

Fig. 35 Radiated Spurious Emission (8DPSK, CH78, 1GHz ~18GHz)

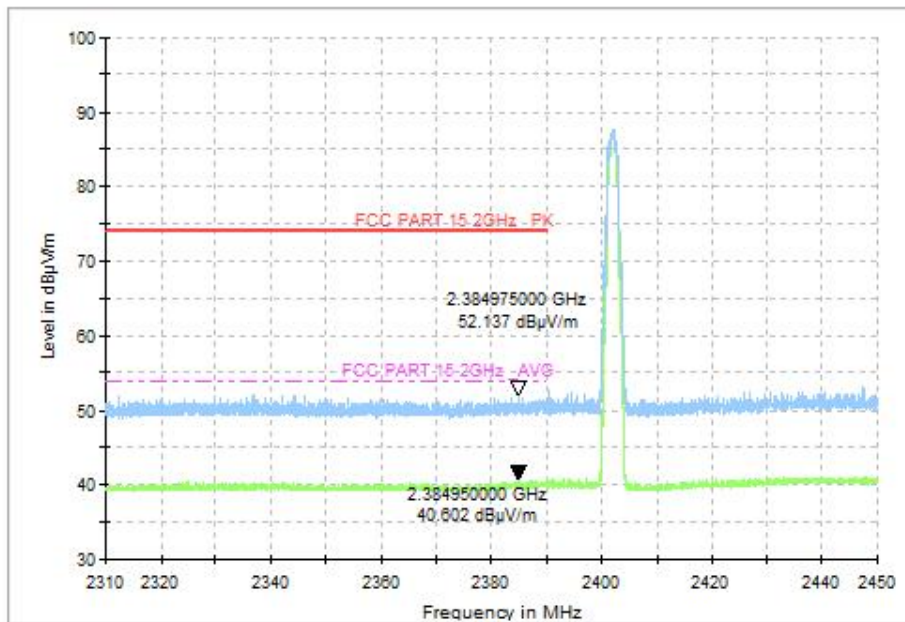


Fig. 36 Radiated Band Edges (8DPSK, CH0, 2.38GHz~2.45GHz)

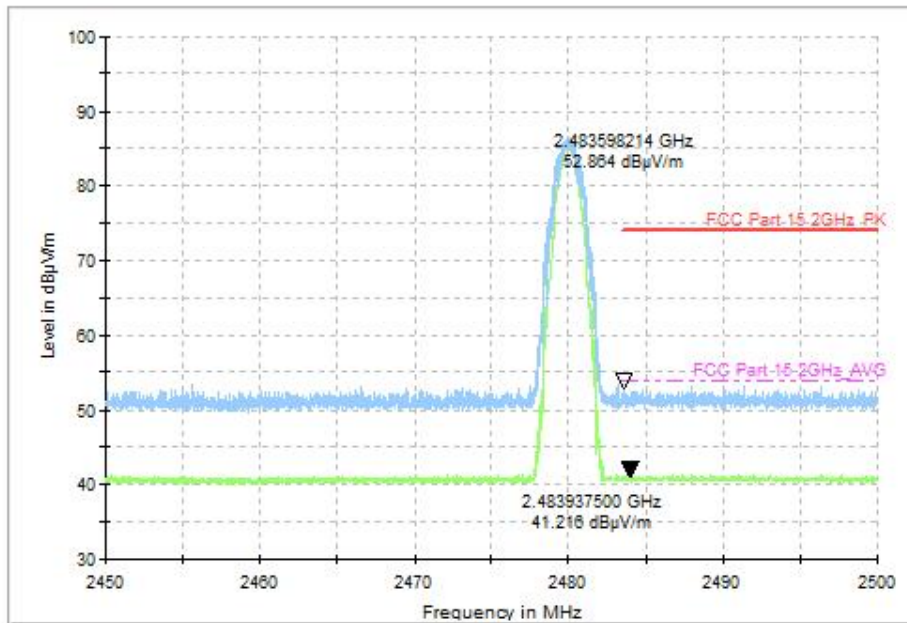


Fig. 37 Radiated Band Edges (8DPSK, CH78, 2.45GHz~2.50GHz)

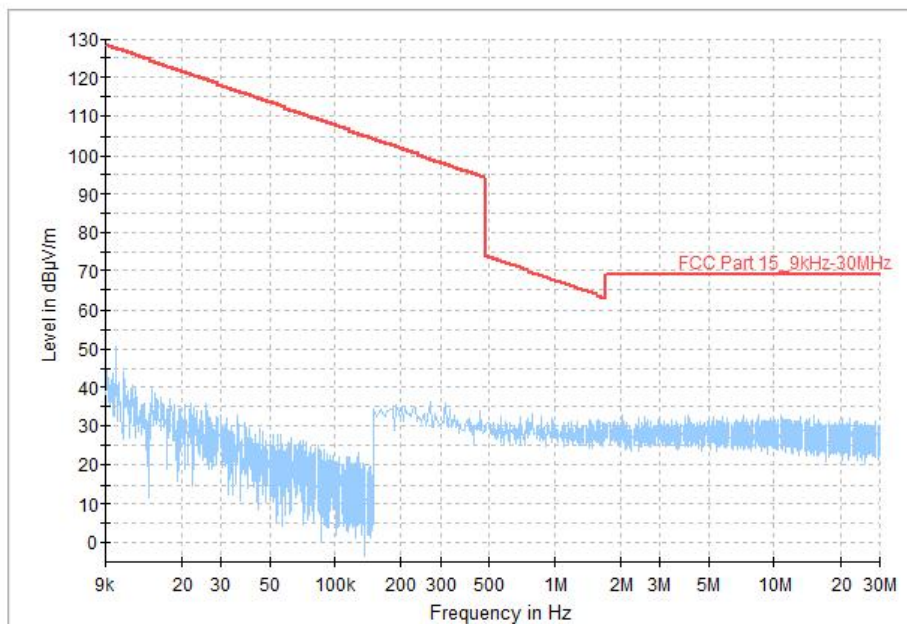


Fig. 38 Radiated Spurious Emission (All Channels, 9kHz ~30MHz)

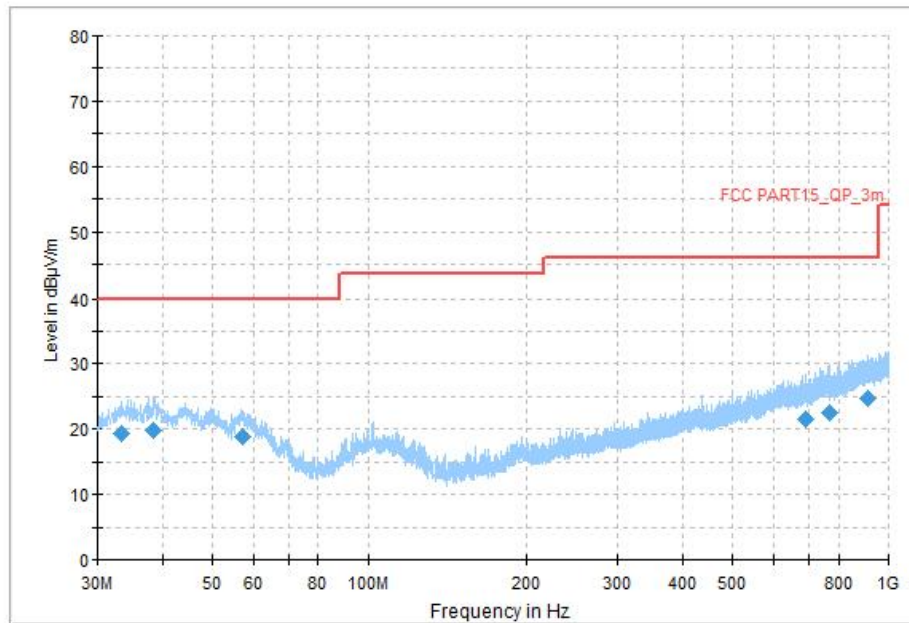


Fig. 39 Radiated Spurious Emission (All Channels, 30MHz ~1GHz)

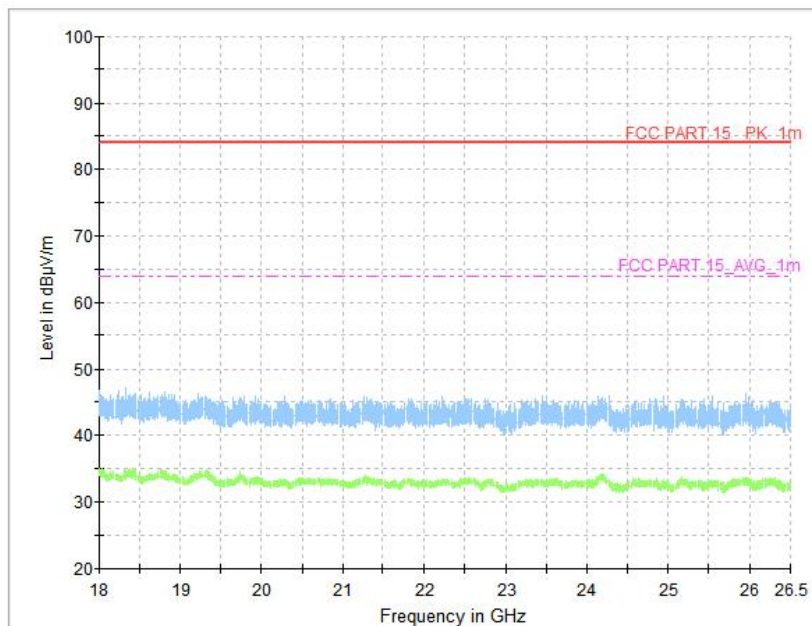


Fig. 40 Radiated Spurious Emission (All Channels, 18GHz ~26.5GHz)

**A.5 20dB Bandwidth****Method of Measurement: See ANSI C63.10-clause 7.8.7.****Measurement Limit:**

Standard	Limit (MHz)
FCC 47 CFR Part 15.247 (a)	/

Measurement Result:

Mode	Frequency (MHz)	20dB Bandwidth (MHz)		Conclusion
GFSK	2402(CH0)	Fig.41	0.94	/
	2441(CH39)	Fig.42	0.94	
	2480(CH78)	Fig.43	0.94	
$\pi/4$ DQPSK	2402(CH0)	Fig.44	1.34	/
	2441(CH39)	Fig.45	1.32	
	2480(CH78)	Fig.46	1.32	
8DPSK	2402(CH0)	Fig.47	1.30	/
	2441(CH39)	Fig.48	1.30	
	2480(CH78)	Fig.49	1.30	

See below for test graphs.**Conclusion: PASS**

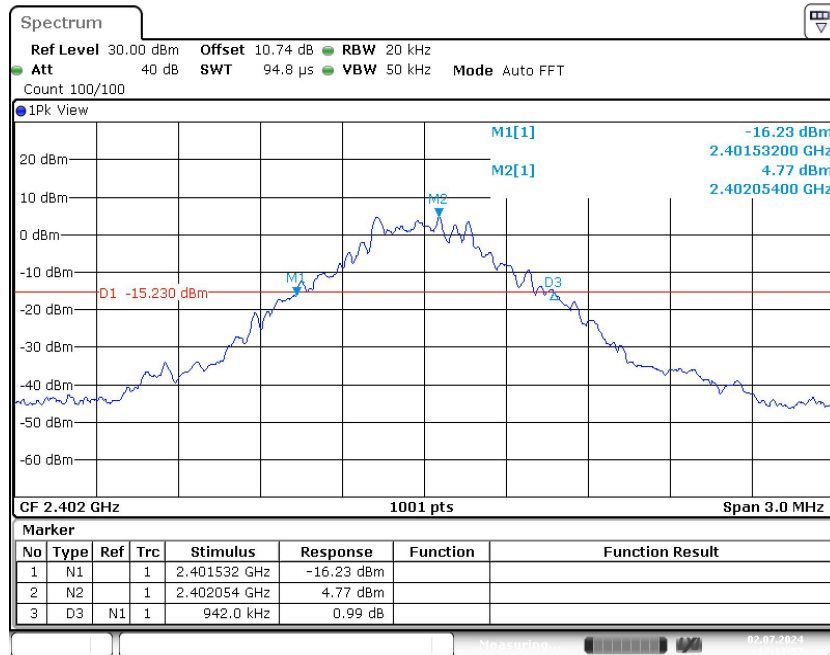


Fig. 41 20dB Bandwidth (GFSK, CH0)

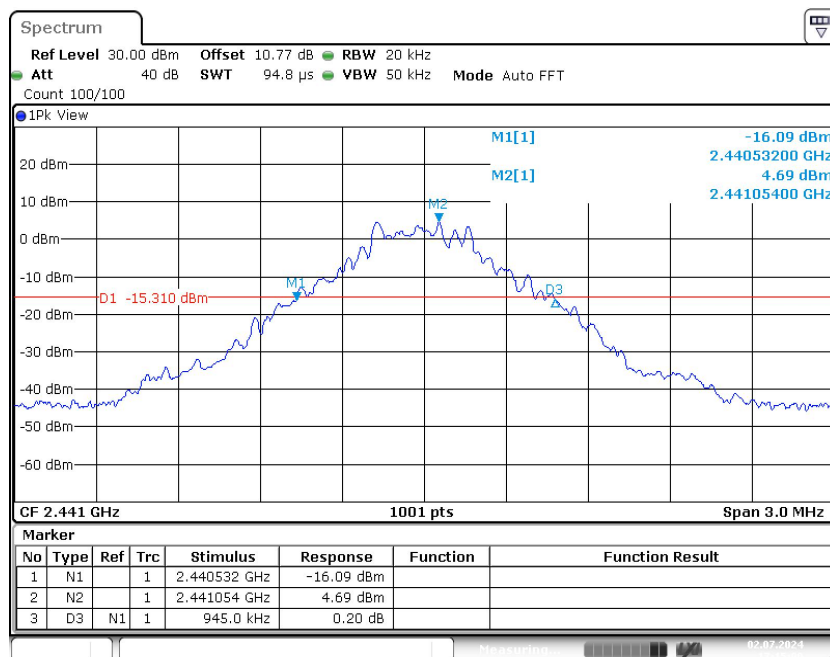


Fig. 42 20dB Bandwidth (GFSK, CH39)

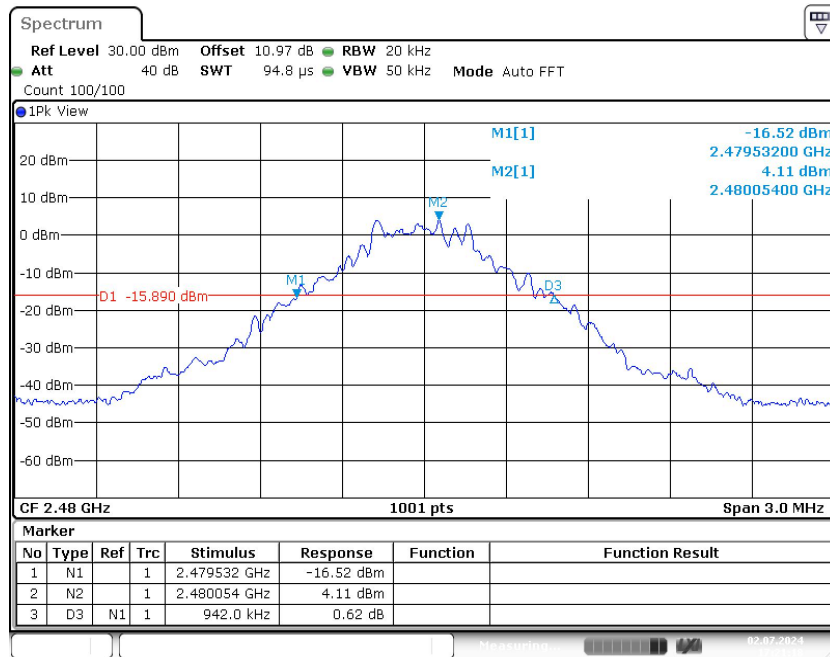


Fig. 43 20dB Bandwidth (GFSK, CH78)

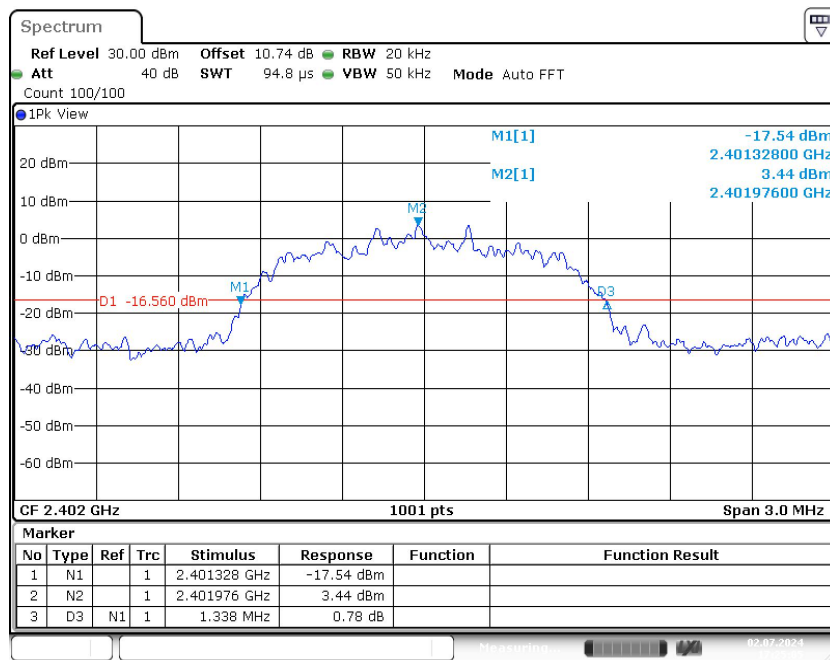


Fig. 44 20dB Bandwidth ($\pi/4$ DQPSK, CH0)

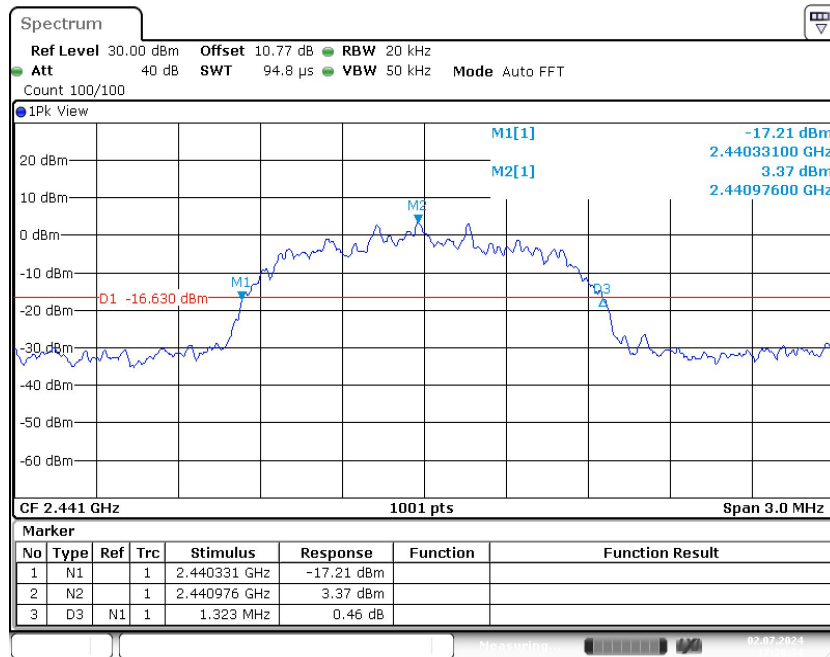


Fig. 45 20dB Bandwidth ($\pi/4$ DQPSK, CH39)

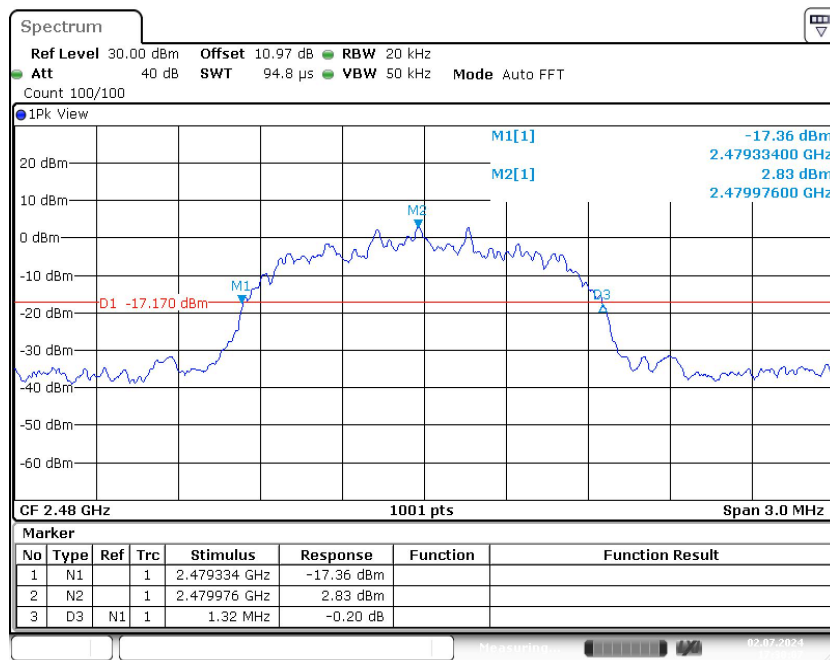


Fig. 46 20dB Bandwidth ($\pi/4$ DQPSK, CH78)

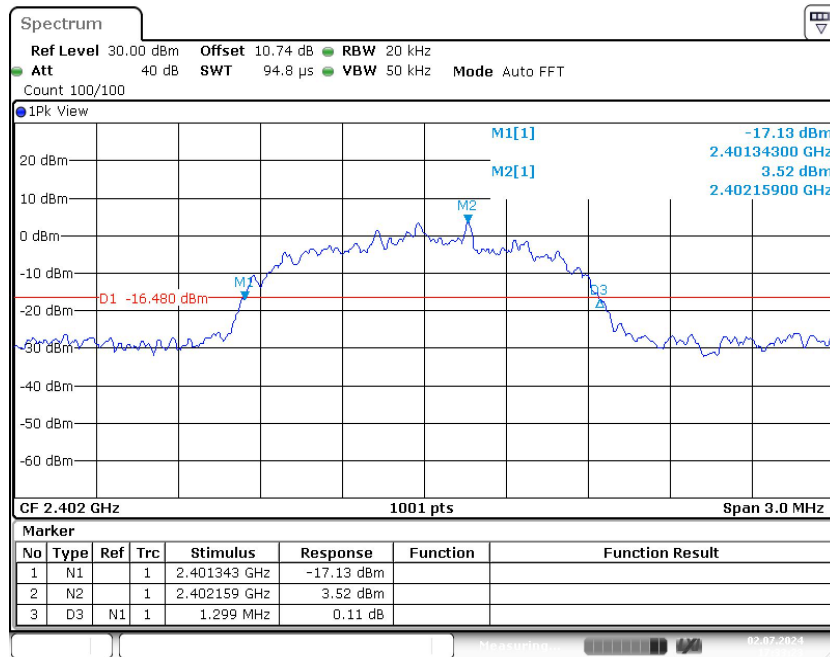


Fig. 47 20dB Bandwidth (8DPSK, CH0)

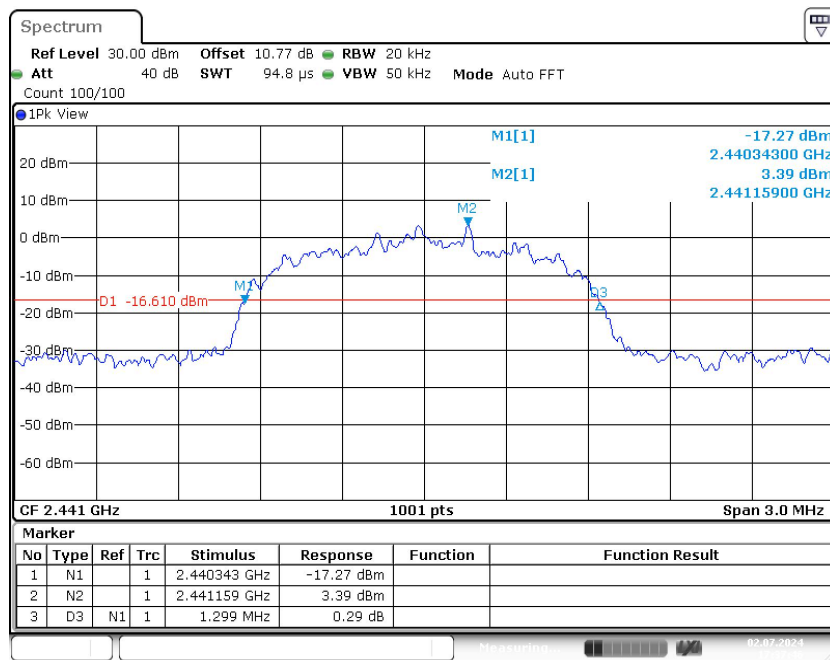


Fig. 48 20dB Bandwidth (8DPSK, CH39)

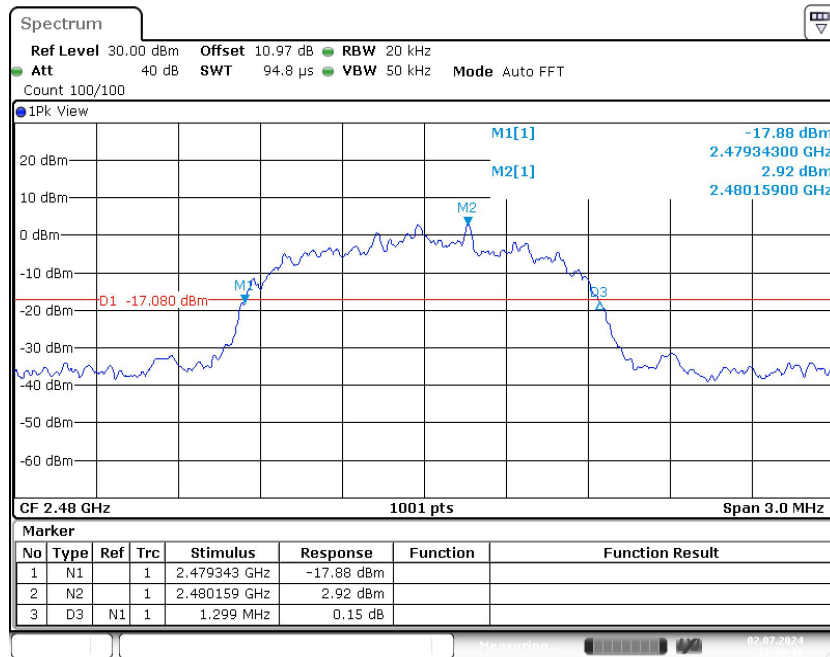


Fig. 49 20dB Bandwidth (8DPSK, CH78)



A.6 Time of Occupancy (Dwell Time)

Method of Measurement: See ANSI C63.10-clause 7.8.4.

Measurement Limit:

Standard	Limit (s)
FCC 47 CFR Part 15.247(a)	< 0.4

Measurement Results:

Mode	Frequency (MHz)	Packet	BurstWidth (ms)		TotalHops (Num)		Result (s)	Conclusion
GFSK	2441(CH39)	DH5	Fig.50	2.89	Fig.51	110	0.318	P
$\pi/4$ DQPSK	2441(CH39)	2-DH5	Fig.52	2.88	Fig.53	110	0.317	P
8DPSK	2441(CH39)	3-DH5	Fig.54	2.88	Fig.55	130	0.374	P

See below for test graphs.

Conclusion: Pass

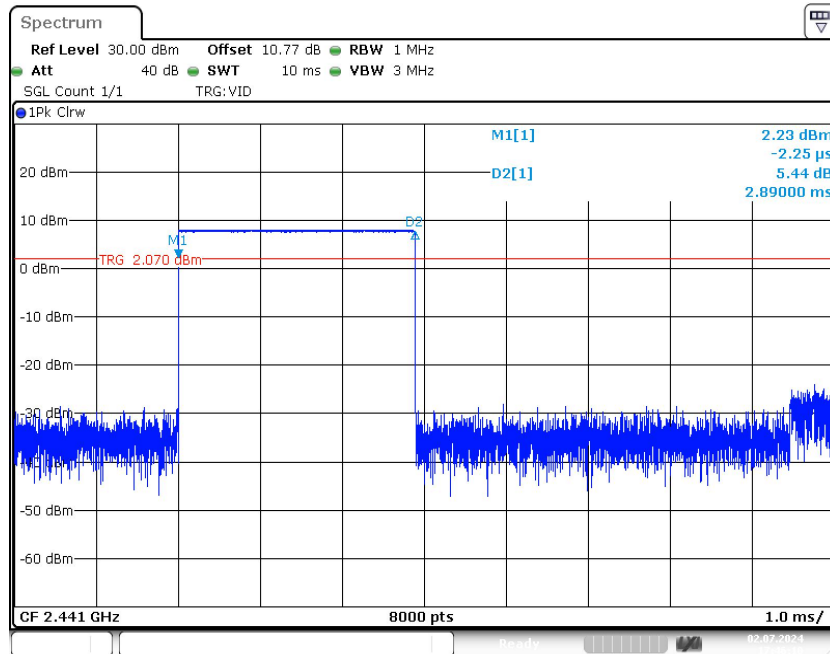


Fig. 50 BurstWidth (Dwell Time) (GFSK, CH39)

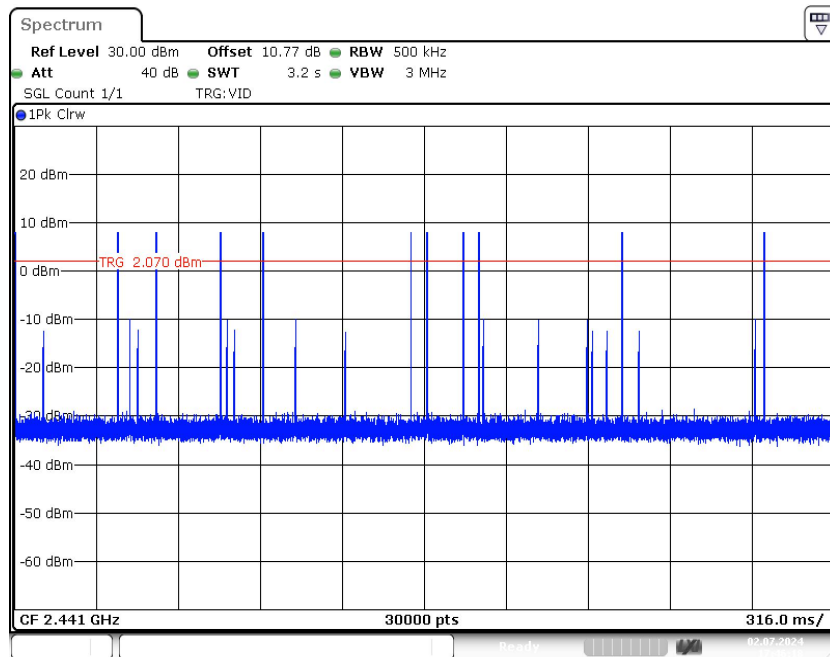


Fig. 51 Number of Burst in Observation Period (Dwell Time) (GFSK, CH39)

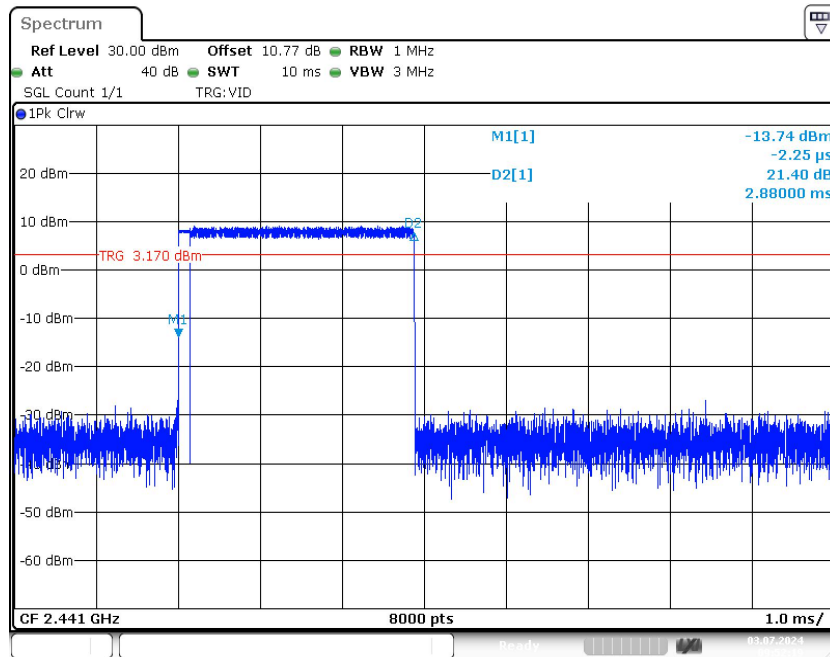


Fig. 52 BurstWidth (Dwell Time) ($\pi/4$ DQPSK, CH39)

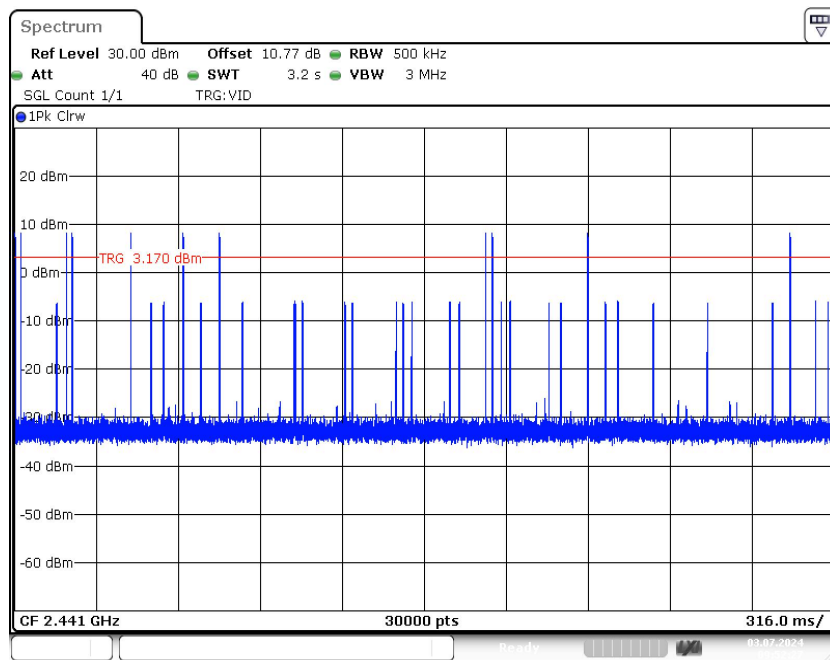


Fig. 53 Number of Burst in Observation Period (Dwell Time) ($\pi/4$ DQPSK, CH39)

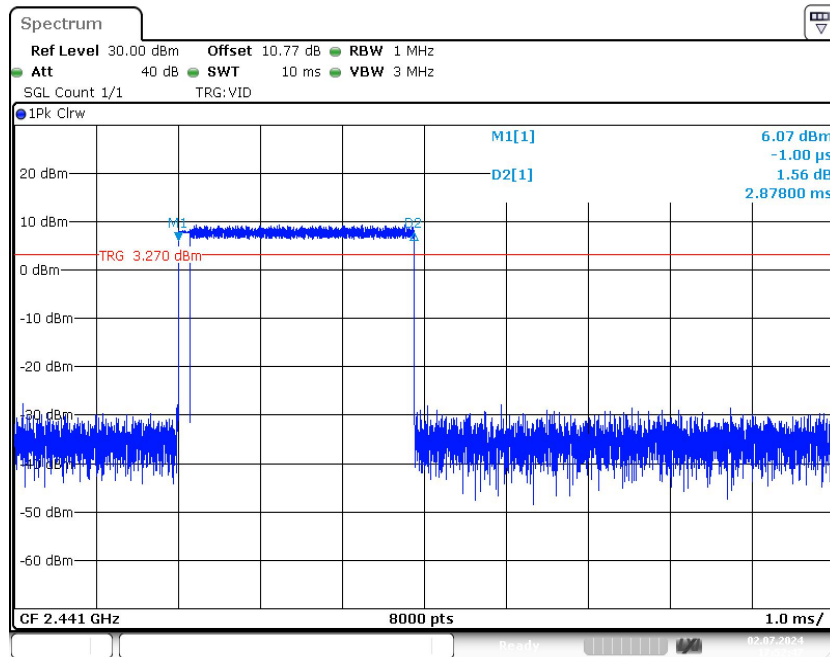


Fig. 54 BurstWidth (Dwell Time) (8DPSK, CH39)

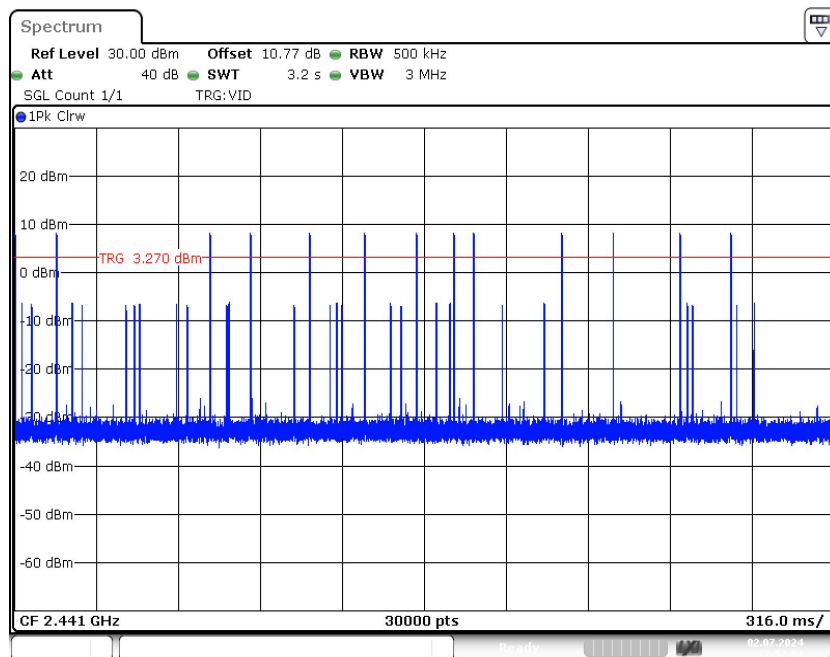


Fig. 55 Number of Burst in Observation Period (Dwell Time) (8DPSK, CH39)



A.7 Number of Hopping Channels

Method of Measurement: See ANSI C63.10-clause 7.8.3.

Measurement Limit:

Standard	Limit (Num)
FCC 47 CFR Part 15.247(a)	At least 15 non-overlapping channels

Measurement Results:

Mode	Packet	Number of Hopping Channels	Test results (Num)	Conclusion
GFSK	DH5	Fig.56	79	P
$\pi/4$ DQPSK	2-DH5	Fig.57	79	P
8DPSK	3-DH5	Fig.58	79	P

See below for test graphs.

Conclusion: Pass

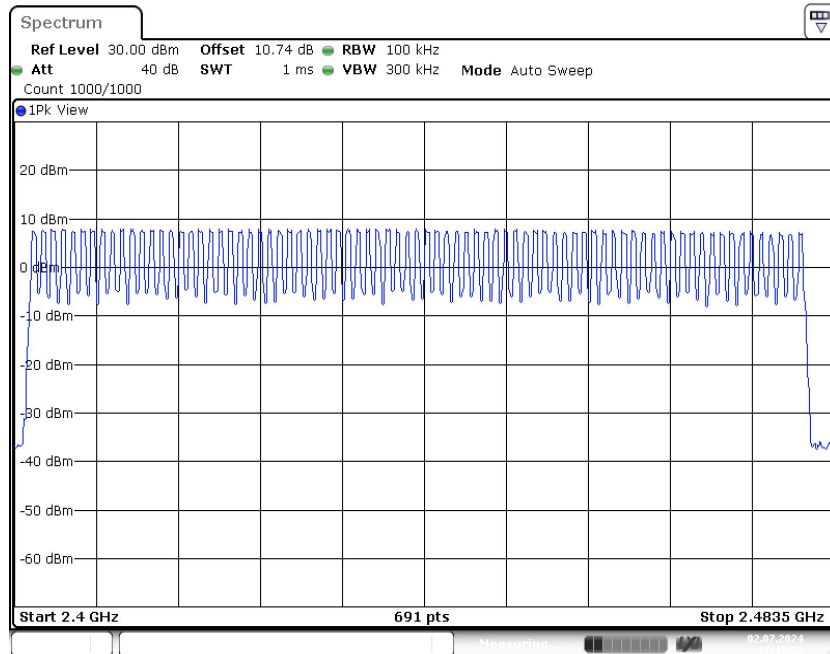


Fig. 56 Number of Hopping Channels (GFSK, Hopping)

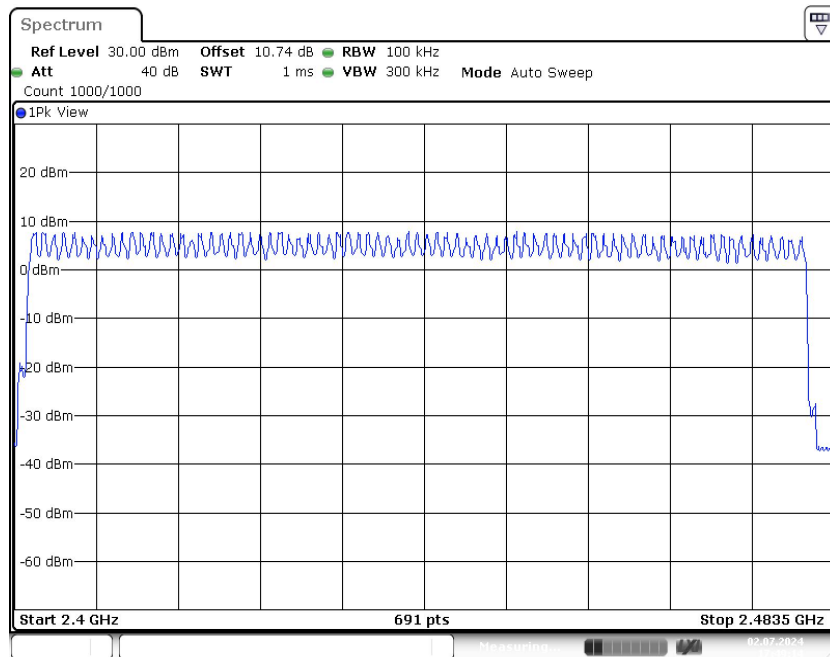


Fig. 57 Number of Hopping Channels ($\pi/4$ DQPSK, Hopping)

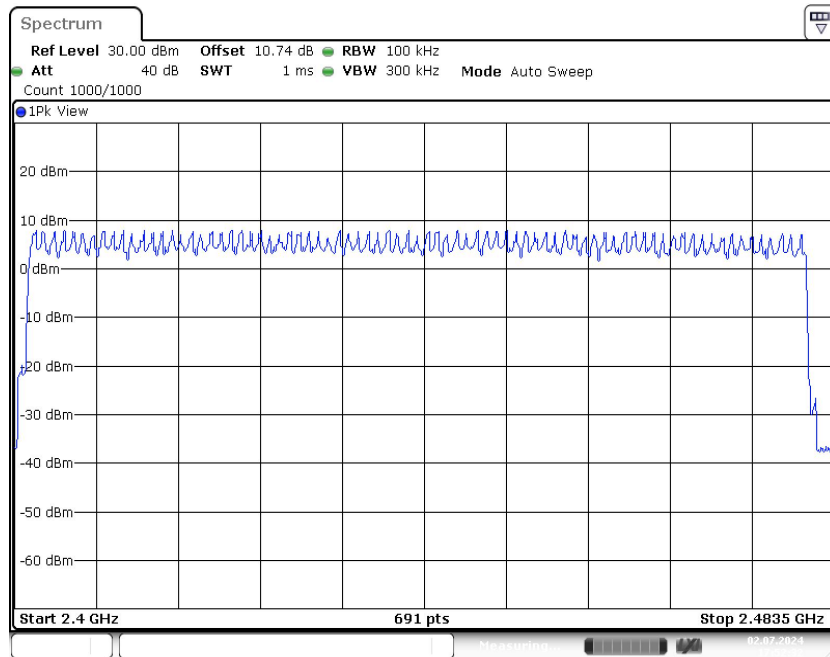


Fig. 58 Number of Hopping Channels (8DPSK, Hopping)



A.8 Carrier Frequency Separation

Method of Measurement: See ANSI C63.10-clause 7.8.2.

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247(a)	By a minimum of 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater

Measurement Results:

Mode	Frequency (MHz)	Packet	Separation of hopping channels	Test result (kHz)	Conclusion
GFSK	2441(CH39)	DH5	Fig.59	1003.00	P
$\pi/4$ DQPSK	2441(CH39)	2-DH5	Fig.60	1000.00	P
8DPSK	2441(CH39)	3-DH5	Fig.61	1000.00	P

See below for test graphs.

Conclusion: Pass

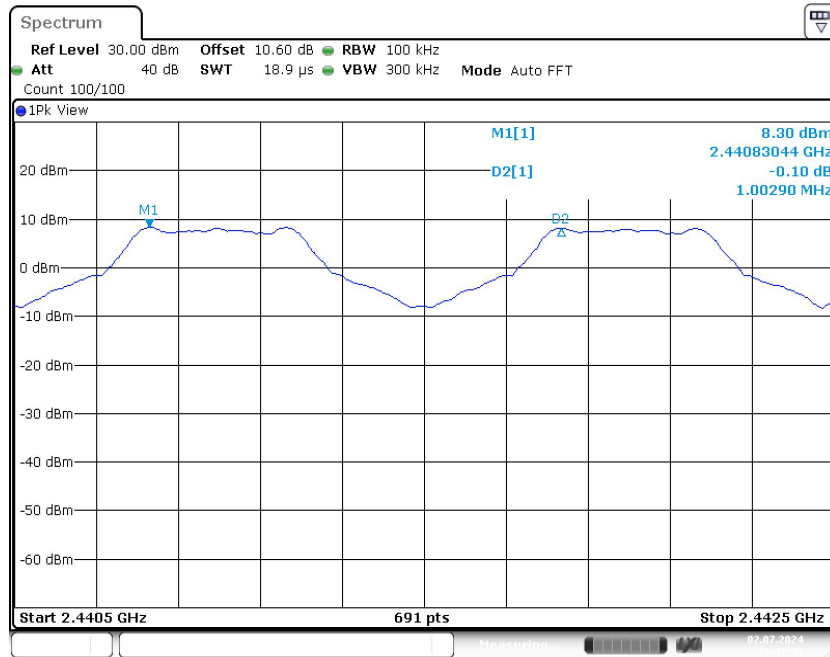


Fig. 59 Carrier Frequency Separation (GFSK, CH39)

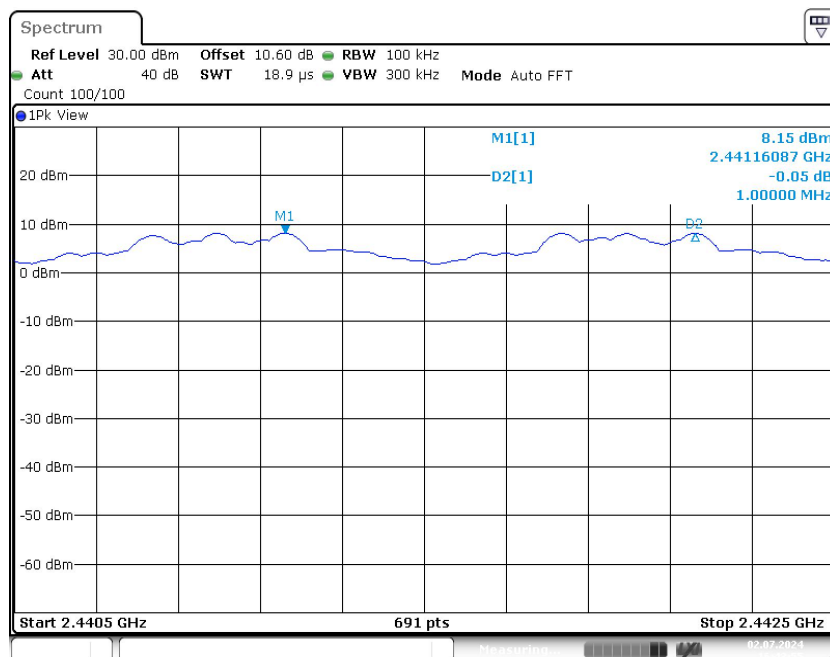


Fig. 60 Carrier Frequency Separation ($\pi/4$ DQPSK, CH39)

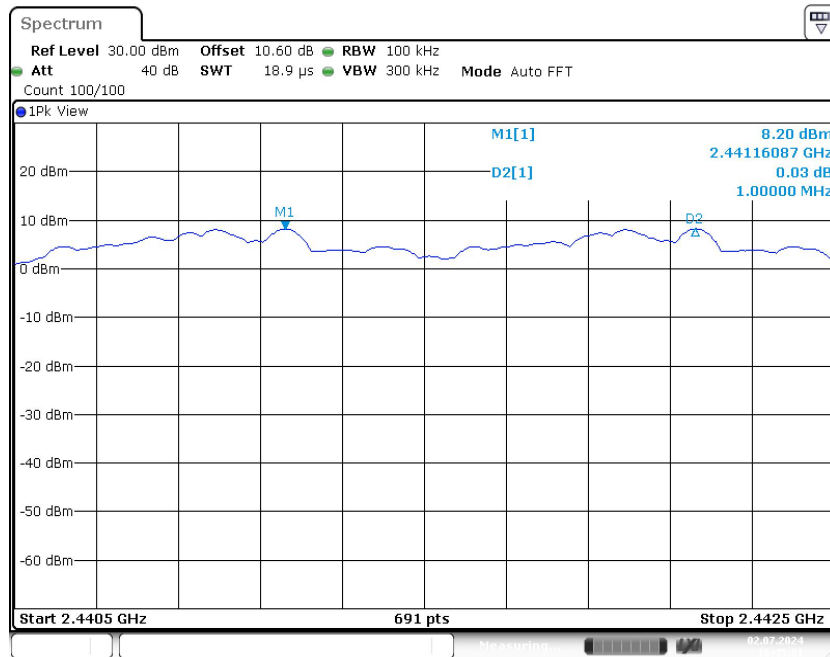


Fig. 61 Carrier Frequency Separation (8DPSK, CH39)



A.9 AC Power line Conducted Emission

Method of Measurement: See ANSI C63.10-clause 6.2.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.62	Fig.63	P
0.5 to 5	56	46			
5 to 30	60	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

Conclusion: Pass

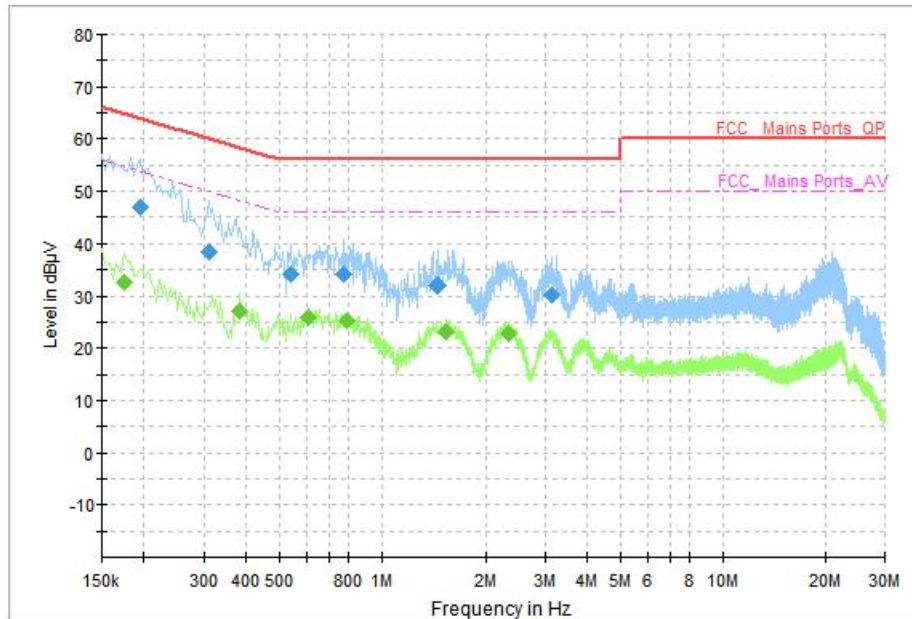


Fig. 62 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.194000	46.98	63.86	16.88	N	ON	9
0.310000	38.33	59.97	21.64	L1	ON	10
0.538000	34.00	56.00	22.00	N	ON	10
0.774000	34.16	56.00	21.84	N	ON	10
1.458000	32.11	56.00	23.89	N	ON	10
3.122000	30.01	56.00	25.99	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.174000	32.59	54.77	22.17	N	ON	8
0.382000	27.16	48.24	21.07	N	ON	10
0.606000	25.83	46.00	20.17	N	ON	10
0.794000	25.38	46.00	20.62	N	ON	10
1.530000	23.26	46.00	22.74	N	ON	10
2.338000	22.88	46.00	23.12	N	ON	10

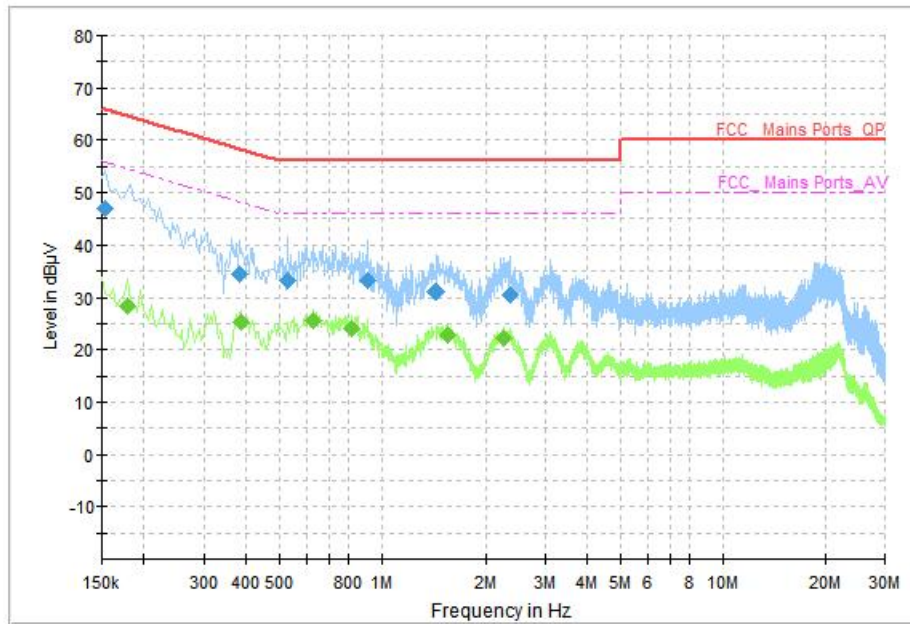


Fig. 63 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154000	46.99	65.78	18.79	L1	ON	10
0.382000	34.53	58.24	23.70	N	ON	10
0.526000	33.24	56.00	22.76	N	ON	10
0.910000	33.12	56.00	22.88	N	ON	10
1.442000	30.92	56.00	25.08	N	ON	10
2.362000	30.43	56.00	25.57	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.178000	28.24	54.58	26.34	N	ON	8
0.386000	25.41	48.15	22.74	N	ON	10
0.626000	25.49	46.00	20.51	N	ON	10
0.814000	24.11	46.00	21.90	N	ON	10
1.550000	22.90	46.00	23.10	N	ON	10
2.258000	22.26	46.00	23.74	N	ON	10

END OF REPORT