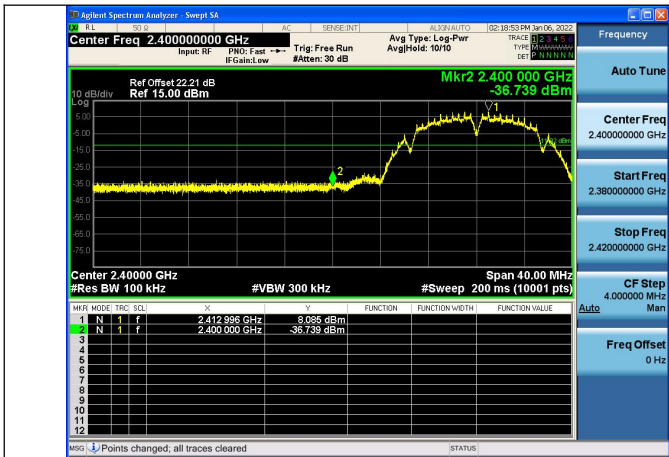
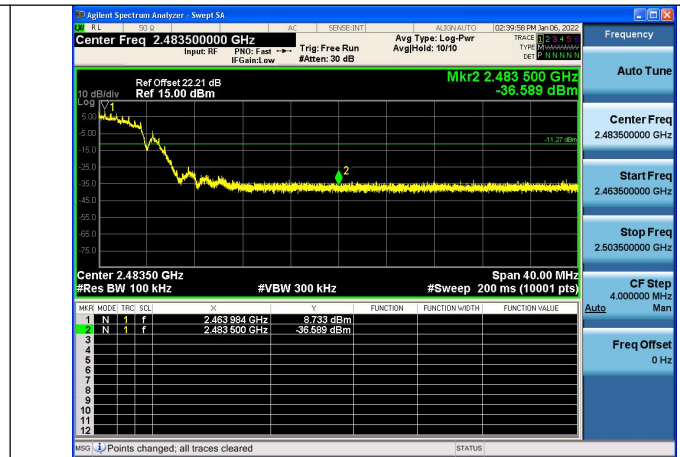


Band edge measurement

Test Mode: 802.11b

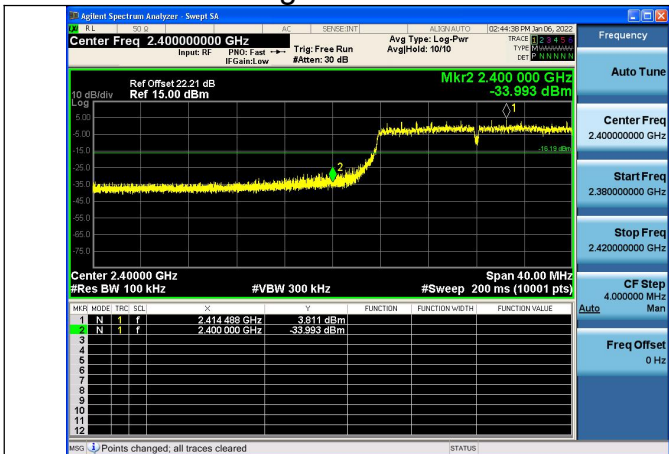


Test Mode:802.11b 2412MHz Chain0

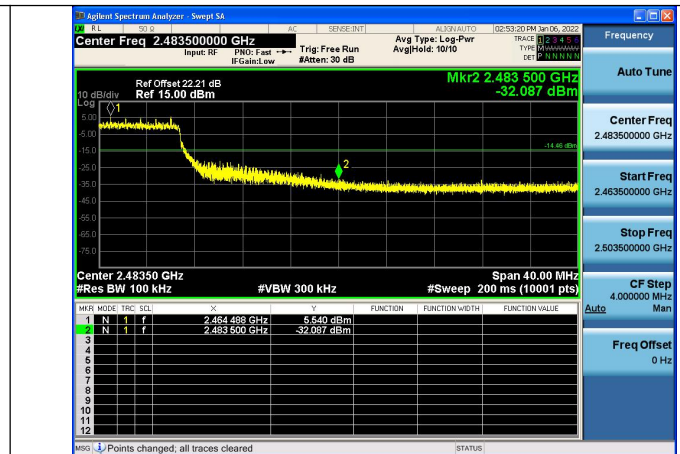


Test Mode:802.11b 2462MHz Chain0

Test Mode: 802.11g

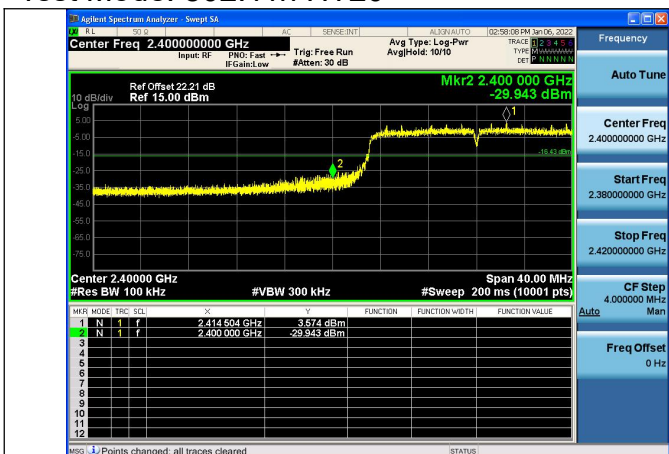


Test Mode:802.11g 2412MHz Chain0

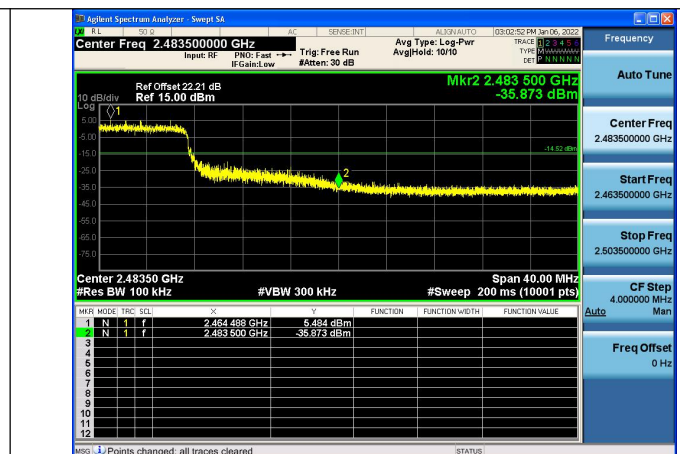


Test Mode:802.11g 2462MHz Chain0

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:
(89.00 dBuV/m) = (55.00 dBμV) + (8.90 dB) + (25.10 dB), 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	55.00	89.00	N/A	N/A	8.90	25.10
2390.0	14.49	48.49	-25.51	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	49.22	83.22	N/A	N/A	8.90	25.10
2390.0	-0.52	33.48	-20.52	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	53.02	87.02	N/A	N/A	8.90	25.10
2483.5	11.77	45.77	-28.23	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	39.80	73.80	N/A	N/A	8.90	25.10
2483.5	-0.43	33.57	-20.43	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	52.05	86.05	N/A	N/A	8.90	25.10
2390.0	23.10	57.10	-16.90	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	38.76	72.76	N/A	N/A	8.90	25.10
2390.0	-0.84	33.16	-20.84	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	52.82	86.82	N/A	N/A	8.90	25.10
2483.5	12.53	46.53	-27.47	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	39.78	73.78	N/A	N/A	8.90	25.10
2483.5	-0.44	33.56	-20.44	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	57.74	91.74	N/A	N/A	8.90	25.10
2390.0	29.89	63.89	-10.11	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	-0.73	33.27	-20.73	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	59.69	93.69	N/A	N/A	8.90	25.10
2483.5	38.48	72.48	-1.52	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	48.01	82.01	N/A	N/A	8.90	25.10
2483.5	17.89	51.89	-2.11	54.00	8.90	25.10

Radiated Emissions

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: $(6.06 \text{ dB}\mu\text{V/m}) = (27.16 \text{ dB}\mu\text{V}) + (-21.10 \text{ dB/m})$, the corresponding frequency is 108.861MHz.

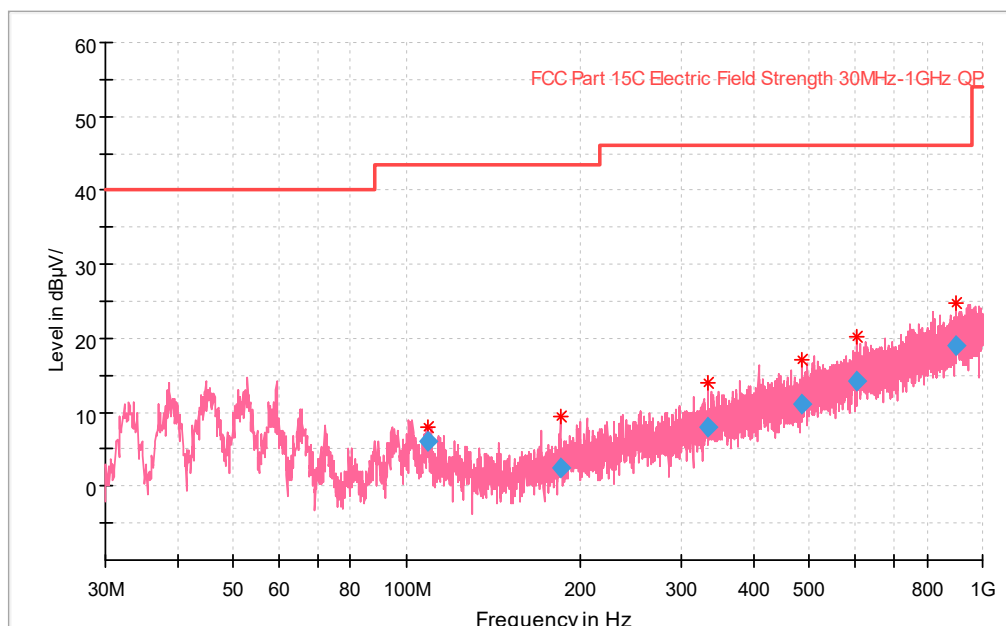
The worst case attitude: The mobile lay down.

● 802.11b

Spurious Radiated Emissions from 30MHz to 1GHz:

CH Middle (No.6)

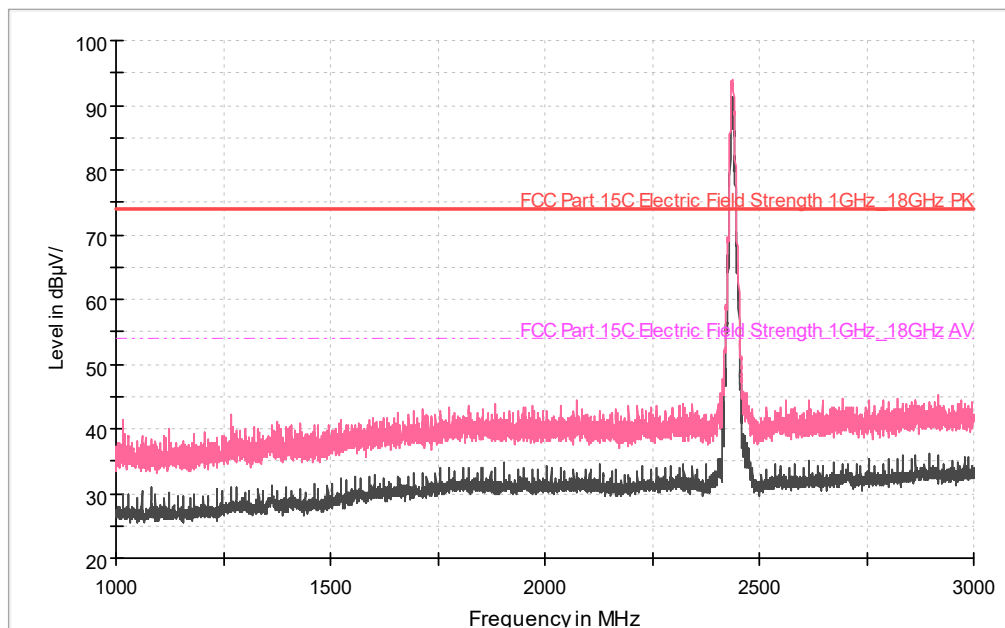
Full Spectrum



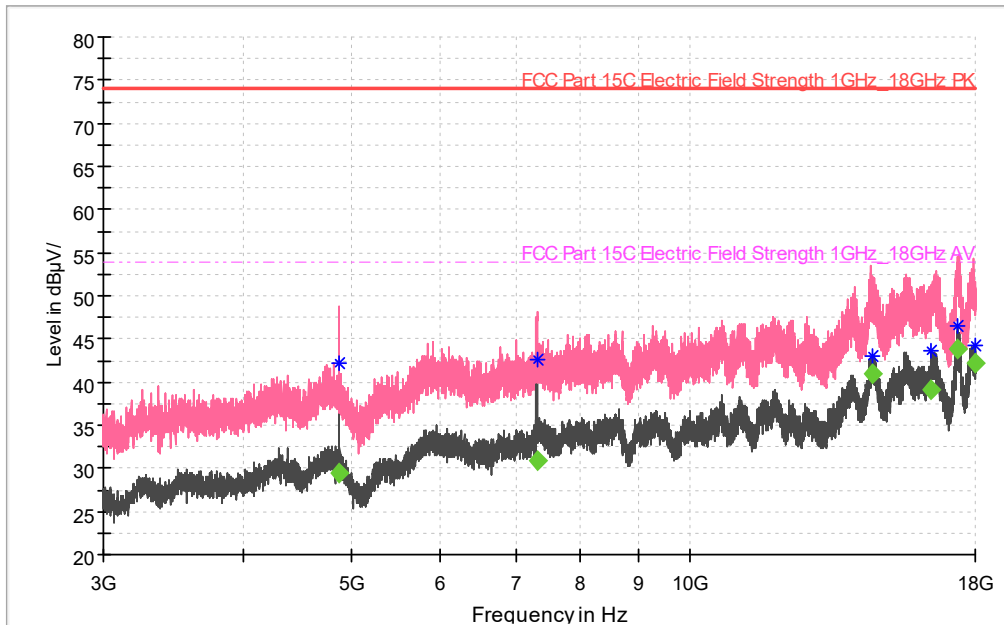
Frequency (MHz)	Reading (dBuV)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A _{Rpl} (dB)	Polarity
108.861	27.16	6.06	43.50	37.44	-21.10	Vertical
184.618	24.03	2.43	43.50	41.07	-21.60	Vertical
333.319	23.46	7.86	46.00	38.14	-15.60	Vertical
485.997	22.65	11.15	46.00	34.85	-11.50	Vertical
603.658	22.22	14.22	46.00	31.78	-8.00	Vertical
902.030	21.73	19.03	46.00	26.97	-2.70	Vertical

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

Full Spectrum



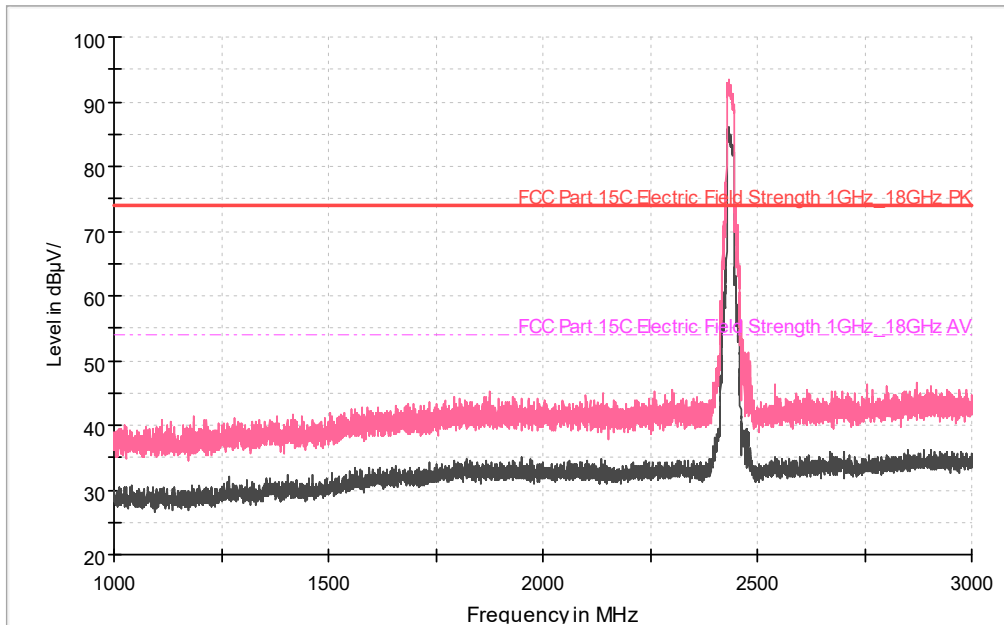
Full Spectrum



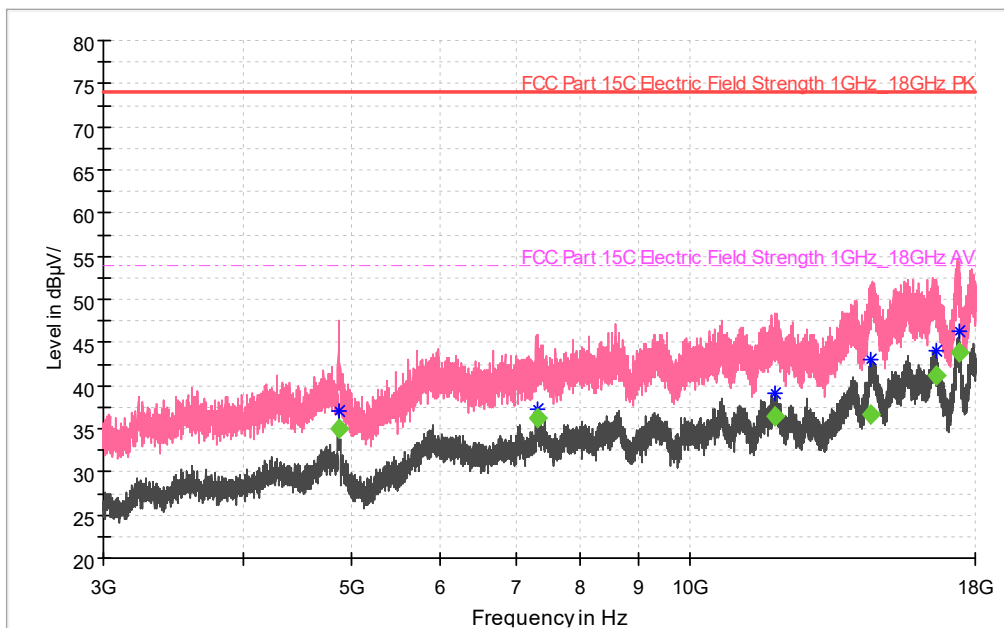
Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A _{Rpl} (dB)	Polarity
4873.333	---	51.00	---	29.40	54.00	24.60	-21.60	Vertical
7309.167	---	52.26	---	30.96	54.00	23.04	-21.30	Vertical
14552.500	---	54.32	---	40.92	54.00	13.08	-13.40	Vertical
16445.000	---	52.35	---	39.05	54.00	14.95	-13.30	Vertical
17369.167	---	55.25	---	43.75	54.00	10.25	-11.50	Vertical
17978.333	---	51.63	---	42.13	54.00	11.87	-9.50	Vertical

- 802.11g
Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.6)

Full Spectrum



Full Spectrum

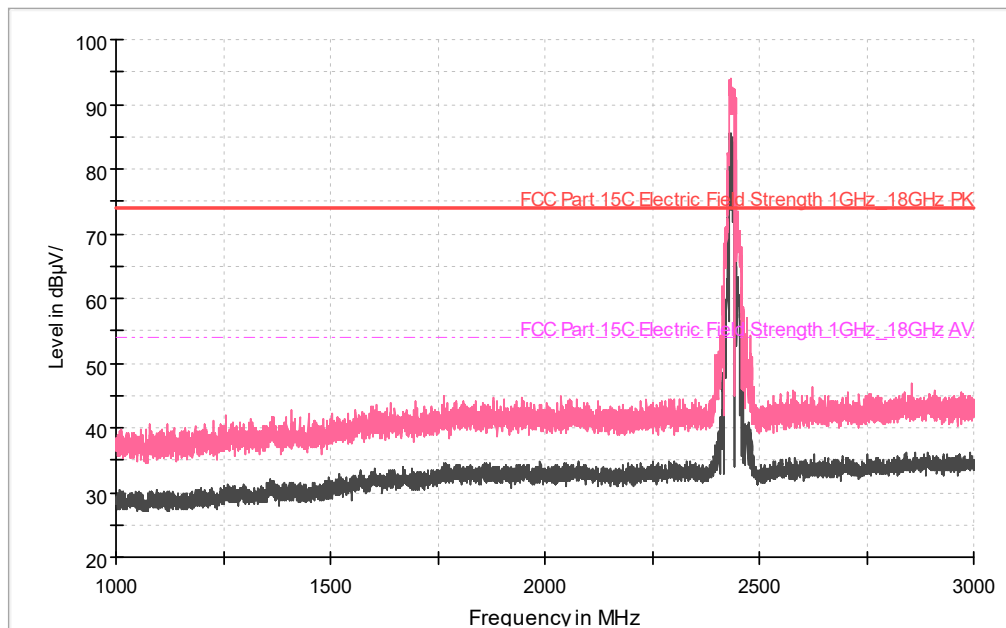


Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A _{Rpl} (dB)	Polarity
4866.667	---	56.48	---	34.98	54.00	19.02	-21.50	Vertical
7313.333	---	57.49	---	36.29	54.00	17.71	-21.20	Vertical
11910.833	---	53.04	---	36.44	54.00	17.56	-16.60	Vertical
14538.333	---	50.03	---	36.63	54.00	17.37	-13.40	Vertical
16589.167	---	54.54	---	41.24	54.00	12.76	-13.30	Vertical

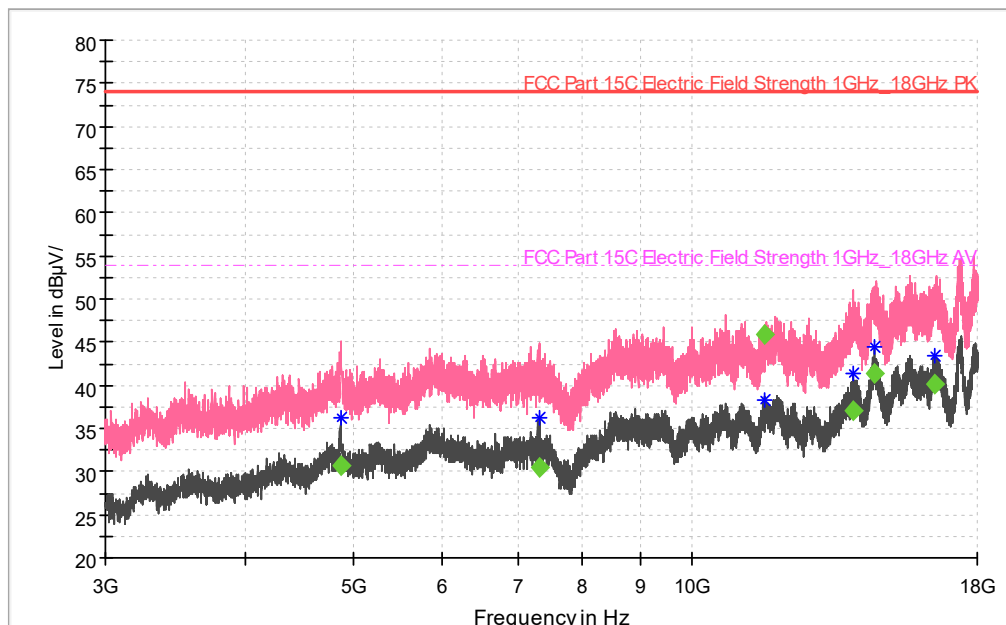
17402.500	---	55.30	---	43.80	54.00	10.20	-11.50	Vertical
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● 802.11n (HT20)
Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.6)

Full Spectrum

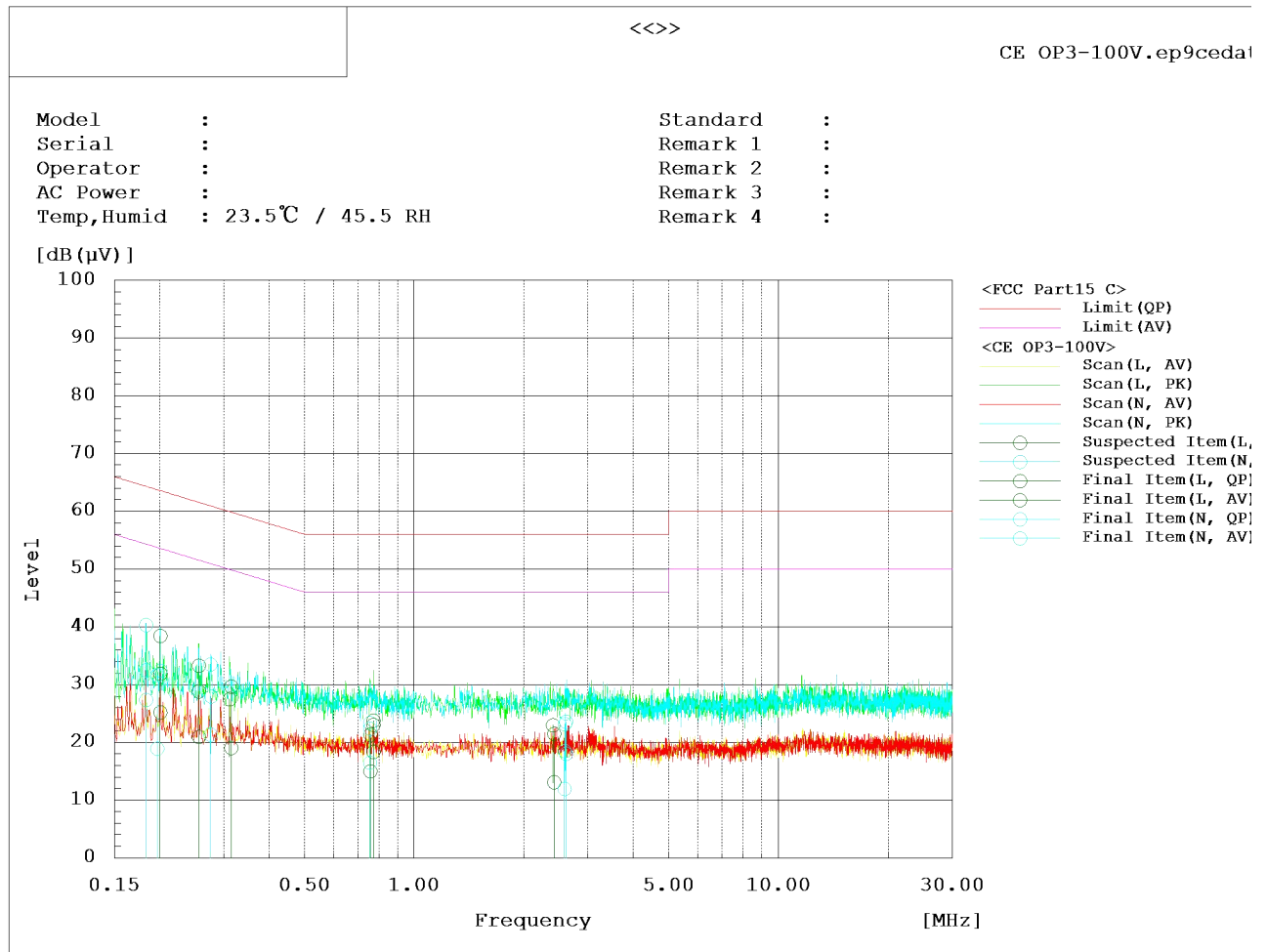


Full Spectrum

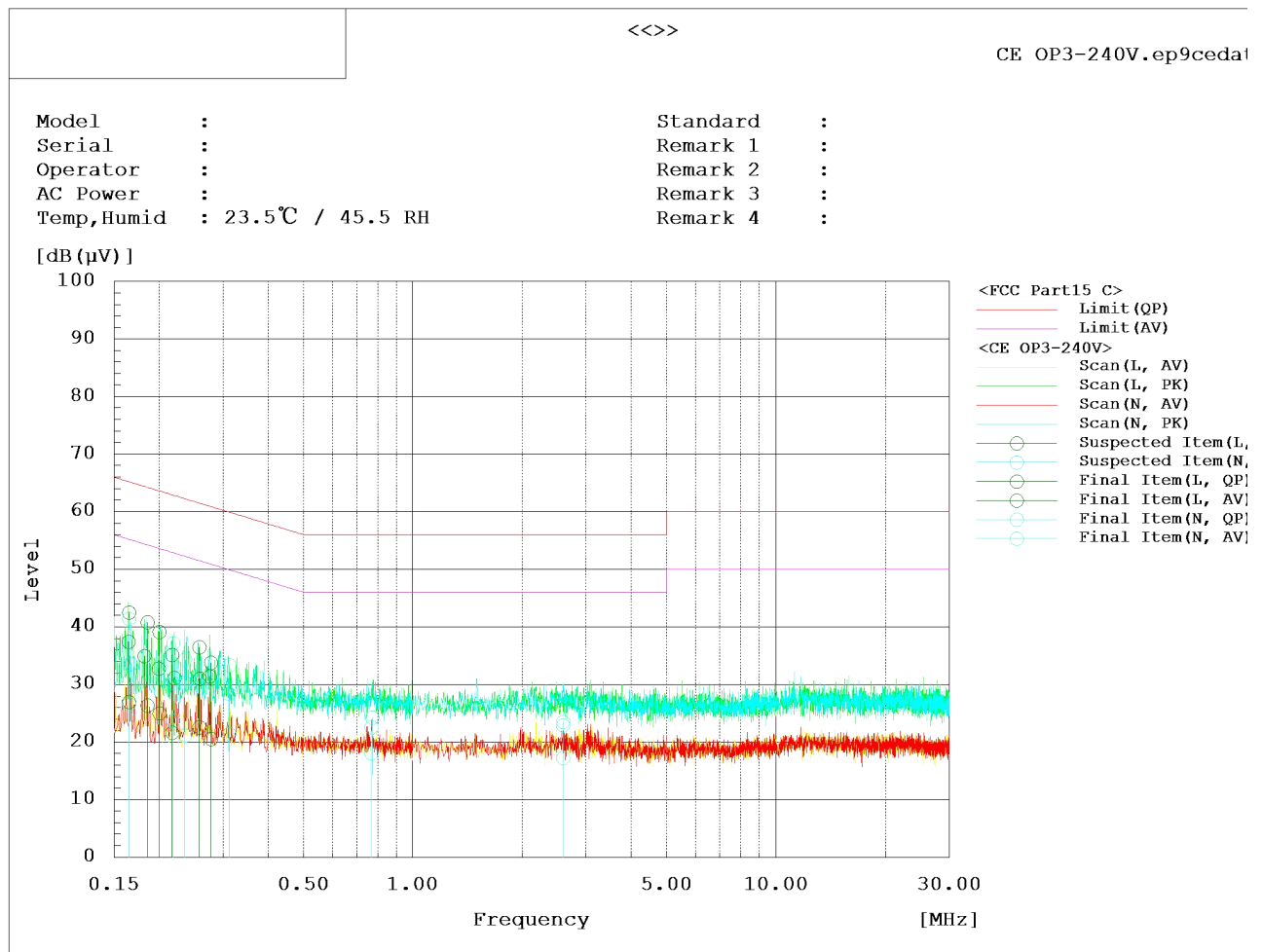


Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A _{Rpl} (dB)	Polarity
4866.667	---	52.14	---	30.64	54.00	23.36	-21.50	Vertical
7310.000	---	51.86	---	30.56	54.00	23.44	-21.30	Vertical
11627.500	---	62.48	---	45.98	54.00	8.02	-16.50	Vertical
13970.000	---	50.75	---	37.05	54.00	16.95	-13.70	Vertical
14589.167	---	54.80	---	41.30	54.00	12.70	-13.50	Vertical
16521.667	---	53.43	---	40.23	54.00	13.77	-13.20	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			
Band1	0.2	L	18.4	5.2		20	38.4	25.2			63.6	53.6		25.2	28.4		Pass
Band1	0.26	L	13.3	1		20	33.3	21			61.5	51.5		28.2	30.5		Pass
Band1	0.31	L	9.7	-0.9		20	29.7	19.1			59.9	49.9		30.2	30.8		Pass
Band1	0.76	L	1.6	-4.8		19.8	21.4	15			56	46		34.6	31		Pass
Band1	0.77	L	3.2	-1.4		19.8	23	18.4			56	46		33	27.6		Pass
Band1	2.42	L	1.6	-6.8		19.9	21.5	13.1			56	46		34.5	32.9		Pass
Band1	0.18	N	20.4	7.4		20	40.4	27.4			64.3	54.3		23.9	26.9		Pass
Band1	0.2	N	11.8	-1		19.9	31.7	18.9			63.7	53.7		32	34.8		Pass
Band1	0.28	N	13.5	1.4		20	33.5	21.4			61	51		27.5	29.6		Pass
Band1	0.76	N	2.6	-3.3		19.8	22.4	16.5			56	46		33.6	29.5		Pass
Band1	2.58	N	-1.4	-7.9		19.9	18.5	12			56	46		37.5	34		Pass
Band1	2.61	N	3.7	-1.8		19.9	23.6	18.1			56	46		32.4	27.9		Pass



Range	Frequency	Line	Reading			Factor	Level			Limit	Limit			Margin			Pass/Fail
	MHz		dB(μV)			dB	dB(μV)			dB(μV)	dB(μV)			dB			
Band1	0.17	N	21.4	6.7		20	41.4	26.7			65.2	55.2		23.8	28.5		Pass
Band1	0.22	N	17.3	3.8		19.9	37.2	23.7			62.9	52.9		25.7	29.2		Pass
Band1	0.24	N	14.4	1.2		20	34.4	21.2			62.3	52.3		27.9	31.1		Pass
Band1	0.31	N	13.4	1.4		20	33.4	21.4			59.9	49.9		26.5	28.5		Pass
Band1	0.77	N	2.8	-1.7		19.8	22.6	18.1			56	46		33.4	27.9		Pass
Band1	2.59	N	3.1	-2.6		19.9	23	17.3			56	46		33	28.7		Pass
Band1	0.17	L	22.5	7		20	42.5	27			65.2	55.2		22.7	28.2		Pass
Band1	0.19	L	20.8	6.4		20	40.8	26.4			64.2	54.2		23.4	27.8		Pass
Band1	0.2	L	19.1	5		20	39.1	25			63.6	53.6		24.5	28.6		Pass
Band1	0.22	L	15.2	1.7		19.9	35.1	21.6			62.9	52.9		27.8	31.3		Pass
Band1	0.26	L	16.5	2.6		20	36.5	22.6			61.5	51.5		25	28.9		Pass
Band1	0.28	L	13.8	0.5		20	33.8	20.5			60.9	50.9		27.1	30.4		Pass

---End of the test report---