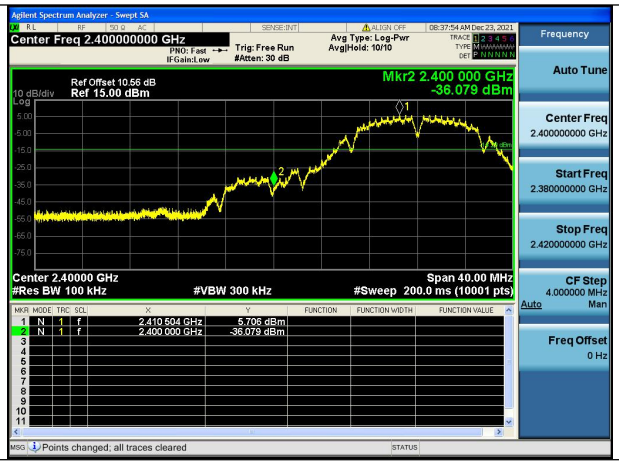
Band edge measurement

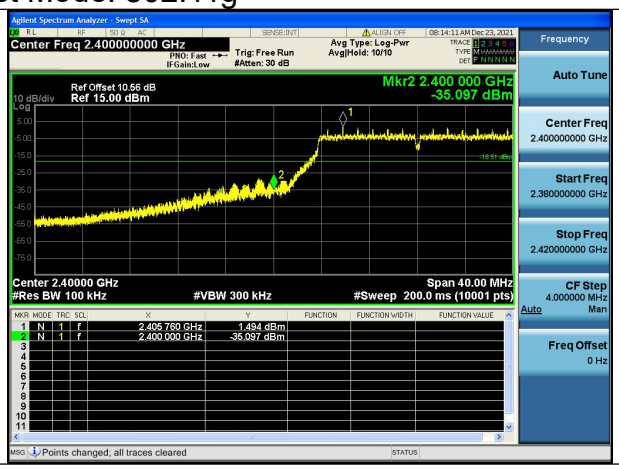
Test Mode: 802.11b



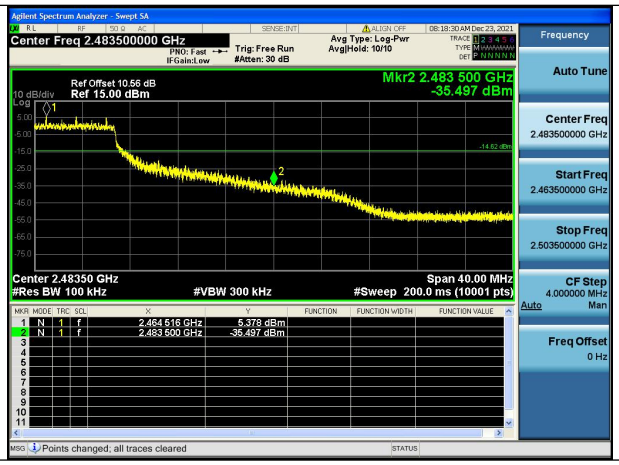
Test Mode:802.11b 2412MHz Chain0

Test Mode:802.11b 2462MHz Chain0

Test Mode: 802.11g

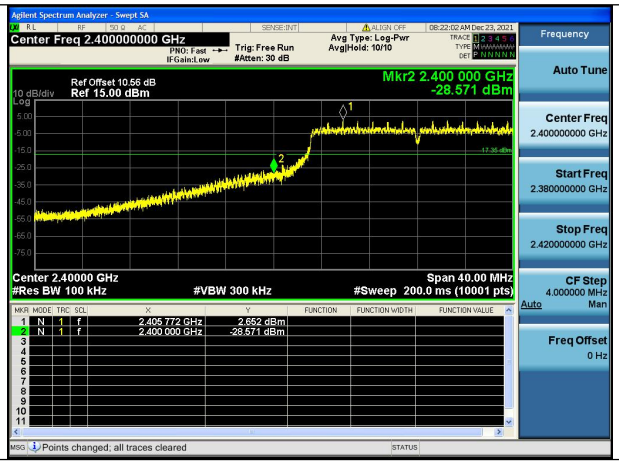


Test Mode:802.11g 2412MHz Chain0

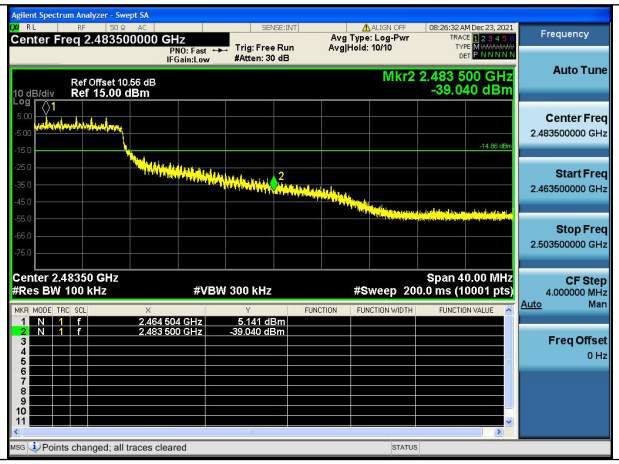


Test Mode:802.11g 2462MHz Chain0

Test Mode: 802.11n HT20



Test Mode:802.11n HT20 2412MHz Chain0



Test Mode:802.11n HT20 2462MHz Chain0

APPENDIX B – TEST DATA OF RADIATED EMISSION

Radiated Emission Band Edge

Note: The scanned graph represents the maximum of both horizontal and vertical polarizations and is not a single horizontal or vertical polarization scan.

Note：There were no emissions above 18GHz found within 20dB of the limit. Thus the test result was not reported according to §15.31（o）

The measurement results are obtained as described below:
Measure Level = Reading Level + Cable loss + Antenna factor Sample calculation: (49.68 dBuV/m) = (83.68 dBμV) + (8.90 dB) + (25.10 dB/m), the corresponding frequency is 2412MHz.

- 802.11b

Carrier Frequency (MHz): 2412
Channel No.: 1
Test Mode: 802.11b
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2412.0	49.68	83.68	N/A	N/A	8.90	25.10
2390.0	8.99	42.99	-31.01	74.00	8.90	25.10

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2412.0	41.01	75.01	N/A	N/A	8.90	25.10
2390.0	15.75	49.75	-4.25	54.00	8.90	25.10

Carrier Frequency (MHz): 2462
Channel No.: 11
Test Mode: 802.11b

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2462.0	50.18	84.18	N/A	N/A	8.90	25.10
2483.5	24.21	58.21	-15.79	74.00	8.90	25.10

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)

2462.0	47.47	81.47	N/A	N/A	8.90	25.10
2483.5	1.78	35.78	-18.22	54.00	8.90	25.10

- 802.11g

Carrier Frequency (MHz): 2412
Channel No.: 1
Test Mode: 802.11g

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2412.0	50.91	84.91	N/A	N/A	8.90	25.10
2390.0	31.21	65.21	-8.79	74.00	8.90	25.10

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2412.0	40.23	74.23	N/A	N/A	8.90	25.10
2390.0	14.41	48.41	-5.59	54.00	8.90	25.10

Carrier Frequency (MHz): 2462
Channel No.: 11
Test Mode: 802.11g
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2462.0	52.38	86.38	N/A	N/A	8.90	25.10
2483.5	35.69	69.69	-4.31	74.00	8.90	25.10

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2462.0	42.78	76.78	N/A	N/A	8.90	25.10
2483.5	18.34	52.34	-1.66	54.00	8.90	25.10

- 802.11n (HT20)

Carrier Frequency (MHz): 2412
Channel No.: 1
Test Mode: 802.11n (HT20)

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2412.0	50.47	84.47	N/A	N/A	8.90	25.10
2390.0	30.07	64.07	-9.93	74.00	8.90	25.10

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2412.0	39.25	73.25	N/A	N/A	8.90	25.10
2390.0	15.45	49.45	-4.55	54.00	8.90	25.10

Carrier Frequency (MHz): 2462
Channel No.: 11
Test Mode: 802.11n (HT20)
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2462.0	53.77	87.77	N/A	N/A	8.90	25.10
2483.5	22.50	56.50	-17.50	74.00	8.90	25.10

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2462.0	42.33	76.33	N/A	N/A	8.90	25.10
2483.5	21.39	55.39	1.39	54.00	8.90	25.10

Sample Calculations：

Determining Spurious Emissions Levels

A “reference path loss” is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss. The measurement results are obtained as described below:

Below 1GHz：

QuasiPeak=Reading Value + A_{Rpl}

Above 1GHz:

MaxPeak=Reading MaxPeak + A_{Rpl}

OR

Average=Reading Average + A_{Rpl}

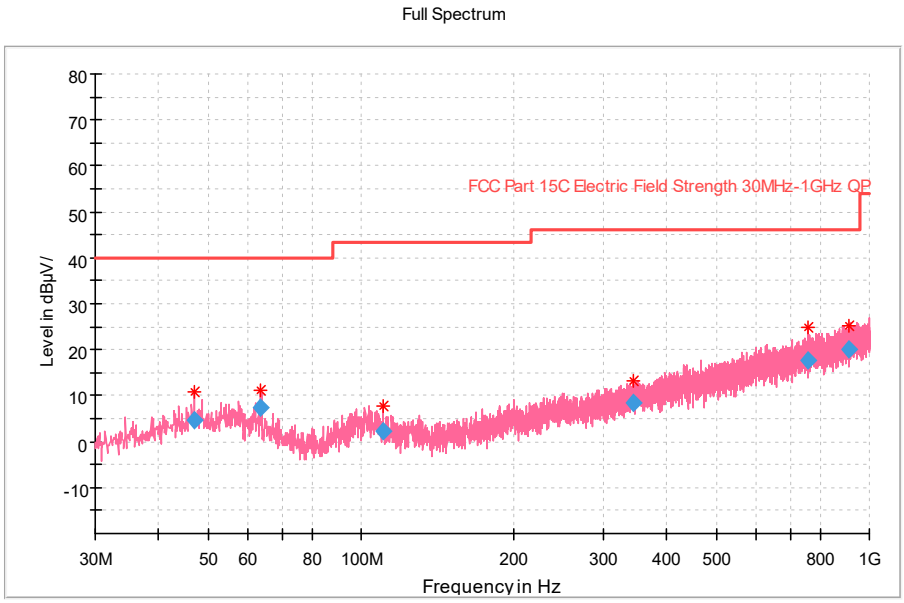
Sample calculation: (4.49 dBμV/m) = (24.09 dBμV) + (-19.60 dB/m), the corresponding frequency is 46.975MHz.

The worst case attitude：The mobile lay down.

- 802.11b

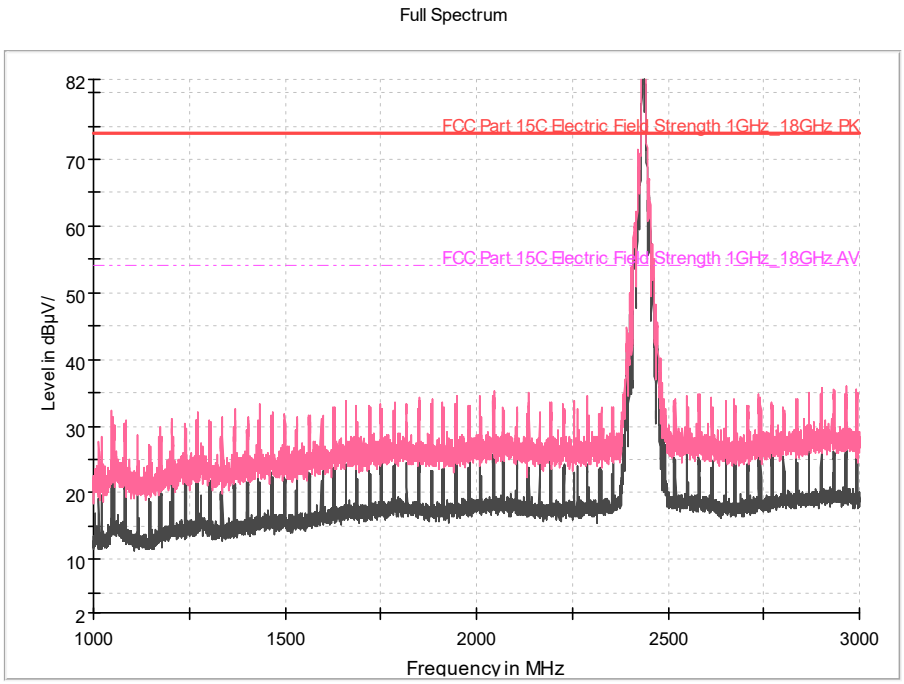
Spurious Radiated Emissions from 30MHz to 1GHz:

CH Middle (No.6)

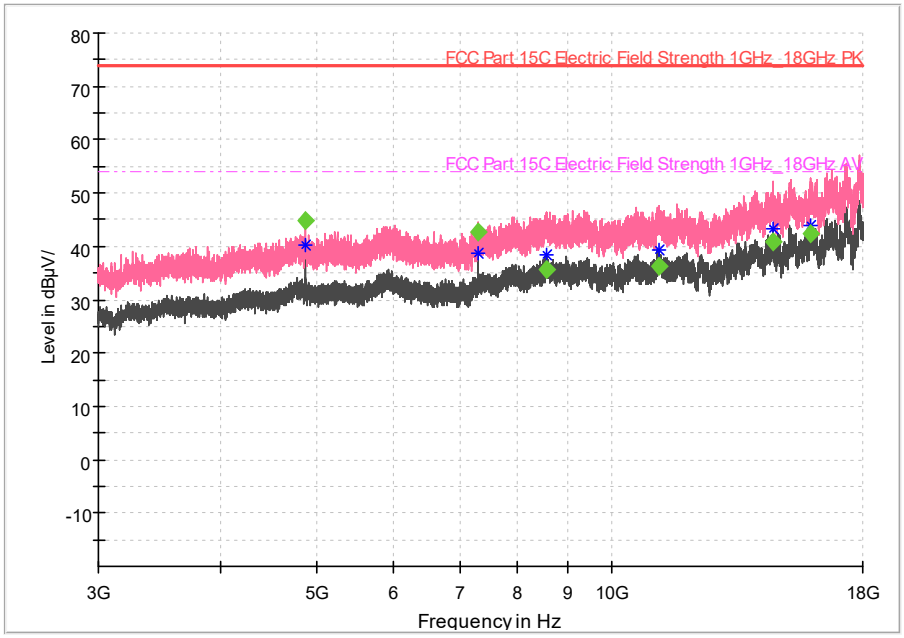


Frequency (MHz)	Reading (dBuV)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
46.975	24.09	4.49	40.00	35.51	-19.60	Vertical
63.368	28.78	7.28	40.00	32.72	-21.50	Vertical
110.607	23.41	2.21	43.50	41.29	-21.20	Vertical
343.892	23.45	8.45	46.00	37.55	-15.00	Vertical
758.955	22.93	17.53	46.00	28.47	-5.40	Vertical
910.857	22.43	19.93	46.00	26.07	-2.50	Vertical

Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.6)



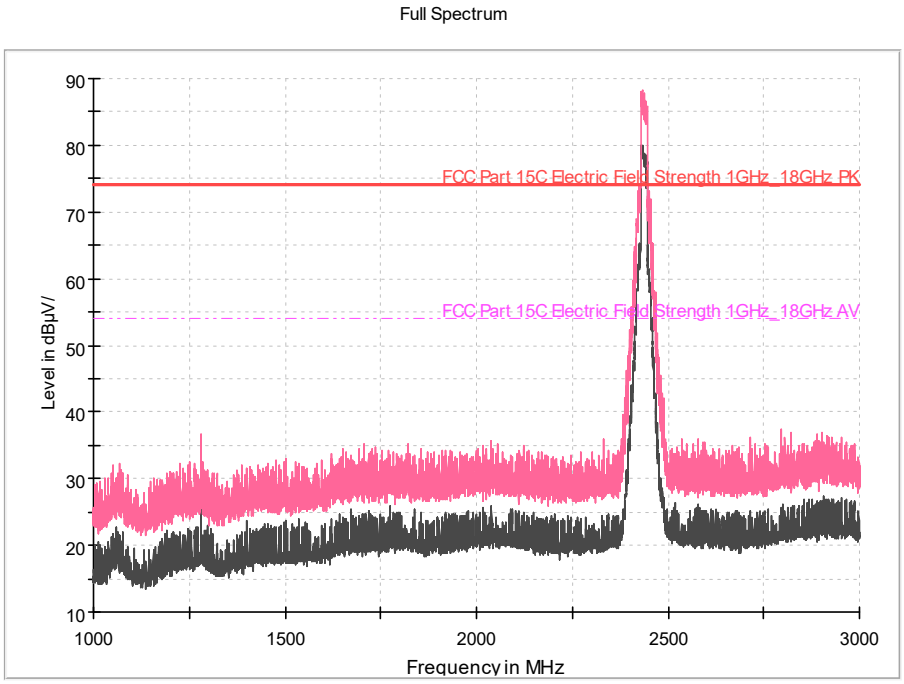
Full Spectrum

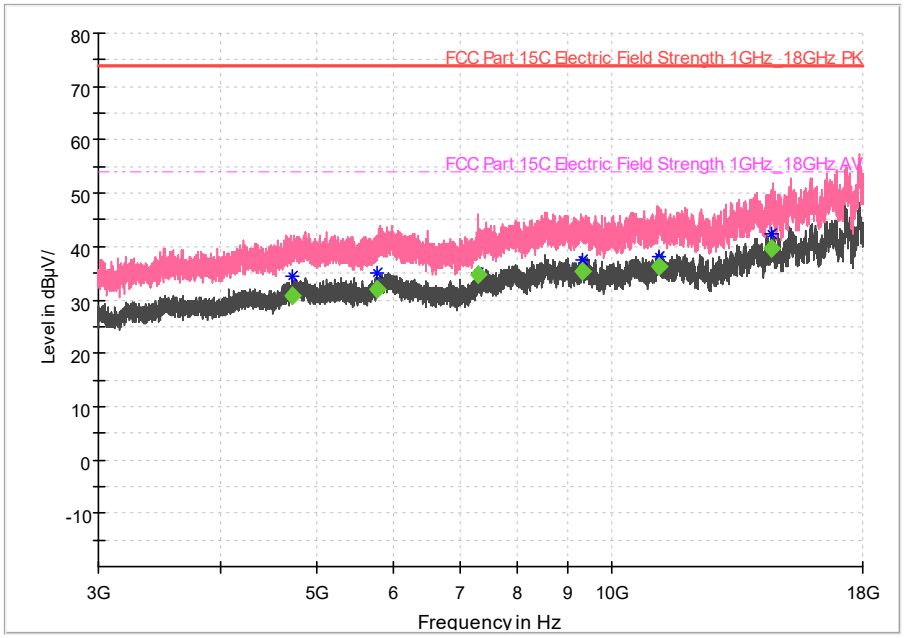


Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
4874.000	---	66.45	---	44.85	54.00	9.15	-21.60	Vertical
7310.000	---	63.86	---	42.56	54.00	11.44	-21.30	Vertical
8565.000	---	55.67	---	35.67	54.00	18.33	-20.00	Vertical
11167.000	---	53.74	---	36.34	54.00	17.66	-17.40	Vertical
14594.000	---	54.23	---	40.73	54.00	13.27	-13.50	Vertical
15945.500	---	56.29	---	42.39	54.00	11.61	-13.90	Vertical

- 802.11g

Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.6)



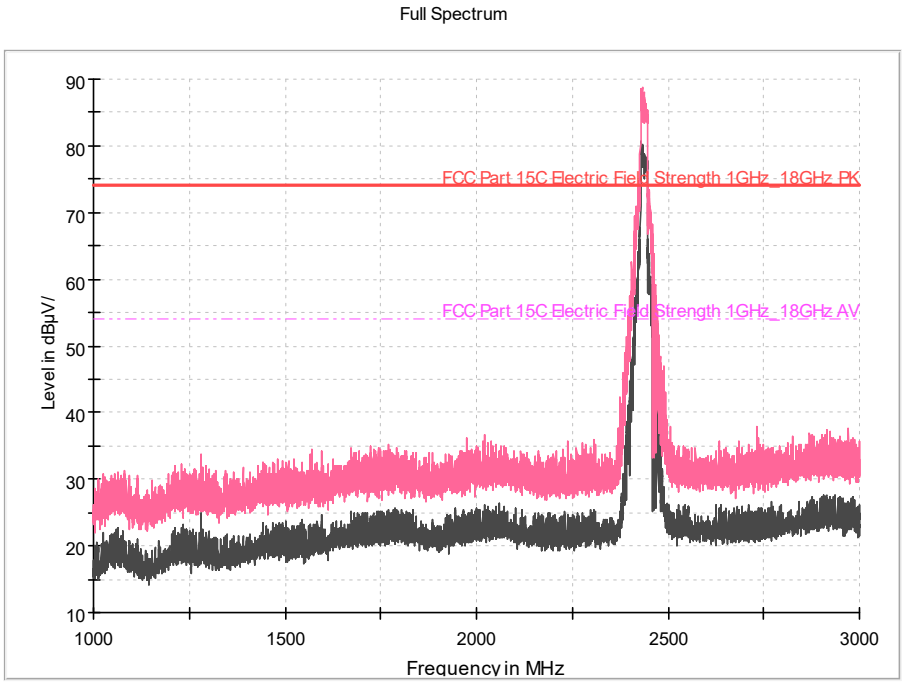


Frequency	Reading MaxPeak	Reading Average	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity

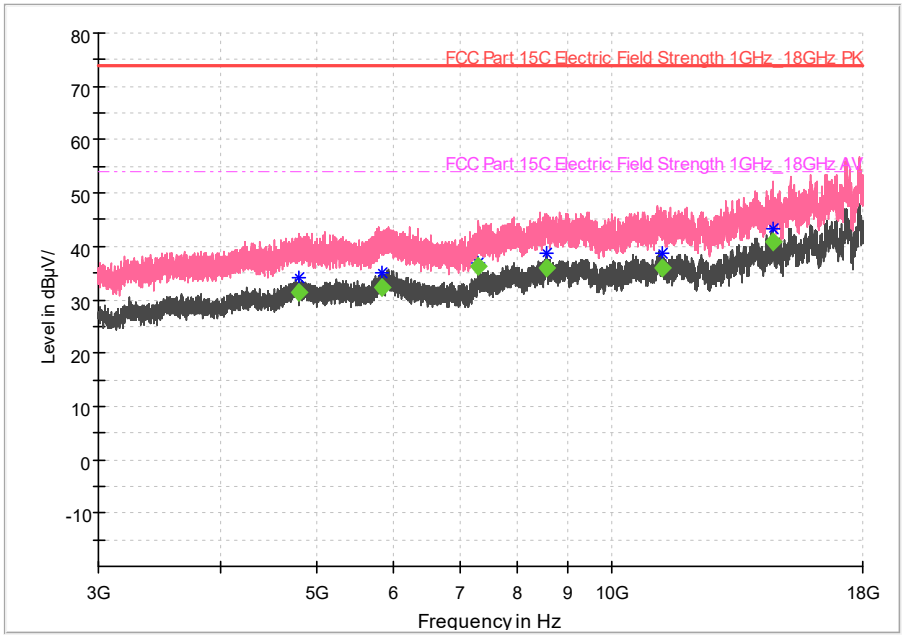
(MHz)	(dBuV)	(dBuV)						
4730.000	---	51.95	---	30.75	54.00	23.25	-21.20	Vertical
5765.500	---	52.19	---	31.99	54.00	22.01	-20.20	Vertical
7312.500	---	56.03	---	34.73	54.00	19.27	-21.30	Vertical
9313.000	---	55.04	---	35.34	54.00	18.66	-19.70	Vertical
11154.000	---	53.79	---	36.29	54.00	17.71	-17.50	Vertical
14554.000	---	53.12	---	39.72	54.00	14.28	-13.40	Vertical

- 802.11n (HT20)

Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.6)

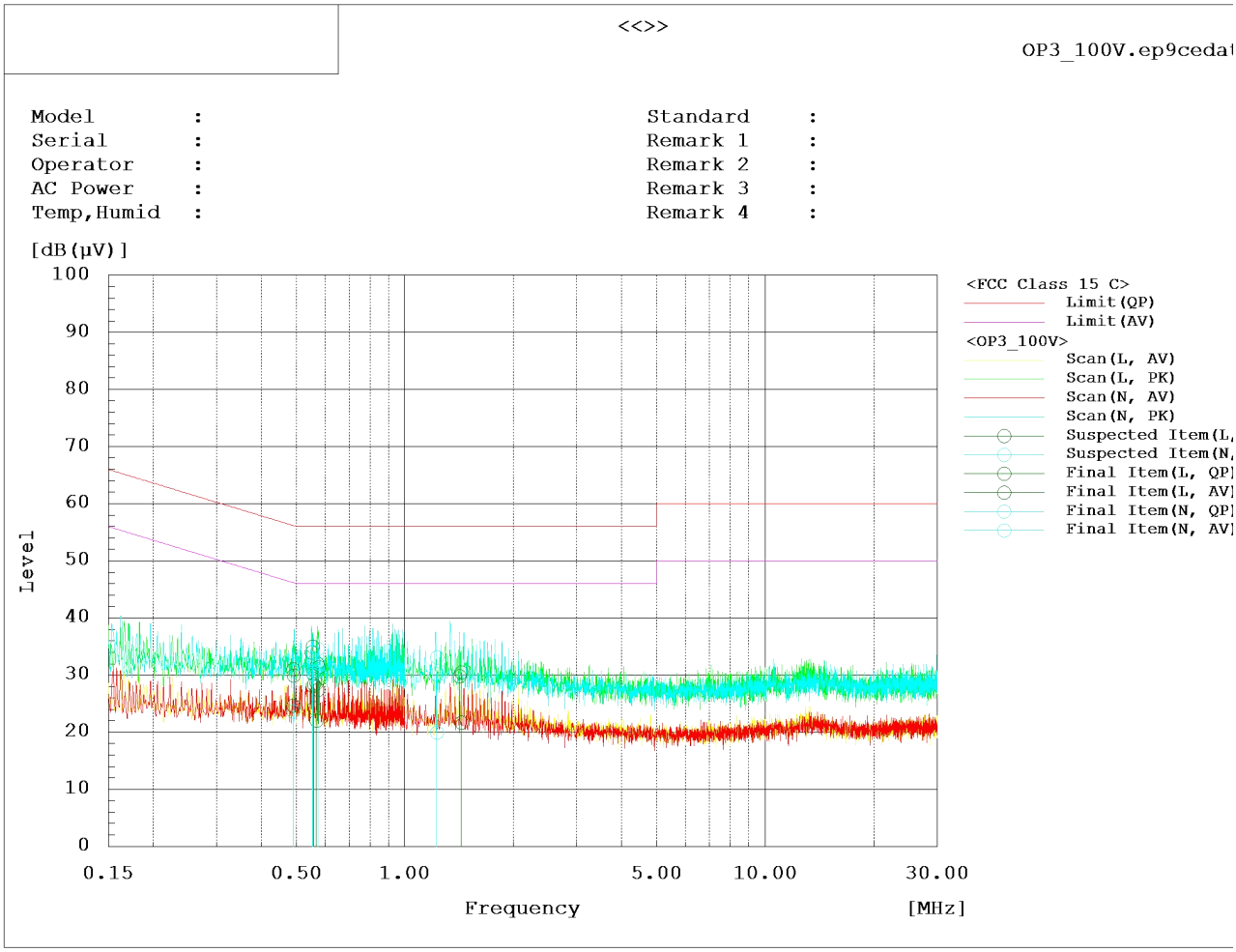


Full Spectrum

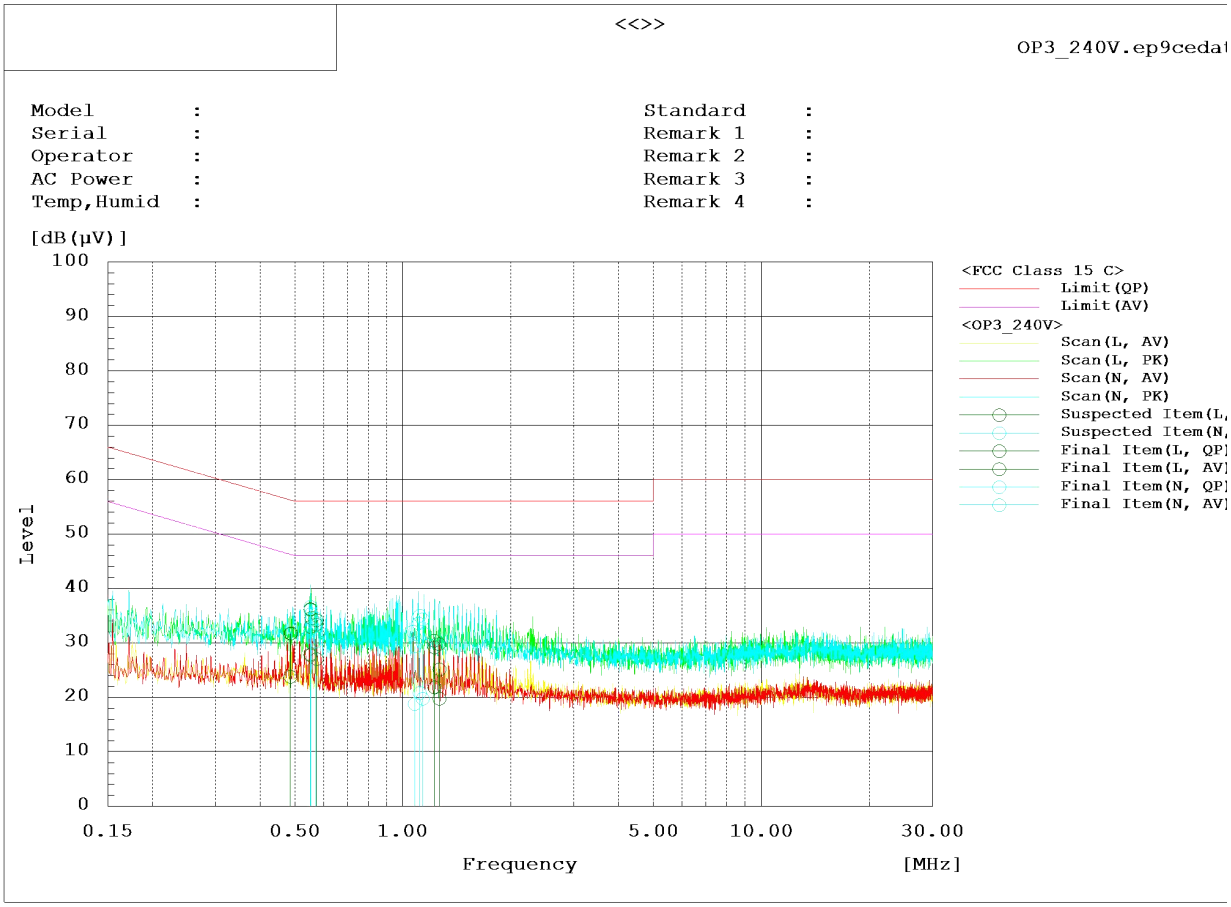


Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
4793.000	---	52.21	---	31.31	54.00	22.69	-20.90	Vertical
5824.000	---	52.43	---	32.43	54.00	21.57	-20.00	Vertical
7309.500	---	57.60	---	36.30	54.00	17.70	-21.30	Vertical
8572.000	---	55.82	---	35.82	54.00	18.18	-20.00	Vertical
11231.500	---	53.17	---	35.87	54.00	18.13	-17.30	Vertical
14580.500	---	54.50	---	41.00	54.00	13.00	-13.50	Vertical

AC Power line Conducted Emission



Range	Frequency	Line	Reading			Factor	Level			Limit	Limit			Margin			Pass/Fail
	MHz		dB(µV)			dB	dB(µV)			dB(µV)	dB(µV)			dB			
			QP	AV	PK		QP	AV	PK		QP	AV	PK	QP	AV	PK	
Band1	0.49	L	11.1	4.8		19.9	31	24.7			56.2	46.2		25.2	21.5		Pass
Band1	0.55	L	15.1	8.2		19.9	35	28.1			56	46		21	17.9		Pass
Band1	0.56	L	8.5	4.3		19.9	28.4	24.2			56	46		27.6	21.8		Pass
Band1	0.57	L	8.7	2.1		19.9	28.6	22			56	46		27.4	24		Pass
Band1	0.57	L	14.7	7.5		19.9	34.6	27.4			56	46		21.4	18.6		Pass
Band1	1.43	L	10.6	1.8		19.9	30.5	21.7			56	46		25.5	24.3		Pass
Band1	0.49	N	10.7	3.7		19.9	30.6	23.6			56.2	46.2		25.6	22.6		Pass
Band1	0.56	N	12.4	10		19.9	32.3	30.2			56	46		23.7	15.8		Pass
Band1	0.55	N	14.2	11		19.9	34.1	30.9			56	46		21.9	15.1		Pass
Band1	0.56	N	12.9	11		19.9	32.8	30.4			56	46		23.2	15.6		Pass
Band1	0.57	N	14.7	11		19.9	34.6	30.7			56	46		21.4	15.3		Pass
Band1	1.23	N	13.2	0		19.9	33.1	19.9			56	46		22.9	26.1		Pass



Range	Frequency	Line	Reading			Factor	Level			Limit	Limit			Margin			Pass/Fai
	MHz		dB(µV)			dB	dB(µV)			dB(µV)	dB(µV)			dB			
			QP	AV	PK		QP	AV	PK		QP	AV	PK	QP	AV	PK	
Band1	0.56	N	15.4	13		19.9	35.3	32.7			56	46		20.7	13.3		Pass
Band1	0.55	N	16.7	12		19.9	36.6	32.3			56	46		19.4	13.7		Pass
Band1	0.57	N	14.5	10		19.9	34.4	30.3			56	46		21.6	15.7		Pass
Band1	1.08	N	9.4	-1.1		19.9	29.3	18.8			56	46		26.7	27.2		Pass
Band1	1.11	N	15.1	0.9		19.9	35	20.8			56	46		21	25.2		Pass
Band1	1.13	N	14.4	-0.1		19.9	34.3	19.8			56	46		21.7	26.2		Pass
Band1	0.49	L	11.8	3.9		19.9	31.7	23.8			56.2	46.2		24.5	22.4		Pass
Band1	0.55	L	16.3	7.8		19.9	36.2	27.7			56	46		19.8	18.3		Pass
Band1	0.55	L	16.3	8		19.9	36.2	27.9			56	46		19.8	18.1		Pass
Band1	0.57	L	14.3	7.1		19.9	34.2	27			56	46		21.8	19		Pass
Band1	1.22	L	9.3	2		19.9	29.2	21.9			56	46		26.8	24.1		Pass
Band1	1.26	L	5.2	-0.2		19.9	25.1	19.7			56	46		30.9	26.3		Pass

---End of the test report---