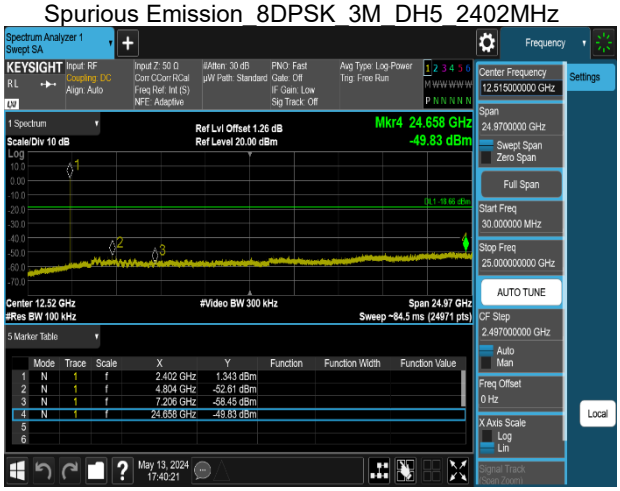
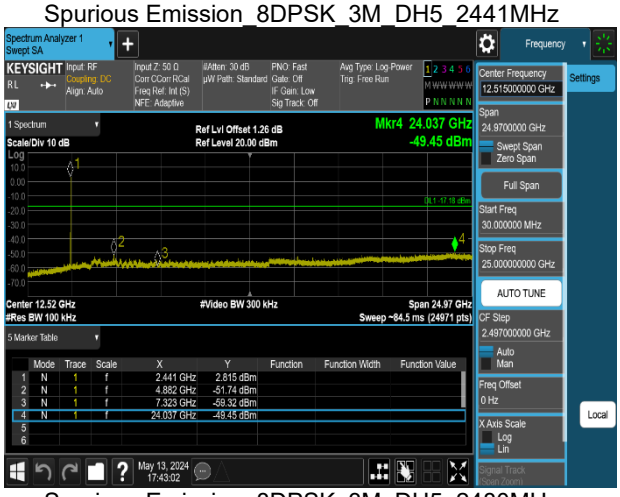
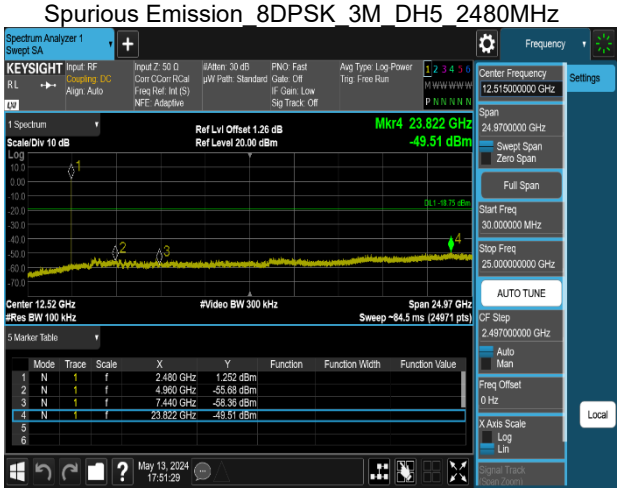
Spurious Emission_8DPSK_3M_DH5_2402MHz



Spurious Emission_8DPSK_3M_DH5_2441MHz



Spurious Emission_8DPSK_3M_DH5_2480MHz



4.7 TIME OF OCCUPANCY (DWELL TIME)

4.7.1 Test Limit

According to §15.247(a)(1)(iii),

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

4.7.2 Test Procedure

1. EUT RF output port connected to the SA by RF cable.

2. Set center frequency of spectrum analyzer = operating frequency.

3. Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Sweep = 5 ms ~15ms(Depends on signal characteristics)

4.7.3 Test Setup

Refer to section 1.9.

4.7.4 Test Result

Temperature:	23.5℃	**Test date:**	May 13, 2024
Humidity:	59% RH	**Tested by:**	Marco Chan

GFSK (1Mbps)

Channel	PACKET TYPE	Measurement Result (ms)	Limit (ms)
Mid	DH1	121.60	400
	DH3	262.40	400
	DH5	308.80	400

π/4 DQPSK (2Mbps)

Channel	PACKET TYPE	Measurement Result (ms)	Limit (ms)
Mid	2DH1	124.80	400
	2DH3	262.40	400
	2DH5	308.80	400

8-DPSK (3Mbps)

Channel	PACKET TYPE	Measurement Result (ms)	Limit (ms)
Mid	3DH1	124.80	400
	3DH3	264.00	400
	3DH5	307.20	400

GFSK (1Mbps):

CH Mid	DH1 time slot	=	0.380	*	(1600/2/79)	*	31.6	=	121.60 (ms)
	DH3 time slot	=	1.640	*	(1600/4/79)	*	31.6	=	262.40 (ms)
	DH5 time slot	=	2.895	*	(1600/6/79)	*	31.6	=	308.80 (ms)

π/4 -DQPSK (2Mbps):

CH Mid	2DH1 time slot	=	0.390	*	(1600/2/79)	*	31.6	=	124.80 (ms)
	2DH3 time slot	=	1.640	*	(1600/4/79)	*	31.6	=	262.40 (ms)
	2DH5 time slot	=	2.895	*	(1600/6/79)	*	31.6	=	308.80 (ms)

8-DPSK (3Mbps):

CH Mid	3DH1 time slot	=	0.390	*	(1600/2/79)	*	31.6	=	124.80 (ms)
	3DH3 time slot	=	1.650	*	(1600/4/79)	*	31.6	=	264.00 (ms)
	3DH5 time slot	=	2.880	*	(1600/6/79)	*	31.6	=	307.20 (ms)

A period time = 0.4 (s) * 79 = 31.6 (s)

GFSK (1Mbps) for AFH Mode			
Hopping Channel Number	**PACKET TYPE**	**Measurement Result (ms)**	**Limit (ms)**
20	DH5	154.40	400
π/4 DQPSK (2Mbps) for AFH Mode			
Hopping Channel Number	**PACKET TYPE**	**Measurement Result (ms)**	**Limit (ms)**
20	2DH5	154.40	400
8-DPSK (3Mbps) for AFH Mode			
Hopping Channel Number	**PACKET TYPE**	**Measurement Result (ms)**	**Limit (ms)**
20	3DH5	153.60	400

GFSK (1Mbps):

DH5 time slot = 2.895 (ms) * (800/6/20) * 8 = 154.40 (ms)

π/4 -DQPSK (2Mbps):

2DH5 time slot = 2.895 (ms) * (800/6/20) * 8 = 154.40 (ms)

8-DPSK (3Mbps):

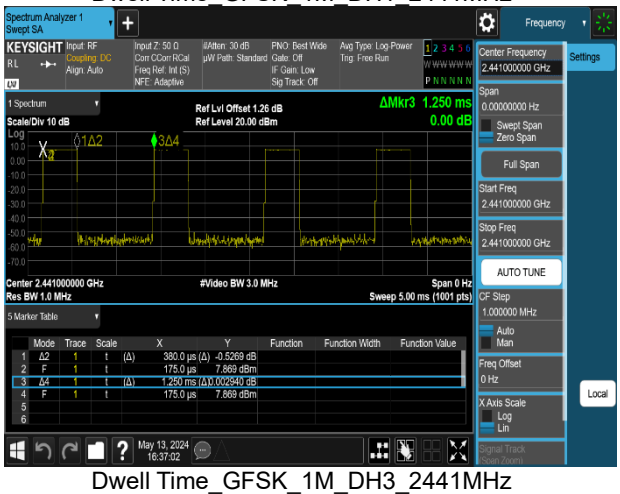
3DH5 time slot = 2.880 (ms) * (800/6/20) * 8 = 153.60 (ms)

A period time = 0.4 (s) * 20 = 8 (s)

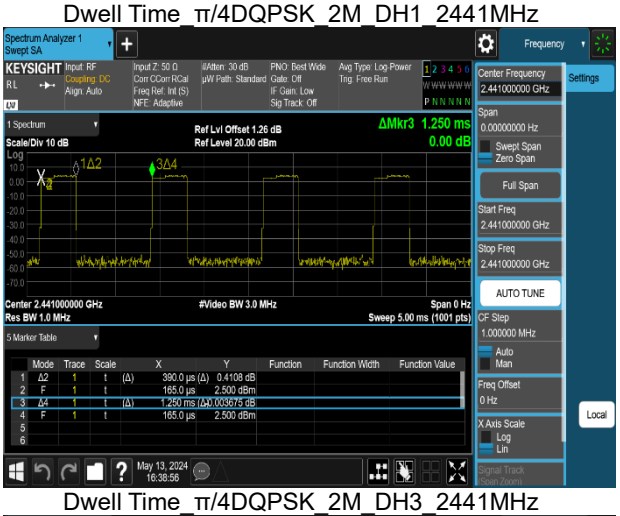
Note: Based on normal hopping, the DH5 type has worse results than DH1, so only DH5 is recorded.

Test Data

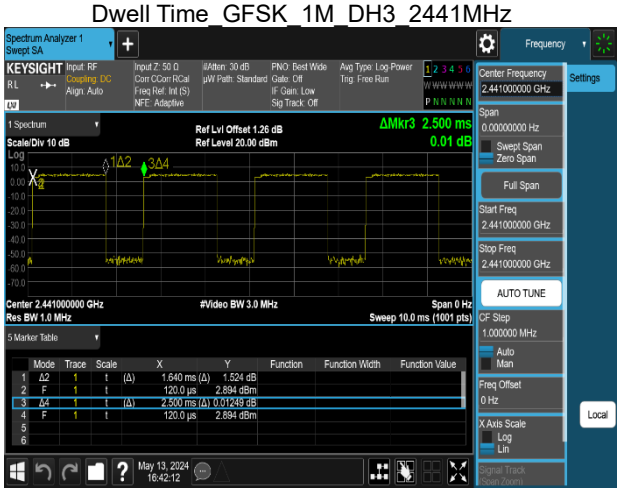
Dwell Time_GFSK_1M_DH1_2441MHz



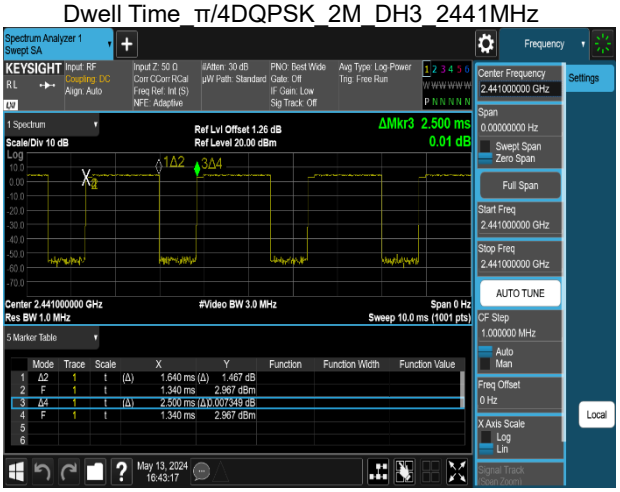
Dwell Time_π/4DQPSK_2M_DH1_2441MHz



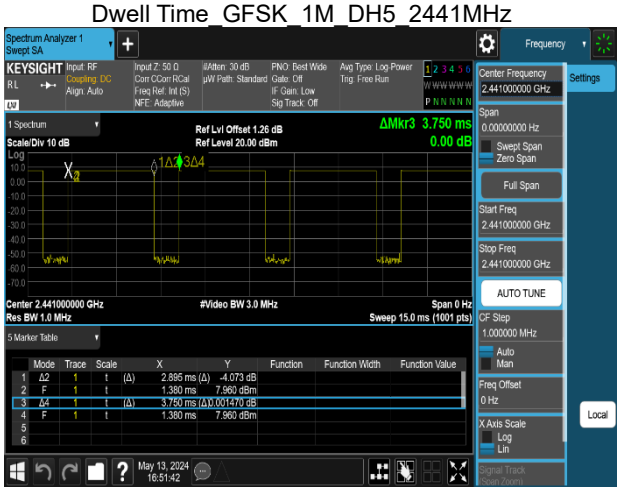
Dwell Time_GFSK_1M_DH3_2441MHz



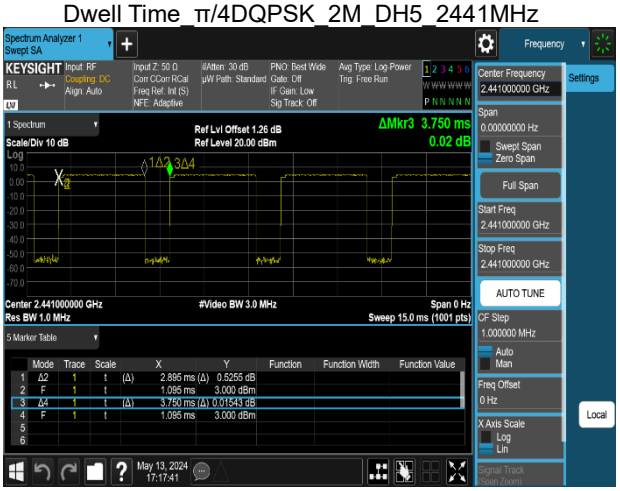
Dwell Time_π/4DQPSK_2M_DH3_2441MHz



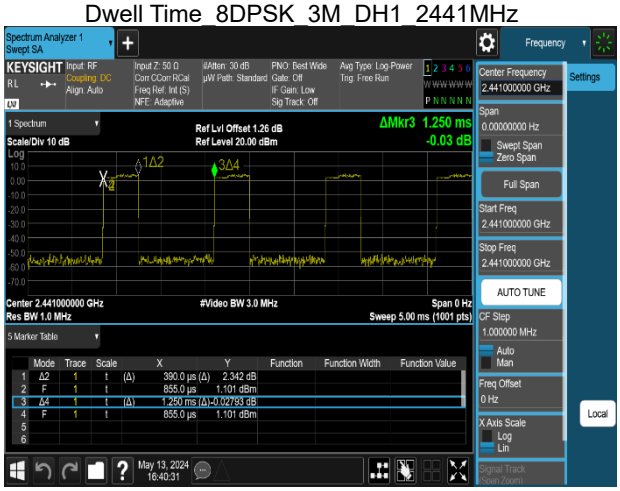
Dwell Time_GFSK_1M_DH5_2441MHz



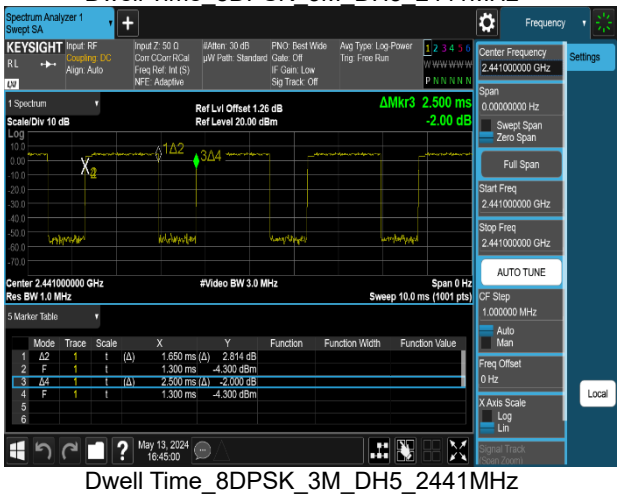
Dwell Time_π/4DQPSK_2M_DH5_2441MHz



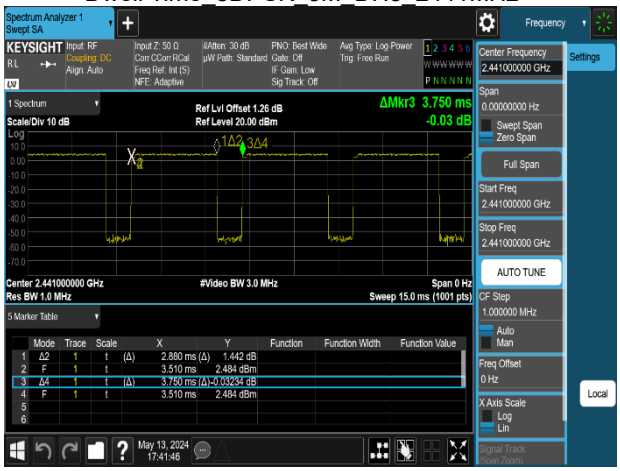
Dwell Time_8DPSK_3M_DH1_2441MHz



Dwell Time_8DPSK_3M_DH3_2441MHz



Dwell Time_8DPSK_3M_DH5_2441MHz



4.8 RADIATION BANDEDGE AND SPURIOUS EMISSION

4.8.1 Test Limit

FCC according to §15.247(d), §15.209 and §15.205,

In any 100 kHz bandwidth outside the authorized frequency band, all harmonic and spurious must be least 20 dB below the highest emission level with the authorized frequency band. Radiation emission which fall in the restricted bands must also follow the FCC section 15.209 as below limit in table.

Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

Above 30 MHz

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

Remark:
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

4.8.2 Test Procedure

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10: 2013, and the EUT set in a continuous mode.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.

3. Span shall wide enough to full capture the emission measured. The SA from 9kHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

4. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz).

Radiated emission below 30MHz is measured in a 9m*6m*6m semi-ane choic chamber, the measurements correspond to those obtained at an open-field test site. There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

5. The SA setting following：

(1) Below 30MHz：

(1.1) 9KHz-490KHz : RBW=200Hz / VBW=1kHz / Sweep=AUTO

(1.2) 490KHz-30MHz : RBW=10kHz / VBW=30kHz / Sweep=AUTO

(2) 30MHz to 1GHz：RBW = 100kHz, VBW ≥ 3*RBW, Sweep = Auto,

Detector = Peak, Trace = Max hold.

(3) Above 1GHz：

(3.1) For Peak measurement：RBW = 1MHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.

(3.2) For Average measurement：RBW = 1MHz, VBW

˙If Duty Cycle ≥ 98%, VBW=10Hz.

˙If Duty Cycle < 98%, VBW=1/T.

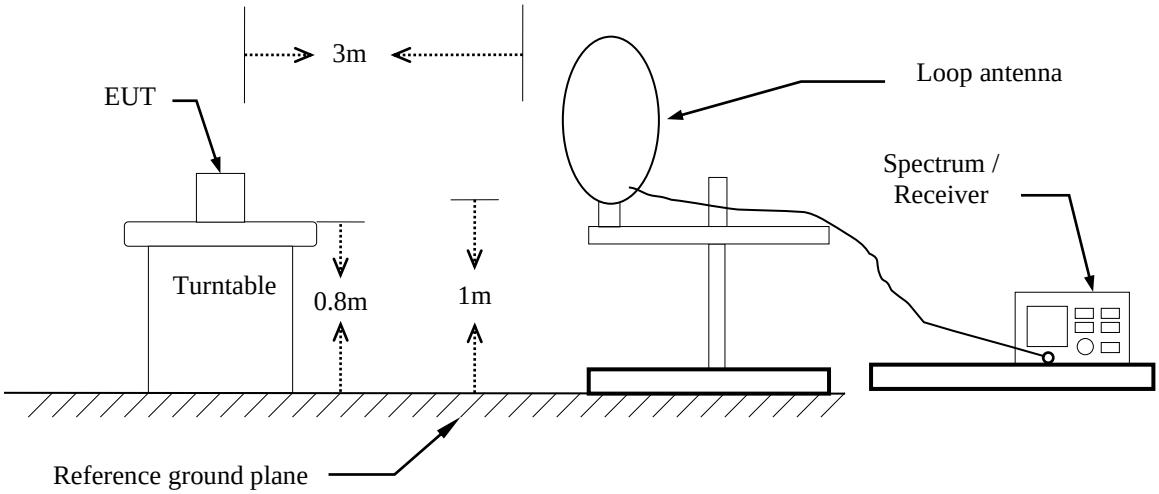
6. Data result

Actual FS=Spectrum Reading Level + Factor

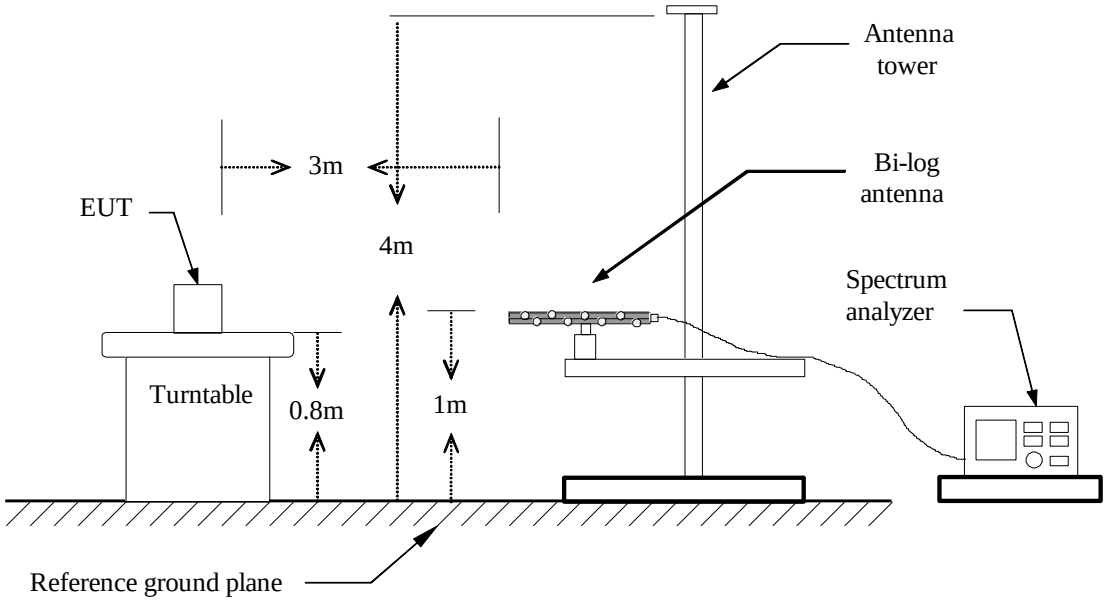
Margin=Actual FS- Limit

4.8.3 Test Setup

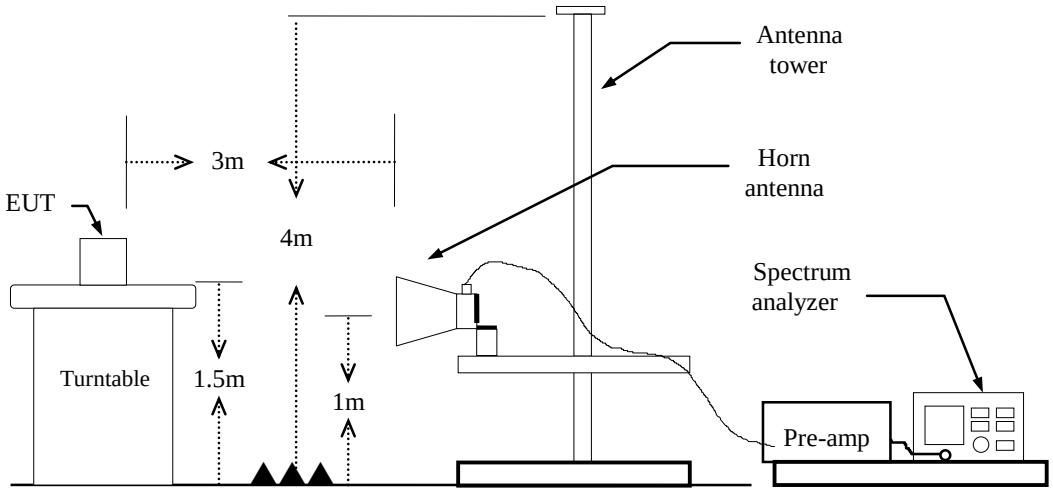
9kHz ~ 30MHz



30MHz ~ 1GHz



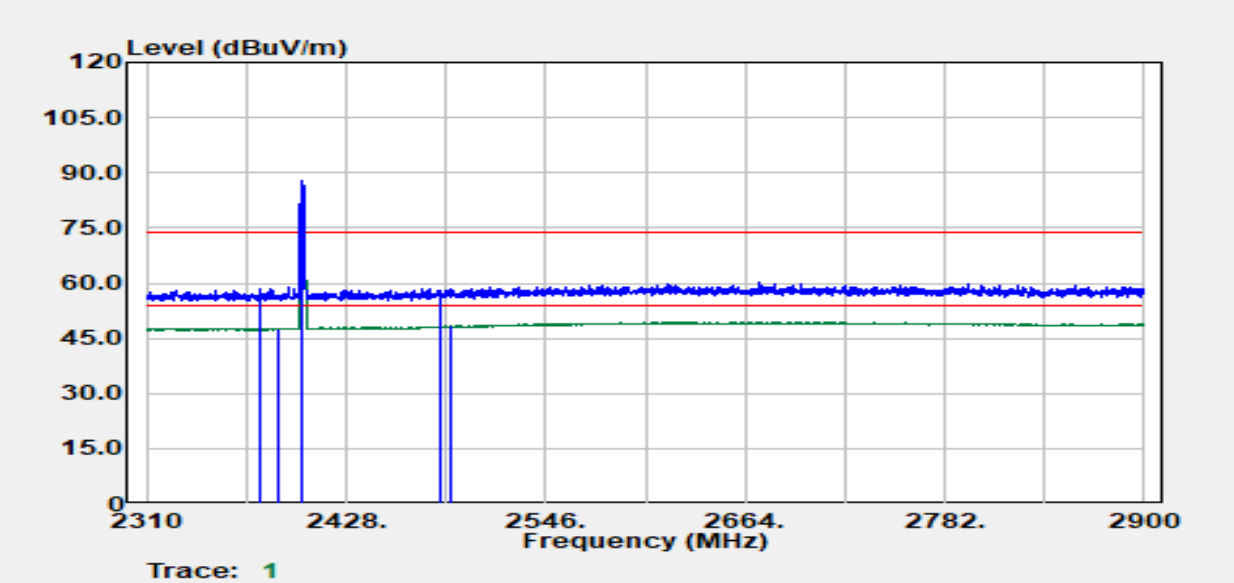
Above 1 GHz



4.8.4 Test Result

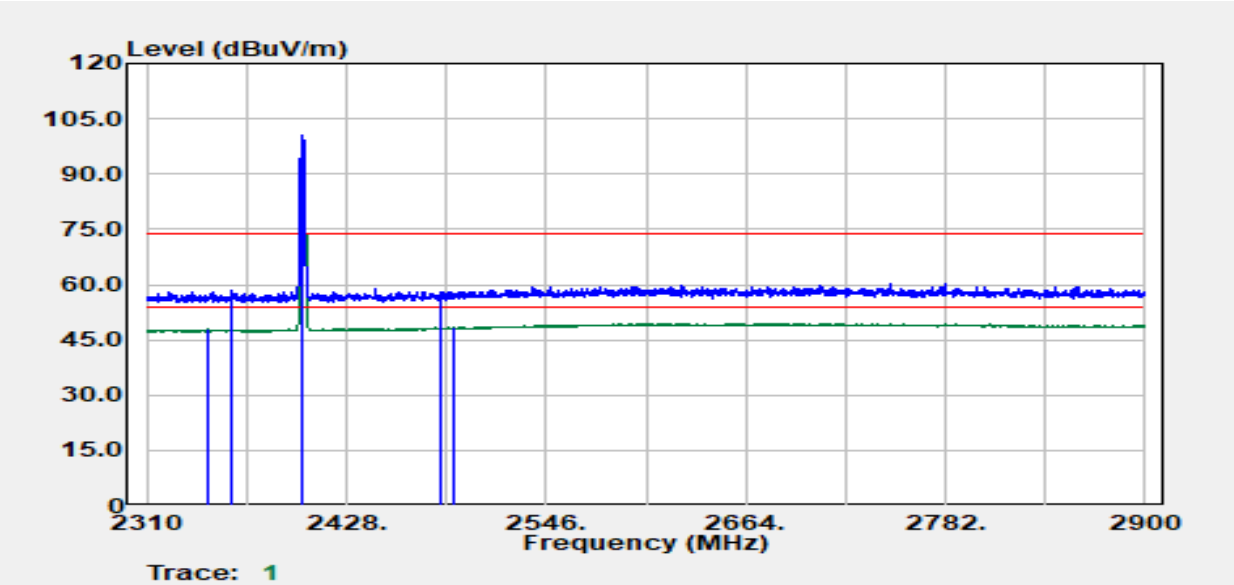
Band Edge Test Data

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



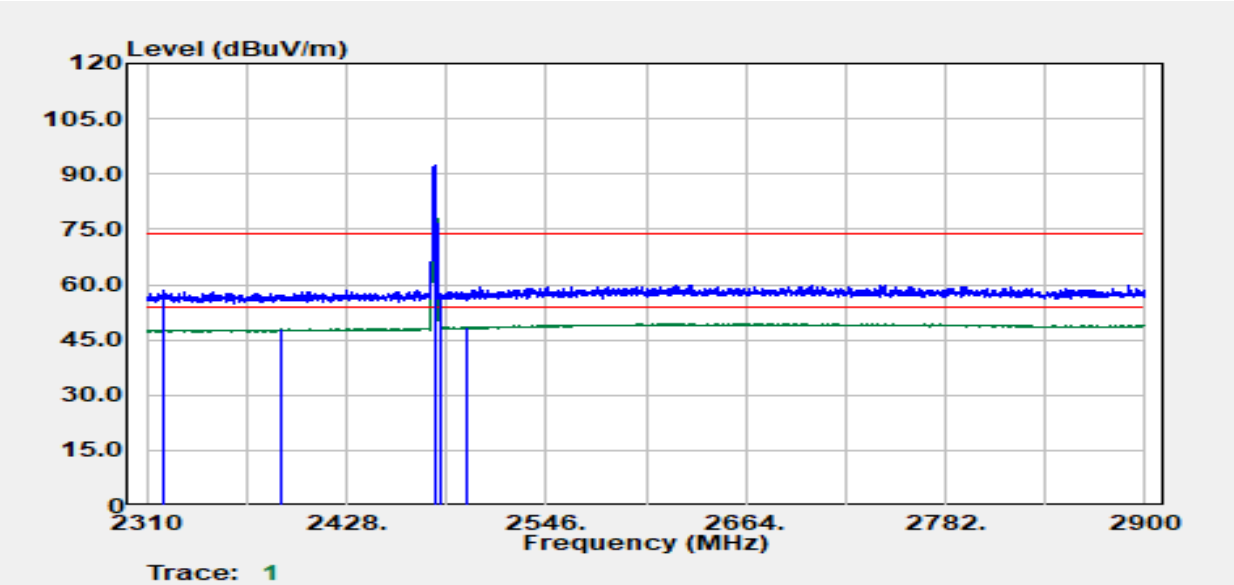
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2376.67	Peak	26.71	31.93	58.64	74.00	-15.36
2387.40	Average	15.63	32.06	47.68	54.00	-6.32
2402.00	Peak	55.74	32.12	87.86	- -	- -
2402.00	Average	55.37	32.12	87.50	- -	- -
2483.50	Peak	25.84	32.43	58.27	74.00	-15.73
2489.52	Average	15.86	32.50	48.36	54.00	-5.64

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



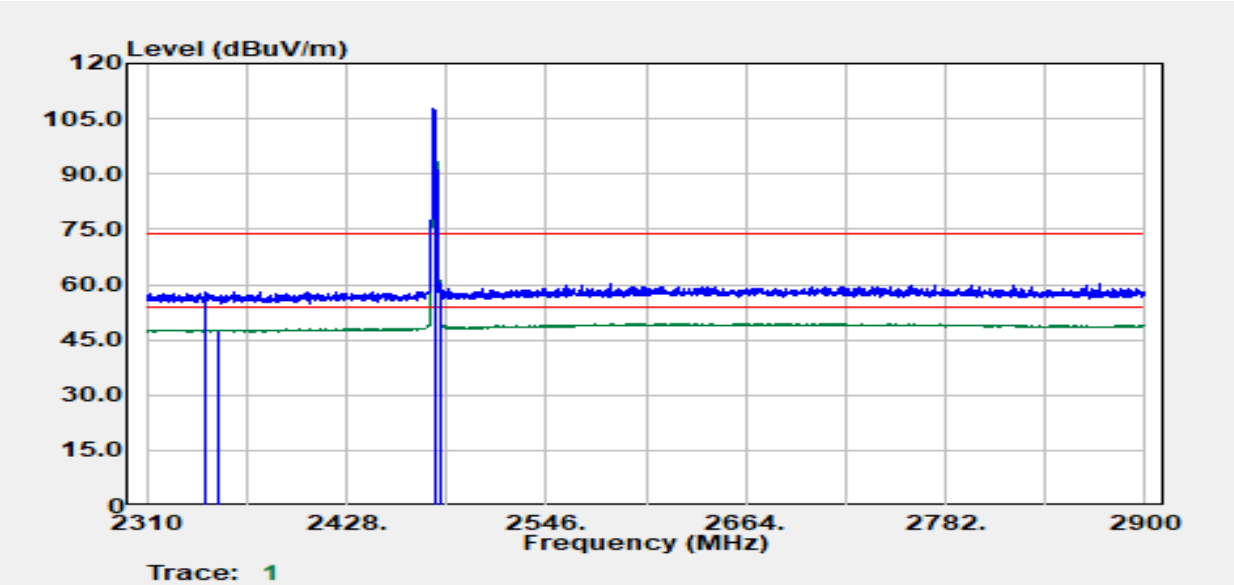
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2346.20	Average	15.81	32.03	47.84	54.00	-6.16
2360.19	Peak	26.42	32.08	58.50	74.00	-15.50
2402.00	Peak	68.51	32.12	100.63	- -	- -
2402.00	Average	68.13	32.12	100.25	- -	- -
2483.50	Peak	25.62	32.43	58.05	74.00	-15.95
2492.02	Average	15.78	32.50	48.29	54.00	-5.71

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



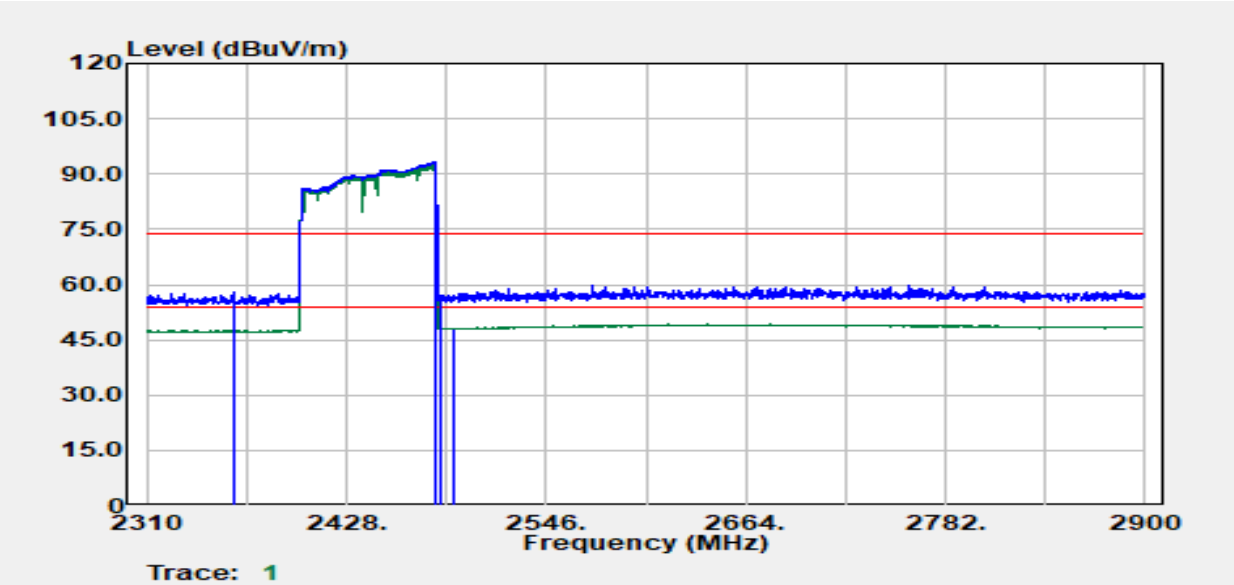
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2319.49	Peak	26.21	32.04	58.25	74.00	-15.75
2389.90	Average	15.98	32.11	48.08	54.00	-5.92
2480.00	Peak	59.90	32.39	92.30	- -	- -
2480.00	Average	59.54	32.39	91.93	- -	- -
2483.50	Peak	25.75	32.43	58.18	74.00	-15.82
2498.76	Average	15.98	32.51	48.49	54.00	-5.51

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



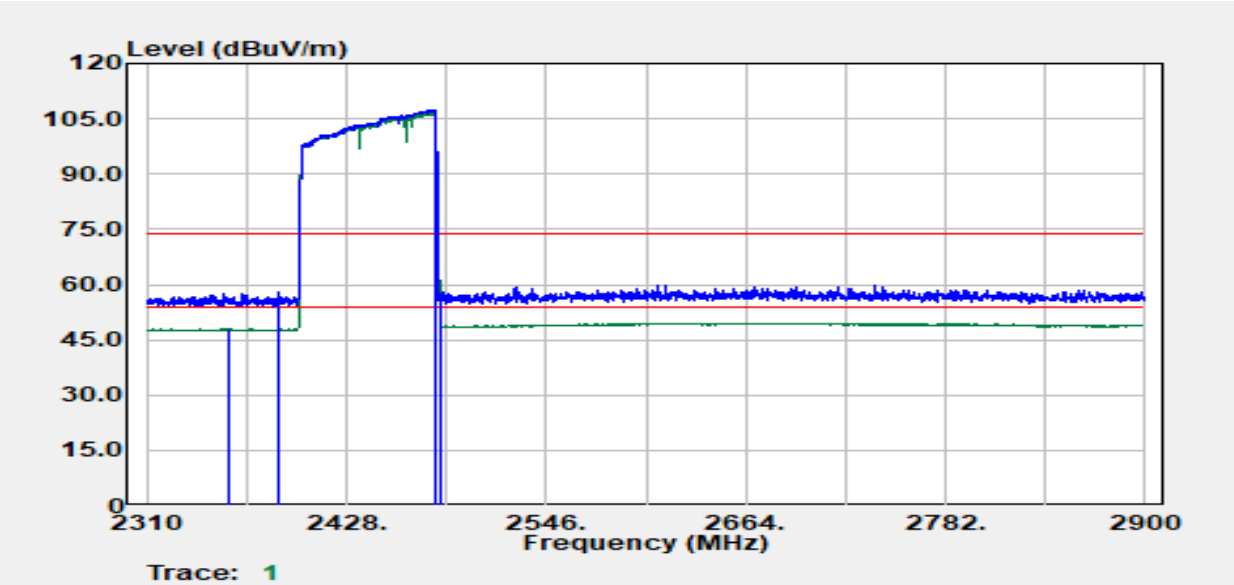
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2344.21	Peak	25.88	32.01	57.89	74.00	-16.11
2352.95	Average	15.64	32.07	47.72	54.00	-6.28
2480.00	Peak	75.29	32.39	107.69	- -	- -
2480.00	Average	74.88	32.39	107.27	- -	- -
2483.53	Average	19.01	32.43	51.44	54.00	-2.56
2483.78	Peak	26.83	32.43	59.26	74.00	-14.74

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2402~2480 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Hopping	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



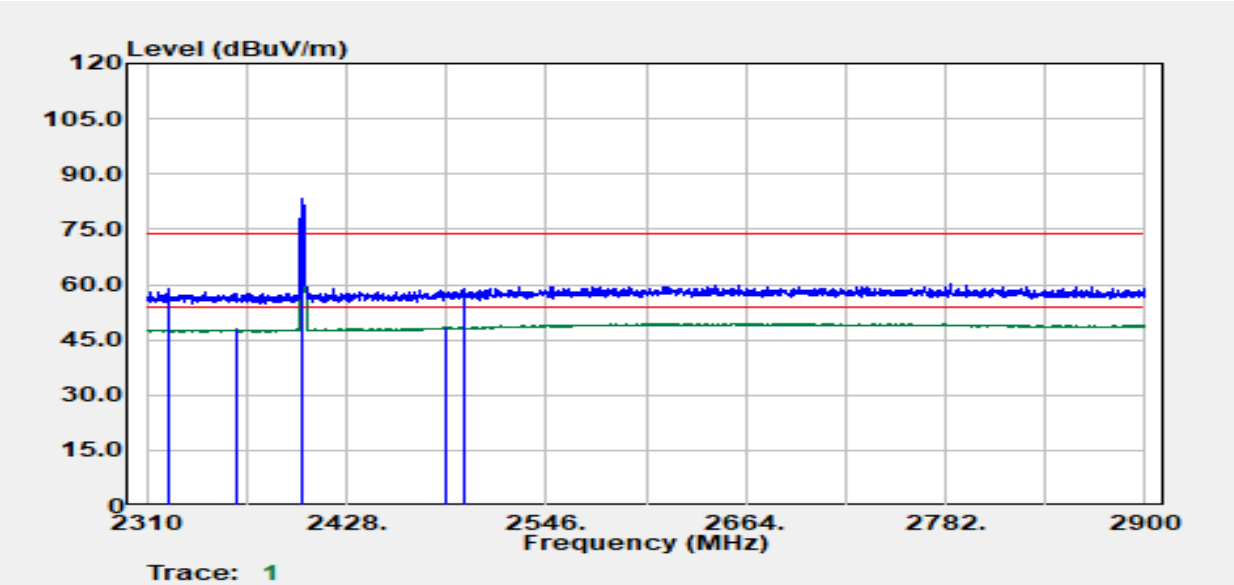
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2361.19	Peak	25.86	32.07	57.93	74.00	-16.07
2362.18	Average	15.49	32.06	47.55	54.00	-6.45
2480.00	Average	60.42	32.39	92.82	- -	- -
2480.00	Peak	60.73	32.40	93.13	- -	- -
2483.50	Peak	25.25	32.43	57.68	74.00	-16.32
2491.77	Average	15.72	32.50	48.23	54.00	-5.77

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2402~2480 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Hopping	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



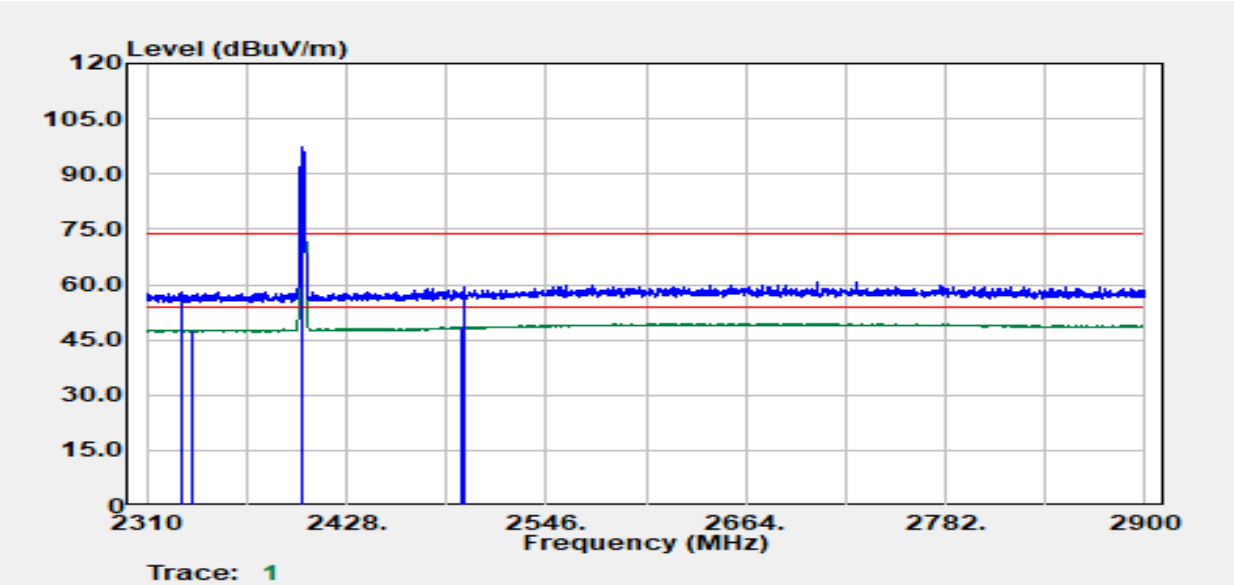
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2358.69	Average	15.84	32.08	47.92	54.00	-6.08
2388.40	Peak	25.78	32.08	57.86	74.00	-16.14
2480.00	Peak	75.05	32.39	107.44	- -	- -
2480.00	Average	74.91	32.39	107.30	- -	- -
2483.50	Peak	25.39	32.43	57.82	74.00	-16.18
2483.53	Average	18.78	32.43	51.21	54.00	-2.79

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



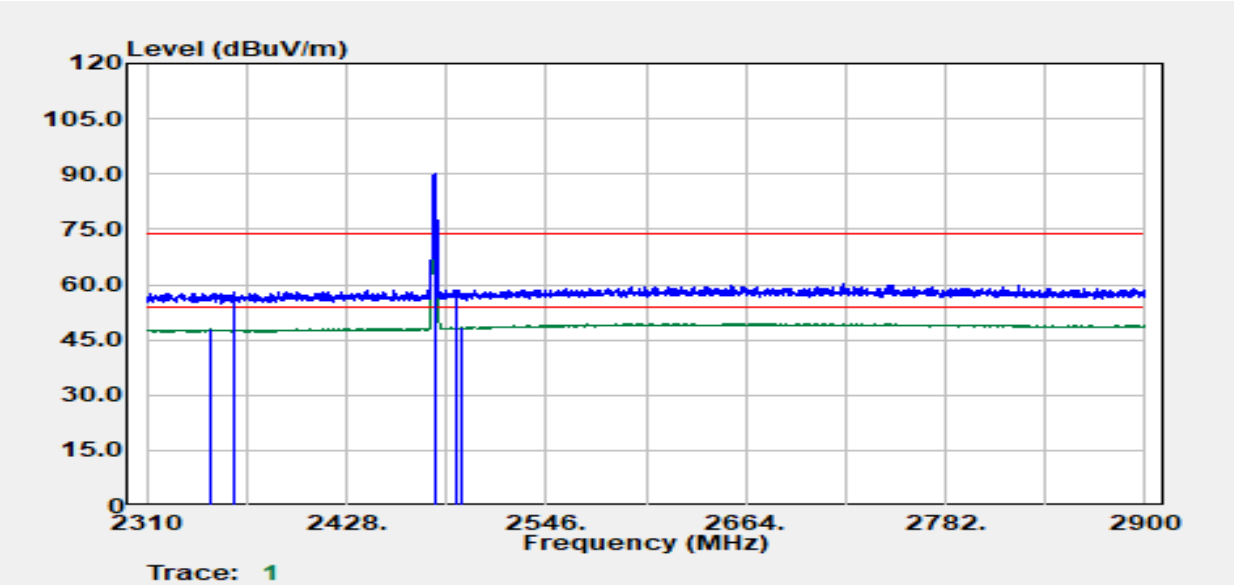
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2322.98	Peak	26.69	32.04	58.73	74.00	-15.27
2362.43	Average	15.73	32.06	47.79	54.00	-6.21
2402.00	Peak	51.04	32.12	83.16	- -	- -
2402.00	Average	48.09	32.12	80.21	- -	- -
2487.28	Average	16.08	32.47	48.55	54.00	-5.45
2497.76	Peak	26.37	32.51	58.88	74.00	-15.12

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



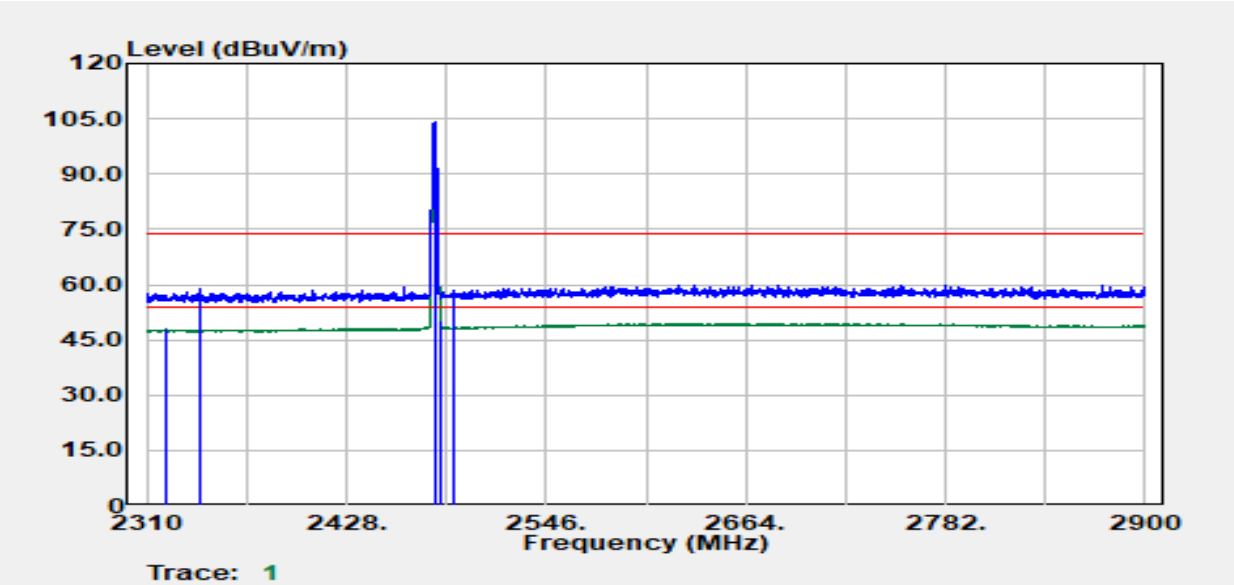
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2330.22	Peak	26.01	32.05	58.06	74.00	-15.94
2337.47	Average	15.75	31.98	47.73	54.00	-6.27
2402.00	Peak	65.43	32.12	97.55	- -	- -
2402.00	Average	62.42	32.12	94.54	- -	- -
2496.76	Average	15.88	32.51	48.39	54.00	-5.61
2497.01	Peak	26.85	32.51	59.36	74.00	-14.64

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



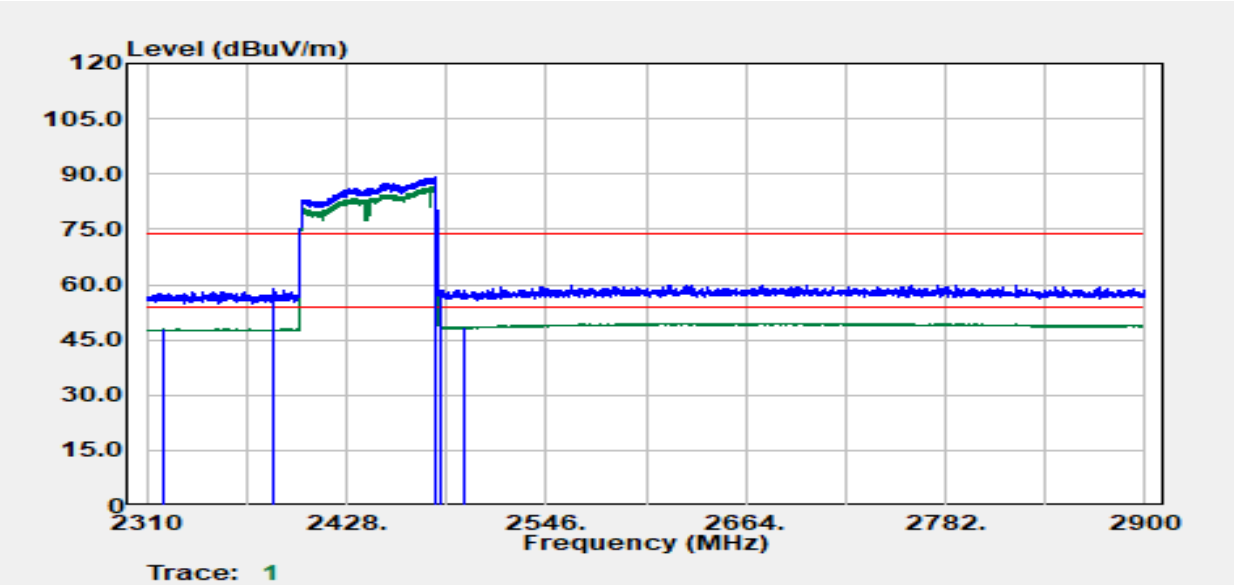
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2348.20	Average	15.72	32.05	47.77	54.00	-6.23
2361.93	Peak	26.08	32.06	58.14	74.00	-15.86
2480.00	Peak	57.56	32.39	89.95	- -	- -
2480.00	Average	54.52	32.39	86.91	- -	- -
2492.77	Peak	26.12	32.50	58.62	74.00	-15.38
2496.26	Average	15.92	32.51	48.43	54.00	-5.57

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



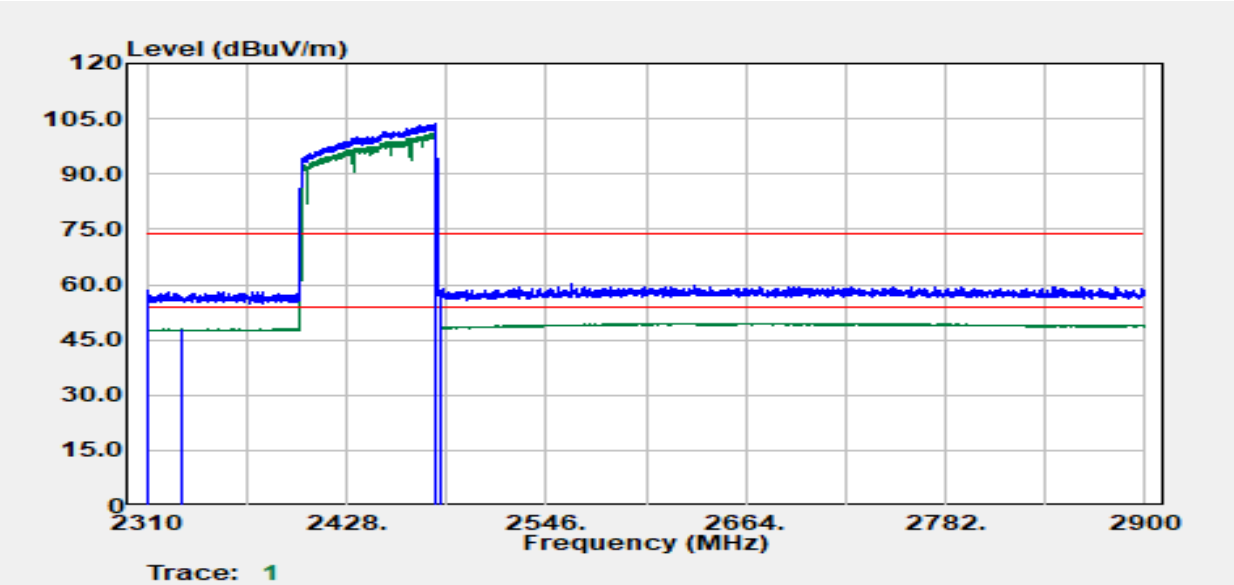
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2320.74	Average	15.81	32.04	47.85	54.00	-6.15
2340.71	Peak	26.70	31.97	58.67	74.00	-15.33
2480.00	Peak	71.59	32.39	103.98	- -	- -
2480.00	Average	68.55	32.39	100.94	- -	- -
2483.53	Average	17.63	32.43	50.06	54.00	-3.94
2491.27	Peak	25.88	32.50	58.39	74.00	-15.61

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2402~2480 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Hopping	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2319.91	Average	15.86	32.04	47.90	54.00	-6.10
2384.93	Peak	26.75	32.00	58.76	74.00	-15.24
2480.00	Peak	56.96	32.39	89.35	- -	- -
2480.00	Average	54.23	32.39	86.62	- -	- -
2483.50	Peak	26.04	32.43	58.47	74.00	-15.53
2497.27	Average	16.00	32.51	48.50	54.00	-5.50

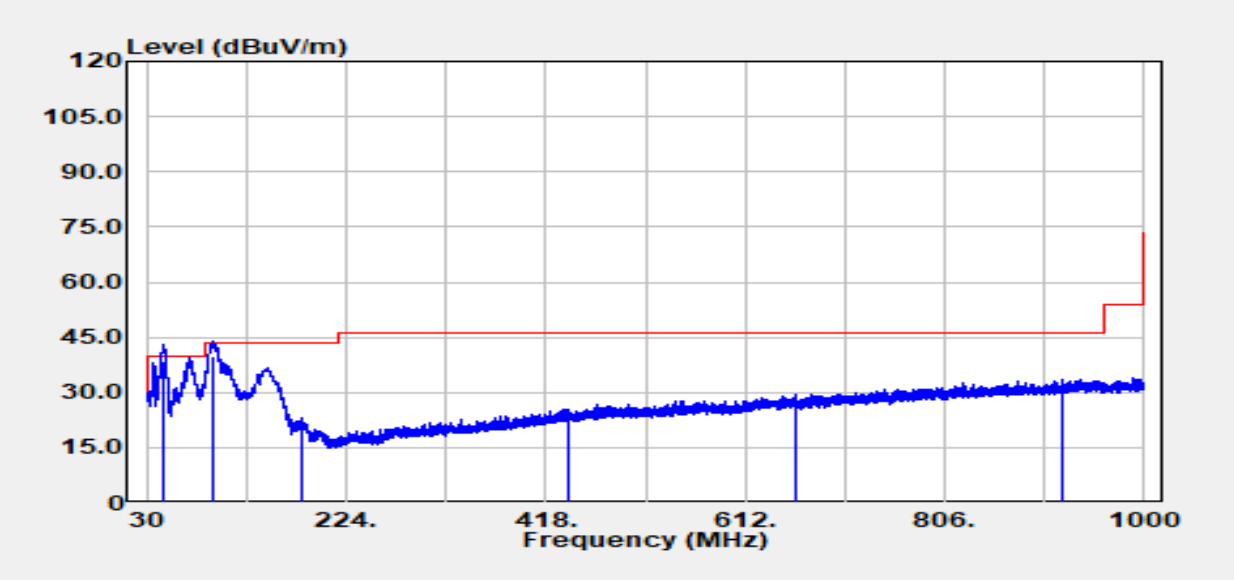
Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2402~2480 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Hopping	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2310.12	Peak	26.35	32.03	58.38	74.00	-15.62
2331.00	Average	15.89	32.04	47.93	54.00	-6.07
2480.00	Average	68.50	32.39	100.90	- -	- -
2480.00	Peak	71.13	32.39	103.52	- -	- -
2483.50	Peak	26.44	32.43	58.87	74.00	-15.13
2483.50	Average	17.48	32.43	49.91	54.00	-4.09

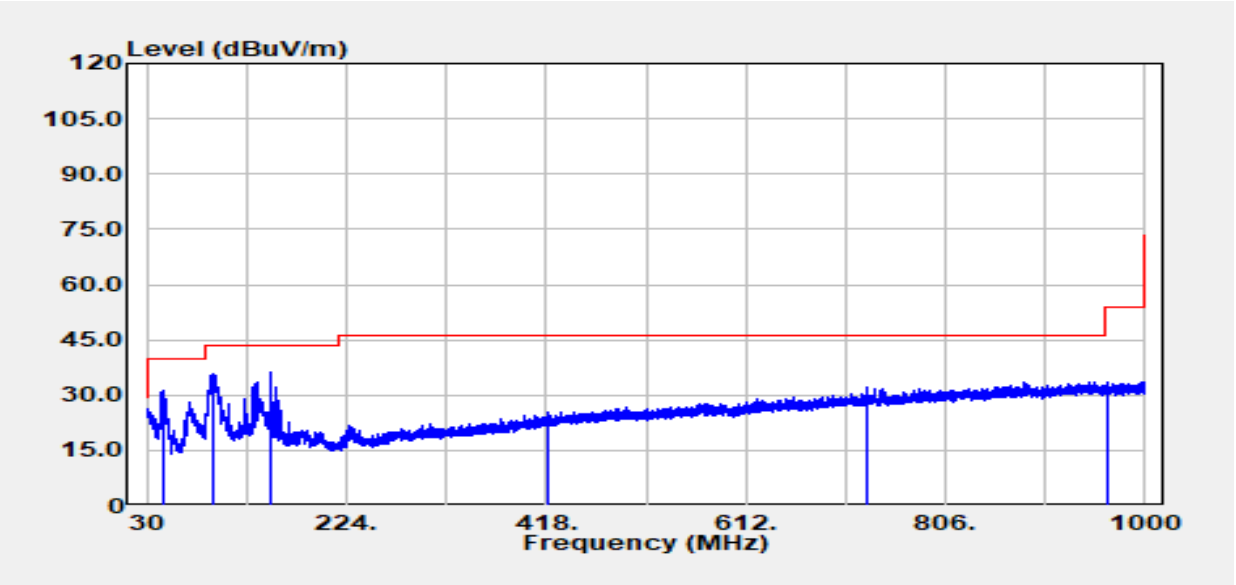
TX Test Data

Project No	:TM-2405000018P	Test Date	:2024-05-20
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



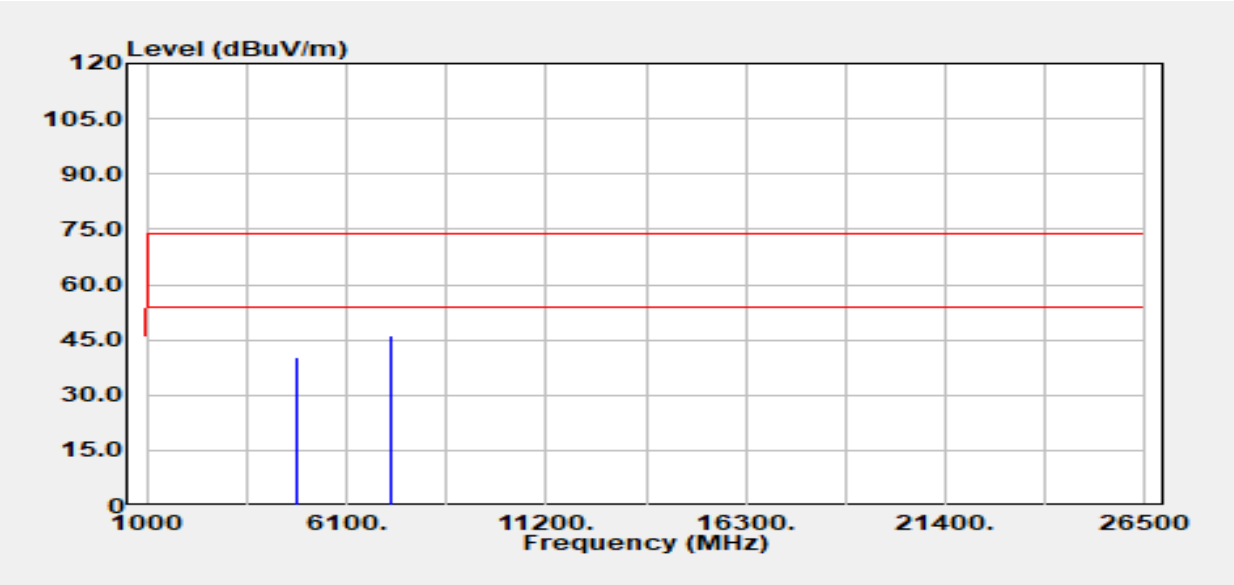
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
46.01	QP	51.74	-13.27	38.47	40.00	-1.53
93.65	QP	54.42	-14.44	39.98	43.50	-3.52
179.99	Peak	34.65	-11.40	23.25	43.50	-20.25
439.70	Peak	30.17	-4.62	25.55	46.00	-20.45
661.35	Peak	29.83	-0.57	29.26	46.00	-16.74
920.22	Peak	30.33	3.09	33.43	46.00	-12.57

Project No	:TM-2405000018P	Test Date	:2024-05-20
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:		



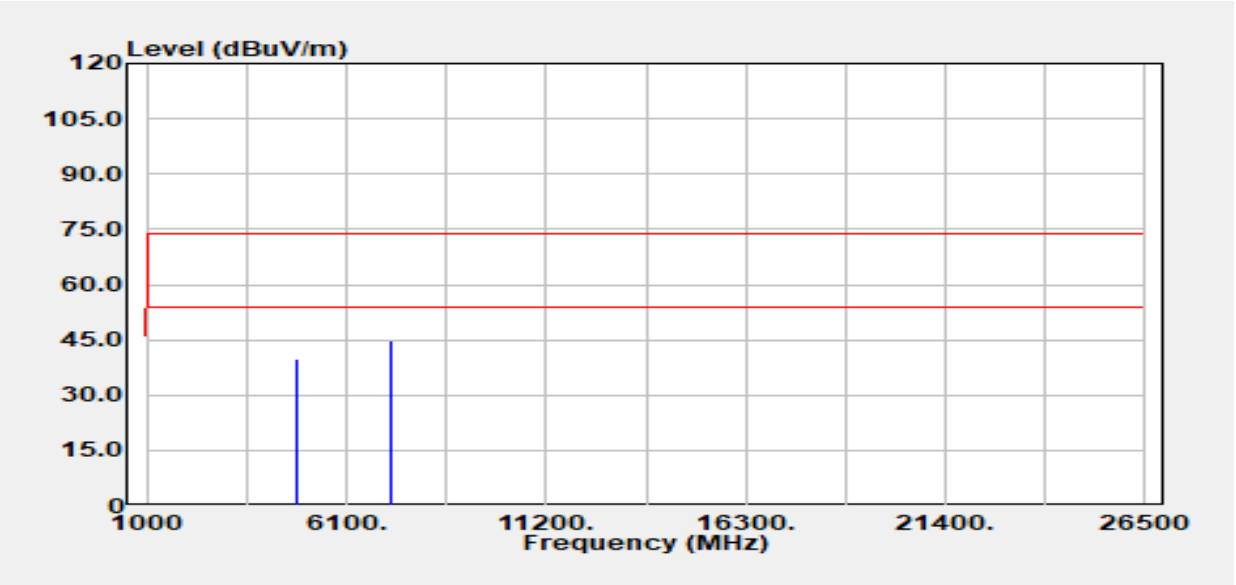
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
45.16	Peak	44.14	-12.94	31.20	40.00	-8.80
93.66	Peak	50.34	-14.44	35.89	43.50	-7.61
151.25	Peak	46.50	-10.28	36.22	43.50	-7.28
420.43	Peak	30.40	-5.07	25.33	46.00	-20.67
730.58	Peak	31.39	0.54	31.94	46.00	-14.06
963.14	Peak	30.00	3.63	33.63	54.00	-20.37

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



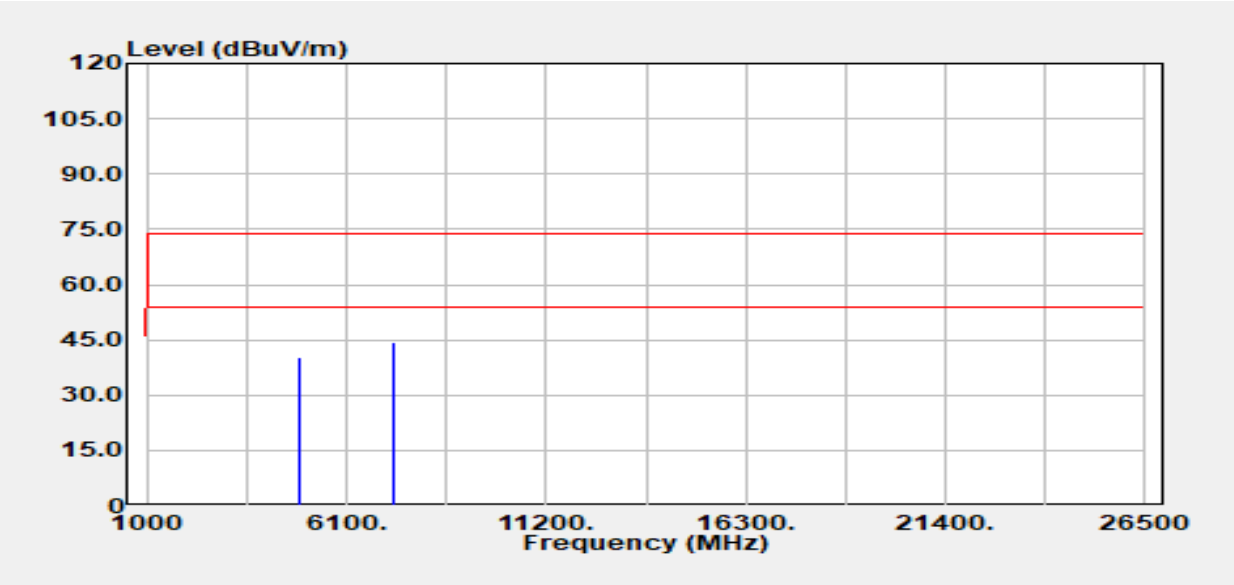
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4804.00	Peak	38.27	2.23	40.50	74.00	-33.50
4804.00	Average	30.35	2.23	32.57	54.00	-21.43
7206.00	Peak	37.25	9.01	46.26	74.00	-27.74
7206.00	Average	26.82	9.01	35.83	54.00	-18.17

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



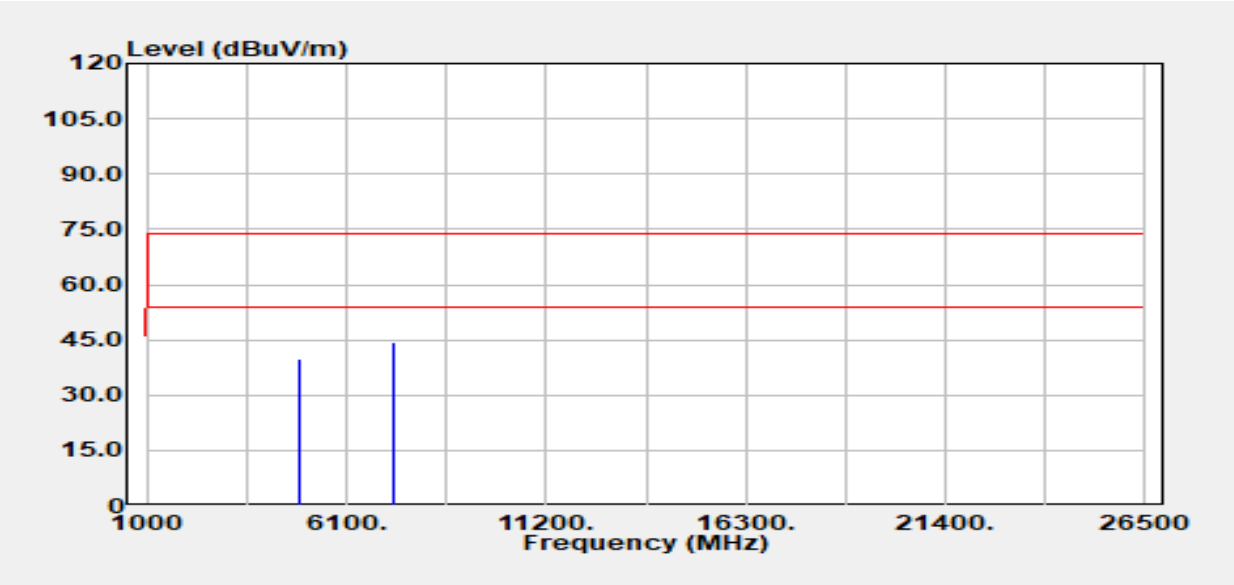
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4804.00	Peak	37.67	2.23	39.90	74.00	-34.10
4804.00	Average	29.29	2.23	31.52	54.00	-22.48
7206.00	Peak	35.94	9.01	44.95	74.00	-29.05
7206.00	Average	26.81	9.01	35.82	54.00	-18.18

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2441 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:TX	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



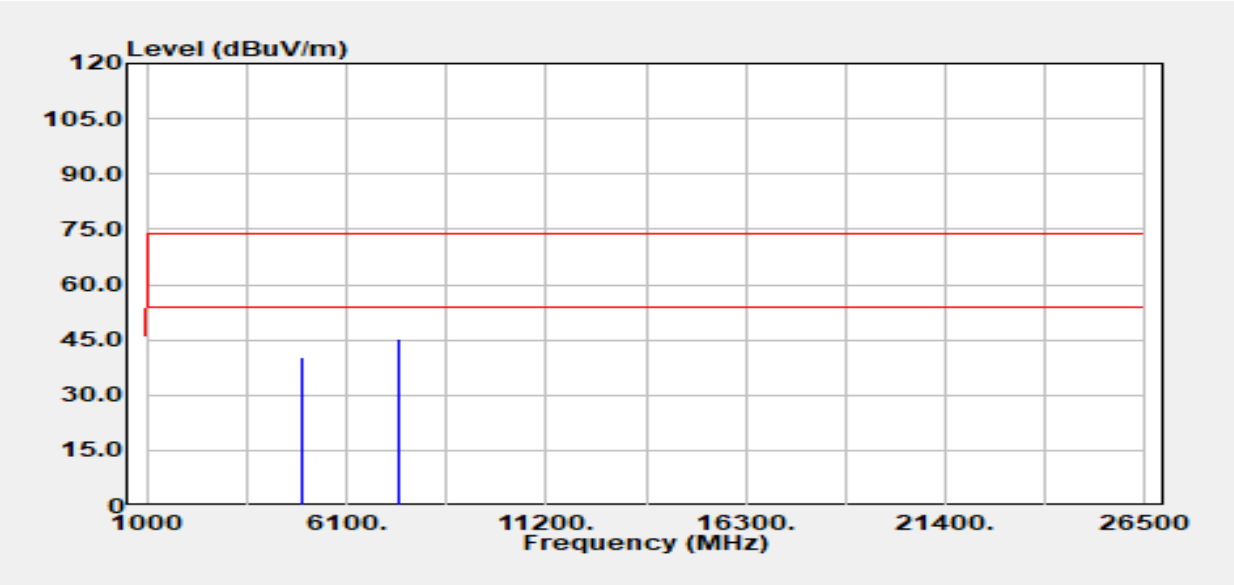
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4882.00	Peak	37.67	2.56	40.24	74.00	-33.76
4882.00	Average	28.15	2.56	30.71	54.00	-23.29
7323.00	Peak	35.46	8.96	44.42	74.00	-29.58
7323.00	Average	27.98	8.96	36.94	54.00	-17.06

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2441 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



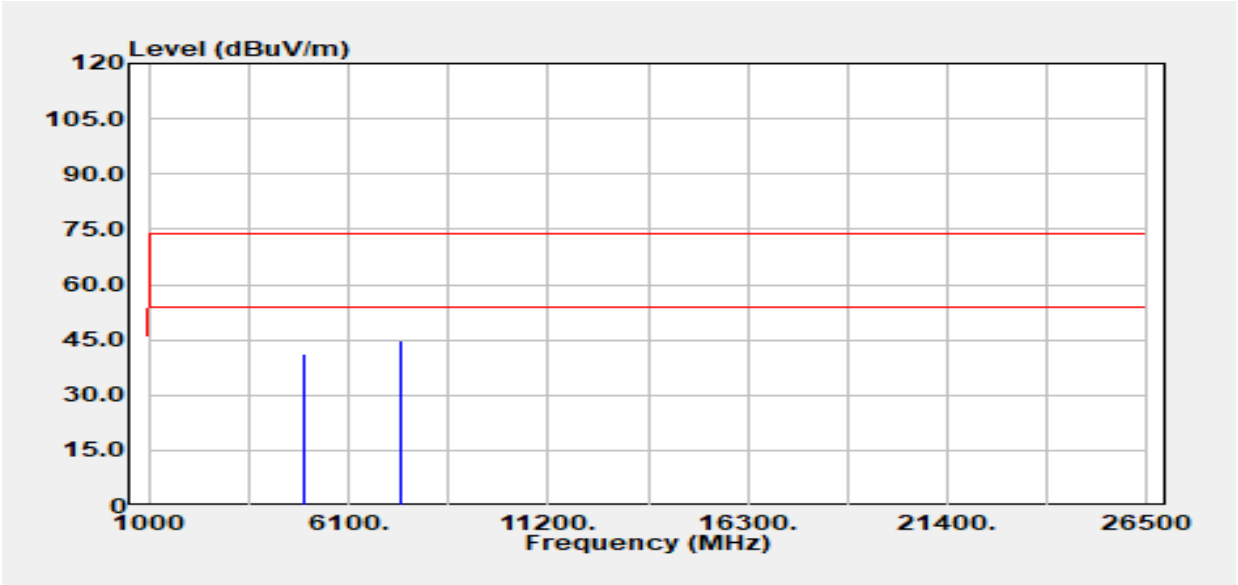
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4882.00	Peak	37.50	2.56	40.07	74.00	-33.93
4882.00	Average	27.69	2.56	30.25	54.00	-23.75
7323.00	Peak	35.25	8.96	44.21	74.00	-29.79
7323.00	Average	26.89	8.96	35.85	54.00	-18.15

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



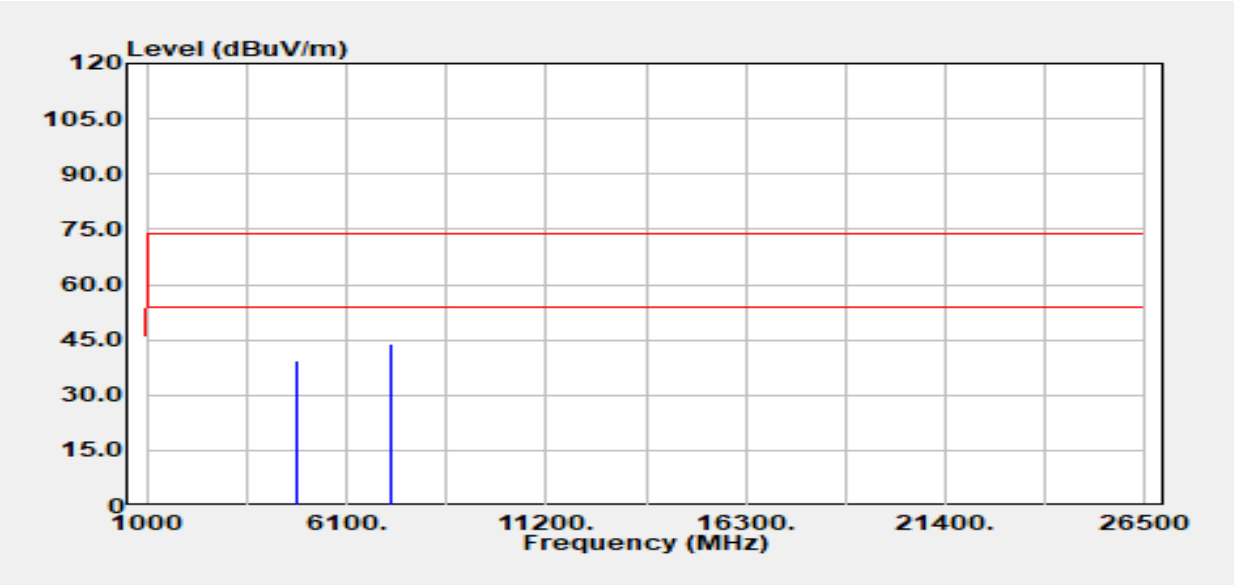
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4960.00	Peak	37.30	3.21	40.51	74.00	-33.49
4960.00	Average	27.82	3.21	31.04	54.00	-22.96
7440.00	Peak	36.55	8.92	45.47	74.00	-28.53
7440.00	Average	29.22	8.92	38.14	54.00	-15.86

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT BR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



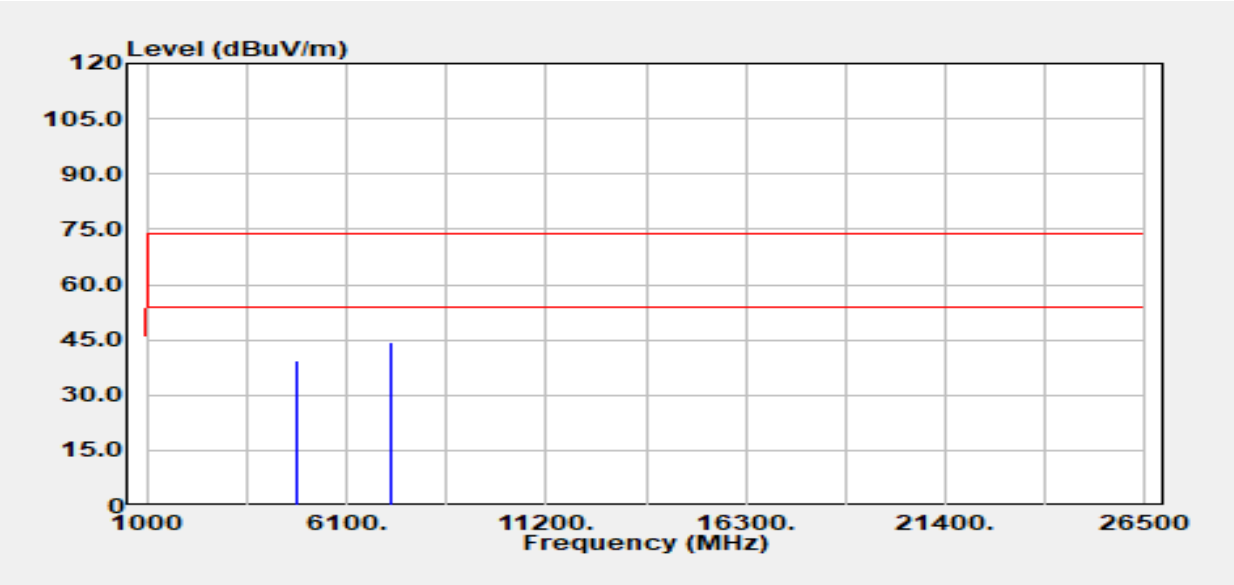
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4960.00	Peak	37.90	3.21	41.11	74.00	-32.89
4960.00	Average	27.79	3.21	31.00	54.00	-23.00
7440.00	Peak	35.76	8.92	44.68	74.00	-29.32
7440.00	Average	29.20	8.92	38.12	54.00	-15.88

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



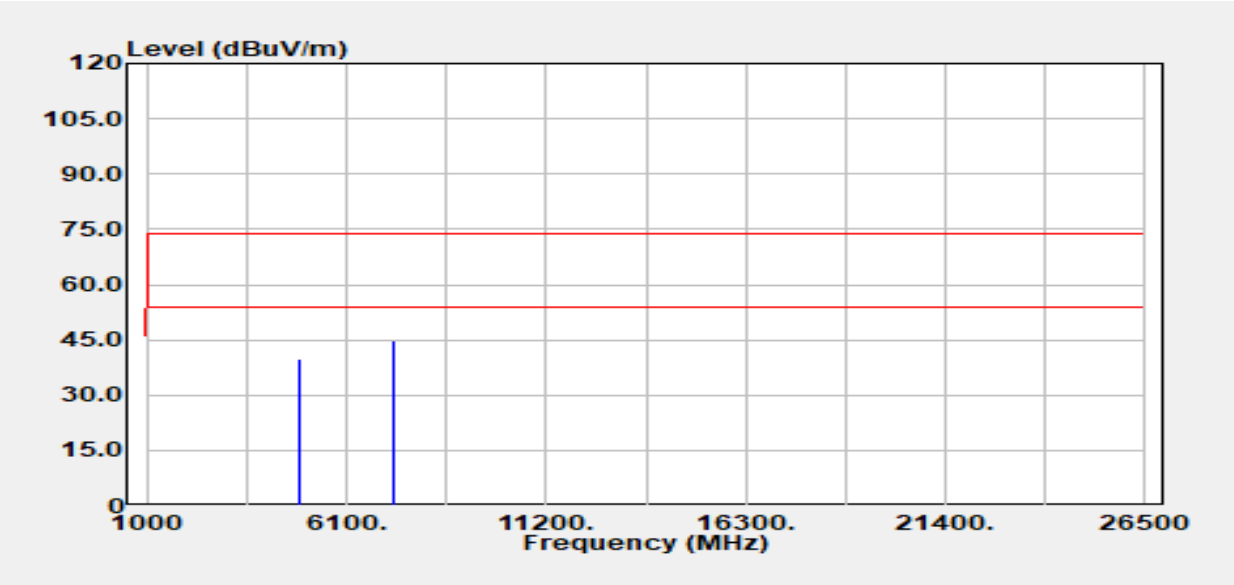
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4804.00	Peak	37.02	2.23	39.25	74.00	-34.75
4804.00	Average	28.58	2.23	30.80	54.00	-23.20
7206.00	Peak	35.06	9.01	44.07	74.00	-29.93
7206.00	Average	26.24	9.01	35.25	54.00	-18.75

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2402 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



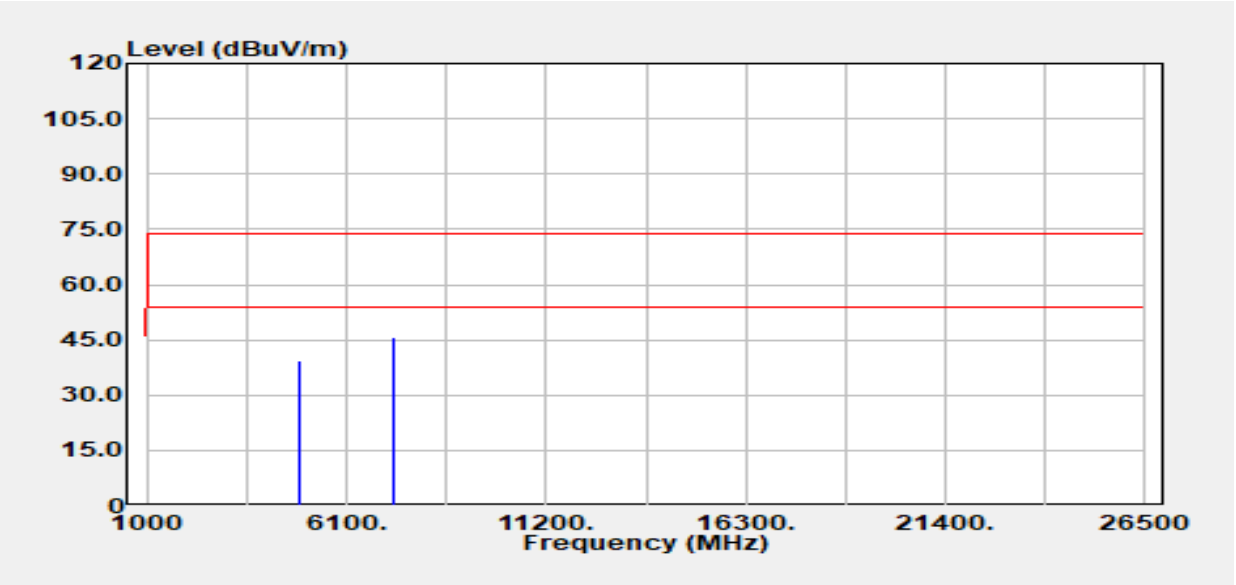
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4804.00	Peak	37.29	2.23	39.52	74.00	-34.48
4804.00	Average	28.51	2.23	30.74	54.00	-23.26
7206.00	Peak	35.39	9.01	44.41	74.00	-29.59
7206.00	Average	26.26	9.01	35.27	54.00	-18.73

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2441 MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



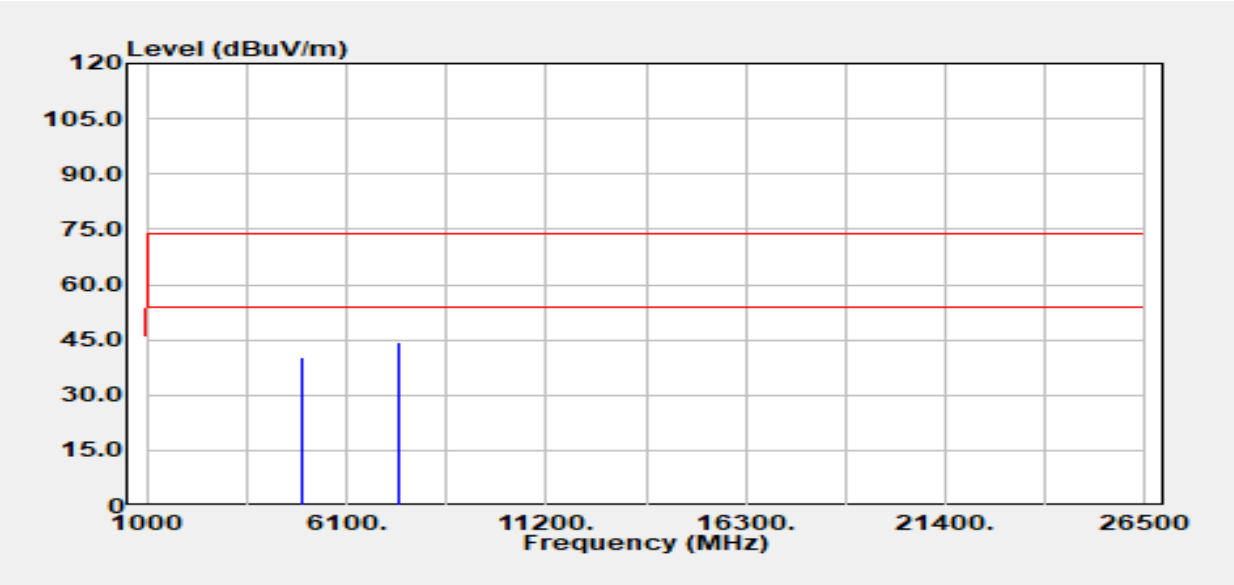
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4882.00	Peak	37.17	2.56	39.73	74.00	-34.27
4882.00	Average	26.94	2.56	29.50	54.00	-24.50
7323.00	Peak	35.92	8.96	44.88	74.00	-29.12
7323.00	Average	26.33	8.96	35.29	54.00	-18.71

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2441 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



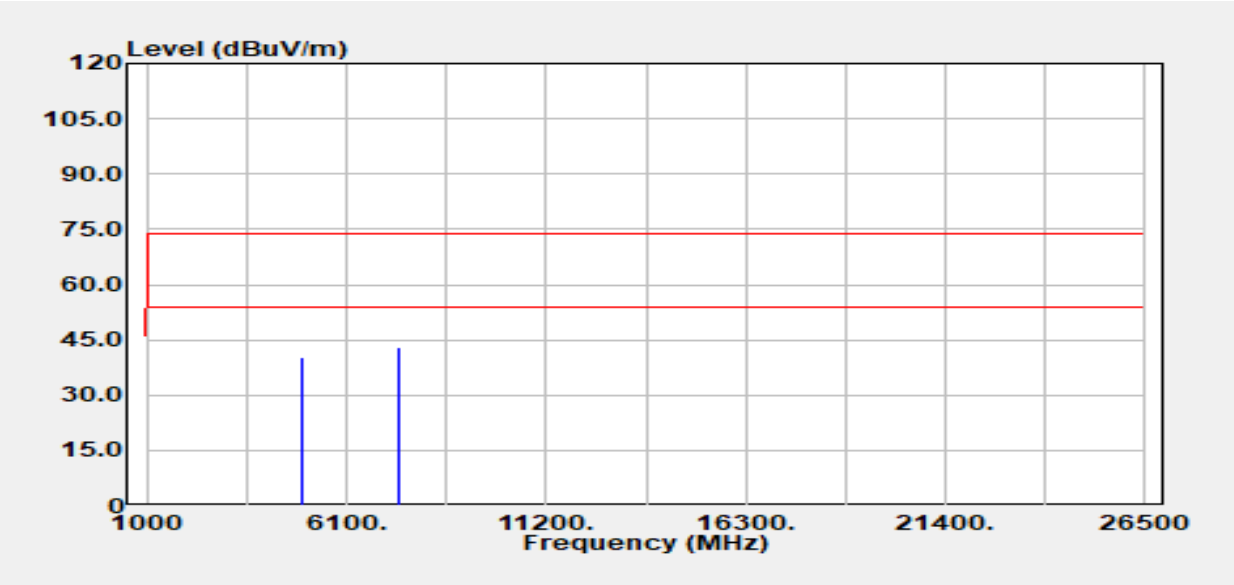
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4882.00	Peak	36.71	2.56	39.27	74.00	-34.73
4882.00	Average	27.05	2.56	29.62	54.00	-24.38
7323.00	Peak	36.70	8.96	45.66	74.00	-28.34
7323.00	Average	26.32	8.96	35.27	54.00	-18.73

Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4960.00	Peak	37.04	3.21	40.26	74.00	-33.74
4960.00	Average	27.63	3.21	30.84	54.00	-23.16
7440.00	Peak	35.28	8.92	44.20	74.00	-29.80
7440.00	Average	26.09	8.92	35.01	54.00	-18.99

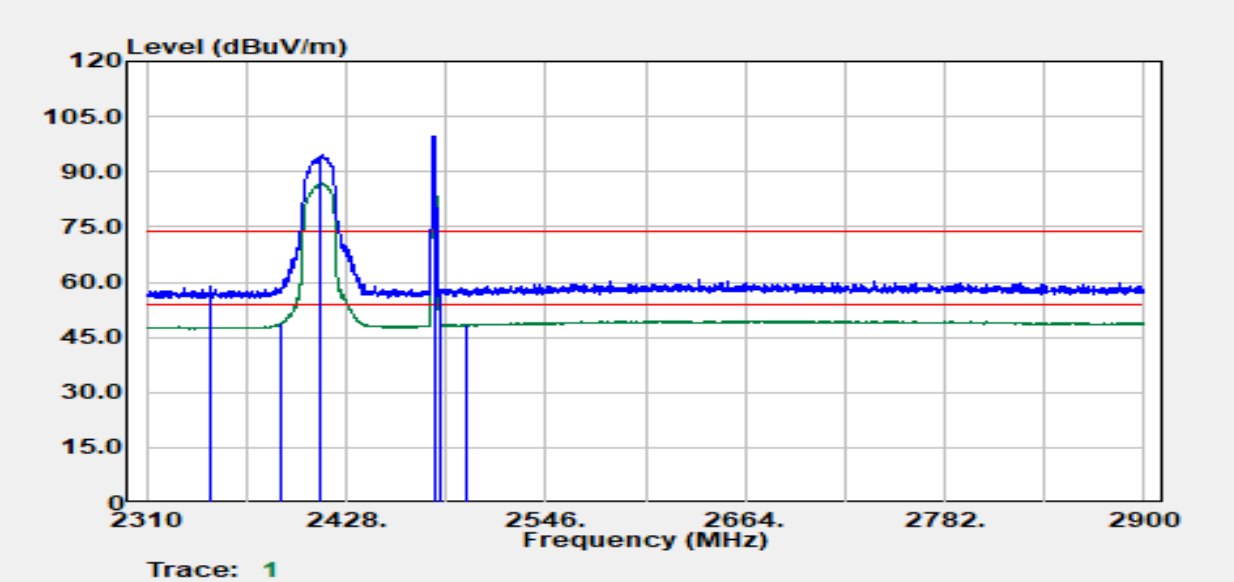
Project No	:TM-2405000018P	Test Date	:2024-05-16
Operation Band	:BT EDR	Temp./Humi.	:24.6/57
Frequency	:2480 MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Ray Li
EUT Pol	:E2	Test Chamber	: 966A
Setting	:0		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4960.00	Peak	36.94	3.21	40.15	74.00	-33.85
4960.00	Average	27.47	3.21	30.68	54.00	-23.32
7440.00	Peak	34.29	8.92	43.21	74.00	-30.79
7440.00	Average	26.07	8.92	34.99	54.00	-19.01

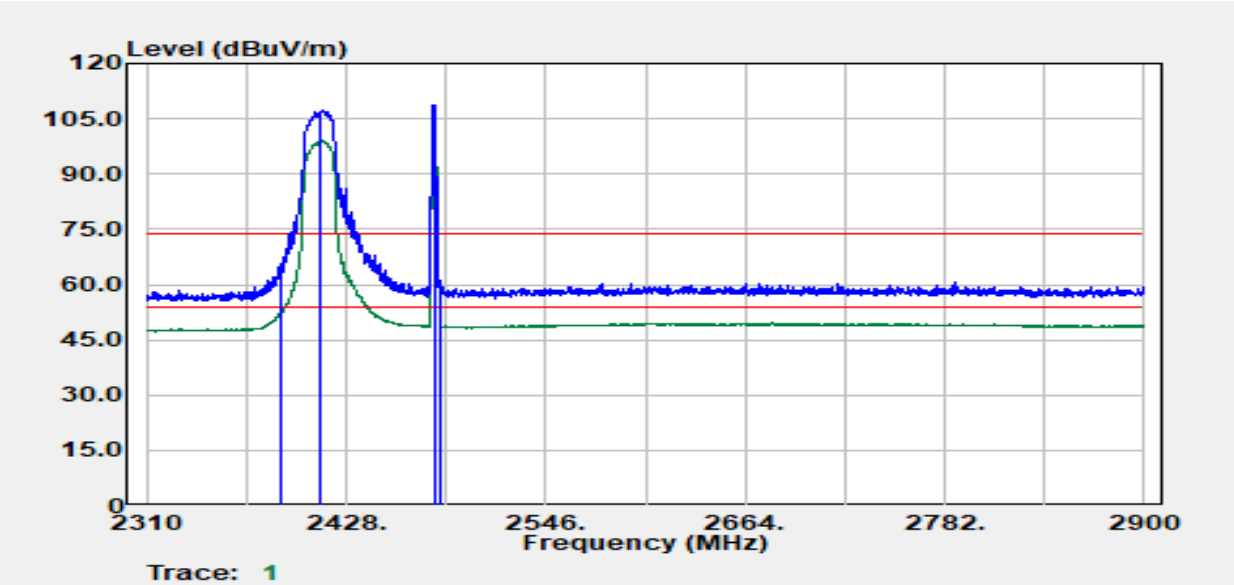
Co-location

Project No	:TM-2405000018P	Test Date	:2024-05-20
Operation Band	:802.11n20_BT BR	Temp./Humi.	:24.5/57
Frequency	:2412_2480MHz	Antenna Pol.	:Vertical
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:15_0		



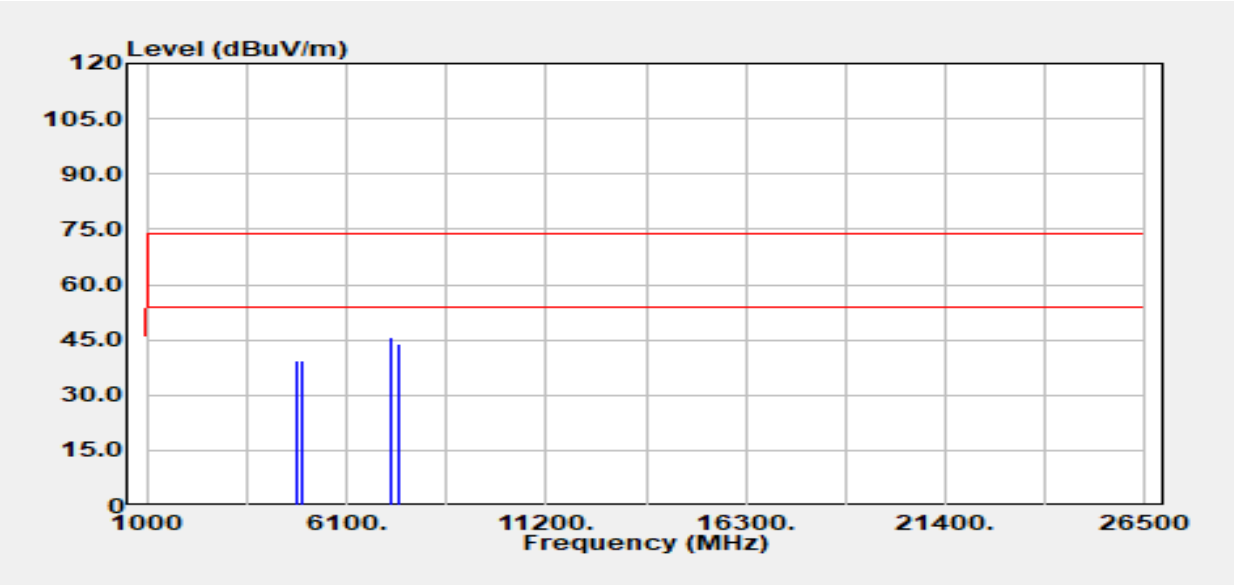
Freq.	Detector Mode	Spectrum Read Level	Factor	Actual FS	Limit	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
2347.41	Peak	52.57	6.21	58.78	74.00	-15.22
2389.77	Average	42.48	6.28	48.75	54.00	-5.25
2412.00	Peak	90.22	6.31	96.52	- -	- -
2412.00	Average	82.58	6.31	88.89	- -	- -
2480.00	Peak	93.07	6.67	99.74	- -	- -
2480.00	Average	92.98	6.67	99.64	- -	- -
2483.50	Peak	51.69	6.71	58.40	74.00	-15.60
2499.27	Average	41.51	6.84	48.35	54.00	-5.65

Project No	:TM-2405000018P	Test Date	:2024-05-20
Operation Band	:802.11n20_BT BR	Temp./Humi.	:24.5/57
Frequency	:2412_2480MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Bandedge	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:15_0		



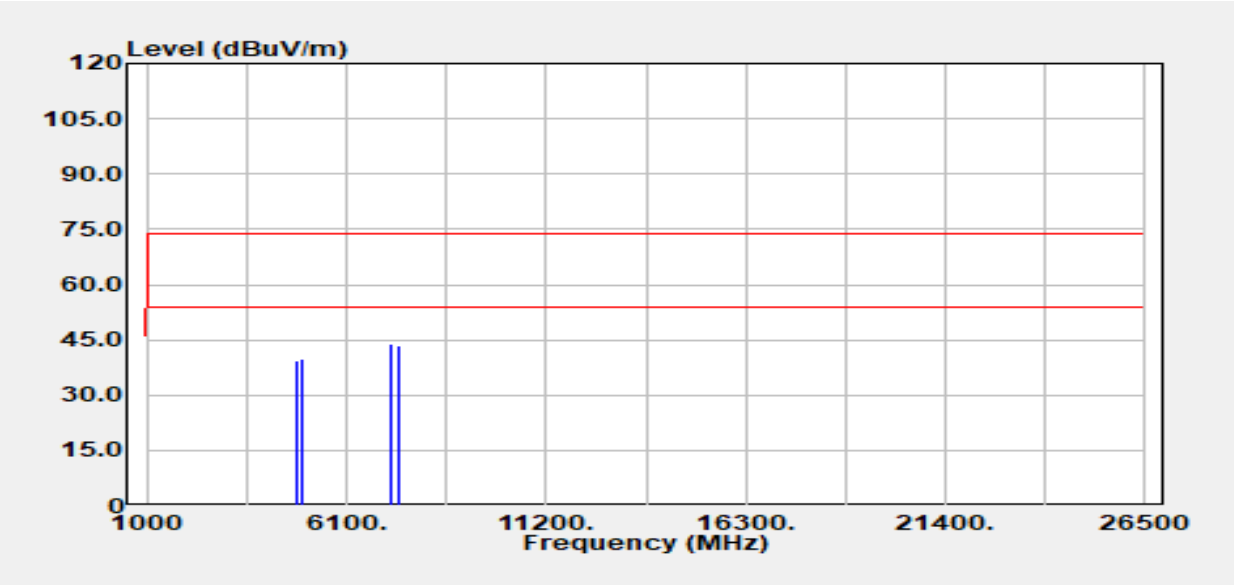
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
2390.00	Peak	59.28	6.28	65.56	74.00	-8.44
2390.00	Average	46.19	6.28	52.47	54.00	-1.53
2412.00	Peak	100.96	6.31	107.26	- -	- -
2412.00	Average	92.68	6.31	98.99	- -	- -
2480.00	Peak	102.21	6.67	108.88	- -	- -
2480.00	Average	101.83	6.67	108.49	- -	- -
2483.50	Peak	53.56	6.71	60.28	74.00	-13.72
2483.50	Average	44.06	6.71	50.78	54.00	-3.22

Project No	:TM-2405000018P	Test Date	:2024-05-20
Operation Band	:802.11n20_BT BR	Temp./Humi.	:24.5/57
Frequency	:2412_2480MHz	Antenna Pol.	:Vertical
Operation Mode	:TX	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:15_0		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4824.00	Peak	37.19	2.25	39.44	74.00	-34.56
4824.00	Average	28.51	2.25	30.76	54.00	-23.24
4960.00	Peak	36.26	3.21	39.47	74.00	-34.53
4960.00	Average	27.89	3.21	31.10	54.00	-22.90
7236.00	Peak	36.48	9.17	45.64	74.00	-28.36
7236.00	Average	29.02	9.17	38.18	54.00	-15.82
7440.00	Peak	34.97	8.92	43.89	74.00	-30.11
7440.00	Average	26.45	8.92	35.37	54.00	-18.63

Project No	:TM-2405000018P	Test Date	:2024-05-20
Operation Band	:802.11n20_BT BR	Temp./Humi.	:24.5/57
Frequency	:2412_2480MHz	Antenna Pol.	:Horizontal
Operation Mode	:TX	Engineer	:Tony Chao
EUT Pol	:E2	Test Chamber	: 966A
Setting	:15_0		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBµV	Factor dB	Actual FS dBµV/m	Limit dBµV/m	Margin dB
4824.00	Peak	37.30	2.25	39.55	74.00	-34.45
4824.00	Average	28.28	2.25	30.53	54.00	-23.47
4960.00	Peak	36.64	3.21	39.85	74.00	-34.15
4960.00	Average	27.92	3.21	31.13	54.00	-22.87
7236.00	Peak	34.82	9.17	43.99	74.00	-30.01
7236.00	Average	27.76	9.17	36.93	54.00	-17.07
7440.00	Peak	34.67	8.92	43.59	74.00	-30.41
7440.00	Average	26.33	8.92	35.25	54.00	-18.75

- End of Test Report -