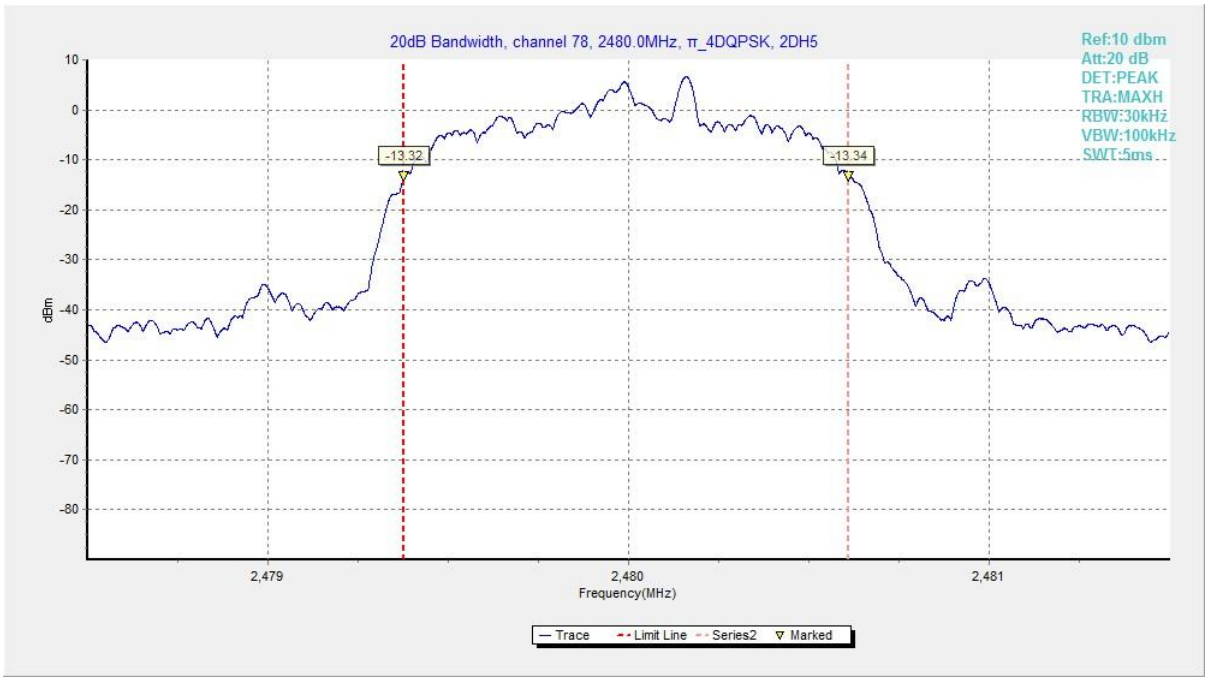

Fig. 65 20dB Bandwidth (π /4 DQPSK, Ch 78)

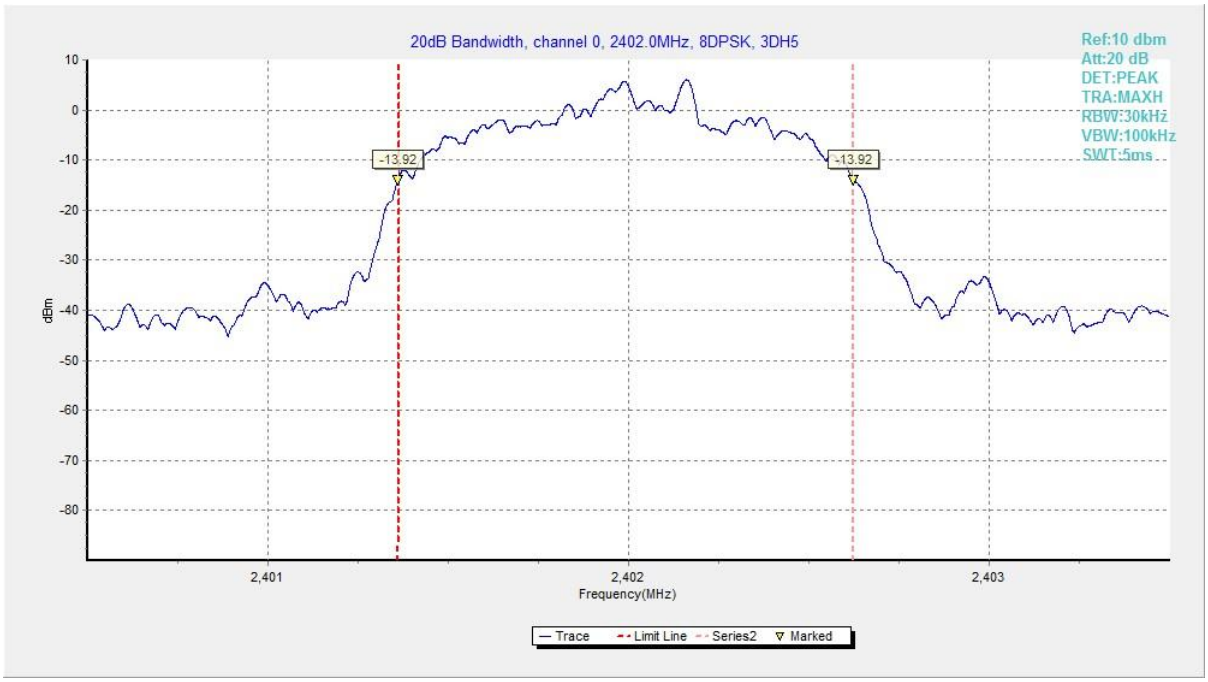

Fig. 66 20dB Bandwidth (8DPSK, Ch 0)

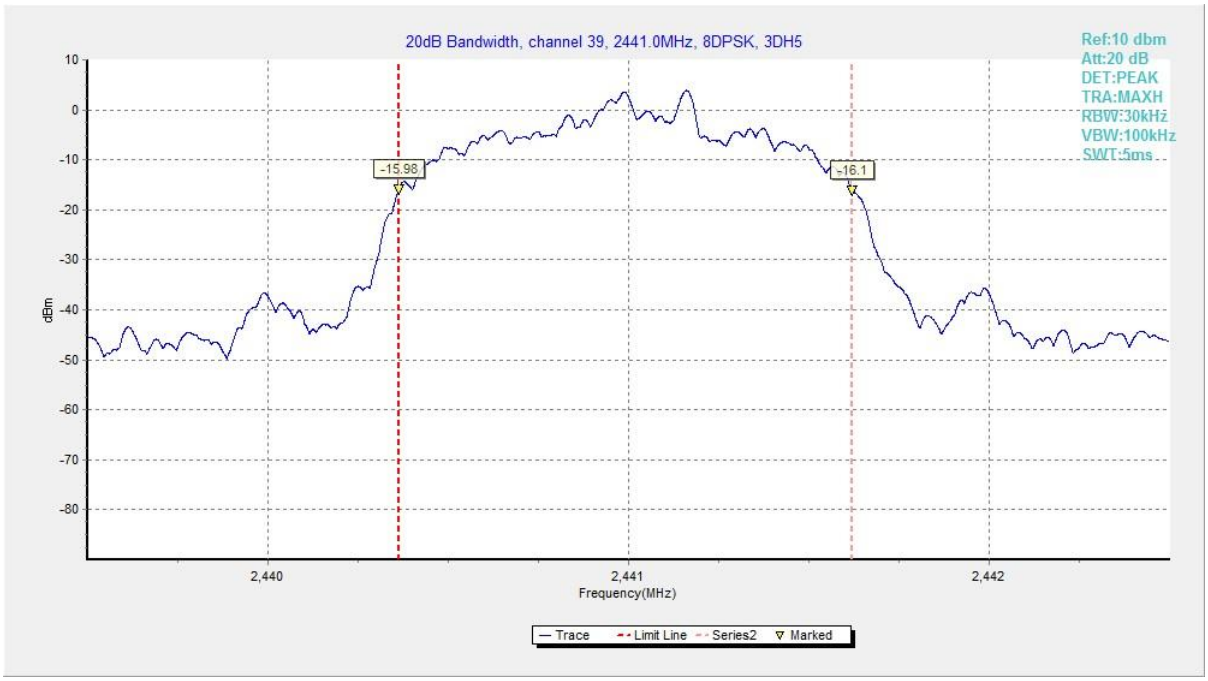

Fig. 67 20dB Bandwidth (8DPSK, Ch 39)

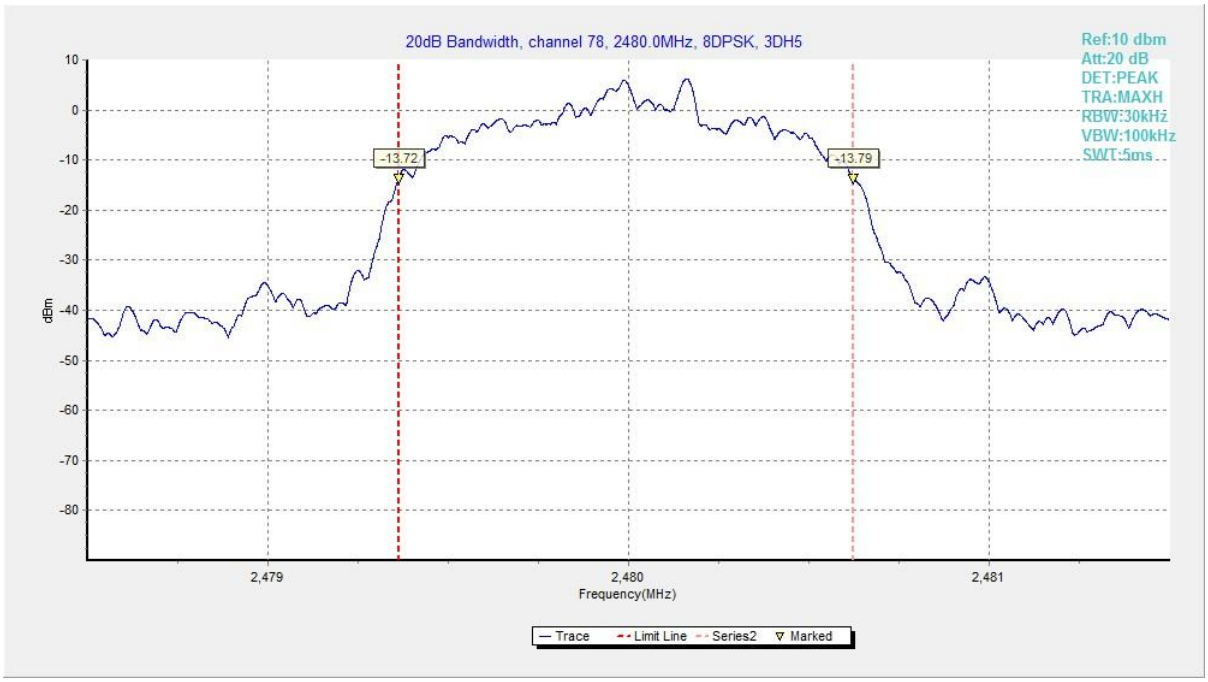

Fig. 68 20dB Bandwidth (8DPSK, Ch 78)

A.7 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	307.19	**P**
			Fig.70		
π /4 DQPSK	39	2-DH5	Fig.71	305.87	**P**
			Fig.72		
8DPSK	39	3-DH5	Fig.73	306.80	**P**
			Fig.74		

See below for test graphs.
Conclusion: Pass

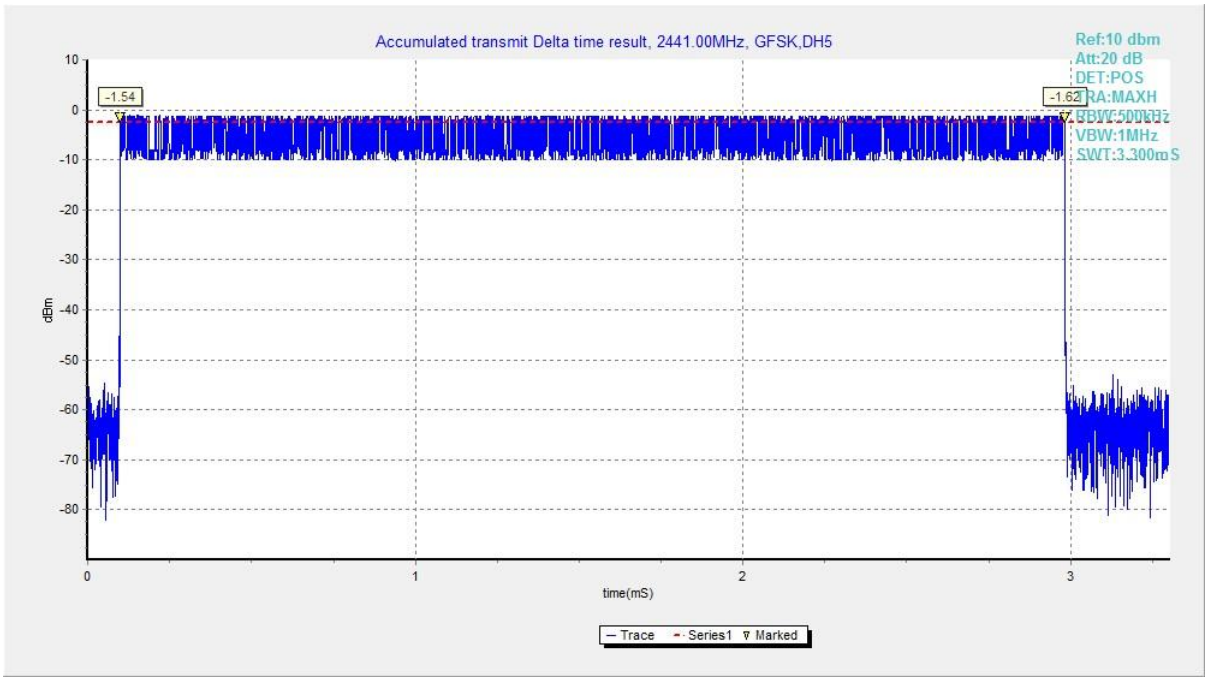

Fig. 69 Time of Occupancy(Dwell Time) (GFSK, Ch39)

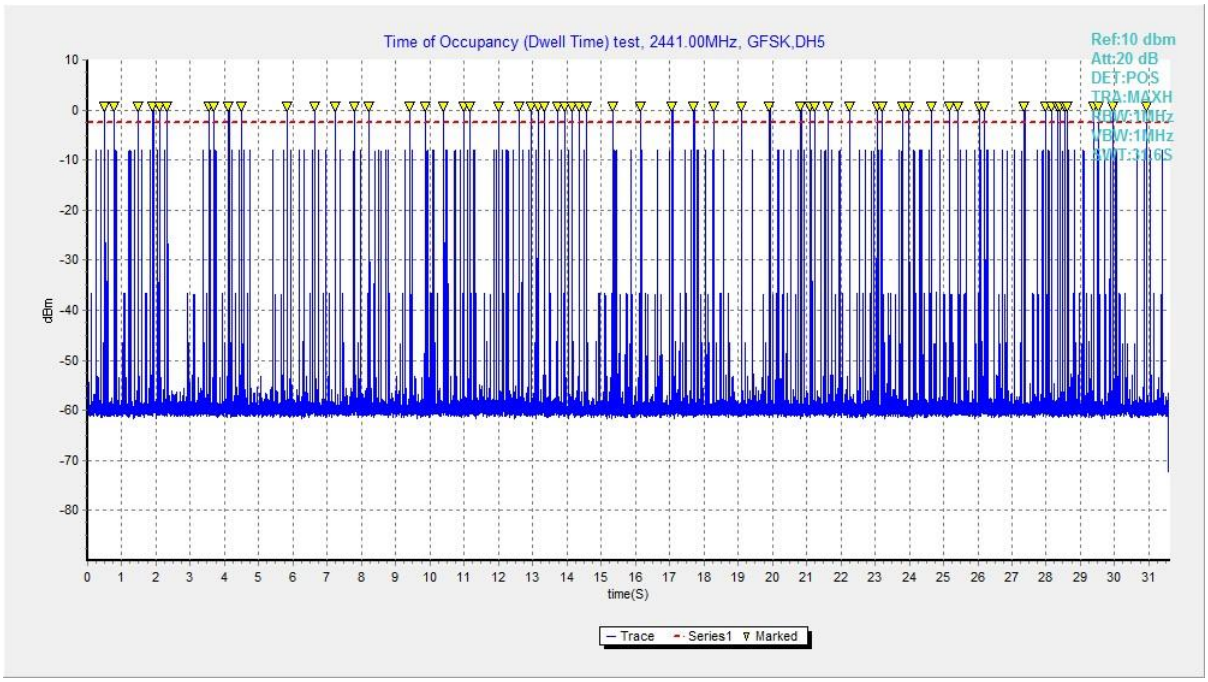

Fig. 70 Time of Occupancy(Dwell Time) (GFSK, Ch39)

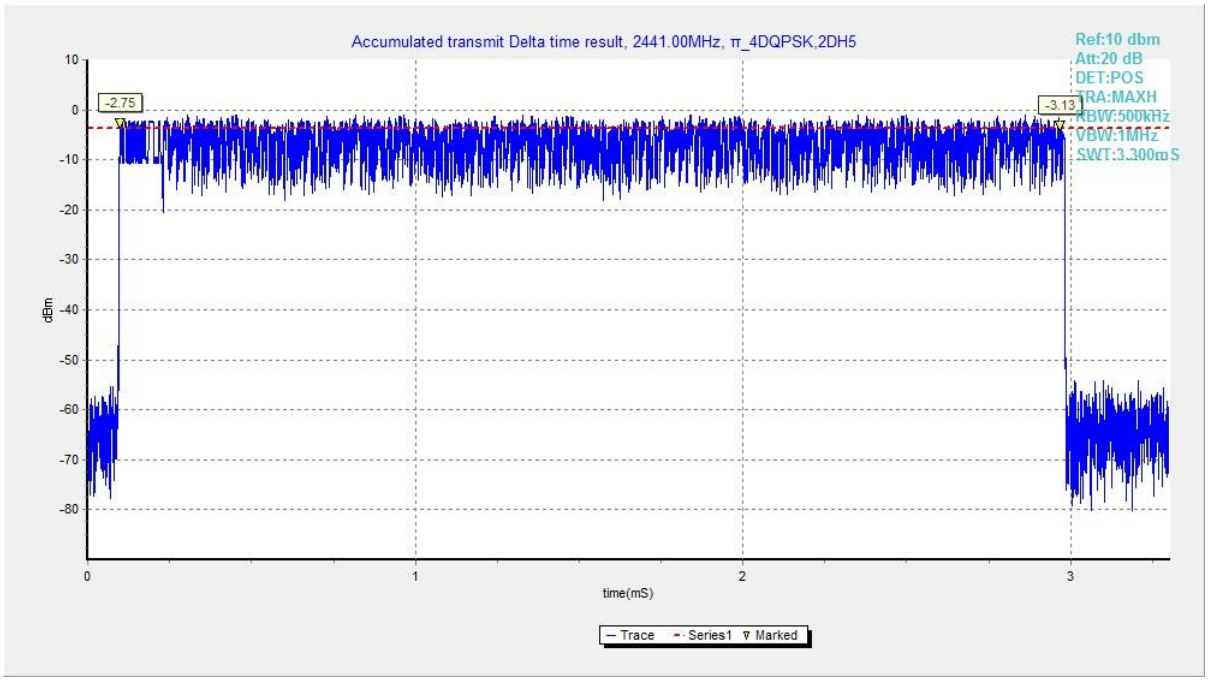

Fig. 71 Time of Occupancy(Dwell Time) (π /4 DQPSK, Ch39)

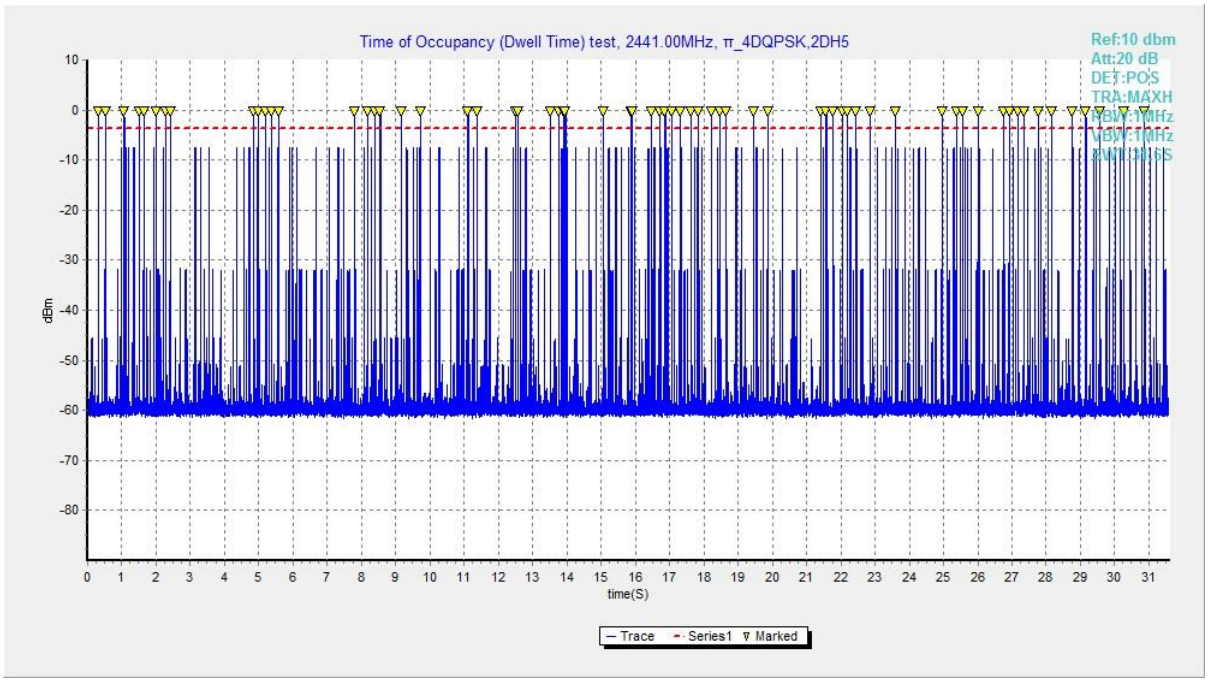

Fig. 72 Time of Occupancy(Dwell Time) (π /4 DQPSK, Ch39)

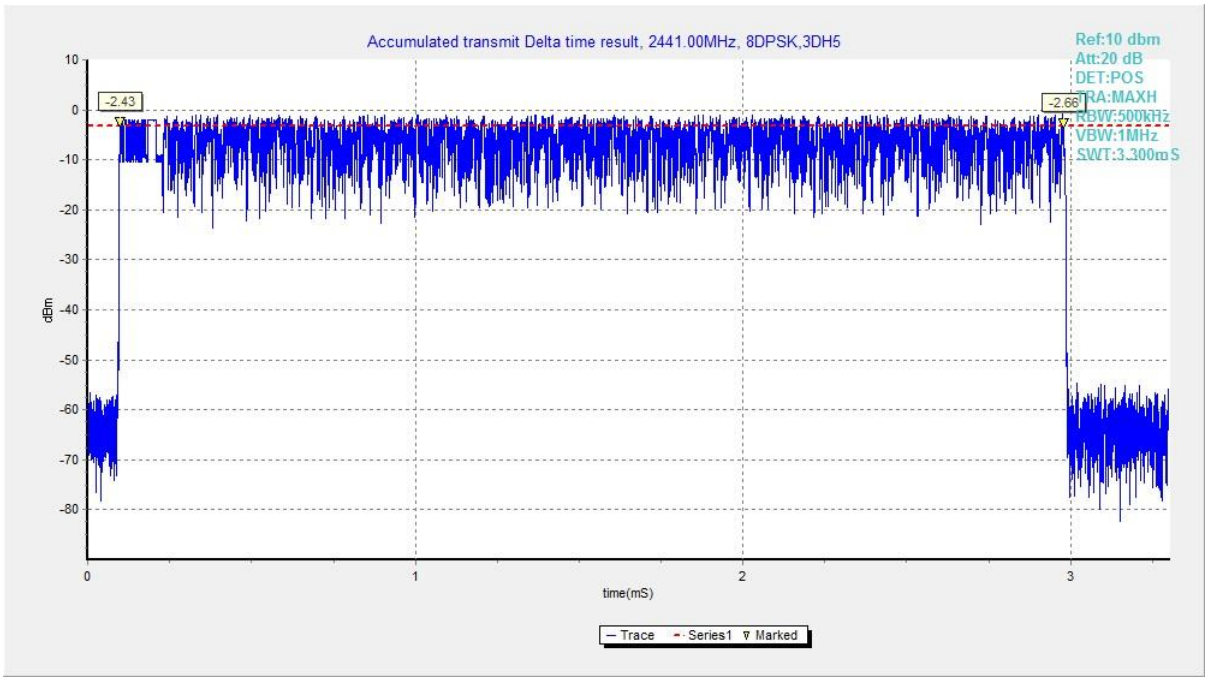

Fig. 73 Time of Occupancy(Dwell Time) (8DPSK, Ch39)

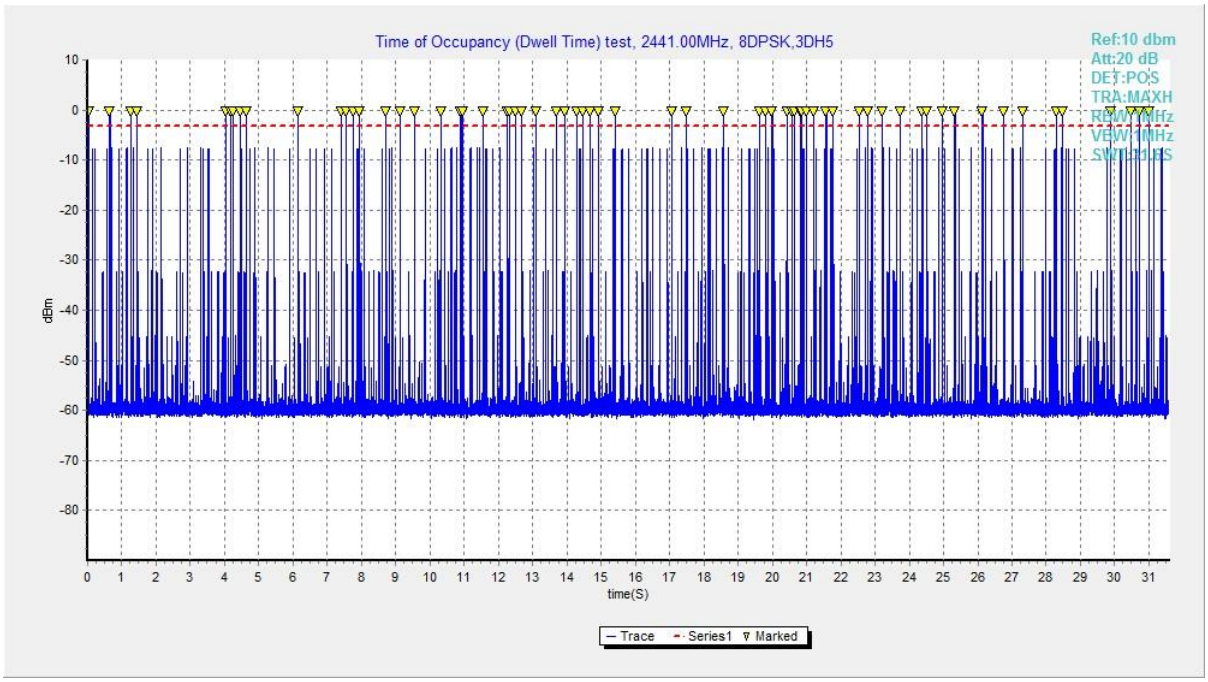

Fig. 74 Time of Occupancy(Dwell Time) (8DPSK, Ch39)

A.8 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**
π /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

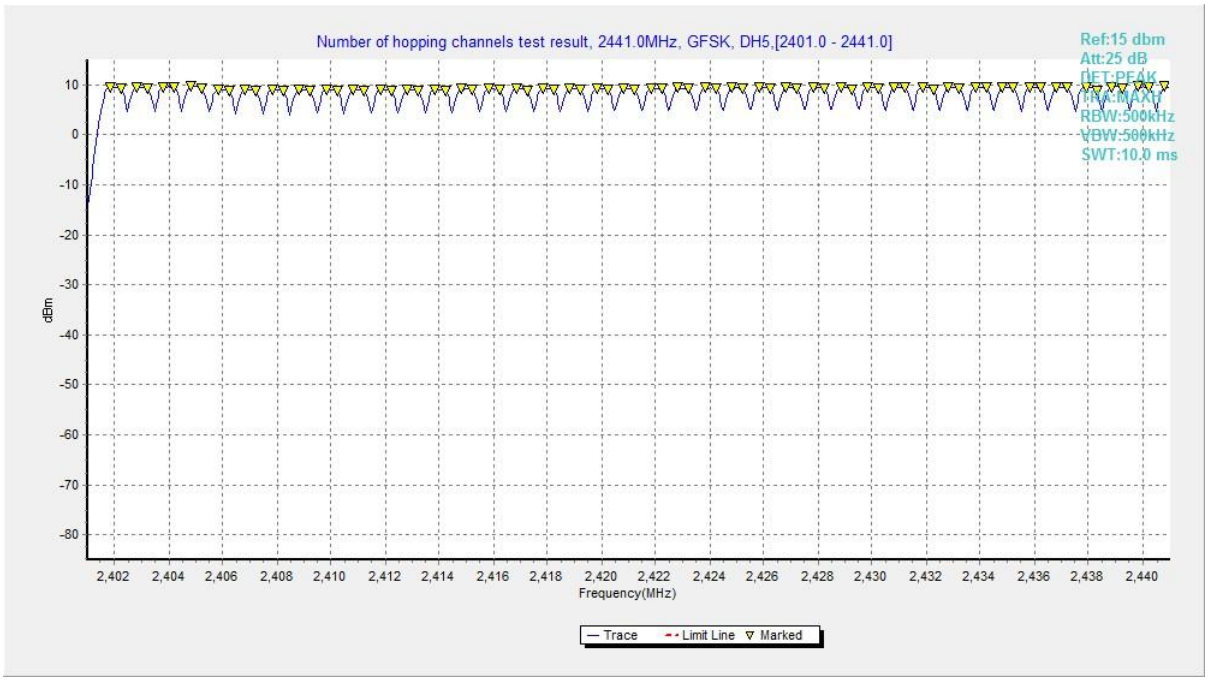

Fig. 75 Hopping channel ch0~39 (GFSK, Ch39)

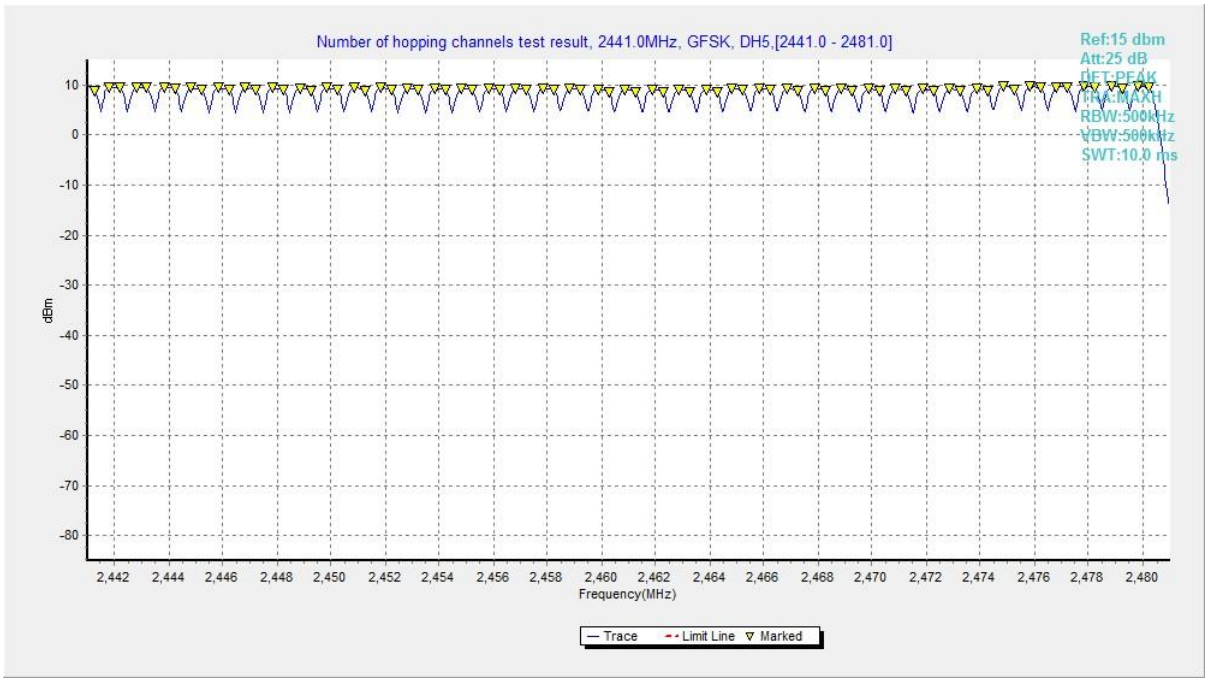

Fig. 76 Hopping channel ch40~78 (GFSK, Ch39)

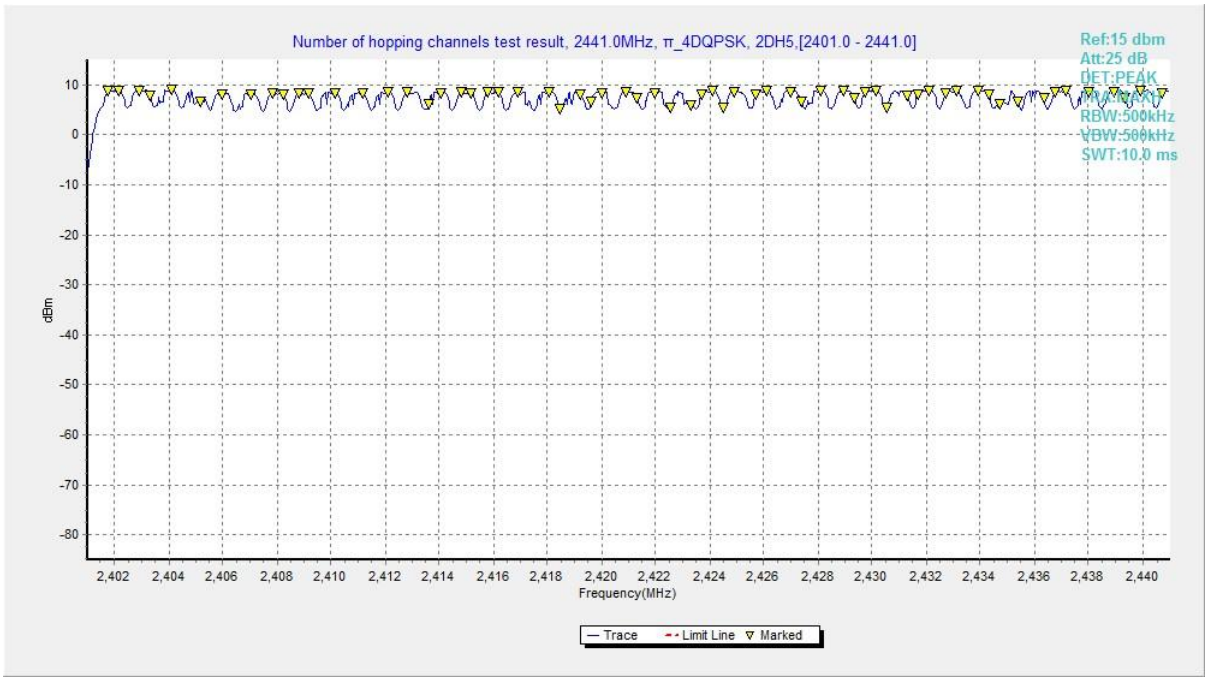

Fig. 77 Hopping channel ch0~39 (π /4 DQPSK, Ch39)

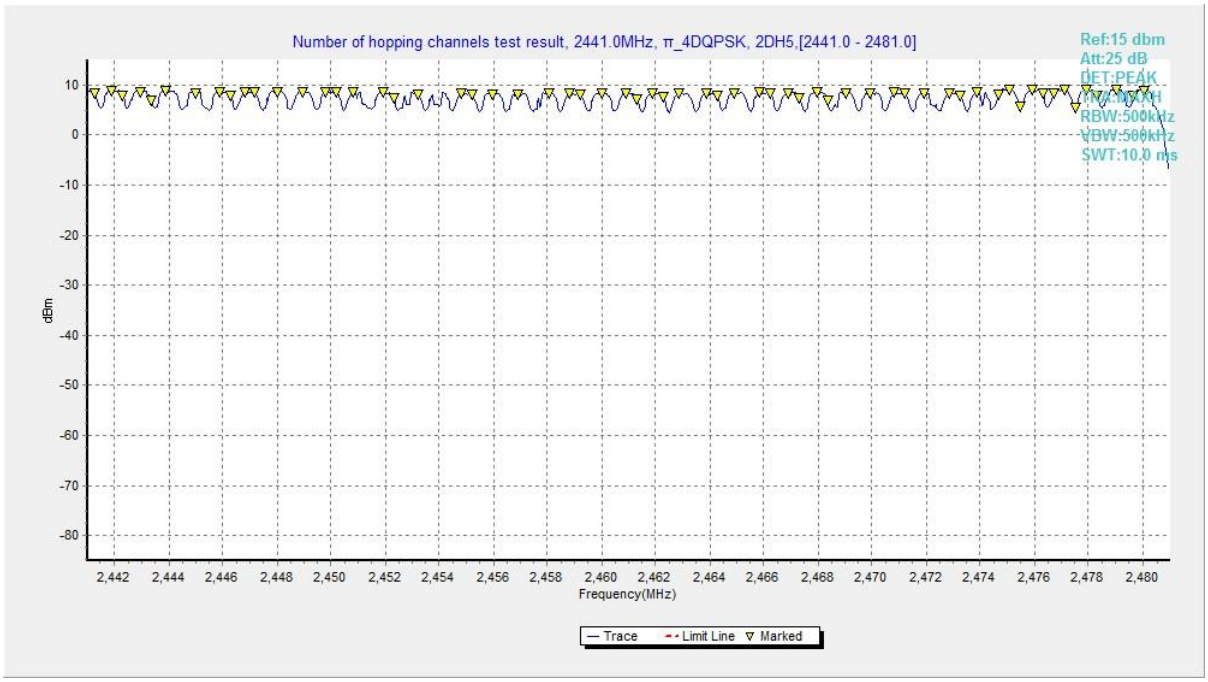

Fig. 78 Hopping channel ch40~78 (π /4 DQPSK, Ch39)

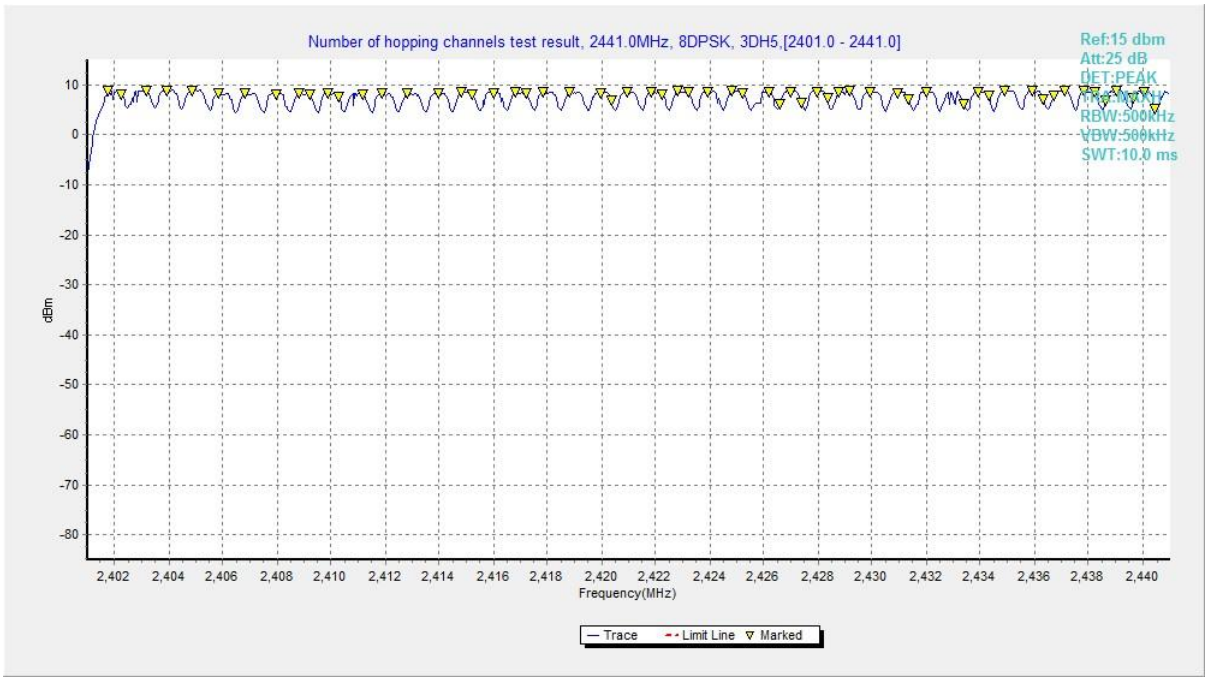

Fig. 79 Hopping channel ch0~39 (8DPSK, Ch39)

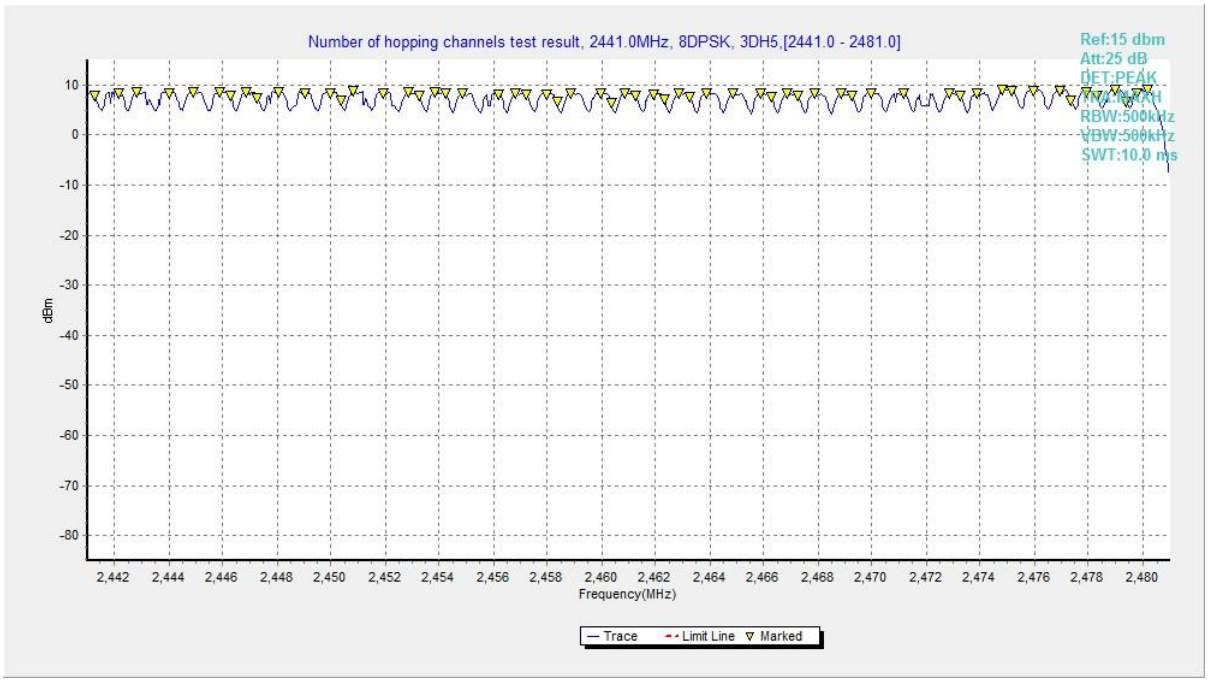

Fig. 80 Hopping channel ch40~78 (8DPSK, Ch39)

A.9 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 (MHz)	Conclusion
GFSK	39	DH5	Fig.81	1.00	**P**
π /4 DQPSK	39	2-DH5	Fig.82	1.00	**P**
8DPSK	39	3-DH5	Fig.83	1.00	**P**

See below for test graphs.
Conclusion: Pass

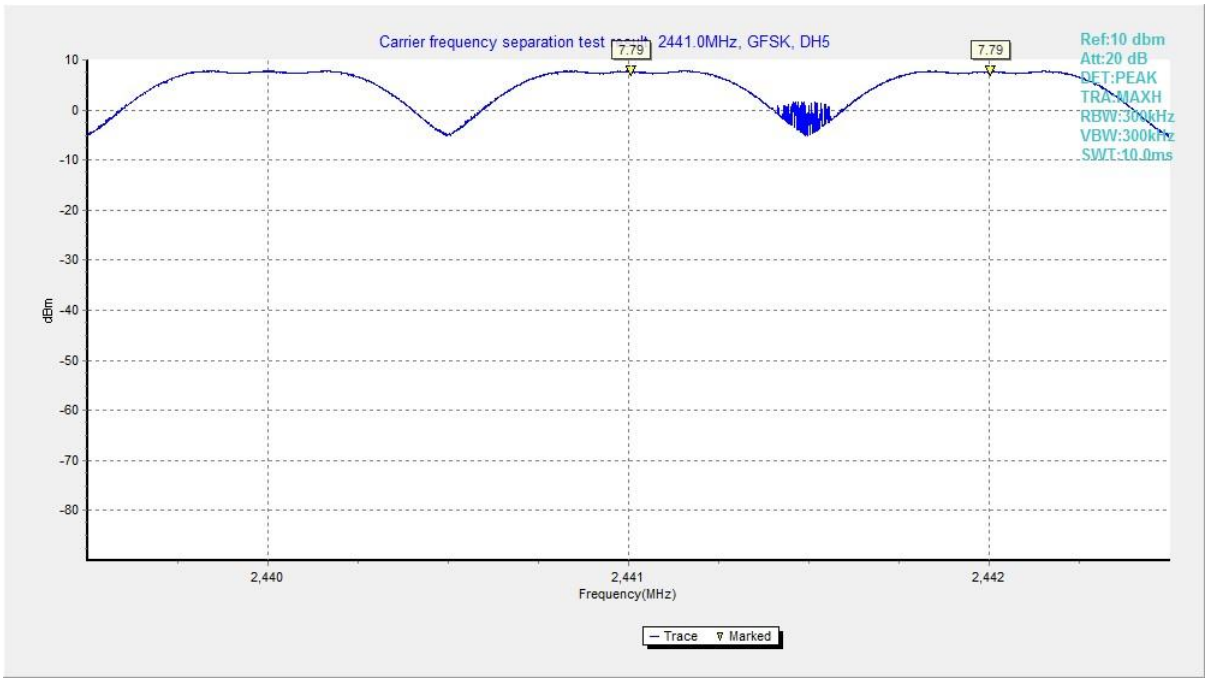

Fig. 81 Carrier Frequency Separation (GFSK, Ch39)

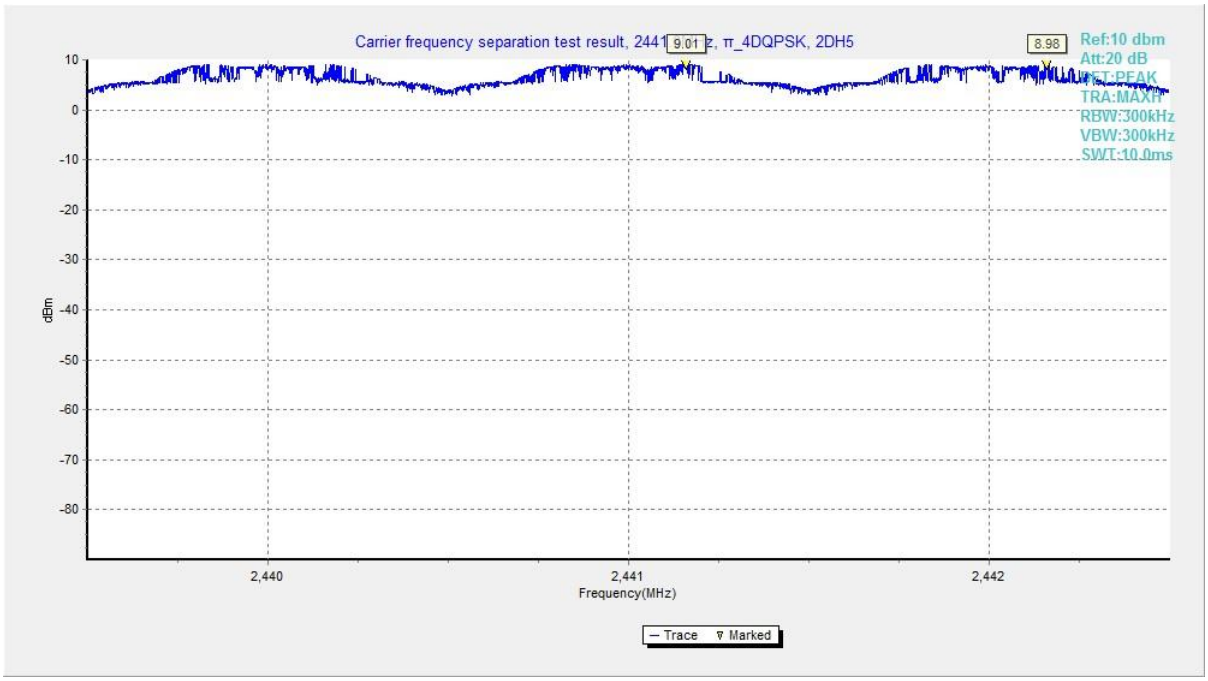

Fig. 82 Carrier Frequency Separation (π /4 DQPSK, Ch39)

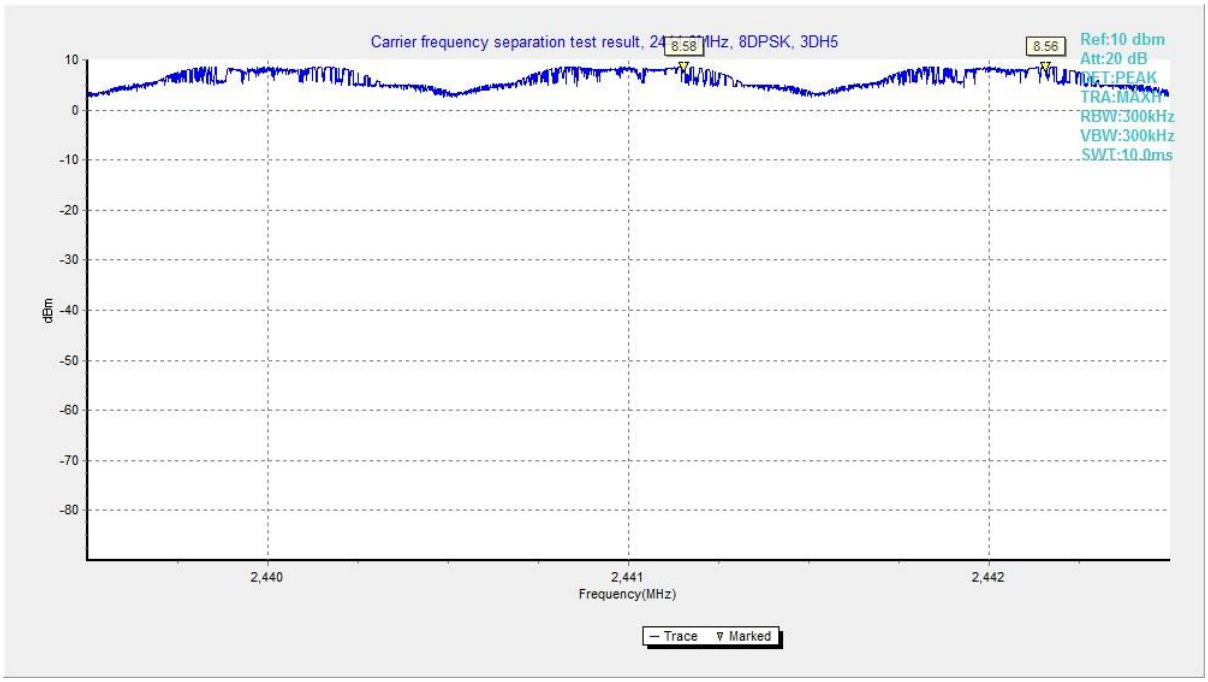

Fig. 83 Carrier Frequency Separation (8DPSK, Ch39)

A.10 AC Power line Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

BT (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.84	Fig.85	**P**
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

BT (Average Limit)

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.84	Fig.85	**P**
0.5 to 5	46			
5 to 30	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

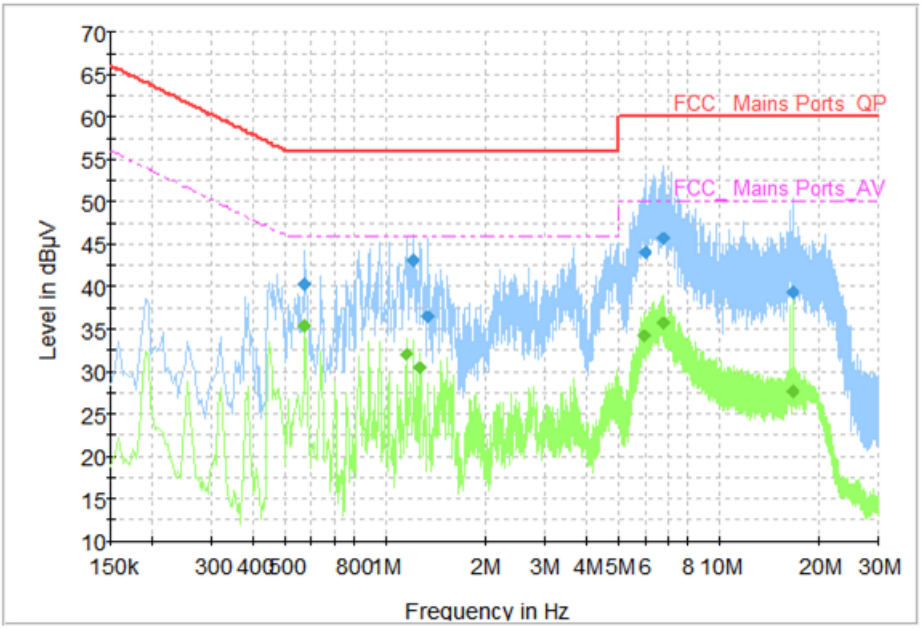

Fig. 84 AC Powerline Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.574000	40.27	56.00	15.73	N	ON	9.7
1.206000	43.06	56.00	12.94	N	ON	9.7
1.342000	36.43	56.00	19.57	N	ON	9.7
5.970000	44.06	60.00	15.94	N	ON	9.8
6.790000	45.69	60.00	14.31	N	ON	9.8
16.574000	39.25	60.00	20.75	N	ON	10.1

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.574000	35.42	46.00	10.58	N	ON	9.7
1.146000	32.09	46.00	13.91	N	ON	9.7
1.270000	30.41	46.00	15.59	N	ON	9.7
5.906000	34.15	50.00	15.85	N	ON	9.8
6.774000	35.73	50.00	14.27	N	ON	9.8
16.574000	27.70	50.00	22.30	N	ON	10.1

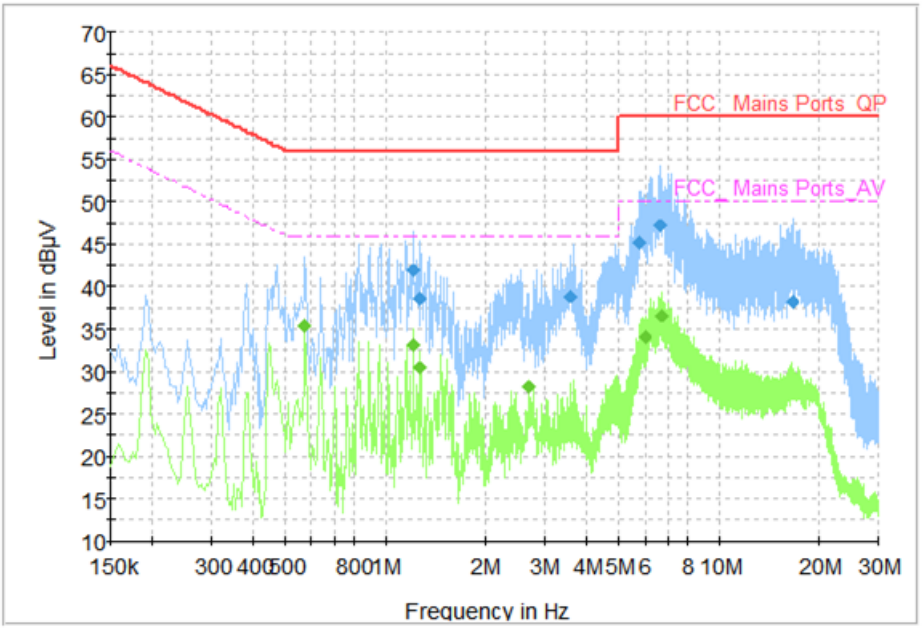

Fig. 85 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
1.210000	41.87	56.00	14.13	N	ON	9.7
1.274000	38.54	56.00	17.46	L1	ON	9.7
3.582000	38.90	56.00	17.10	N	ON	9.7
5.770000	45.19	60.00	14.81	N	ON	9.8
6.674000	47.21	60.00	12.79	N	ON	9.8
16.514000	38.30	60.00	21.70	L1	ON	10.1

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.574000	35.44	46.00	10.56	N	ON	9.7
1.210000	33.14	46.00	12.86	N	ON	9.7
1.270000	30.46	46.00	15.54	N	ON	9.7
2.702000	28.13	46.00	17.87	N	ON	9.7
5.966000	34.03	50.00	15.97	N	ON	9.8
6.726000	36.60	50.00	13.40	N	ON	9.8

*****END OF REPORT*****