

Fig. 48 Radiated Spurious Emission ($\pi/4$ DQPSK, Ch39, 1 GHz ~18 GHz)

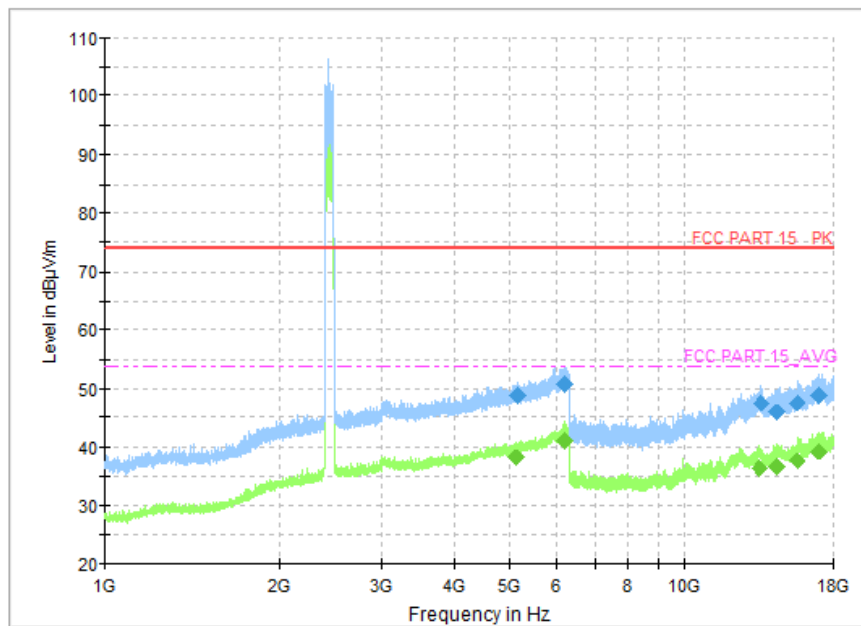


Fig. 49 Radiated Spurious Emission ($\pi/4$ DQPSK, Ch78, 1 GHz ~18 GHz)

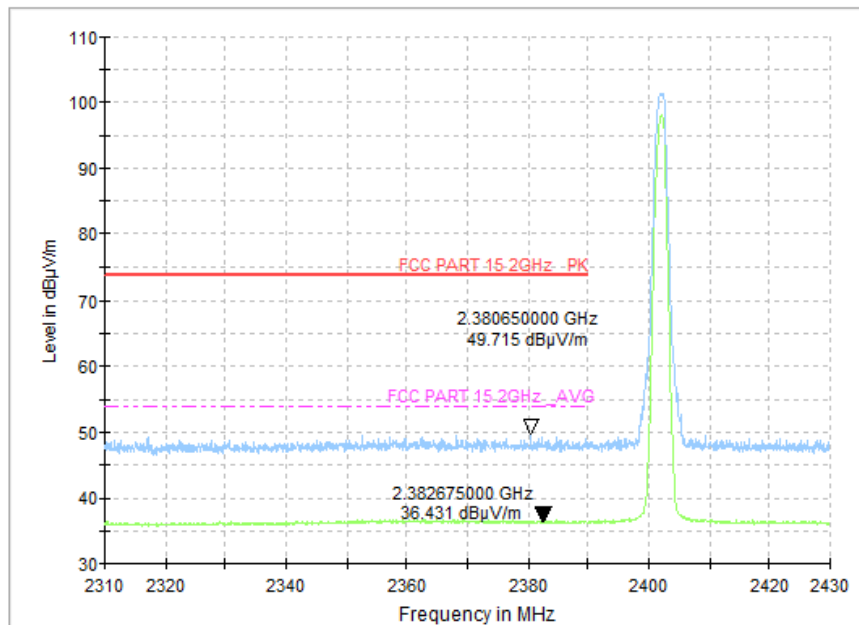


Fig. 50 Radiated Band Edges ($\pi/4$ DQPSK, Ch0, 2380GHz~2450GHz)

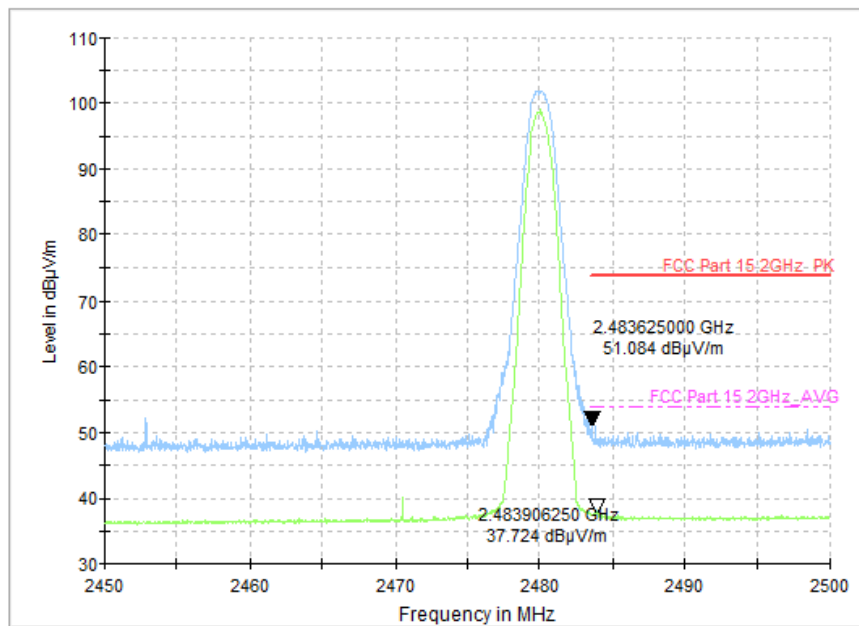


Fig. 51 Radiated Band Edges ($\pi/4$ DQPSK, Ch78, 2450GHz~2500GHz)

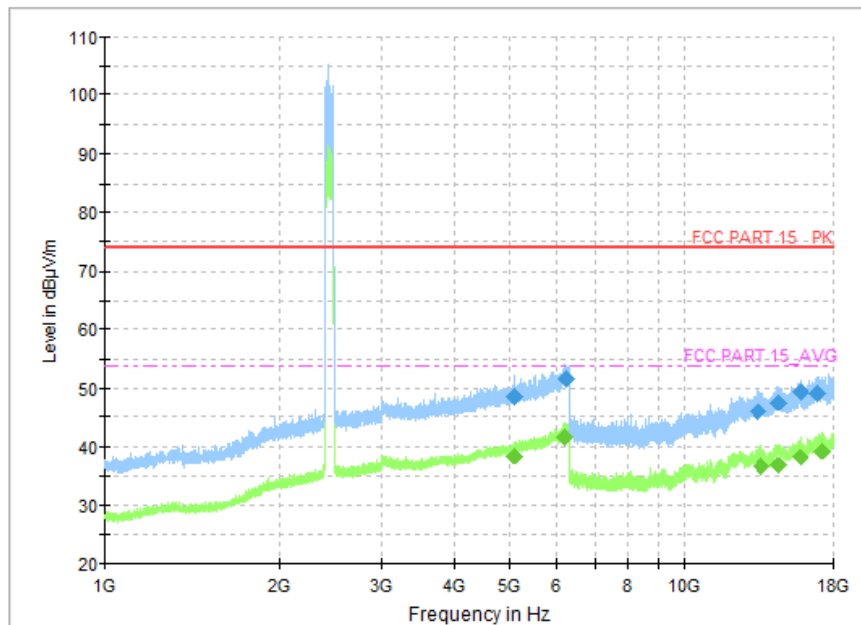


Fig. 52 Radiated Spurious Emission (8DPSK, Ch0, 1 GHz ~18 GHz)

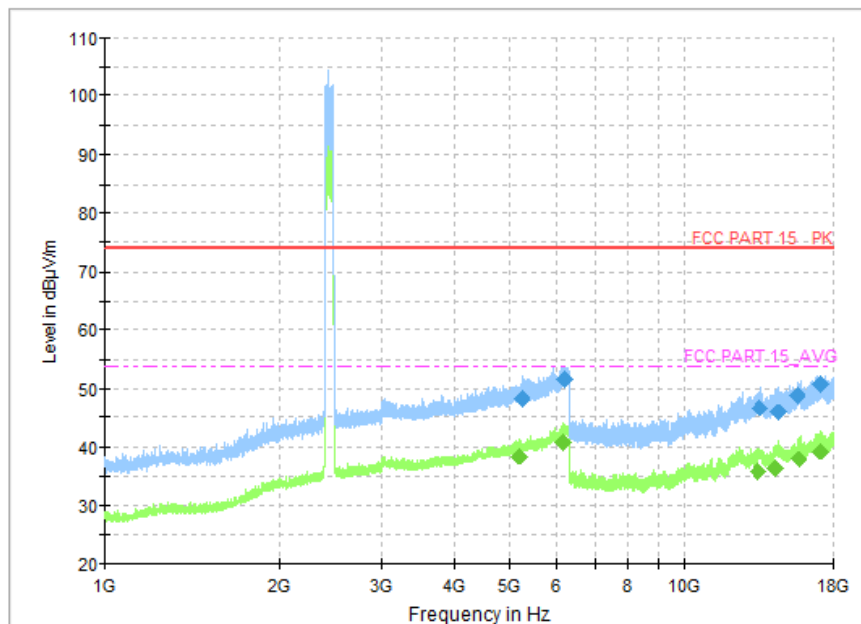


Fig. 53 Radiated Spurious Emission (8DPSK, Ch39, 1 GHz ~18 GHz)

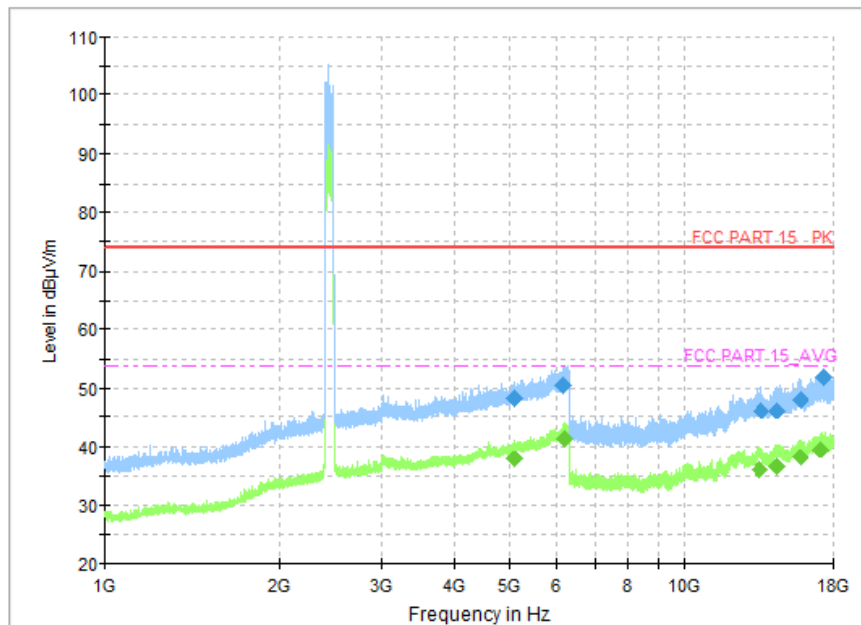


Fig. 54 Radiated Spurious Emission (8DPSK, Ch78, 1 GHz ~18 GHz)

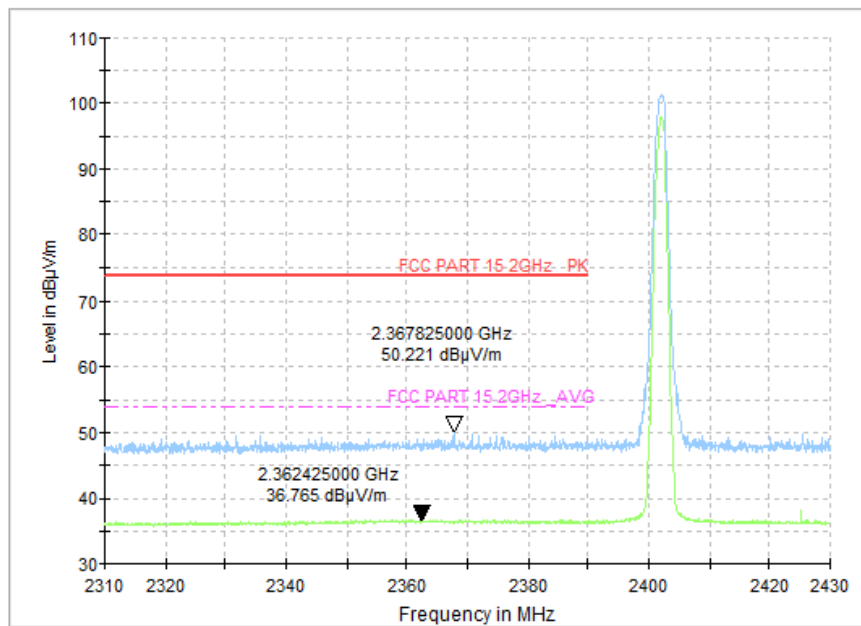


Fig. 55 Radiated Band Edges (8DPSK, Ch0, 2380GHz~2450GHz)

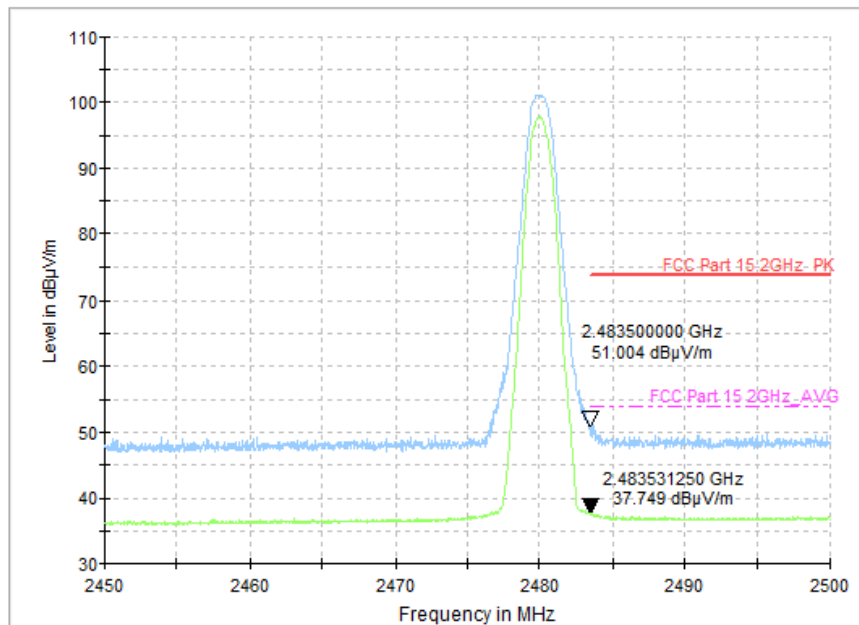


Fig. 56 Radiated Band Edges (8DPSK, Ch78, 2450GHz~2500GHz)

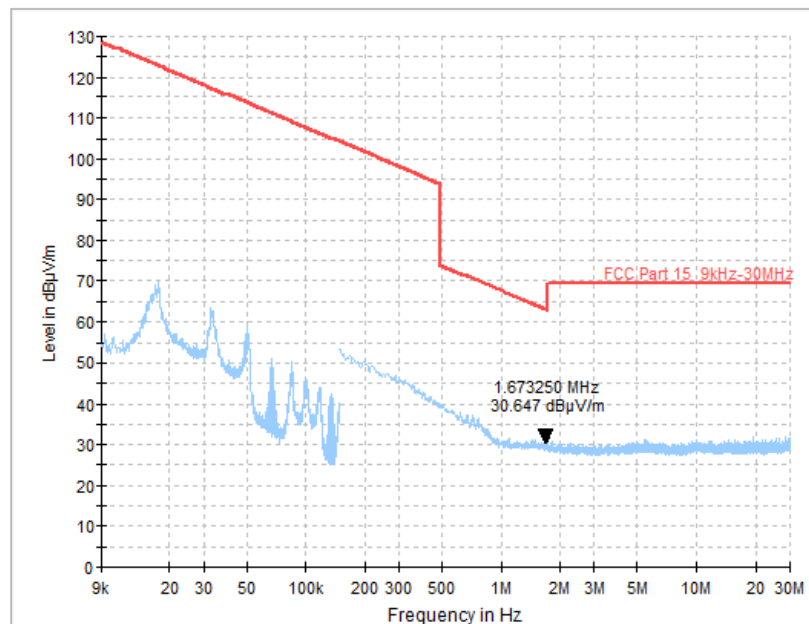


Fig. 57 Radiated Spurious Emission (All Channels, 9 kHz ~30 MHz)

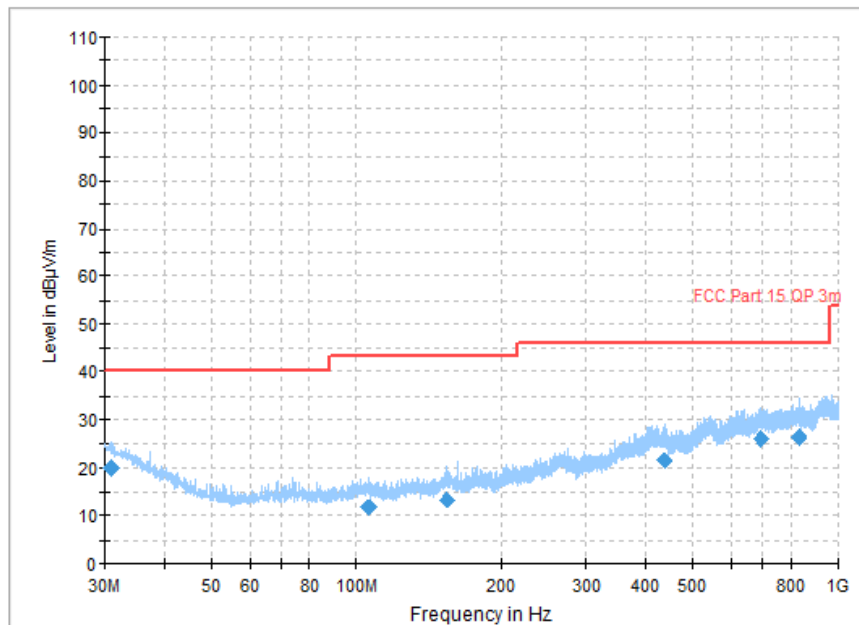


Fig. 58 Radiated Spurious Emission (All Channels, 30 MHz ~1 GHz)

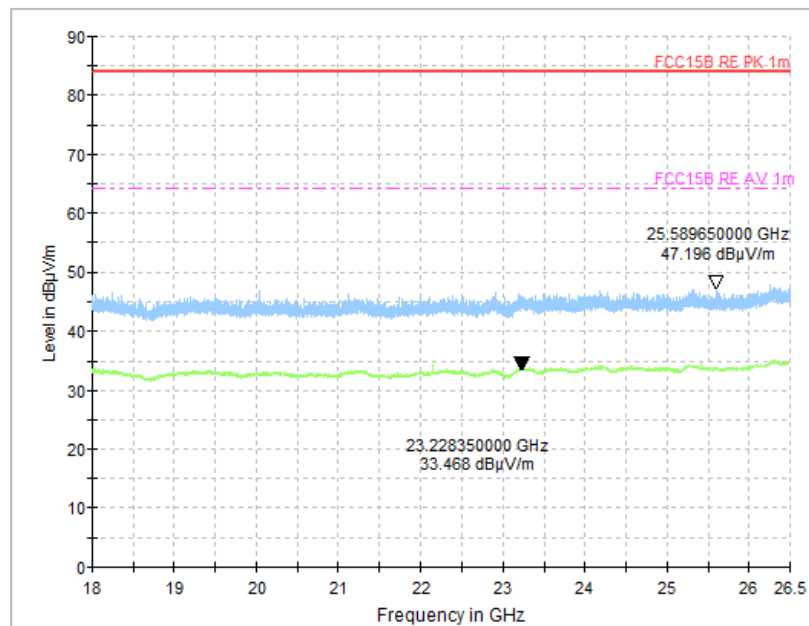


Fig. 59 Radiated Spurious Emission (All Channels, 18 GHz ~26.5 GHz)

A.5 20dB Bandwidth

Measurement Limit:

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

Measurement Result:

Mode	Channel	20dB Bandwidth (kHz)		conclusion
GFSK	0	Fig.60	924.00	/
	39	Fig.61	923.25	
	78	Fig.62	923.25	
$\pi/4$ DQPSK	0	Fig.63	1278.75	/
	39	Fig.64	1292.25	
	78	Fig.65	1277.25	
8DPSK	0	Fig.66	1296.75	/
	39	Fig.67	1273.50	
	78	Fig.68	1300.50	

See below for test graphs.

Conclusion: PASS

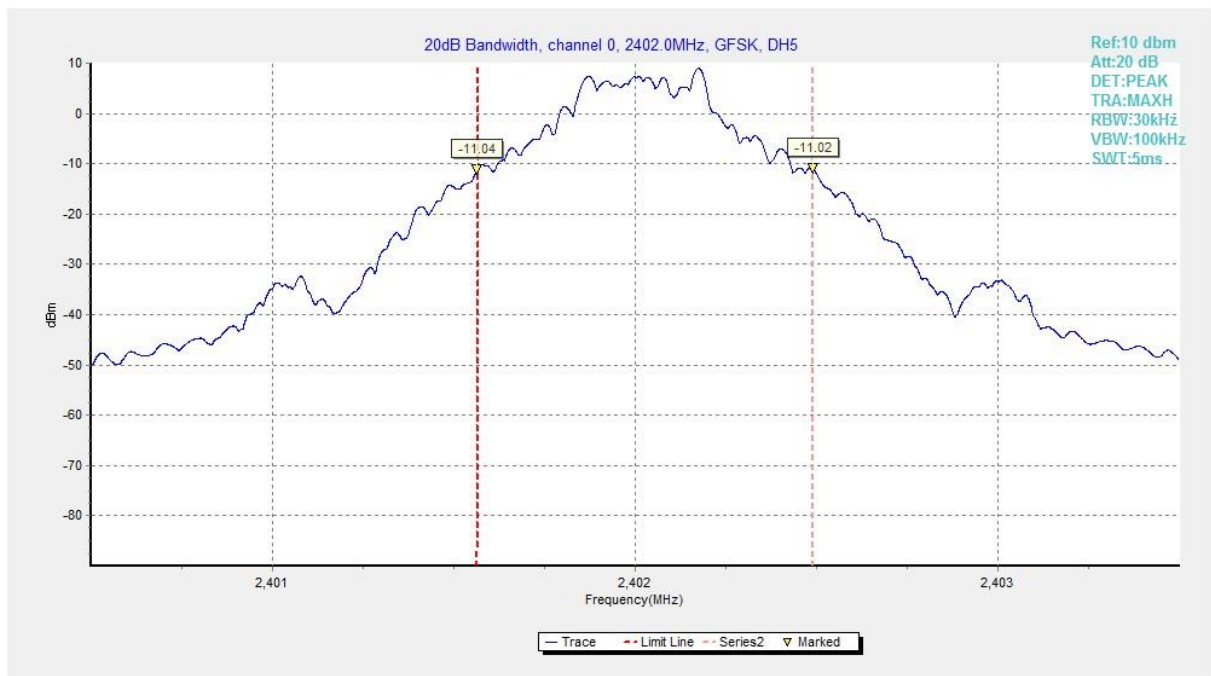


Fig. 60 20dB Bandwidth (GFSK, Ch 0)

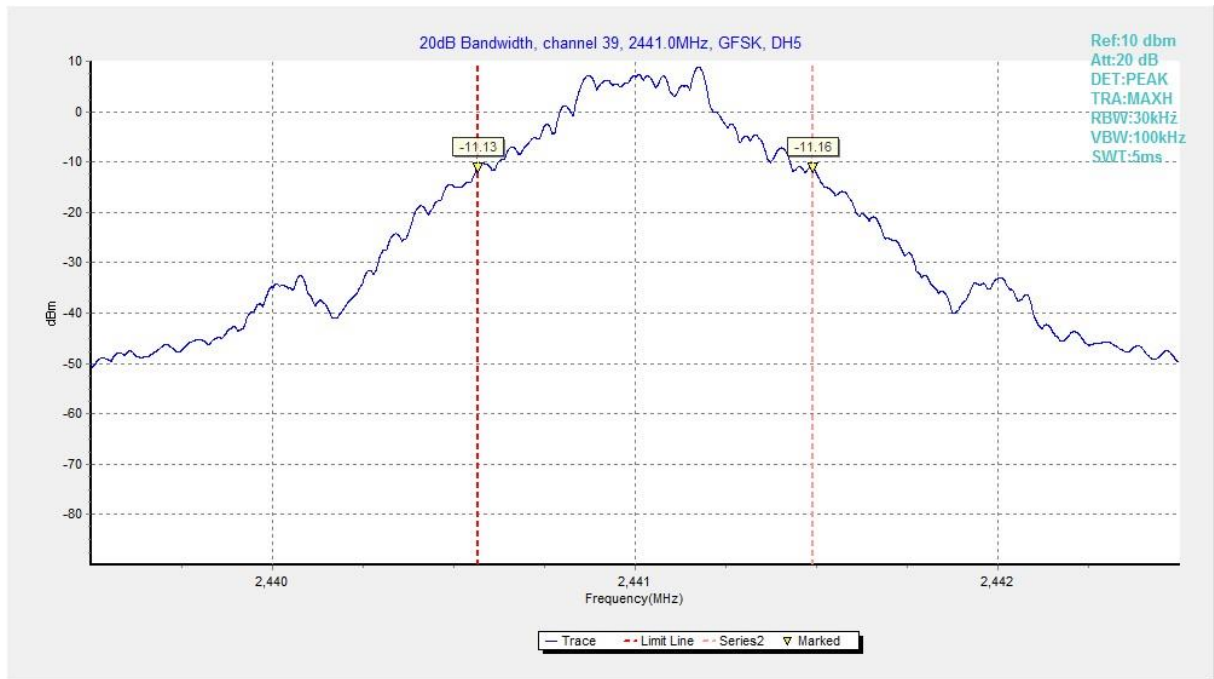


Fig. 61 20dB Bandwidth (GFSK, Ch 39)

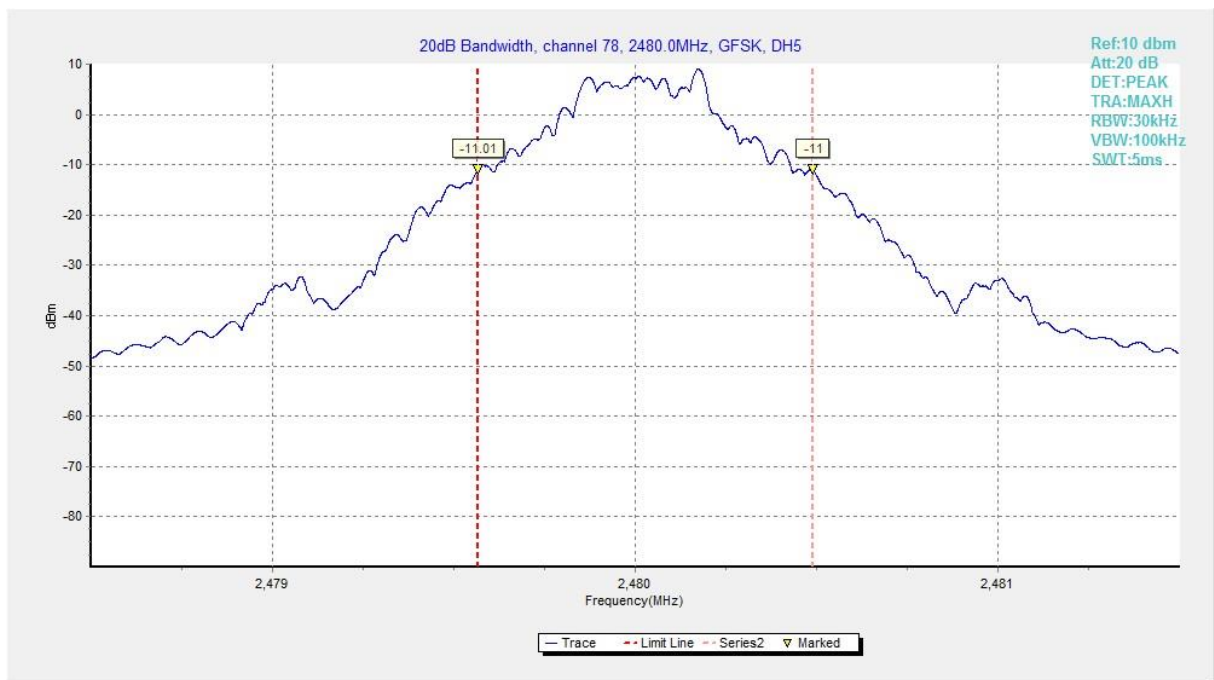


Fig. 62 20dB Bandwidth (GFSK, Ch 78)

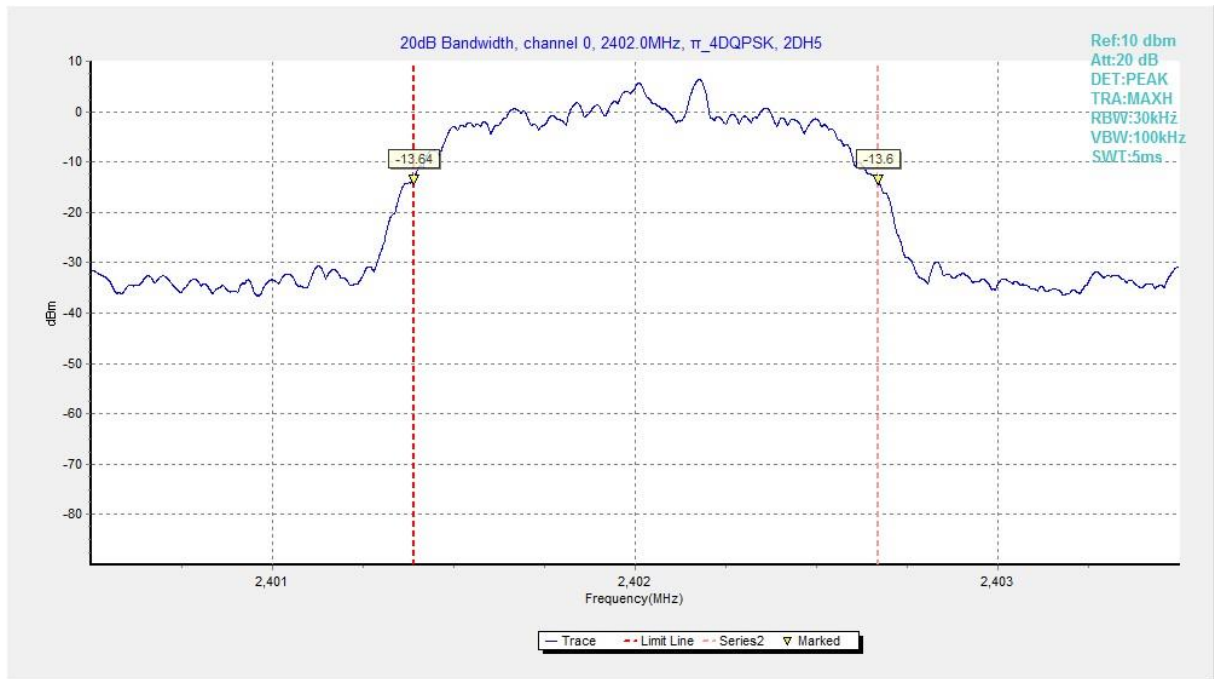


Fig. 63 20dB Bandwidth ($\pi/4$ DQPSK, Ch 0)

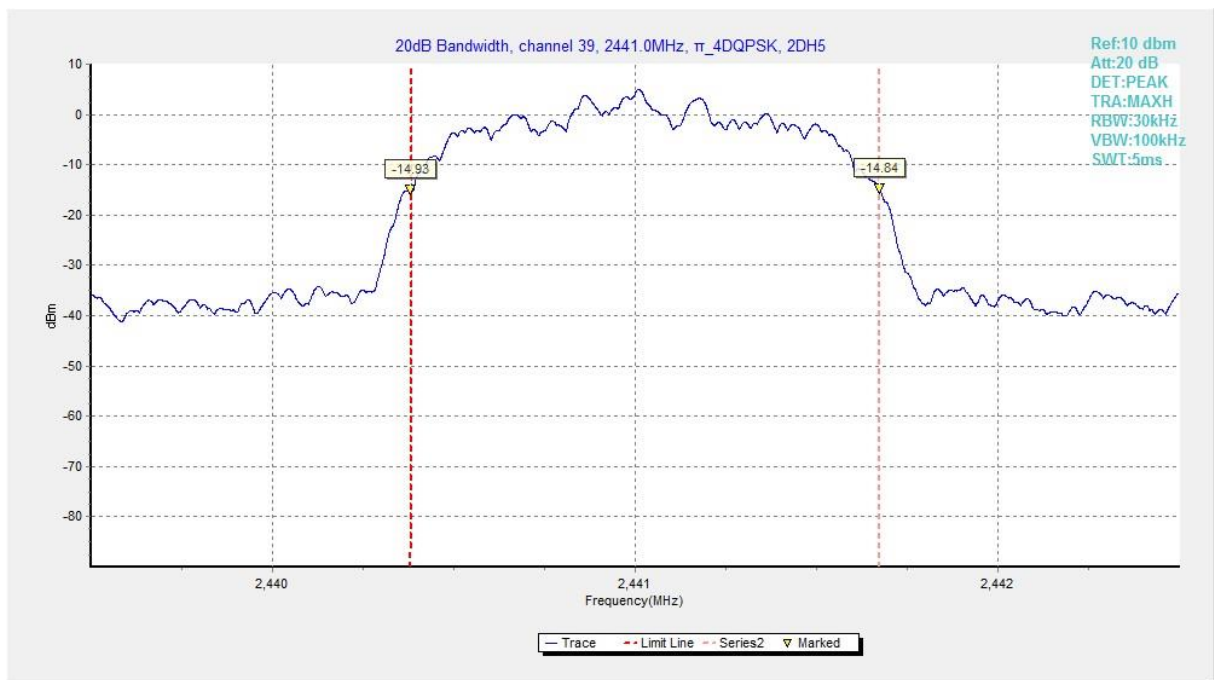


Fig. 64 20dB Bandwidth ($\pi/4$ DQPSK, Ch 39)

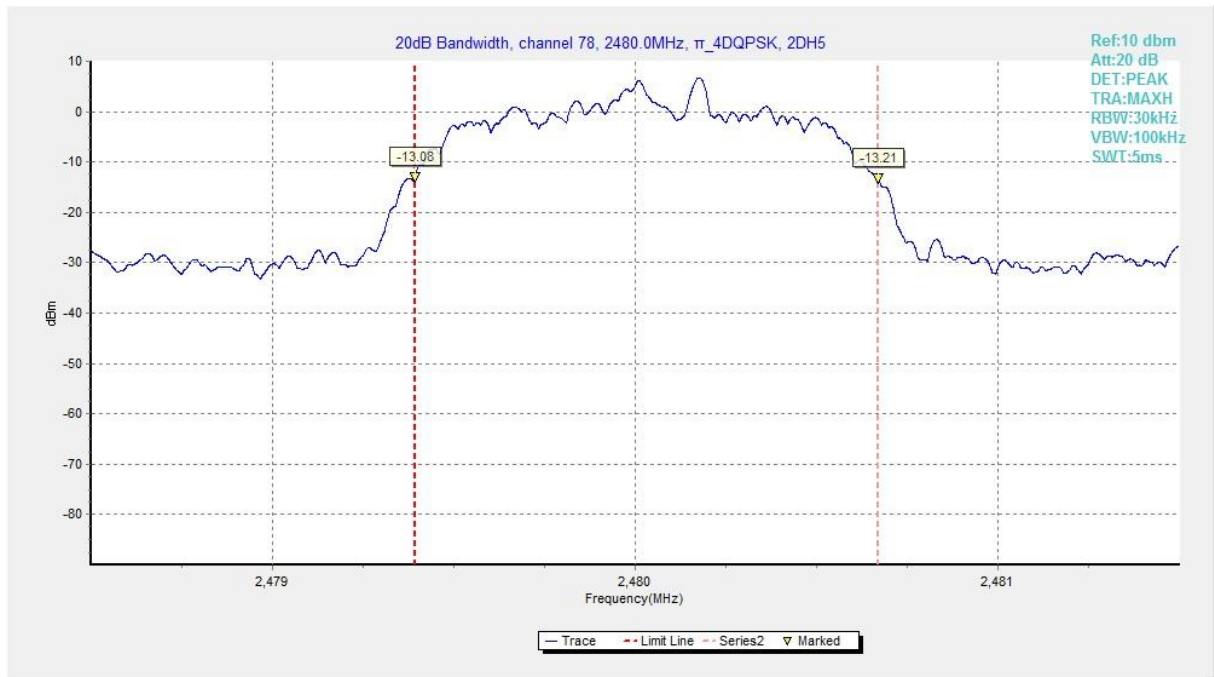


Fig. 65 20dB Bandwidth ($\pi/4$ DQPSK, Ch 78)

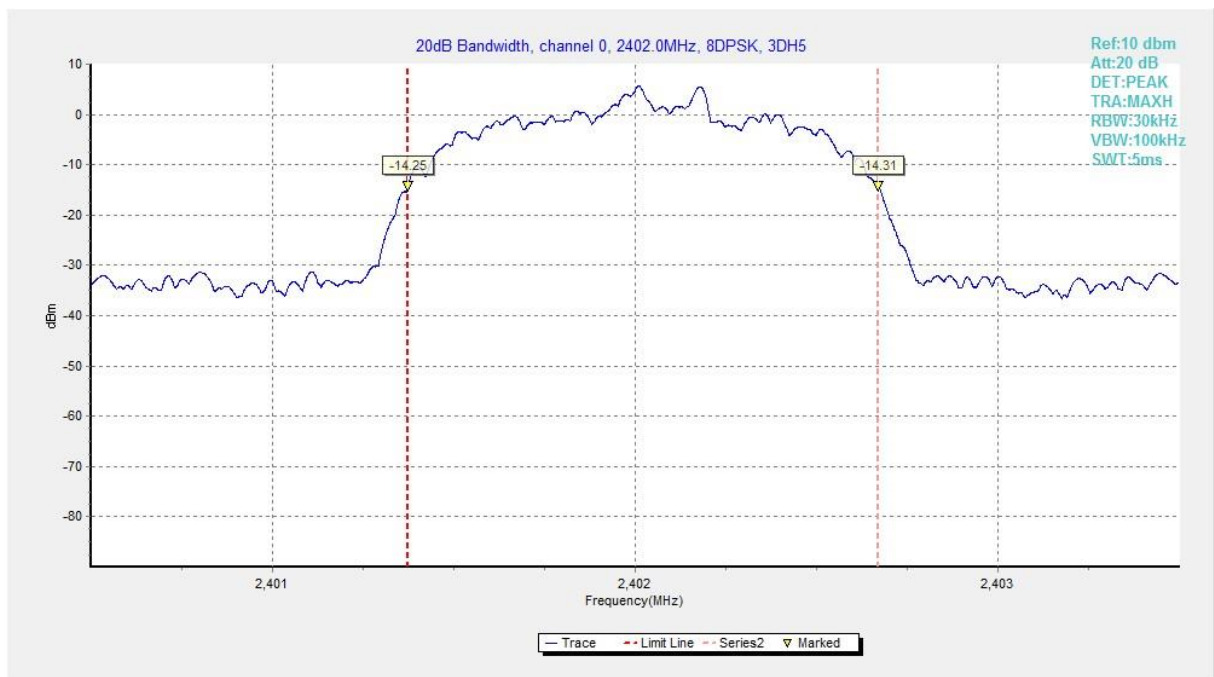


Fig. 66 20dB Bandwidth (8DPSK, Ch 0)

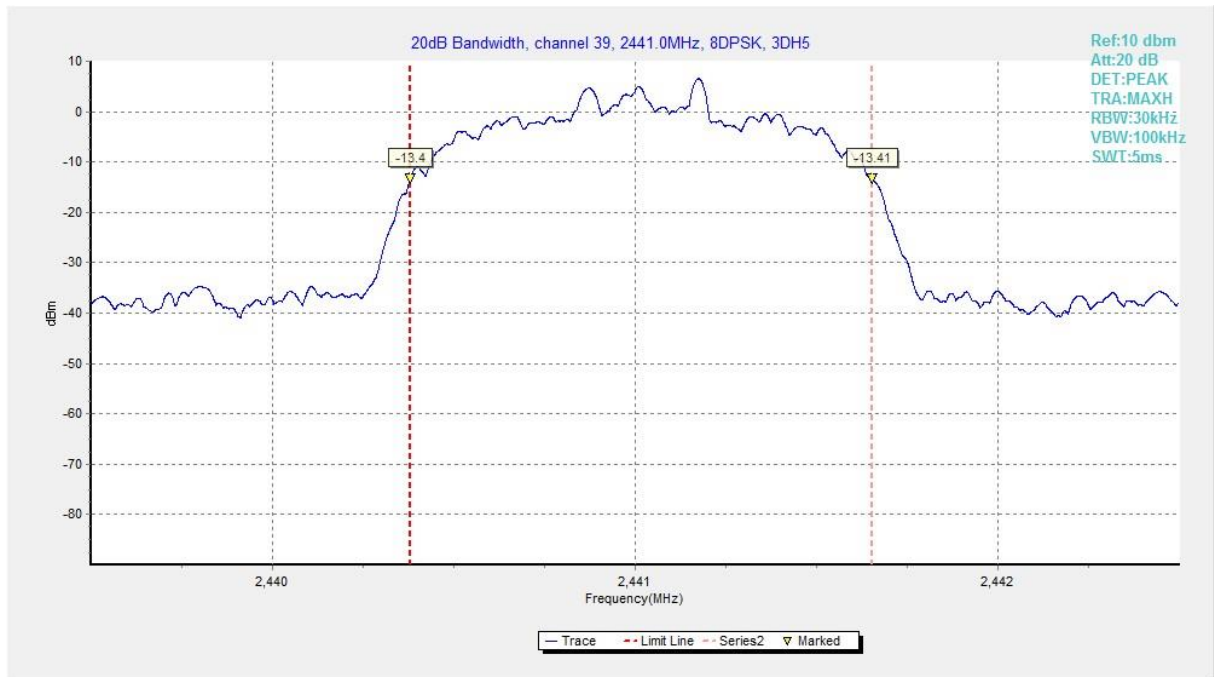


Fig. 67 20dB Bandwidth (8DPSK, Ch 39)

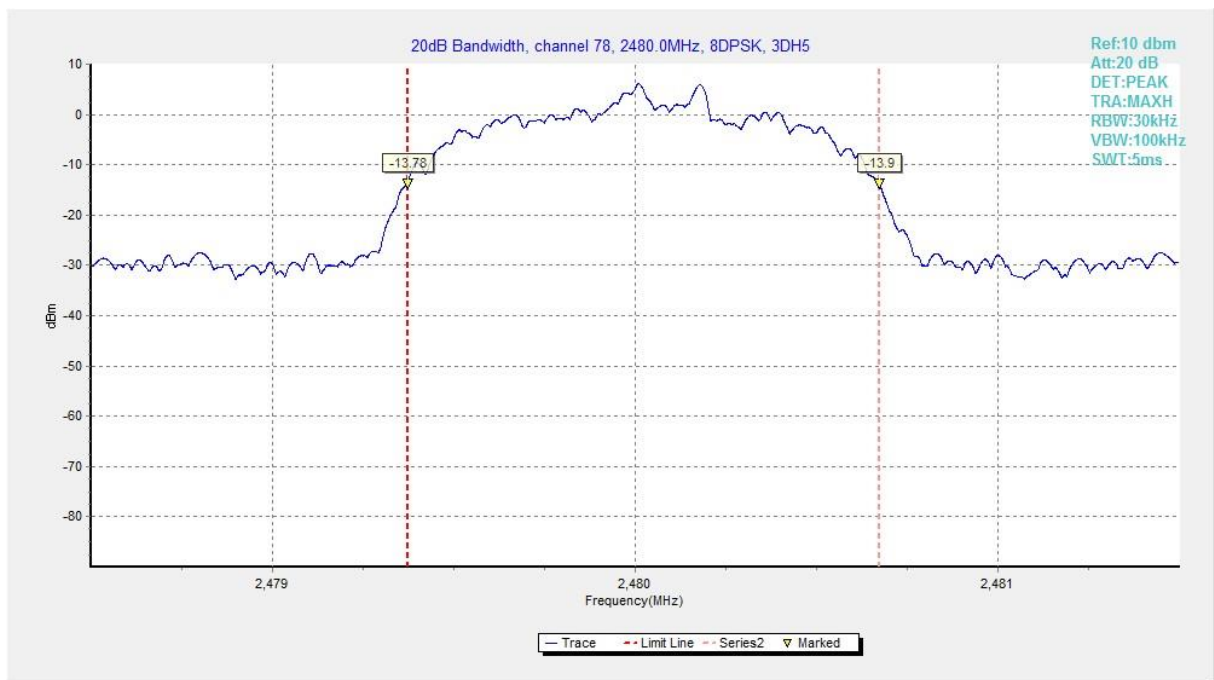


Fig. 68 20dB Bandwidth (8DPSK, Ch 78)

A.6 Time of Occupancy (Dwell Time)

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247(a)	< 400 ms

Measurement Results:

Mode	Channel	Packet	Dwell Time(ms)		Conclusion
GFSK	39	DH5	Fig.69	305.88	P
			Fig.70		
$\pi/4$ DQPSK	39	2-DH5	Fig.71	305.59	P
			Fig.72		
8DPSK	39	3-DH5	Fig.73	308.21	P
			Fig.74		

See below for test graphs.

Conclusion: Pass

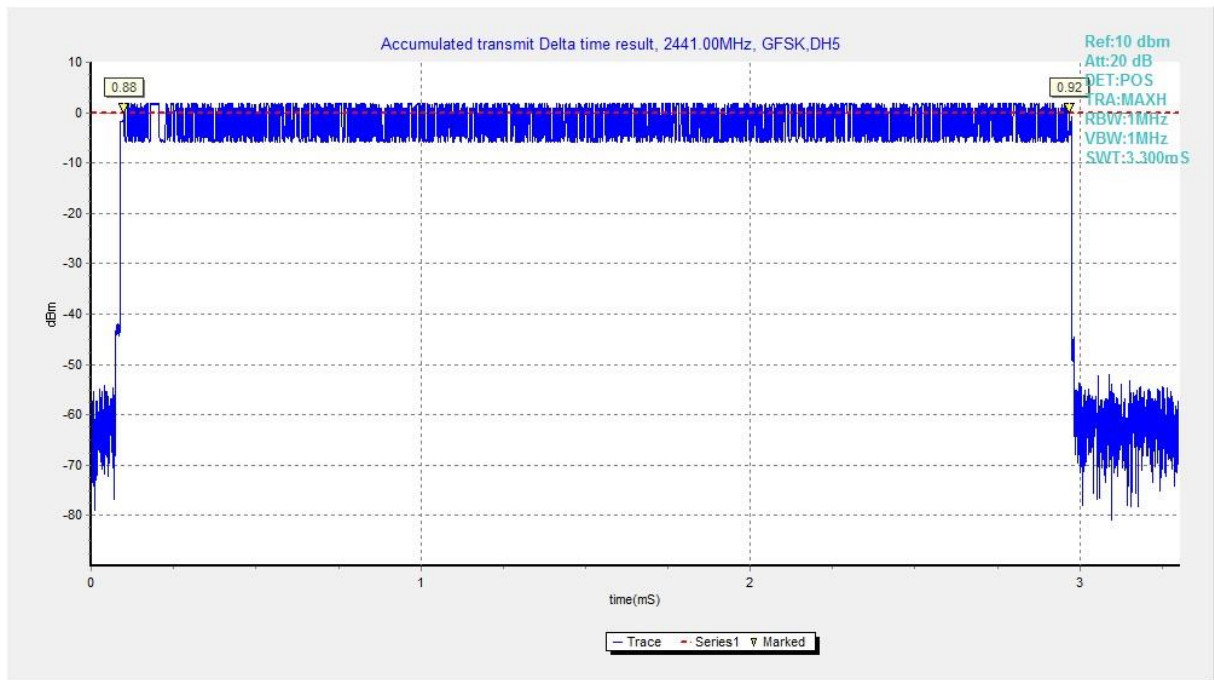


Fig. 69 Time of Occupancy (Dwell Time) (GFSK, Ch39)

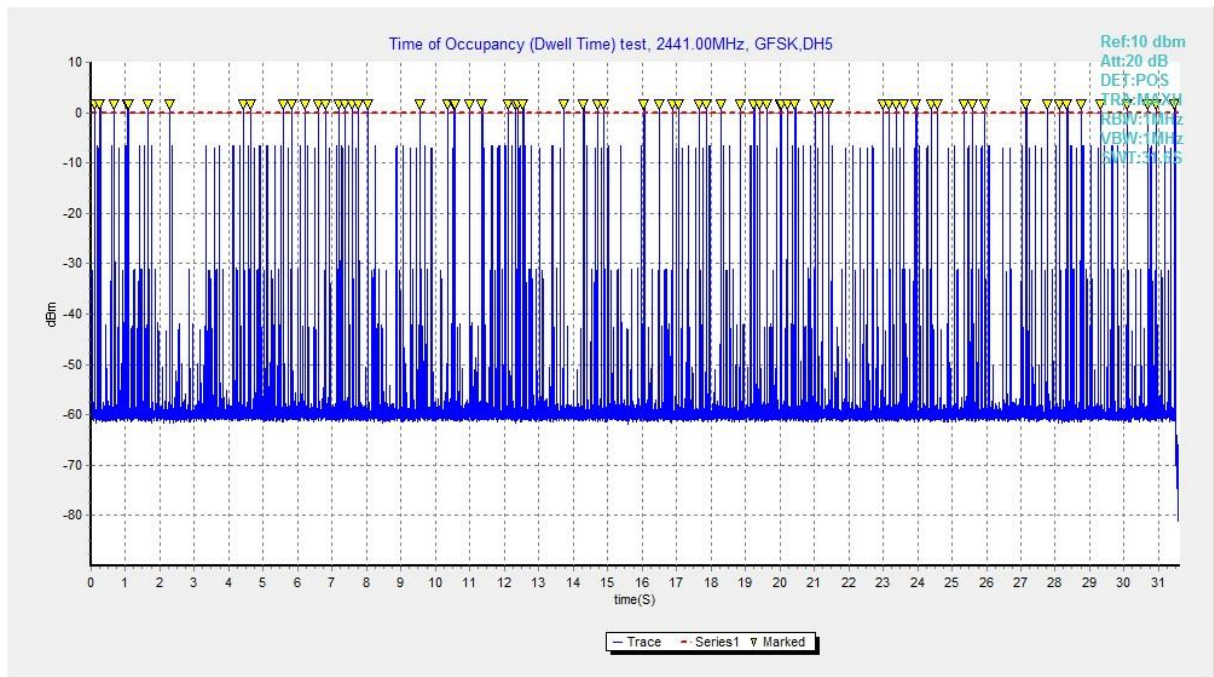


Fig. 70 Time of Occupancy (Dwell Time) (GFSK, Ch39)

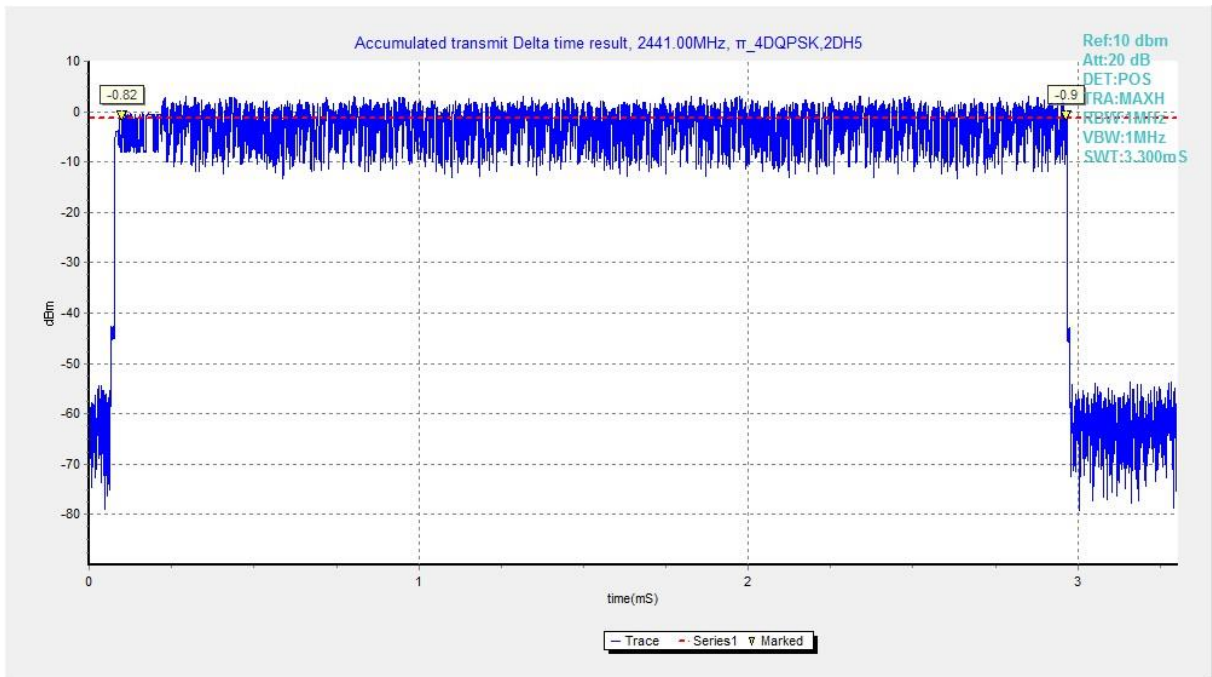


Fig. 71 Time of Occupancy (Dwell Time) ($\pi/4$ DQPSK, Ch39)

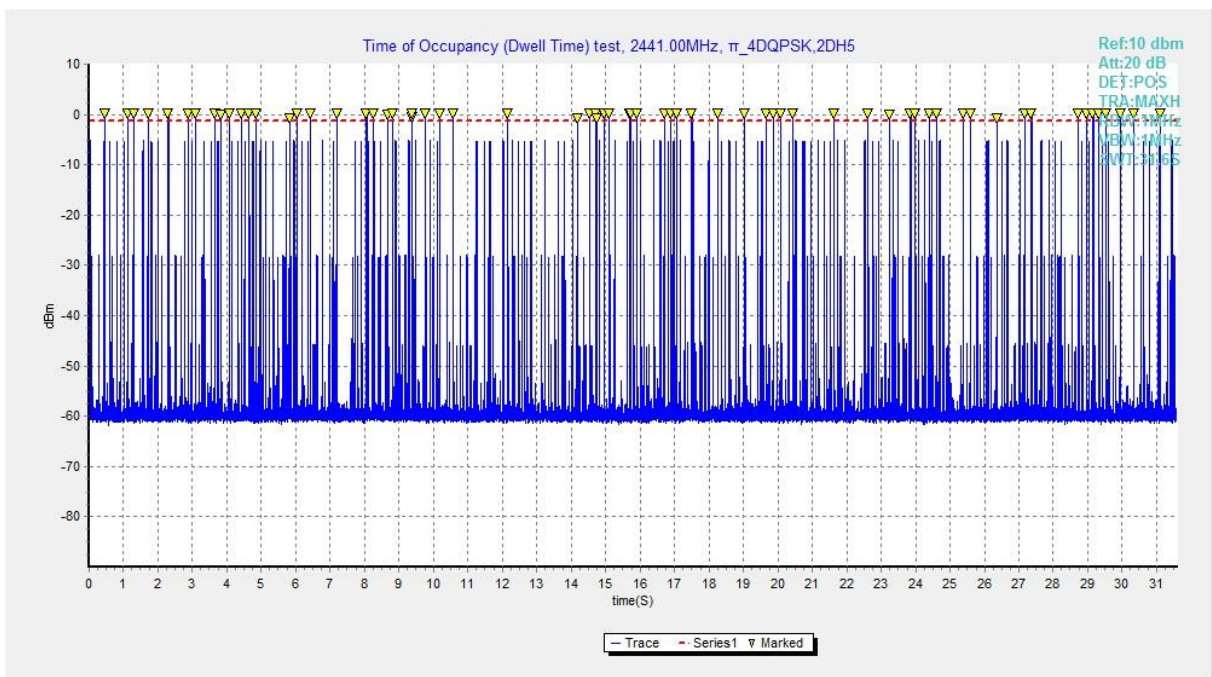


Fig. 72 Time of Occupancy (Dwell Time) ($\pi/4$ DQPSK, Ch39)

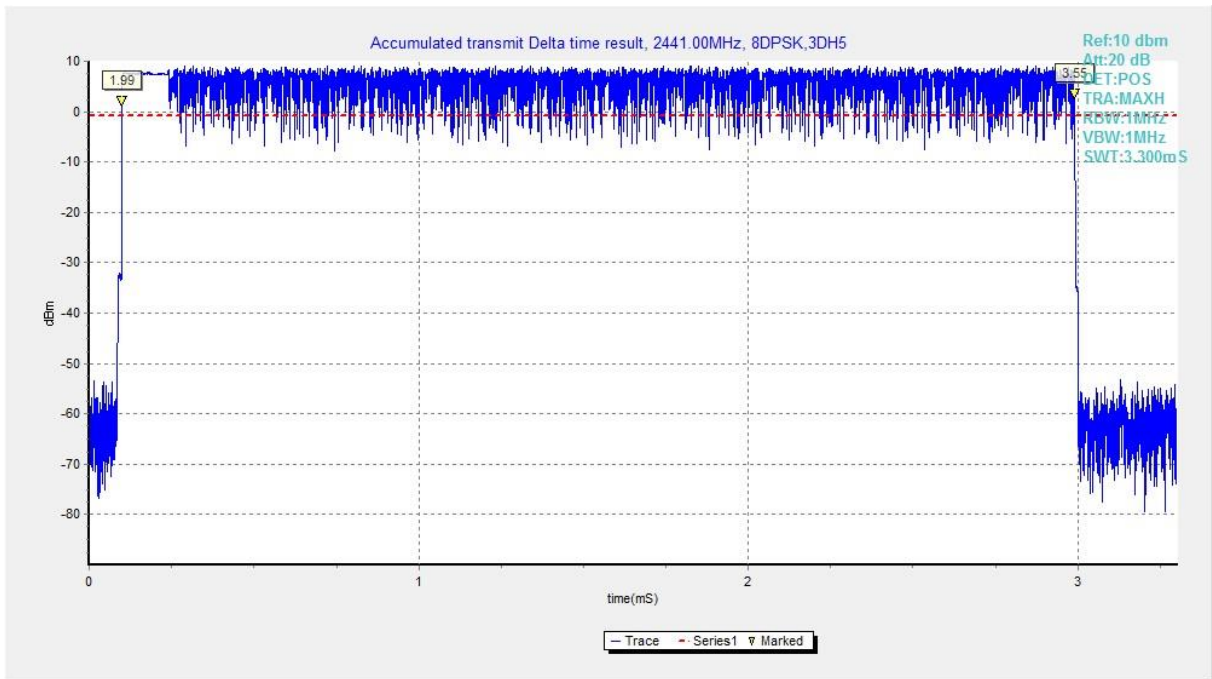


Fig. 73 Time of Occupancy (Dwell Time) (8DPSK, Ch39)

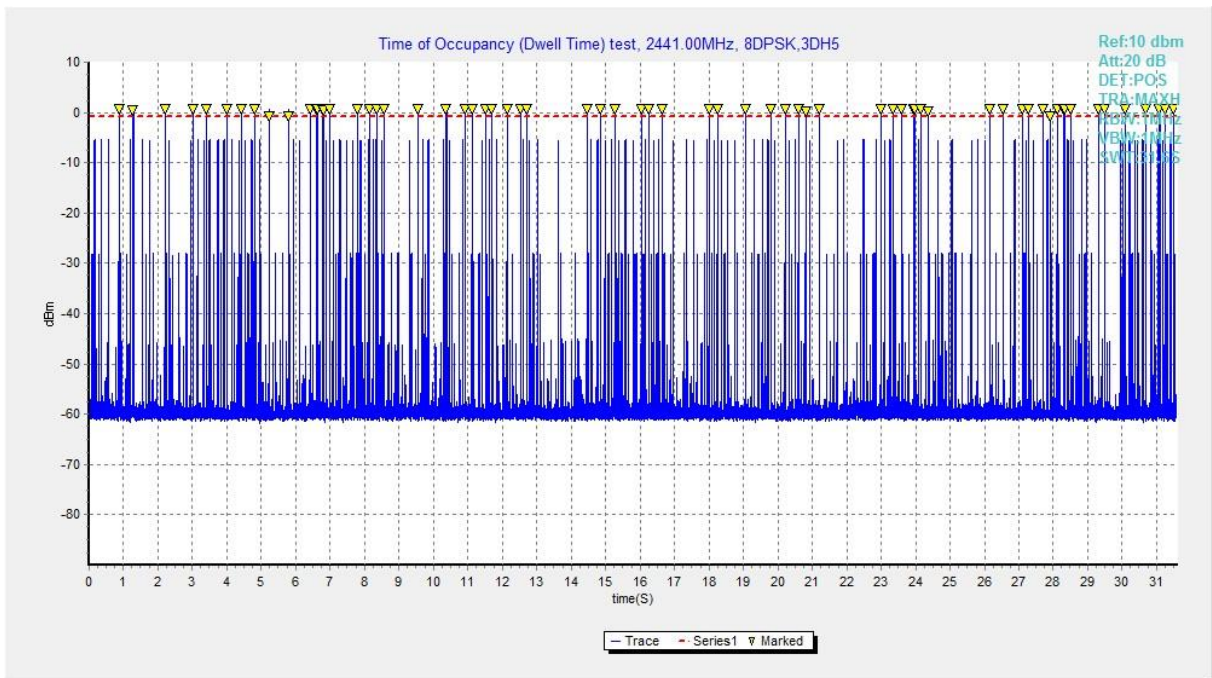


Fig. 74 Time of Occupancy (Dwell Time) (8DPSK, Ch39)

A.7 Number of Hopping Channels

Measurement Limit:

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

Measurement Results:

Mode	Packet	Number of hopping		Test result	Conclusion
GFSK	DH5	Fig.75	Fig.76	79	P
$\pi/4$ DQPSK	2-DH5	Fig.77	Fig.78	79	P
8DPSK	3-DH5	Fig.79	Fig.80	79	P

See below for test graphs.

Conclusion: Pass

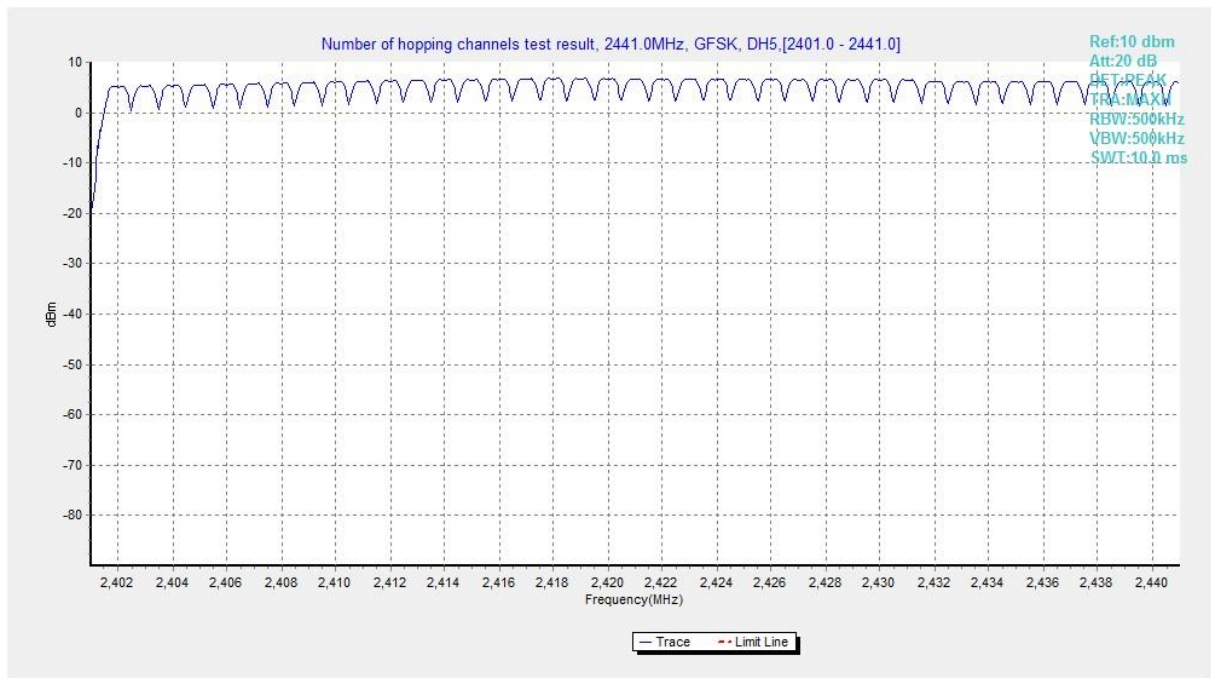


Fig. 75 Hopping channel ch0~39 (GFSK, Ch39)

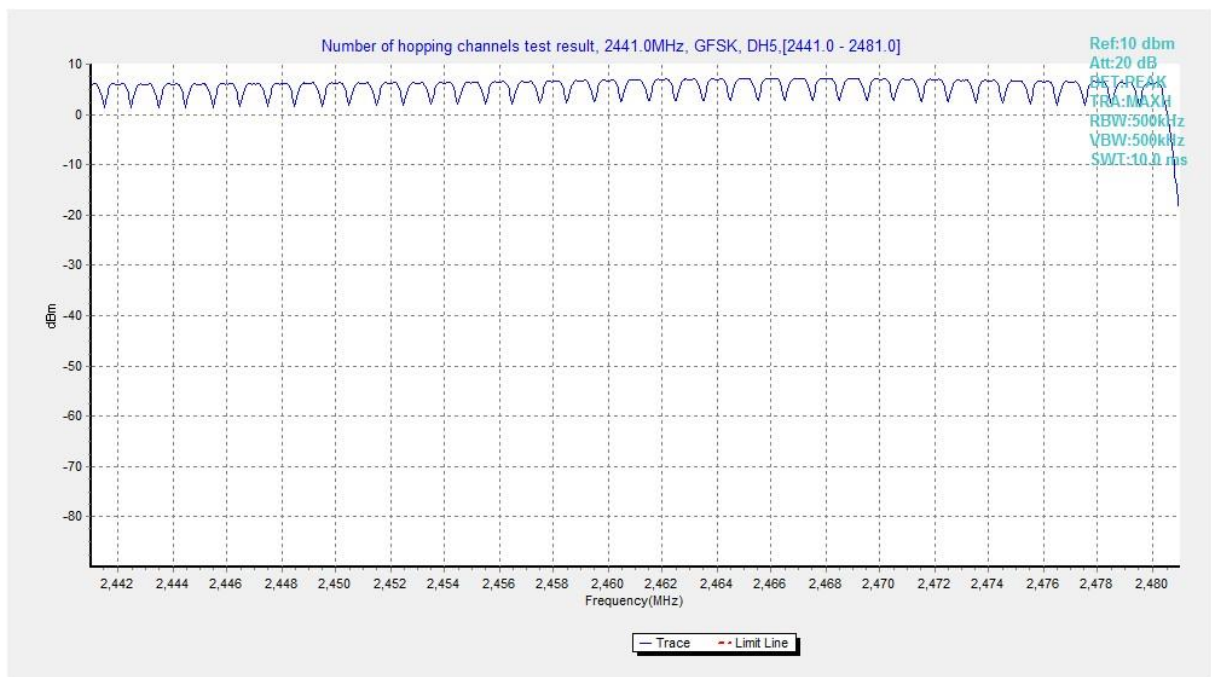


Fig. 76 Hopping channel ch39~78 (GFSK, Ch39)



Fig. 77 Hopping channel ch0~39 ($\pi/4$ DQPSK, Ch39)



Fig. 78 Hopping channel ch39~78 ($\pi/4$ DQPSK, Ch39)

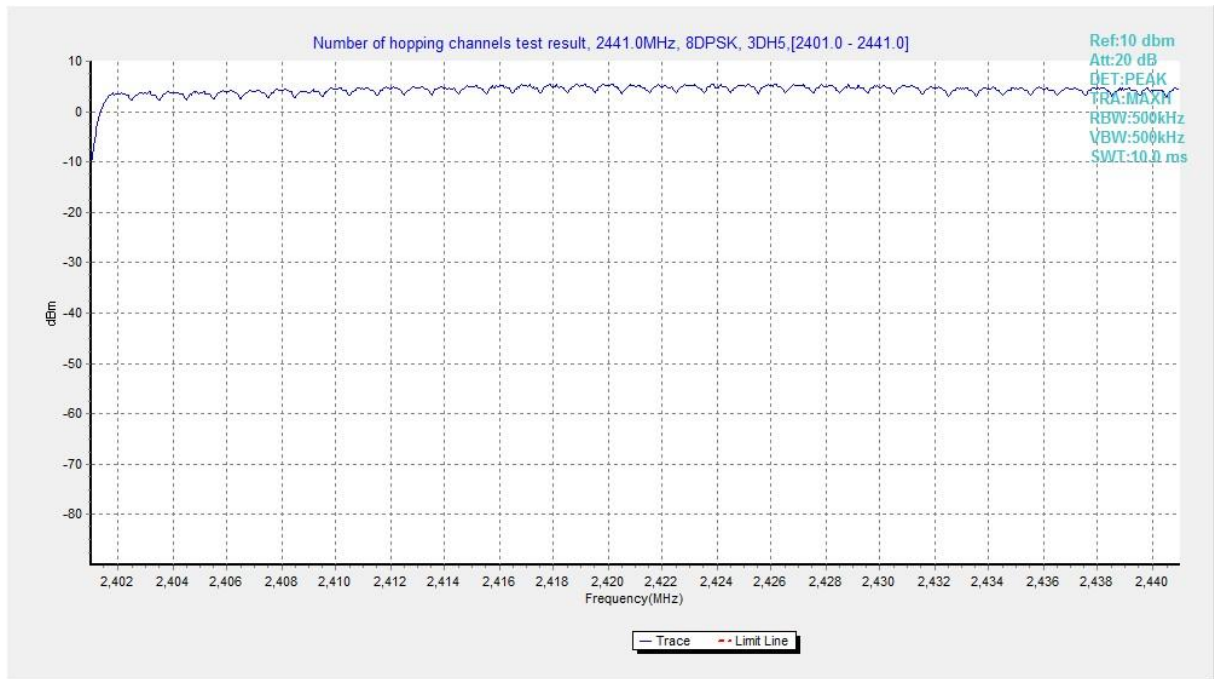


Fig. 79 Hopping channel ch0~39 (8DPSK, Ch39)

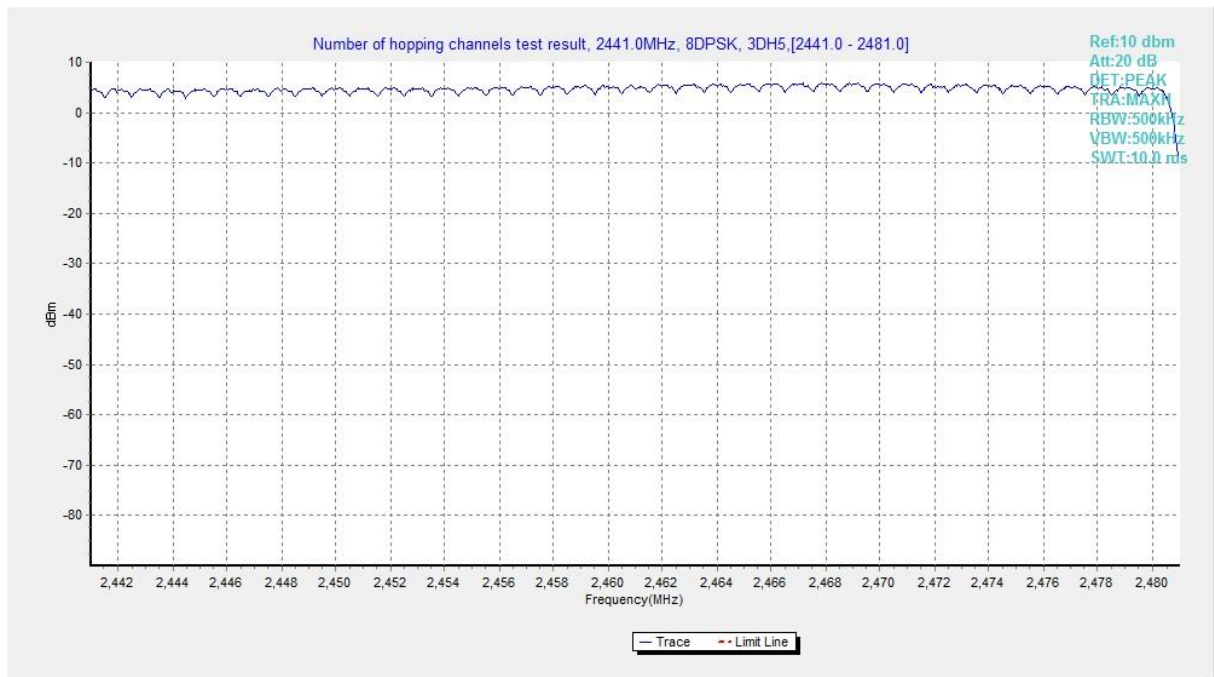


Fig. 80 Hopping channel ch39~78 (8DPSK, Ch39)

A.8 Carrier Frequency Separation

Measurement Limit:

Standard	Limit
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	Channel	Packet	Separation of hopping channels	Test result (kHz)	Conclusion
GFSK	39	DH5	Fig.81	1003.50	P
$\pi/4$ DQPSK	39	2-DH5	Fig.82	1083.75	P
8DPSK	39	3-DH5	Fig.83	1008.75	P

See below for test graphs.

Conclusion: Pass

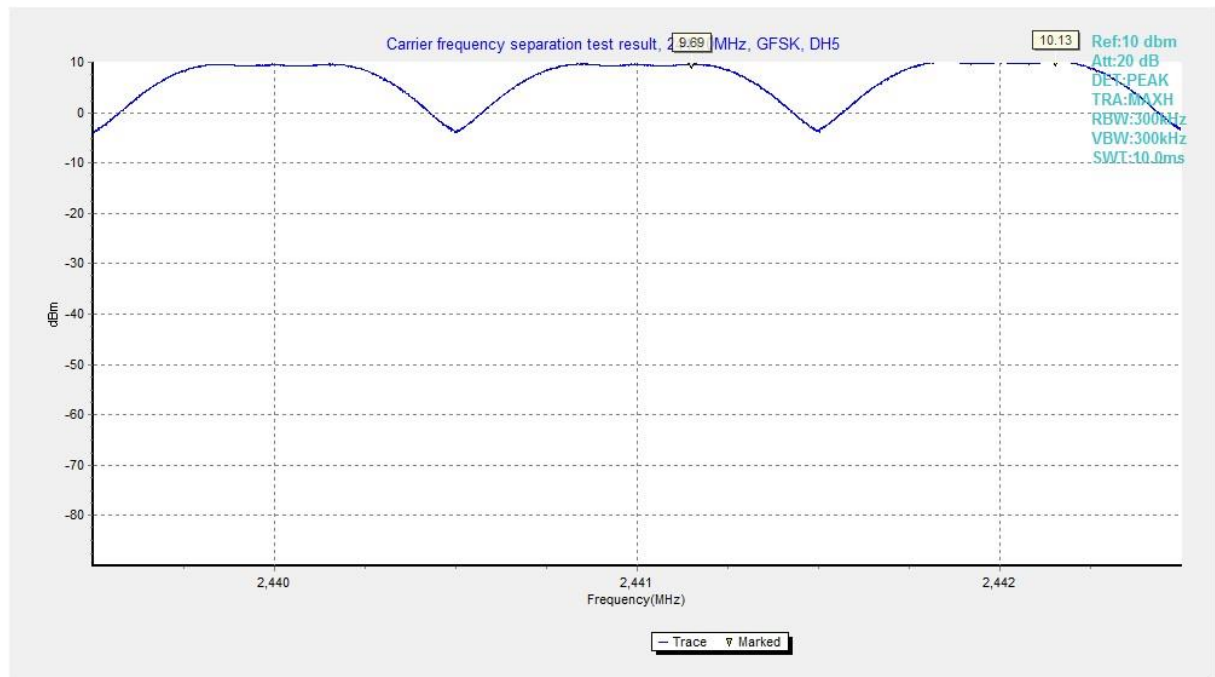


Fig. 81 Carrier Frequency Separation (GFSK, Ch39)

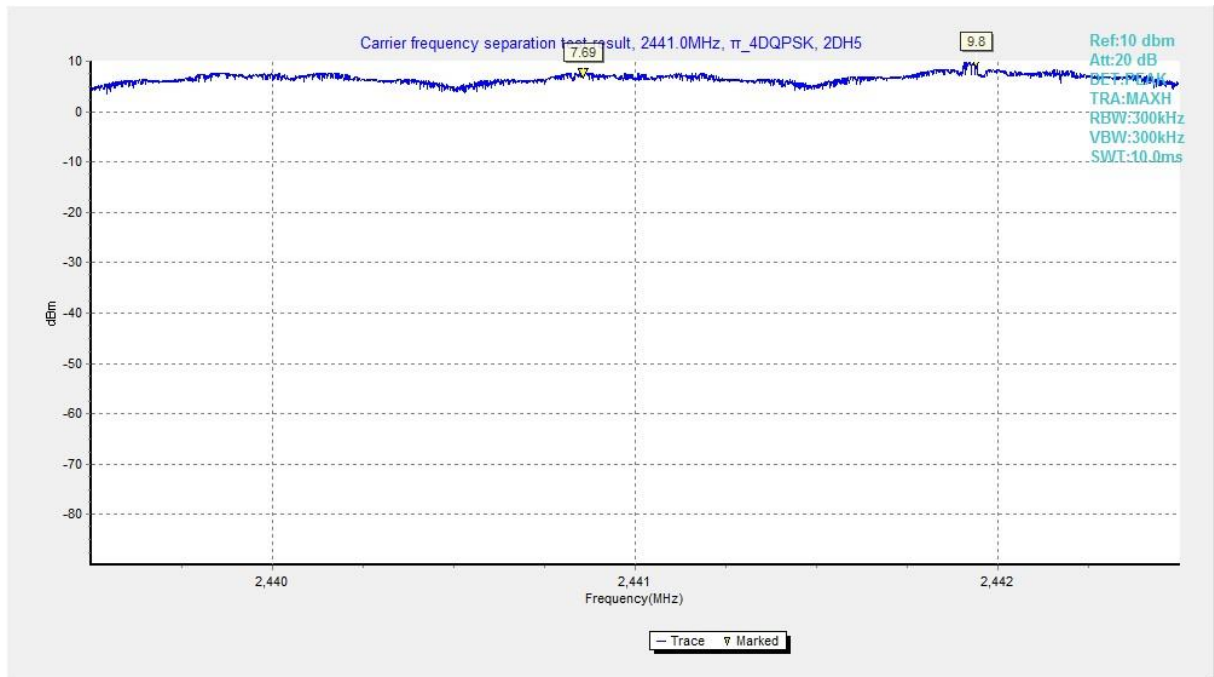


Fig. 82 Carrier Frequency Separation ($\pi/4$ DQPSK, Ch39)

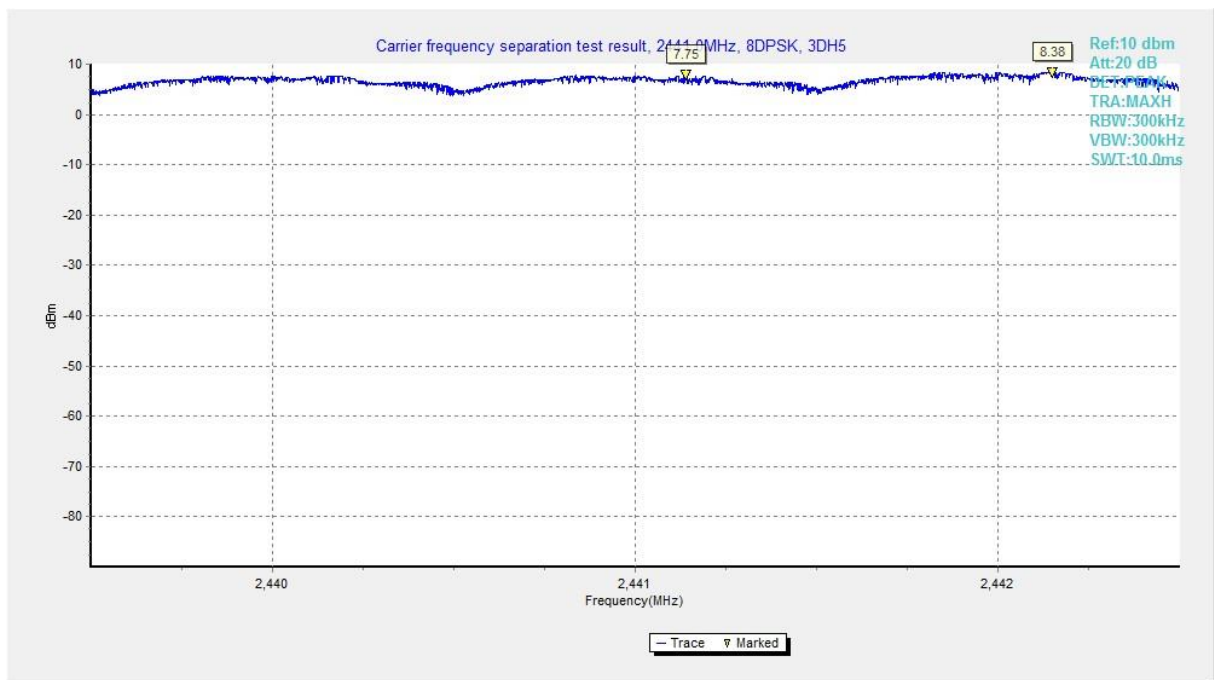


Fig. 83 Carrier Frequency Separation (8DPSK, Ch39)

A.9 AC Power line Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

BT-AE2, AE3

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.84	Fig.85	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

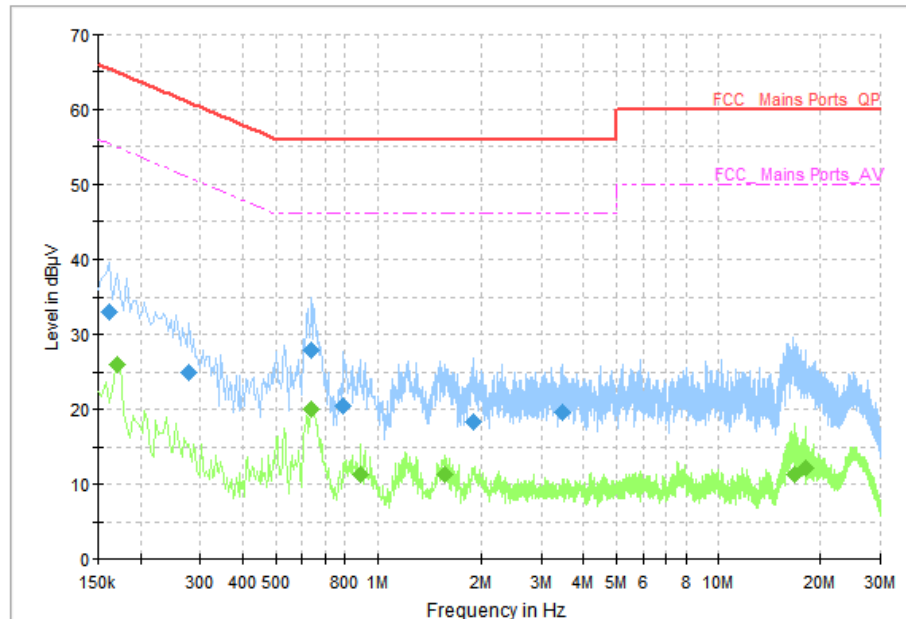


Fig. 84 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.162000	33.13	65.36	32.23	N	ON	10
0.278000	24.90	60.88	35.98	N	ON	10
0.638000	28.06	56.00	27.94	N	ON	10
0.794000	20.49	56.00	35.51	N	ON	10
1.902000	18.45	56.00	37.55	N	ON	10
3.458000	19.69	56.00	36.31	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170000	26.01	54.96	28.95	N	ON	10
0.638000	20.16	46.00	25.84	N	ON	10
0.890000	11.24	46.00	34.76	N	ON	10
1.562000	11.37	46.00	34.63	N	ON	10
16.818000	11.39	50.00	38.61	N	ON	10
17.978000	12.13	50.00	37.87	L1	ON	10

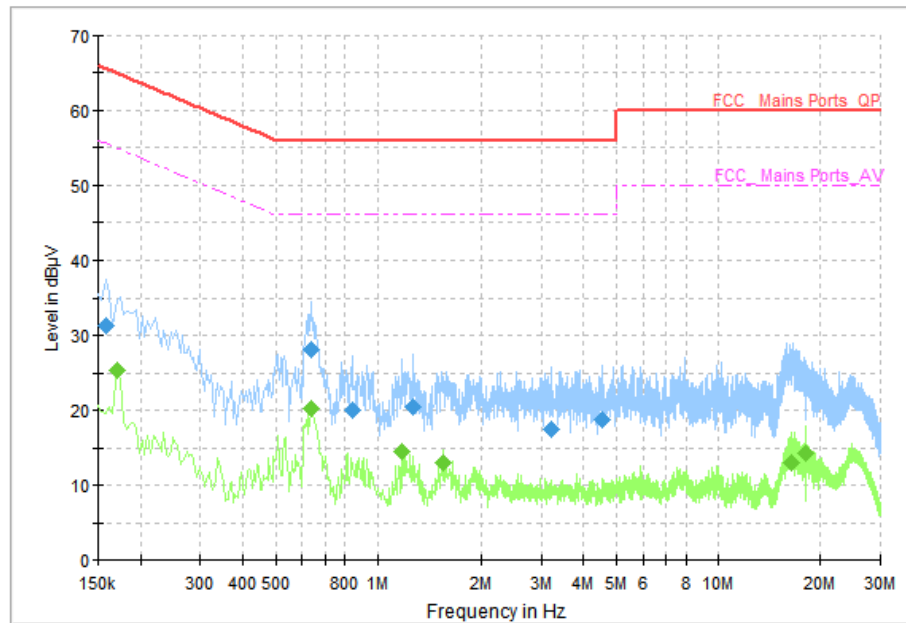


Fig. 85 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.158000	31.41	65.57	34.16	N	ON	10
0.634000	28.21	56.00	27.79	N	ON	10
0.842000	20.07	56.00	35.93	N	ON	10
1.274000	20.40	56.00	35.60	N	ON	10
3.206000	17.59	56.00	38.41	N	ON	10
4.546000	18.78	56.00	37.22	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170000	25.49	54.96	29.47	N	ON	10
0.638000	20.25	46.00	25.75	N	ON	10
1.182000	14.57	46.00	31.43	N	ON	10
1.546000	13.01	46.00	32.99	N	ON	10
16.470000	13.07	50.00	36.93	N	ON	10
18.002000	14.34	50.00	35.66	L1	ON	10

END OF REPORT