

Fig. 73 Time of Occupancy (Dwell Time) ($\pi/4$ DQPSK, Ch39)

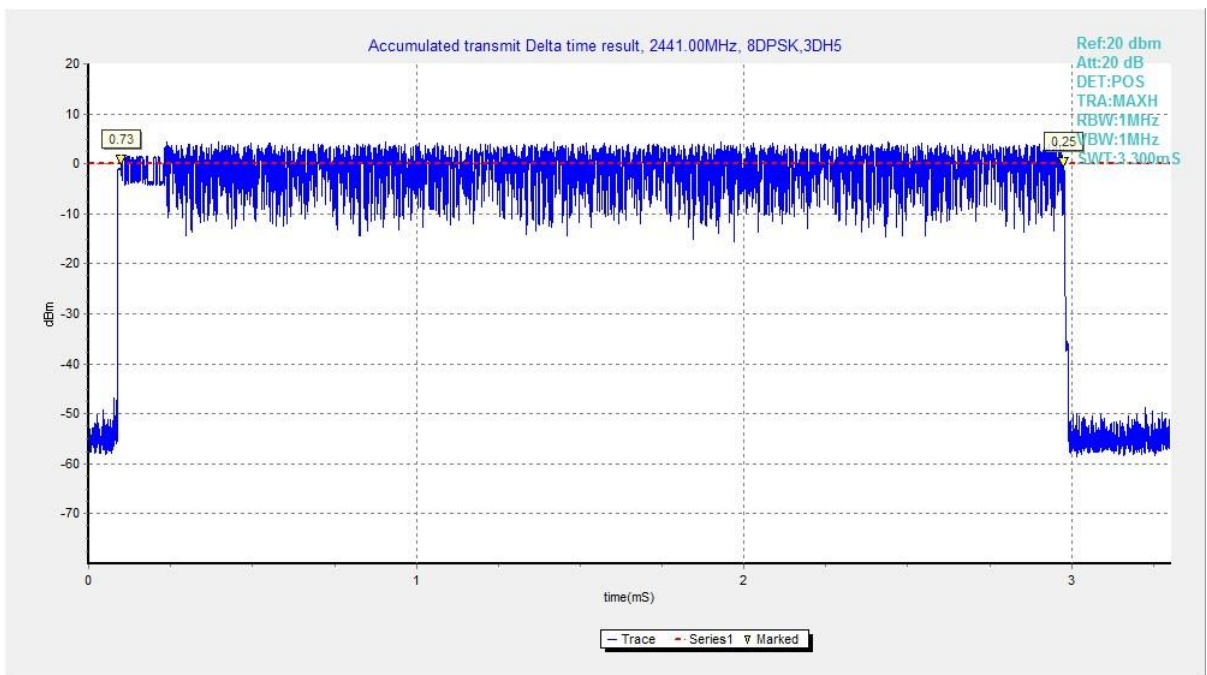


Fig. 74 Time of Occupancy (Dwell Time) (8DPSK, Ch39)

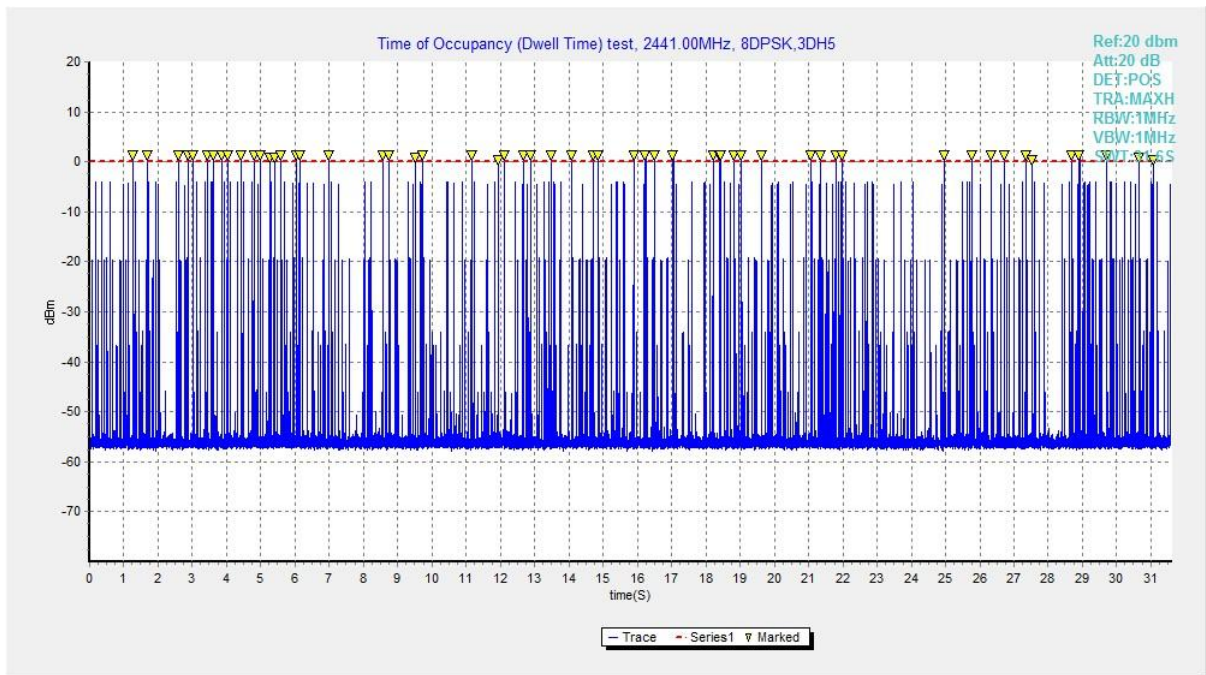


Fig. 75 Time of Occupancy (Dwell Time) (8DPSK, Ch39)

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 channels		Test result	Conclusion
GFSK	DH5	Fig.76	Fig.77	79	P
$\pi/4$ DQPSK	2-DH5	Fig.78	Fig.79	79	P
8DPSK	3-DH5	Fig.80	Fig.81	79	P

See below for test graphs.

Conclusion: Pass

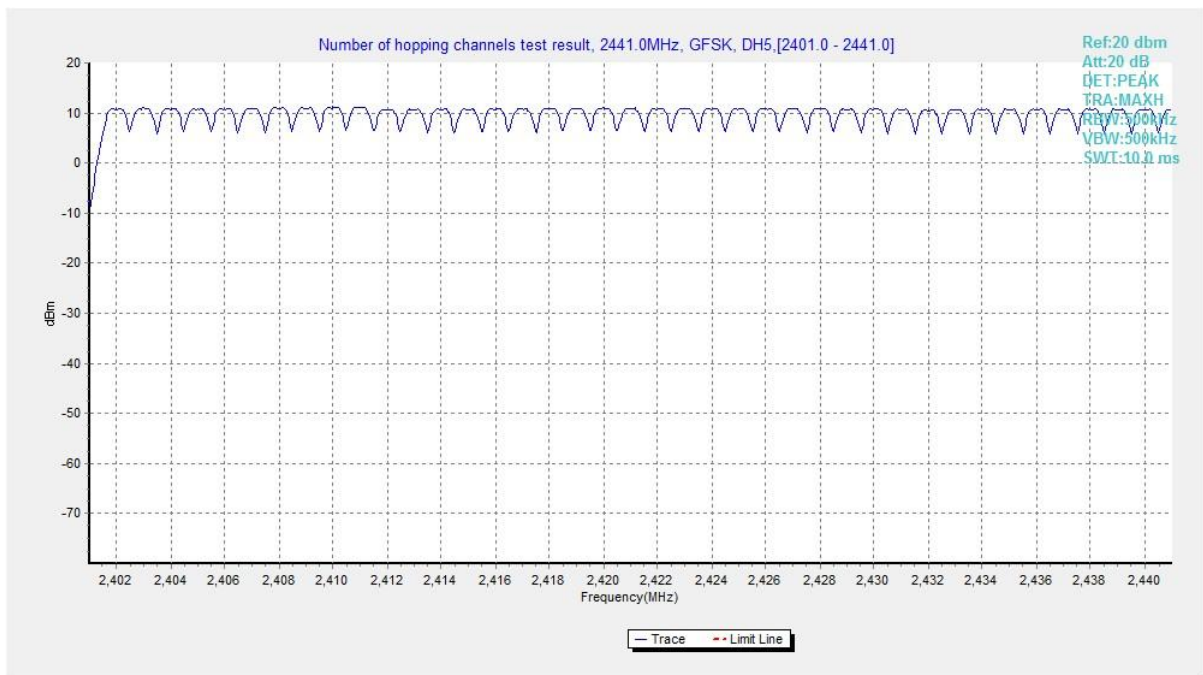


Fig. 76 Hopping channel ch0~39 (GFSK, Ch39)

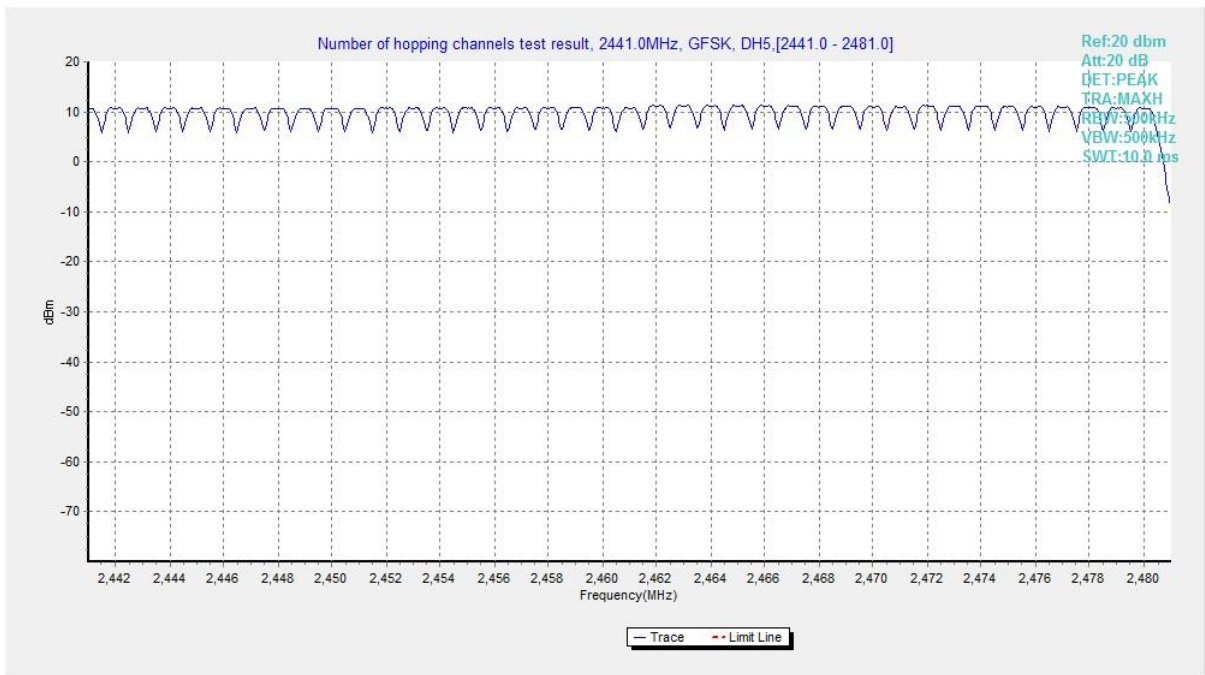


Fig. 77 Hopping channel ch40~78 (GFSK, Ch39)

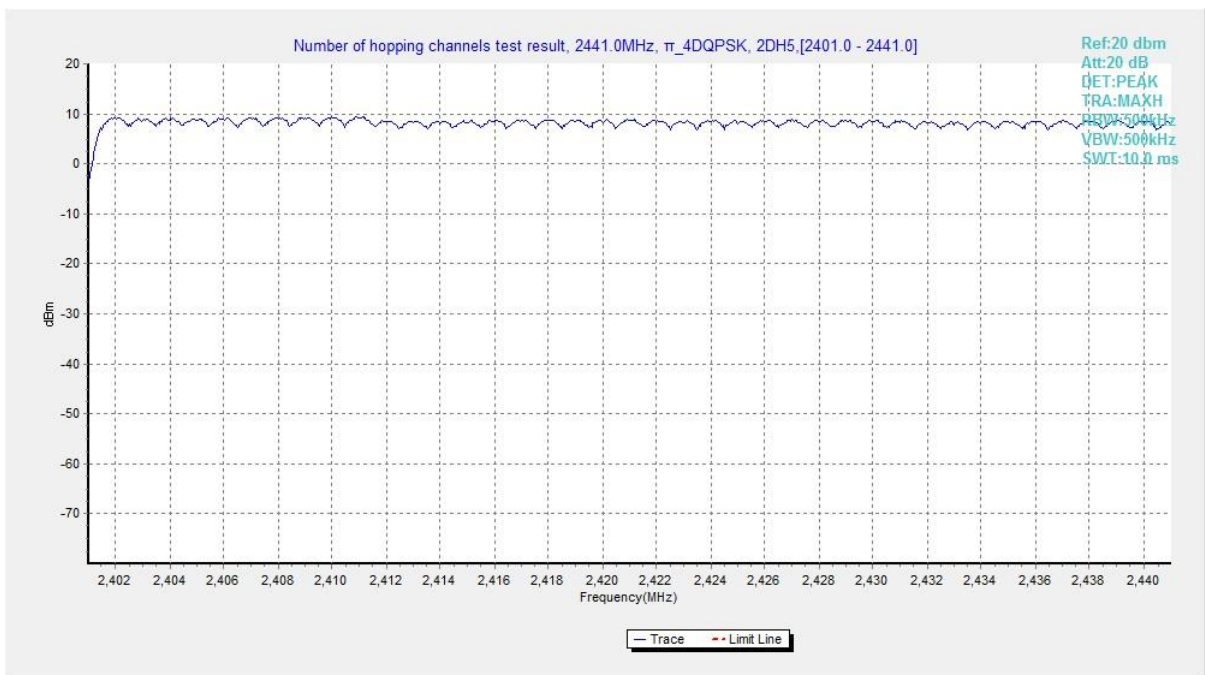


Fig. 78 Hopping channel ch0~39 (π / 4 DQPSK, Ch39)

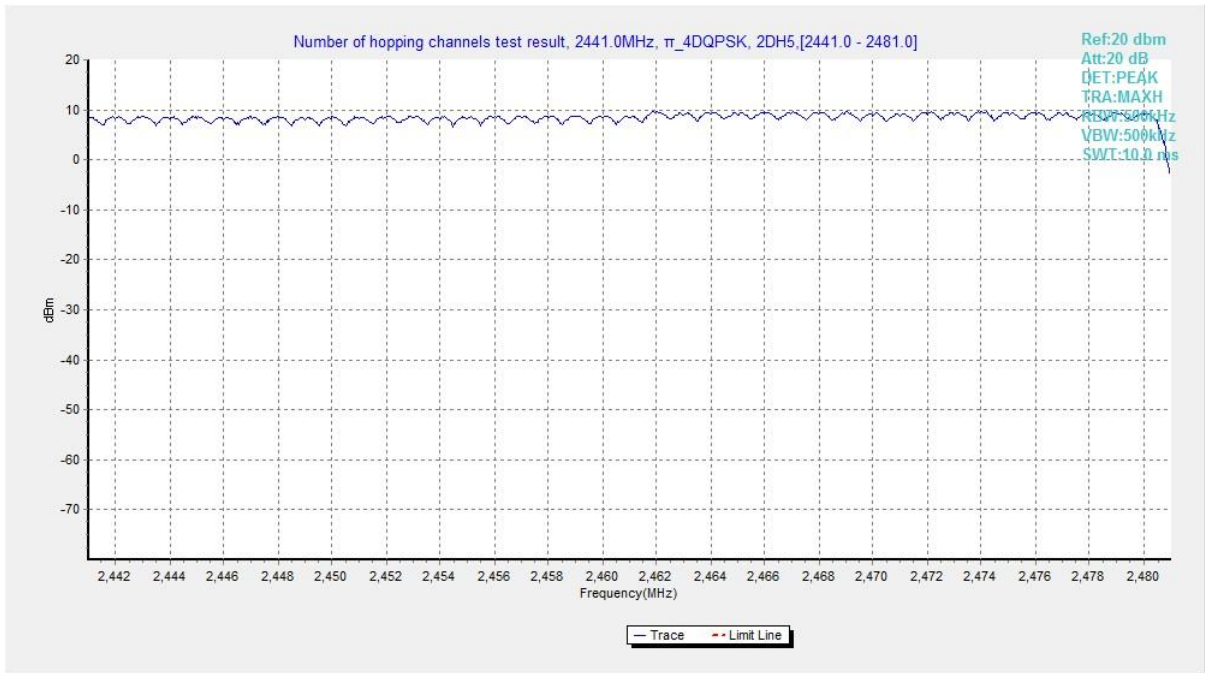


Fig. 79 Hopping channel ch40~78 ($\pi/4$ DQPSK, Ch39)

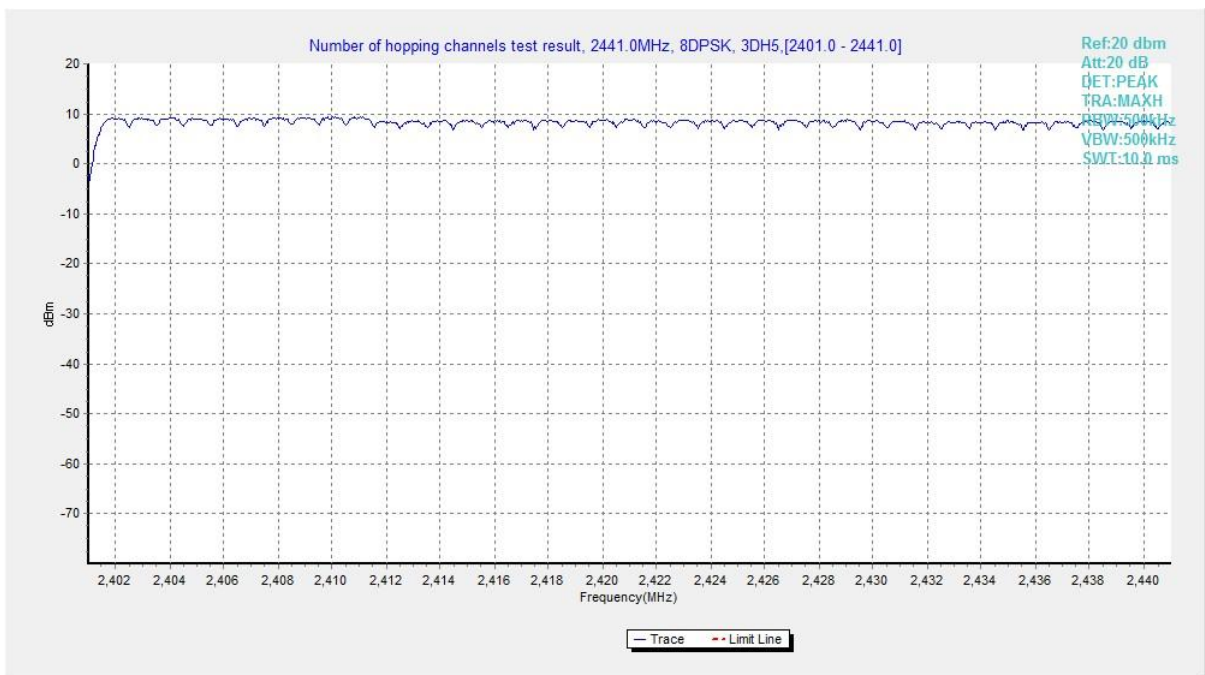


Fig. 80 Hopping channel ch0~39 (8DPSK, Ch39)

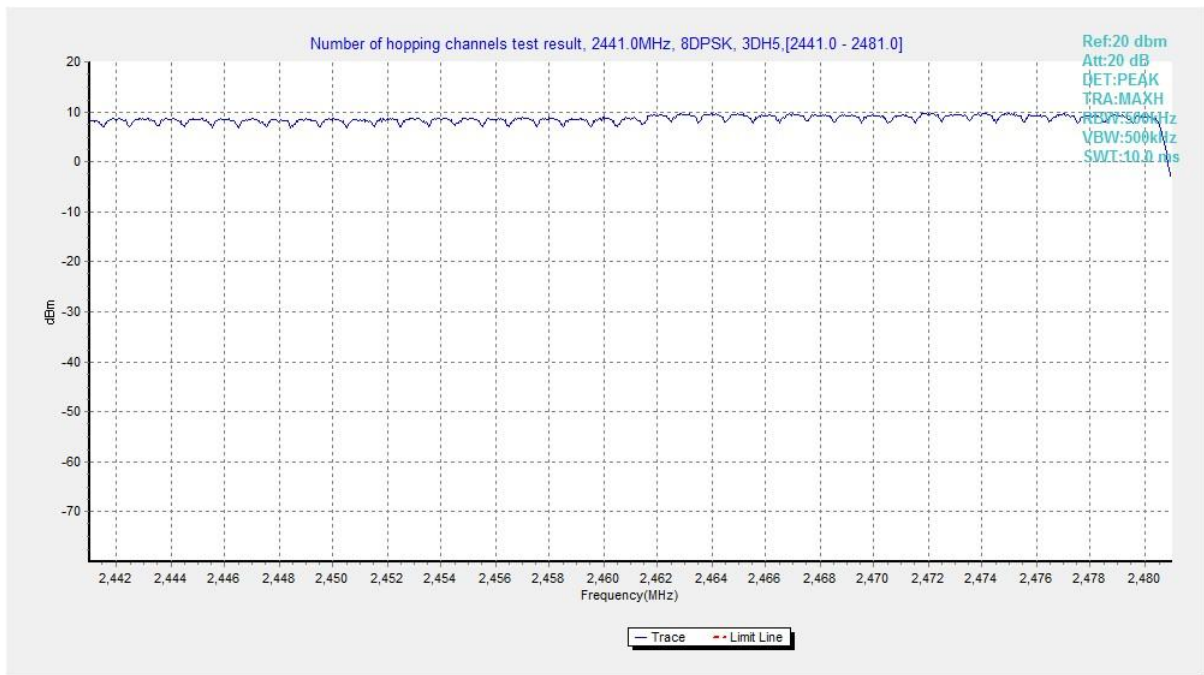


Fig. 81 Hopping channel ch40~78 (8DPSK, Ch39)

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 (MHz)	Conclusion
GFSK	39	DH5	Fig.82	1.00	P
$\pi/4$ DQPSK	39	2-DH5	Fig.83	1.00	P
8DPSK	39	3-DH5	Fig.84	1.00	P

See below for test graphs.

Conclusion: Pass

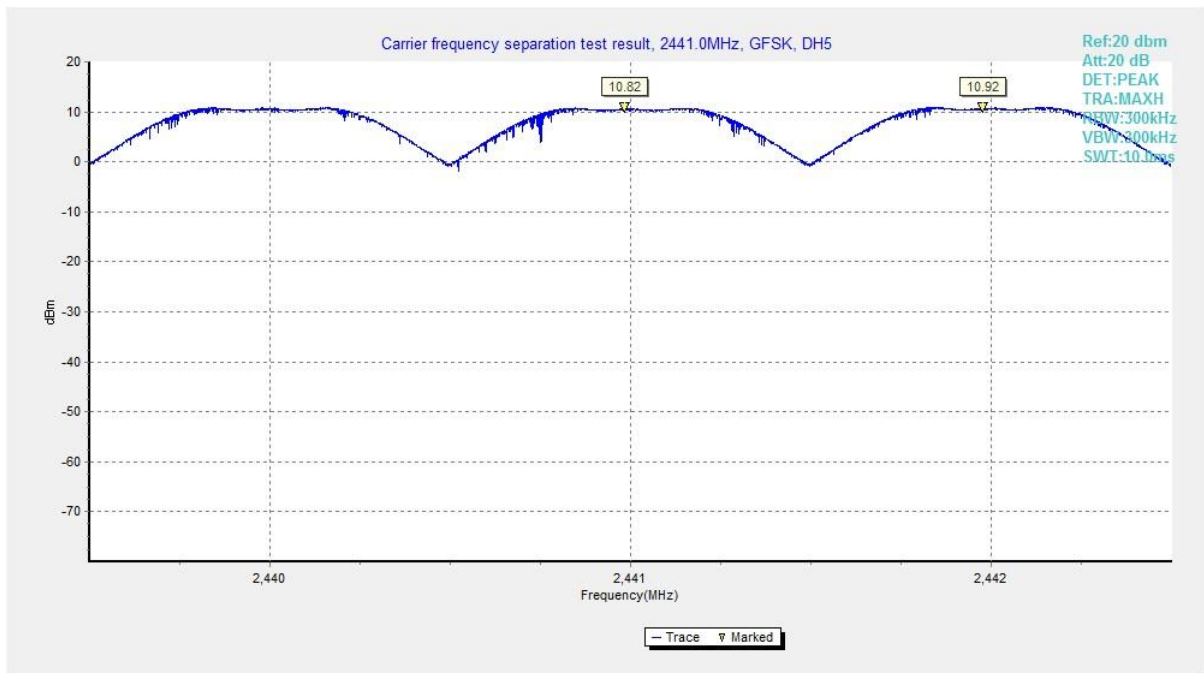


Fig. 82 Carrier Frequency Separation (GFSK, Ch39)

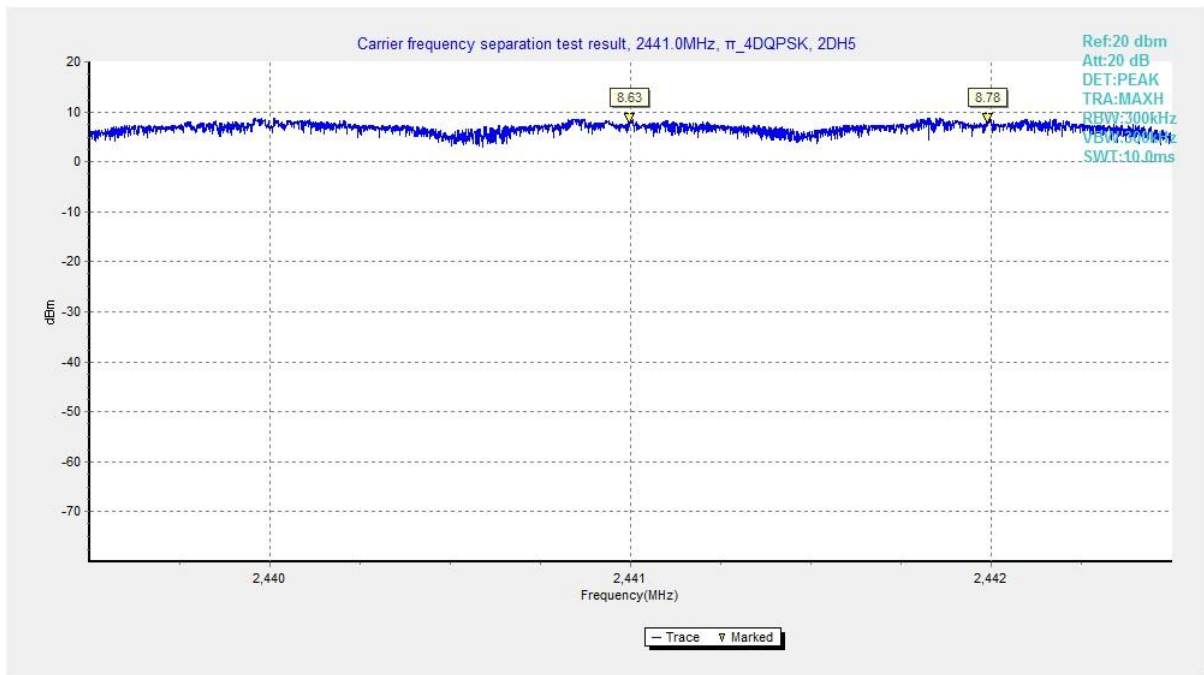


Fig. 83 Carrier Frequency Separation (π /4 DQPSK, Ch39)

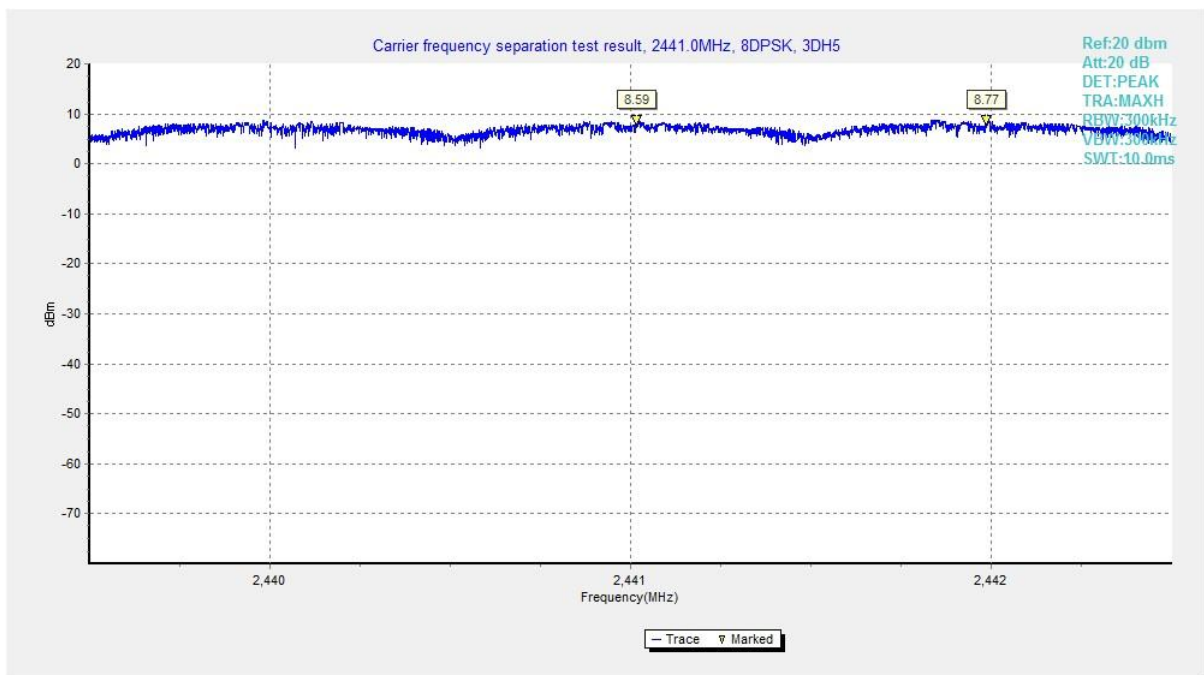


Fig. 84 Carrier Frequency Separation (8DPSK, Ch39)

A.9 AC Power line Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

BT (Quasi-peak Limit) - AE3

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.85	Fig.86	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) - AE3

Frequency range (MHz)	Average-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.85	Fig.86	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

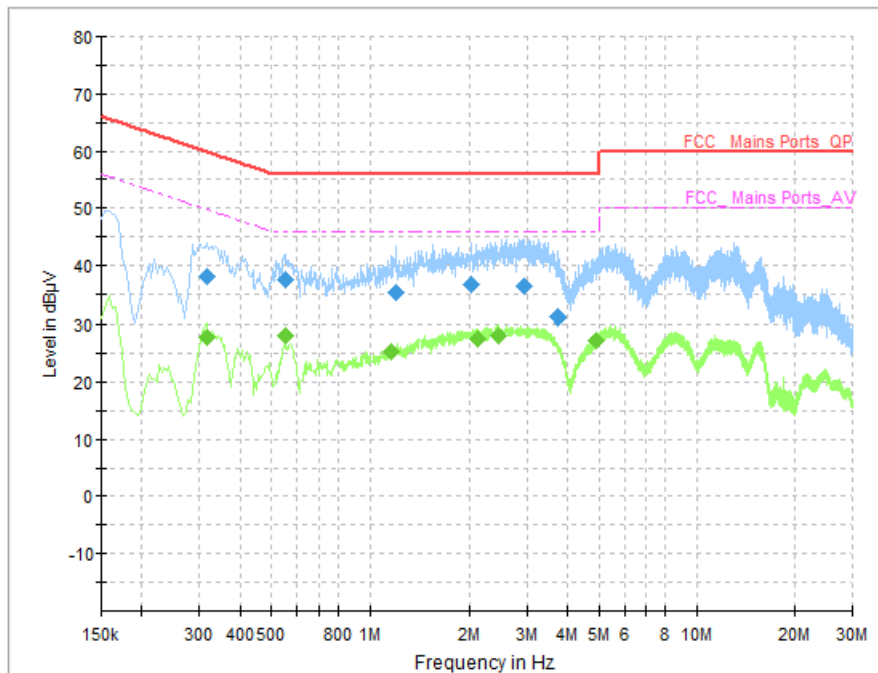


Fig. 85 AC Powerline Conducted Emission (Traffic, AE3, 120V)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.318000	38.06	59.76	21.70	N	ON	10
0.554000	37.44	56.00	18.56	N	ON	10
1.202000	35.29	56.00	20.71	N	ON	10
2.030000	36.57	56.00	19.43	N	ON	10
2.946000	36.55	56.00	19.45	N	ON	10
3.738000	31.17	56.00	24.83	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.318000	27.80	49.76	21.96	N	ON	10
0.554000	28.06	46.00	17.94	N	ON	10
1.162000	25.13	46.00	20.87	N	ON	10
2.114000	27.53	46.00	18.47	N	ON	10
2.458000	28.07	46.00	17.93	N	ON	10
4.898000	27.17	46.00	18.83	N	ON	10

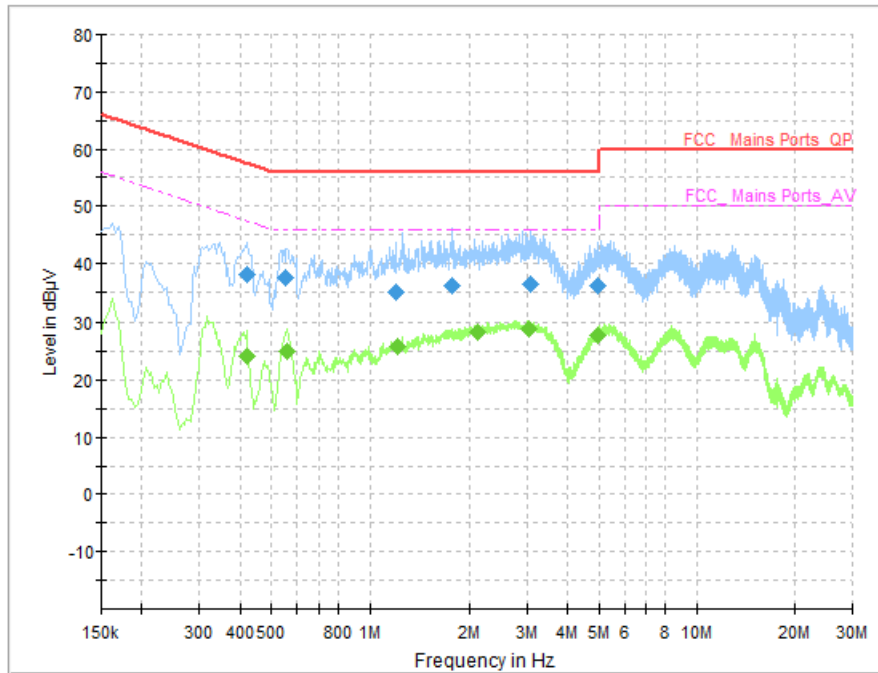


Fig. 86 AC Power line Conducted Emission (Idle, AE3, 120V)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.422000	38.01	57.41	19.40	N	ON	10
0.554000	37.62	56.00	18.38	N	ON	10
1.202000	34.99	56.00	21.01	N	ON	10
1.766000	36.05	56.00	19.95	N	ON	10
3.082000	36.30	56.00	19.70	N	ON	10
4.970000	36.13	56.00	19.87	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.418000	24.27	47.49	23.21	N	ON	10
0.558000	24.93	46.00	21.07	N	ON	10
1.218000	25.79	46.00	20.21	N	ON	10
2.110000	28.26	46.00	17.74	N	ON	10
3.062000	28.79	46.00	17.21	L1	ON	10
4.970000	27.70	46.00	18.30	N	ON	10

END OF REPORT