APPENDIX B – TEST DATA OF RADIATED EMISSION

Worst case(11a)

Radiated Emission Band Edge

The measurement results are obtained as described below:
Measure Level = Reading Level + Cable loss + Antenna factor Sample calculation: (90.10 dBuV/m) = (43.20 dBμV) + (12.40 dB) + (34.50 dB), the corresponding frequency is 5180MHz.

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）

【5150-5250】

- 802.11a

Carrier Frequency (MHz): 5180
Channel No.: 36
Test Mode: 802.11a
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5180.0	44.19	91.09	N/A	N/A	12.40	34.50
5150.0	5.07	51.97	-22.03	74.00	12.40	34.50

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5180.0	30.26	77.16	N/A	N/A	12.40	34.50
5150.0	-11.11	35.79	-18.21	54.00	12.40	34.50

Carrier Frequency (MHz): 5240
Channel No.: 48
Test Mode: 802.11a
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5240.0	43.27	90.17	N/A	N/A	12.40	34.50
5250.0	26.24	73.14	-0.86	74.00	12.40	34.50

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5240.0	32.02	78.92	N/A	N/A	12.40	34.50
5250.0	5.15	52.05	-1.95	54.00	12.40	34.50

【5250-5350】

- 802.11a

Carrier Frequency (MHz): 5260
Channel No.: 52
Test Mode: 802.11a
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5260.0	40.01	86.91	N/A	N/A	12.40	34.50
5240.0	8.80	55.70	-18.30	74.00	12.40	34.50

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5260.0	31.25	78.15	N/A	N/A	12.40	34.50
5240.0	-8.31	38.59	-15.41	54.00	12.40	34.50

Carrier Frequency (MHz): 5320
Channel No.: 64
Test Mode: 802.11a
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5320.0	42.64	89.54	N/A	N/A	12.40	34.50
5340.0	16.60	63.50	-10.50	74.00	12.40	34.50

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5320.0	32.76	79.66	N/A	N/A	12.40	34.50
5340.0	-5.90	41.00	-13.00	54.00	12.40	34.50

【5470-5725】

- 802.11a

Carrier Frequency (MHz): 5500
Channel No.: 100
Test Mode: 802.11a
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5500.0	42.22	89.12	N/A	N/A	12.40	34.50
5480.0	18.15	65.05	-8.95	74.00	12.40	34.50

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5500.0	32.08	78.98	N/A	N/A	12.40	34.50
5480.0	-3.02	43.88	-10.12	54.00	12.40	34.50

Carrier Frequency (MHz): 5700
Channel No.: 140
Test Mode: 802.11a
Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5700.0	43.68	90.58	N/A	N/A	12.40	34.50
5720.0	25.22	72.12	-1.88	74.00	12.40	34.50

Detector: Average

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
5700.0	30.89	77.79	N/A	N/A	12.40	34.50
5720.0	3.52	50.42	-3.58	54.00	12.40	34.50

Sample Calculations

Determining Spurious Emissions Levels

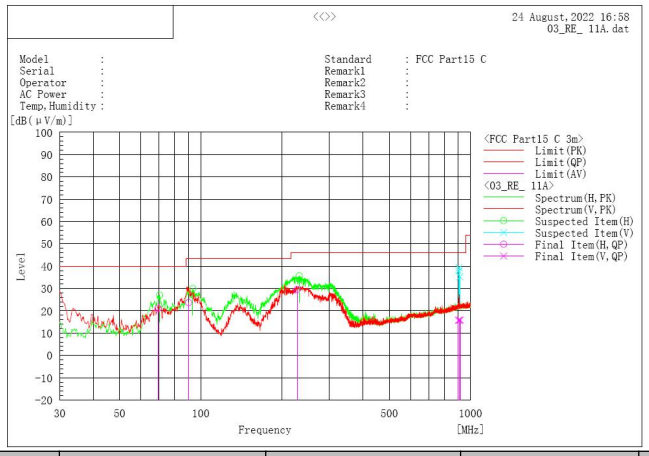
A “reference path loss” is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.
The measurement results are obtained as described below:
Below 1GHz：
QuasiPeak=Reading Value + A_{Rpl}
Above 1GHz:
MaxPeak=Reading MaxPeak + A_{Rpl}
OR
Average=Reading Average + A_{Rpl}
Sample calculation: (25.83 dBμV/m) = (48.73 dBμV) + (-22.90 dB/m), the corresponding frequency is 35.141MHz.
The worst case attitude：The mobile lay down.

Spurious Radiated Emissions below 30MHz and above 18G:
There were no emissions from 9kHz to 30MHz and above 18G found within 20dB of the limit. Thus, the test result was not reported according to §15.31 (o).

【5150~5250】

- 802.11a

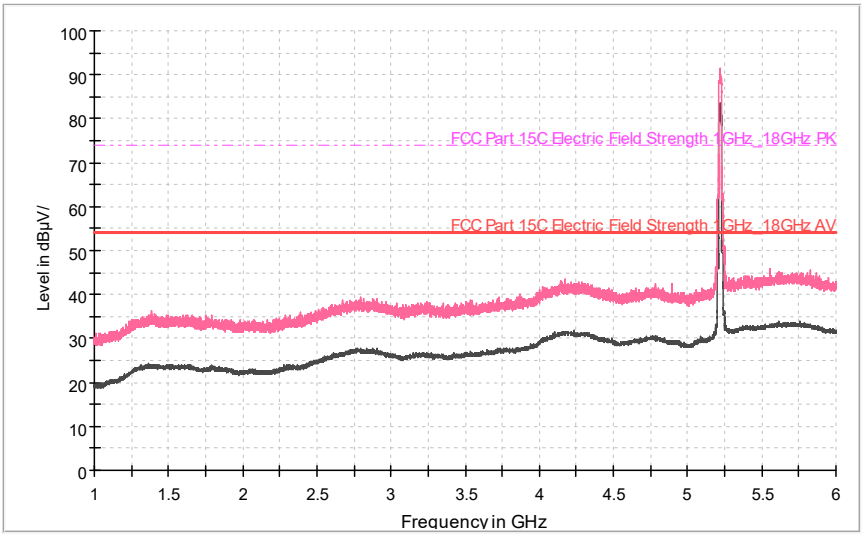
Spurious Radiated Emissions from 30MHz to 1GHz:
CH Middle (No.44)



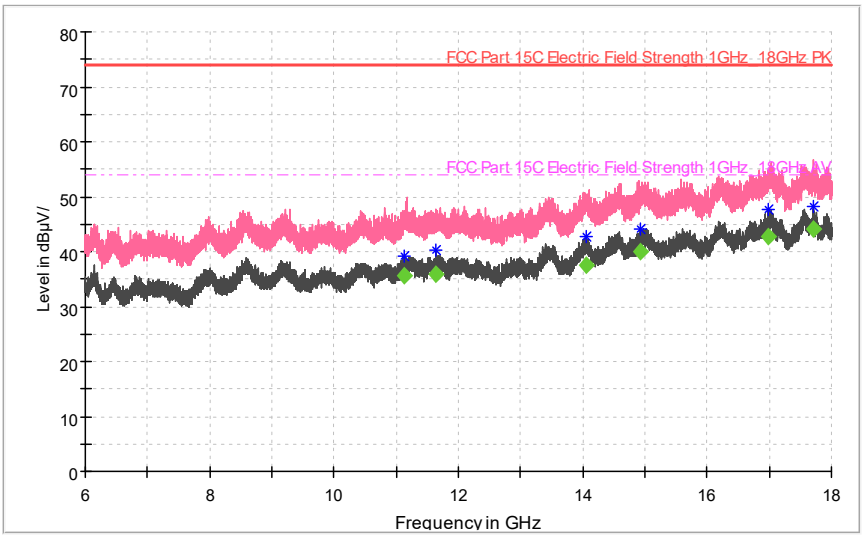
Frequency (MHz)	Reading (dBuV)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
69.50	45.90	21.10	40.00	18.90	-24.80	Vertical
90.22	48.20	23.70	43.50	19.80	-24.50	Vertical
227.64	51.50	29.50	46.00	16.50	-22.00	Vertical
901.63	23.90	15.70	46.00	30.30	-8.20	Vertical
909.11	23.80	15.70	46.00	30.30	-8.10	Vertical
917.33	23.90	15.90	46.00	30.10	-8.00	Vertical

Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.44)

Full Spectrum



Full Spectrum

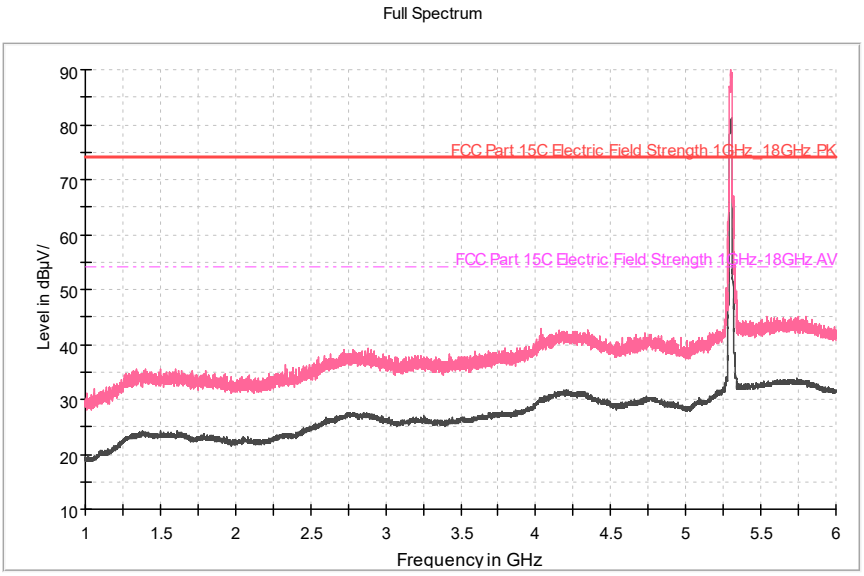


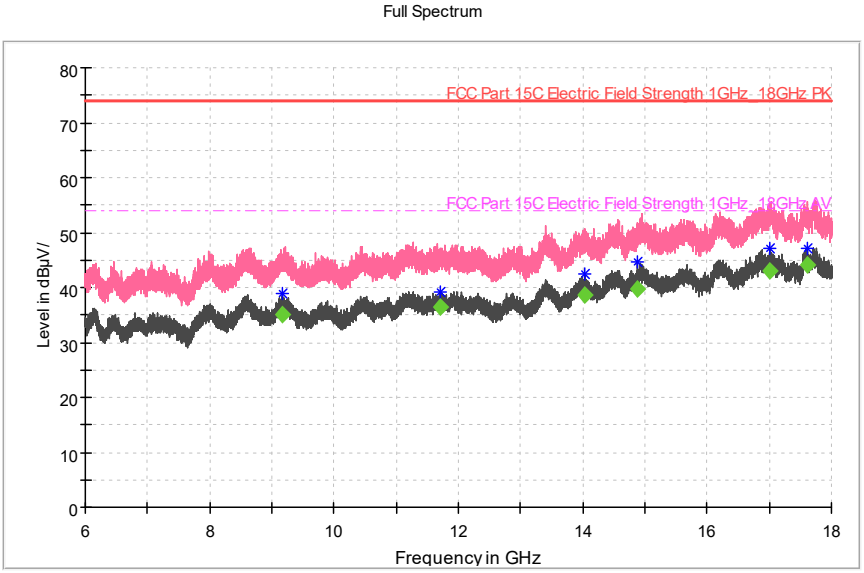
Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
10386.8	---	57.03	---	**37.83**	**54**	**16.17**	**-19.2**	Vertical
11480.8	---	56.07	---	**39.17**	**54**	**14.83**	**-16.9**	Vertical
11680.8	---	55.87	---	**38.97**	**54**	**15.03**	**-16.9**	Vertical
14054.4	---	57.20	---	**42.7**	**54**	**11.3**	**-14.5**	Vertical
15148.8	---	57.54	---	**43.44**	**54**	**10.56**	**-14.1**	Vertical
17588.8	---	58.91	---	**47.01**	**54**	**6.99**	**-11.9**	Vertical

【5250~5350】

- 802.11a

Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.60)



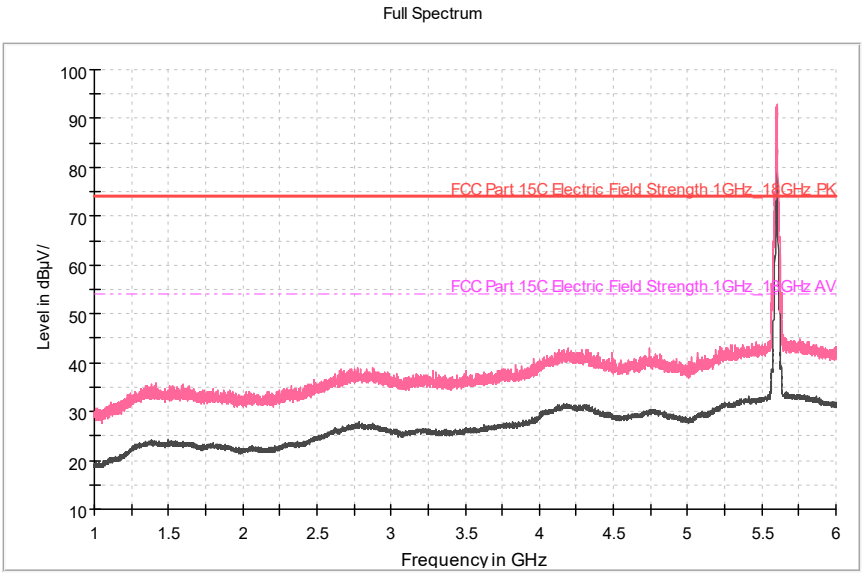


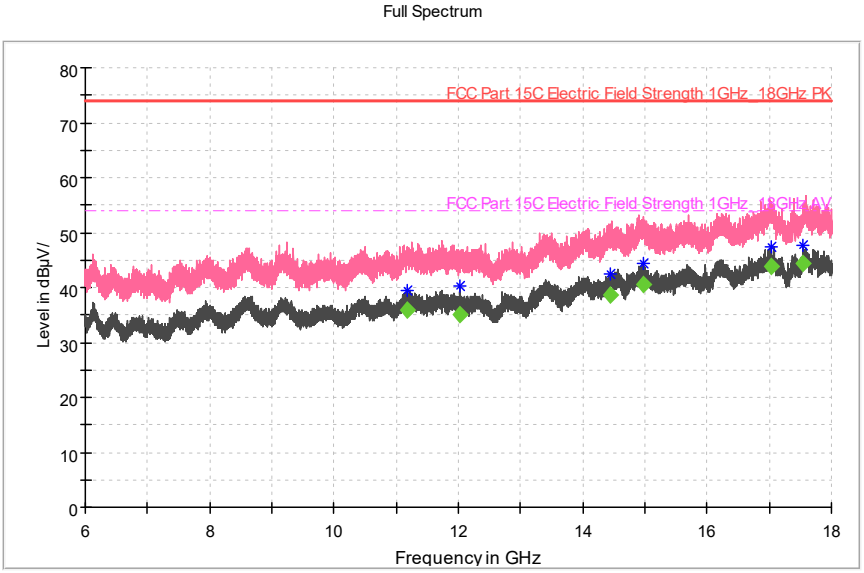
Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
10384	---	57.07	---	**37.87**	**54**	**16.13**	**-19.2**	Vertical
11403.6	---	56.53	---	**39.43**	**54**	**14.57**	**-17.1**	Vertical
11720.8	---	56.02	---	**39.02**	**54**	**14.98**	**-17**	Vertical
14073.6	---	57.04	---	**42.64**	**54**	**11.36**	**-14.4**	Vertical
15880.8	---	58.36	---	**43.86**	**54**	**10.14**	**-14.5**	Vertical
17588.8	---	58.98	---	**47.08**	**54**	**6.92**	**-11.9**	Vertical

【5470~5725】

- 802.11a

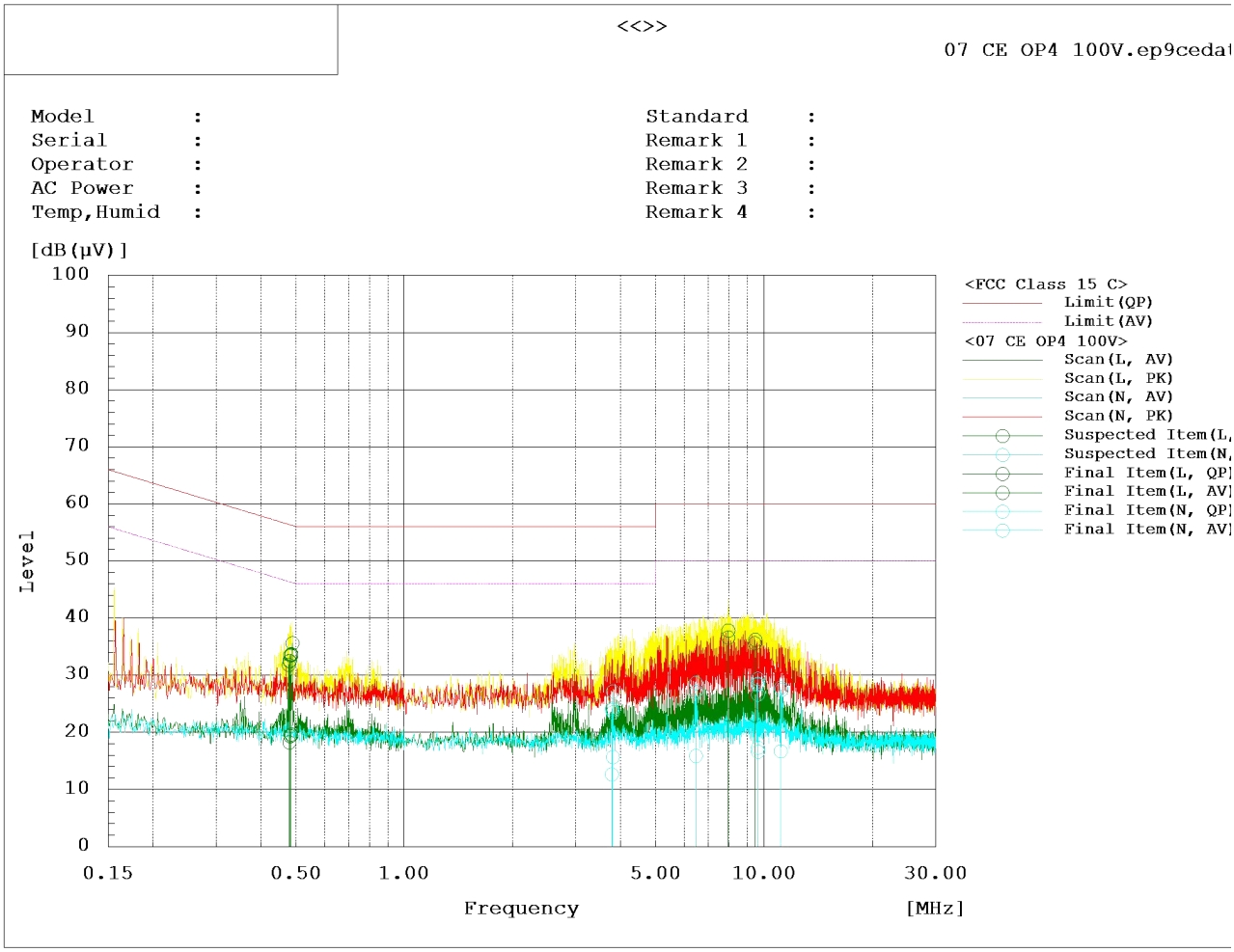
Spurious Radiated Emissions from 1GHz to 18GHz:
CH Middle (No.120)





Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
9143.6	---	56.75	---	**36.55**	**54**	**17.45**	**-20.2**	Vertical
11487.6	---	55.88	---	**38.98**	**54**	**15.02**	**-16.9**	Vertical
11711.2	---	55.99	---	**38.99**	**54**	**15.01**	**-17**	Vertical
14117.2	---	56.65	---	**42.35**	**54**	**11.65**	**-14.3**	Vertical
15880.8	---	58.36	---	**43.86**	**54**	**10.14**	**-14.5**	Vertical
17585.2	---	58.86	---	**46.96**	**54**	**7.04**	**-11.9**	Vertical

AC Power line Conducted Emission
100V

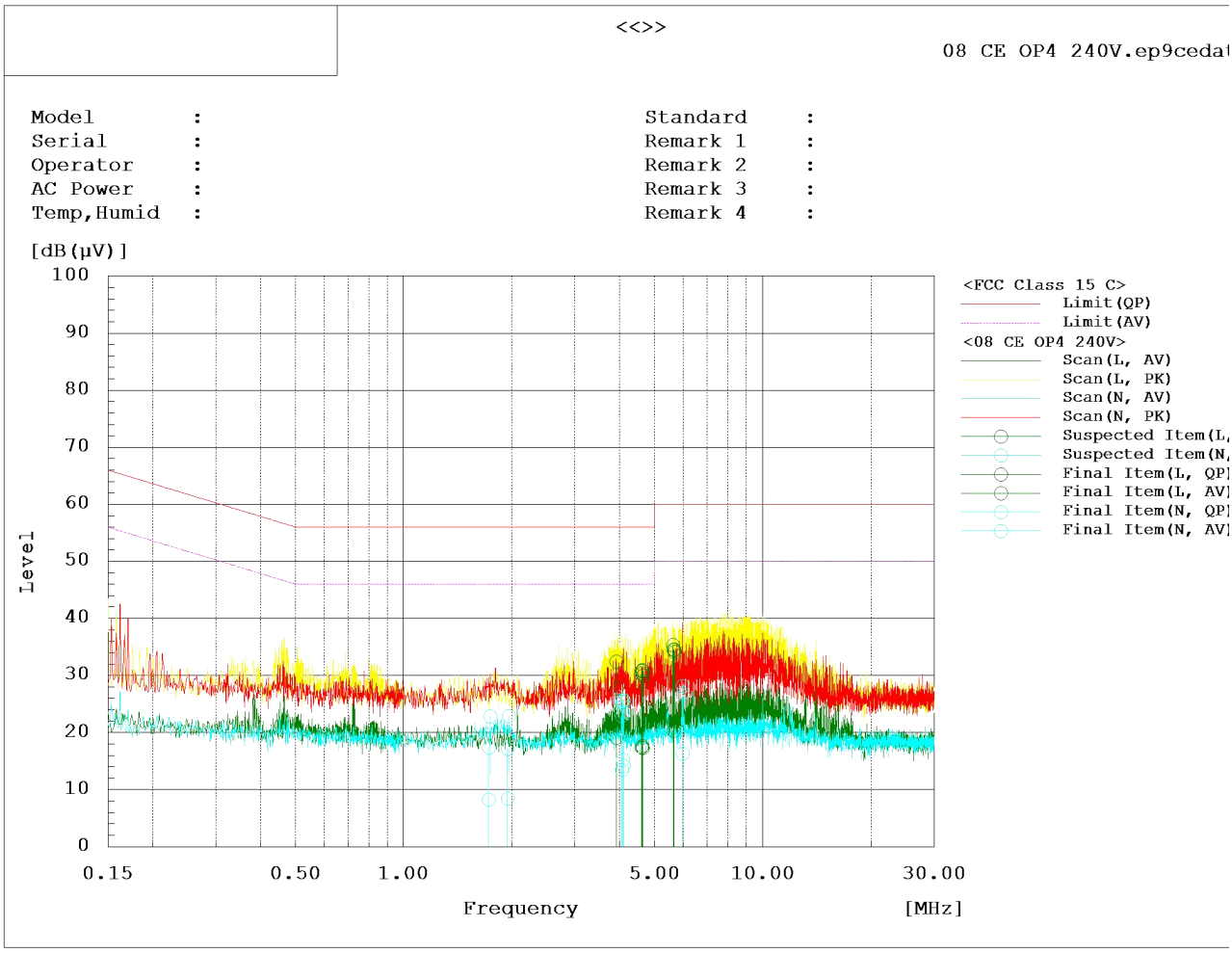


L+N Line

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	0.48	L	12.9	-1.3		19.6	32.5	18.3			56.4	46.4		23.9	28.1		Pass
Band1	0.48	L	13.9	-0.3		19.6	33.5	19.3			56.3	46.3		22.8	27		Pass
Band1	0.49	L	13.9	0.1		19.6	33.5	19.7			56.3	46.3		22.8	26.6		Pass
Band1	0.49	L	14	-0.1		19.6	33.6	19.5			56.3	46.3		22.7	26.8		Pass
Band1	7.94	L	17	3.5		19.6	36.6	23.1			60	50		23.4	26.9		Pass
Band1	9.43	L	16	3.4		19.6	35.6	23			60	50		24.4	27		Pass
Band1	3.77	N	4.6	-6.9		19.6	24.2	12.7			56	46		31.8	33.3		Pass
Band1	3.8	N	7.6	-3.9		19.6	27.2	15.7			56	46		28.8	30.3		Pass
Band1	6.46	N	9.1	-3.7		19.6	28.7	15.9			60	50		31.3	34.1		Pass
Band1	9.6	N	9	-3		19.6	28.6	16.6			60	50		31.4	33.4		Pass
Band1	9.59	N	9.8	-2.3		19.6	29.4	17.3			60	50		30.6	32.7		Pass
Band1	11.1	N	8.3	-2.9		19.6	27.9	16.7			60	50		32.1	33.3		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	1.73	N	-2.1	-11		19.5	17.4	8.3			56	46		38.6	37.7		Pass
Band1	1.95	N	-2.3	-11		19.5	17.2	8.5			56	46		38.8	37.5		Pass
Band1	4.05	N	5.7	-6.1		19.6	25.3	13.5			56	46		30.7	32.5		Pass
Band1	4.07	N	5.9	-4.4		19.6	25.5	15.2			56	46		30.5	30.8		Pass
Band1	4.1	N	6.1	-5.4		19.6	25.7	14.2			56	46		30.3	31.8		Pass
Band1	5.97	N	8.6	-3.3		19.6	28.2	16.3			60	50		31.8	33.7		Pass
Band1	3.91	L	12.9	-0.4		19.6	32.5	19.2			56	46		23.5	26.8		Pass
Band1	4.6	L	11.3	-2.2		19.6	30.9	17.4			56	46		25.1	28.6		Pass
Band1	4.61	L	11.4	-1.9		19.6	31	17.7			56	46		25	28.3		Pass
Band1	4.62	L	11.3	-2.3		19.6	30.9	17.3			56	46		25.1	28.7		Pass
Band1	5.63	L	14.9	0.7		19.6	34.5	20.3			60	50		25.5	29.7		Pass
Band1	5.66	L	15	2.5		19.6	34.6	22.1			60	50		25.4	27.9		Pass

---The end of the test report---