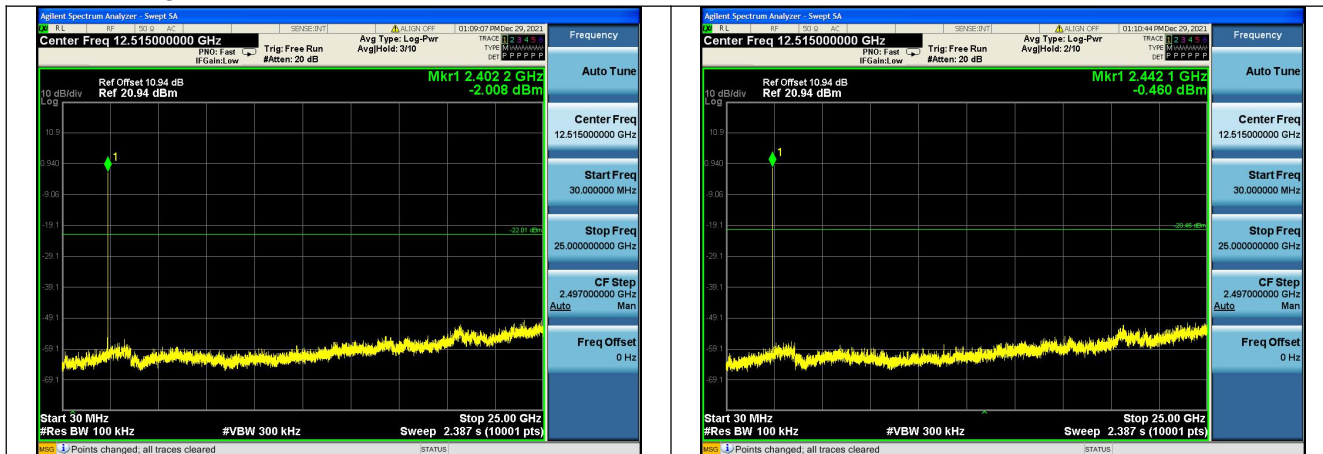


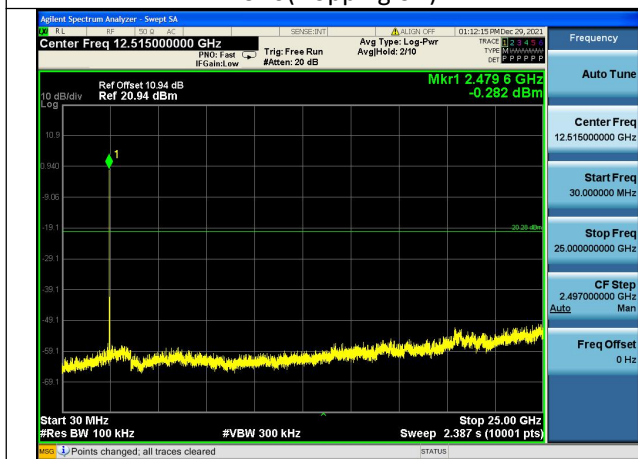
6 Conducted Out of band emission measurement

Test Mode: GFSK



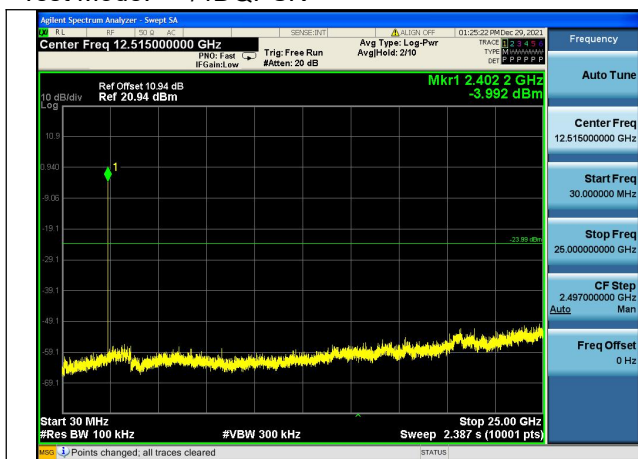
CH0(Hopping off)

CH39(Hopping off)



CH78(Hopping off)

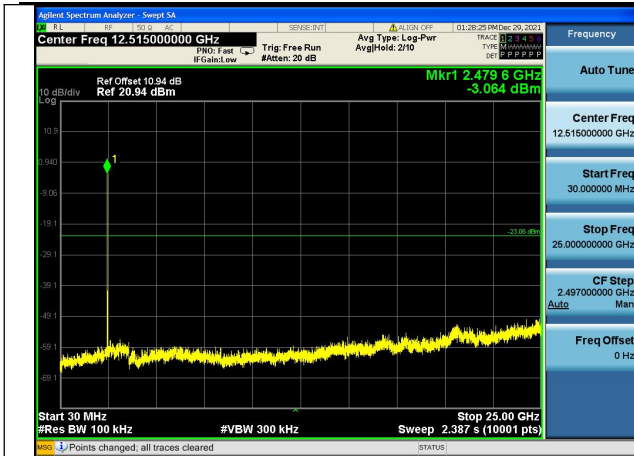
Test Mode: $\pi/4$ DQPSK



CH0(Hopping off)

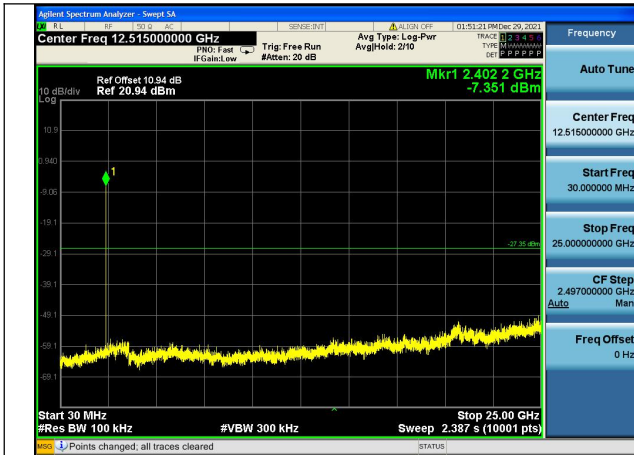


CH39(Hopping off)

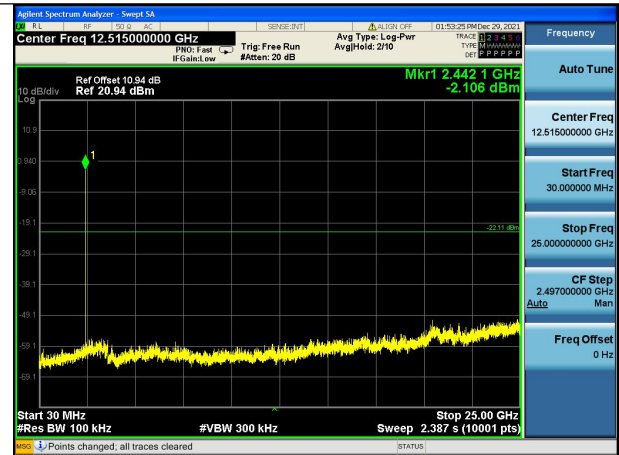


CH78(Hopping off)

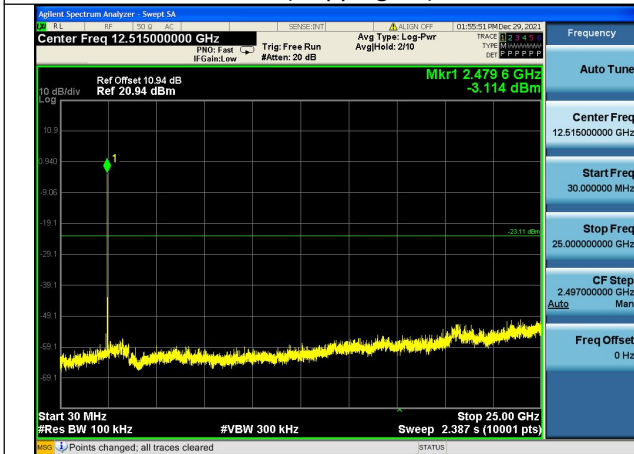
Test Mode: 8DPSK



CH0(Hopping off)

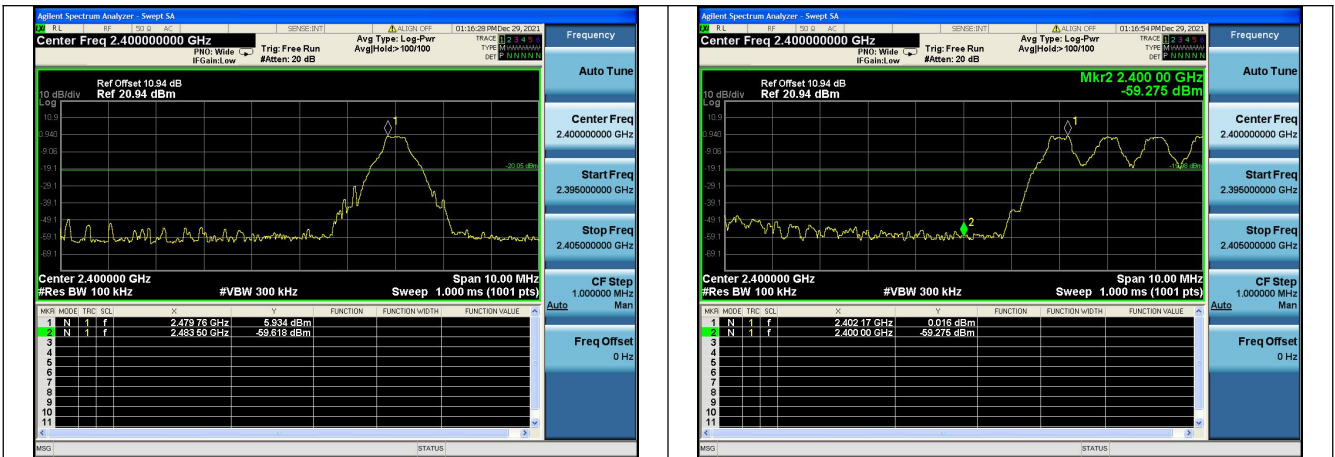


CH39(Hopping off)



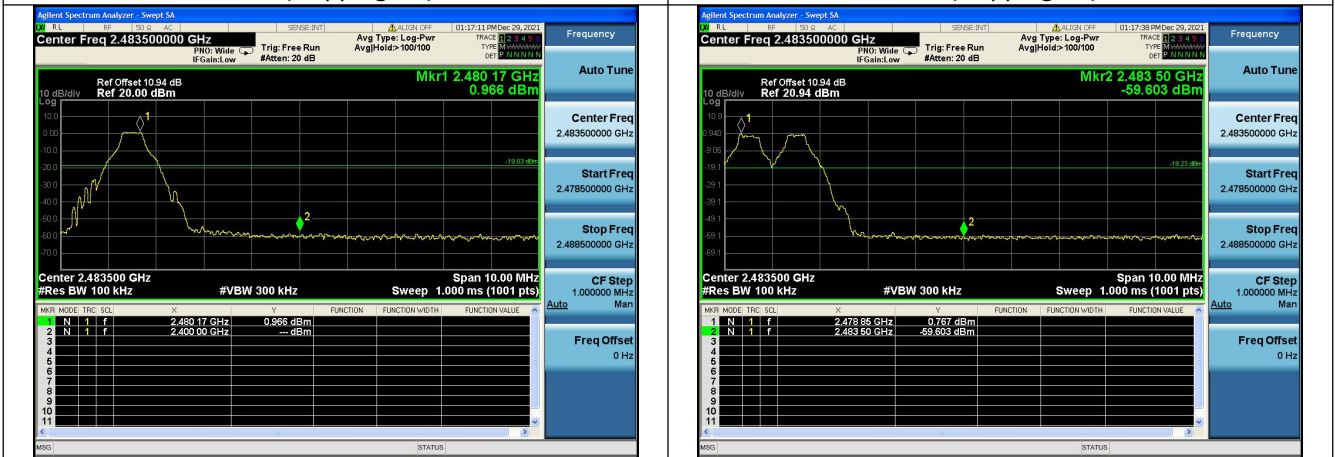
CH78(Hopping off)

7 Band Edge measurement
Test Mode: GFSK



CHO(Hopping off)

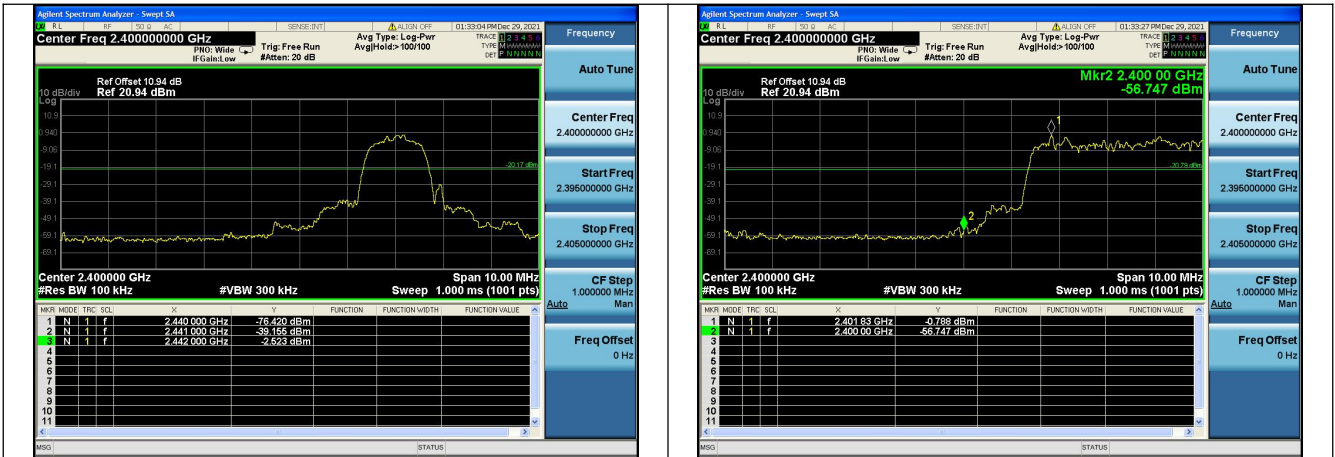
CHO(Hopping on)



CH78(Hopping off)

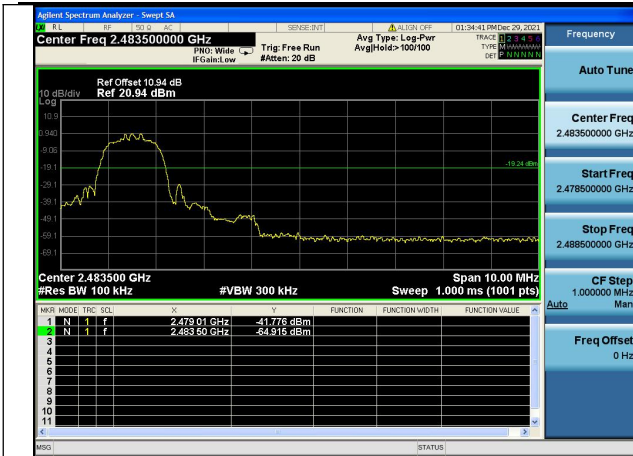
CH78(Hopping on)

Test Mode: π /4DQPSK



CHO(Hopping off)

CHO(Hopping on)

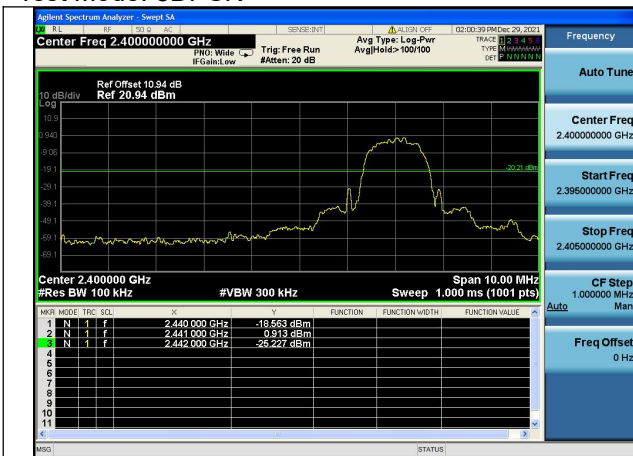


CH78(Hopping off)



CH78(Hopping on)

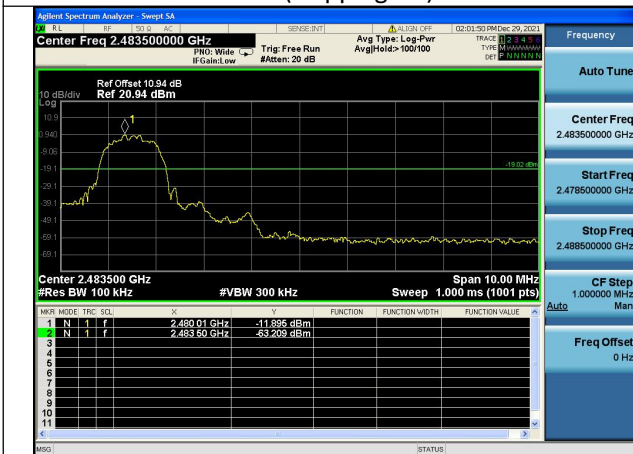
Test Mode: 8DPSK



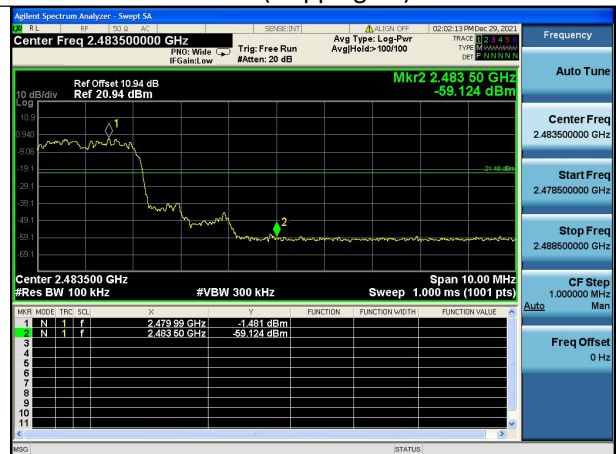
CH0(Hopping off)



CH0(Hopping on)



CH78(Hopping off)



CH78(Hopping on)

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: (82.01 dBuV/m) = (48.01 dBμV) + (8.90 dB) + (25.10 dB), the corresponding frequency is 2402MHz.

● **BR-1Mbps**

Carrier Frequency (MHz): 2402

Channel No.: 0

Test Mode: GFSK

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2402.0	48.01	82.01	N/A	N/A	8.90	25.10
2390.0	6.03	40.03	-33.97	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)
2402.0	46.99	80.99	N/A	N/A	8.90	25.10
2390.0	-6.54	27.46	-26.54	54.00	8.90	25.10

Carrier Frequency (MHz): 2480

Channel No.: 78

Test Mode: GFSK

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2480.0	46.55	80.55	N/A	N/A	8.90	25.10
2483.5	6.59	40.59	-33.41	74.00	8.90	25.10

Detector: Average

Frequency (MHz)	Reading Level	Measure Level	Over Limit	Limit (dBuV/m)	Cable Loss	Antenna Factor
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	(dBuV)	(dBuV/m)	(dB)		(dB)	(dB)
2480.0	46.25	80.25	N/A	N/A	8.90	25.10
2483.5	-6.50	27.50	-26.50	54.00	8.90	25.10

● **EDR-2Mbps**

Carrier Frequency (MHz): 2402

Channel No.: 0

Test Mode: π /4DQPSK

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2402.0	46.99	80.99	N/A	N/A	8.90	25.10
2390.0	6.23	40.23	-33.77	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)
2402.0	43.87	77.87	N/A	N/A	8.90	25.10
2390.0	-6.57	27.43	-26.57	54.00	8.90	25.10

Carrier Frequency (MHz): 2480

Channel No.: 78

Test Mode: π /4DQPSK

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2480.0	47.33	81.33	N/A	N/A	8.90	25.10
2483.5	7.07	41.07	-32.93	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)
2480.0	42.63	76.63	N/A	N/A	8.90	25.10
2483.5	-6.12	27.88	-26.12	54.00	8.90	25.10

● **EDR-3Mbps**

Carrier Frequency (MHz): 2402

Channel No.: 0

Test Mode: 8DPSK

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2402.0	47.07	81.07	N/A	N/A	8.90	25.10
2390.0	5.73	39.73	-34.27	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)
2402.0	43.39	77.39	N/A	N/A	8.90	25.10
2390.0	-6.62	27.38	-26.62	54.00	8.90	25.10

Carrier Frequency (MHz): 2480

Channel No.: 78

Test Mode: 8DPSK

Detector: Peak

Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
2480.0	47.53	81.53	N/A	N/A	8.90	25.10
2483.5	7.37	41.37	-32.63	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)
2480.0	42.75	76.75	N/A	N/A	8.90	25.10
2483.5	-5.84	28.16	-25.84	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: (5.57 dB μ V/m) = (26.47 dB μ V) + (-20.90 dB/m), the corresponding frequency is 60.361MHz.

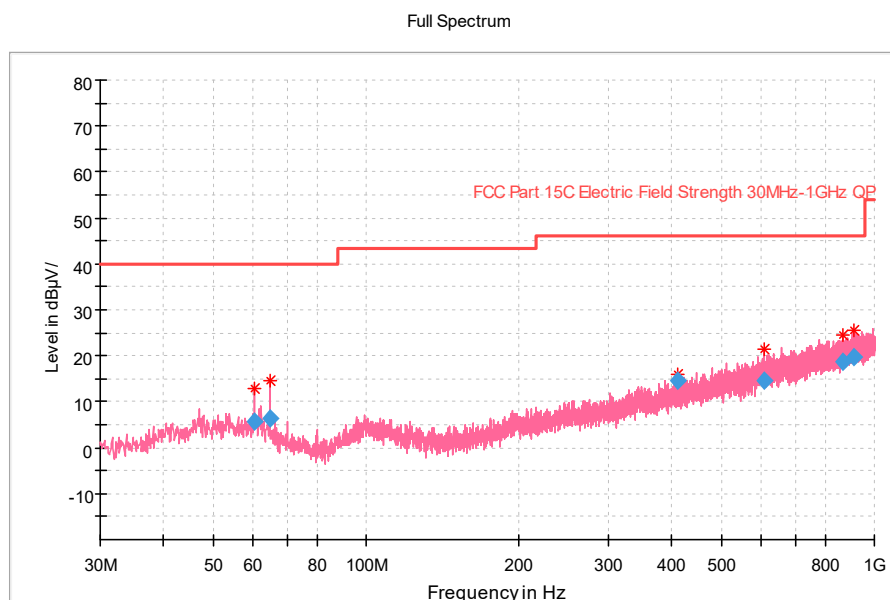
The worst case attitude: The mobile lay down.

● BR-1Mbps

Spurious Radiated Emissions from 30MHz to 1GHz:

GFSK:

CH Middle (No.39)

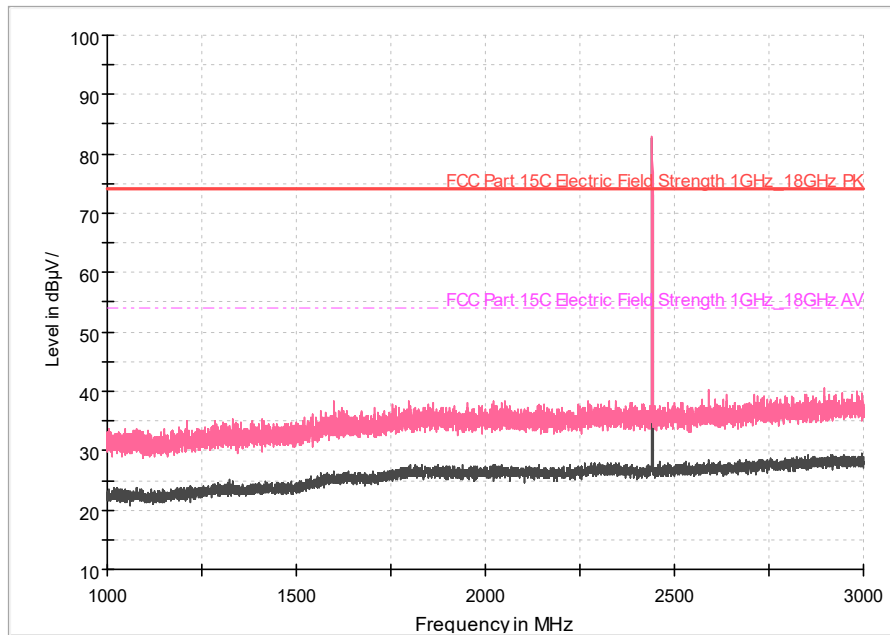


Frequency (MHz)	Reading (dBuV)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
60.361	26.47	5.57	40.00	34.43	-20.90	Vertical
64.726	28.51	6.51	40.00	33.49	-22.00	Vertical

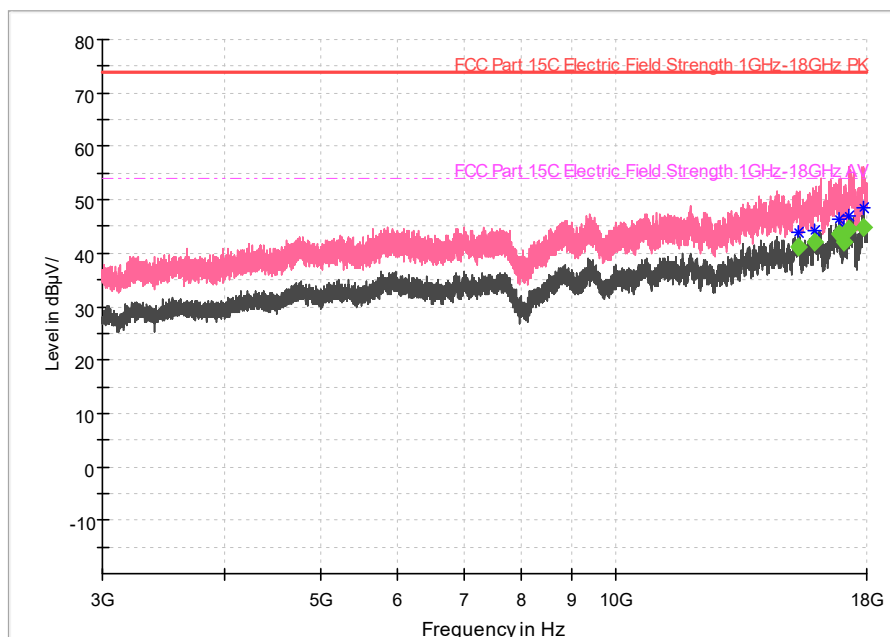
409.561	27.86	14.46	46.00	31.54	-13.40	Vertical
608.314	22.71	14.61	46.00	31.39	-8.10	Vertical
868.662	22.28	18.68	46.00	27.32	-3.60	Vertical
909.402	22.23	19.73	46.00	26.27	-2.50	Vertical

**Spurious Radiated Emissions from 1GHz to 18GHz:
GFSK:
CH Middle (No.39)**

Full Spectrum



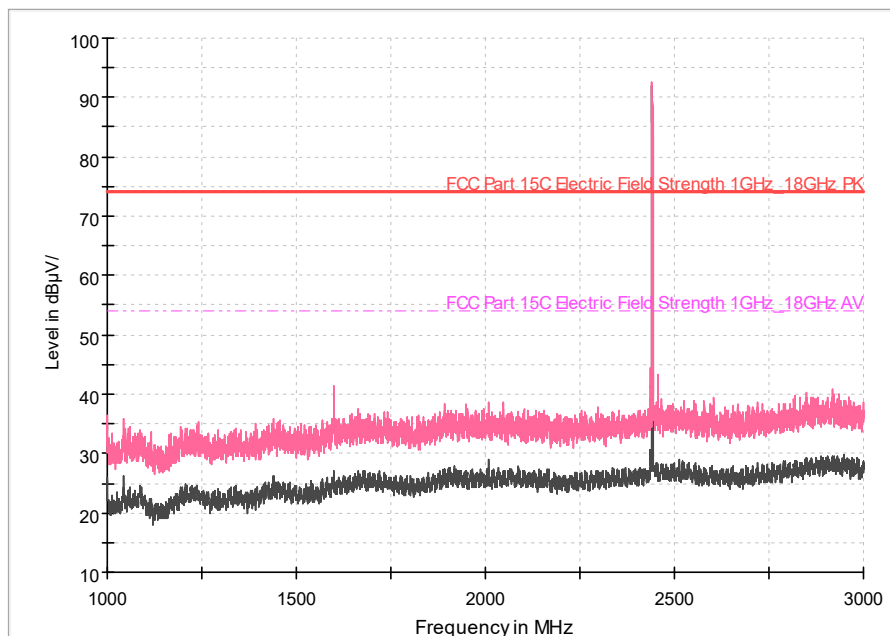
Full Spectrum



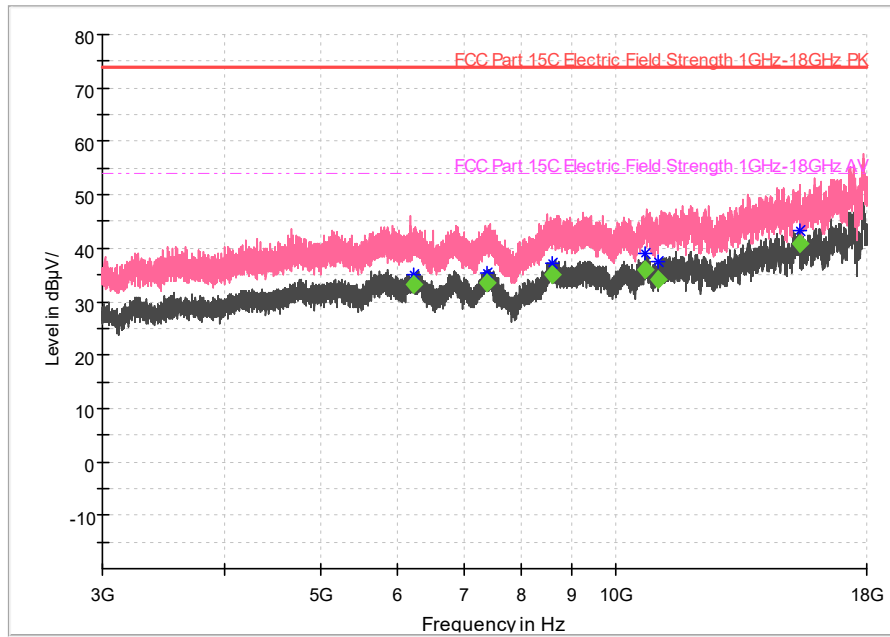
Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A _{RPI} (dB)	Polarity
15360.000	---	54.32	---	41.02	54.00	12.98	-13.30	Vertical
15941.000	---	56.03	---	42.13	54.00	11.87	-13.90	Vertical
16884.500	---	55.90	---	43.50	54.00	10.50	-12.40	Vertical
17095.000	---	53.83	---	42.03	54.00	11.97	-11.80	Vertical
17276.000	---	56.09	---	44.49	54.00	9.51	-11.60	Vertical
17881.500	---	54.96	---	44.96	54.00	9.04	-10.00	Vertical

● **EDR-2Mbps**
Spurious Radiated Emissions from 1GHz to 18GHz:
 π /4DQPSK:
CH Middle (No.39)

Full Spectrum

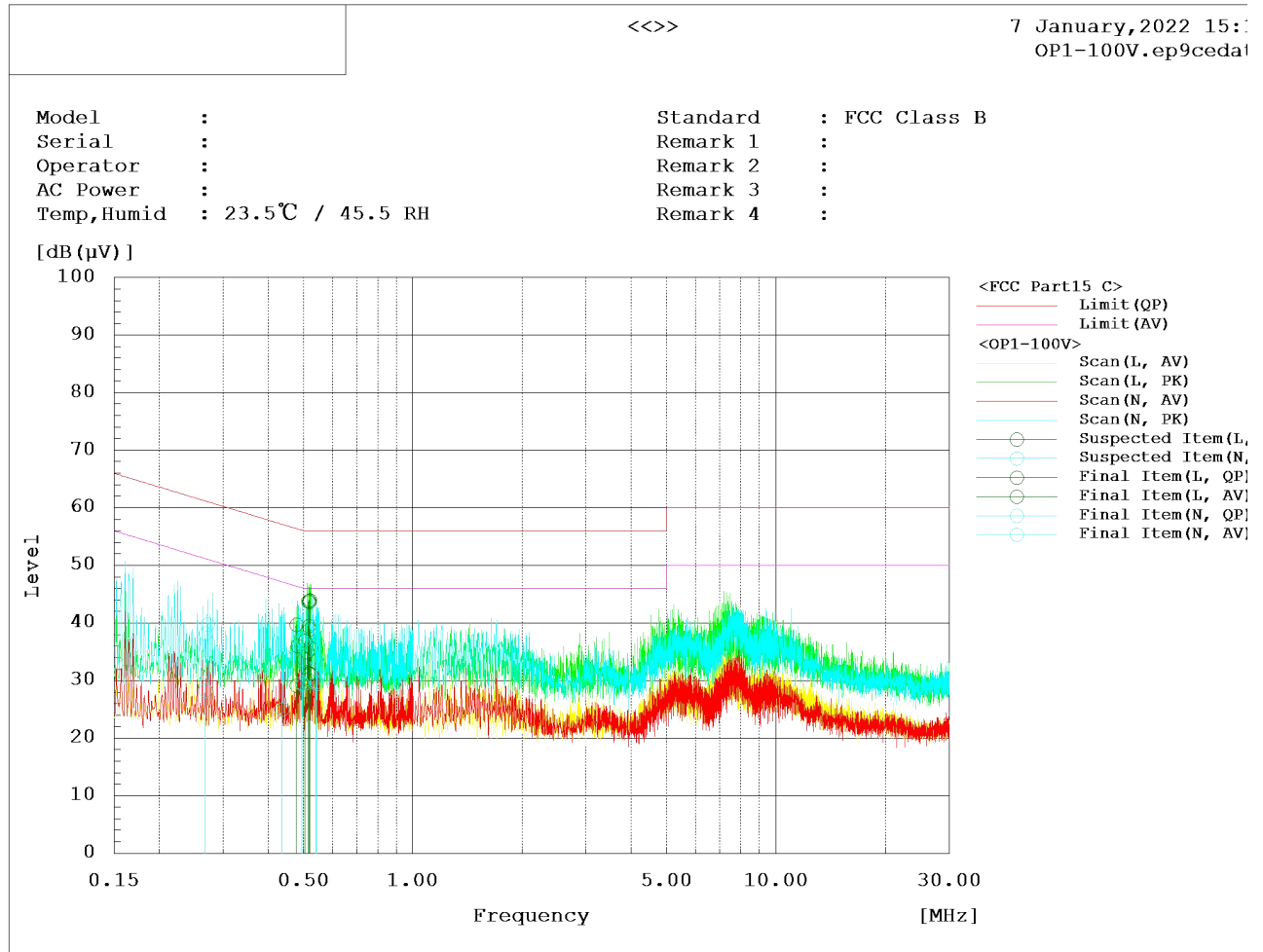


Full Spectrum

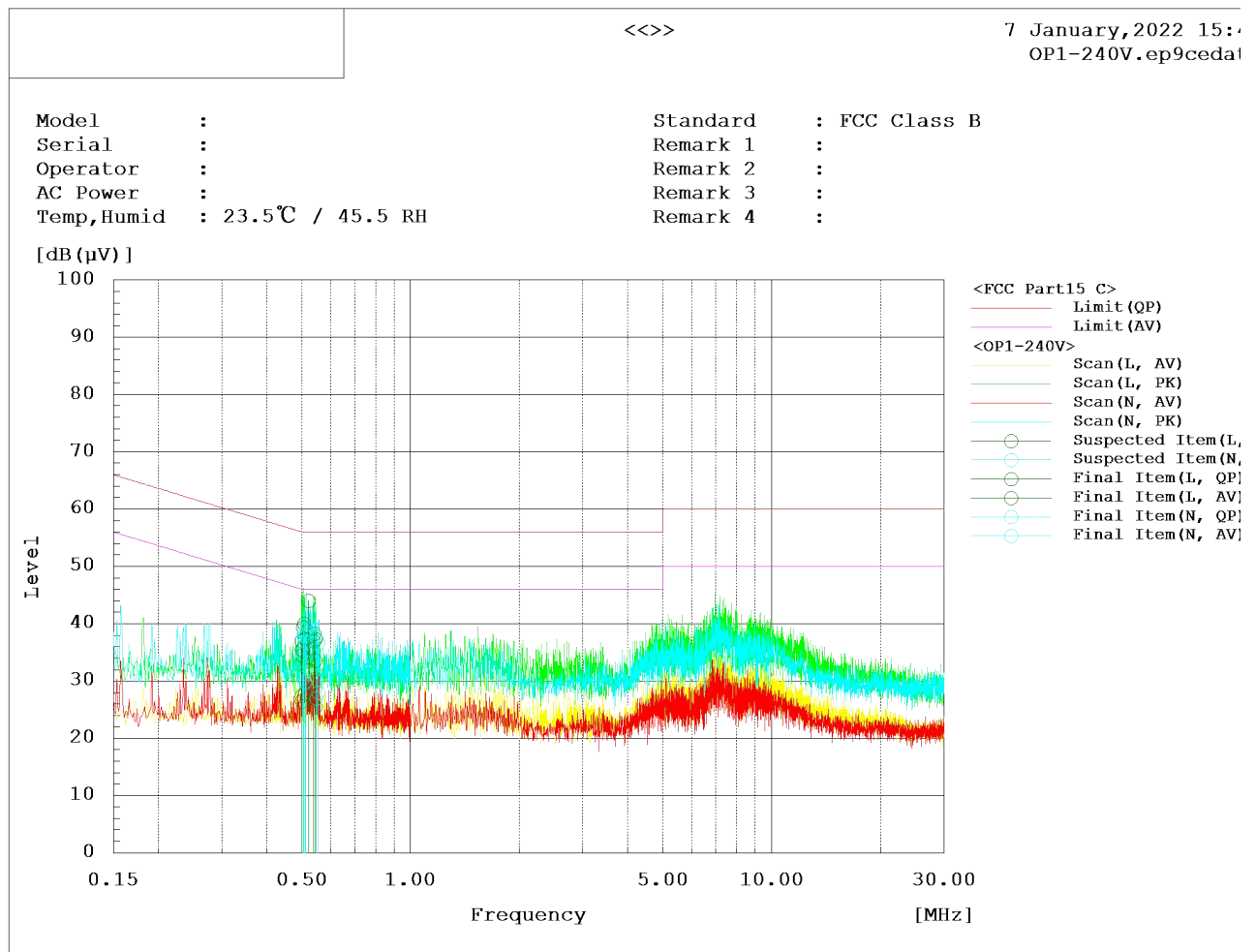


Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A _{RPI} (dB)	Polarity
6225.500	---	54.13	---	33.13	54.00	20.87	-21.00	Vertical
7389.000	---	54.81	---	33.61	54.00	20.39	-21.20	Vertical
8595.500	---	55.28	---	35.18	54.00	18.82	-20.10	Vertical
10716.500	---	54.38	---	35.98	54.00	18.02	-18.40	Vertical
11040.000	---	52.06	---	34.16	54.00	19.84	-17.90	Vertical
15362.500	---	54.01	---	40.71	54.00	13.29	-13.30	Vertical

AC Power line Conducted Emission



Range	Frequency MHz	Line	Reading			Factor	Level			Limit			Margin			Pass/Fail	
			QP	AV	PK		QP	AV	PK	QP	AV	PK	QP	AV	PK		
Band1	0.27	N	18.2	8.3		20	38.2	28.3			61.2	51.2		23	22.9		Pass
Band1	0.44	N	13.5	5.1		19.9	33.4	25			57.1	47.1		23.7	22.1		Pass
Band1	0.5	N	17.4	9.7		19.9	37.3	29.6			56.1	46.1		18.8	16.5		Pass
Band1	0.5	N	16.9	9.4		19.9	36.8	29.3			56	46		19.2	16.7		Pass
Band1	0.54	N	19.5	9.9		19.9	39.4	29.8			56	46		16.6	16.2		Pass
Band1	0.54	N	19.5	9.5		19.9	39.4	29.4			56	46		16.6	16.6		Pass
Band1	0.48	L	19.8	9.3		19.9	39.7	29.2			56.4	46.4		16.7	17.2		Pass
Band1	0.5	L	17	8.3		19.9	36.9	28.2			56	46		19.1	17.8		Pass
Band1	0.51	L	23.9	10		19.9	43.8	30.2			56	46		12.2	15.8		Pass
Band1	0.52	L	23.9	11		19.9	43.8	31.2			56	46		12.2	14.8		Pass
Band1	0.52	L	23.8	11		19.9	43.7	31.3			56	46		12.3	14.7		Pass
Band1	0.52	L	24.1	11		19.9	44	31.1			56	46		12	14.9		Pass



Range	Frequency MHz	Line	Reading			Factor dB	Level			Limit			Margin			Pass/Fail	
			QP	AV	PK		QP	AV	PK	QP	AV	PK	QP	AV	PK		
Band1	0.5	L	15.6	7.5		19.9	35.5	27.4			56	46		20.5	18.6		Pass
Band1	0.5	L	14.6	6.6		19.9	34.5	26.5			56	46		21.5	19.5		Pass
Band1	0.51	L	17.5	8		19.9	37.4	27.9			56	46		18.6	18.1		Pass
Band1	0.52	L	24.1	12		19.9	44	31.9			56	46		12	14.1		Pass
Band1	0.54	L	17.1	7		19.9	37	26.9			56	46		19	19.1		Pass
Band1	0.54	L	13.7	5.6		19.9	33.6	25.5			56	46		22.4	20.5		Pass
Band1	0.51	N	19	11		19.9	38.9	31.3			56	46		17.1	14.7		Pass
Band1	0.5	N	18.1	11		19.9	38	30.5			56	46		18	15.5		Pass
Band1	0.51	N	17.8	10		19.9	37.7	29.9			56	46		18.3	16.1		Pass
Band1	0.51	N	18.1	9.8		19.9	38	29.7			56	46		18	16.3		Pass
Band1	0.55	N	17.5	7.1		19.9	37.4	27			56	46		18.6	19		Pass
Band1	0.56	N	16.8	8.1		19.9	36.7	28			56	46		19.3	18		Pass

---End of Test Report---