Band edge measurement

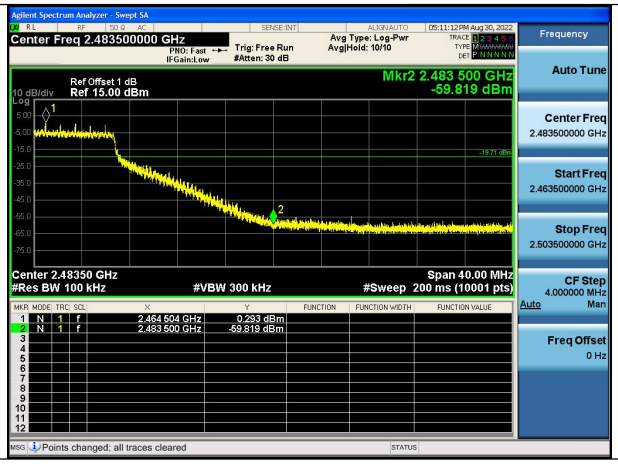
Test Mode: 802.11b

Test Mode:802.11b 2412MHz Chain0

Test Mode:802.11b 2462MHz Chain0

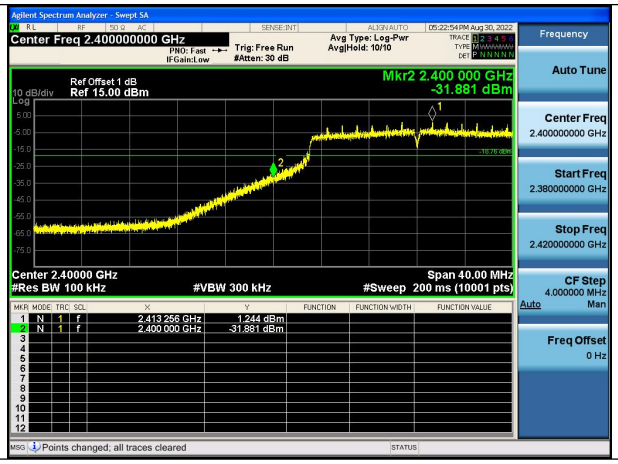
Test Mode: 802.11g

Test Mode:802.11g 2412MHz Chain0

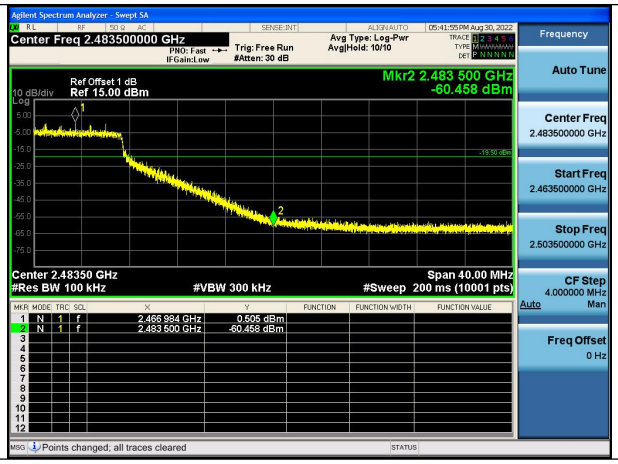


Test Mode:802.11g 2462MHz Chain0

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

Worst case(11b)

Radiated Emission Band Edge

The measurement results are obtained as described below:

Measure Level = Reading Level + Cable loss + Antenna factor Sample calculation: (87.70 dBuV/m) = (53.70 dBμV) + (8.90 dB) + (25.10 dB), the corresponding frequency is 2412MHz.

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 contain the correction factor of the duty cycle.

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	30.87	64.87	N/A	N/A	8.90	25.10
2390.0	6.67	40.67	-33.33	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	22.82	56.82	N/A	N/A	8.90	25.10
2390.0	-6.01	27.99	-26.01	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	31.20	65.20	N/A	N/A	8.90	25.10
2483.5	5.49	39.49	-34.51	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)
2462.0	23.26	57.26	N/A	N/A	8.90	25.10
2483.5	-7.00	27.00	-27.00	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: (17.45 dBμV/m) = (41.25 dBμV) + (-23.80 dB/m), the corresponding frequency is 148.437MHz.
The worst case attitude：The mobile lay down.

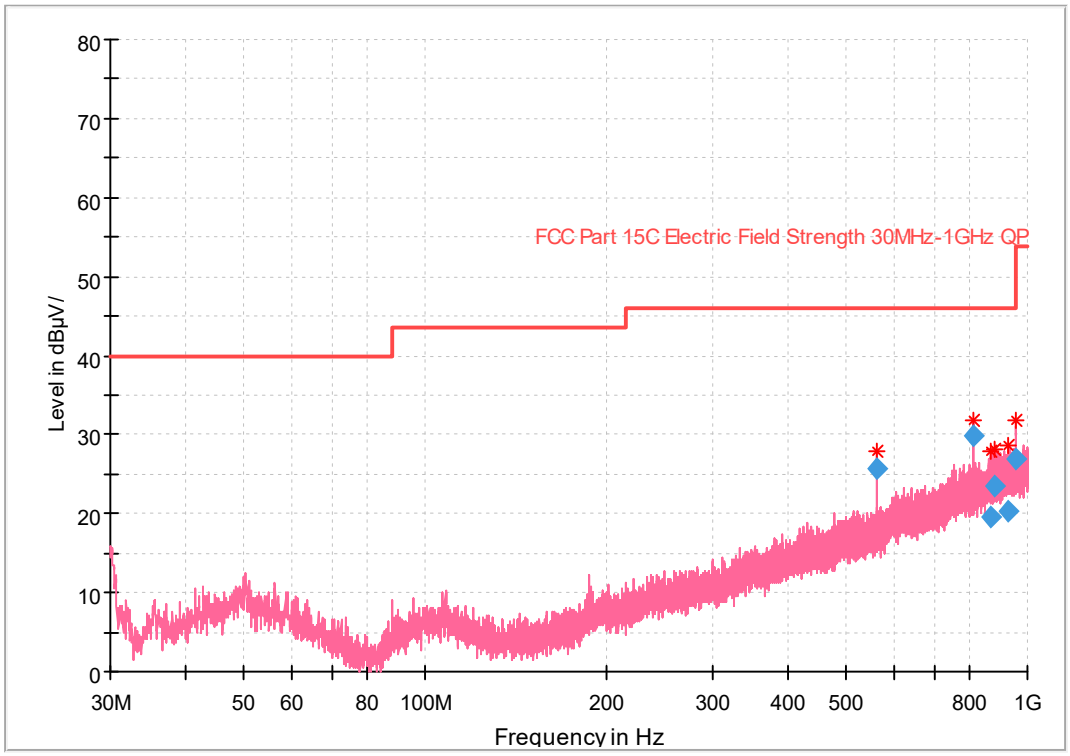
Spurious Radiated Emissions below 30MHz:
There were no emissions from 9kHz to 30MHz found within 20dB of the limit. Thus, the test result was not reported according to §15.31 (o).

802.11b

Spurious Radiated Emissions from 30MHz to 1GHz:

CH Middle (No.6)

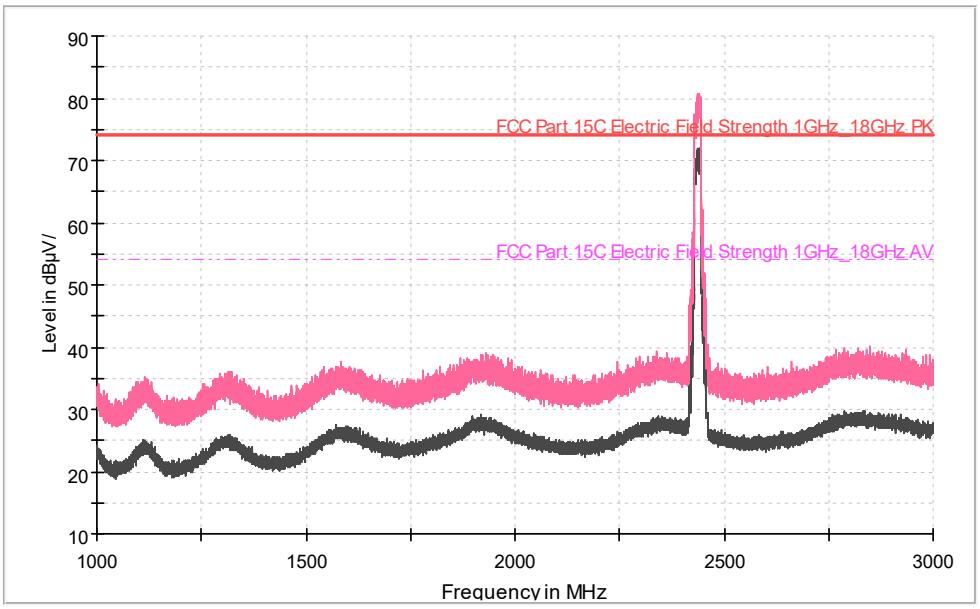
Full Spectrum



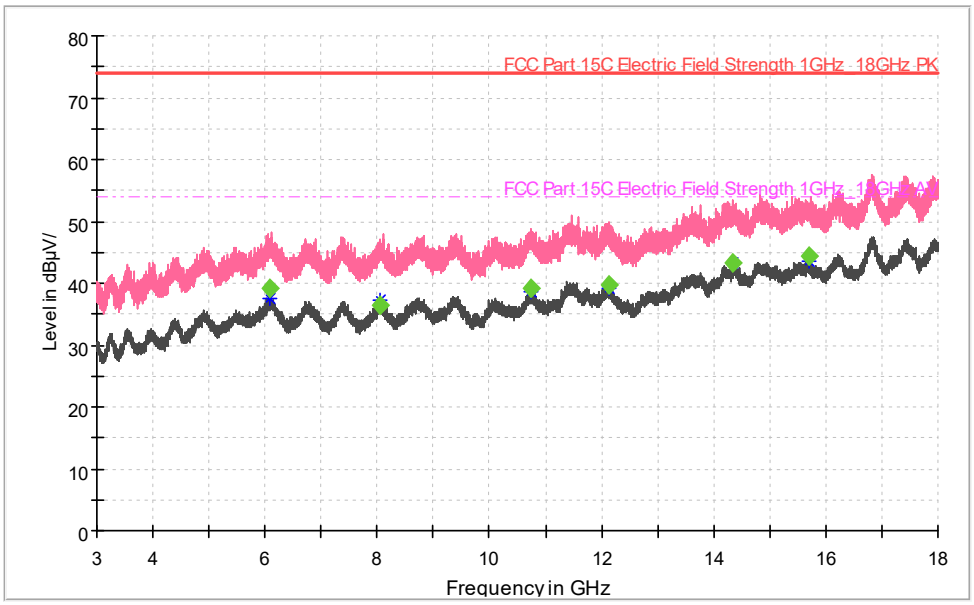
Frequency (MHz)	Reading (dBuV)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
562.4815	35.56	25.66	46	20.34	-9.9	Vertical
812.499	34.81	29.91	46	16.09	-4.9	Vertical
870.893	23.07	19.47	46	26.53	-3.6	Vertical
879.817	26.89	23.39	46	22.61	-3.5	Vertical
930.8875	23.00	20.4	46	25.6	-2.6	Vertical
959.7935	29.34	26.84	46	19.16	-2.5	Vertical

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

Full Spectrum

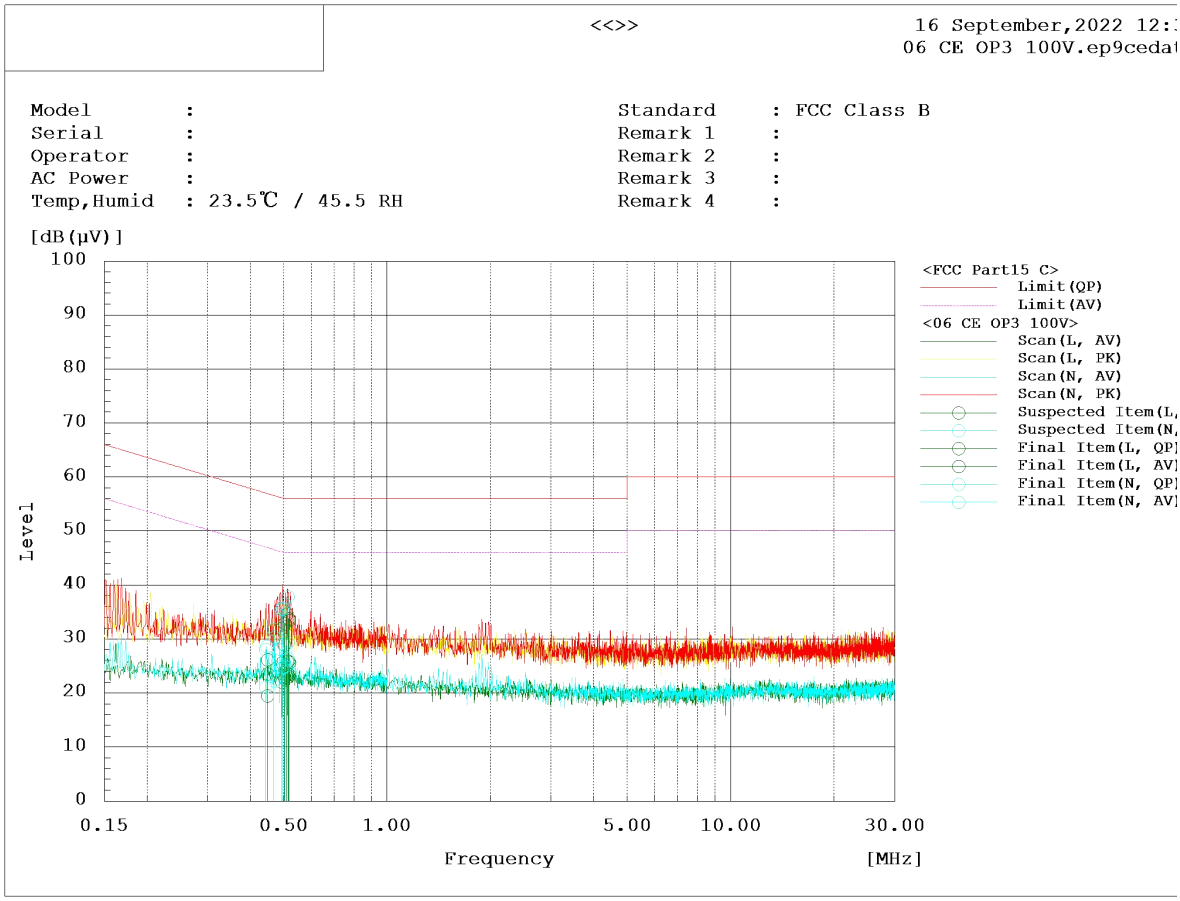


Full Spectrum



Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
6094.5	---	59.62	---	39.22	54	14.78	-20.4	Vertical
8044.5	---	57.46	---	36.46	54	17.54	-21	Vertical
10737	---	57.51	---	39.21	54	14.79	-18.3	Vertical
12122.5	---	56.52	---	39.62	54	14.38	-16.9	Vertical
14330	---	56.87	---	43.37	54	10.63	-13.5	Vertical
15690	---	58.11	---	44.51	54	9.49	-13.6	Vertical

AC Power line Conducted Emission
100V

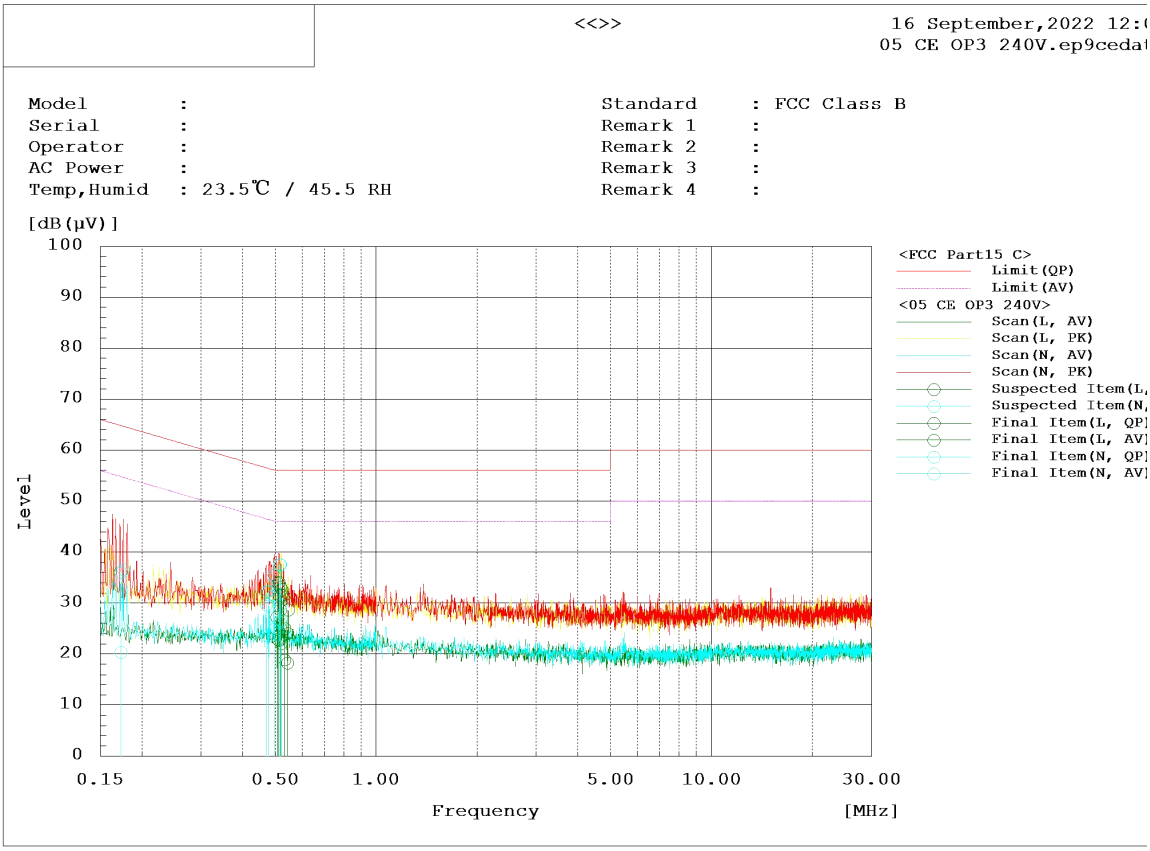


L+N Line

MEASUREMENT RESULT:

Range	Frequency MHz	Line	Reading dB(μV)			Factor dB	Level dB(μV)			Limit dB(μV)	Limit dB(μV)			Margin dB			Pass/Fail
			QP	AV	PK		QP	AV	PK		QP	AV	PK	QP	AV	PK	
Band1	0.45	L	3.9	-0.1		19.6	23.5	19.5			56.9	46.9		33.4	27.4		Pass
Band1	0.49	L	12.3	2.4		19.6	31.9	22			56.1	46.1		24.2	24.1		Pass
Band1	0.5	L	13.2	3.2		19.6	32.8	22.8			56	46		23.2	23.2		Pass
Band1	0.51	L	15	3.3		19.6	34.6	22.9			56	46		21.4	23.1		Pass
Band1	0.52	L	13.8	3.8		19.6	33.4	23.4			56	46		22.6	22.6		Pass
Band1	0.52	L	14.2	3.5		19.6	33.8	23.1			56	46		22.2	22.9		Pass
Band1	0.44	N	8.5	1.5		19.6	28.1	21.1			57	47		28.9	25.9		Pass
Band1	0.47	N	12.2	2.7		19.6	31.8	22.3			56.5	46.5		24.7	24.2		Pass
Band1	0.49	N	15.9	4.8		19.6	35.5	24.4			56.1	46.1		20.6	21.7		Pass
Band1	0.5	N	15.9	5.1		19.6	35.5	24.7			56.1	46.1		20.6	21.4		Pass
Band1	0.5	N	16.8	5.3		19.6	36.4	24.9			56	46		19.6	21.1		Pass
Band1	0.51	N	18.3	6.8		19.6	37.9	26.4			56	46		18.1	19.6		Pass

240V



L+N Line

MEASUREMENT RESULT:

Range	Frequency MHz	Line	Reading dB(μV)			Factor dB	Level dB(μV)			Limit dB(μV)	Limit dB(μV)			Margin dB			Pass/Fail
			QP	AV	PK		QP	AV	PK		QP	AV	PK	QP	AV	PK	
Band1	0.17	N	16.4	0.6		19.7	36.1	20.3			64.8	54.8		28.7	34.5		Pass
Band1	0.47	N	12.7	4.1		19.6	32.3	23.7			56.5	46.5		24.2	22.8		Pass
Band1	0.48	N	12.7	3.9		19.6	32.3	23.5			56.4	46.4		24.1	22.9		Pass
Band1	0.5	N	15.8	5.3		19.6	35.4	24.9			56.1	46.1		20.7	21.2		Pass
Band1	0.52	N	17.9	7		19.6	37.5	26.6			56	46		18.5	19.4		Pass
Band1	0.52	N	18	6.6		19.6	37.6	26.2			56	46		18.4	19.8		Pass
Band1	0.51	L	14.3	3.4		19.6	33.9	23			56	46		22.1	23		Pass
Band1	0.52	L	13.6	3.3		19.6	33.2	22.9			56	46		22.8	23.1		Pass
Band1	0.51	L	14.5	3.1		19.6	34.1	22.7			56	46		21.9	23.3		Pass
Band1	0.52	L	11.9	2.5		19.6	31.5	22.1			56	46		24.5	23.9		Pass
Band1	0.53	L	5.4	-0.7		19.6	25	18.9			56	46		31	27.1		Pass
Band1	0.54	L	4.5	-1.3		19.6	24.1	18.3			56	46		31.9	27.7		Pass

---End of the test report---