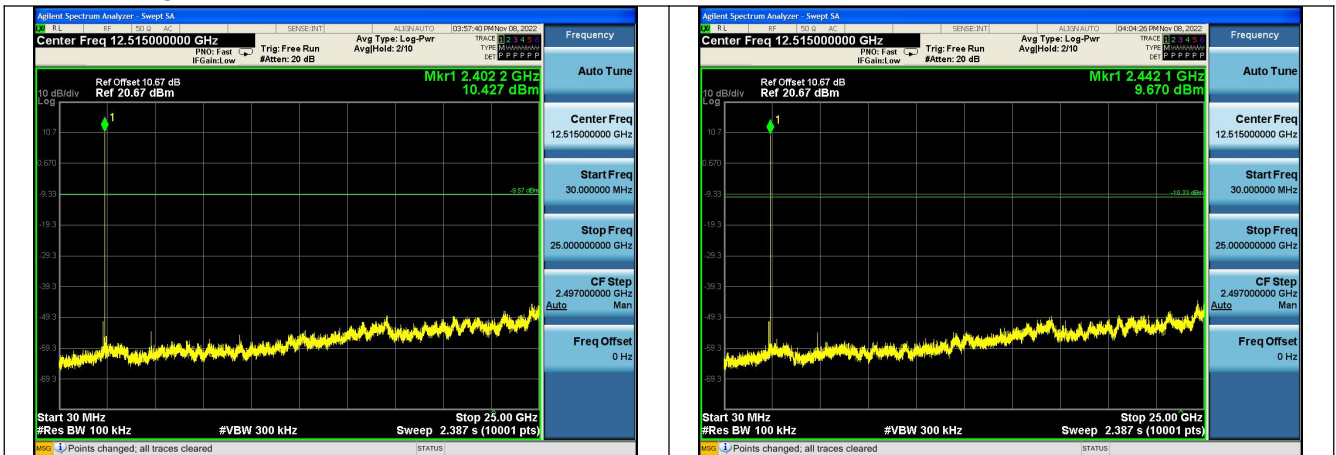


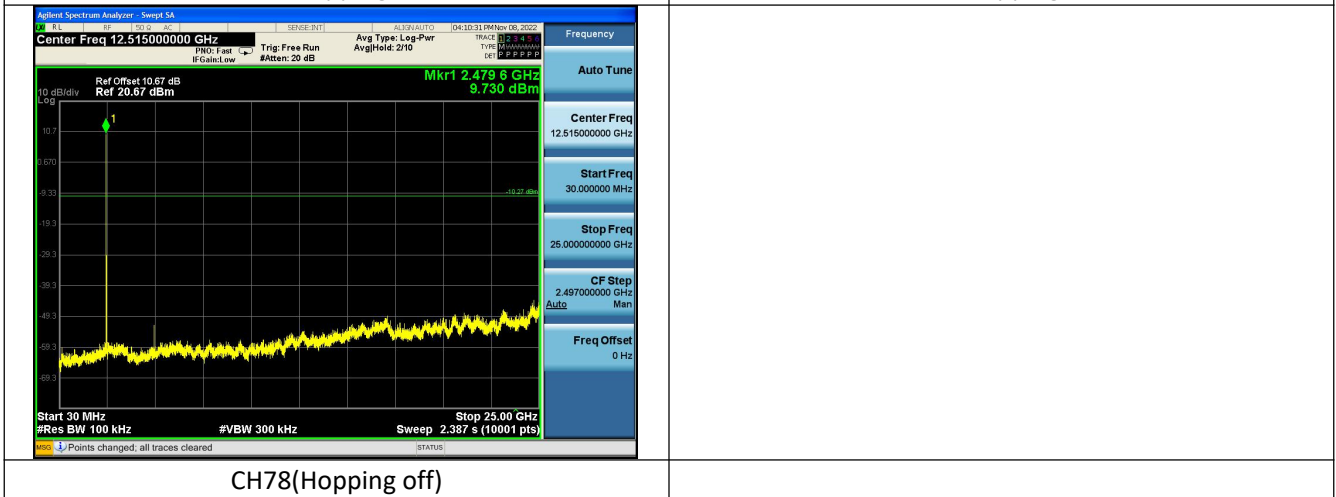
6 Conducted Out of band emission measurement

Test Mode: GFSK



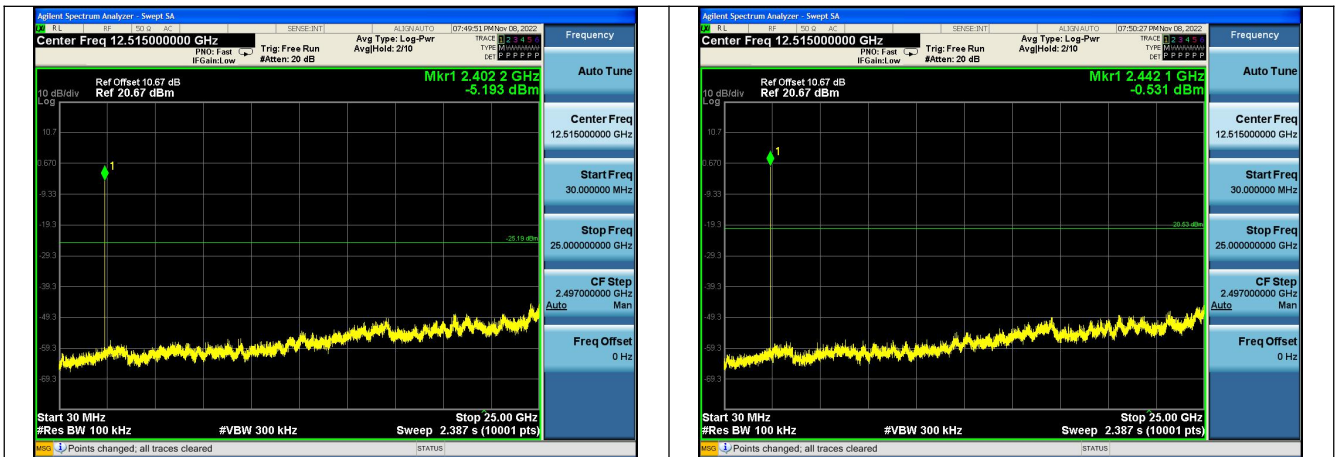
CH0(Hopping off)

CH39(Hopping off)



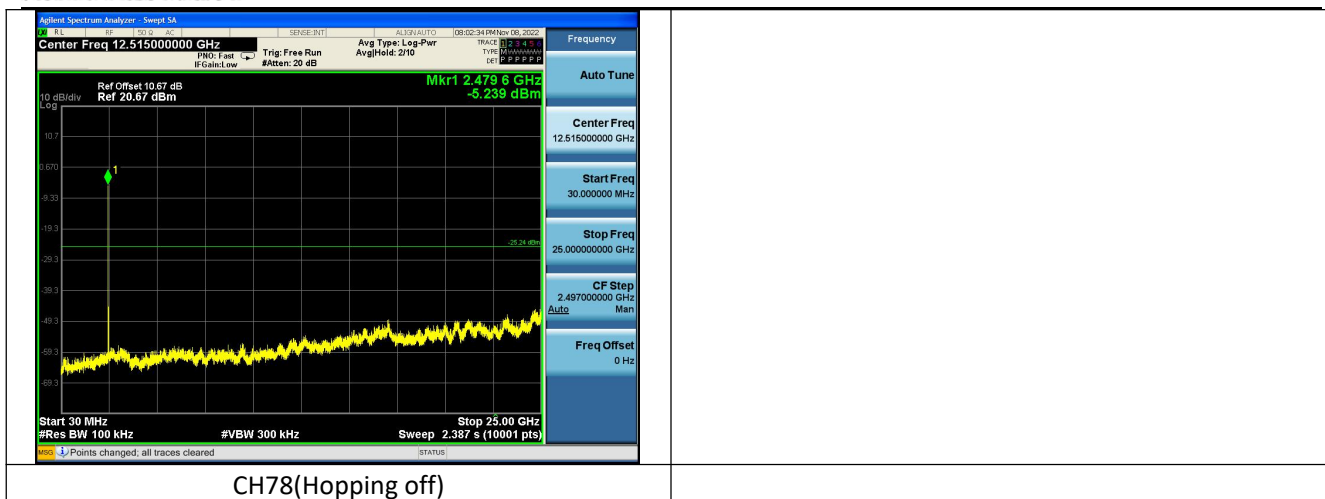
CH78(Hopping off)

Test Mode: π /4DQPSK

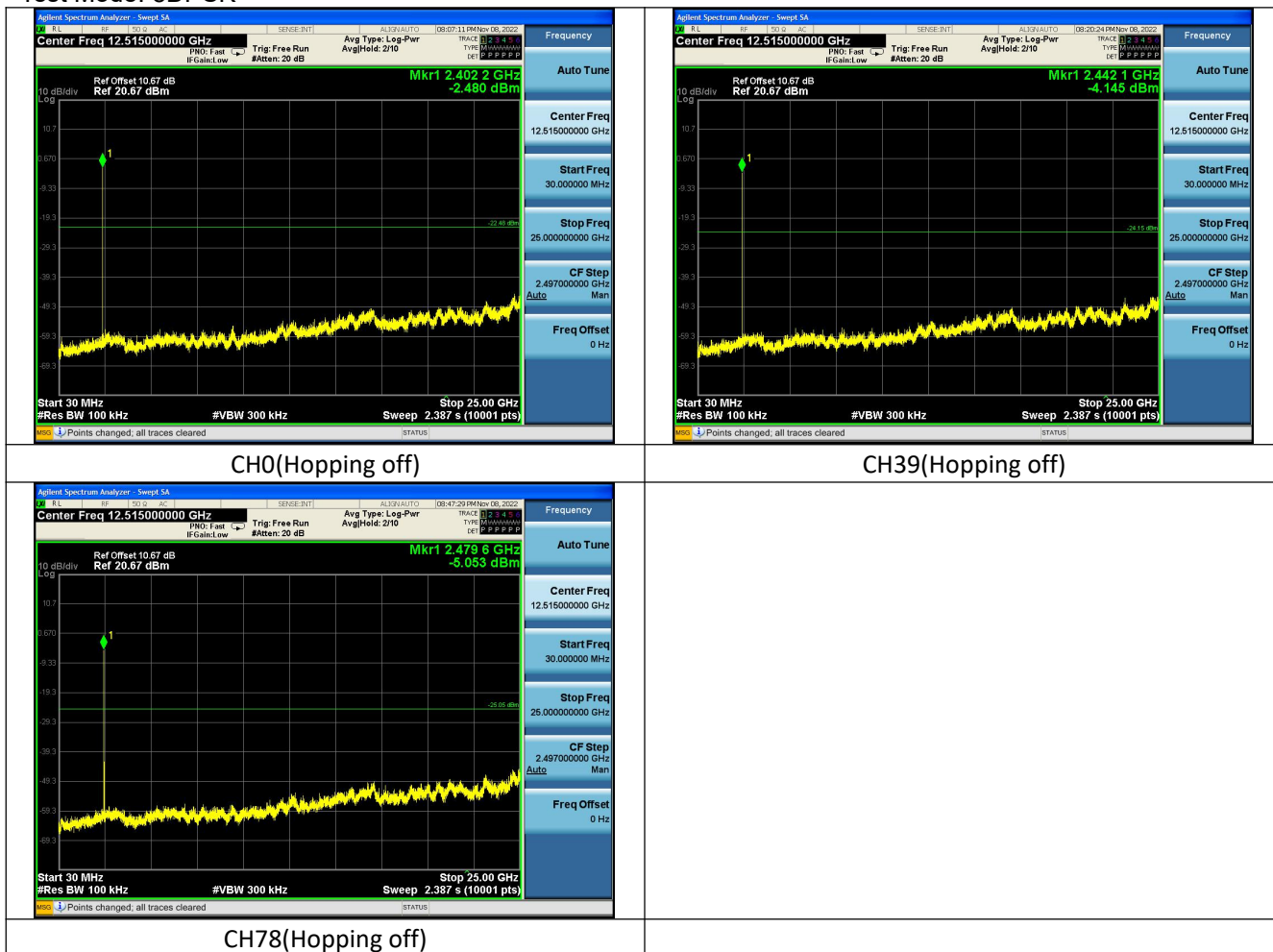


CH0(Hopping off)

CH39(Hopping off)

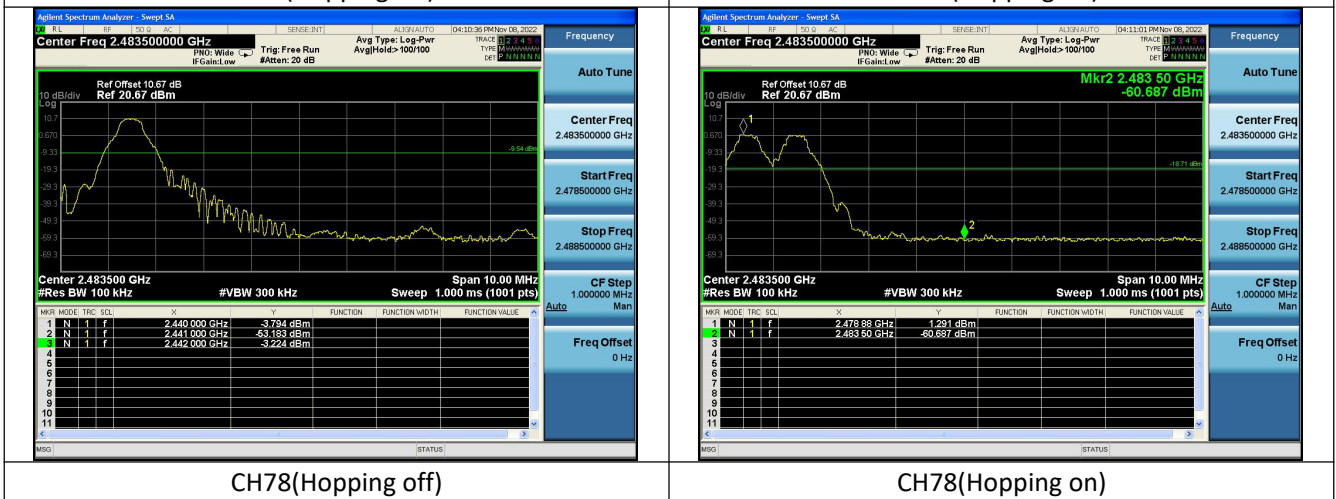
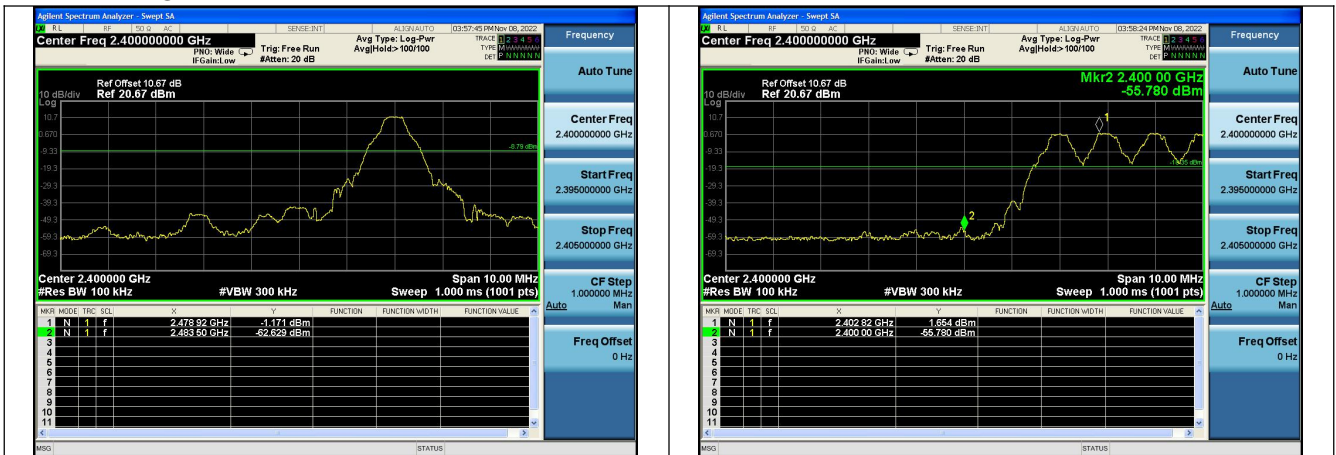


Test Mode: 8DPSK

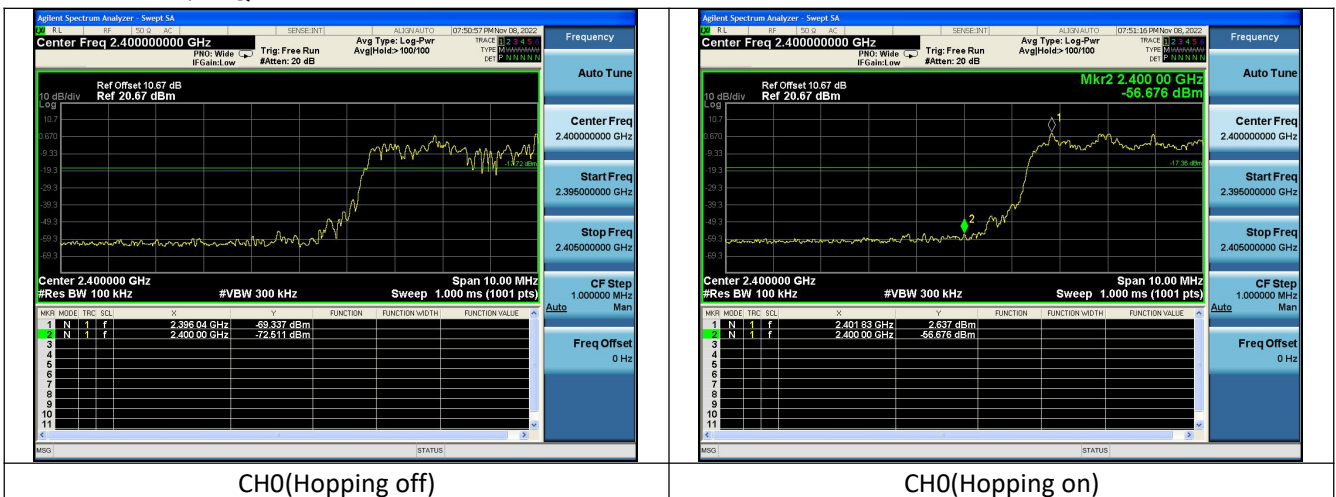


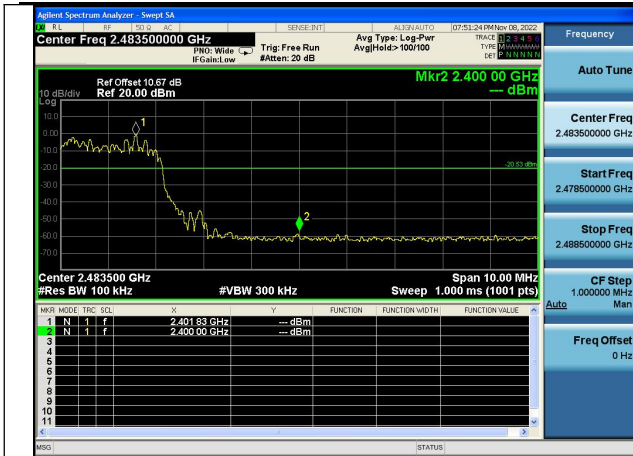
7 Band Edge measurement

Test Mode: GFSK

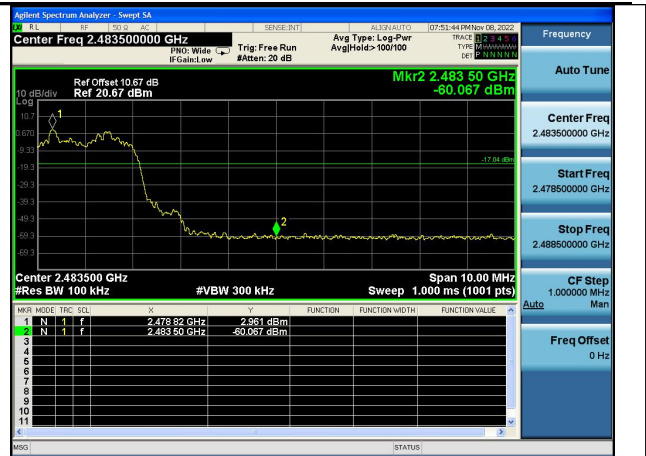


Test Mode: $\pi/4$ DQPSK





CH78(Hopping off)



CH78(Hopping on)

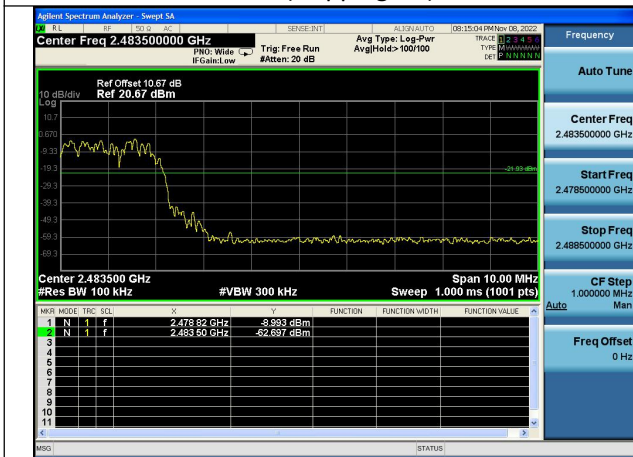
Test Mode: 8DPSK



CH0(Hopping off)



CH0(Hopping on)



CH78(Hopping off)



CH78(Hopping on)

APPENDIX B – TEST DATA OF RADIATED EMISSION

Radiated Emission Band Edge

After comparison, the worst case attitude is EUT lay down and tx-antenna vertical. The relevant tests have been performed in order to verify in which mode would have the worst features, the result show above is the worst case.

Carrier frequency (MHz): 2402

Channel No.:0

Test Mode: GFSK

Polarity: Vertical

o	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.3477	37.487	74	36.513	Peak
2	2.325	25.449	54	28.551	Average

Carrier frequency (MHz): 2402

Channel No.:0

Test Mode: GFSK

Polarity: Horizontal

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.3472	37.308	74	36.692	Peak
2	2.3241	24.955	54	29.045	Average

Carrier frequency (MHz): 2480

Channel No.:78

Test Mode: GFSK

Polarity: Vertical

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4853	37.187	74	36.813	Peak
2	2.4844	24.465	54	29.535	Average

Carrier frequency (MHz): 2480

Channel No.:78

Test Mode: GFSK

Polarity: Horizontal

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4952	38.008	74	35.992	Peak
2	2.4907	24.705	54	29.295	Average

Carrier frequency (MHz): 2402

Channel No.:0

Test Mode: $\pi/4$ DQPSK

Polarity: Vertical

o	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.3277	38.246	74	35.754	Peak
2	2.319	25.772	54	28.228	Average

Carrier frequency (MHz): 2402

Channel No.:0

Test Mode: $\pi/4$ DQPSK

Polarity: Horizontal

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.3751	37.917	74	36.083	Peak
2	2.3749	25.635	54	28.365	Average

Carrier frequency (MHz): 2480

Channel No.:78

Test Mode: $\pi/4$ DQPSK

Polarity: Vertical

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4896	38.201	74	35.799	Peak
2	2.4918	25.892	54	28.108	Average

Carrier frequency (MHz): 2480

Channel No.:78

Test Mode: $\pi/4$ DQPSK

Polarity: Horizontal

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4905	37.232	74	36.768	Peak
2	2.4920	24.732	54	29.268	Average

Carrier frequency (MHz): 2402

Channel No.:0

Test Mode: 8DPSK

Polarity: Vertical

o	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
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1	2.3291	38.062	74	35.938	Peak
2	2.3194	25.597	54	28.403	Average

Carrier frequency (MHz): 2402

Channel No.:0

Test Mode: 8DPSK

Polarity: Horizontal

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.3743	38.217	74	35.783	Peak
2	2.3747	25.393	54	28.607	Average

Carrier frequency (MHz): 2480

Channel No.:78

Test Mode: 8DPSK

Polarity: Vertical

No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4975	38.782	74	35.218	Peak
2	2.4910	25.672	54	28.328	Average

Carrier frequency (MHz): 2480

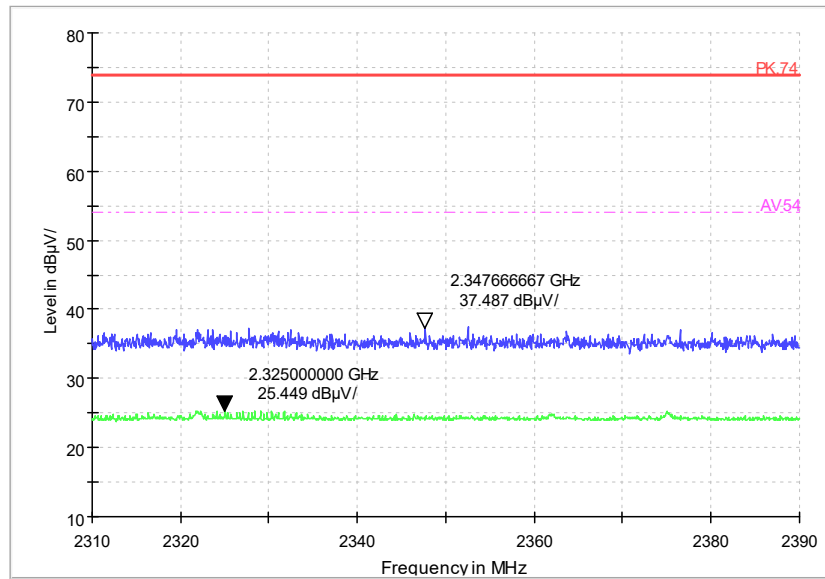
Channel No.:78

Test Mode: 8DPSK

Polarity: Horizontal

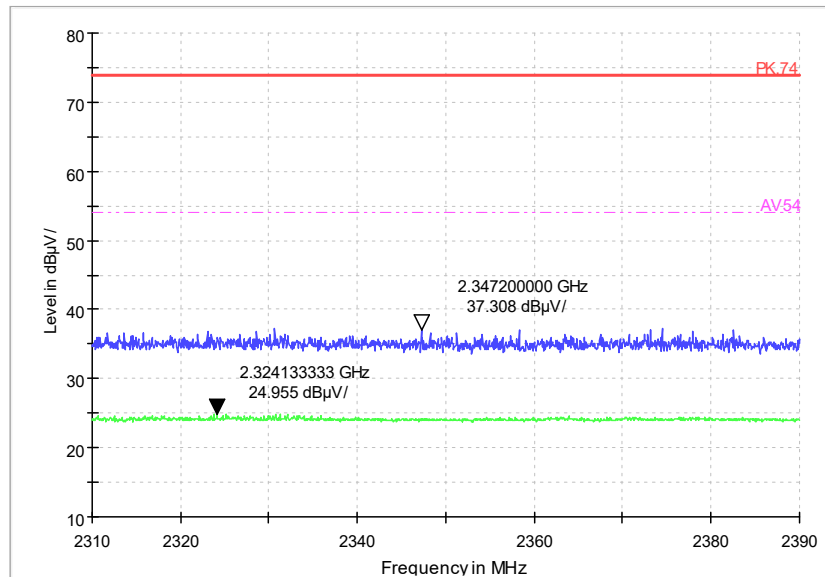
No	Frequency (GHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2.4910	38.129	74	35.871	Peak
2	2.490	25.776	54	28.224	Average

002C_FCC 2310-2390



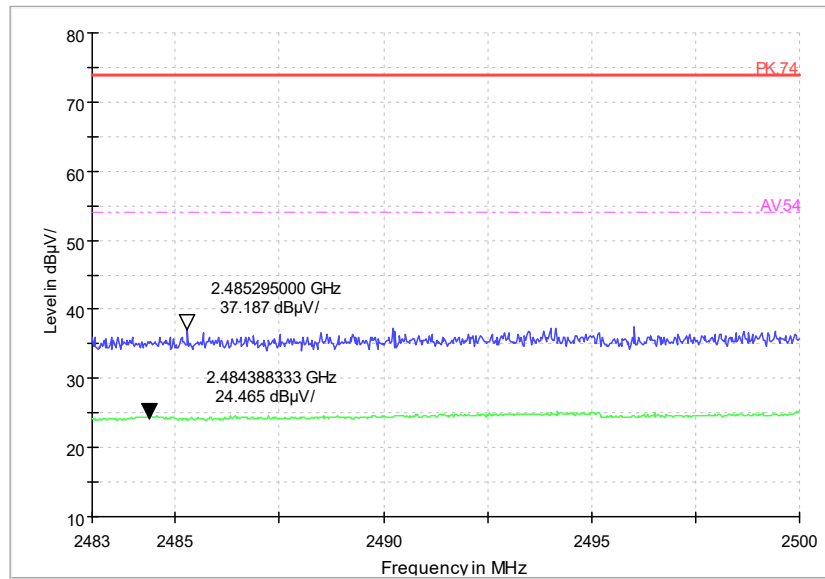
Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: GFSK
Polarity: Vertical

002C_FCC 2310-2390



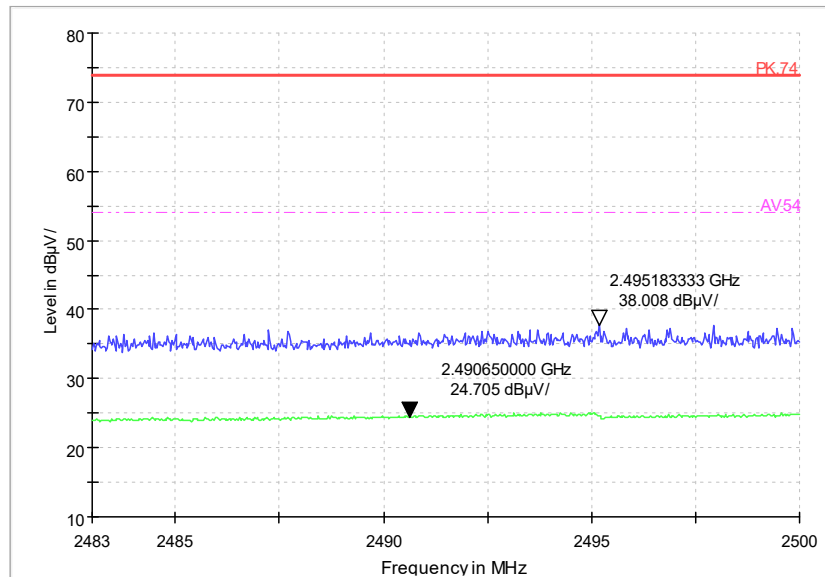
Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: GFSK
Polarity: Horizontal

002C_FCC 2483-2500



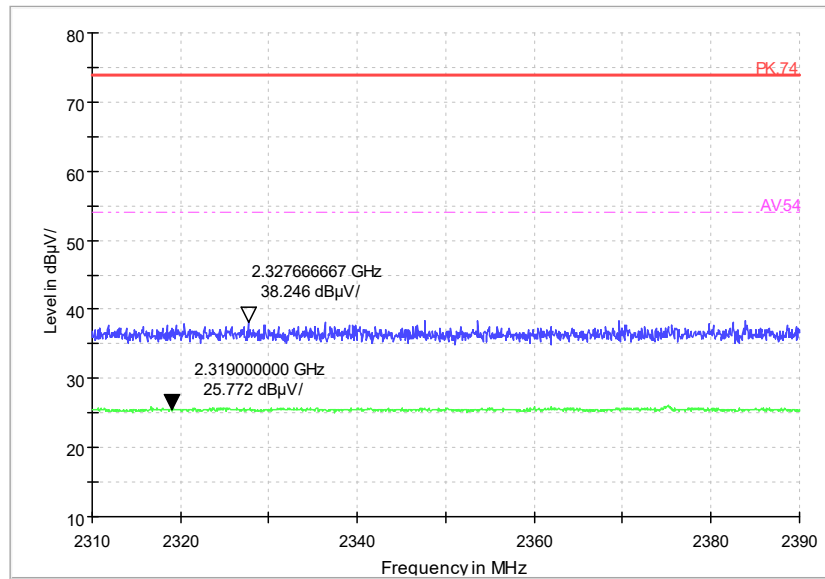
Carrier frequency (MHz): 2480
Channel No.:78
Test Mode: GFSK
Polarity: Vertical

002C_FCC 2483-2500



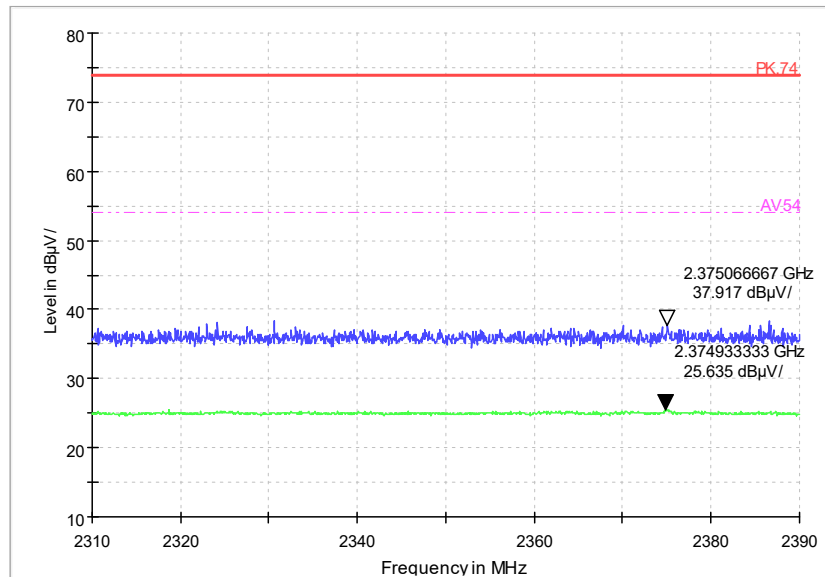
Carrier frequency (MHz): 2480
Channel No.:78
Test Mode: GFSK
Polarity: Horizontal

002C_FCC 2310-2390



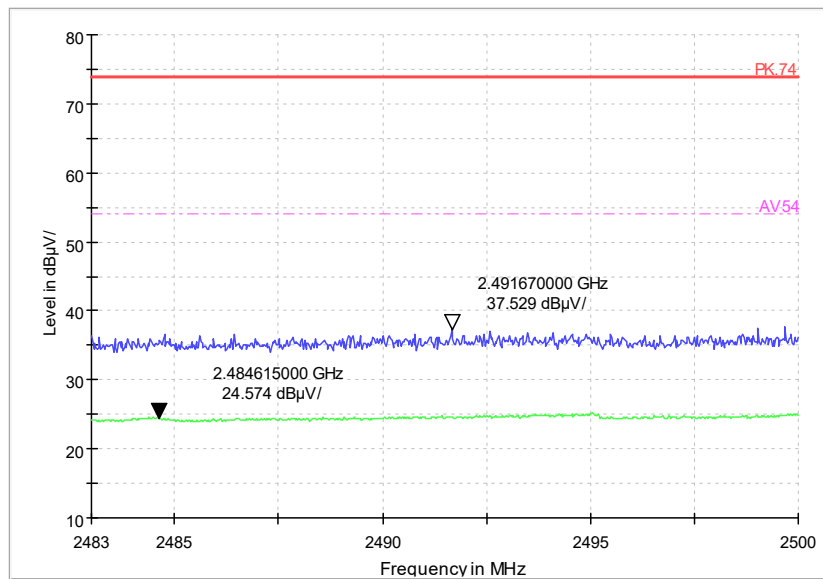
Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: $\pi/4$ DQPSK
Polarity: Vertical

002C_FCC 2310-2390



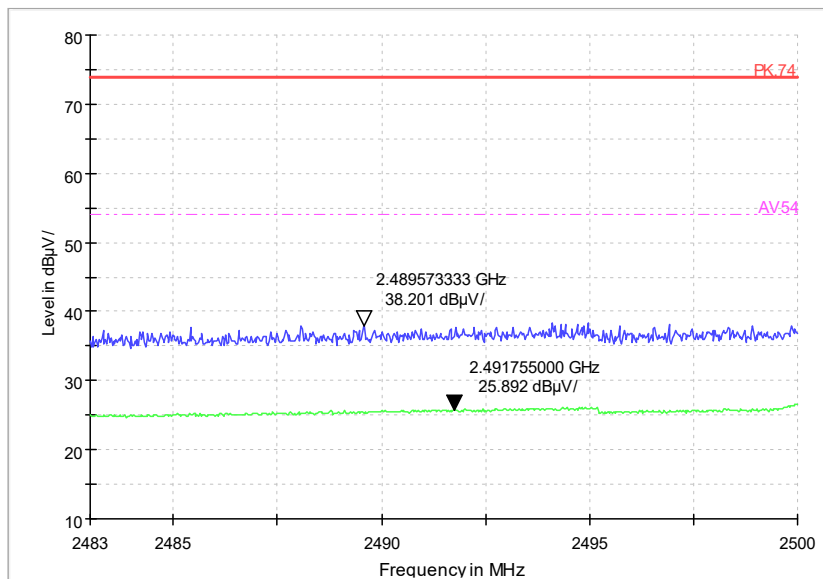
Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: $\pi/4$ DQPSK
Polarity: Horizontal

002C_FCC 2483-2500



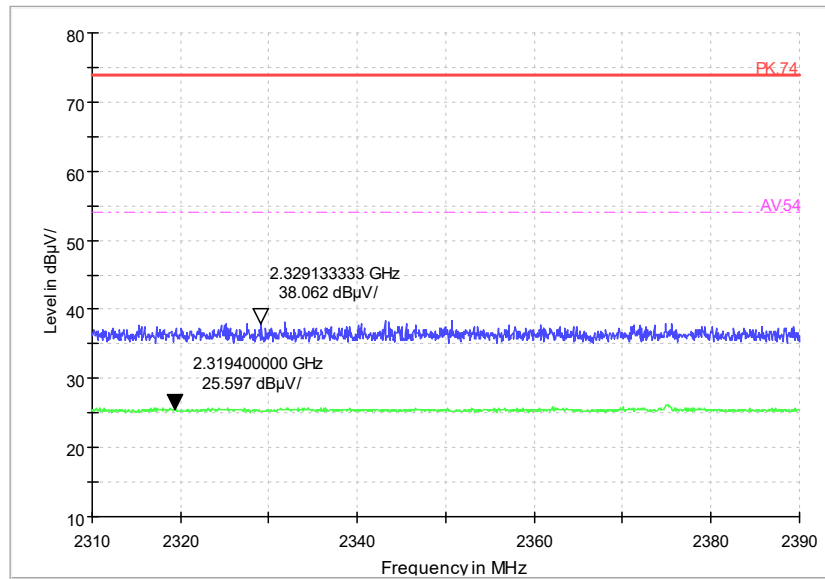
Carrier frequency (MHz): 2480
Channel No.:78
Test Mode: $\pi/4$ DQPSK
Polarity: Vertical

002C_FCC 2483-2500



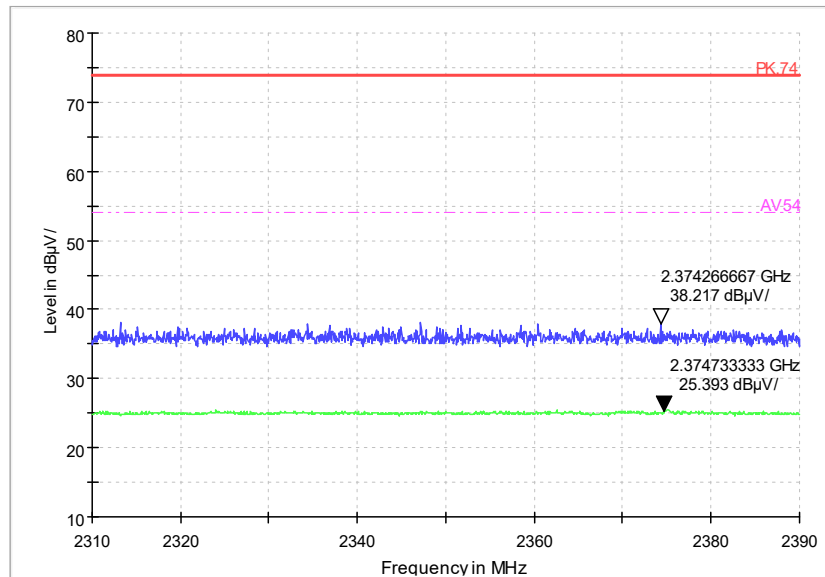
Carrier frequency (MHz): 2480
Channel No.:78
Test Mode: $\pi/4$ DQPSK
Polarity: Horizontal

002C_FCC 2310-2390



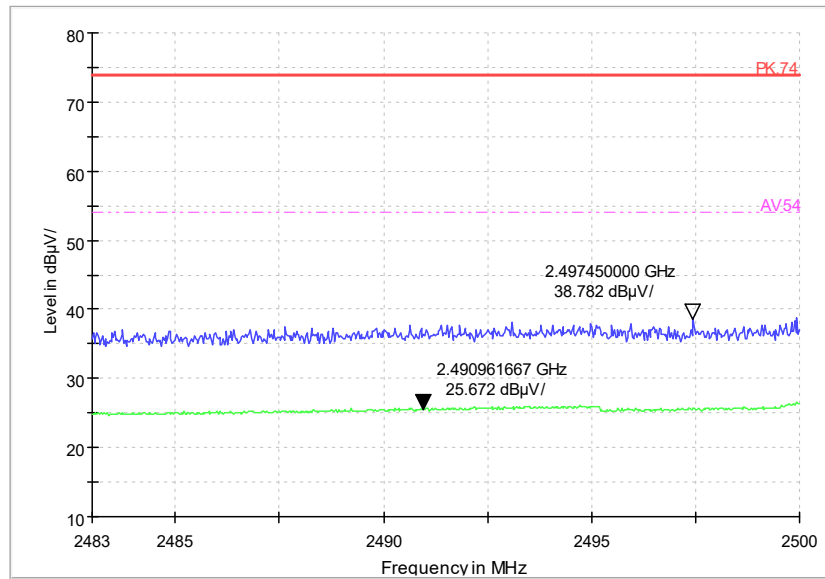
Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: 8DPSK
Polarity: Vertical

002C_FCC 2310-2390



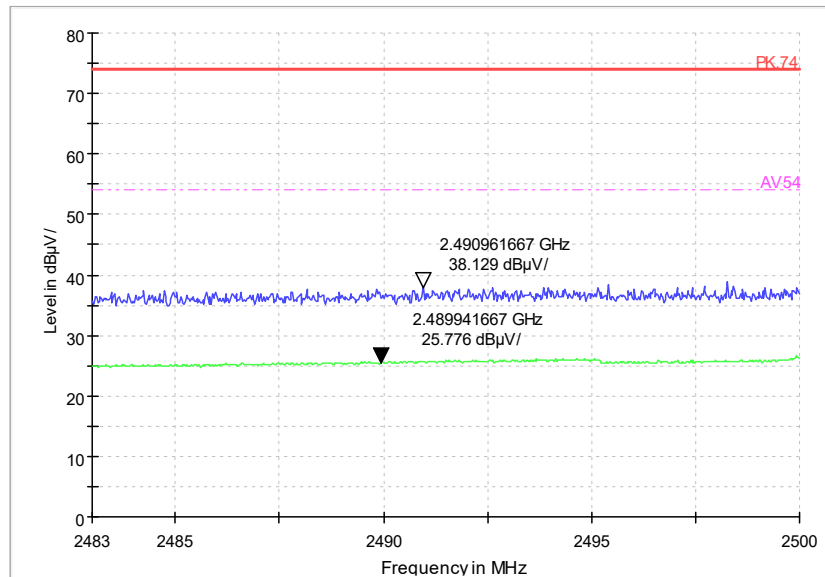
Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: 8DPSK
Polarity: Horizontal

002C_FCC 2483-2500



Carrier frequency (MHz): 2480
Channel No.:78
Test Mode: 8DPSK
Polarity: Vertical

002C_FCC 2483-2500



Carrier frequency (MHz): 2480
Channel No.:78
Test Mode: 8DPSK
Polarity: Horizontal

Sample Calculations

After comparison, the worst case attitude is EUT lay down and tx-antenna vertical.

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:

$$\text{Result} = P_{\text{mea}} + A_{Rpl}$$

Sample calculation: $(25.4 \text{ dB}\mu\text{V/m}) = (44.1 \text{ dB}\mu\text{V}) + (-18.7 \text{ dB/m})$, the corresponding frequency is 39.1665MHz.

For GFSK

Channel No.:0

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
39.1665	25.4	-18.7	44.1	Vertical	40	14.6
62.3495	26.65	-19.6	46.25	Vertical	40	13.35
124.963	37.21	-21.8	59.01	Vertical	43.5	6.29
249.996	39.85	-17.1	56.95	Vertical	46	6.15
374.9805	39.25	-13.7	52.95	Vertical	46	6.75
624.998	33.59	-8	41.59	Vertical	46	12.41

For $\pi/4$ DQPSK

Channel No.:0

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
31.164	25.94	-21	46.94	Vertical	40	14.06
61.8645	25.98	-19.5	45.48	Vertical	40	14.02
124.963	37.1	-21.8	58.9	Vertical	43.5	6.4
249.996	39.85	-17.1	56.95	Vertical	46	6.15
374.9805	39.24	-13.7	52.94	Vertical	46	6.76
624.998	33.6	-8	41.6	Vertical	46	12.4

For 8DPSK

Channel No.:0

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
30.9215	26.16	-21	47.16	Vertical	40	13.84
59.4395	25.31	-18.8	44.11	Vertical	40	14.69
124.963	37.14	-21.8	58.94	Vertical	43.5	6.36
249.996	39.87	-17.1	56.97	Vertical	46	6.13
374.9805	39.23	-13.7	52.93	Vertical	46	6.77
624.998	33.58	-8	41.58	Vertical	46	12.42

For GFSK

Channel No.:39

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
30.97	26.21	-21	47.21	Vertical	40	13.79
62.204	26.2	-19.6	45.8	Vertical	40	13.8
124.963	37.24	-21.8	59.04	Vertical	43.5	6.26
249.996	39.85	-17.1	56.95	Vertical	46	6.15
374.9805	39.24	-13.7	52.94	Vertical	46	6.76
624.998	33.59	-8	41.59	Vertical	46	12.41

For $\pi/4$ DQPSK

Channel No.:39

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
30.873	26.24	-21	47.24	Vertical	40	13.76
59.0515	24.82	-18.7	43.52	Vertical	40	15.18
124.963	37.19	-21.8	58.99	Vertical	43.5	6.31
249.996	39.87	-17.1	56.97	Vertical	46	6.13
374.9805	39.24	-13.7	52.94	Vertical	46	6.76
624.998	33.61	-8	41.61	Vertical	46	12.39

For 8DPSK

Channel No.:39

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.827	25.93	-18.8	44.73	Vertical	40	14.07
62.204	26.4	-19.6	46	Vertical	40	13.6
124.963	37.12	-21.8	58.92	Vertical	43.5	6.38
249.996	39.87	-17.1	56.97	Vertical	46	6.13
374.9805	39.24	-13.7	52.94	Vertical	46	6.76
624.998	33.6	-8	41.6	Vertical	46	12.4

For GFSK

Channel No.:78

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.924	25.55	-18.8	44.35	Vertical	40	14.45
59.7305	25.32	-18.8	44.12	Vertical	40	14.68
124.963	37.12	-21.8	58.92	Vertical	43.5	6.38
249.996	39.86	-17.1	56.96	Vertical	46	6.14
374.9805	39.23	-13.7	52.93	Vertical	46	6.77
624.998	33.61	-8	41.61	Vertical	46	12.39

For $\pi/4$ DQPSK

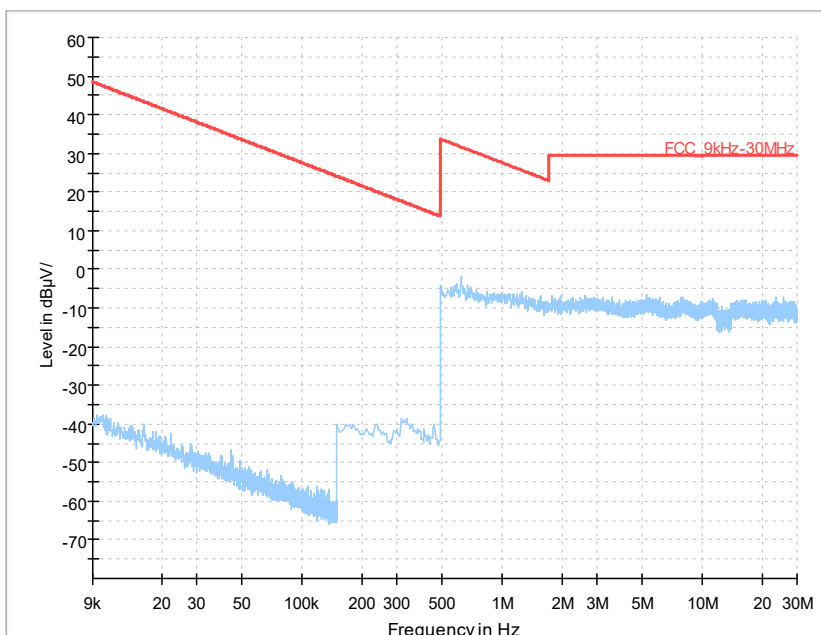
Channel No.:78

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.536	25.97	-18.9	44.87	Vertical	40	14.03
61.913	25.91	-19.5	45.41	Vertical	40	14.09
124.963	37.04	-21.8	58.84	Vertical	43.5	6.46
249.996	39.85	-17.1	56.95	Vertical	46	6.15
374.9805	39.23	-13.7	52.93	Vertical	46	6.77
624.998	33.61	-8	41.61	Vertical	46	12.39

For 8DPSK

Channel No.:78

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
38.633	26.1	-18.9	45	Vertical	40	13.9
62.3495	26.71	-19.6	46.31	Vertical	40	13.29
124.963	37.14	-21.8	58.94	Vertical	43.5	6.36
249.996	39.88	-17.1	56.98	Vertical	46	6.12
374.9805	39.24	-13.7	52.94	Vertical	46	6.76
624.998	33.6	-8	41.6	Vertical	46	12.4



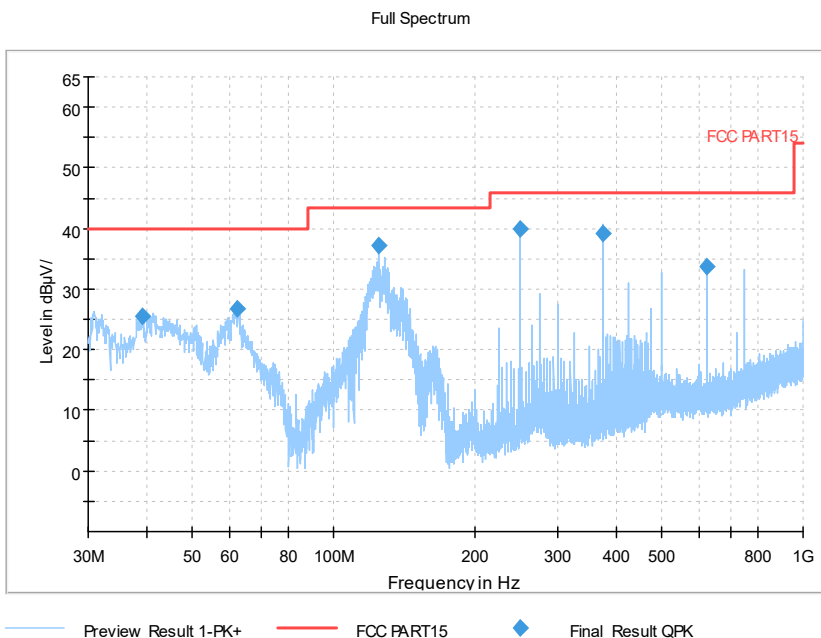
Frequency Range: 9kHz -30MHz

Detector: QP mode

Note: The relevant tests have been performed in order to verify in which mode would have the worst features, the result show above is the worst case.

Carrier frequency (MHz): 2402

Channel No.:0

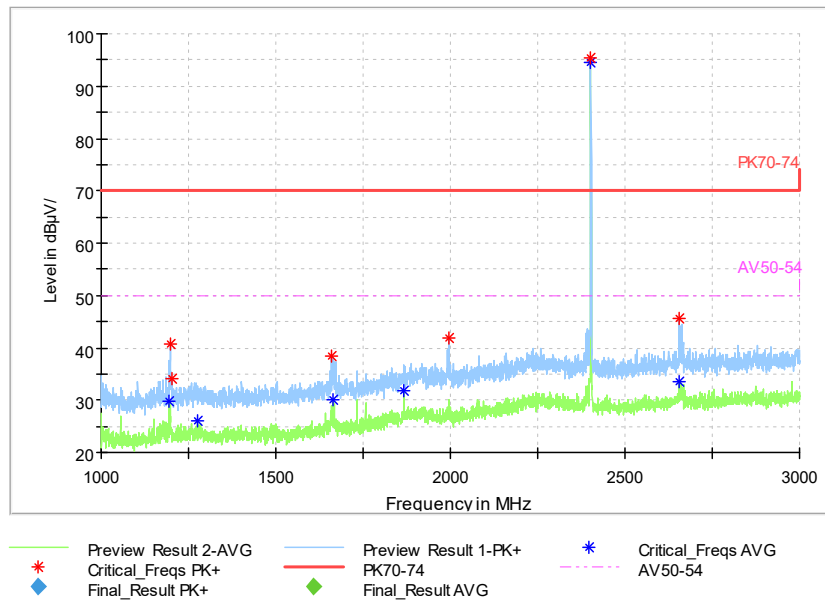


Frequency Range: 30MHz-1000MHz

Detector: QP mode

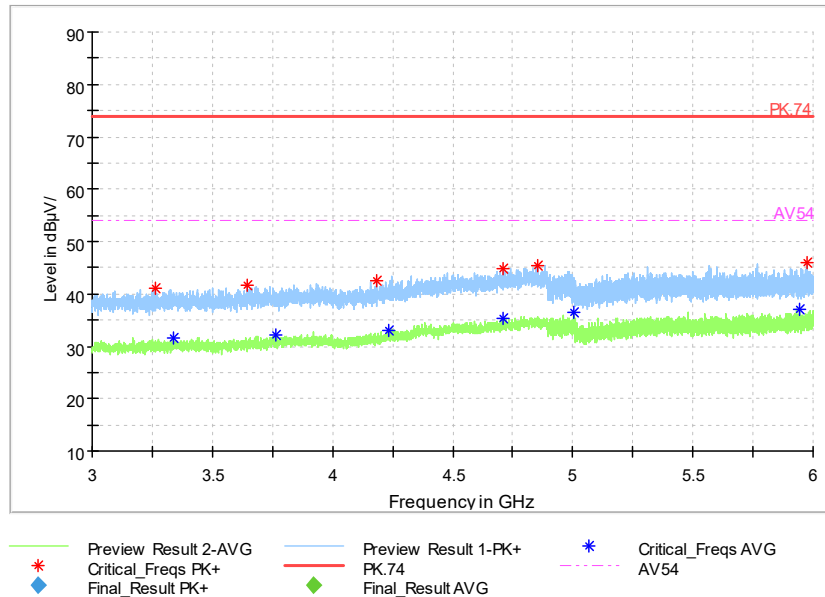
Modulation type: GFSK

Full Spectrum



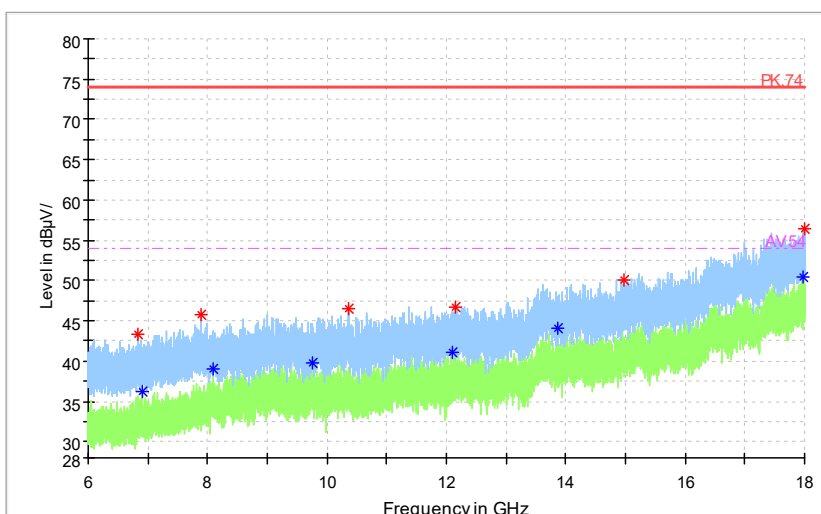
Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



Frequency Range: 3GHz-6GHz
Detector: Av mode and PK mode
Modulation type: GFSK

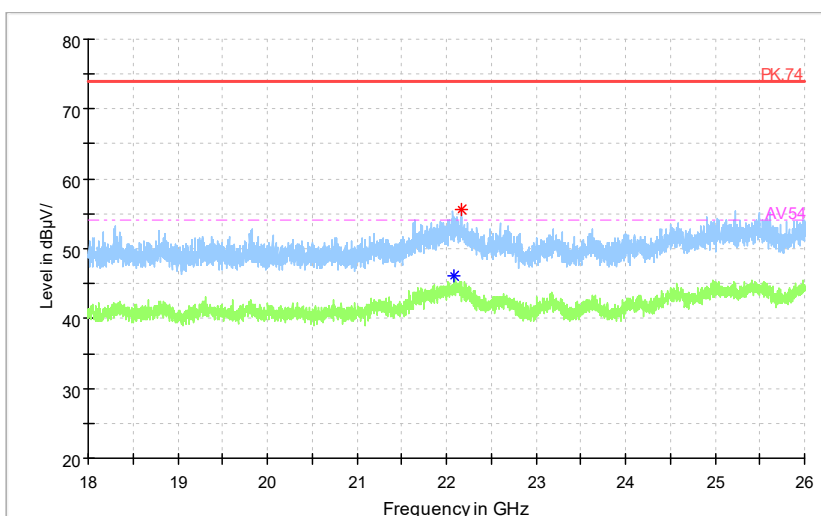
Full Spectrum



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 --- AV54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 6GHz- 18GHz
Detector: Av mode and PK mode
Modulation type: GFSK

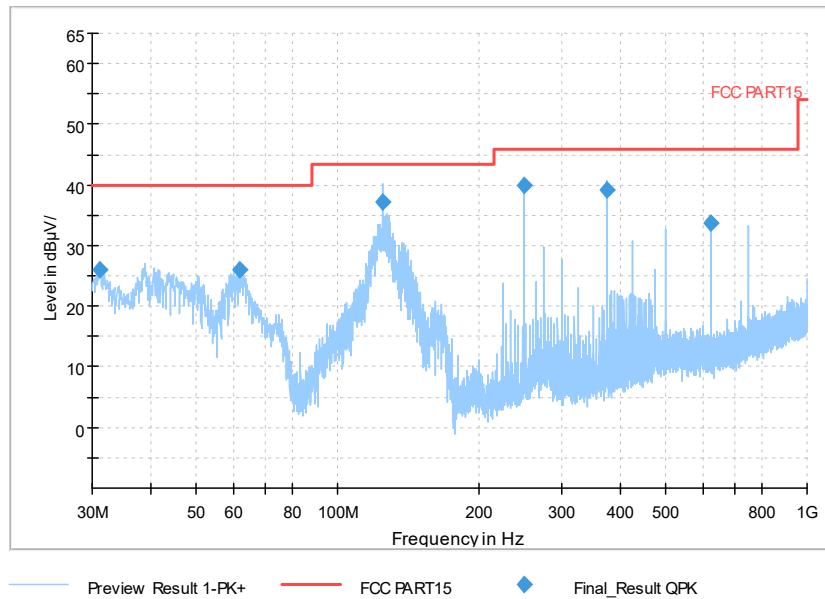
Full Spectrum



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 --- AV54
◆ Final_Result PK+ ◆ Final_Result AVG

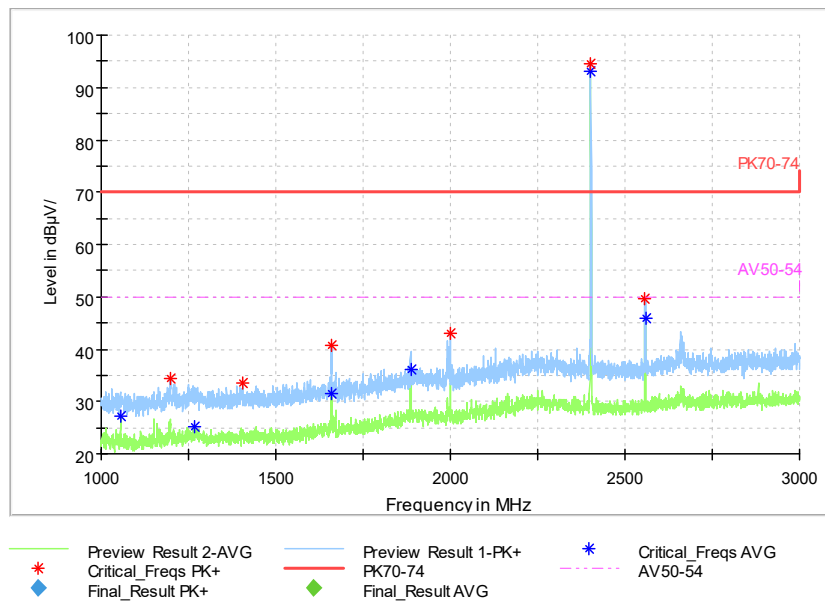
Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



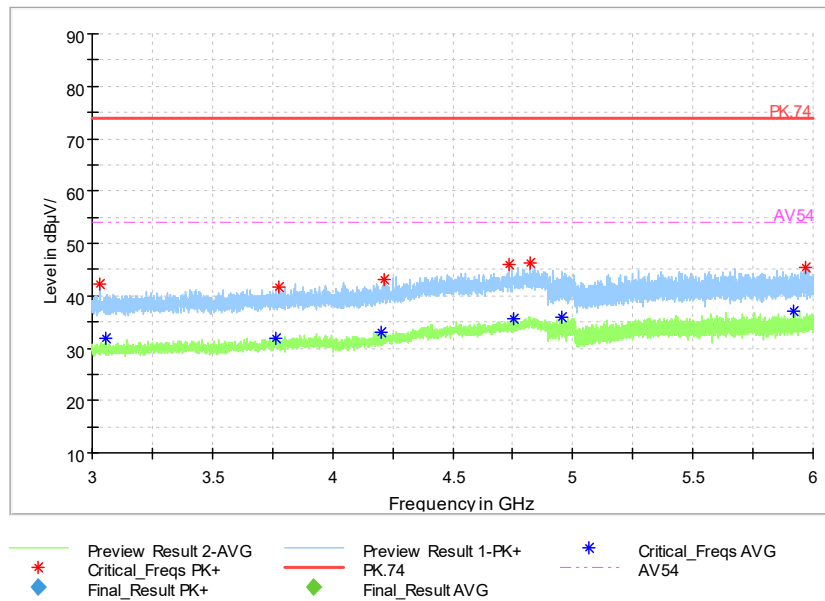
Frequency Range: 30MHz-1000 MHz
Detector: QP mode
Modulation type: $\pi/4$ DQPSK

Full Spectrum

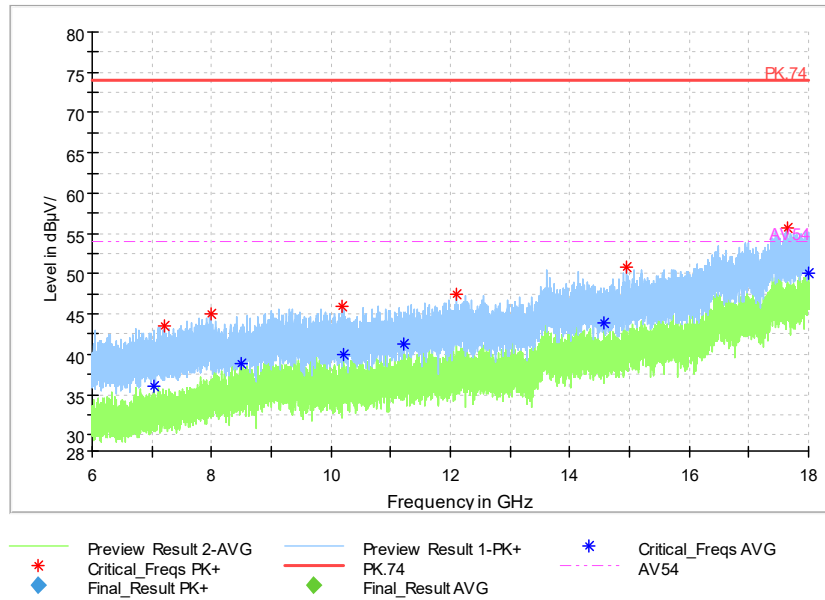


Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: $\pi/4$ DQPSK

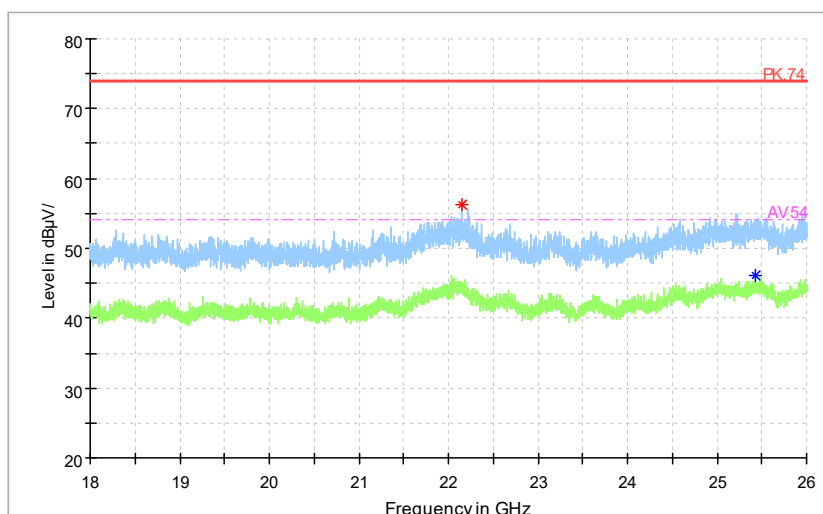
Full Spectrum



Full Spectrum

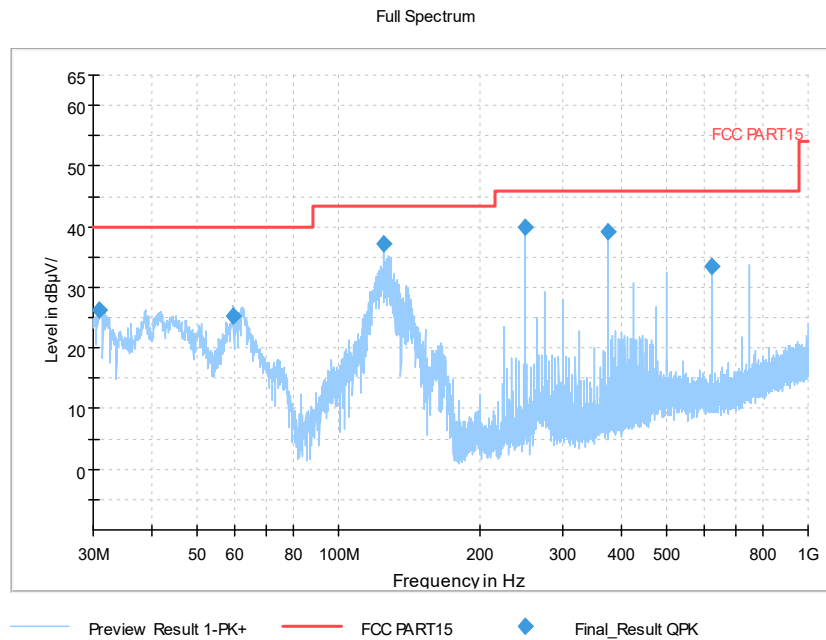


Full Spectrum

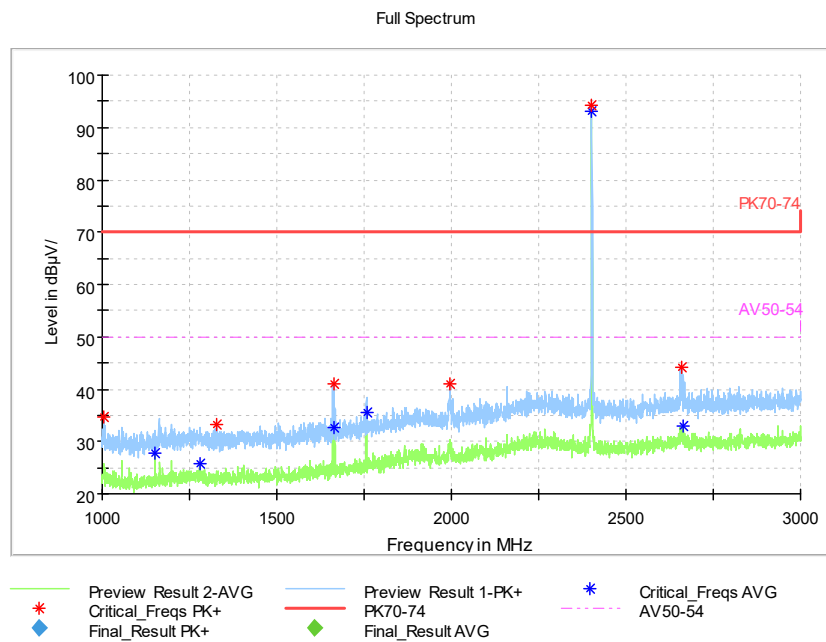


— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 - - - AV54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 18GHz-26GHz
 Detector: Av mode and PK mode
 Modulation type: $\pi/4$ DQPSK

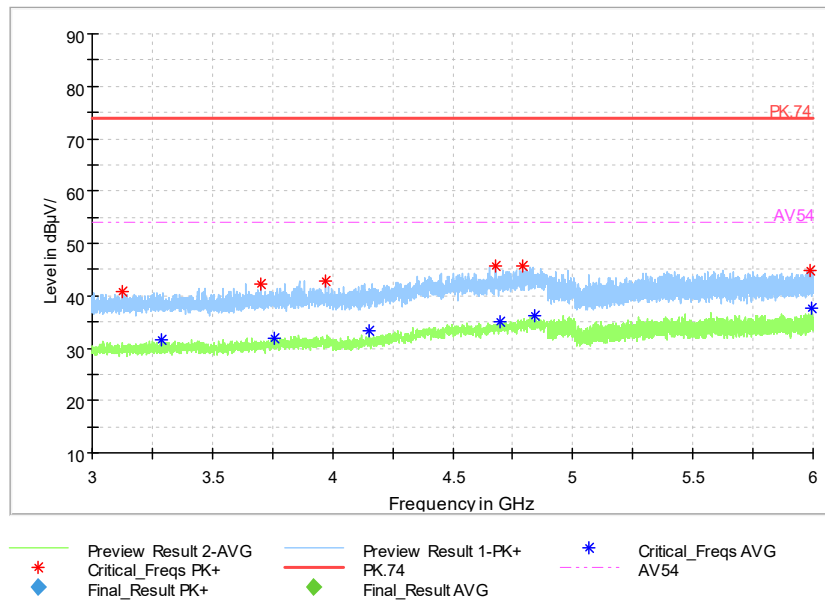


Frequency Range: 30MHz-1000 MHz
Detector: QP mode
Modulation type: 8DPSK

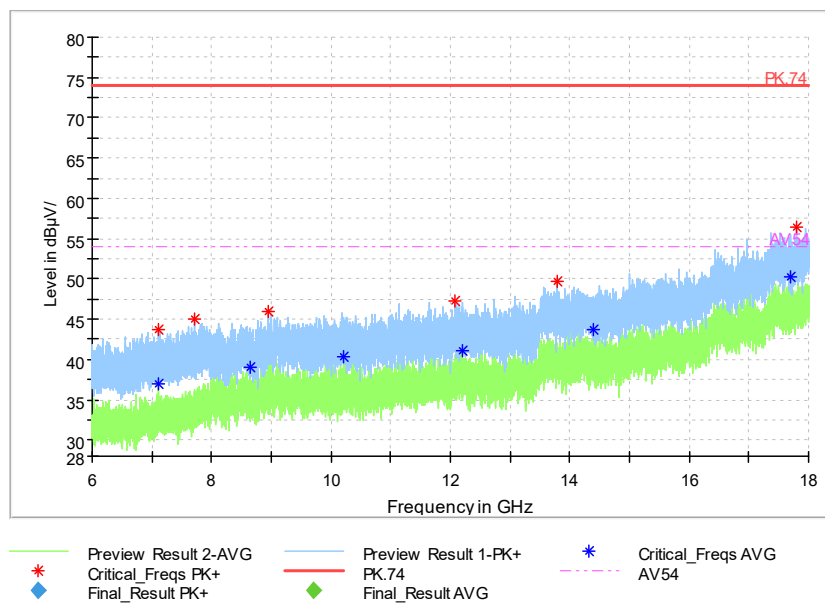


Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: 8DPSK

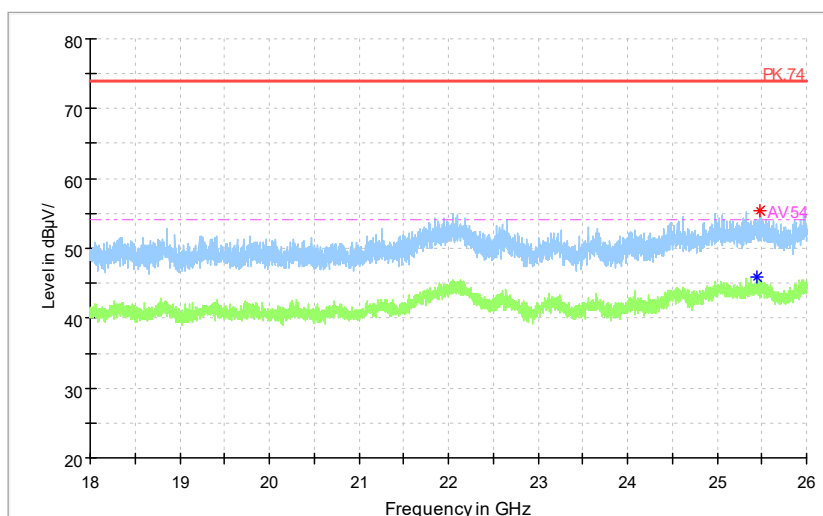
Full Spectrum



Full Spectrum



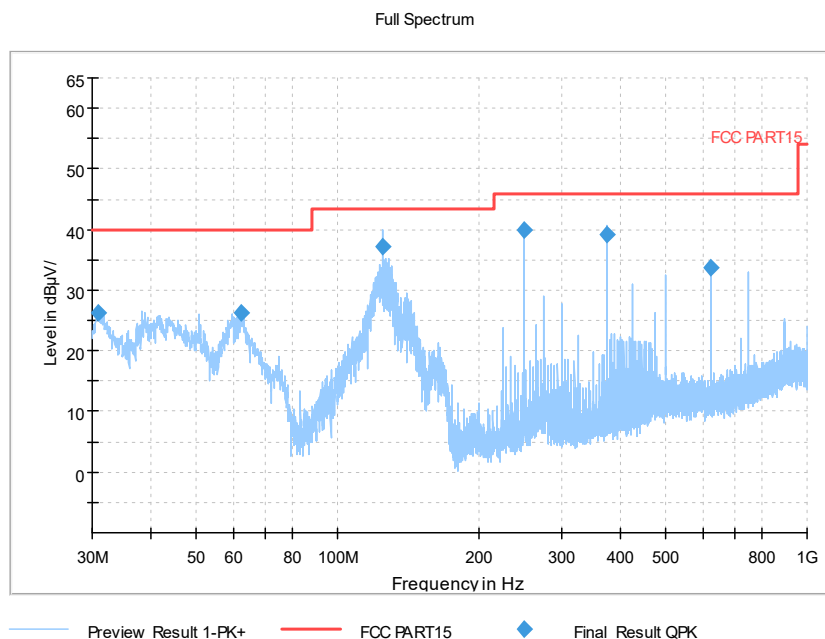
Full Spectrum



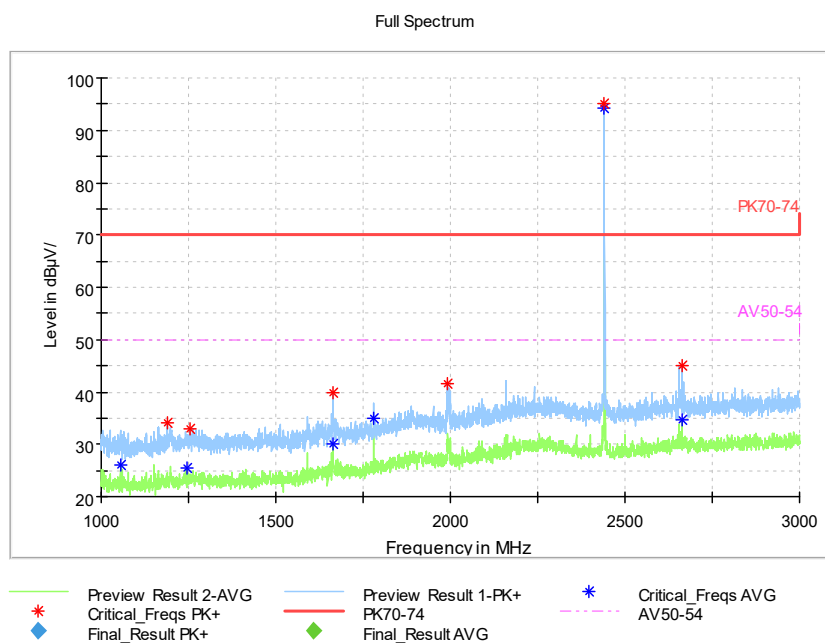
— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 - - - AV54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 18GHz-26GHz
 Detector: Av mode and PK mode
 Modulation type: 8DPSK

Carrier frequency (MHz): 2441
Channel No.:39

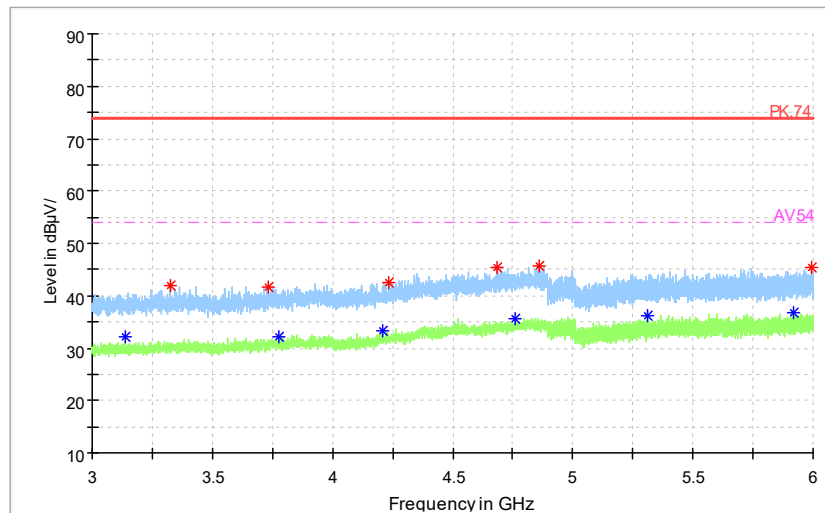


Frequency Range: 30MHz-1000MHz
Detector: QP mode
Modulation type: GFSK



Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK

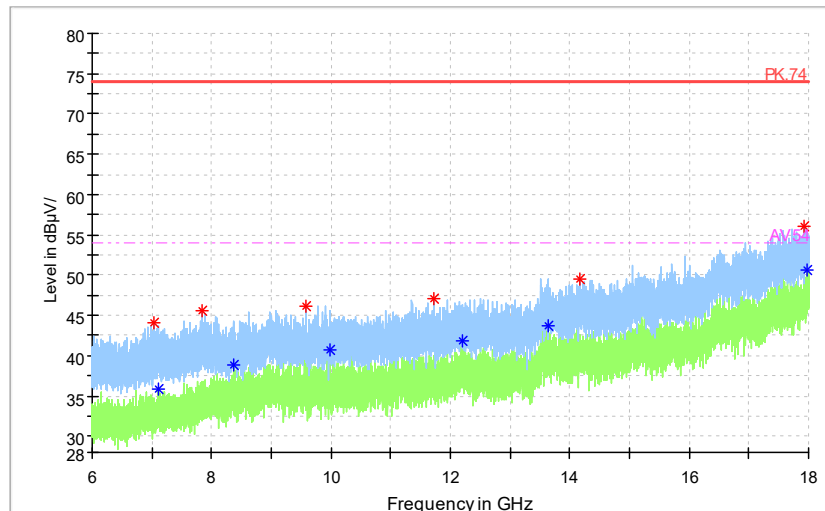
Full Spectrum



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 --- AV54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 3GHz-6GHz
Detector: Av mode and PK mode
Modulation type: GFSK

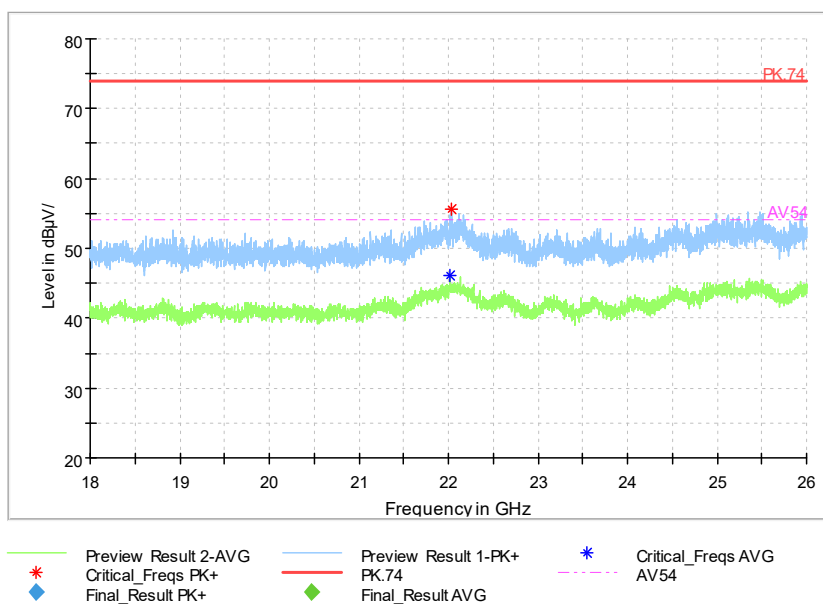
Full Spectrum



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 --- AV54
◆ Final_Result PK+ ◆ Final_Result AVG

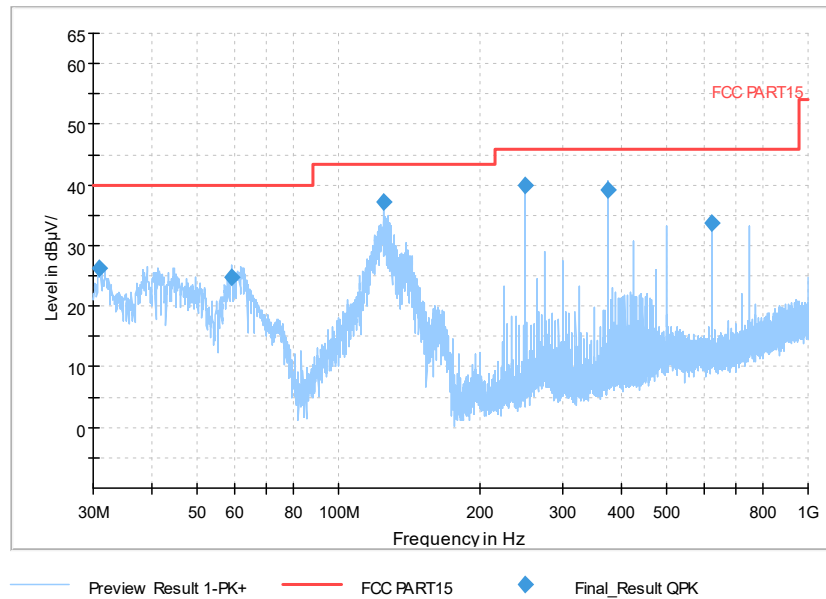
Frequency Range: 6GHz- 18GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



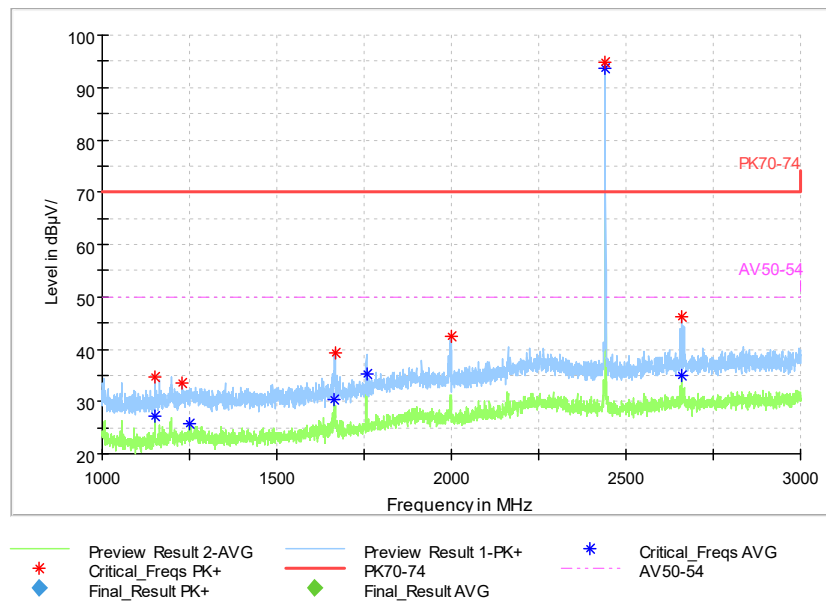
Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



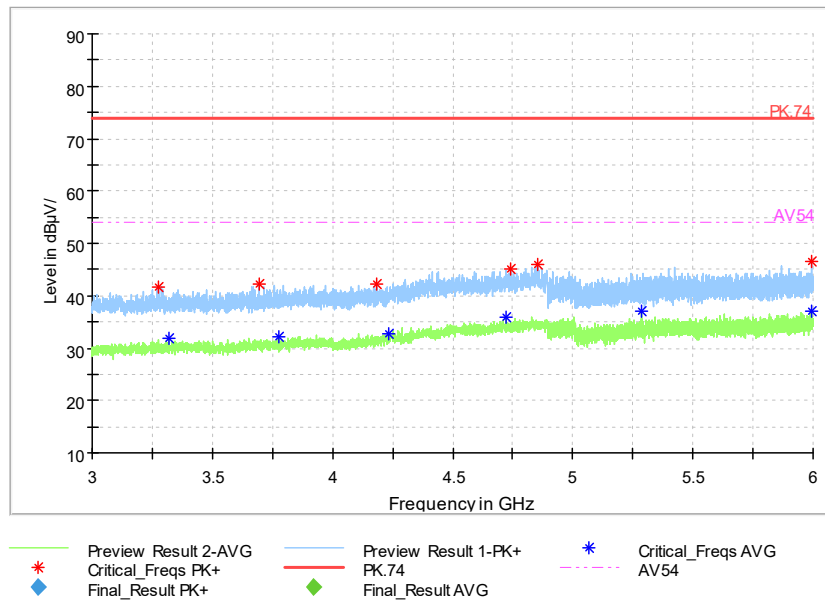
Frequency Range: 30MHz-1000 MHz
Detector: QP mode
Modulation type: $\pi/4$ DQPSK

Full Spectrum

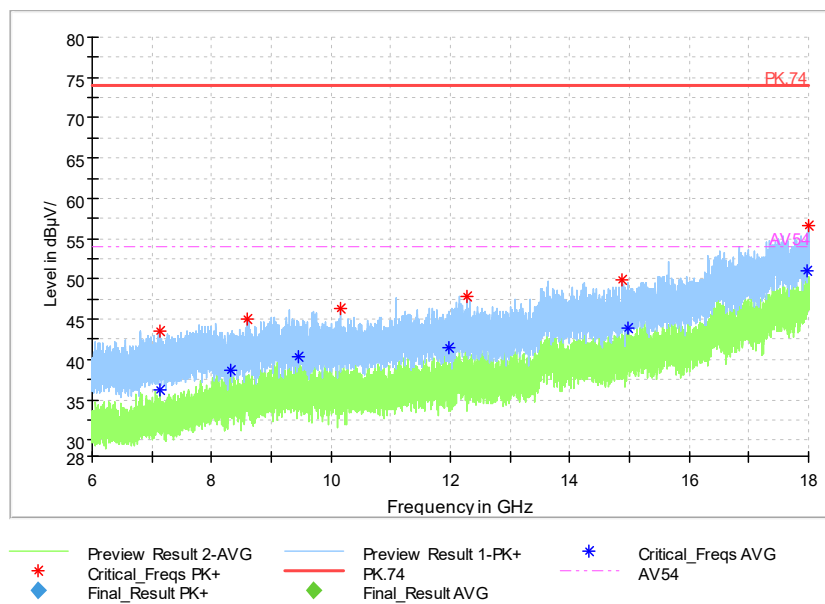


Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: $\pi/4$ DQPSK

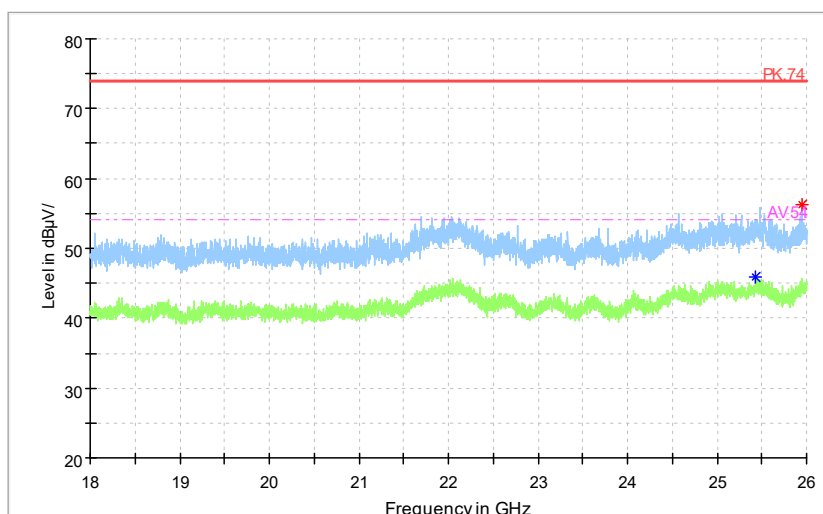
Full Spectrum



Full Spectrum

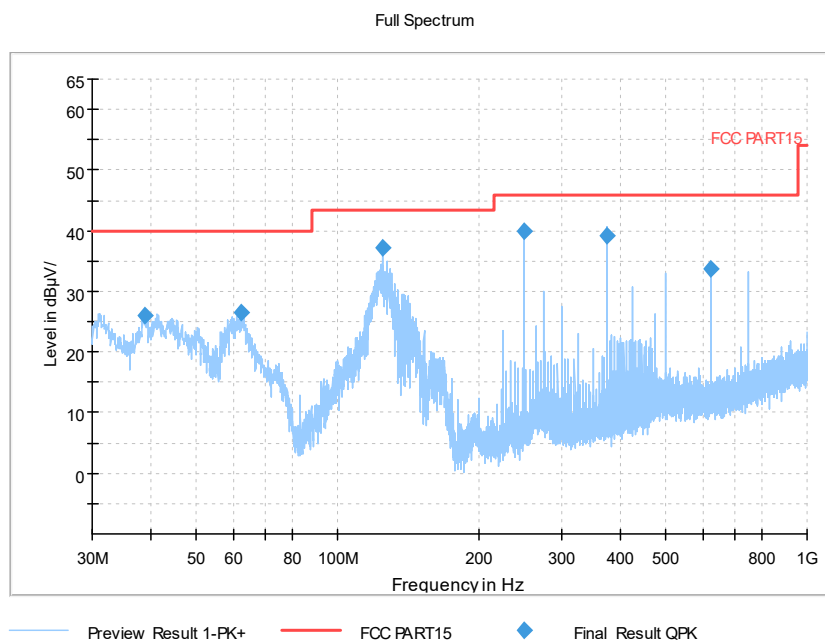


Full Spectrum

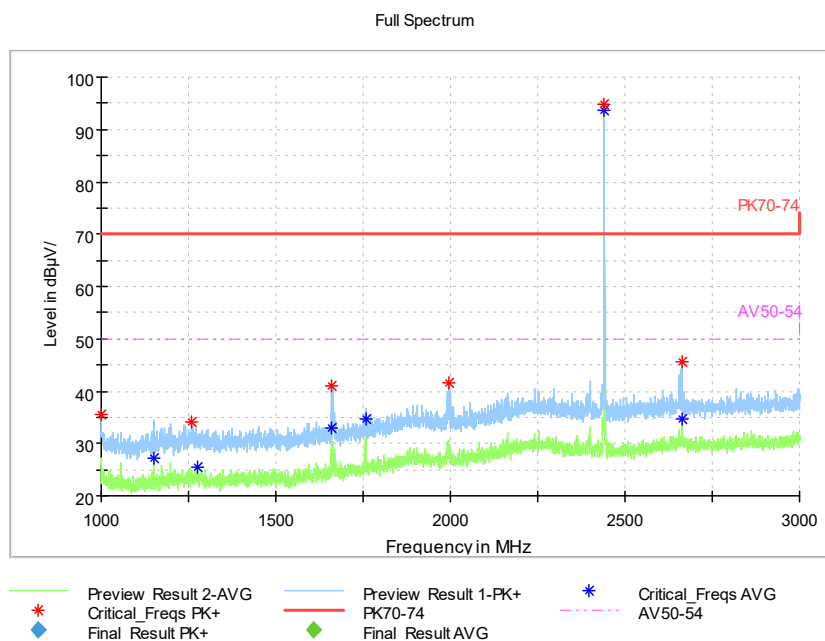


— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 - - - AV.54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 18GHz-26GHz
 Detector: Av mode and PK mode
 Modulation type: $\pi/4$ DQPSK

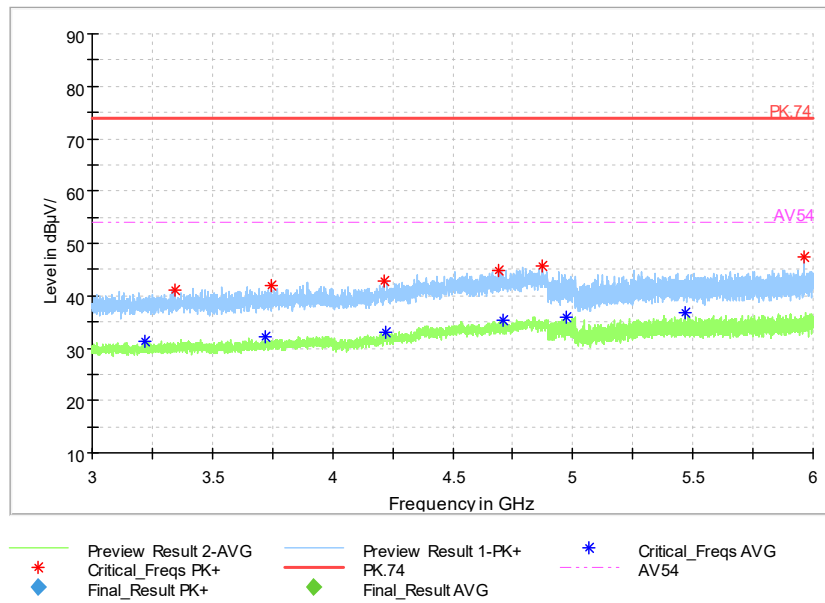


Frequency Range: 30MHz-1000 MHz
Detector: QP mode
Modulation type: 8DPSK



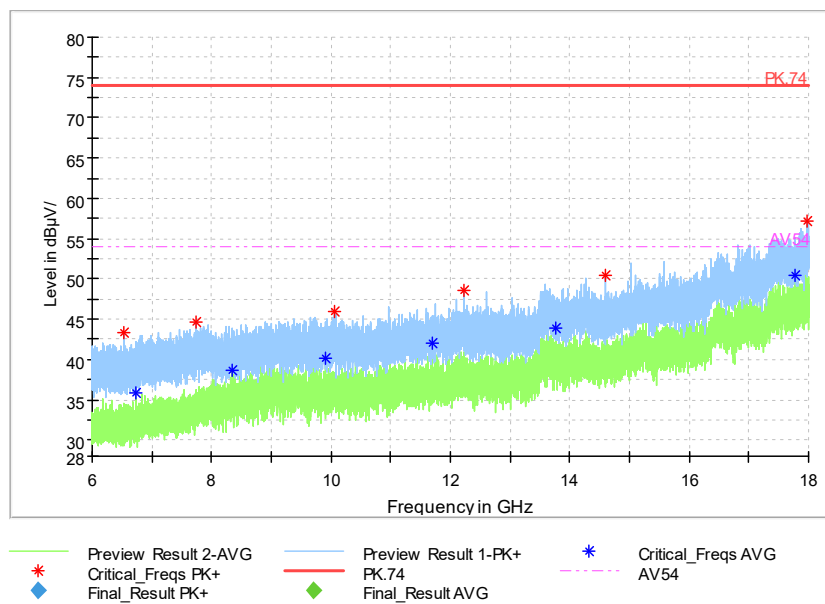
Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: 8DPSK

Full Spectrum



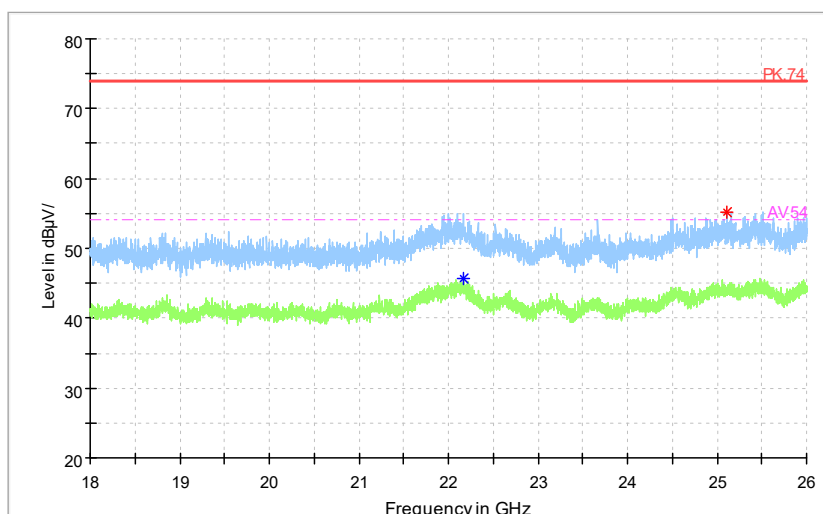
Frequency Range: 3GHz-6GHz
Detector: Av mode and PK mode
Modulation type: 8DPSK

Full Spectrum



Frequency Range: 6GHz-18GHz
Detector: Av mode and PK mode
Modulation type: 8DPSK

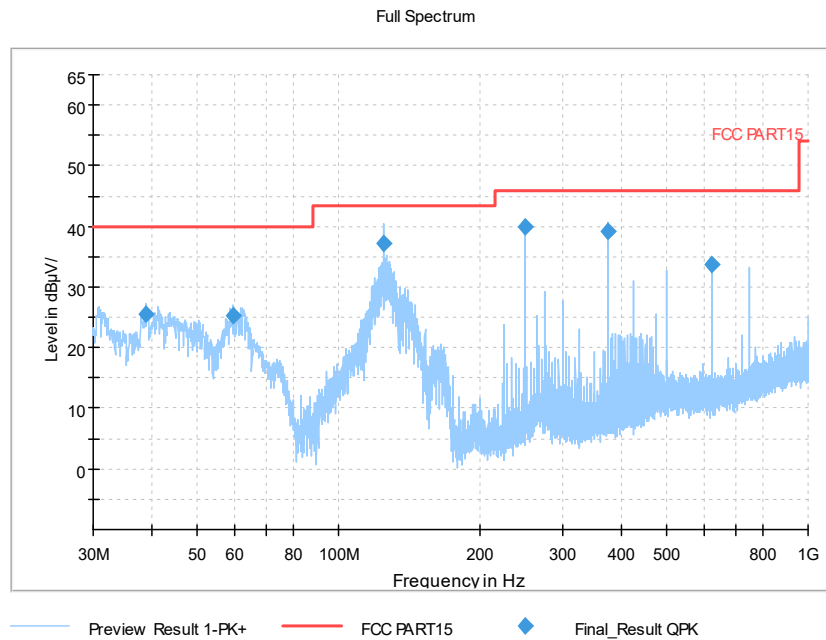
Full Spectrum



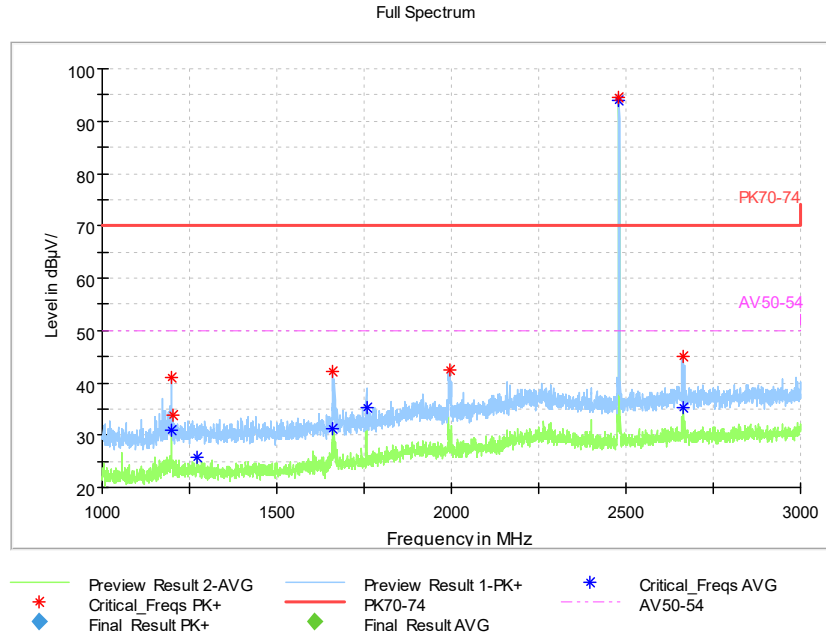
— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 - - - AV54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: 8DPSK

Carrier frequency (MHz): 2480
Channel No.:78

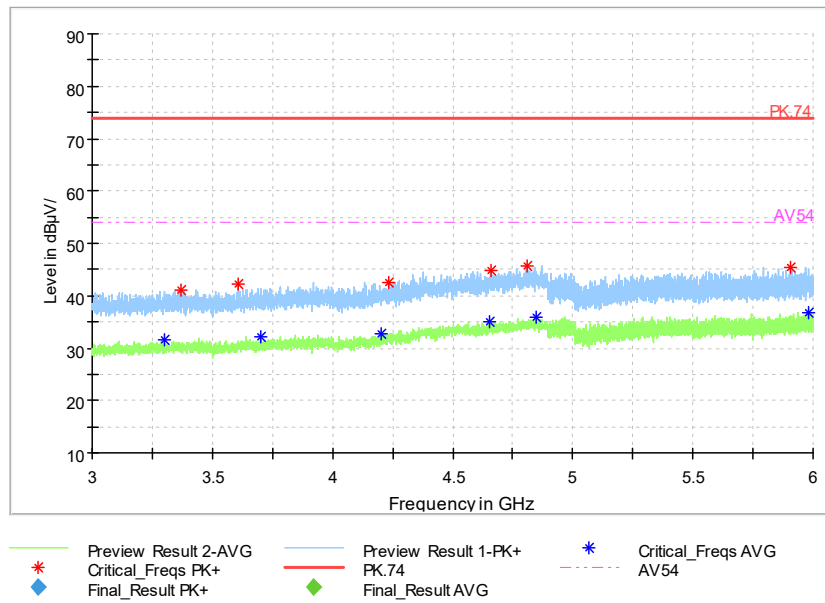


Frequency Range: 30MHz-1000MHz
Detector: QP mode
Modulation type: GFSK



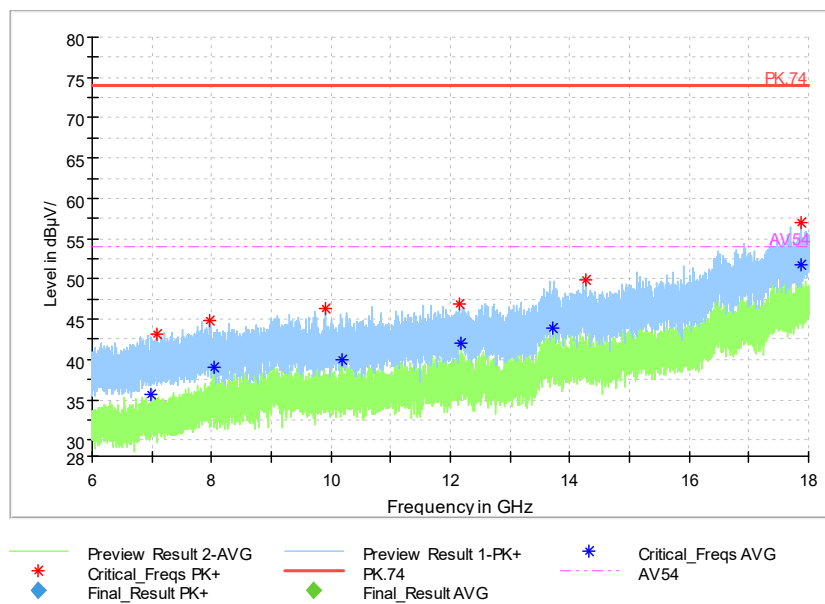
Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



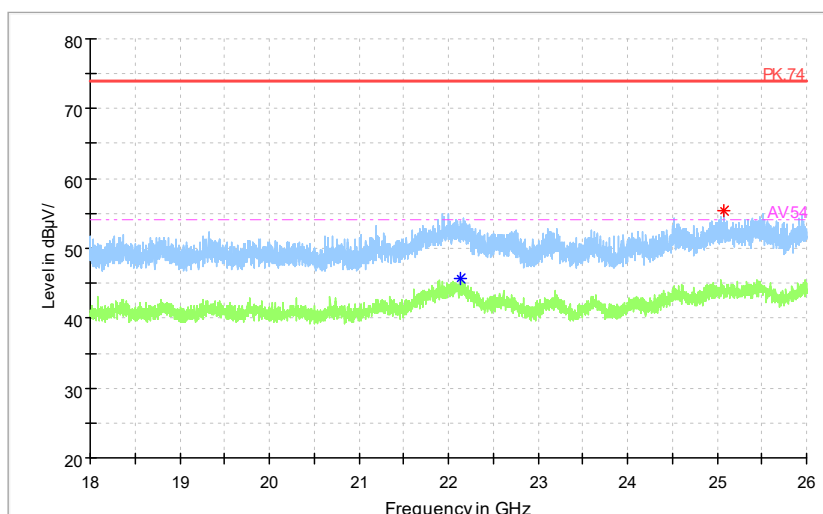
Frequency Range: 3GHz-6GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



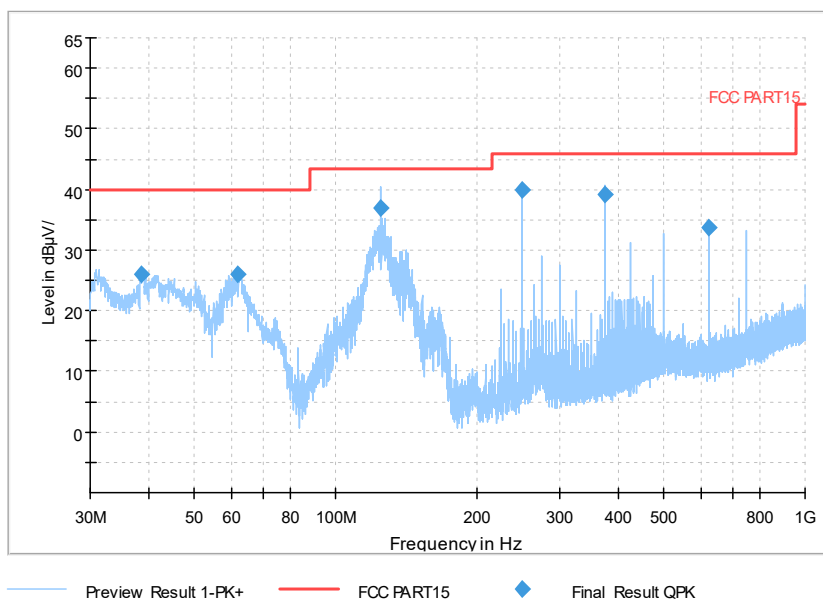
Frequency Range: 6GHz- 18GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



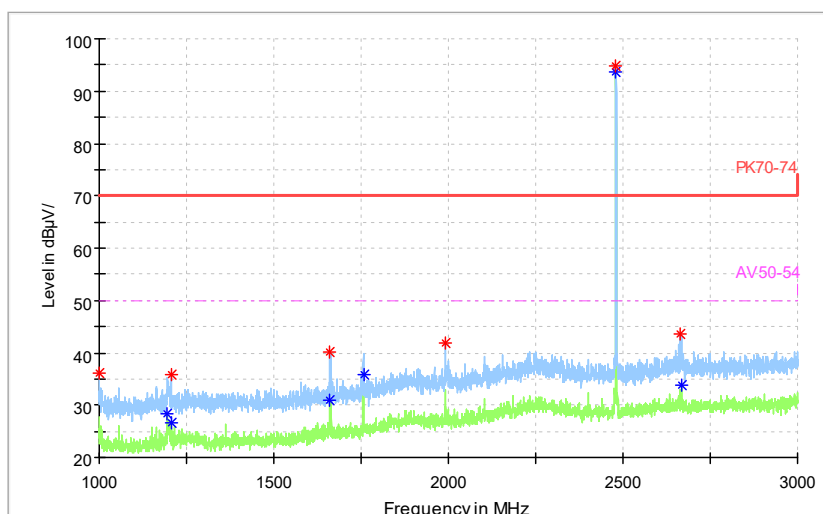
Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK

Full Spectrum



Frequency Range: 30MHz-1000 MHz
Detector: QP mode
Modulation type: $\pi/4$ DQPSK

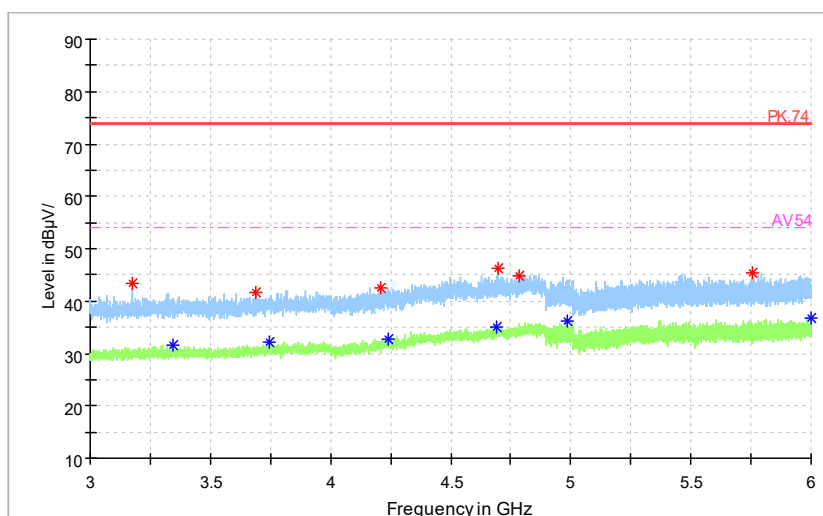
Full Spectrum



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK70-74 --- AV50-54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: $\pi/4$ DQPSK

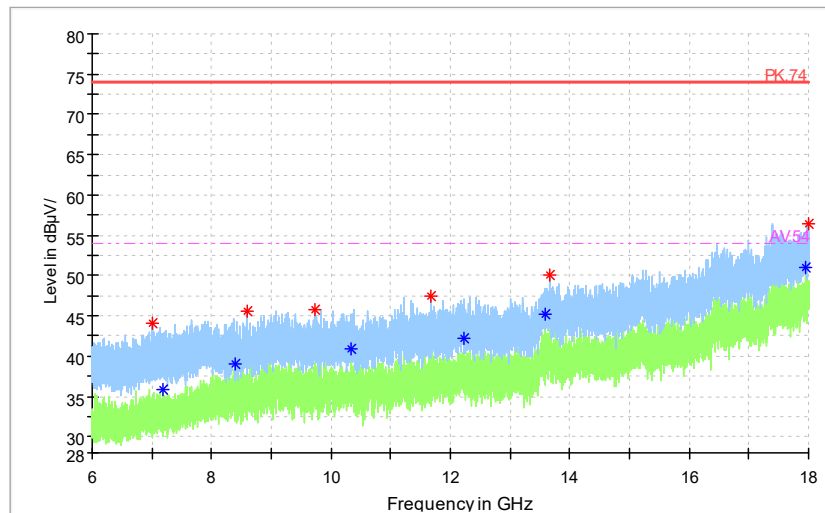
Full Spectrum



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 --- AV54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 3GHz-6GHz
Detector: Av mode and PK mode
Modulation type: $\pi/4$ DQPSK

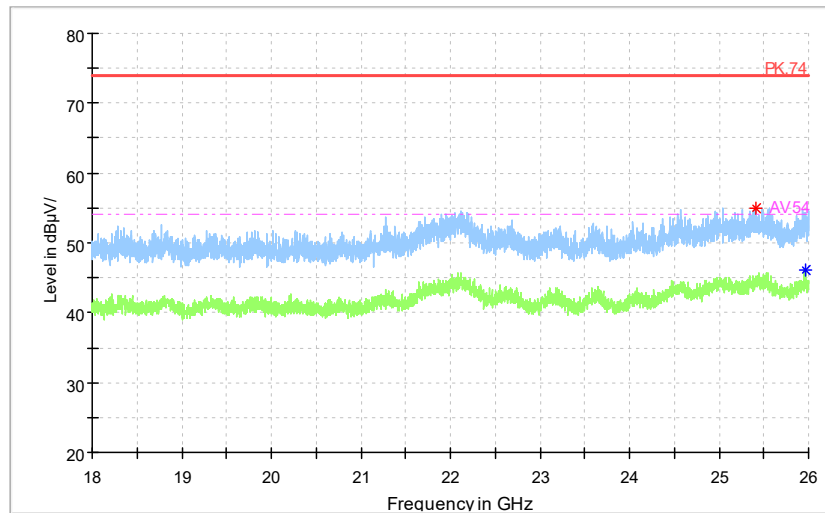
Full Spectrum



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 — AV.54
◆ Final_Result PK+ ◆ Final_Result AVG

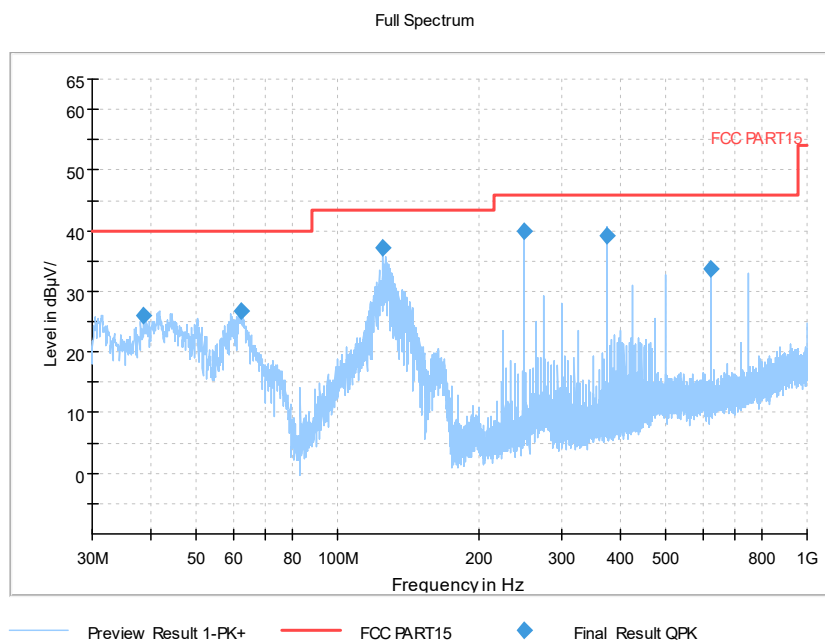
Frequency Range: 6GHz-18GHz
Detector: Av mode and PK mode
Modulation type: $\pi/4$ DQPSK

Full Spectrum

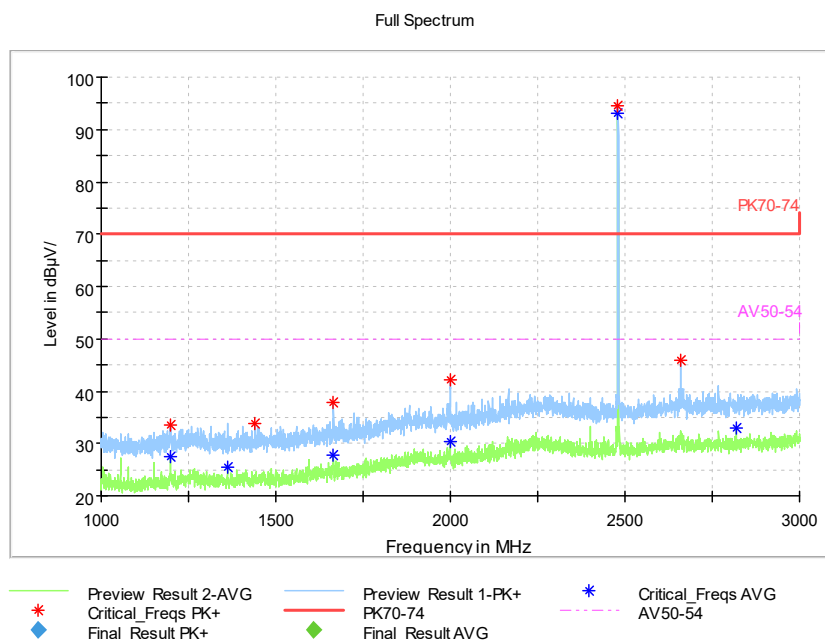


— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — PK.74 — AV.54
◆ Final_Result PK+ ◆ Final_Result AVG

Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: $\pi/4$ DQPSK



Frequency Range: 30MHz-1000 MHz
Detector: QP mode
Modulation type: 8DPSK



Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: 8DPSK