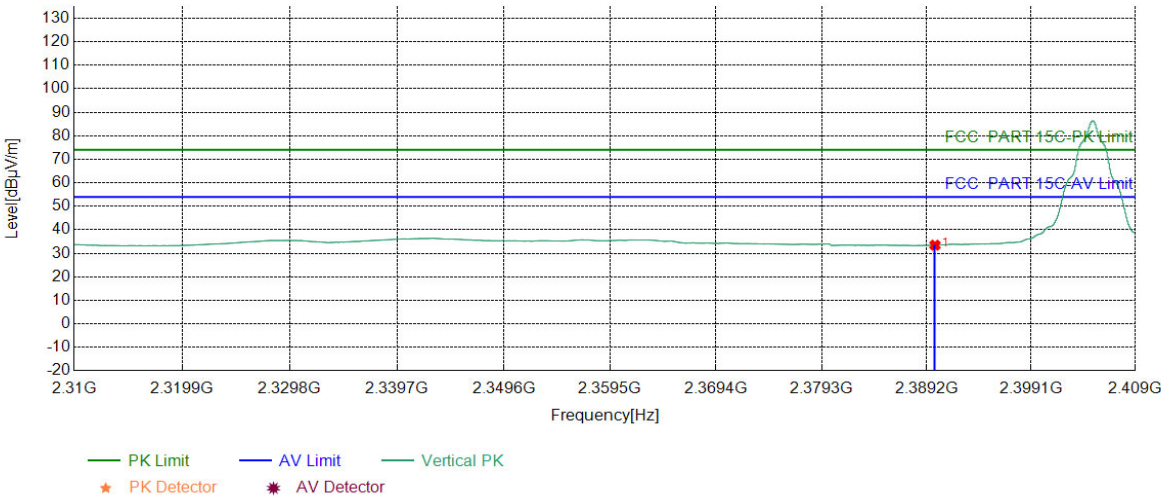


Mode:	Transmitting	Channel:	2405 MHz
Remark:	AV		

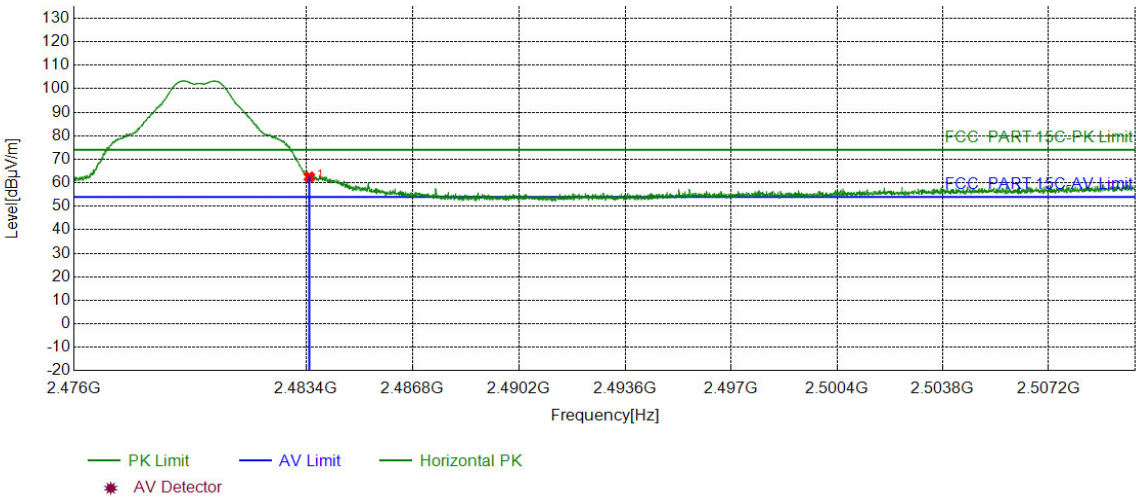
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.00	5.77	27.70	33.47	54.00	20.53	PASS	Vertical	AV

Mode:	Transmitting	Channel:	2480 MHz
Remark:	PK		

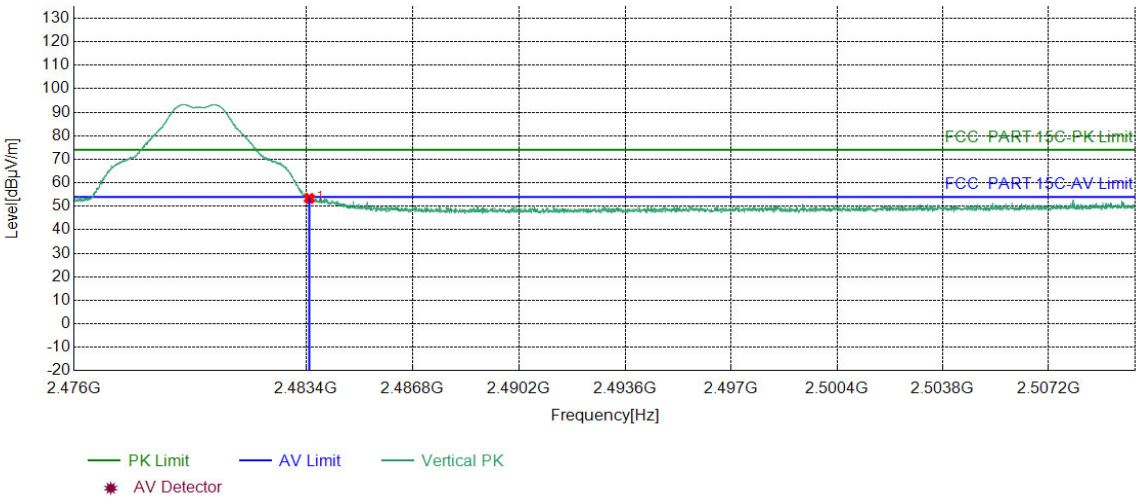
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.50	6.57	55.91	62.48	74.00	11.52	PASS	Horizontal	PK

Mode:	Transmitting	Channel:	2480 MHz
Remark:	PK		

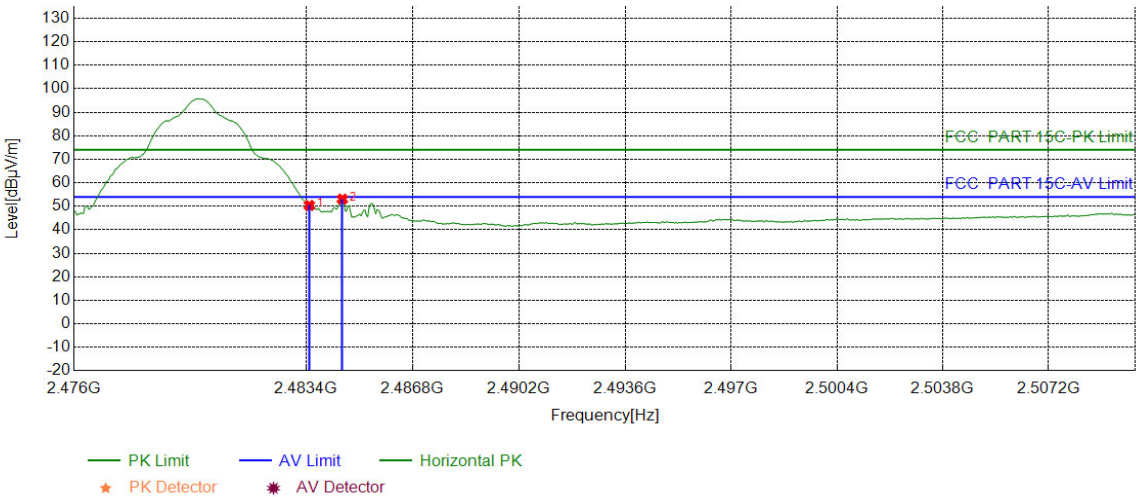
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.50	6.57	46.78	53.35	74.00	20.65	PASS	Vertical	PK

Mode:	Transmitting	Channel:	2480 MHz
Remark:	AV		

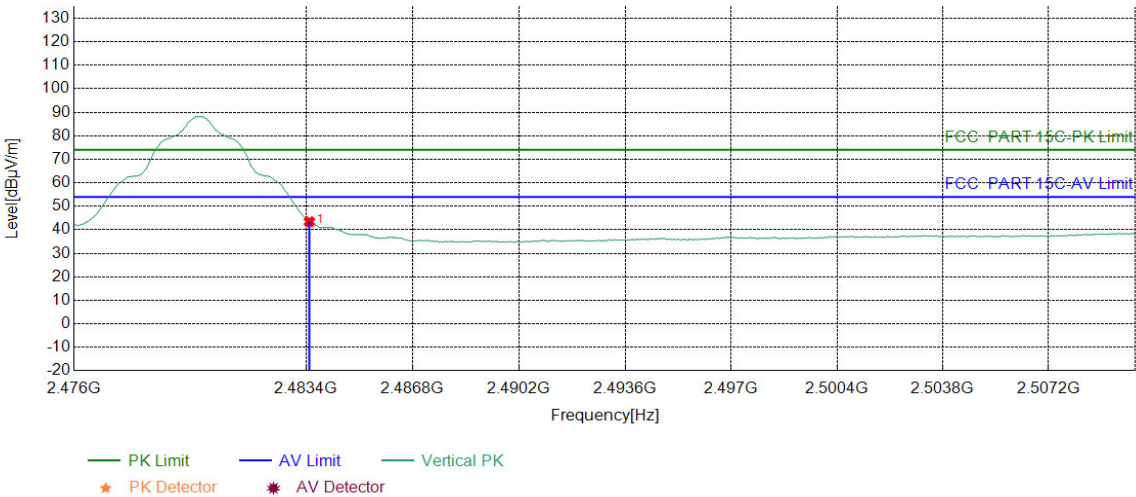
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.50	6.57	43.81	50.38	54.00	3.62	PASS	Horizontal	AV
2	2484.55	6.58	46.49	53.07	54.00	0.93	PASS	Horizontal	AV

Mode:	Transmitting	Channel:	2480 MHz
Remark:	AV		

Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.50	6.57	36.87	43.44	54.00	10.56	PASS	Vertical	AV

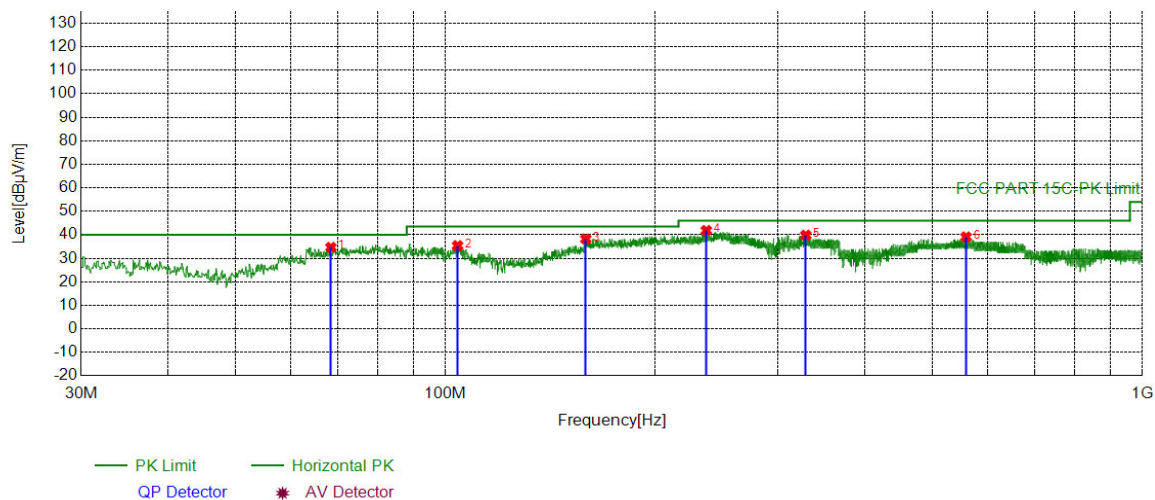
Note:
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Factor
Factor=Antenna Factor + Cable Factor – Preamplifier Factor

Radiated Spurious Emission test Data 2:
Test mode No.: ZBDongle-P(CP2102N-A02-GQFN24R)

Radiated Spurious Emission below 1GHz:

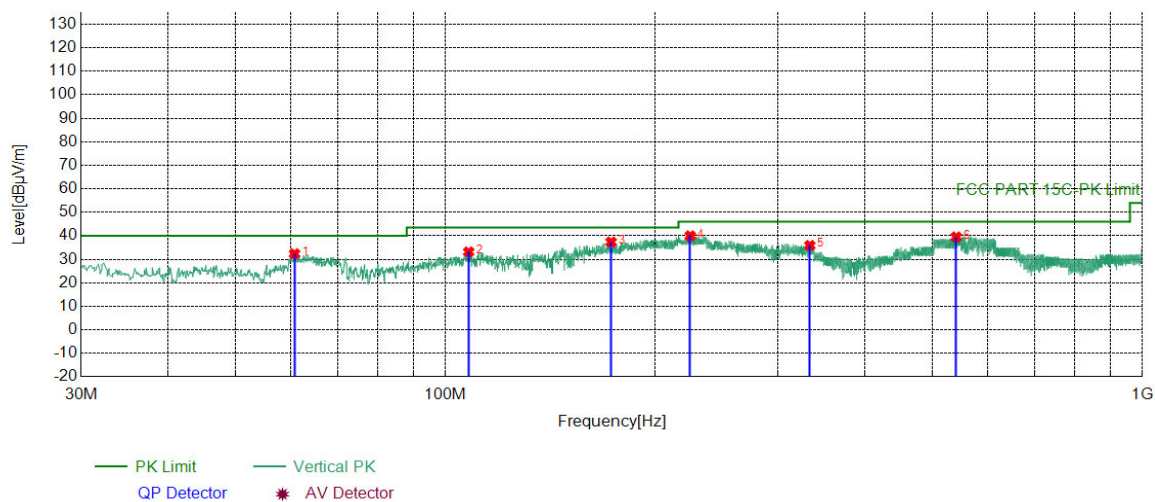
During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes, only the worst case mode a was recorded in the report.

Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	68.5129	-20.46	55.12	34.66	40.00	5.34	PASS	Horizontal	Peak
2	104.1154	-18.39	53.77	35.38	43.50	8.12	PASS	Horizontal	Peak
3	159.0229	-21.20	59.43	38.23	43.50	5.27	PASS	Horizontal	Peak
4	236.8247	-16.84	58.68	41.84	46.00	4.16	PASS	Horizontal	Peak
5	328.9839	-14.74	54.58	39.84	46.00	6.16	PASS	Horizontal	Peak
6	558.7029	-9.59	48.70	39.11	46.00	6.89	PASS	Horizontal	Peak

Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	60.7521	-18.66	51.03	32.37	40.00	7.63	PASS	Vertical	Peak
2	107.9958	-18.39	51.55	33.16	43.50	10.34	PASS	Vertical	Peak
3	172.8953	-20.27	57.63	37.36	43.50	6.14	PASS	Vertical	Peak
4	224.6015	-17.15	57.13	39.98	46.00	6.02	PASS	Vertical	Peak
5	333.4463	-14.61	50.51	35.90	46.00	10.10	PASS	Vertical	Peak
6	540.8531	-10.02	49.54	39.52	46.00	6.48	PASS	Vertical	Peak

Radiated Spurious Emission above 1GHz:

Mode:			Transmitting			Channel:		2405 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1301.6302	1.07	44.80	45.87	74.00	28.13	Pass	H	PK
2	1794.0794	3.26	43.57	46.83	74.00	27.17	Pass	H	PK
3	4810.1207	-16.23	63.99	47.76	54.00	6.24	Pass	H	AV
4	4811.1207	-16.23	72.28	56.05	74.00	17.95	Pass	H	PK
5	7213.2809	-11.82	56.18	44.36	74.00	29.64	Pass	H	PK
6	10275.4850	-6.62	53.05	46.43	74.00	27.57	Pass	H	PK
7	14391.7595	1.08	50.10	51.18	74.00	22.82	Pass	H	PK
8	1434.0434	1.42	42.67	44.09	74.00	29.91	Pass	V	PK
9	1915.4915	4.11	41.44	45.55	74.00	28.45	Pass	V	PK
10	4809.1206	-16.23	74.91	58.68	74.00	15.32	Pass	V	PK
11	4810.1207	-16.23	65.08	48.85	54.00	5.15	Pass	V	AV
12	7216.2811	-11.82	61.86	50.04	74.00	23.96	Pass	V	PK
13	10746.5164	-6.36	52.60	46.24	74.00	27.76	Pass	V	PK
14	14353.7569	0.45	50.55	51.00	74.00	23.00	Pass	V	PK

Mode:			Transmitting			Channel:		2440 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1295.6296	1.05	44.93	45.98	74.00	28.02	Pass	H	PK
2	1787.6788	3.24	44.11	47.35	74.00	26.65	Pass	H	PK
3	4879.1253	-16.21	72.35	56.14	74.00	17.86	Pass	H	PK
4	4880.1253	-16.21	63.48	47.27	54.00	6.73	Pass	H	AV
5	7658.3106	-11.12	54.21	43.09	74.00	30.91	Pass	H	PK
6	11009.5340	-6.16	52.41	46.25	74.00	27.75	Pass	H	PK
7	14405.7604	1.14	48.75	49.89	74.00	24.11	Pass	H	PK
8	1420.4420	1.41	42.79	44.20	74.00	29.80	Pass	V	PK
9	1842.0842	3.60	41.80	45.40	74.00	28.60	Pass	V	PK
10	4880.1253	-16.21	64.93	48.72	54.00	5.28	Pass	V	AV
11	4881.1254	-16.21	73.80	57.59	74.00	16.41	Pass	V	PK
12	7321.2881	-11.65	58.59	46.94	74.00	27.06	Pass	V	PK
13	11178.5452	-6.38	52.87	46.49	74.00	27.51	Pass	V	PK
14	14364.7577	0.63	49.62	50.25	74.00	23.75	Pass	V	PK

Mode:			Transmitting			Channel:		2480 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1300.8301	1.06	45.44	46.50	74.00	27.50	Pass	H	PK
2	1756.8757	3.13	43.40	46.53	74.00	27.47	Pass	H	PK
3	4960.1307	-15.97	64.92	48.95	54.00	5.05	Pass	H	AV
4	4961.1307	-15.97	73.33	57.36	74.00	16.64	Pass	H	PK
5	7441.2961	-11.34	55.51	44.17	74.00	29.83	Pass	H	PK
6	10376.4918	-6.32	52.19	45.87	74.00	28.13	Pass	H	PK
7	13682.7122	-1.75	51.89	50.14	74.00	23.86	Pass	H	PK
8	1160.4160	0.82	43.74	44.56	74.00	29.44	Pass	V	PK
9	1816.0816	3.40	42.42	45.82	74.00	28.18	Pass	V	PK
10	4961.1307	-15.97	73.56	57.59	74.00	16.41	Pass	V	PK
11	7441.2961	-11.34	56.79	45.45	74.00	28.55	Pass	V	PK
12	11759.5840	-6.17	53.85	47.68	74.00	26.32	Pass	V	PK
13	14375.7584	0.82	49.27	50.09	74.00	23.91	Pass	V	PK

Remark:

- 3) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} + \text{Factor}$$

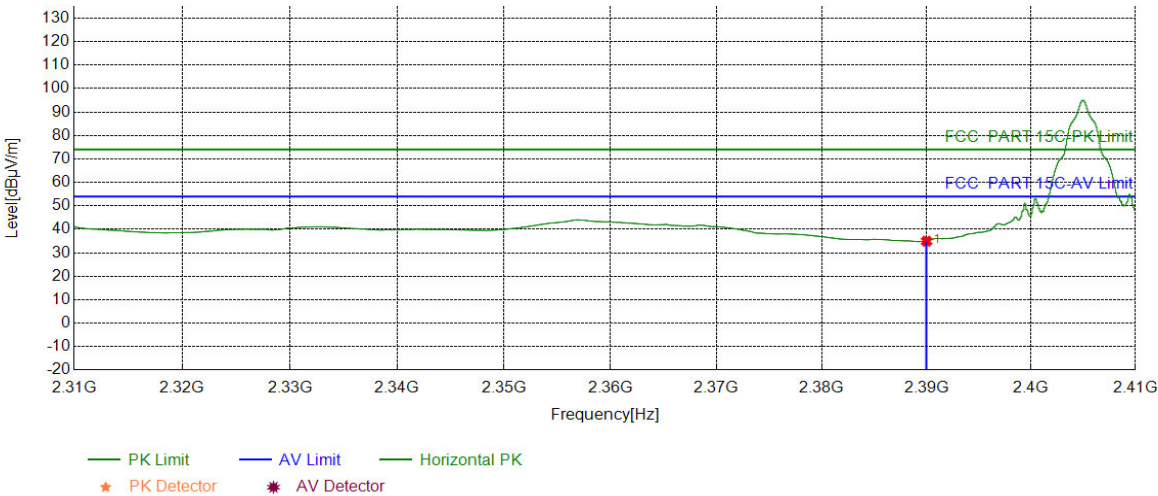
$$\text{Factor} = \text{Antenna Factor} + \text{Cable Factor} - \text{Preamplifier Factor}$$
- 4) Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

Restricted bands:

Test plot as follows:

Mode:	Transmitting	Channel:	2405 MHz
Remark:	PK		

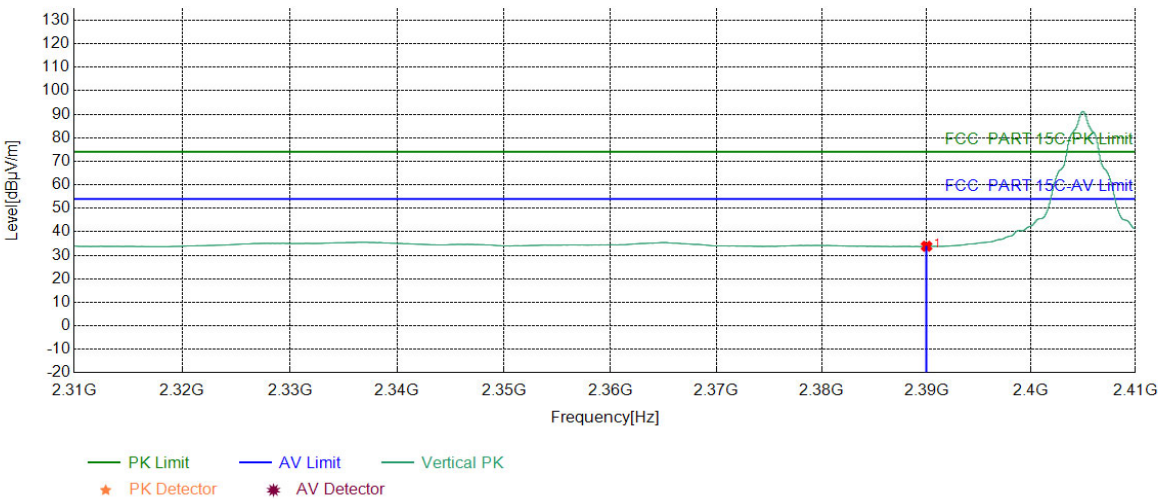
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	5.77	29.18	34.95	54.00	19.05	PASS	Horizontal	PK

Mode:	Transmitting	Channel:	2405 MHz
Remark:	PK		

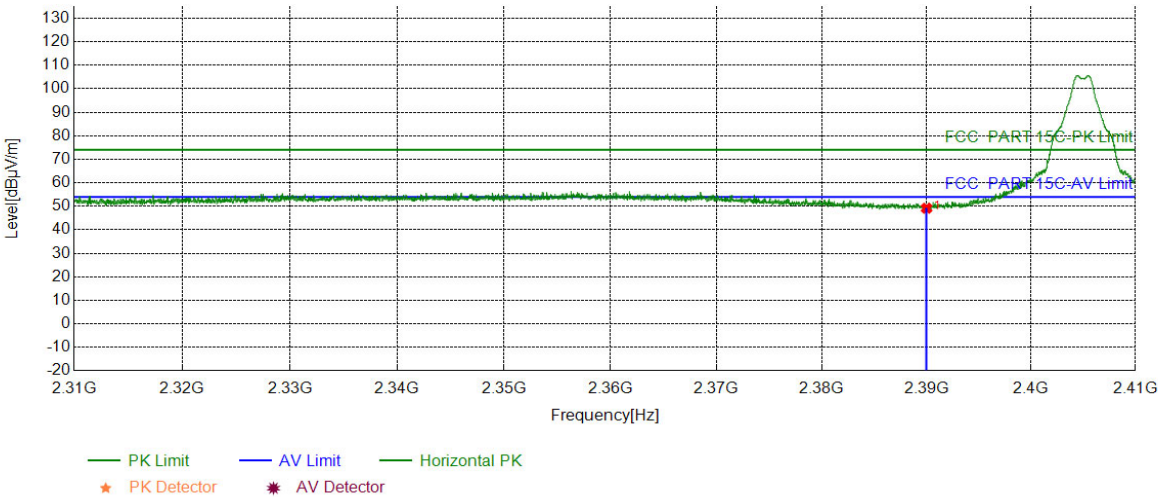
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	5.77	28.08	33.85	54.00	20.15	PASS	Vertical	PK

Mode:	Transmitting	Channel:	2405 MHz
Remark:	AV		

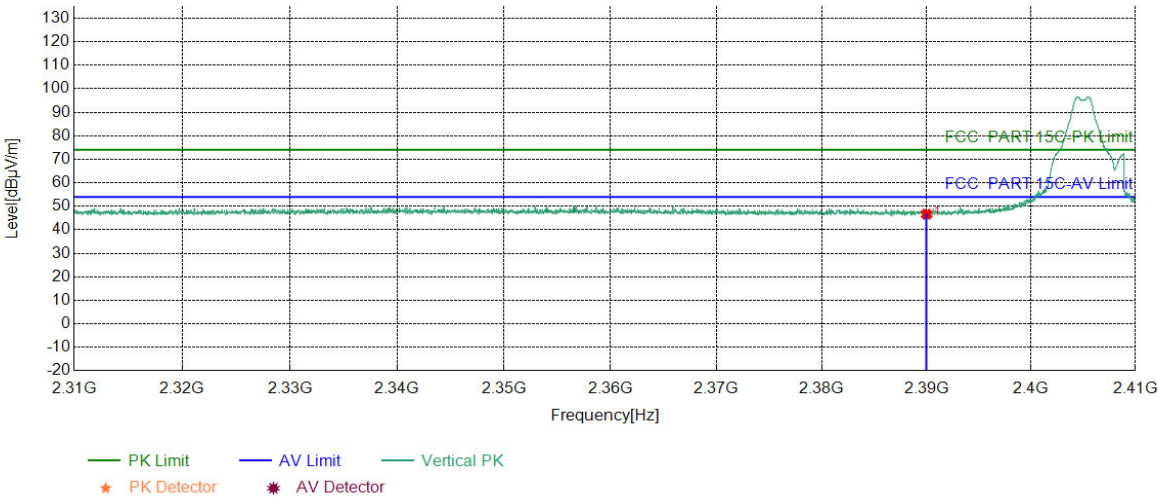
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	5.77	43.41	49.18	74.00	24.82	PASS	Horizontal	AV

Mode:	Transmitting	Channel:	2405 MHz
Remark:	AV		

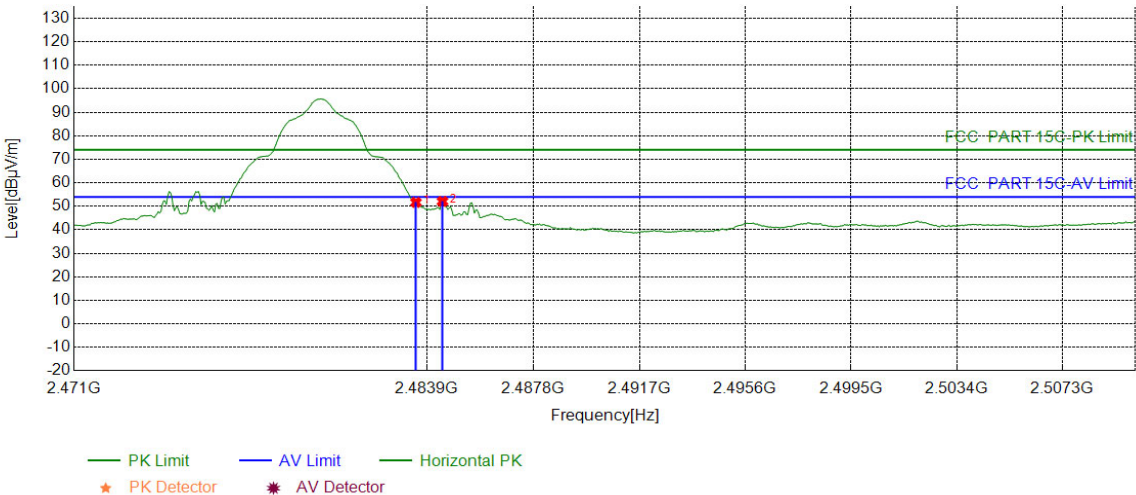
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	5.77	40.88	46.65	74.00	27.35	PASS	Vertical	AV

Mode:	Transmitting	Channel:	2480 MHz
Remark:	PK		

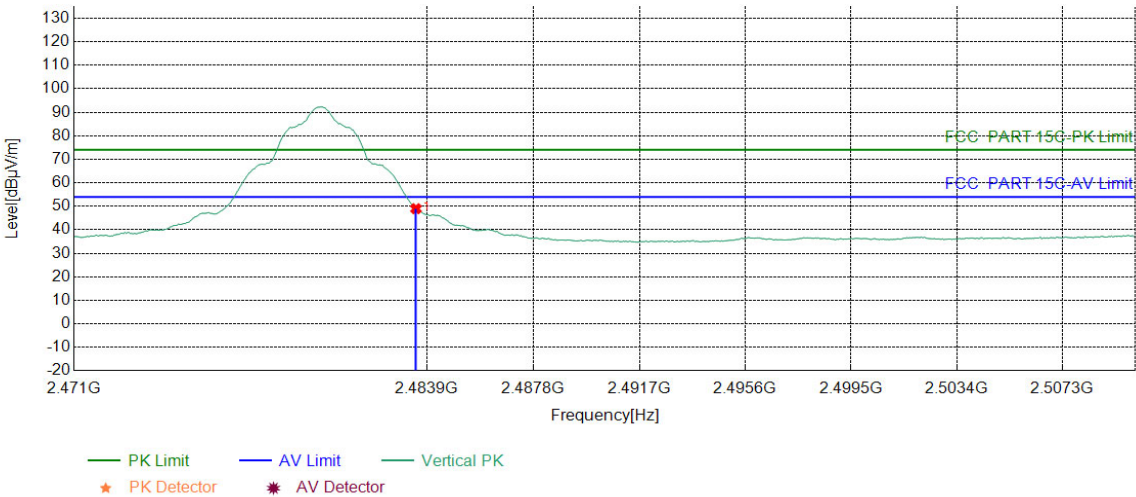
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.5000	6.57	45.08	51.65	54.00	2.35	PASS	Horizontal	PK
2	2484.4718	6.58	45.49	52.07	54.00	1.93	PASS	Horizontal	PK

Mode:	Transmitting	Channel:	2480 MHz
Remark:	PK		

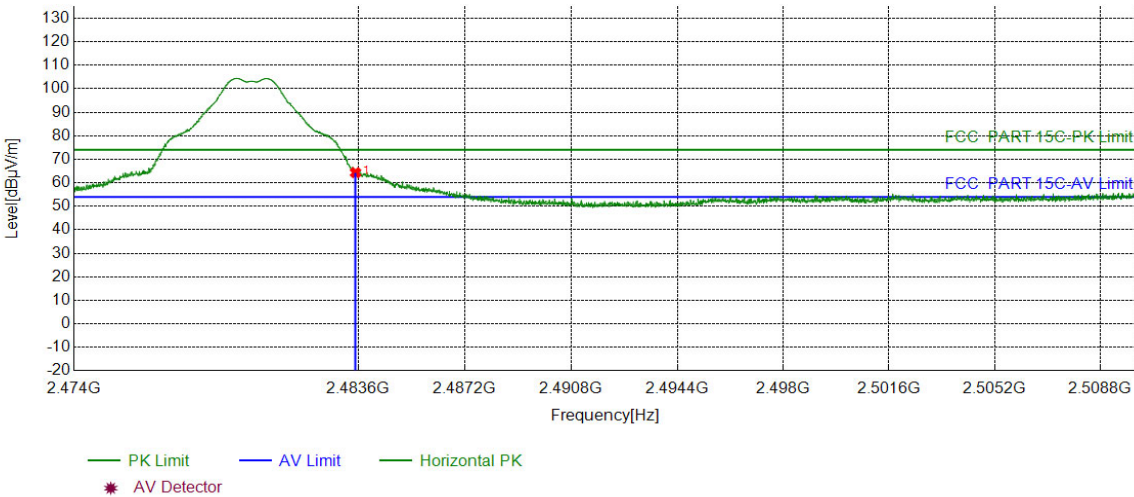
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.5000	6.57	42.41	48.98	54.00	5.02	PASS	Vertical	PK

Mode:	Transmitting	Channel:	2480 MHz
Remark:	AV		

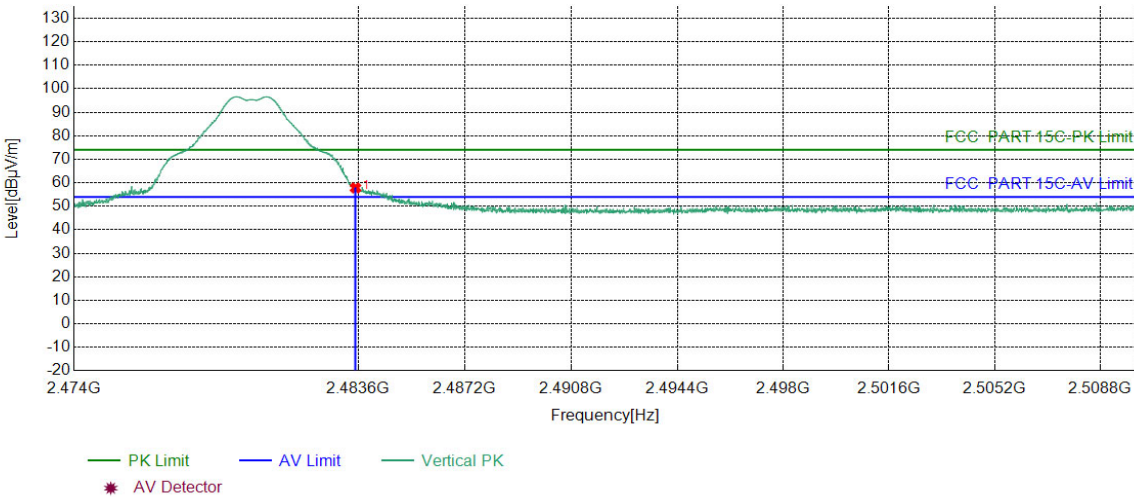
Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.5000	6.57	57.76	64.33	74.00	9.67	PASS	Horizontal	AV

Mode:	Transmitting	Channel:	2480 MHz
Remark:	AV		

Test Graph



NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.5000	6.57	51.25	57.82	74.00	16.18	PASS	Vertical	AV

Note:
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Factor
Factor=Antenna Factor + Cable Factor – Preamplifier Factor

7 Appendix A

Refer to Appendix: Zigbee of EED32N80817501.