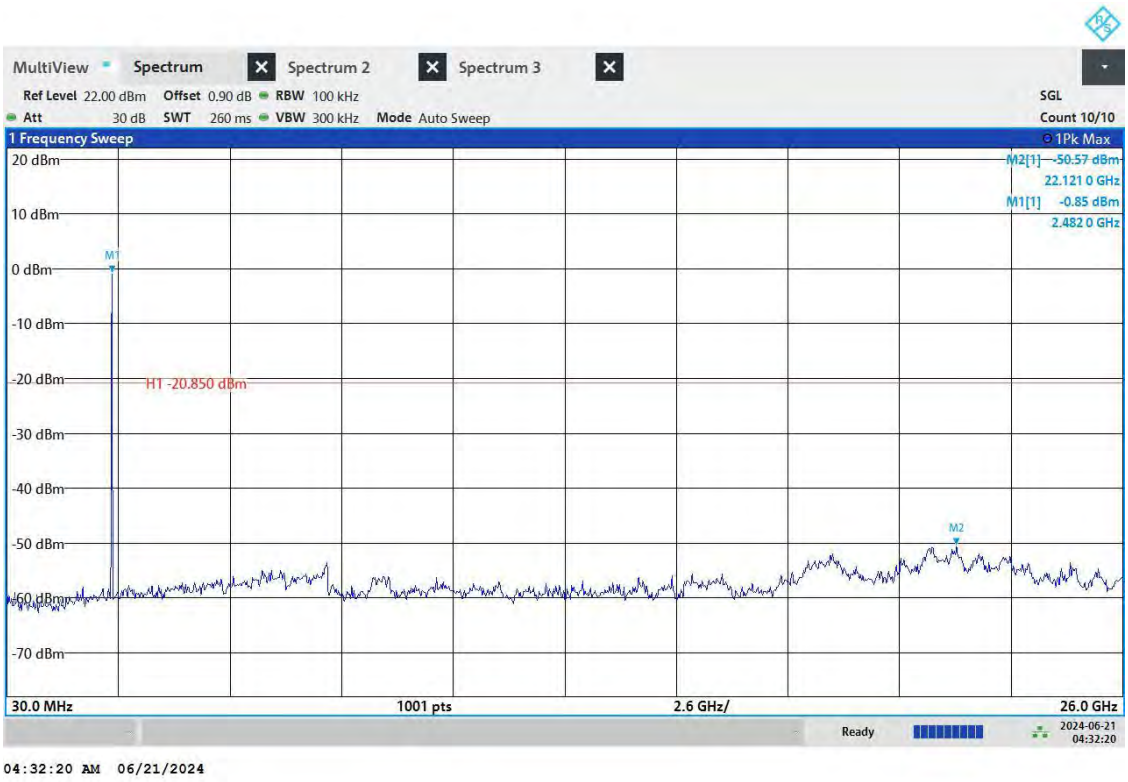
BLE_2M_Ant1_2404_30~26500

BLE_2M_Ant1_2440_30~26500

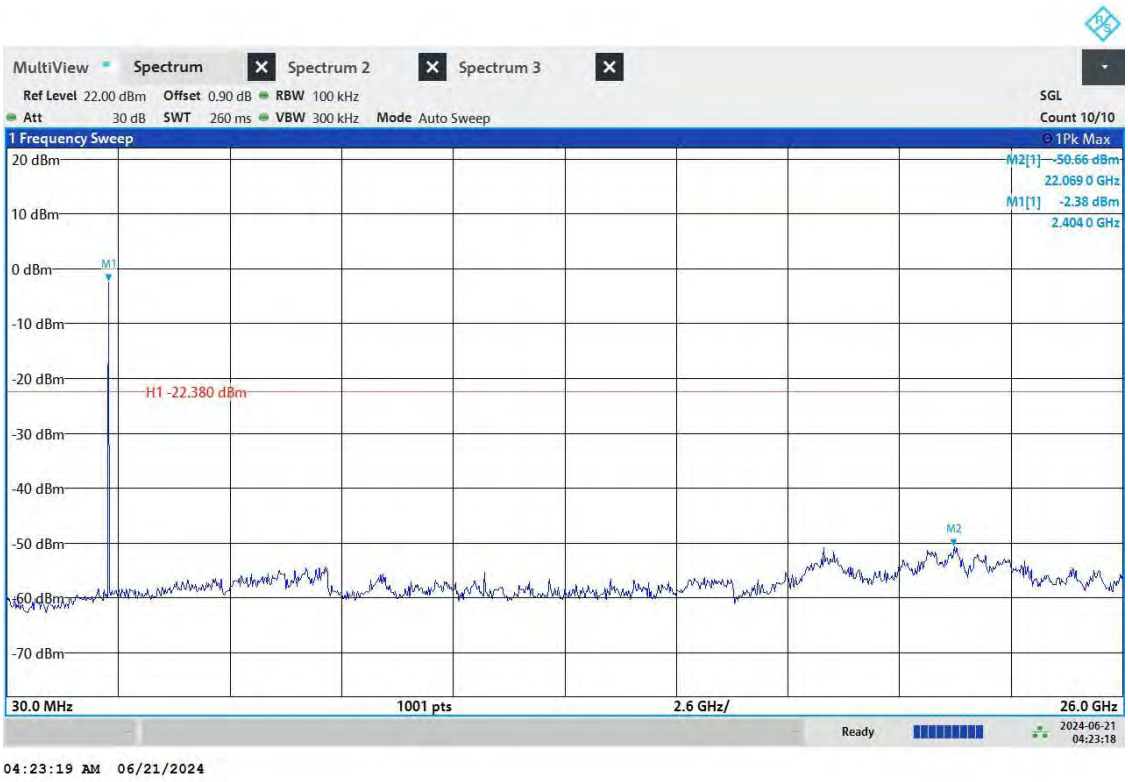
BLE_2M_Ant1_2478_30~26500

BLE_S2_Ant1_2402_30~26500

BLE_S2_Ant1_2440_30~26500



BLE_S2_Ant1_2480_30~26500



BLE_S8_Ant1_2402_30~26500

BLE_S8_Ant1_2440_30~26500

BLE_S8_Ant1_2480_30~26500

RBW 100.000 kHz

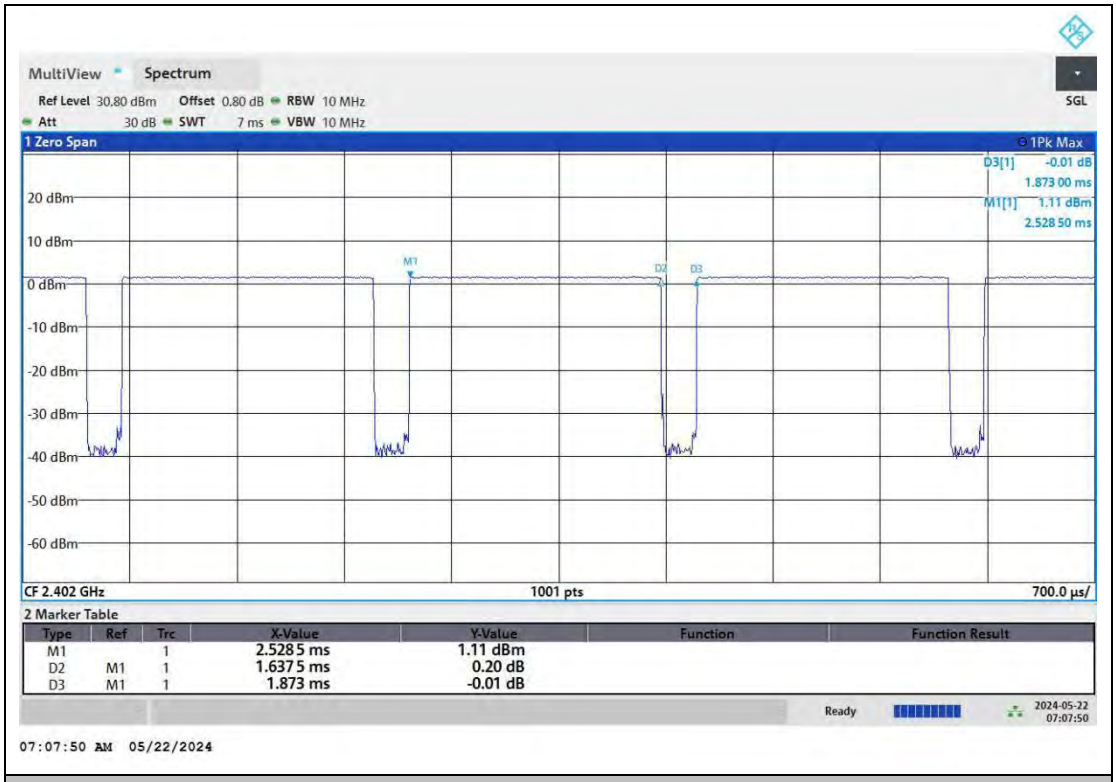
VBW 300.000 kHz

DUTY CYCLE

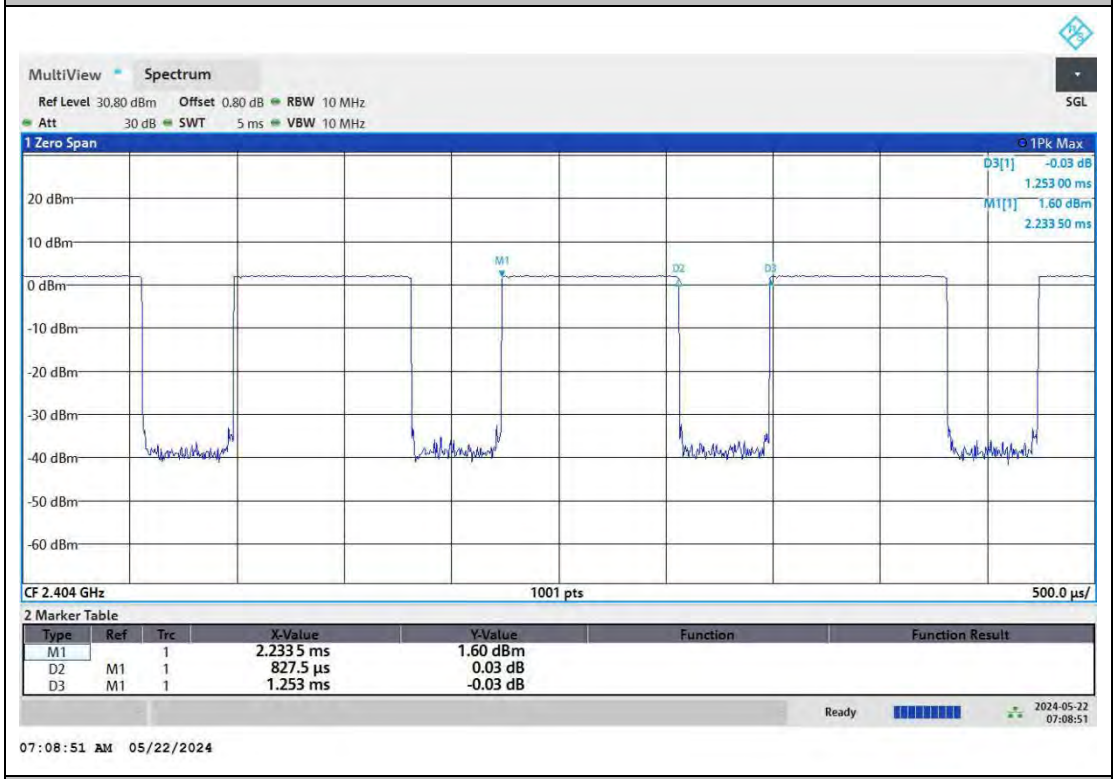
TEST RESULT

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	1.6375	1.8730	0.8743	87.43 %	0.58	---	PASS
BLE_2M	Ant1	2404	0.8275	1.2530	0.6604	66.04 %	1.8	---	PASS
BLE-S2	Ant1	2402	3.5360	4.3520	0.8125	81.25 %	0.9	---	PASS
BLE_S8	Ant1	2402	13.0850	13.8300	0.9461	94.61 %	0.24	---	PASS

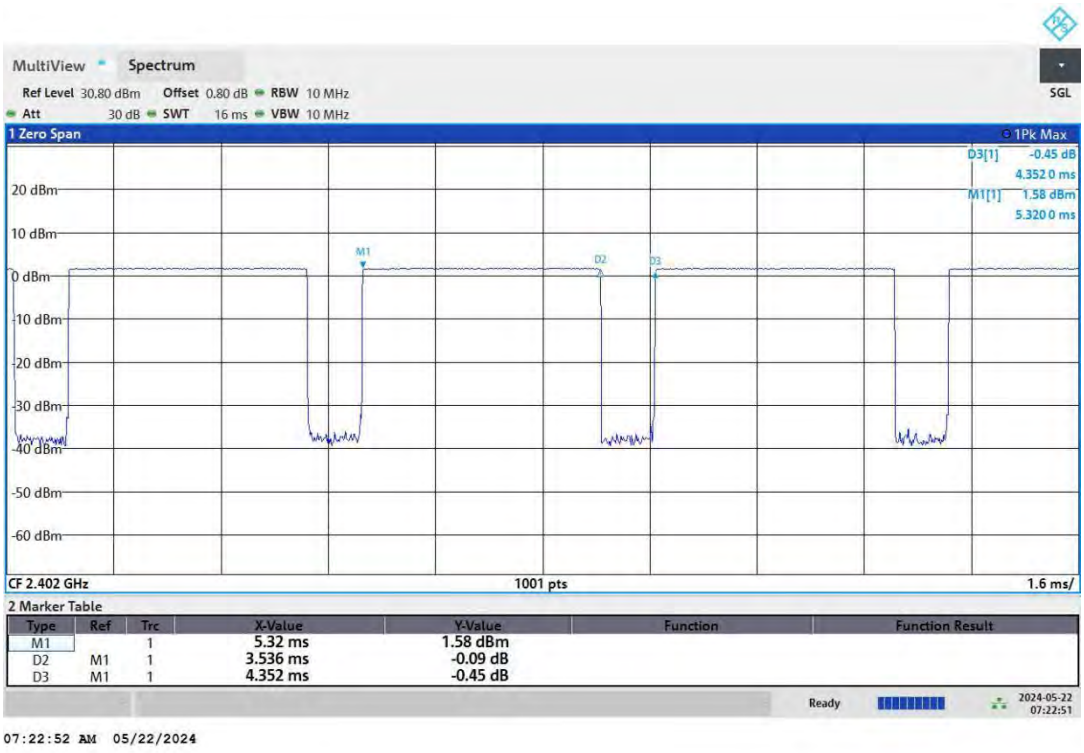
TEST GRAPHS



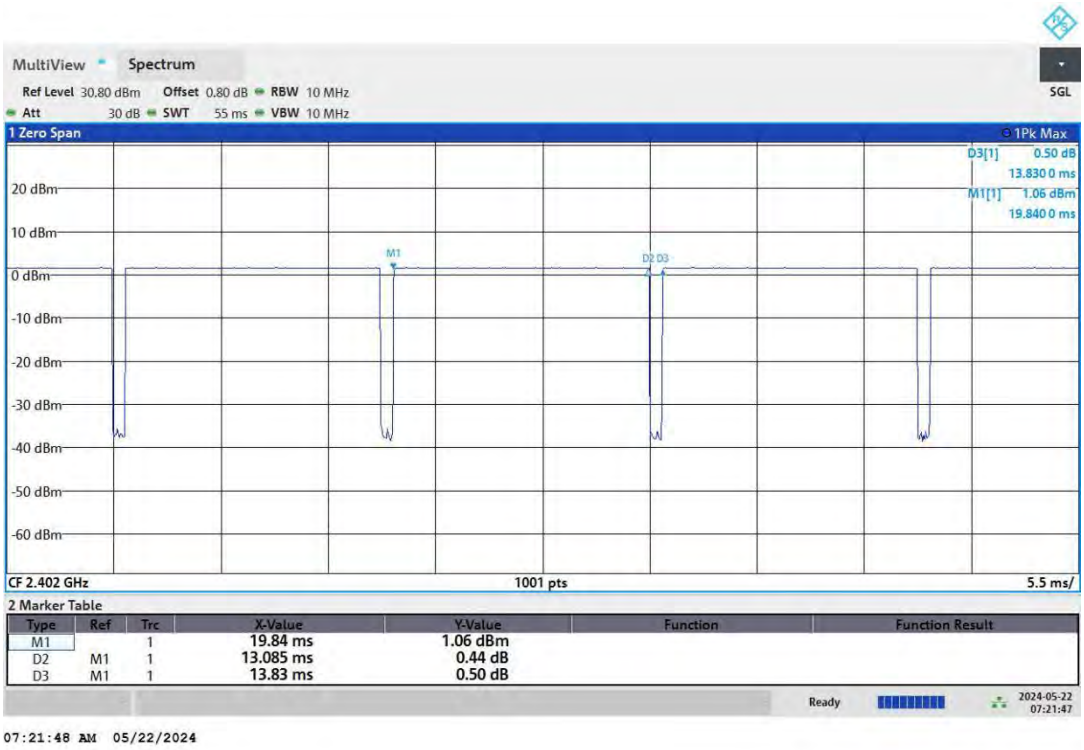
BLE_1M_Ant1_2402



BLE_2M_Ant1_2404



BLE_S2_Ant1_2402



BLE_S8_Ant1_2402

--END--