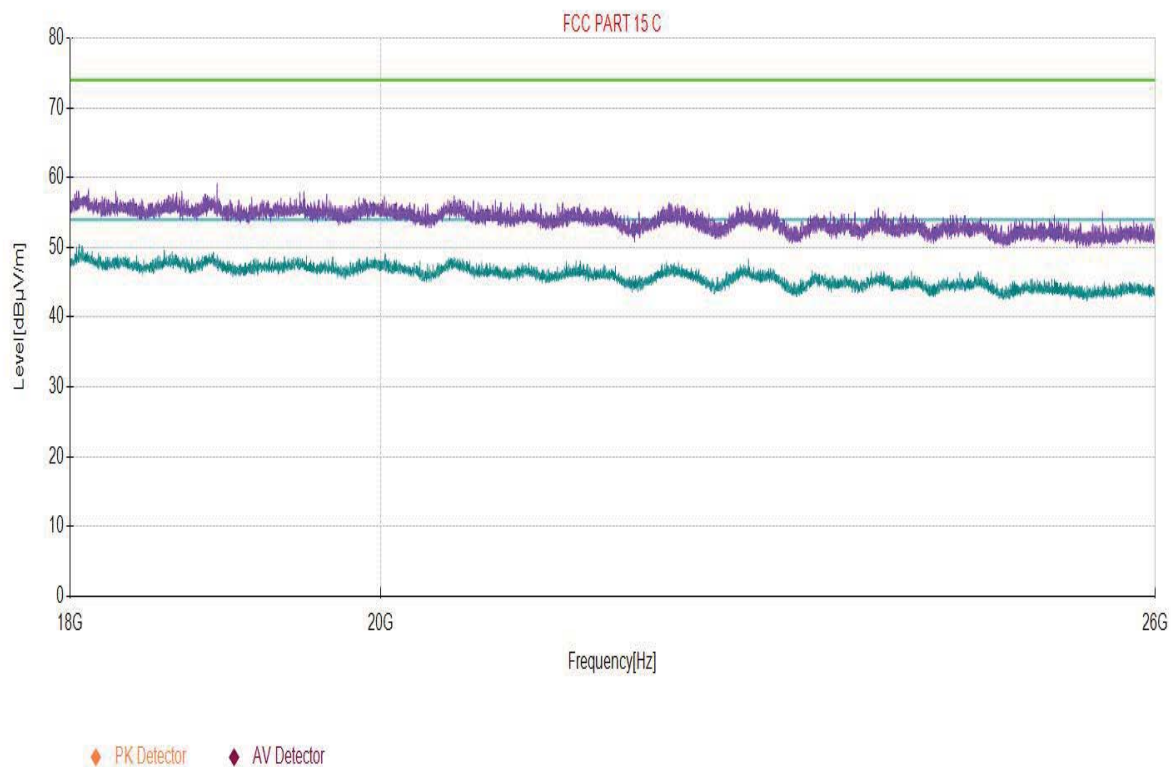


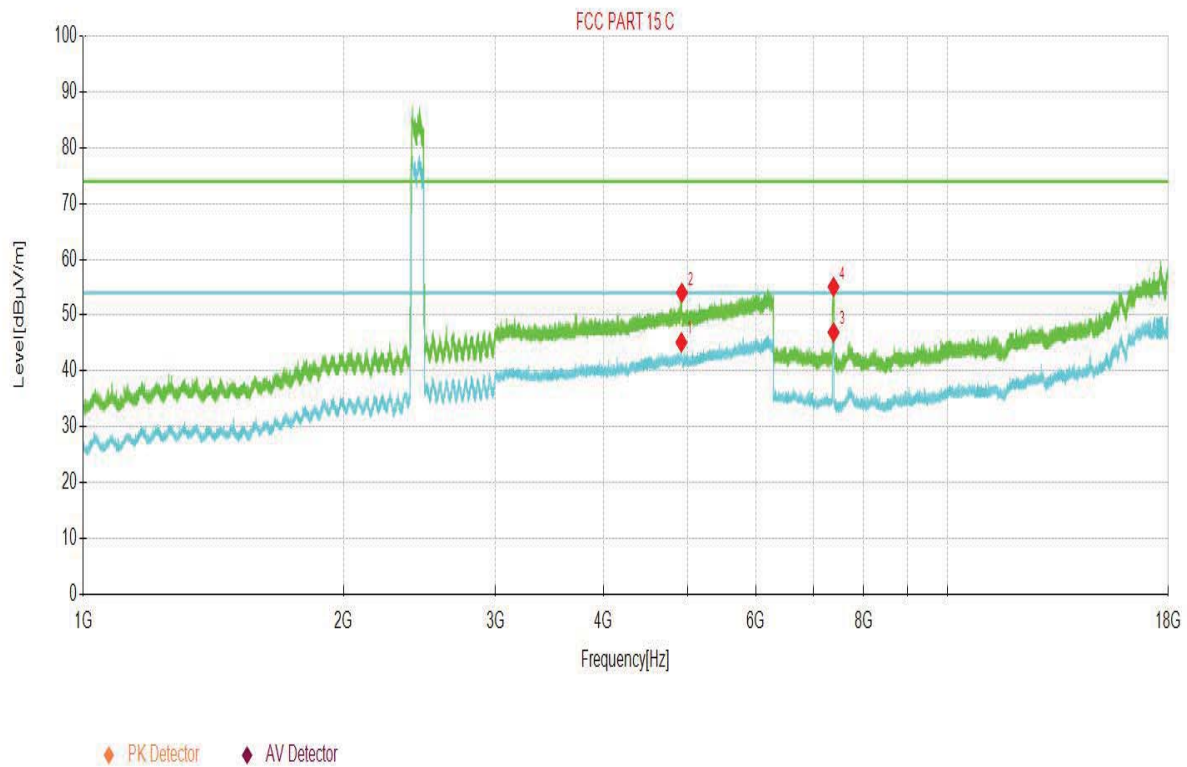
Mode:

2.4G WLAN-11N20-CH6

**Test Graph**

Mode:	2.4G WLAN-11N20-CH11
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## Test Graph

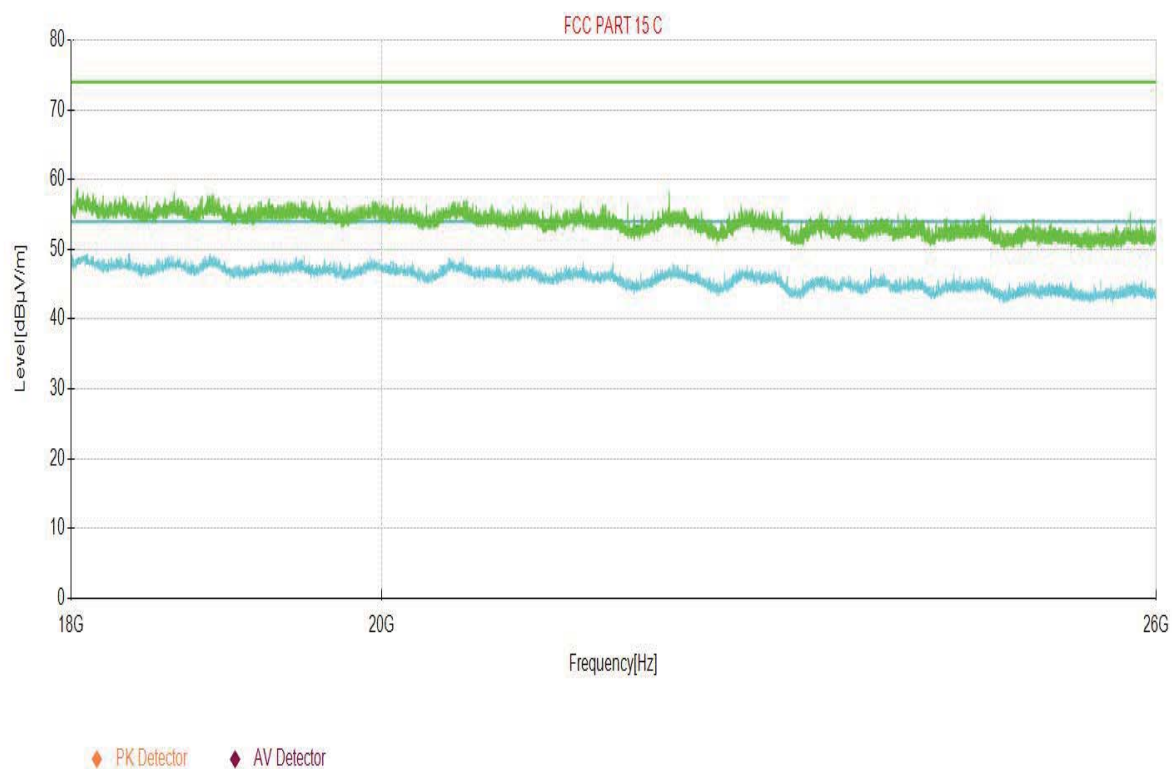


## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4922.44	45.13	14.09	54.00	8.87	140	359	Horizontal
2	4928.71	54.01	14.09	74.00	19.99	155	0	Horizontal
3	7383.52	46.91	7.49	54.00	7.09	155	344	Horizontal
4	7383.52	55.07	7.49	74.00	18.93	150	352	Horizontal

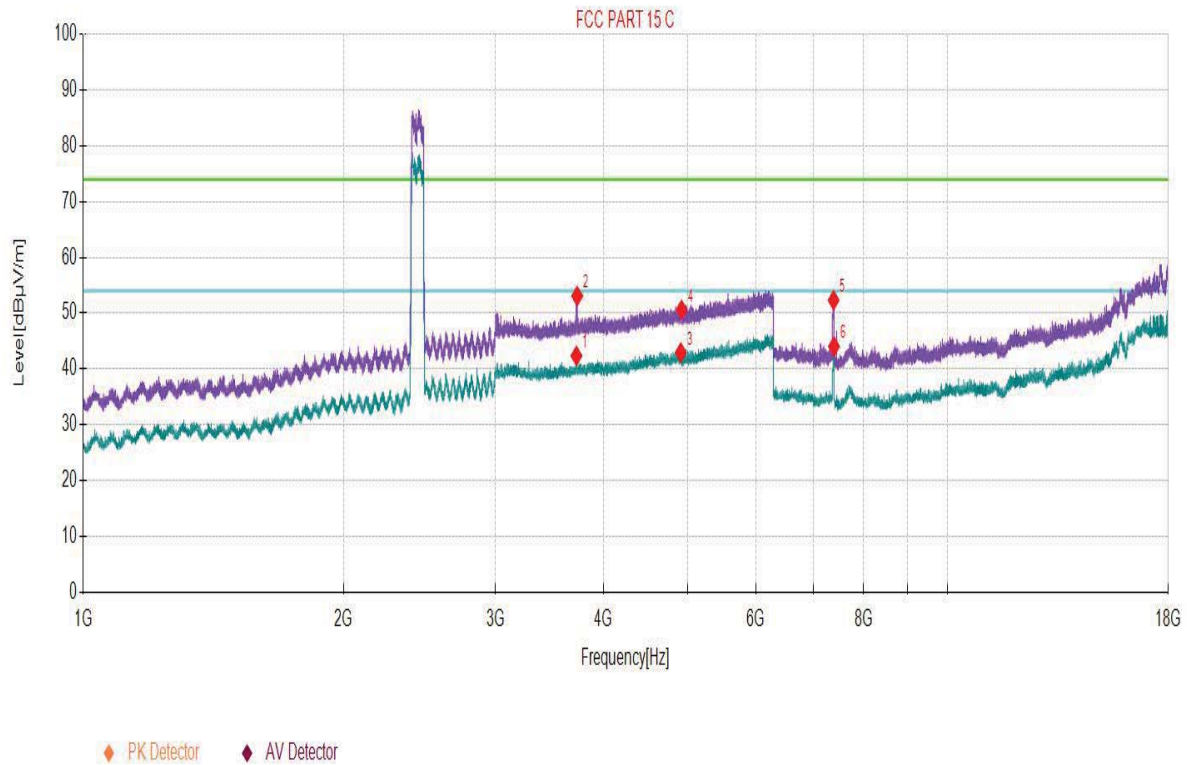
Mode:	2.4G WLAN-11N20-CH11
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## Test Graph



Mode:	2.4G WLAN-11N20-CH11
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## Test Graph

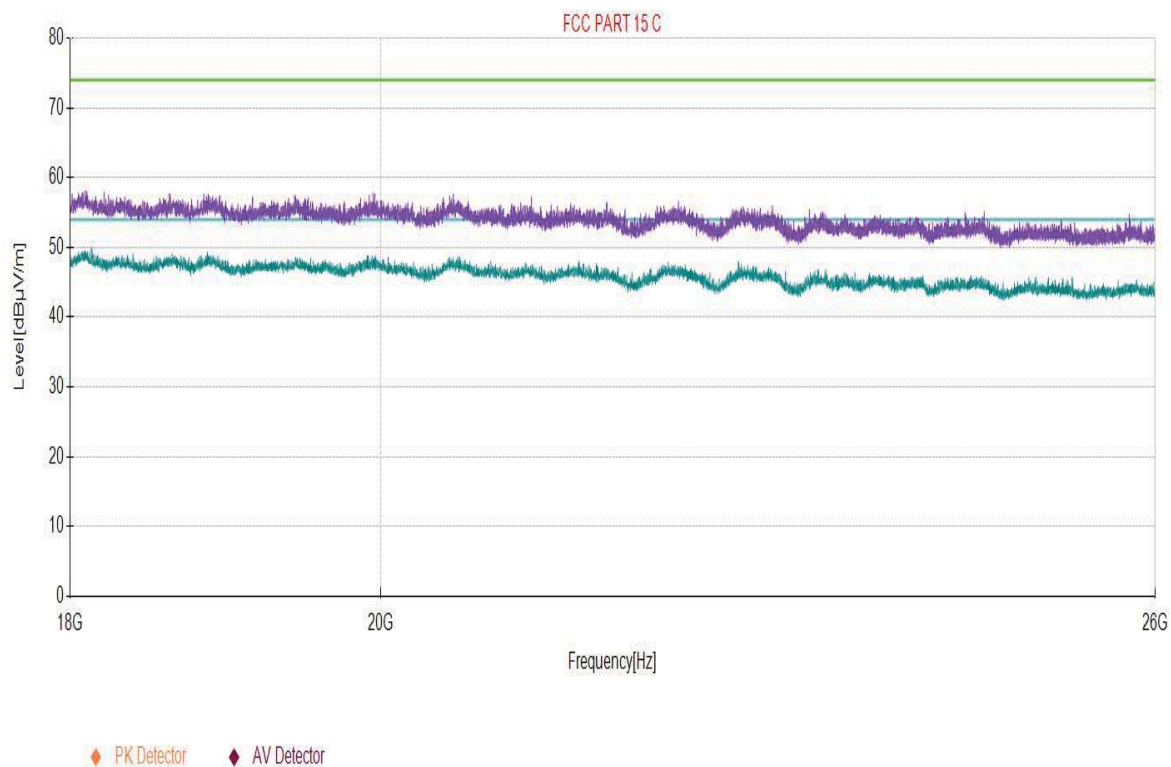


## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3721.45	42.36	13.32	54.00	11.64	155	84	Vertical
2	3729.04	53.08	13.69	74.00	20.92	175	233	Vertical
3	4914.85	42.95	14.09	54.00	11.05	150	117	Vertical
4	4925.41	50.60	14.09	74.00	23.40	160	142	Vertical
5	7384.69	52.32	7.48	74.00	21.68	150	57	Vertical
6	7391.71	44.02	7.45	54.00	9.98	155	53	Vertical

Mode:	2.4G WLAN-11N20-CH11
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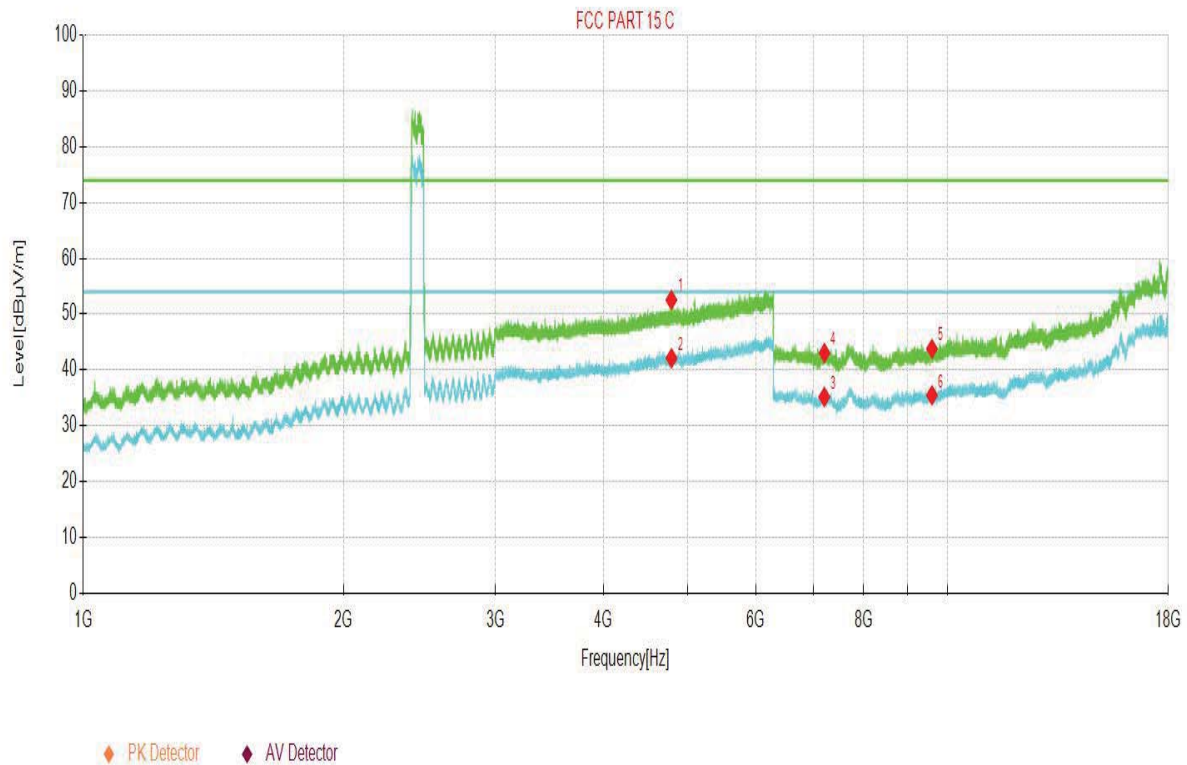
## Test Graph



Harmonic: BT-LE

Mode:	BT-LE-CH0
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## Test Graph



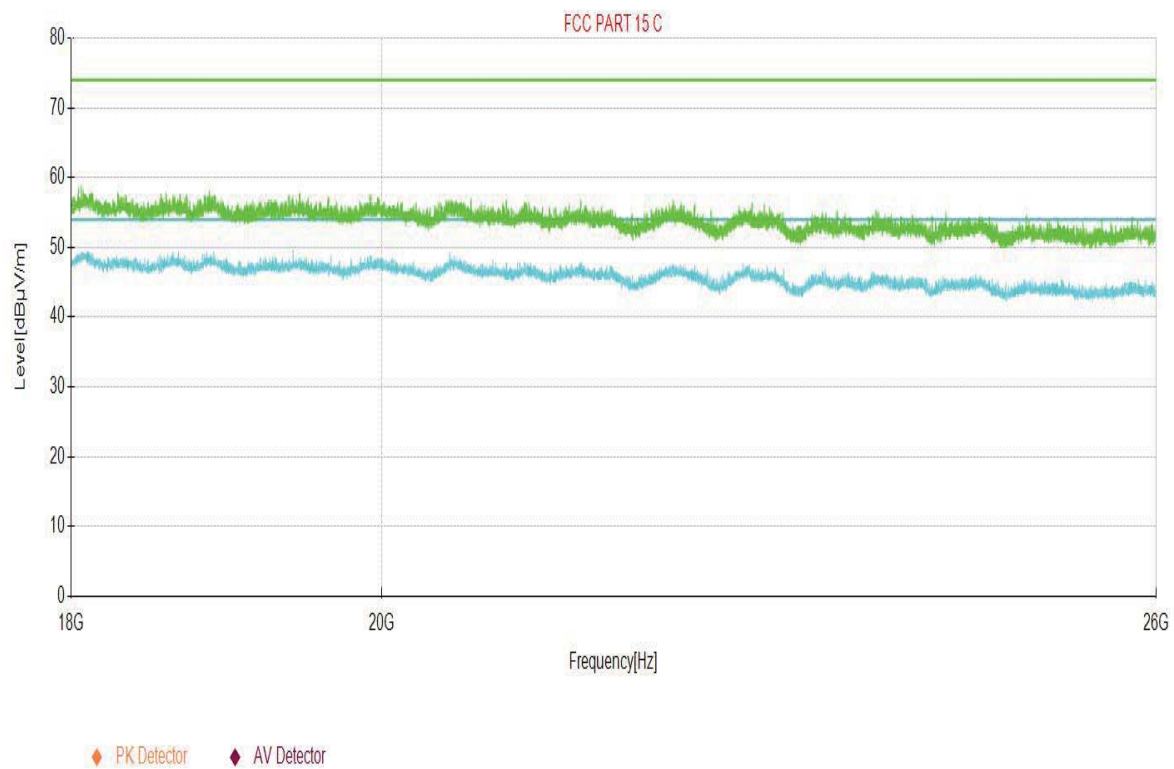
## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4793.39	52.55	14.06	74.00	21.45	170	291	Horizontal
2	4795.04	42.11	14.06	54.00	11.89	150	233	Horizontal
3	7204.50	35.16	8.10	54.00	18.84	155	0	Horizontal
4	7206.84	43.01	8.11	74.00	30.99	165	342	Horizontal
5	9597.38	43.76	8.64	74.00	30.24	150	286	Horizontal
6	9597.38	35.47	8.64	54.00	18.53	160	256	Horizontal

Mode:

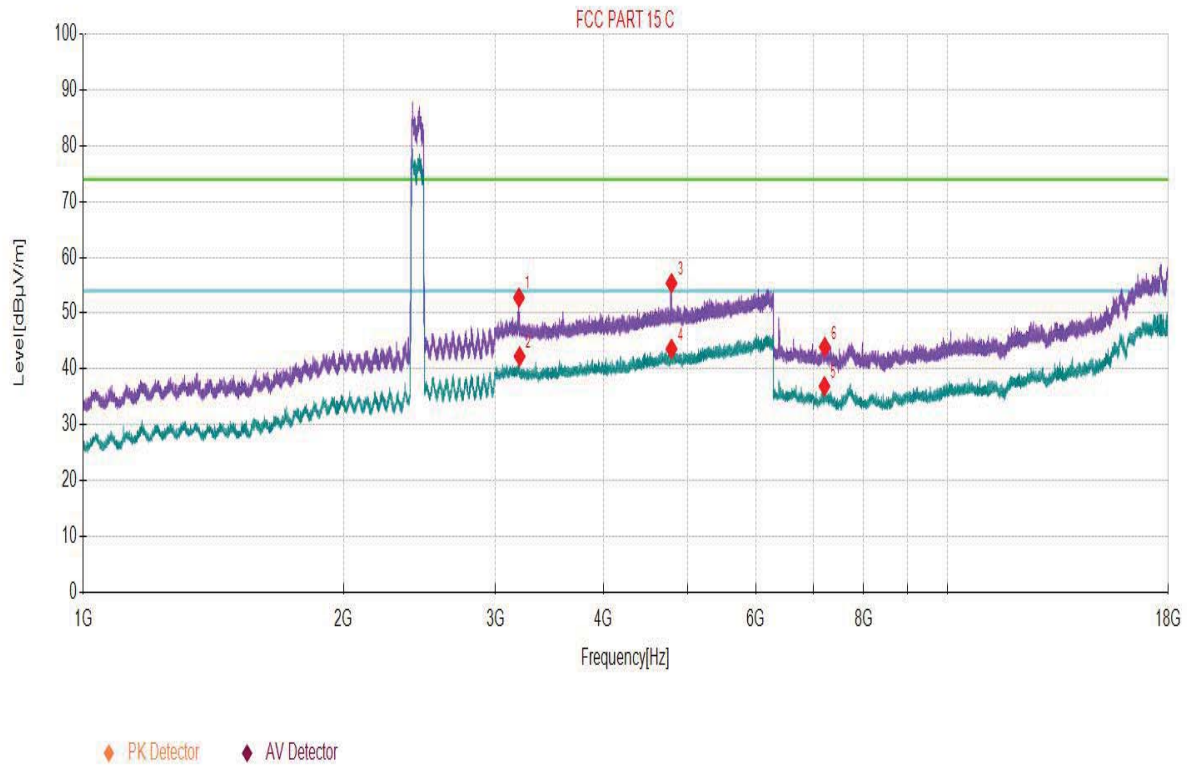
BT-LE-CH0

## Test Graph



Mode:	BT-LE-CH0
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## Test Graph



## Suspected Data List

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3193.39	52.78	12.31	74.00	21.22	155	203	Vertical
2	3198.34	42.26	12.47	54.00	11.74	150	190	Vertical
3	4794.71	55.38	14.06	74.00	18.62	175	89	Vertical
4	4794.71	43.58	14.06	54.00	10.42	170	89	Vertical
5	7206.84	36.90	8.11	54.00	17.10	150	53	Vertical
6	7213.86	43.95	8.12	74.00	30.05	160	247	Vertical

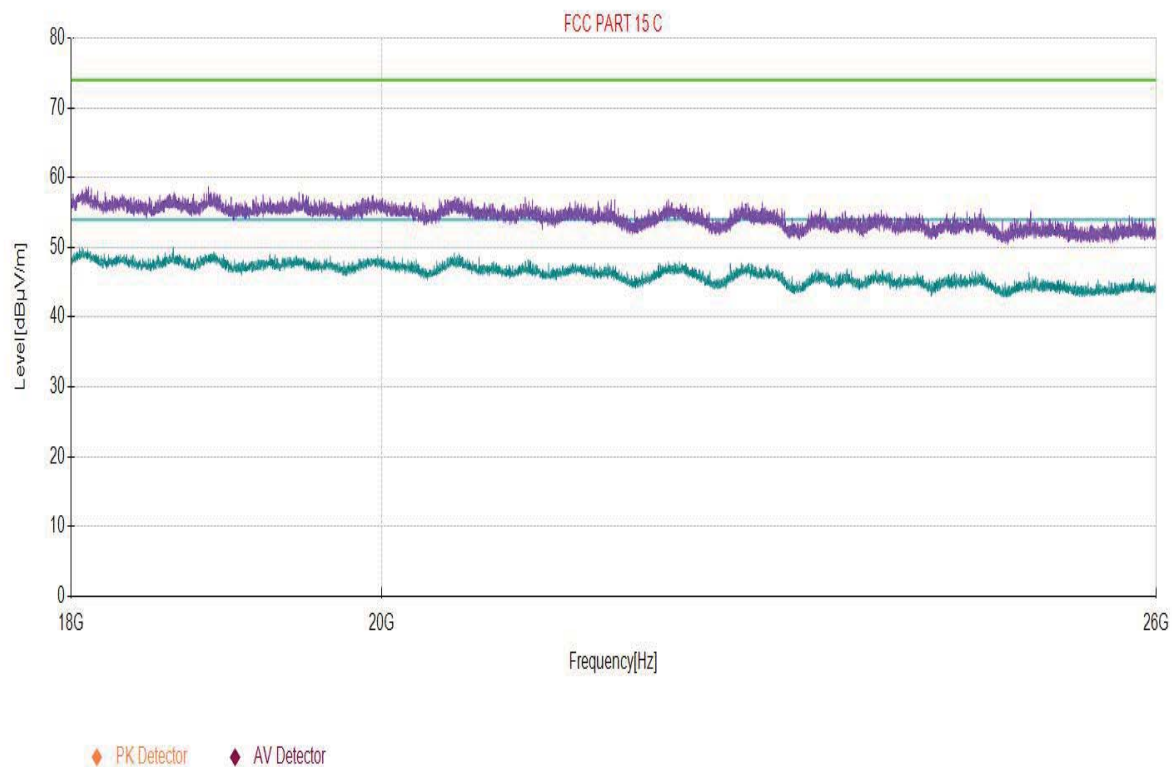




Mode:

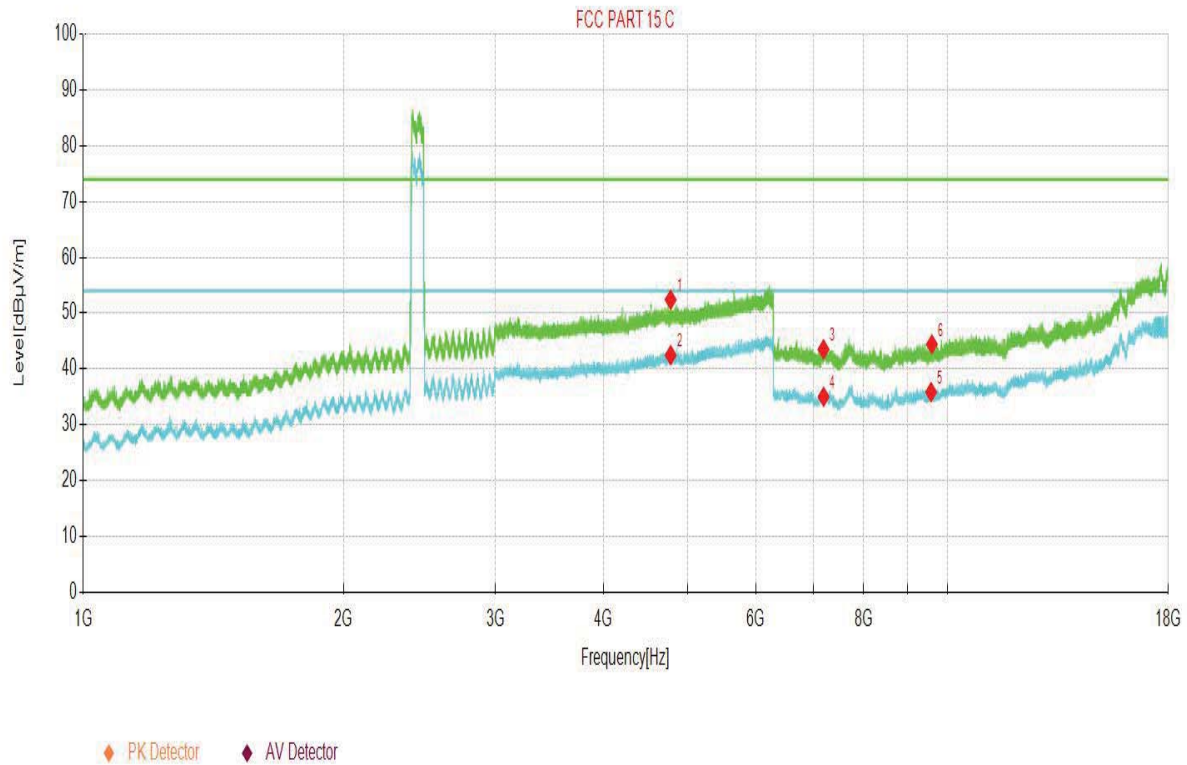
BT-LE-CH0

## Test Graph



Mode:	BT-LE-CH19
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## Test Graph



## Suspected Data List

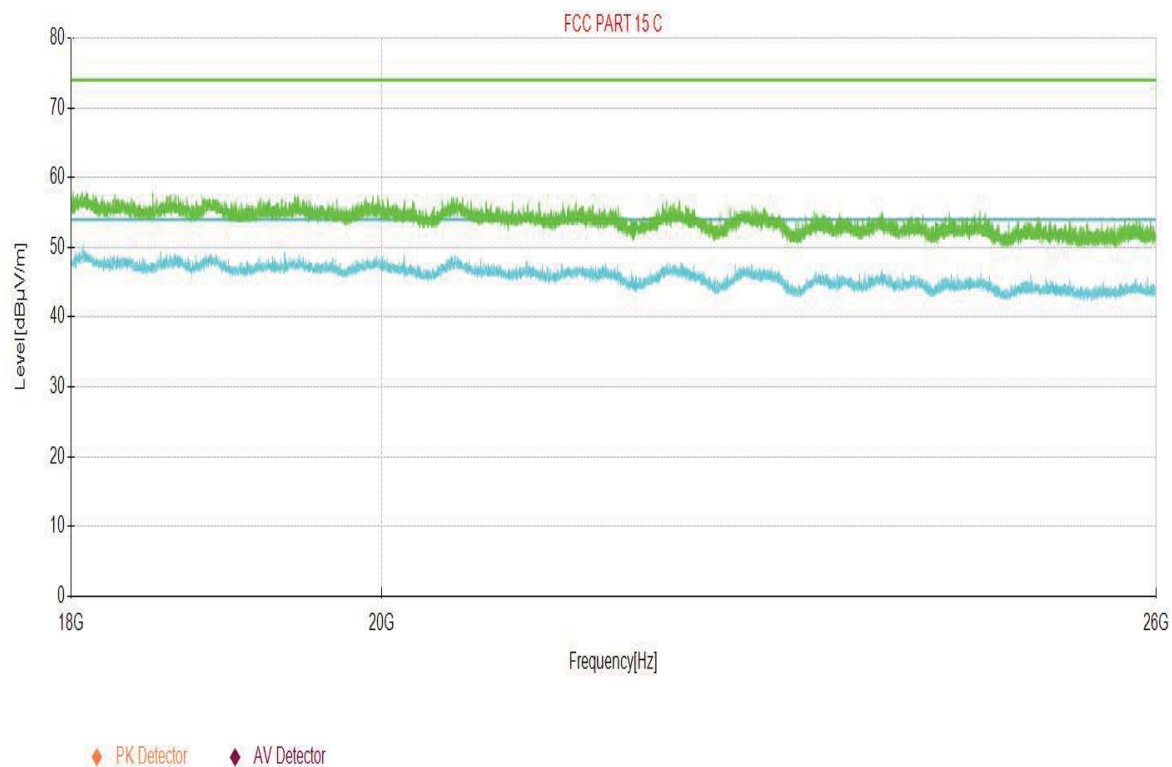
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4783.16	52.42	14.08	74.00	21.58	150	292	Horizontal
2	4783.49	42.48	14.08	54.00	11.52	150	177	Horizontal
3	7189.28	43.52	7.98	74.00	30.48	150	245	Horizontal
4	7190.45	35.01	7.99	54.00	18.99	150	220	Horizontal
5	9575.15	35.86	8.59	54.00	18.14	150	76	Horizontal
6	9595.04	44.41	8.64	74.00	29.59	150	187	Horizontal



Mode:

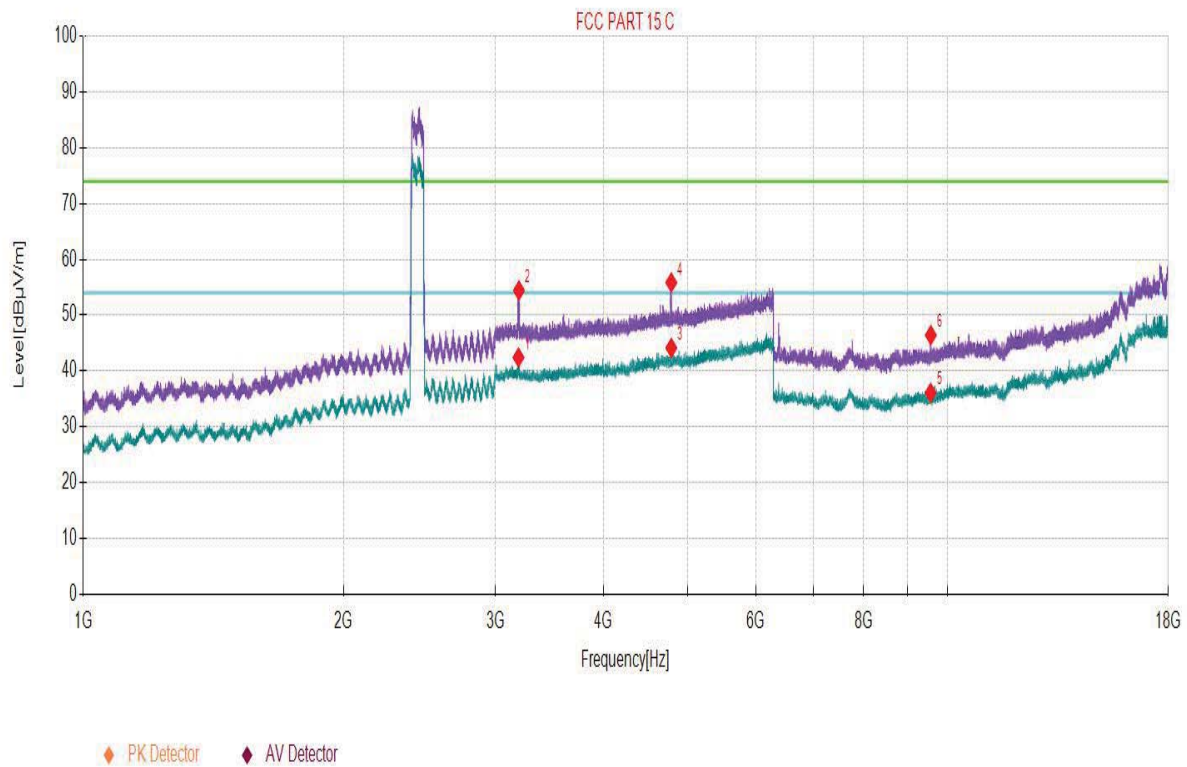
BT-LE-CH19

## Test Graph



Mode:	BT-LE-CH19
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## Test Graph

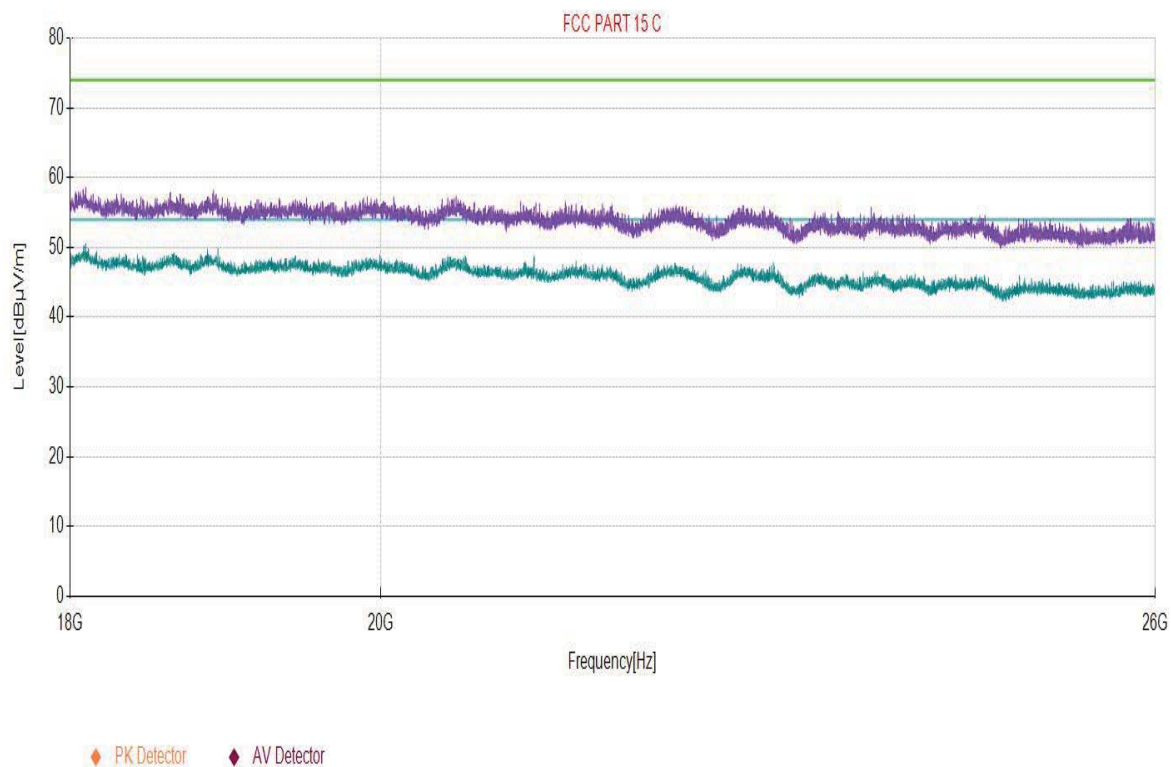


## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3189.10	42.41	12.25	54.00	11.59	155	6	Vertical
2	3192.73	54.42	12.29	74.00	19.58	150	123	Vertical
3	4791.74	44.14	14.06	54.00	9.86	140	137	Vertical
4	4791.74	55.84	14.06	74.00	18.16	175	131	Vertical
5	9563.45	36.08	8.57	54.00	17.92	155	35	Vertical
6	9568.13	46.41	8.56	74.00	27.59	150	233	Vertical

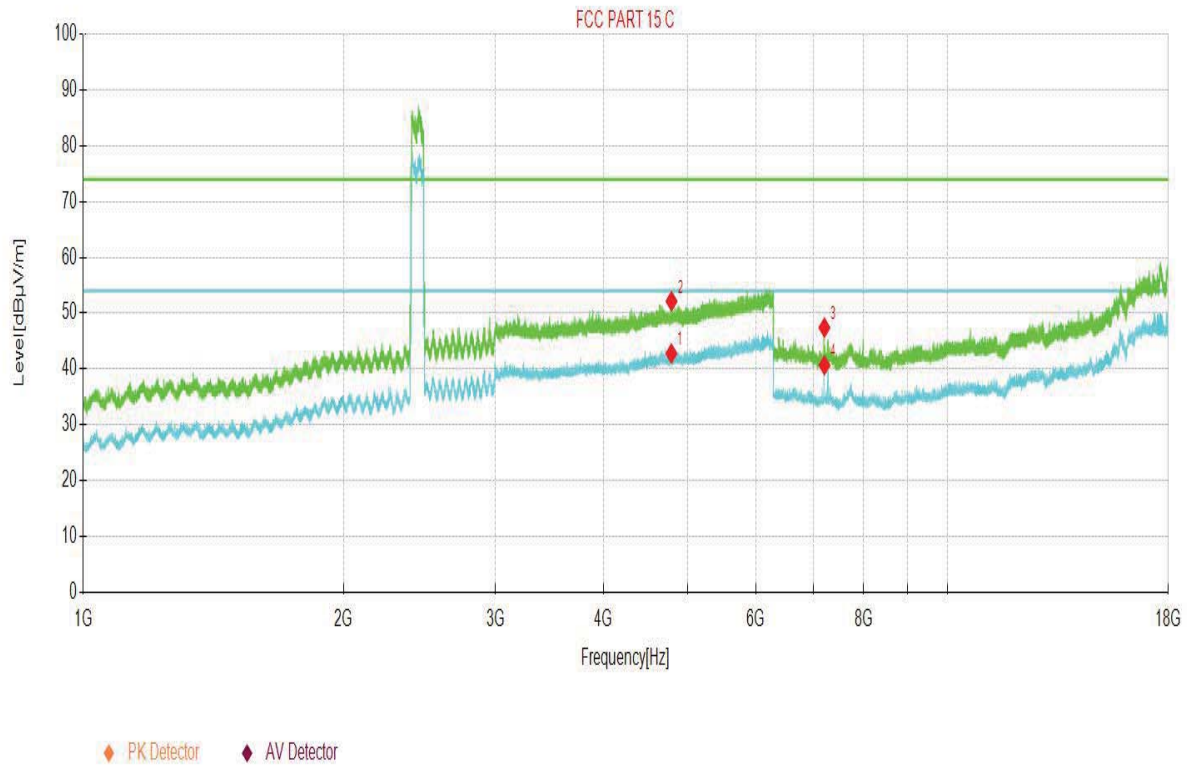
Mode:	BT-LE-CH19
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## Test Graph



Mode:	BT-LE-CH39
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## Test Graph

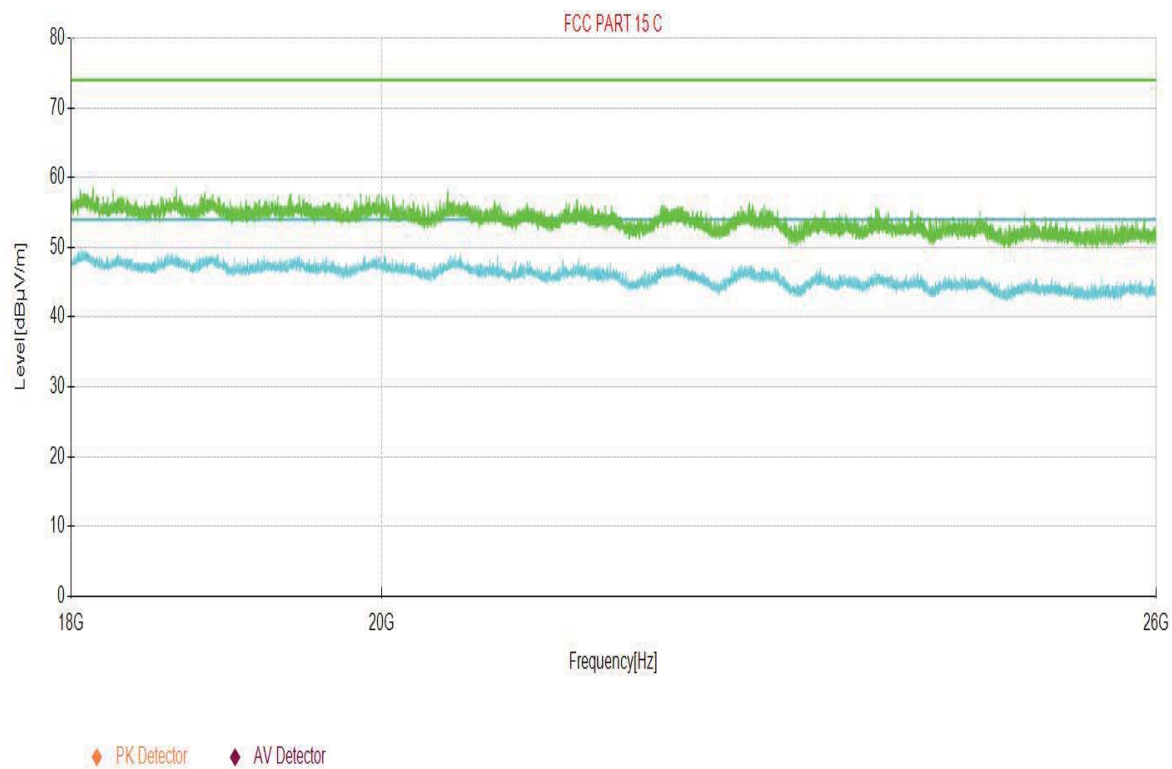


## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4792.73	42.78	14.06	54.00	11.22	170	185	Horizontal
2	4794.71	52.15	14.06	74.00	21.85	150	281	Horizontal
3	7205.67	47.41	8.11	74.00	26.59	155	182	Horizontal
4	7205.67	40.68	8.11	54.00	13.32	160	182	Horizontal

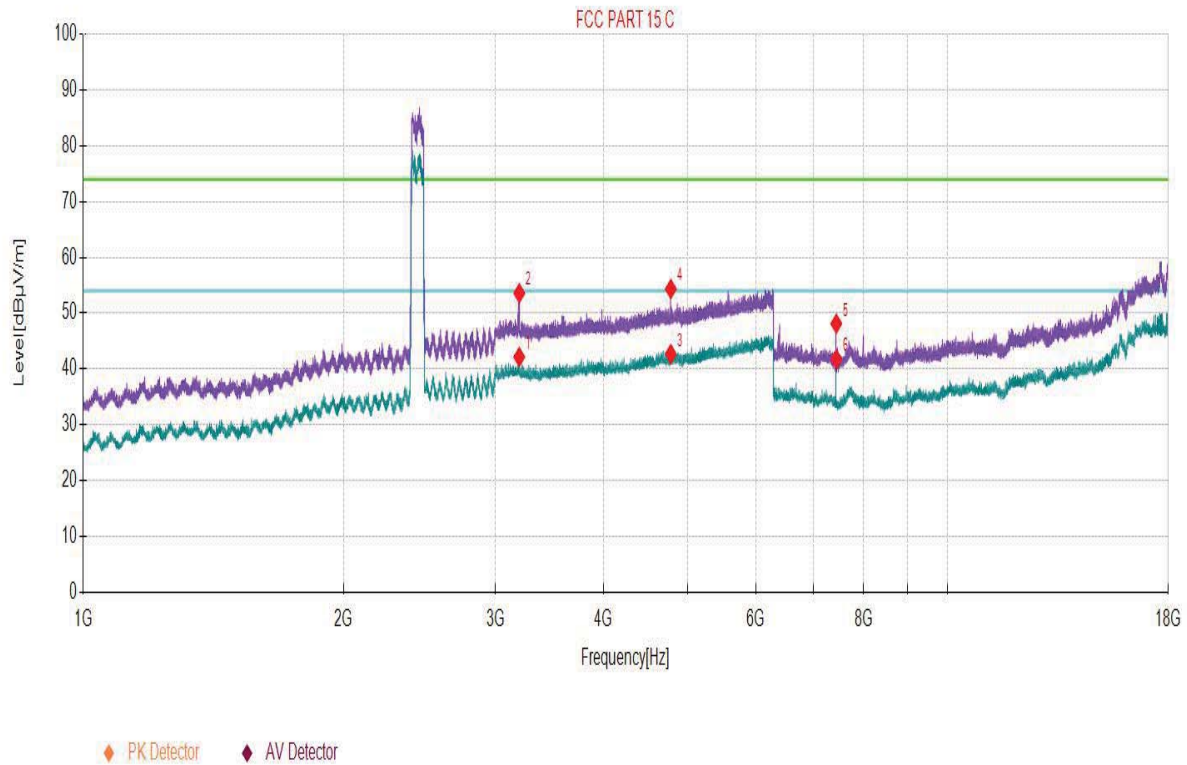
Mode:

BT-LE-CH39

**Test Graph**

Mode:	BT-LE-CH39
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## Test Graph



## Suspected Data List

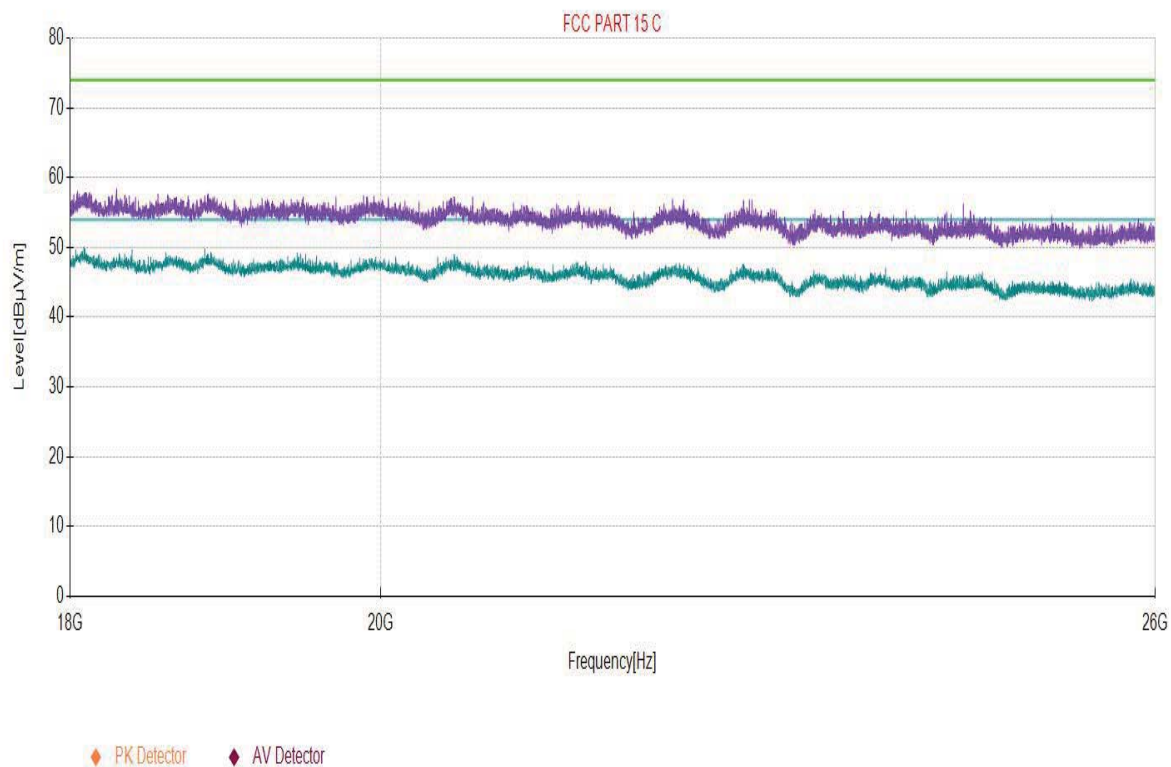
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3195.37	42.15	12.38	54.00	11.85	140	121	Vertical
2	3195.70	53.58	12.39	74.00	20.42	150	183	Vertical
3	4785.14	42.68	14.07	54.00	11.32	165	356	Vertical
4	4785.14	54.33	14.07	74.00	19.67	160	121	Vertical
5	7438.52	48.11	7.12	74.00	25.89	150	56	Vertical
6	7439.69	41.77	7.12	54.00	12.23	155	56	Vertical





Mode:	BT-LE-CH39
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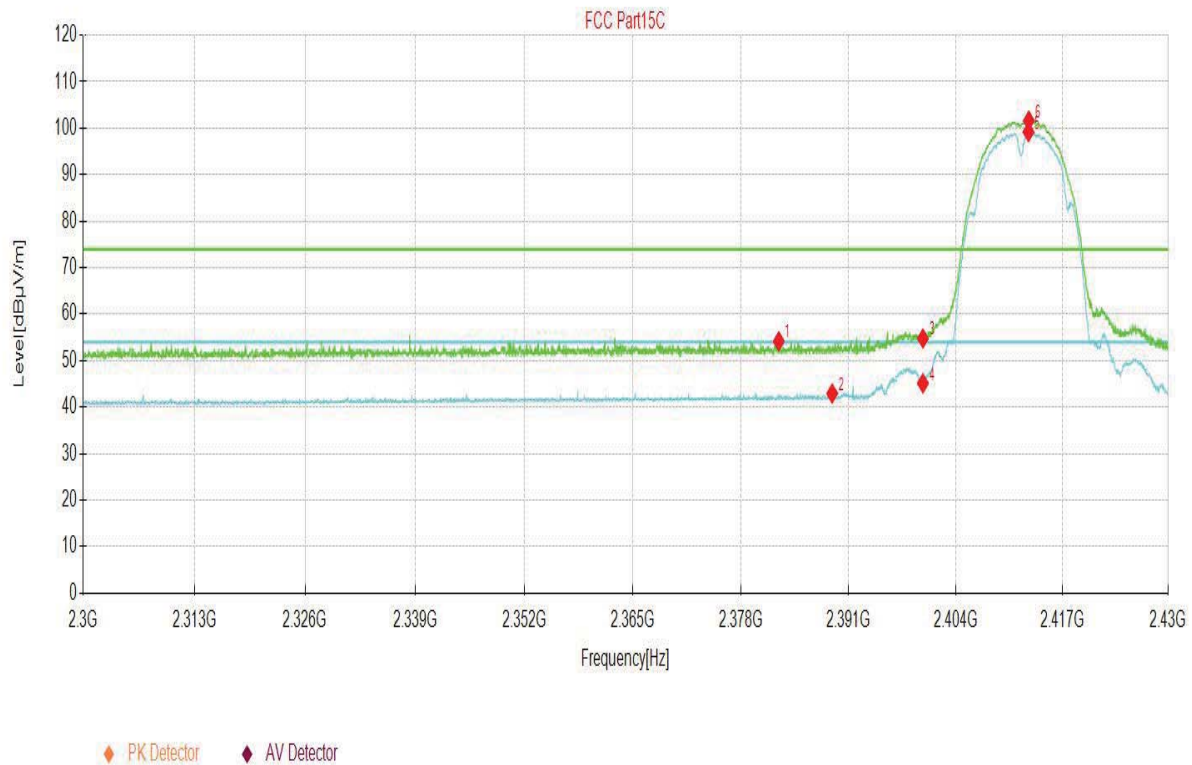
## Test Graph



Bandedge: 2.4G WLAN

Mode:	2.4G WLAN-11B-CH1
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## Test Graph

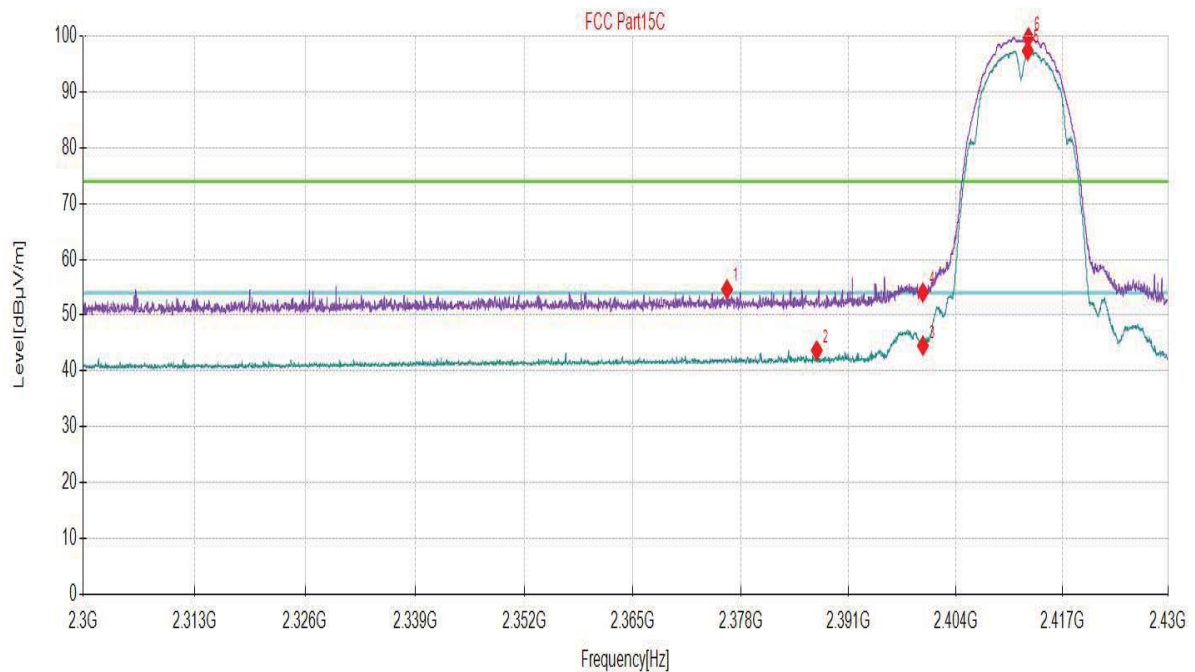


## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2382.53	54.16	11.86	74.00	19.84	170	175	Horizontal
2	2388.99	42.94	11.87	54.00	11.06	170	117	Horizontal
3	2400.00	54.76	11.89	74.00	19.24	170	18	Horizontal
4	2400.00	45.13	11.89	54.00	8.87	170	172	Horizontal
5	2412.87	99.19	12.07			150	37	Horizontal
6	2412.92	101.62	12.07			150	37	Horizontal

Mode:	2.4G WLAN-11B-CH1
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## Test Graph



◆ PK Detector ◆ AV Detector

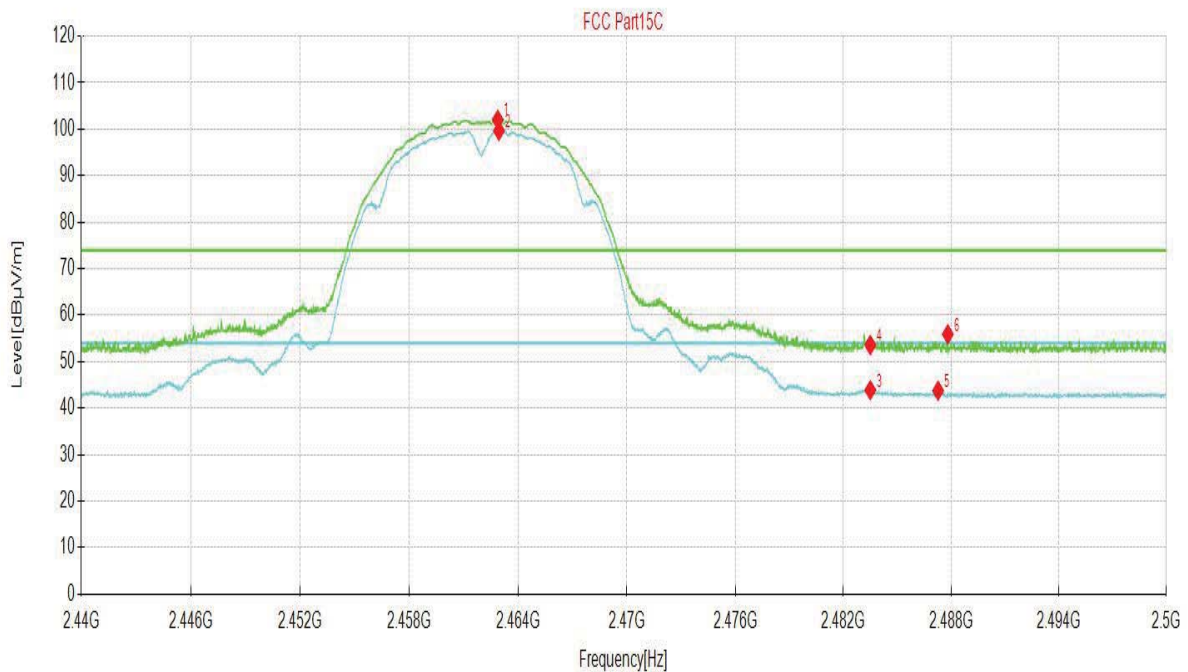
## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2376.29	54.62	11.84	74.00	19.38	170	199	Vertical
2	2387.12	43.67	11.86	54.00	10.33	170	134	Vertical
3	2400.00	44.52	11.89	54.00	9.48	170	78	Vertical
4	2400.00	54.05	11.89	74.00	19.95	170	75	Vertical
5	2412.79	97.38	12.07			150	46	Vertical
6	2412.87	99.79	12.07			150	46	Vertical

Mode:

2.4G WLAN-11B-CH11

## Test Graph



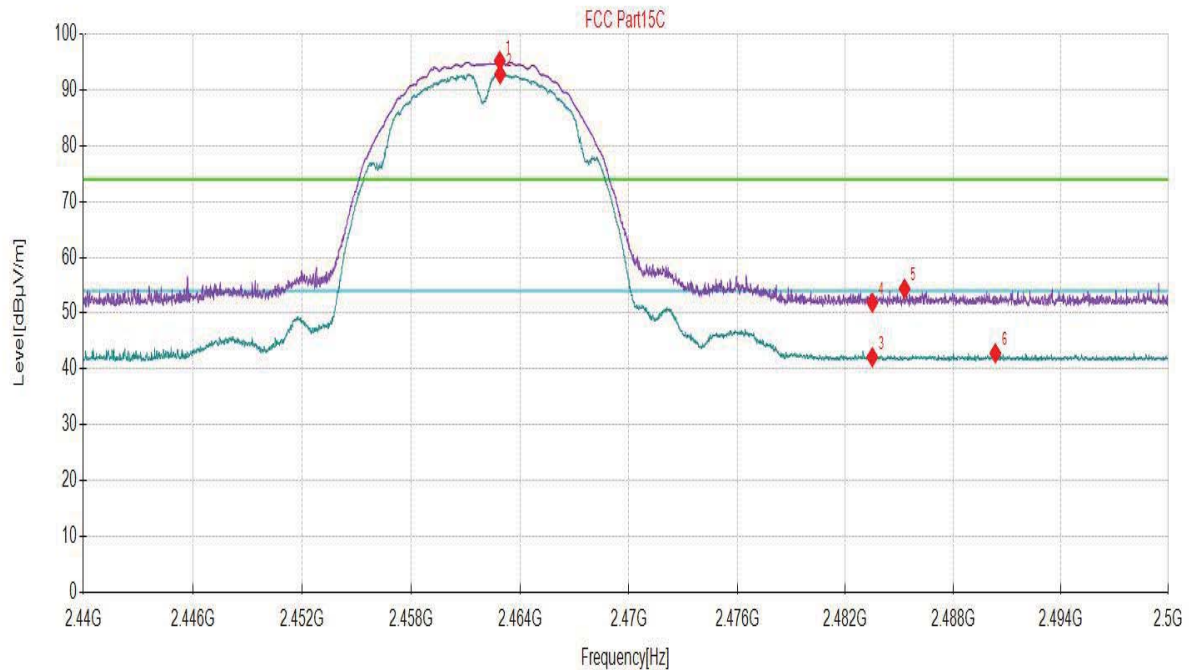
◆ AV Detector

## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.86	102.03	12.58			160	85	Horizontal
2	2462.92	99.66	12.58			160	85	Horizontal
3	2483.50	43.86	12.55	54.00	10.14	150	85	Horizontal
4	2483.50	53.58	12.55	74.00	20.42	150	85	Horizontal
5	2487.27	43.77	12.54	54.00	10.23	160	85	Horizontal
6	2487.81	55.90	12.54	74.00	18.10	160	231	Horizontal

Mode:	2.4G WLAN-11B-CH11
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## Test Graph



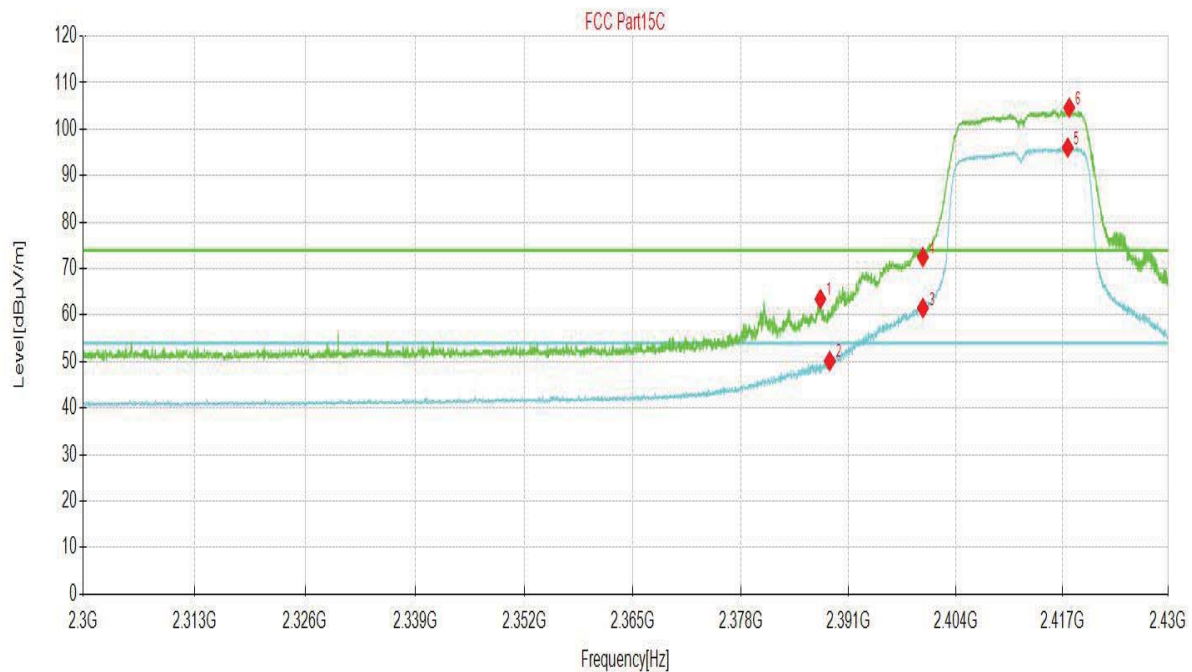
◆ AV Detector

## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.86	95.21	12.58			160	40	Vertical
2	2462.88	92.84	12.58			160	14	Vertical
3	2483.50	42.12	12.55	54.00	11.88	150	43	Vertical
4	2483.50	51.89	12.55	74.00	22.11	150	21	Vertical
5	2485.29	54.38	12.54	74.00	19.62	160	342	Vertical
6	2490.35	42.82	12.54	54.00	11.18	160	51	Vertical

Mode:	2.4G WLAN-11G-CH1
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## Test Graph



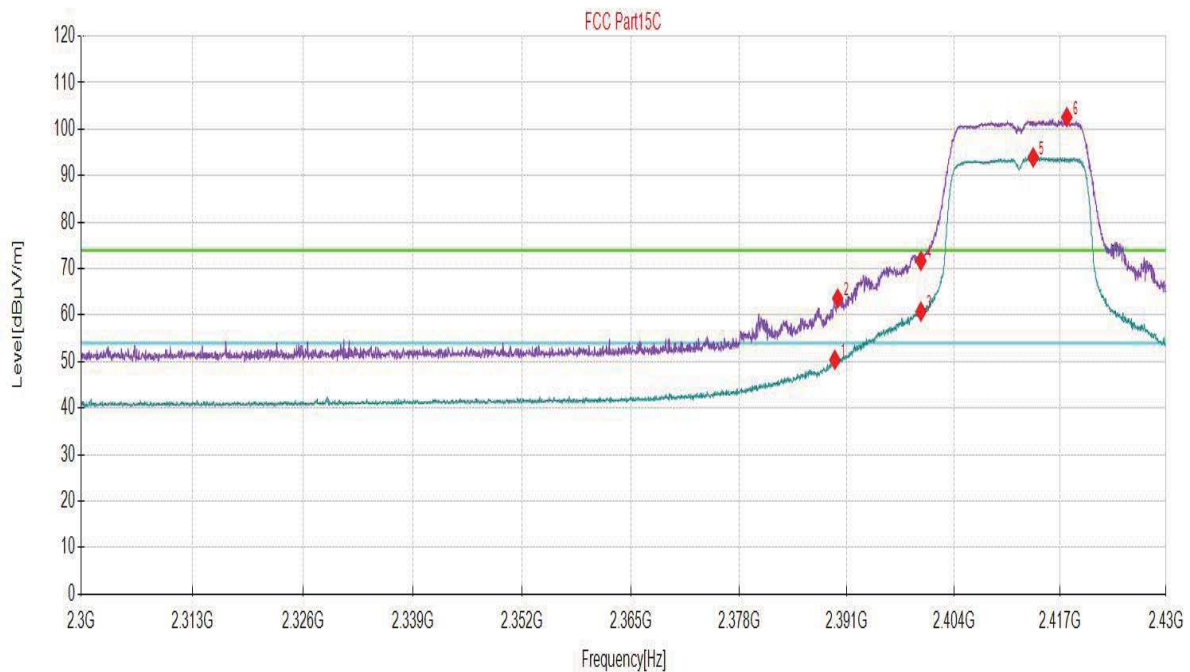
◆ PK Detector ◆ AV Detector

## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2387.56	63.45	11.87	74.00	10.55	180	171	Horizontal
2	2388.68	50.12	11.87	54.00	3.88	180	171	Horizontal
3	2400.00	61.53	11.89	54.00	-7.53	150	15	Horizontal
4	2400.00	72.51	11.89	74.00	1.49	150	15	Horizontal
5	2417.68	96.04	12.14			150	37	Horizontal
6	2417.86	104.63	12.15			150	37	Horizontal

Mode:	2.4G WLAN-11G-CH1
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## Test Graph



◆ PK Detector ◆ AV Detector

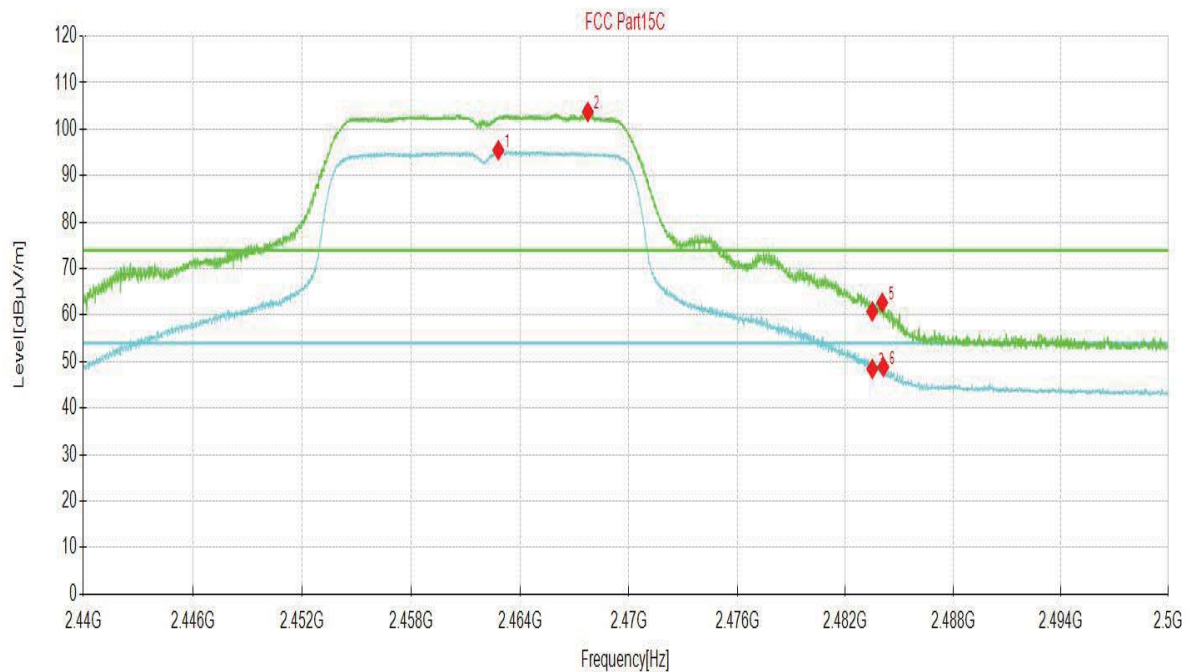
## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2389.55	50.40	11.87	54.00	3.60	180	76	Vertical
2	2389.90	63.58	11.87	74.00	10.42	180	76	Vertical
3	2400.00	60.75	11.89	54.00	-6.75	150	80	Vertical
4	2400.00	71.70	11.89	74.00	2.30	150	80	Vertical
5	2413.70	93.92	12.09			150	46	Vertical
6	2417.81	102.58	12.14			150	46	Vertical

Mode:

2.4G WLAN-11G-CH11

## Test Graph



◆ AV Detector

## Suspected Data List

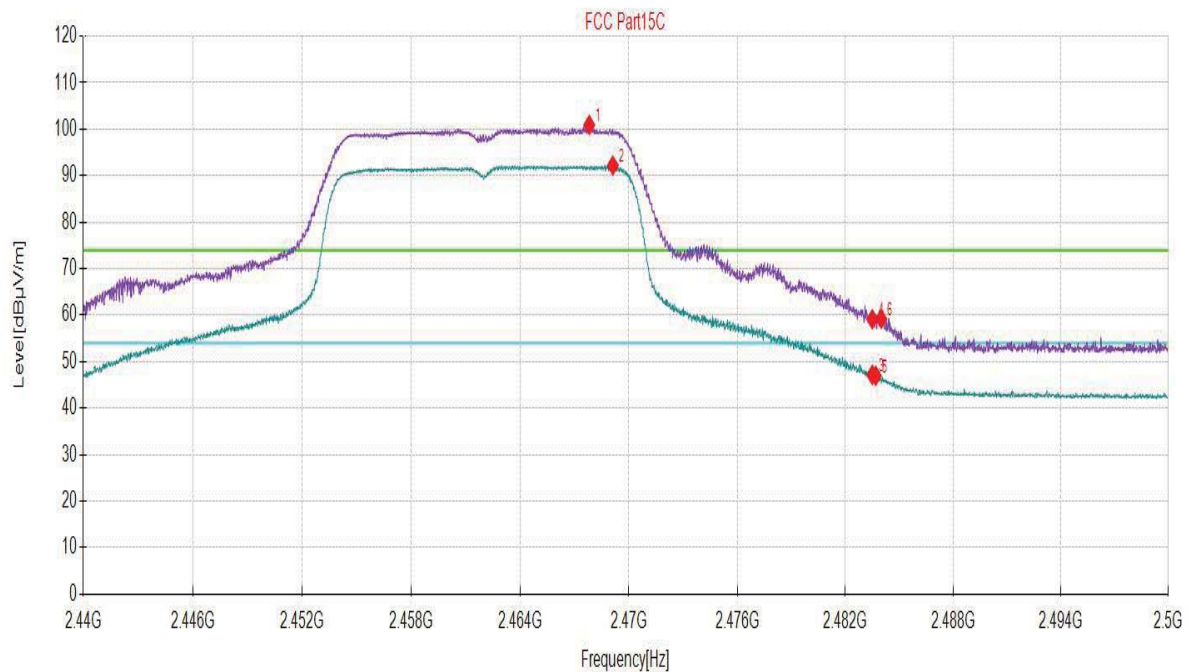
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2462.78	95.47	12.58			150	23	Horizontal
2	2467.72	103.71	12.57			150	23	Horizontal
3	2483.50	48.43	12.55	54.00	5.57	160	27	Horizontal
4	2483.50	60.80	12.55	74.00	13.20	160	38	Horizontal
5	2484.05	62.68	12.55	74.00	11.32	150	142	Horizontal
6	2484.11	48.86	12.55	54.00	5.14	150	142	Horizontal



Mode:

2.4G WLAN-11G-CH11

## Test Graph



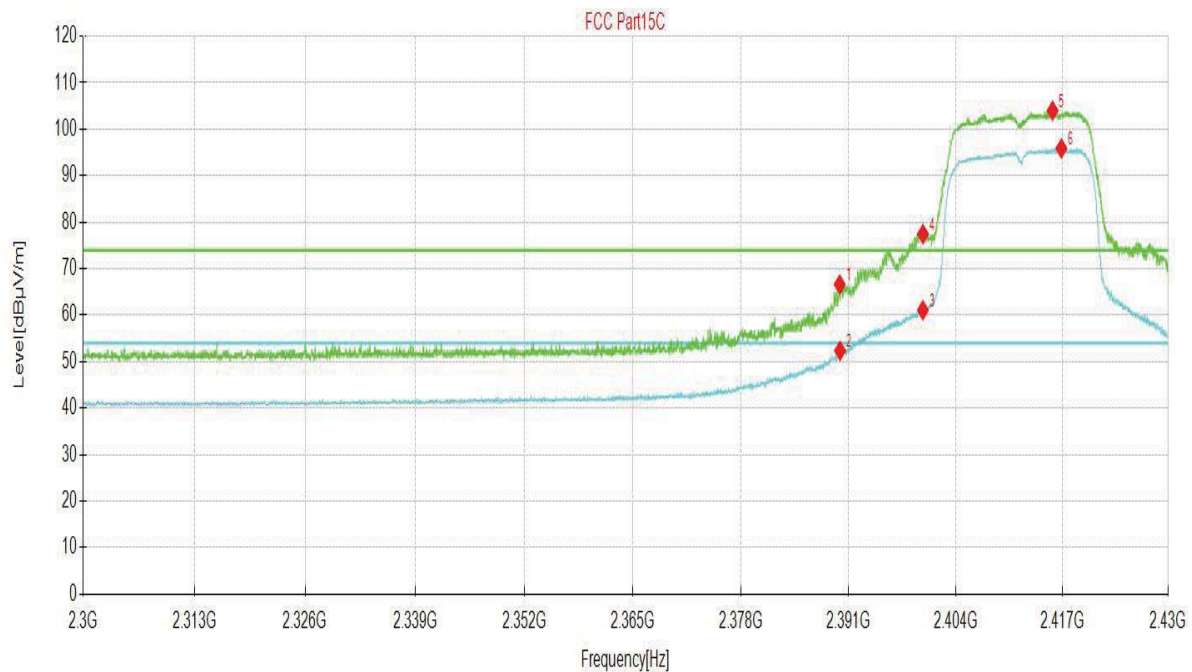
◆ AV Detector

## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2467.80	100.92	12.57			150	131	Vertical
2	2469.10	92.20	12.57			150	131	Vertical
3	2483.50	47.15	12.55	54.00	6.85	160	50	Vertical
4	2483.50	59.15	12.55	74.00	14.85	160	94	Vertical
5	2483.69	46.98	12.55	54.00	7.02	150	131	Vertical
6	2483.99	59.22	12.55	74.00	14.78	150	127	Vertical

Mode:	2.4G WLAN-11N20-CH1
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## Test Graph



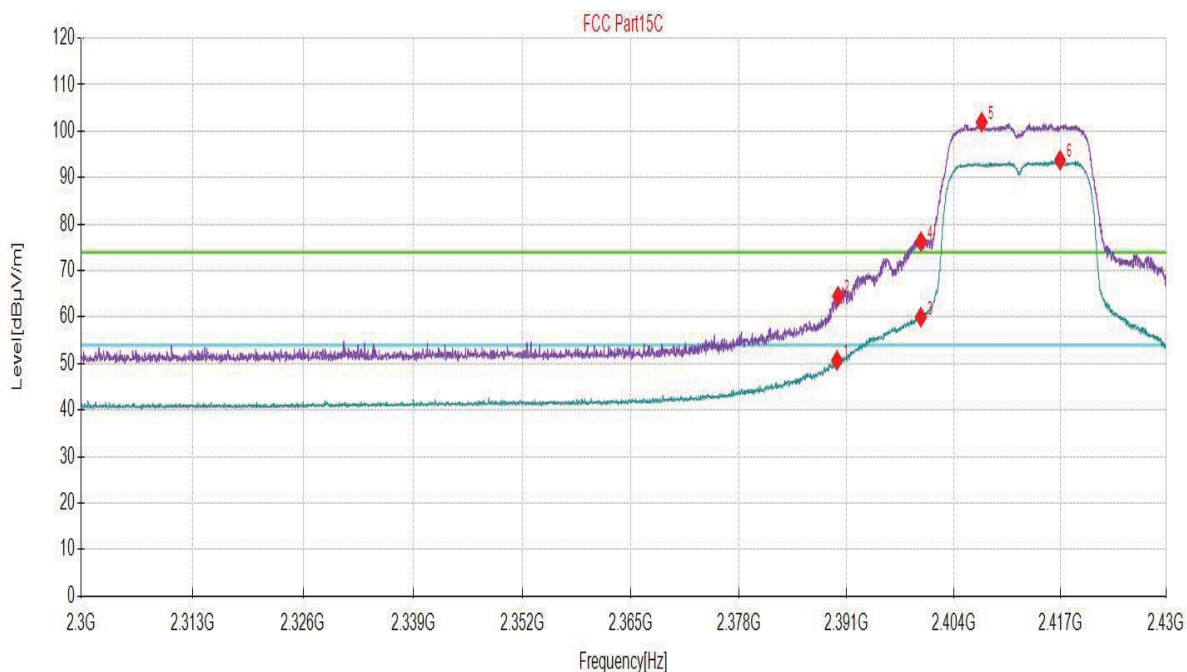
◆ PK Detector ◆ AV Detector

## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2389.90	66.57	11.87	74.00	7.43	170	170	Horizontal
2	2389.94	52.35	11.87	54.00	1.65	170	173	Horizontal
3	2400.00	61.08	11.89	54.00	-7.08	150	170	Horizontal
4	2400.00	77.43	11.89	74.00	-3.43	150	170	Horizontal
5	2415.82	103.98	12.12			150	38	Horizontal
6	2416.90	95.86	12.13			150	38	Horizontal

Mode:	2.4G WLAN-11N20-CH1
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## Test Graph



◆ PK Detector ◆ AV Detector

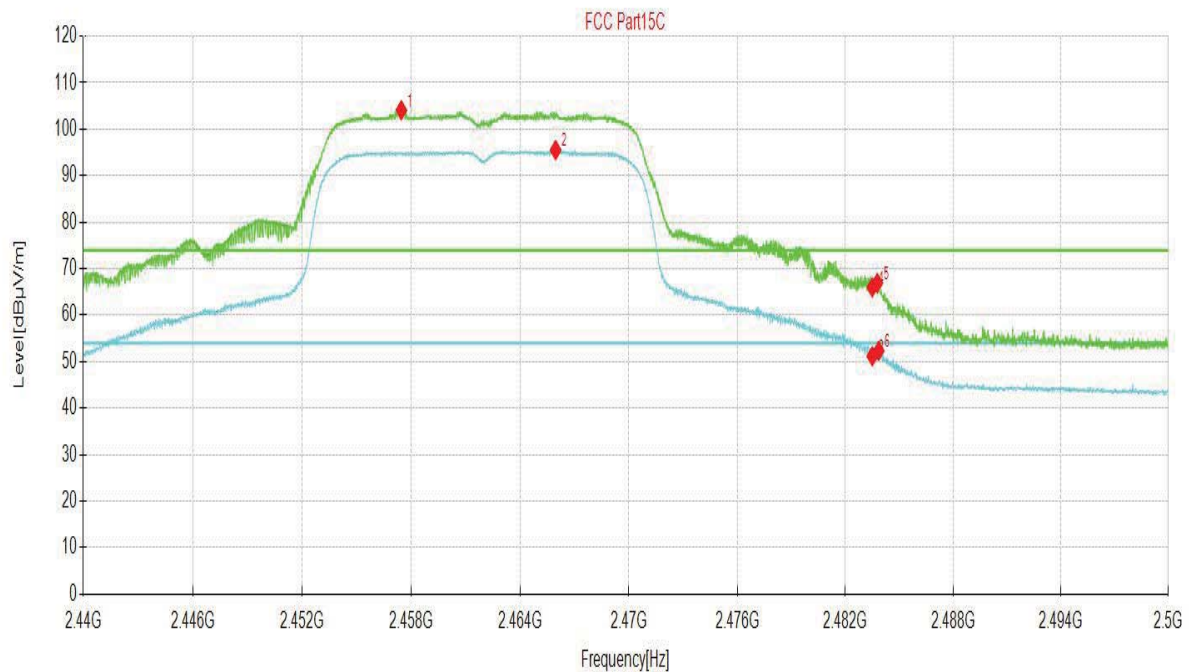
## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2389.81	50.69	11.87	54.00	3.31	170	78	Vertical
2	2389.94	64.51	11.87	74.00	9.49	170	78	Vertical
3	2400.00	59.98	11.89	54.00	-5.98	150	75	Vertical
4	2400.00	76.24	11.89	74.00	-2.24	150	86	Vertical
5	2407.41	101.95	12.00			150	82	Vertical
6	2416.99	93.77	12.13			150	46	Vertical

Mode:

2.4G WLAN-11N20-CH11

## Test Graph



◆ AV Detector

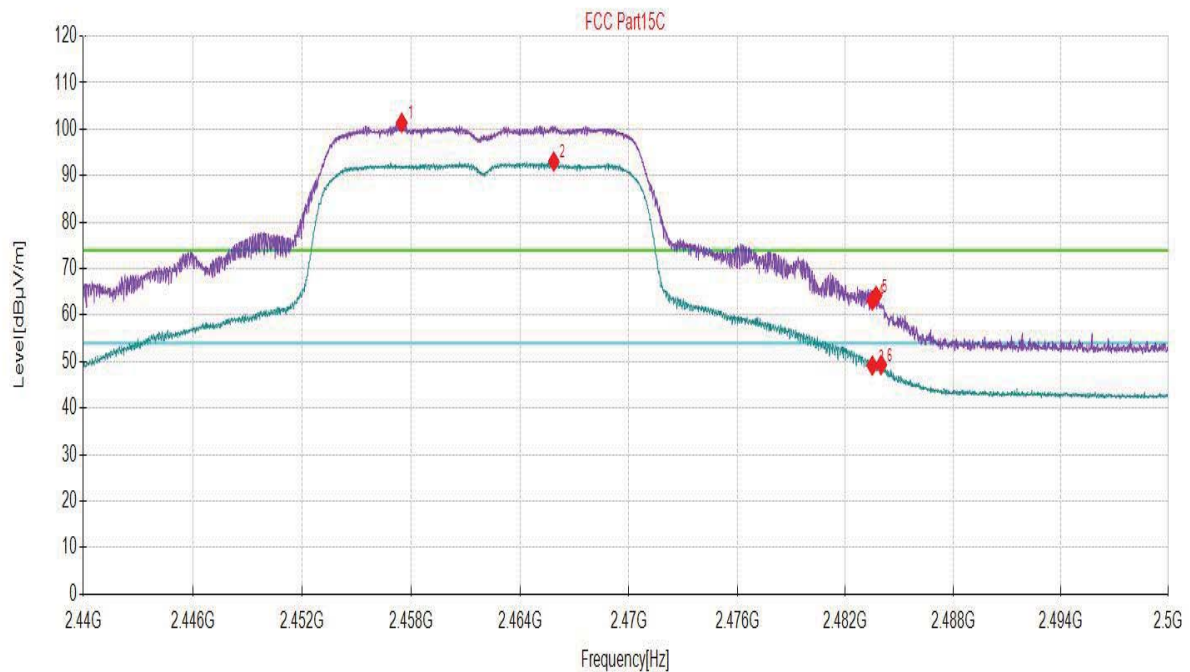
## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2457.44	104.08	12.59			150	39	Horizontal
2	2465.94	95.51	12.58			150	24	Horizontal
3	2483.50	51.17	12.55	54.00	2.83	150	140	Horizontal
4	2483.50	65.98	12.55	74.00	8.02	150	225	Horizontal
5	2483.77	66.90	12.55	74.00	7.10	160	144	Horizontal
6	2483.85	52.33	12.55	54.00	1.67	160	140	Horizontal

Mode:

2.4G WLAN-11N20-CH11

## Test Graph



◆ AV Detector

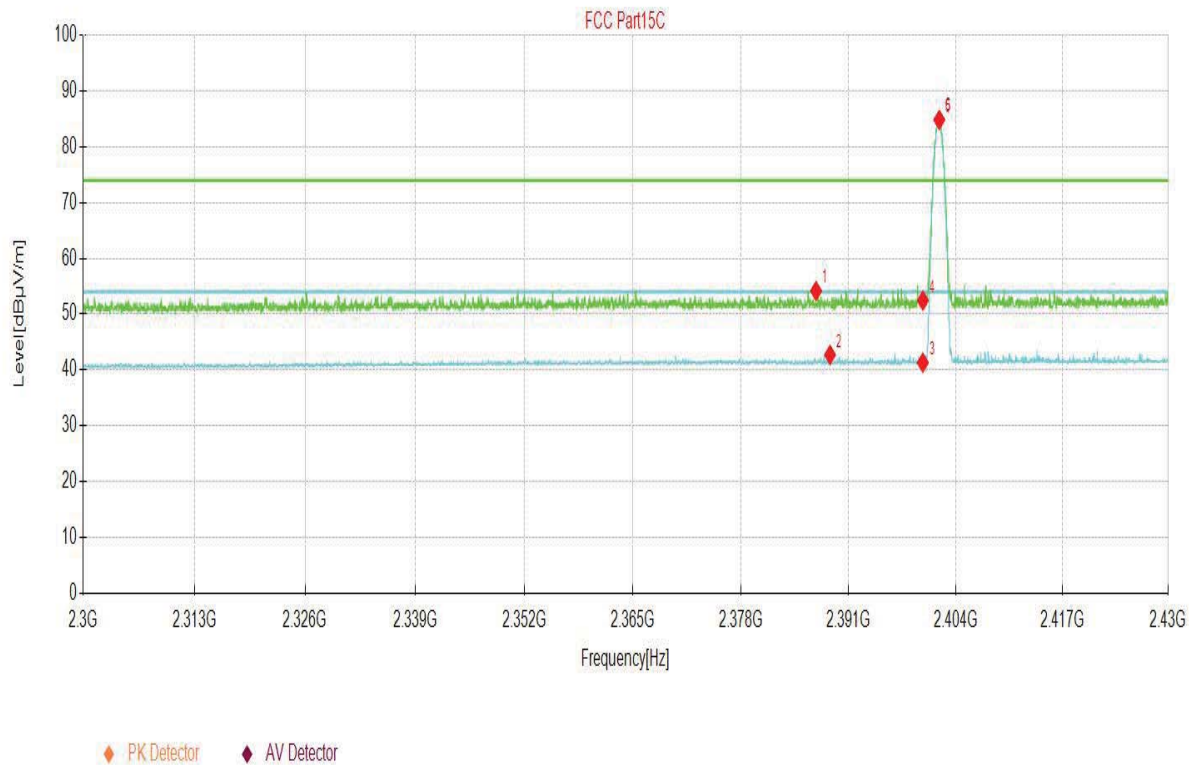
## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2457.46	101.37	12.59			150	130	Vertical
2	2465.84	93.04	12.58			150	130	Vertical
3	2483.50	49.14	12.55	54.00	4.86	150	49	Vertical
4	2483.50	63.15	12.55	74.00	10.85	150	53	Vertical
5	2483.71	64.16	12.55	74.00	9.84	160	130	Vertical
6	2483.99	49.34	12.55	54.00	4.66	160	49	Vertical

Bandedge: BT-LE

Mode:	BT-LE-CH0
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## Test Graph

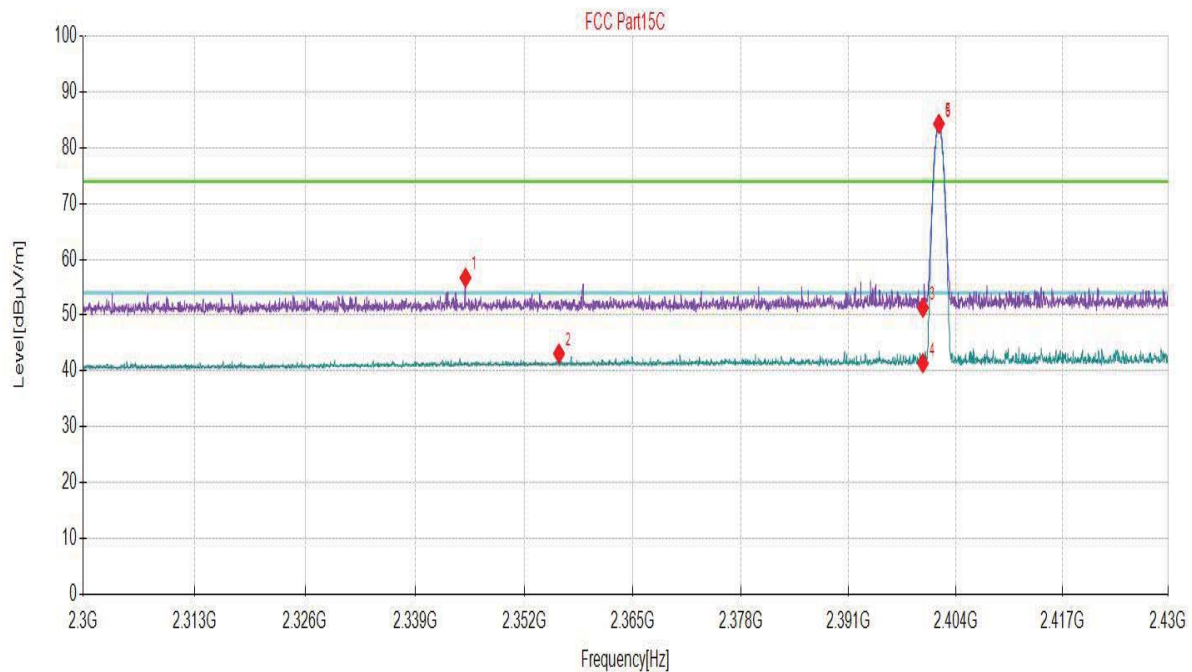


## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2387.04	54.16	11.86	74.00	19.84	170	321	Horizontal
2	2388.73	42.71	11.87	54.00	11.29	170	114	Horizontal
3	2400.00	41.32	11.89	54.00	12.68	150	8	Horizontal
4	2400.00	52.47	11.89	74.00	21.53	150	208	Horizontal
5	2401.99	84.84	11.92			150	67	Horizontal
6	2401.99	84.97	11.92			150	67	Horizontal

Mode:	BT-LE-CH0
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## Test Graph



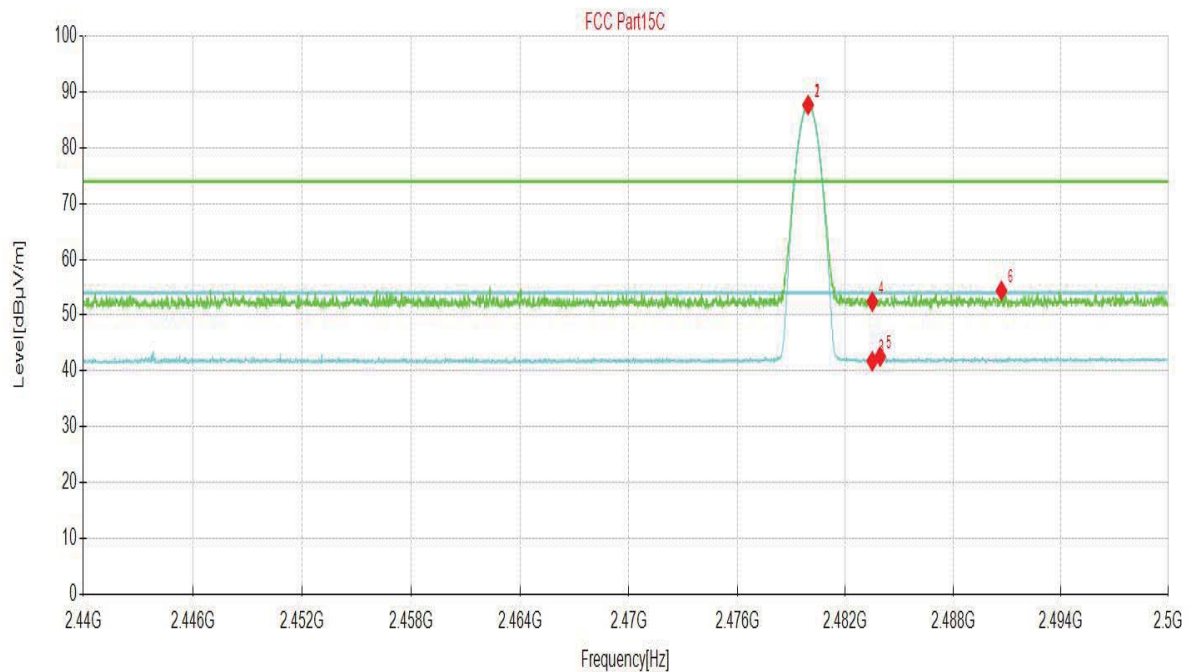
◆ PK Detector ◆ AV Detector

## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2344.99	56.72	11.74	74.00	17.28	170	175	Vertical
2	2356.13	43.10	11.80	54.00	10.90	170	134	Vertical
3	2400.00	51.34	11.89	74.00	22.66	150	167	Vertical
4	2400.00	41.39	11.89	54.00	12.61	150	42	Vertical
5	2401.95	84.29	11.92			150	57	Vertical
6	2401.99	84.14	11.92			150	57	Vertical

Mode:	BT-LE-CH39
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## Test Graph



◆ AV Detector

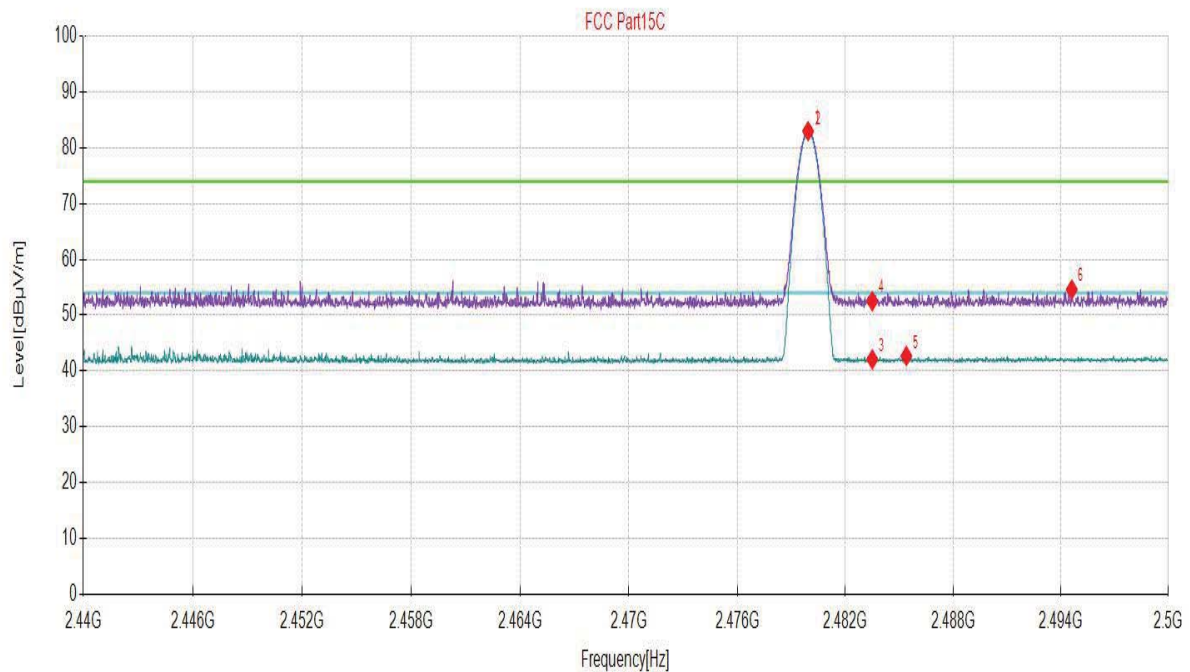
## Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.93	87.67	12.55			150	45	Horizontal
2	2479.95	87.55	12.55			150	45	Horizontal
3	2483.50	41.74	12.55	54.00	12.26	160	137	Horizontal
4	2483.50	52.40	12.55	74.00	21.60	160	8	Horizontal
5	2483.93	42.55	12.55	54.00	11.45	150	148	Horizontal
6	2490.69	54.38	12.54	74.00	19.62	150	48	Horizontal



Mode:	BT-LE-CH39
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## Test Graph



◆ AV Detector

## Suspected Data List

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2479.93	82.99	12.55			150	61	Vertical
2	2479.97	82.85	12.55			150	61	Vertical
3	2483.50	42.08	12.55	54.00	11.92	160	360	Vertical
4	2483.50	52.51	12.55	74.00	21.49	160	139	Vertical
5	2485.39	42.71	12.54	54.00	11.29	150	172	Vertical
6	2494.61	54.58	12.53	74.00	19.42	150	197	Vertical



## 5.2 DTS Bandwidth

### 5.2.1 Test Result

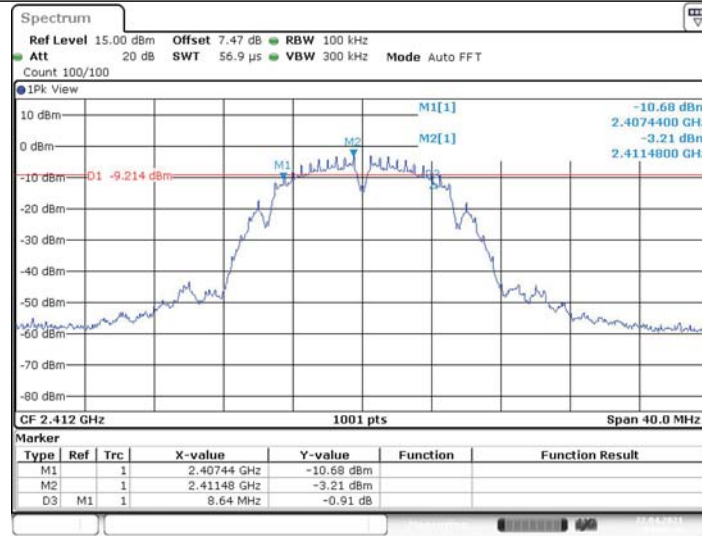
#### 2.4 WLAN:

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.640	2407.440	2416.080	0.5	PASS
		2437	8.640	2432.440	2441.080	0.5	PASS
		2462	8.640	2457.440	2466.080	0.5	PASS
11G	Ant1	2412	16.400	2403.800	2420.200	0.5	PASS
		2437	16.400	2428.800	2445.200	0.5	PASS
		2462	16.400	2453.800	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.600	2403.200	2420.800	0.5	PASS
		2437	17.240	2428.200	2445.440	0.5	PASS
		2462	17.640	2453.200	2470.840	0.5	PASS

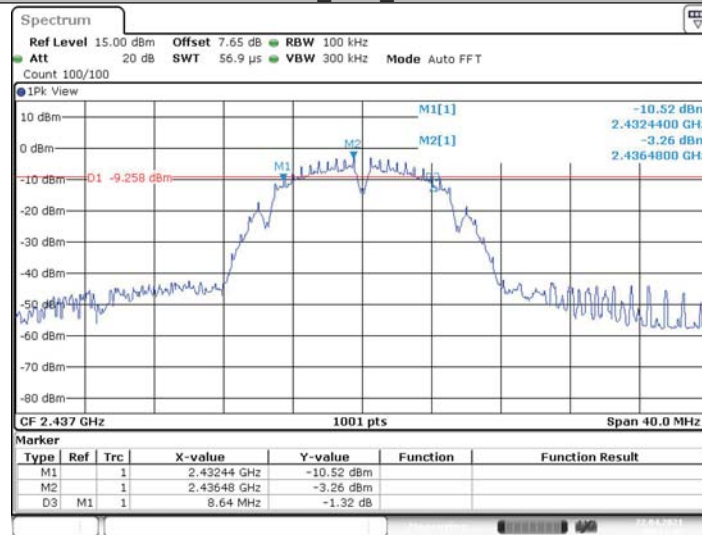


## Test Graphs

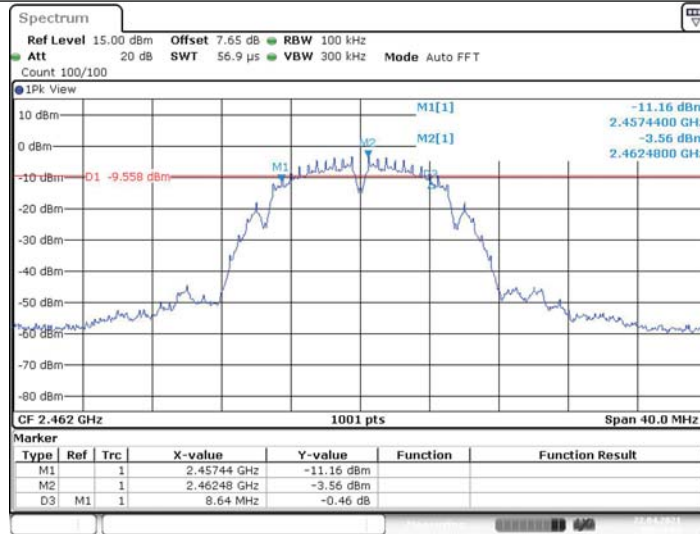
11B\_Ant1\_2412



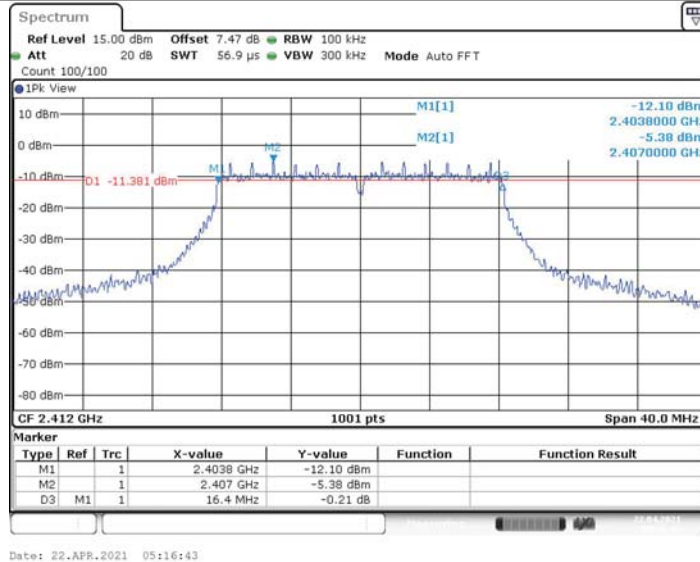
11B\_Ant1\_2437



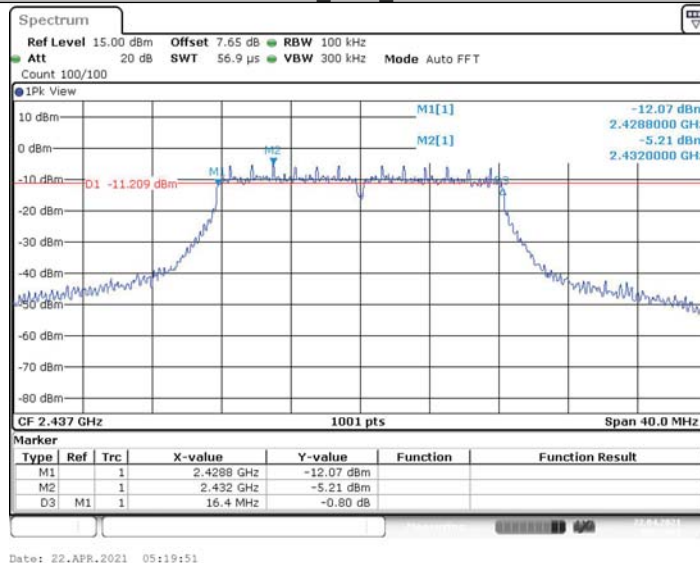
11B\_Ant1\_2462



11G\_Ant1\_2412

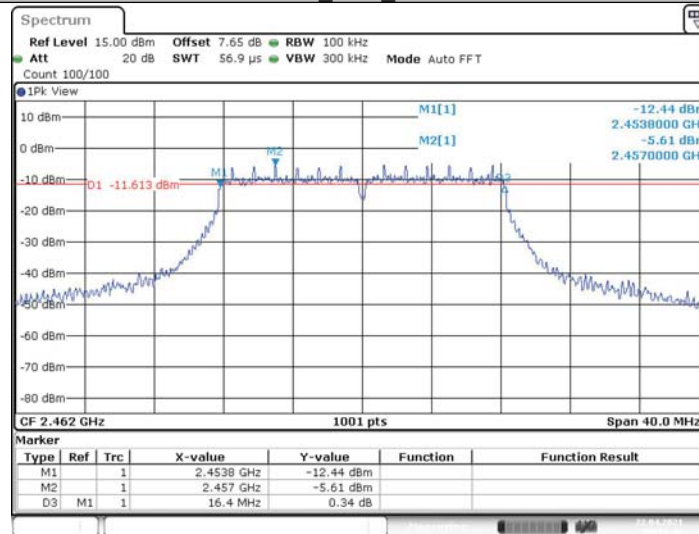


11G\_Ant1\_2437



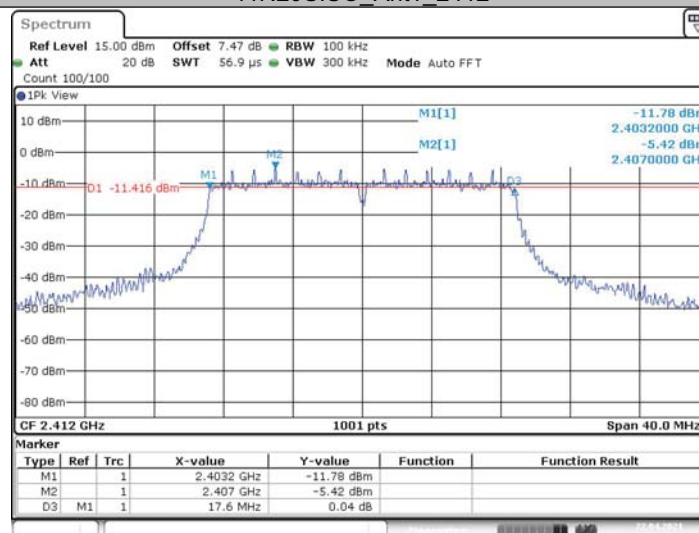


## 11G\_Ant1\_2462



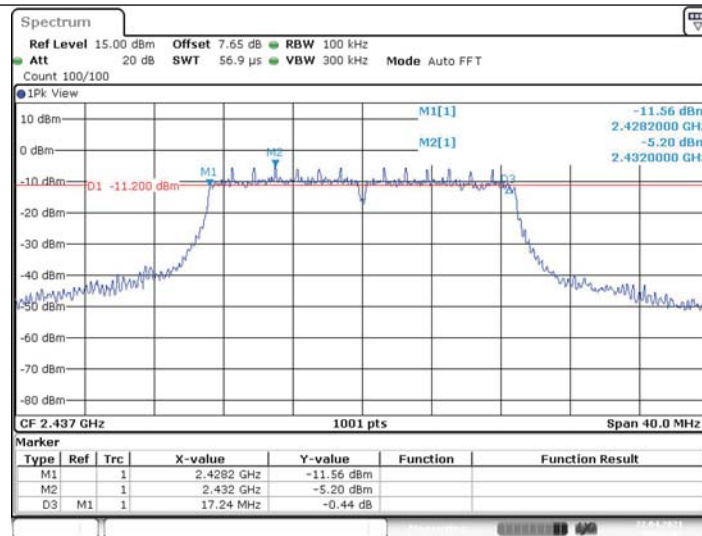
Date: 22.APR.2021 05:21:40

## 11N20SISO\_Ant1\_2412



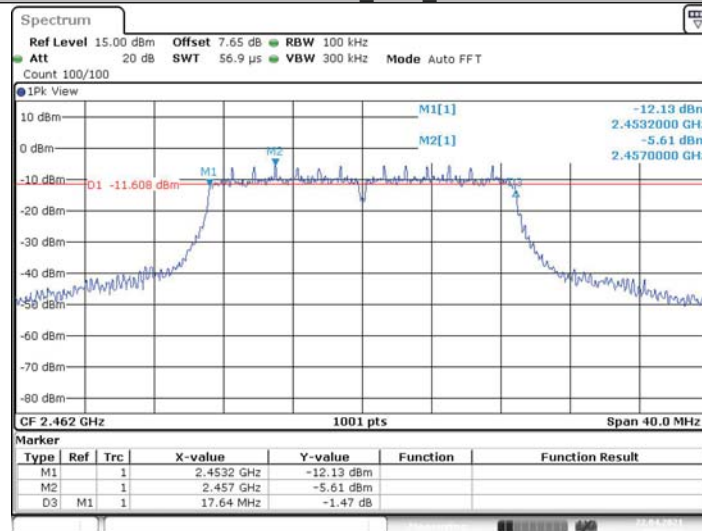
Date: 22.APR.2021 05:24:07

## 11N20SISO\_Ant1\_2437



Date: 22.APR.2021 05:26:01

## 11N20SISO\_Ant1\_2462



Date: 22.APR.2021 05:27:54

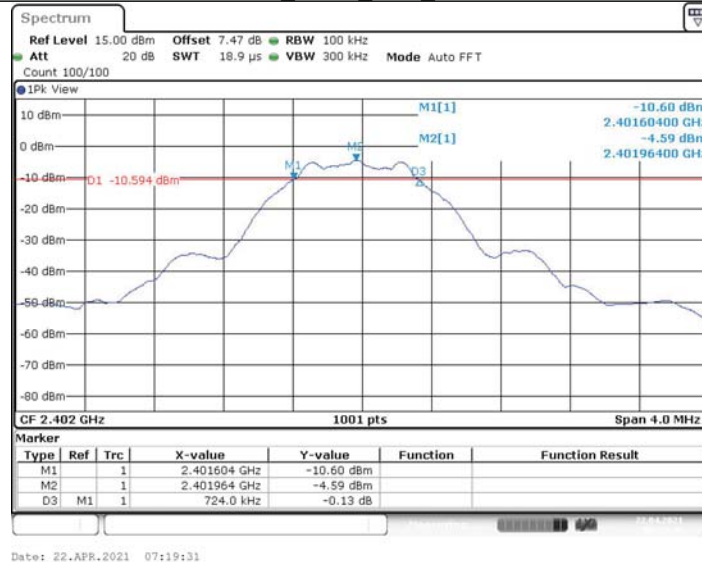


BT-LE:

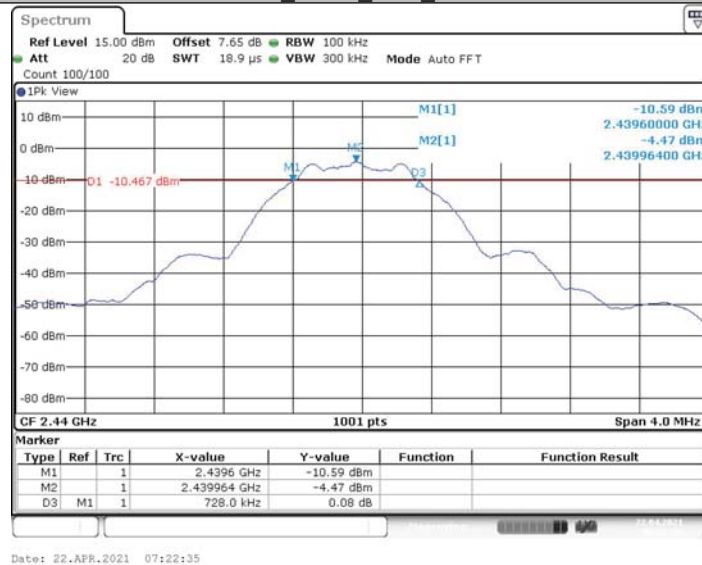
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_BT4.0	Ant1	2402	0.724	2401.604	2402.328	0.5	PASS
		2440	0.728	2439.600	2440.328	0.5	PASS
		2480	0.724	2479.604	2480.328	0.5	PASS

## Test Graphs

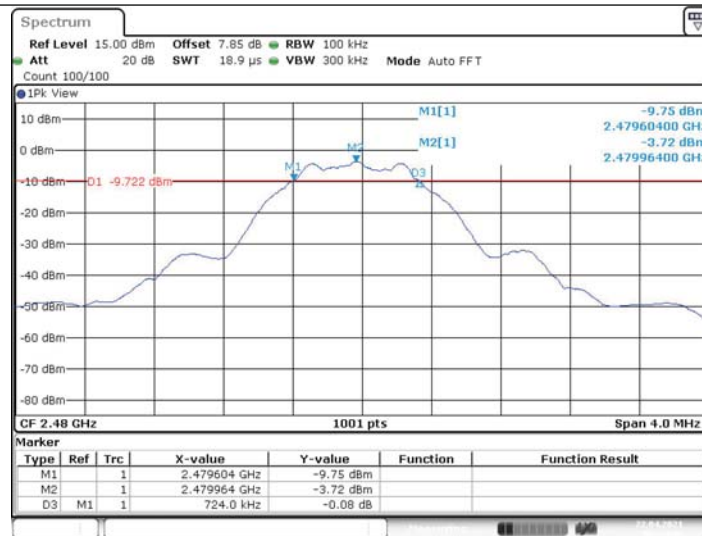
BLE\_BT4.0\_Ant1\_2402



BLE\_BT4.0\_Ant1\_2440



BLE\_BT4.0\_Ant1\_2480



Date: 22.APR.2021 07:24:59





## 5.3 Occupied Channel Bandwidth

### 5.3.1 Test Result

2.4G WLAN:

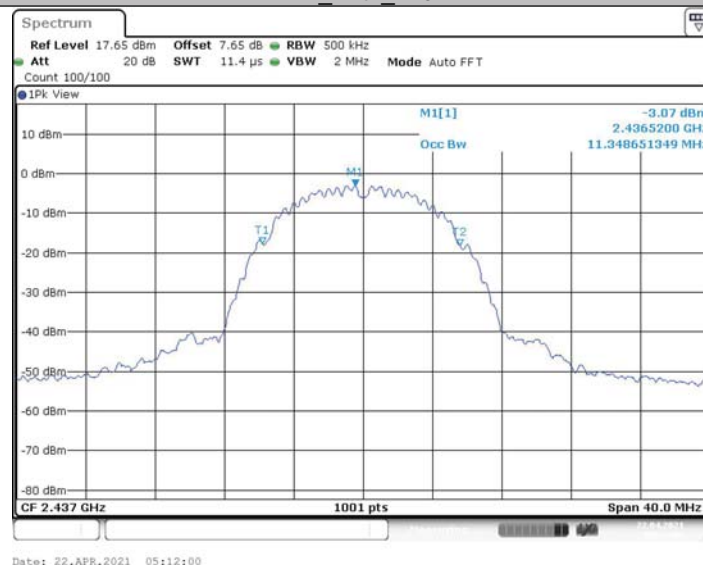
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.389	2406.246	2417.634	---	PASS
		2437	11.349	2431.206	2442.554	---	PASS
		2462	11.429	2456.286	2467.714	---	PASS
11G	Ant1	2412	17.343	2403.289	2420.631	---	PASS
		2437	17.343	2428.249	2445.591	---	PASS
		2462	17.343	2453.329	2470.671	---	PASS
11N20SISO	Ant1	2412	18.222	2402.849	2421.071	---	PASS
		2437	18.182	2427.809	2445.991	---	PASS
		2462	18.182	2452.889	2471.071	---	PASS

## Test Graphs

11B\_Ant1\_2412



11B\_Ant1\_2437



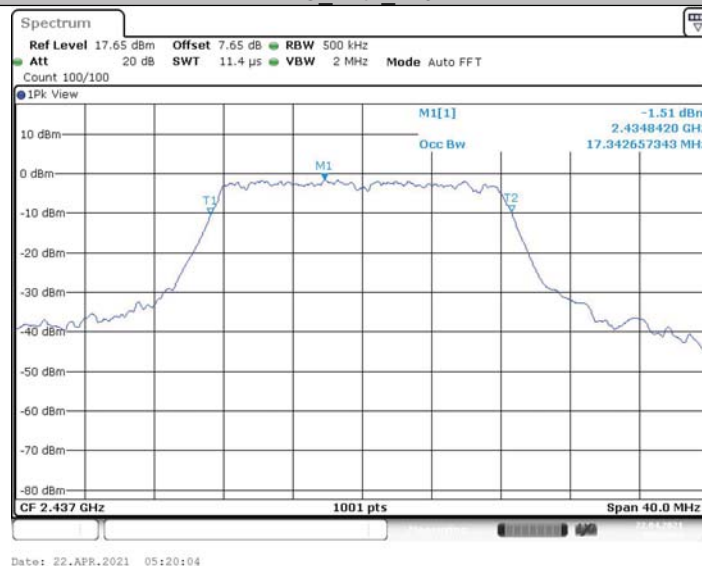
11B\_Ant1\_2462



11G\_Ant1\_2412



11G\_Ant1\_2437

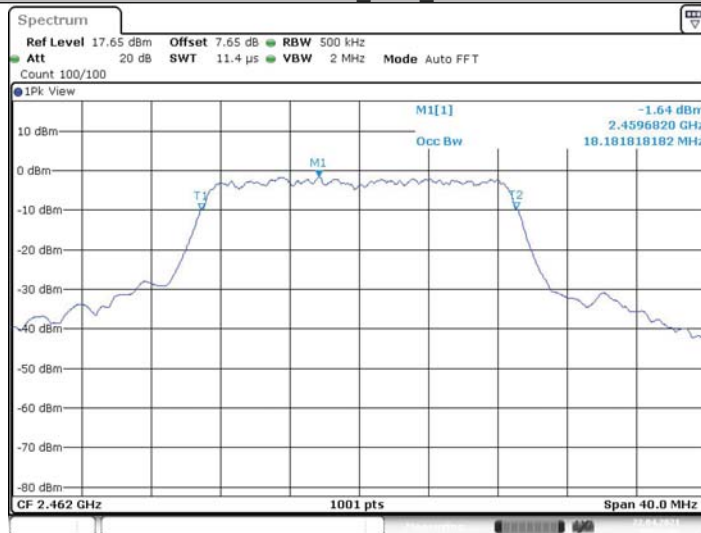






Date: 22.APR.2021 05:26:14

11N20SISO\_Ant1\_2462



Date: 22.APR.2021 05:28:06



Test Report No.: FCC2021-0005-1

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BT-LE:

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_BT4.0	Ant1	2402	1.051	2401.449	2402.500	---	PASS
		2440	1.055	2439.445	2440.500	---	PASS
		2480	1.055	2479.445	2480.500	---	PASS

## Test Graphs

BLE\_BT4.0\_Ant1\_2402



BLE\_BT4.0\_Ant1\_2440



BLE\_BT4.0\_Ant1\_2480



Date: 22.APR.2021 07:25:11



## 5.4 Maximum conducted output power

### 5.4.1 Test Result

2.4G WLAN:

**AVG:**

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	5.55	<=30	PASS
		2437	5.37	<=30	PASS
		2462	5.21	<=30	PASS
11G	Ant1	2412	6.14	<=30	PASS
		2437	6.06	<=30	PASS
		2462	6.01	<=30	PASS
11N20SISO	Ant1	2412	6.07	<=30	PASS
		2437	6.01	<=30	PASS
		2462	6.00	<=30	PASS

**PK:**

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	8.06	<=30	PASS
		2437	7.88	<=30	PASS
		2462	7.71	<=30	PASS
11G	Ant1	2412	13.89	<=30	PASS
		2437	13.75	<=30	PASS
		2462	13.72	<=30	PASS
11N20SISO	Ant1	2412	13.81	<=30	PASS
		2437	13.71	<=30	PASS
		2462	13.68	<=30	PASS

BT-LE:

**AVG:**

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_BT4.0	Ant1	2402	-5.18	<=30	PASS
		2440	-5.23	<=30	PASS
		2480	-4.75	<=30	PASS

**PK:**

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_BT4.0	Ant1	2402	-2.06	<=30	PASS
		2440	-1.98	<=30	PASS
		2480	-1.49	<=30	PASS



## 5.5 Maximum power spectral density

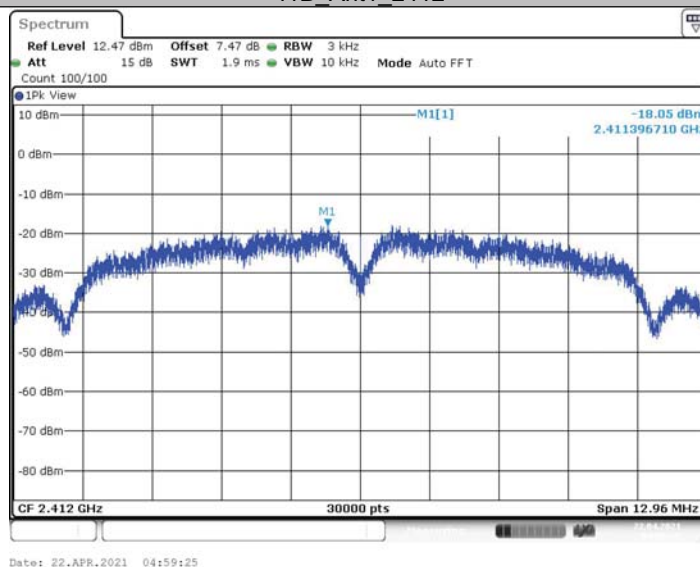
### 5.5.1 Test Result

2.4G WLAN:

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-18.05	<=8	PASS
		2437	-18.28	<=8	PASS
		2462	-18.58	<=8	PASS
11G	Ant1	2412	-19.38	<=8	PASS
		2437	-19.23	<=8	PASS
		2462	-19.87	<=8	PASS
11N20SISO	Ant1	2412	-20.12	<=8	PASS
		2437	-20.28	<=8	PASS
		2462	-20.44	<=8	PASS

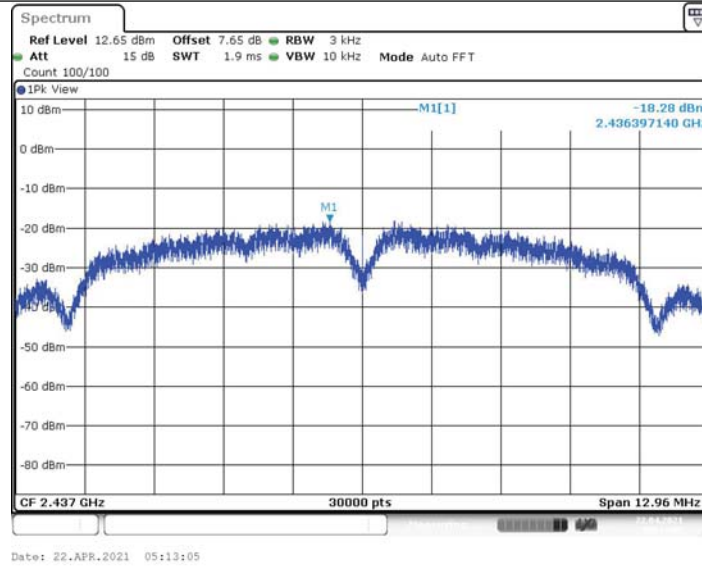
### 5.5.2 Test Graphs

11B Ant1 2412

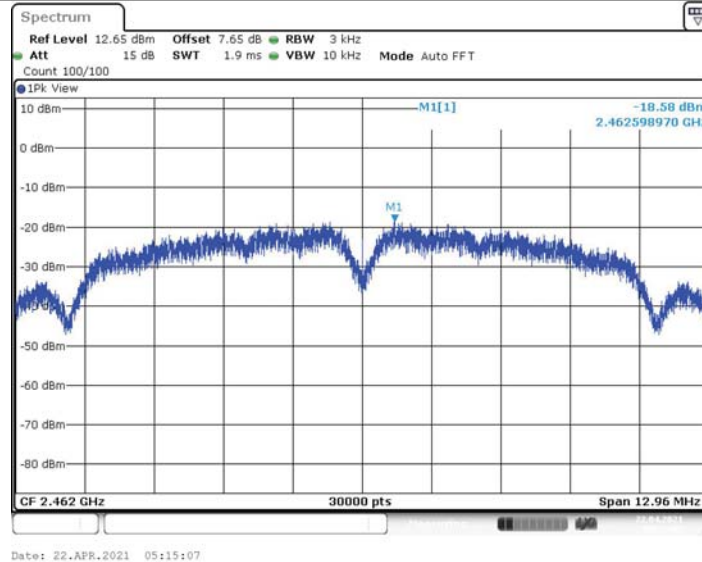


11B Ant1 2437

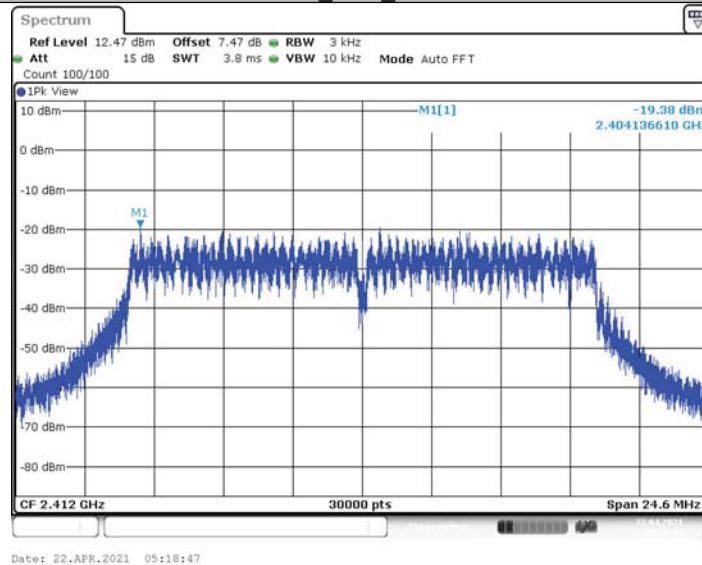




11B\_Ant1\_2462

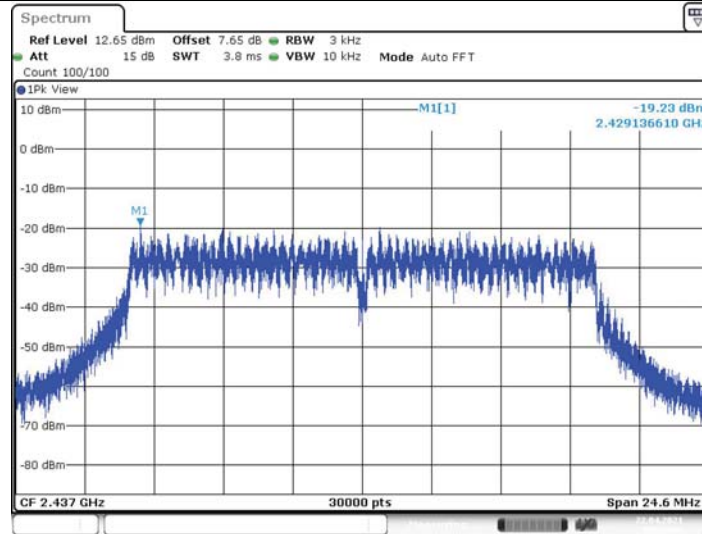


11G\_Ant1\_2412



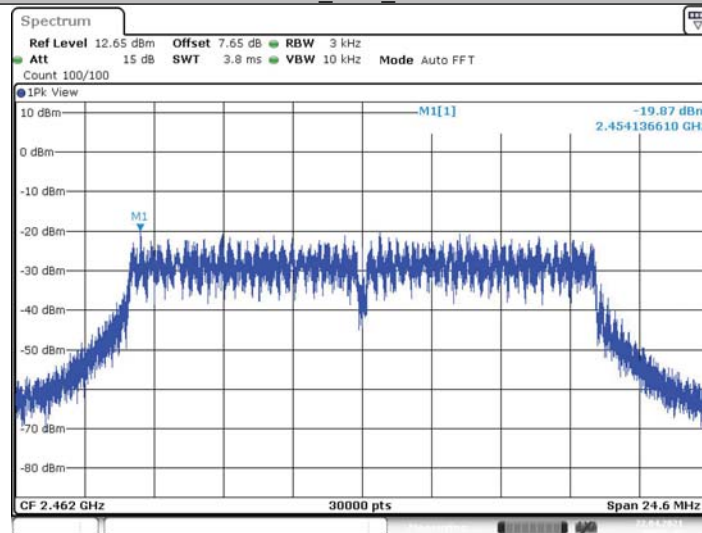


## 11G\_Ant1\_2437



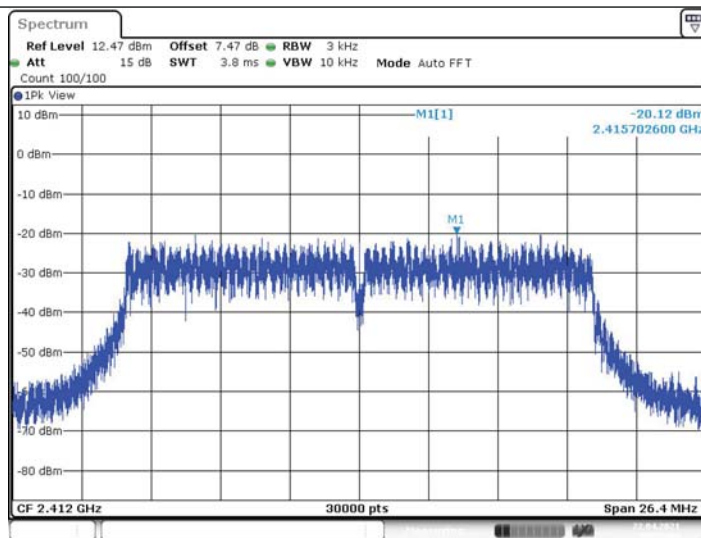
Date: 22.APR.2021 05:20:50

## 11G\_Ant1\_2462



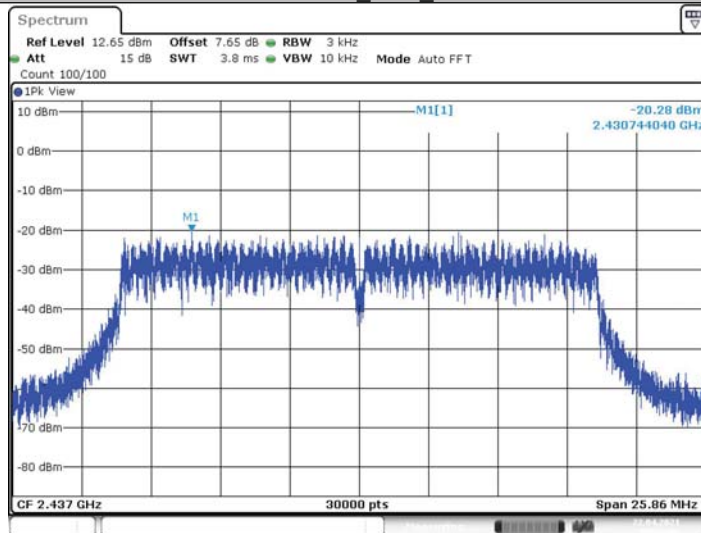
Date: 22.APR.2021 05:22:42

## 11N20SISO\_Ant1\_2412



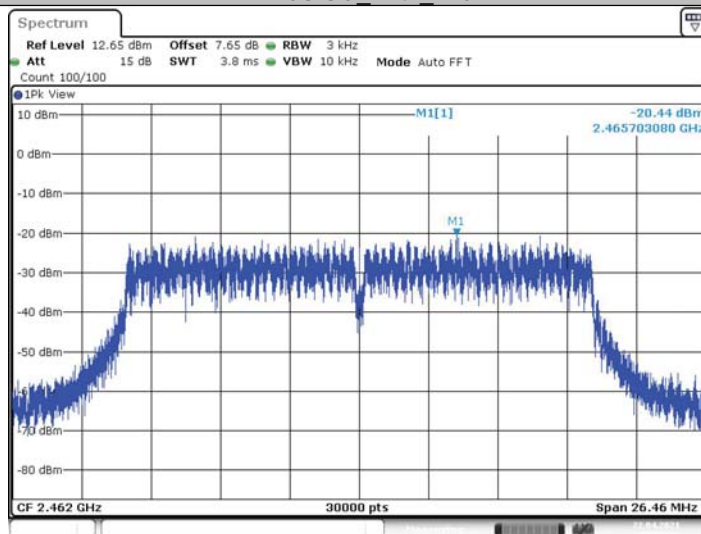
Date: 22.APR.2021 05:25:04

11N20SISO\_Ant1\_2437



Date: 22.APR.2021 05:27:06

11N20SISO\_Ant1\_2462



Date: 22.APR.2021 05:30:00

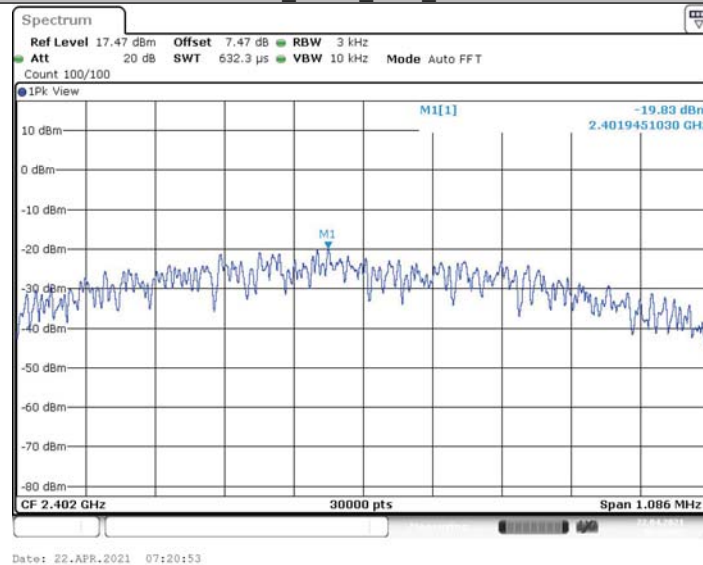


BT-LE:

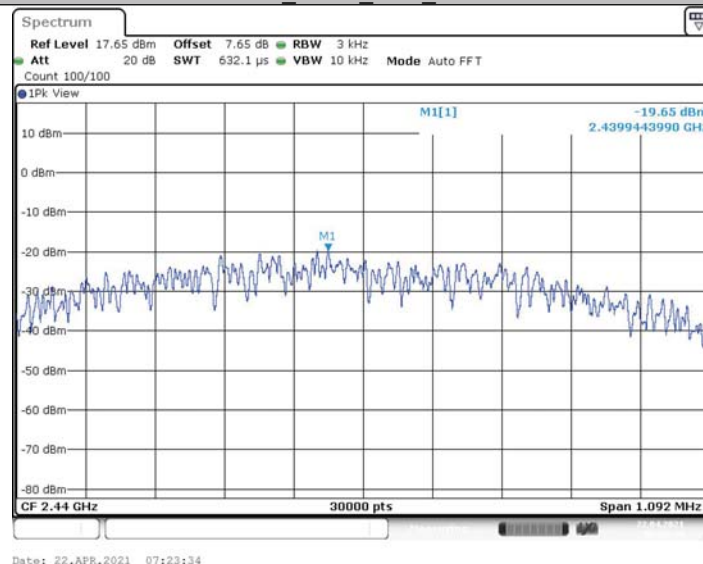
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_BT4.0	Ant1	2402	-19.83	<=8	PASS
		2440	-19.65	<=8	PASS
		2480	-18.99	<=8	PASS

## Test Graphs

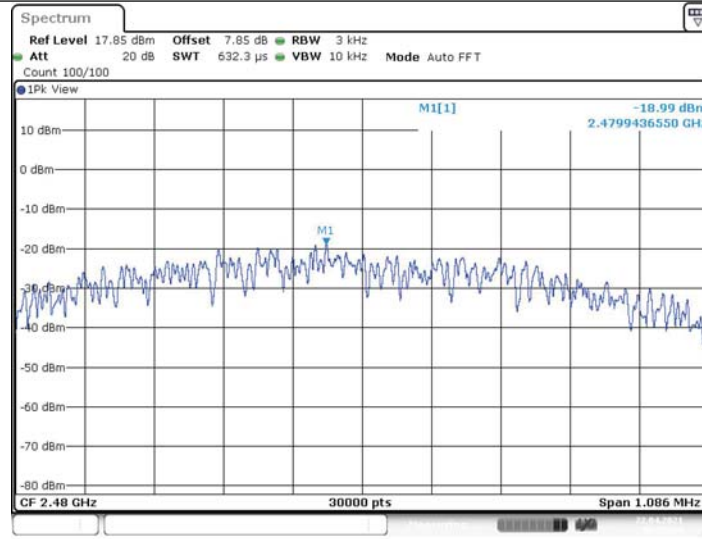
BLE\_BT4.0\_Ant1\_2402



BLE\_BT4.0\_Ant1\_2440



BLE\_BT4.0\_Ant1\_2480



Date: 22.APR.2021 07:25:54



## 5.6 Band edge measurements

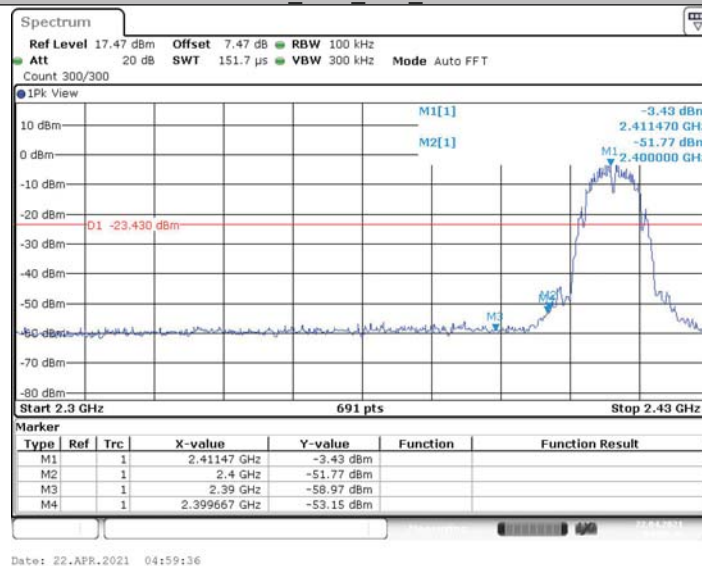
### 5.6.1 Test setup

2.4G WLAN:

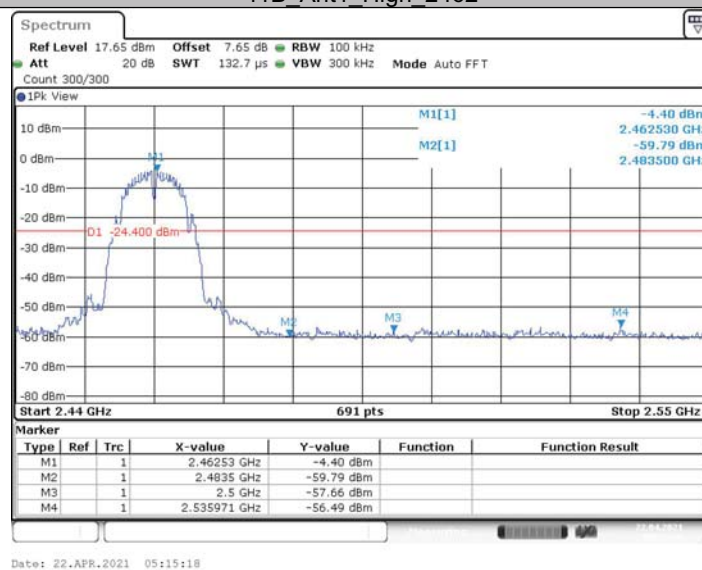
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-3.43	-53.15	<=-23.43	PASS
		High	2462	-4.40	-56.49	<=-24.4	PASS
11G	Ant1	Low	2412	-5.40	-40.85	<=-25.4	PASS
		High	2462	-5.69	-52.43	<=-25.69	PASS
11N20SISO	Ant1	Low	2412	-5.46	-37.37	<=-25.46	PASS
		High	2462	-5.64	-52.04	<=-25.64	PASS

### Test Graphs

11B\_Ant1\_Low\_2412



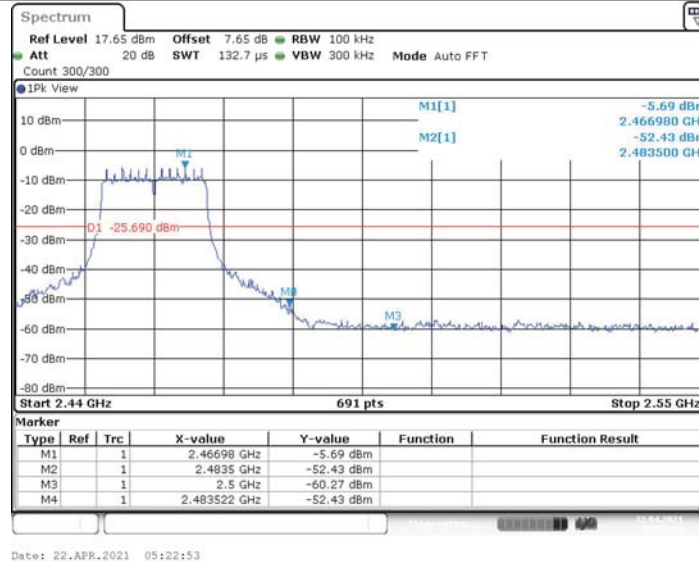
11B\_Ant1\_High\_2462



11G\_Ant1\_Low\_2412



11G\_Ant1\_High\_2462



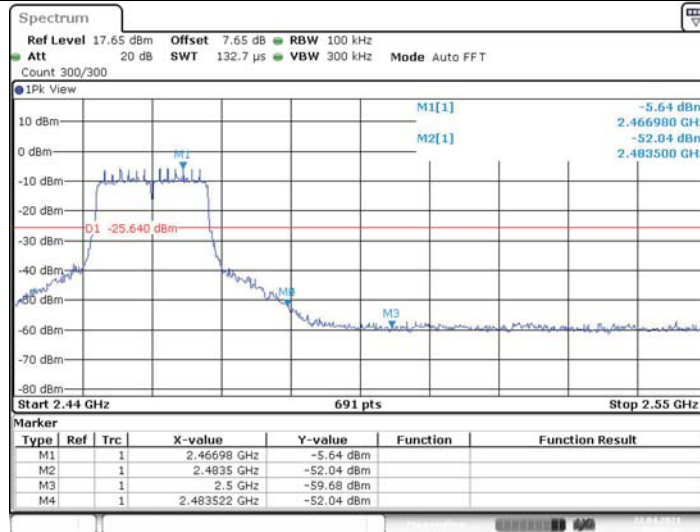
11N20SISO\_Ant1\_Low\_2412







## 11N20SISO\_Ant1\_High\_2462



Date: 22.APR.2021 05:30:11

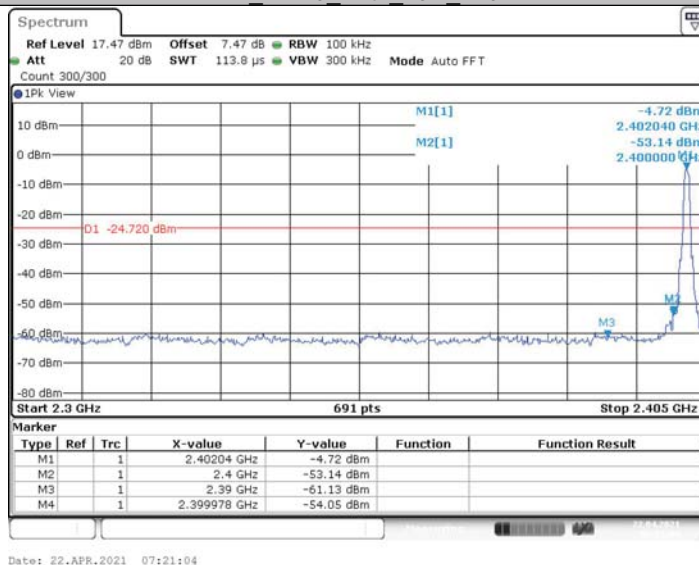


BT-LE:

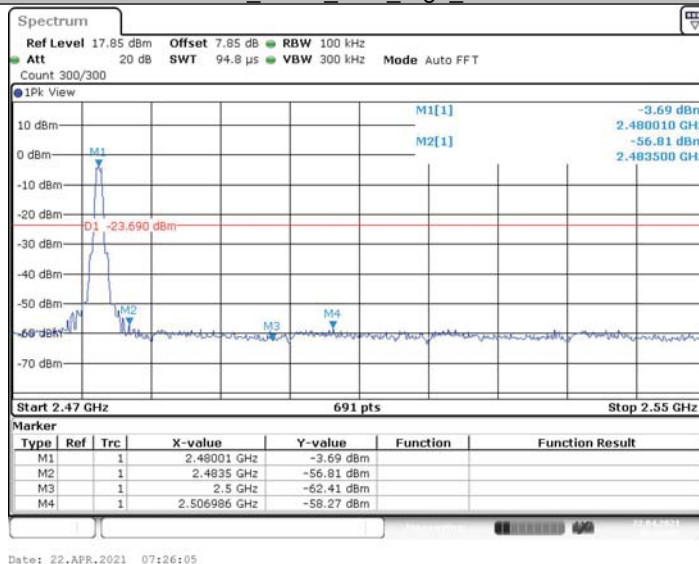
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_BT4.0	Ant1	Low	2402	-4.72	-54.05	<=-24.72	PASS
		High	2480	-3.69	-58.27	<=-23.69	PASS

## 5.6.2 Test Graphs

BLE\_BT4.0 Ant1 Low 2402



BLE\_BT4.0 Ant1 High 2480



## 5.7 Conducted Spurious Emission

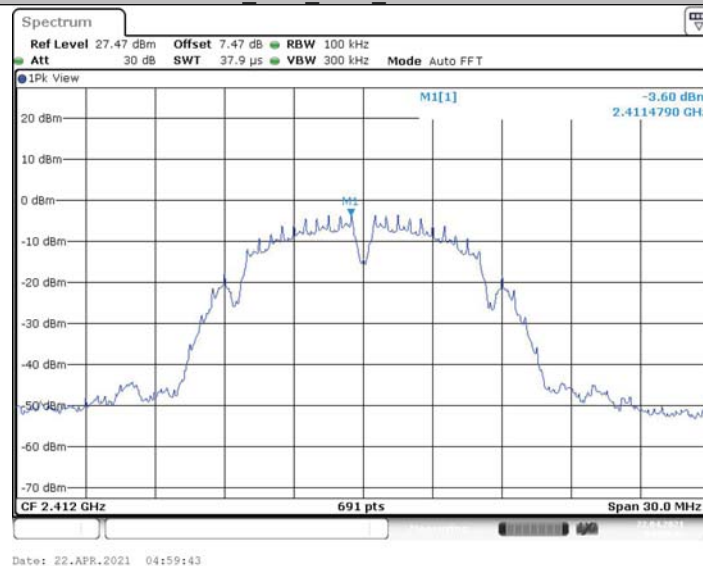
### 5.7.1 Test Result

2.4G WLAN:

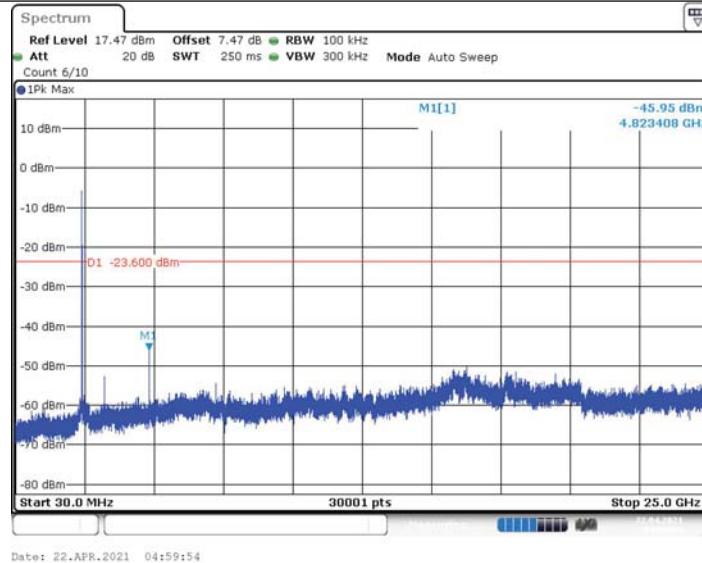
TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-3.60	-3.60	---	PASS
			30~25000	-3.60	-45.95	<=-23.6	PASS
		2437	Reference	-3.68	-3.68	---	PASS
			30~25000	-3.68	-50.12	<=-23.68	PASS
		2462	Reference	-4.35	-4.35	---	PASS
			30~25000	-4.35	-49.83	<=-24.35	PASS
11G	Ant1	2412	Reference	-5.39	-5.39	---	PASS
			30~25000	-5.39	-49.68	<=-25.39	PASS
		2437	Reference	-5.22	-5.22	---	PASS
			30~25000	-5.22	-49.11	<=-25.22	PASS
		2462	Reference	-5.72	-5.72	---	PASS
			30~25000	-5.72	-50.68	<=-25.72	PASS
11N20SISO	Ant1	2412	Reference	-5.43	-5.43	---	PASS
			30~25000	-5.43	-49.77	<=-25.43	PASS
		2437	Reference	-5.23	-5.23	---	PASS
			30~25000	-5.23	-49.22	<=-25.23	PASS
		2462	Reference	-5.73	-5.73	---	PASS
			30~25000	-5.73	-49.62	<=-25.73	PASS

### Test Graphs

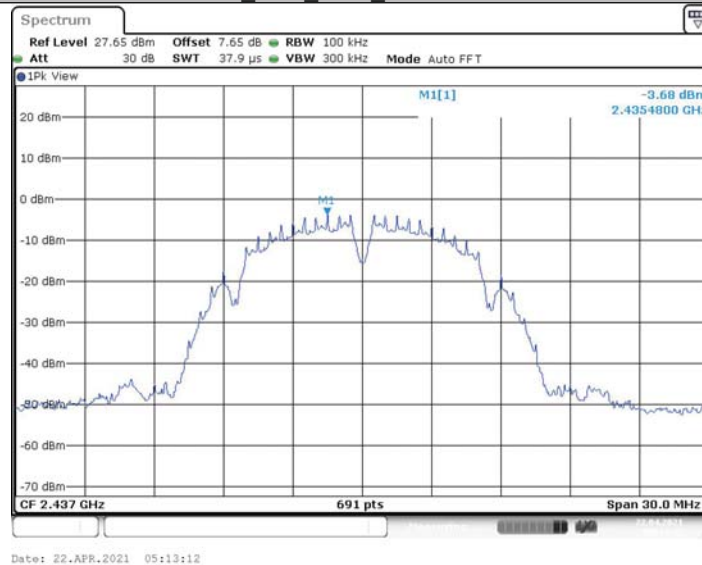
11B\_Ant1\_2412\_0~Reference



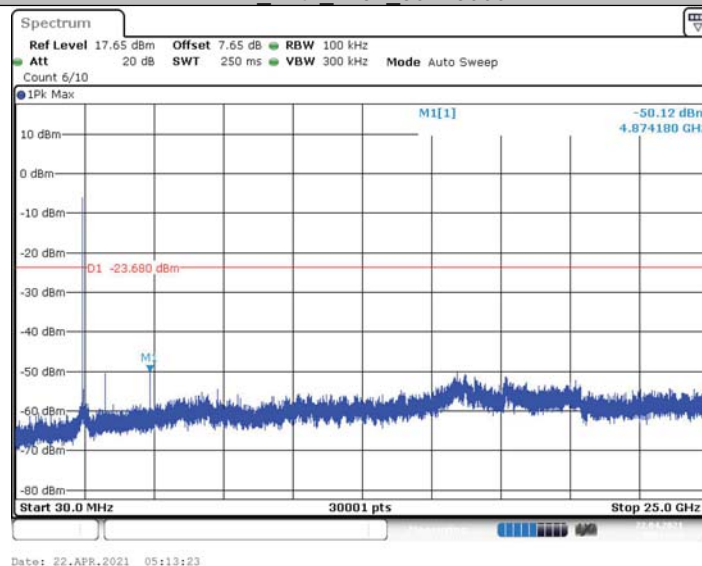
11B\_Ant1\_2412\_30~25000



11B\_Ant1\_2437\_0~Reference

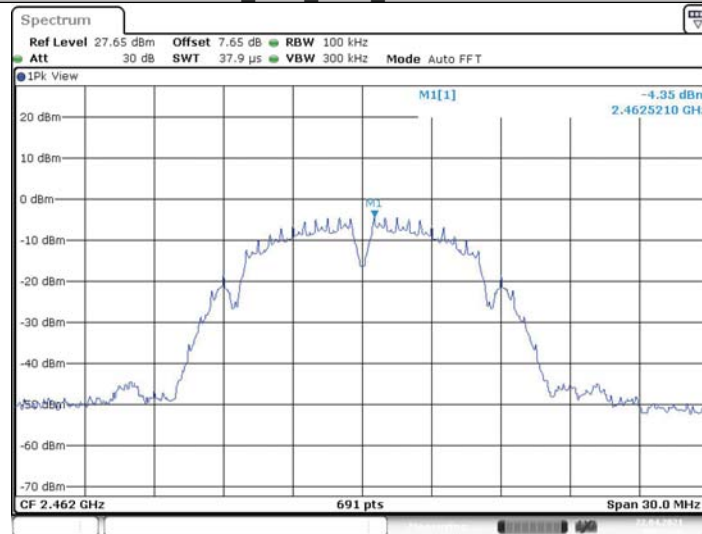


11B\_Ant1\_2437\_30~25000



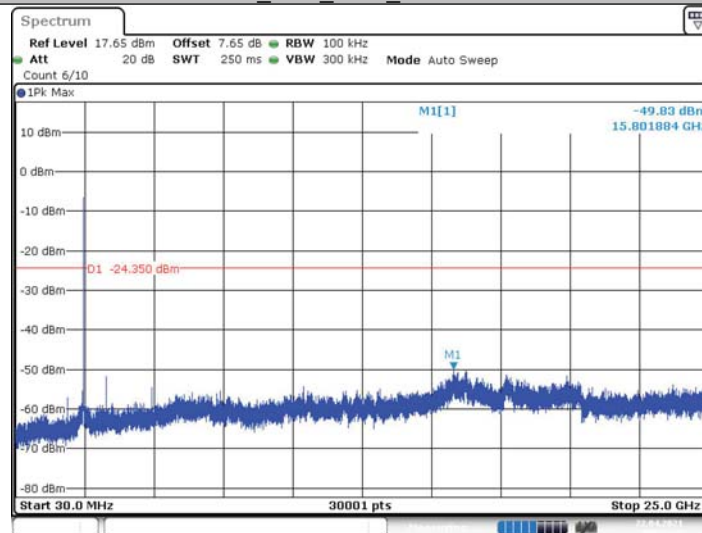


## 11B\_Ant1\_2462\_0~Reference



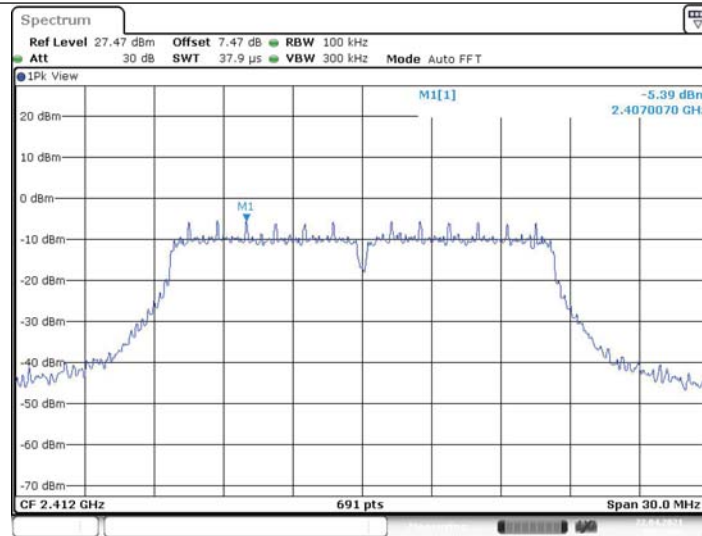
Date: 22.APR.2021 05:15:26

## 11B\_Ant1\_2462\_30~25000



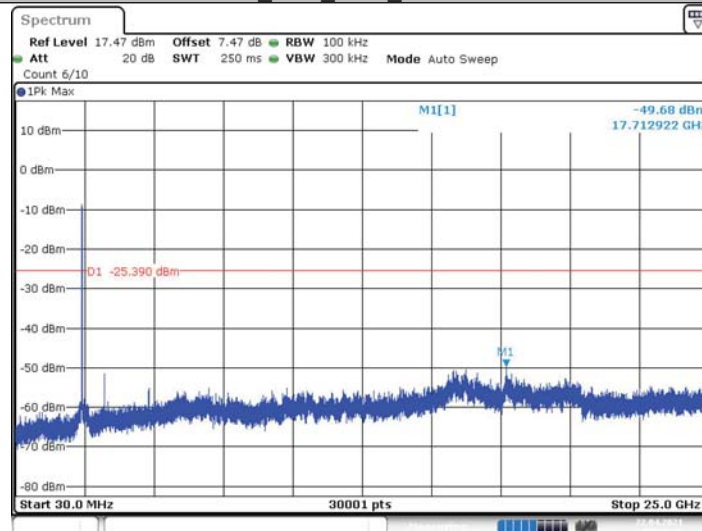
Date: 22.APR.2021 05:15:37

## 11G\_Ant1\_2412\_0~Reference



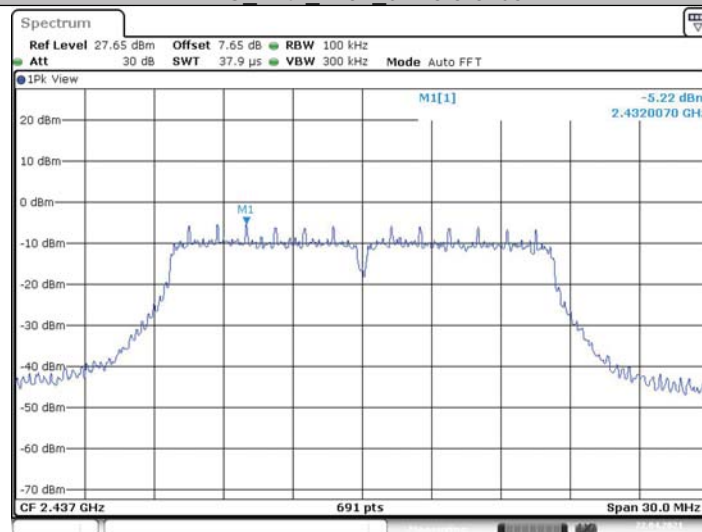
Date: 22.APR.2021 05:19:06

## 11G\_Ant1\_2412\_30~25000



Date: 22.APR.2021 05:19:17

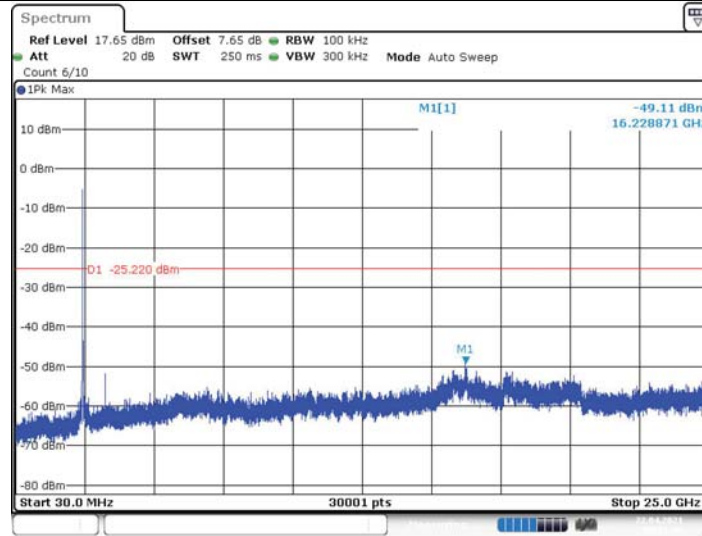
## 11G\_Ant1\_2437\_0~Reference



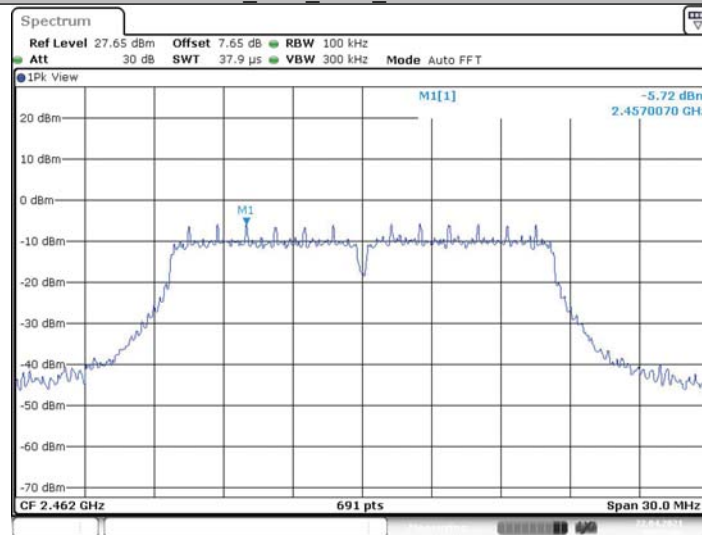
Date: 22.APR.2021 05:20:57



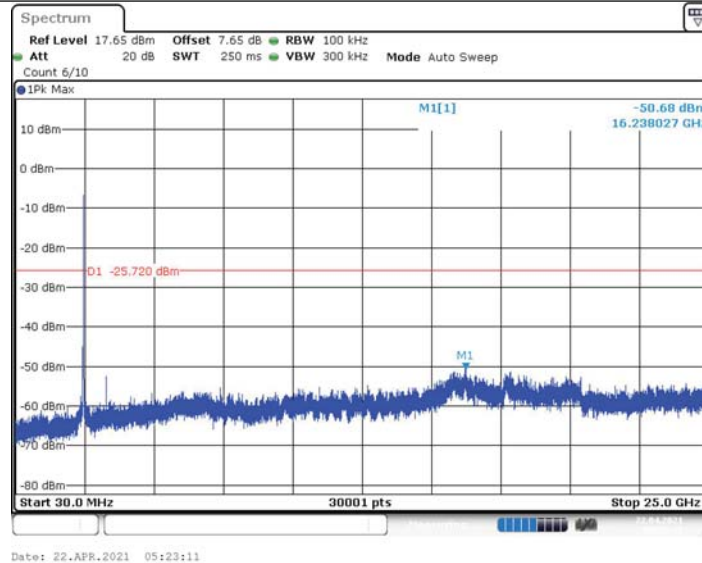
## 11G\_Ant1\_2437\_30~25000



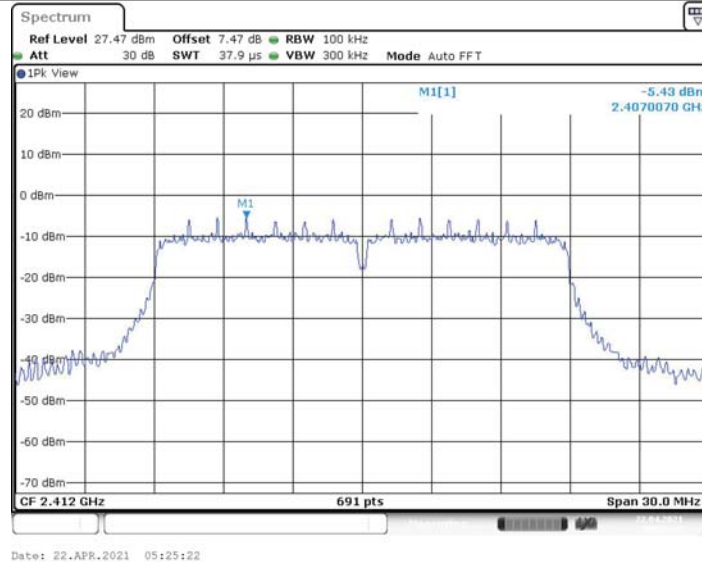
## 11G\_Ant1\_2462\_0~Reference



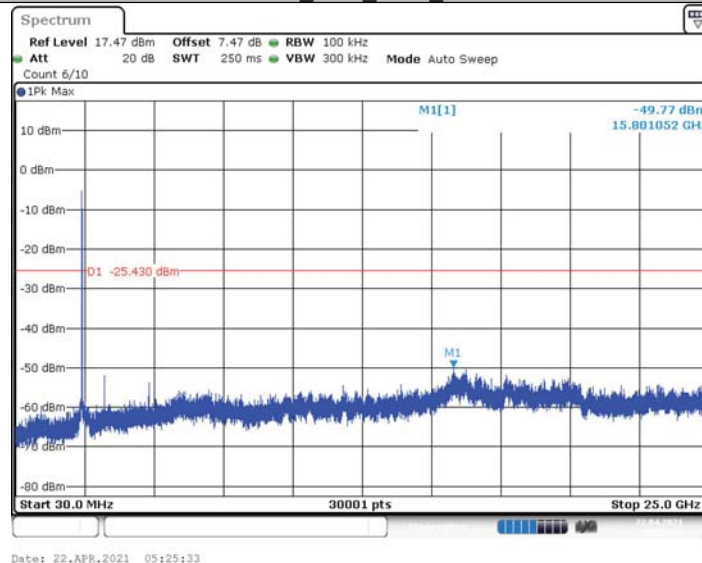
## 11G\_Ant1\_2462\_30~25000



11N20SISO\_Ant1\_2412\_0~Reference



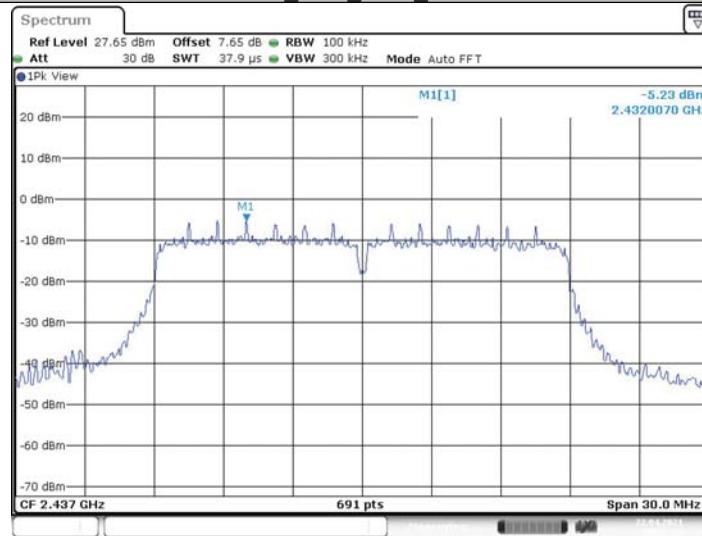
11N20SISO\_Ant1\_2412\_30~25000





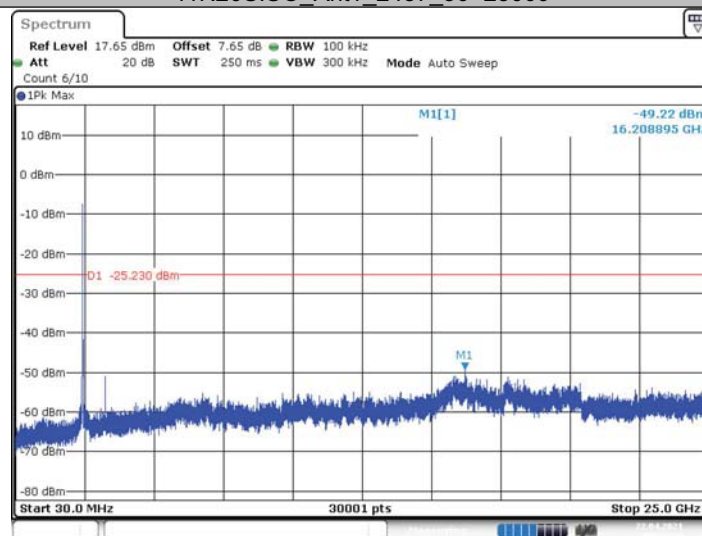


## 11N20SISO\_Ant1\_2437\_0~Reference



Date: 22.APR.2021 05:27:14

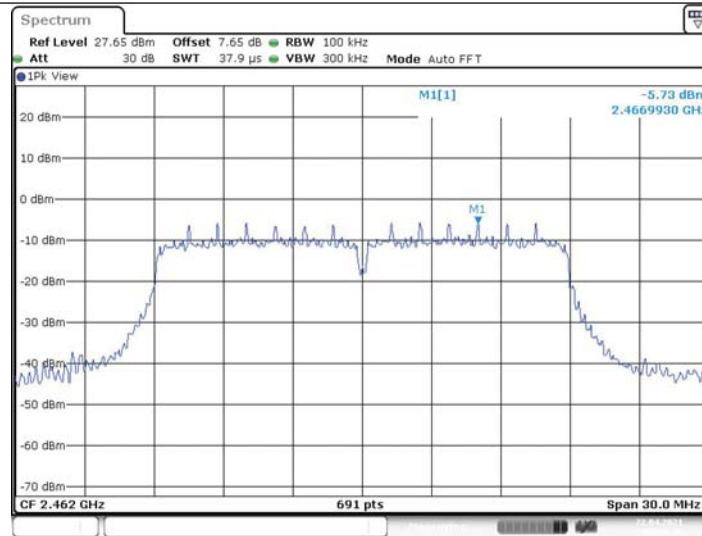
## 11N20SISO\_Ant1\_2437\_30~25000



Date: 22.APR.2021 05:27:24

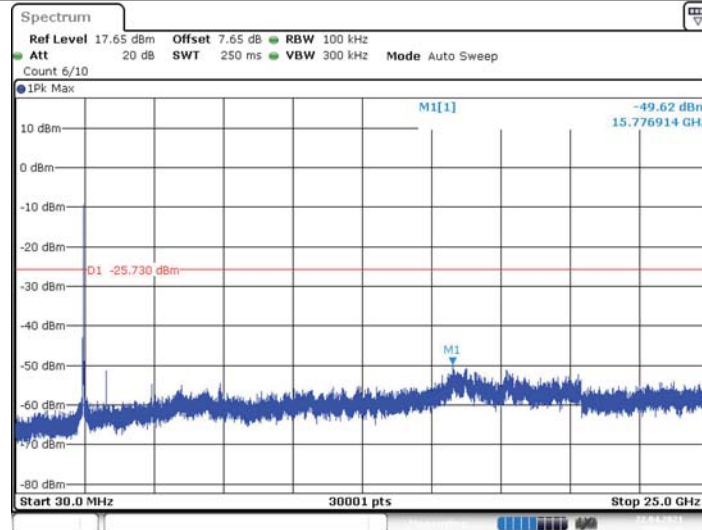
## 11N20SISO\_Ant1\_2462\_0~Reference





Date: 22.APR.2021 05:30:18

11N20SISO\_Ant1\_2462\_30~25000



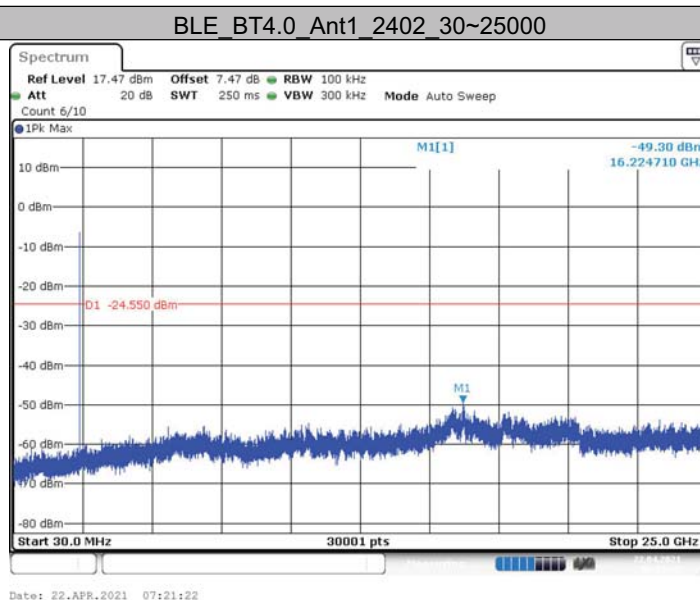
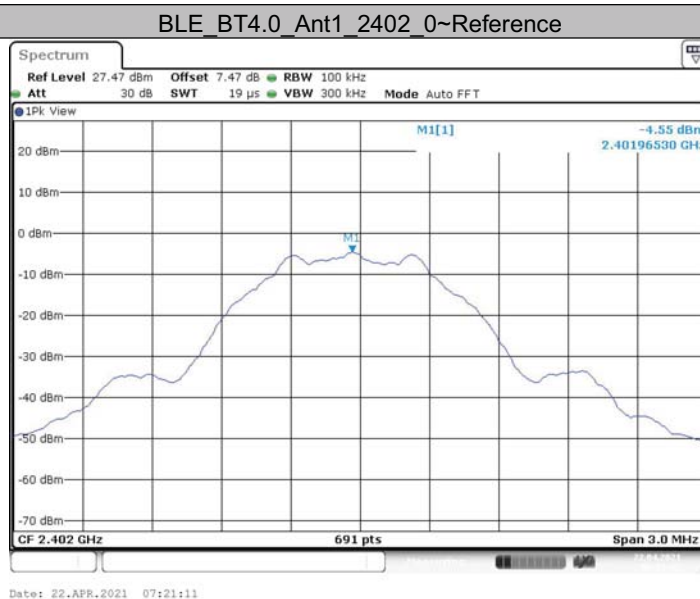
Date: 22.APR.2021 05:30:29



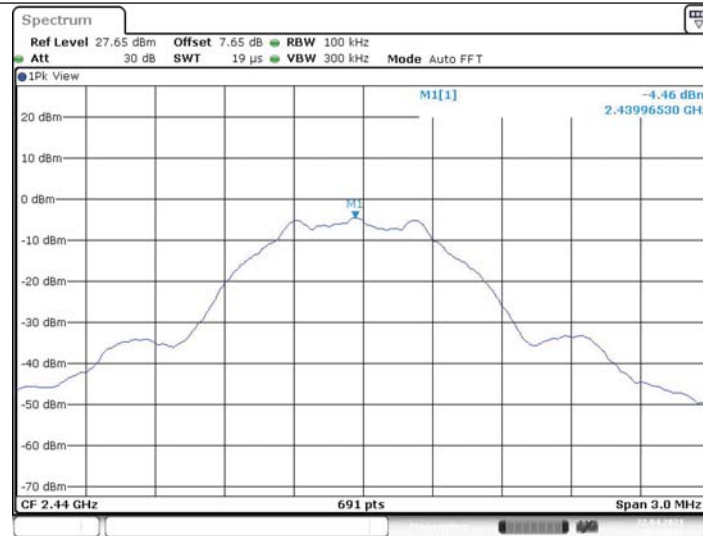
BT-LE:

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_BT4.0	Ant1	2402	Reference	-4.55	-4.55	---	PASS
			30~25000	-4.55	-49.3	<=-24.55	PASS
		2440	Reference	-4.46	-4.46	---	PASS
			30~25000	-4.46	-49.85	<=-24.46	PASS
		2480	Reference	-3.77	-3.77	---	PASS
			30~25000	-3.77	-48.97	<=-23.77	PASS

## Test Graphs

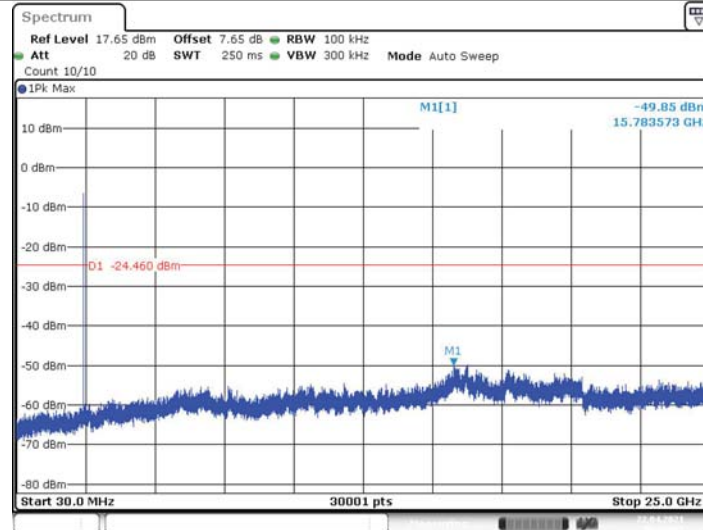


BLE	BT4.0	Ant1	2440	0~Reference
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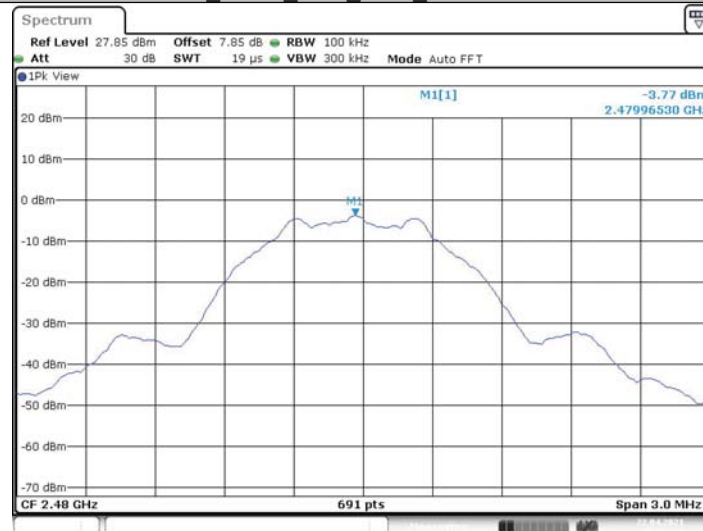
Date: 22.APR.2021 07:23:41

## BLE BT4.0 Ant1 2440 30~25000



Date: 22.APR.2021 07:23:57

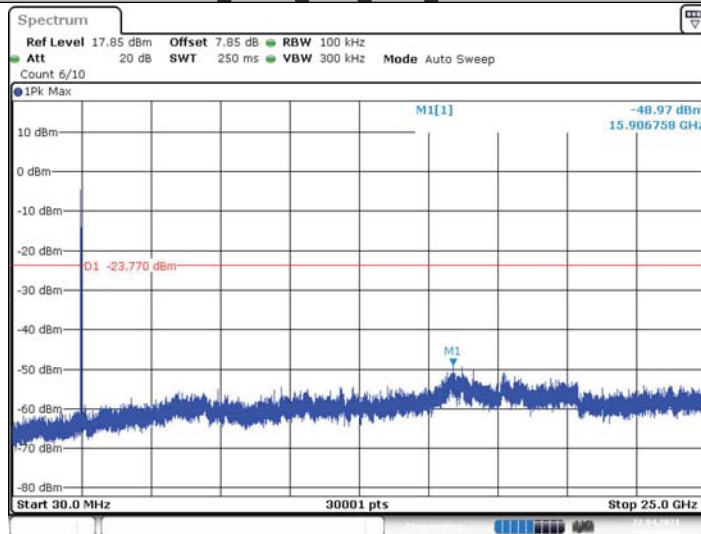
## BLE BT4.0 Ant1 2480 0~Reference



Date: 22.APR.2021 07:26:13



## BLE BT4.0 Ant1 2480 30~25000



Date: 22.APR.2021 07:26:23

## Appendix B

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Due	Used
EMI Test Receiver	Rohde&Schwarz	ESR3	102694	2021-05-19	<input checked="" type="checkbox"/>
LISN	Rohde&Schwarz	ENV216	102569	2021-05-21	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8129	5021	2021-05-21	<input type="checkbox"/>
ISN	Rohde&Schwarz	ENV 81	100401	2021-05-19	<input type="checkbox"/>
ISN	Rohde&Schwarz	ENV 81 Cat6	101896	2021-05-19	<input type="checkbox"/>
Plus Limiter	Rohde&Schwarz	ESH3-Z2	102824	2021-05-19	<input checked="" type="checkbox"/>
Plus Limiter	AEROFLEX	37-10-34	CF3049	2021-11-08	<input type="checkbox"/>
Impedance Stabilization Network	Rohde&Schwarz	MATCHING	/	2021-12-11	<input type="checkbox"/>
Digital signal generator	TELEVIEW	DTV800	/	2021-05-19	<input type="checkbox"/>
AudioSignalGenerator	GW	GAG-810	EK871591	2021-12-11	<input type="checkbox"/>
Shielding Room(#1)	MORI	854	/	2023-05-19	<input checked="" type="checkbox"/>

Radiated Emission Test - 3M Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Due	Used
EMI Test Receiver	Rohde&Schwarz	ESR 26	101718	2021.5.19	<input checked="" type="checkbox"/>
Loop antenna	Rohde&Schwarz	HFH2-Z2E	100951	2021.5.16	<input checked="" type="checkbox"/>
Rod antenna	Rohde&Schwarz	HFH2-Z6E	101268	2021.5.24	<input checked="" type="checkbox"/>
Double cone antenna	Rohde&Schwarz	HK116E	10359	2021.5.24	<input checked="" type="checkbox"/>
Log periodic antenna	Rohde&Schwarz	HL223	100936	2021.5.24	<input checked="" type="checkbox"/>
antenna(30MHz~1000MHz)	SCHWARZBECK	VULB 9168	1132	2021.5.16	<input checked="" type="checkbox"/>
Horn antenna(1GHz-6GHz)	SCHWARZBECK	BBHA 9120E	947	2023.5.19	<input checked="" type="checkbox"/>
Horn antenna(1GHz-18GHz)	ETS	3117	227634	2022.1.14	<input checked="" type="checkbox"/>
Horn antenna(18GHz-40GHz)	SCHWARZBECK	BBHA 9170	1003	2021.5.16	<input checked="" type="checkbox"/>
3m anechoic chamber	MORI	966	N/A	2023.5.19	<input checked="" type="checkbox"/>
LISN (single-phase )	Rohde&Schwarz	ESH3-Z6	102152/102156	2021.5.21	<input checked="" type="checkbox"/>
Preamplifier	Rohde&Schwarz	SCU-01F	100298	2021.5.19	<input checked="" type="checkbox"/>
Preamplifier	Rohde&Schwarz	SCU-18F	100799	2021.5.19	<input checked="" type="checkbox"/>

Antenna Port Conducted Test					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Due	Used
Signal&Spectrum Analyzer	Rohde&Schwarz	FSV 40	101898	2021.5.19	<input checked="" type="checkbox"/>
Wideband radio communication tester	Rohde&Schwarz	CMW 500	168778	2021.5.19	<input type="checkbox"/>
Automatic control unit(RSE)	Rohde&Schwarz	OSP220	101742	2021.5.19	<input type="checkbox"/>
Filter group(RSE-BT/WiFi)	Rohde&Schwarz	WiFi /BT Variant 1	100820	2021.5.19	<input checked="" type="checkbox"/>
Filter group(RSE-Cellular)	Rohde&Schwarz	Cellular Variant 1	100768	2021.5.19	<input checked="" type="checkbox"/>
Signal&Spectrum Analyzer	Rohde&Schwarz	FSVA 3044	101013	2021.5.19	<input checked="" type="checkbox"/>
signal Generator(100kHz~40GHz)	Rohde&Schwarz	SMB 100A	CS0300015	2021.05.19	<input type="checkbox"/>
signal Generator(100kHz~12.75GHz)	Rohde&Schwarz	SMB 100A	CS0300016	2021.5.19	<input type="checkbox"/>

### Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.

*Address of the laboratory:*

*Vkan Certification & Testing Co., Ltd.*

*Address: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, China*

*Post Code: 510663*

*Tel: 020-32293888*

*FAX: 020-32293889*

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