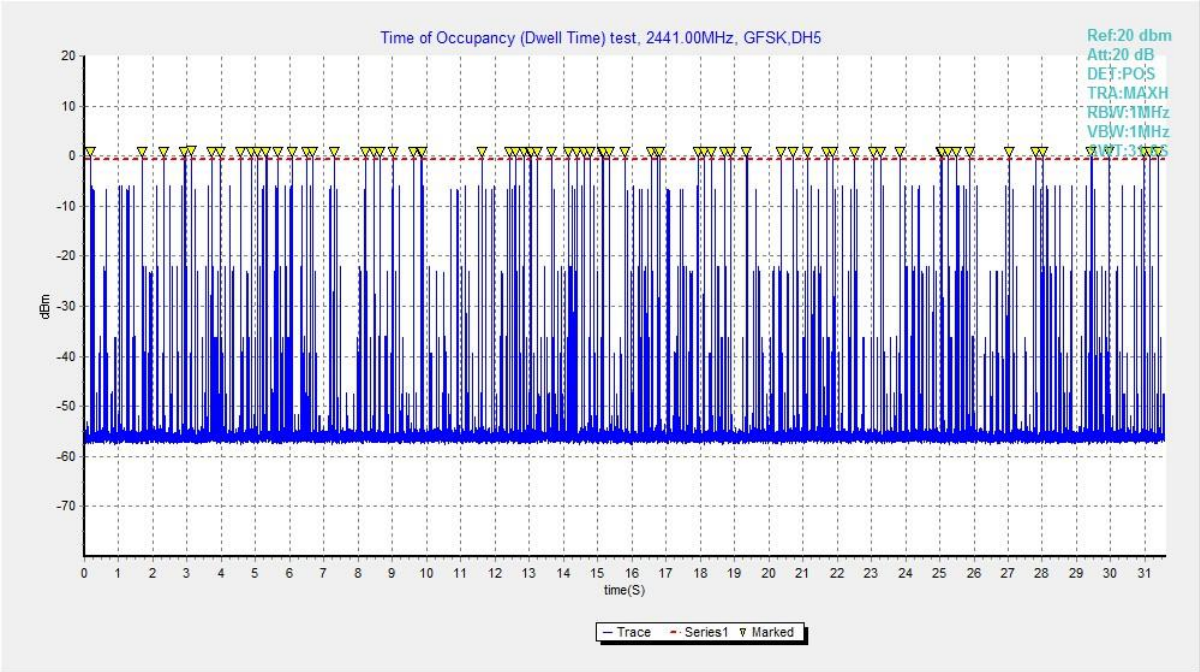

Fig. 70 Time of Occupancy(Dwell Time) (GFSK, Ch39)

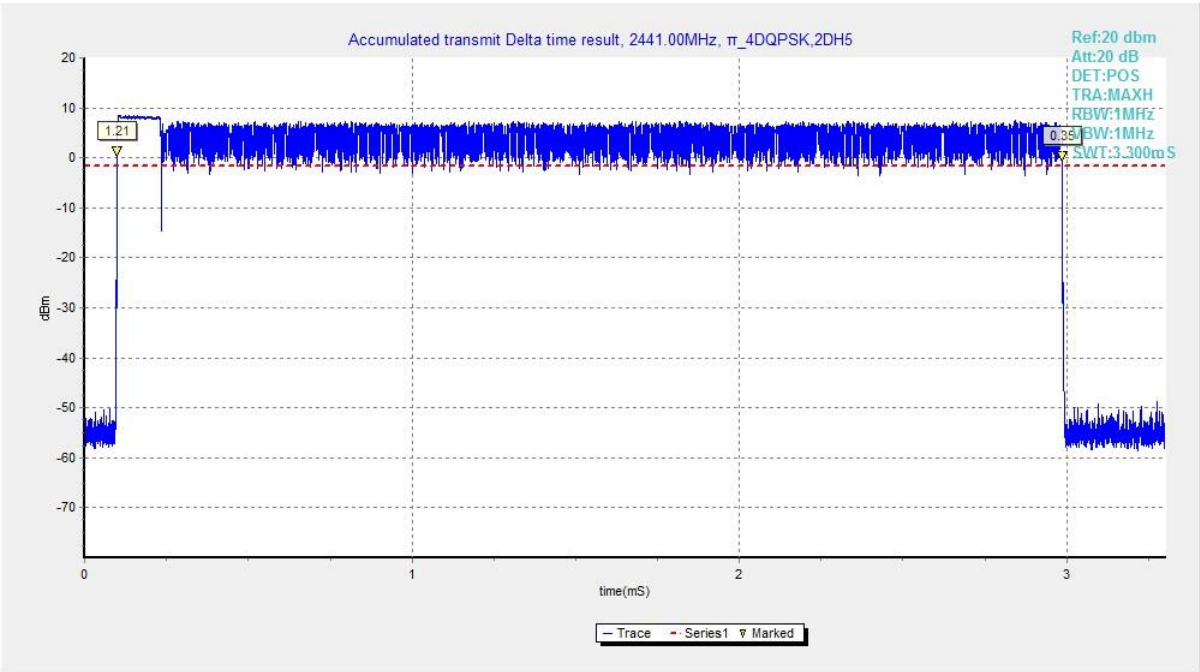

Fig. 71 Time of Occupancy(Dwell Time) (π /4 DQPSK, Ch39)

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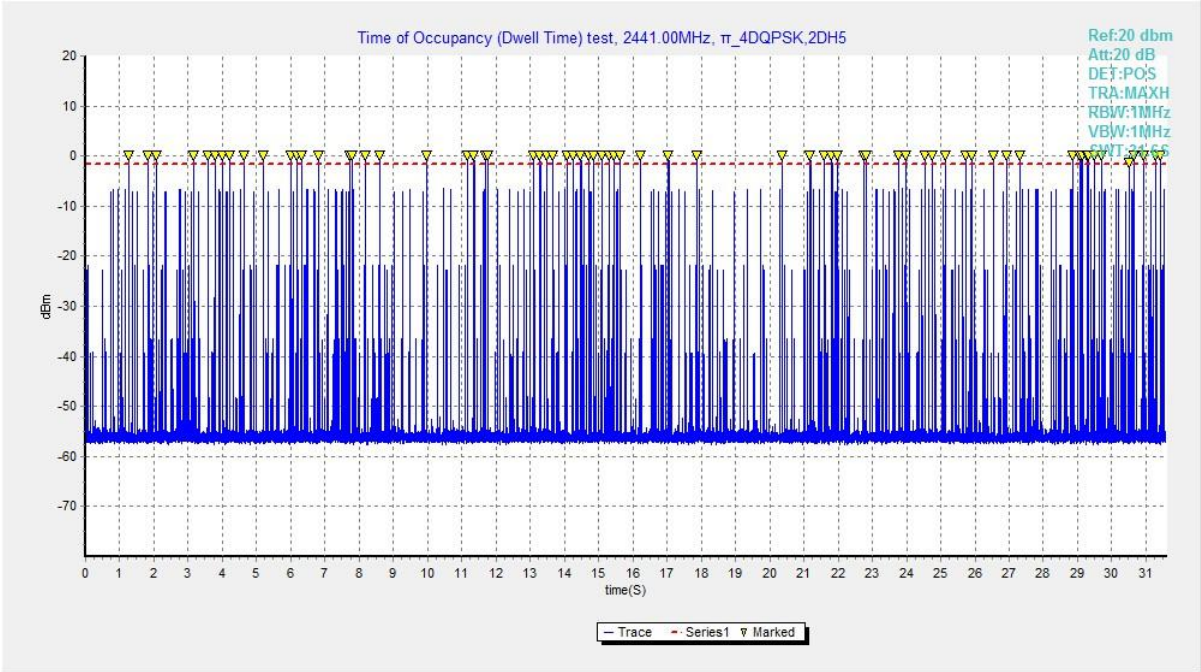

Fig. 72 Time of Occupancy(Dwell Time) (π /4 DQPSK, Ch39)

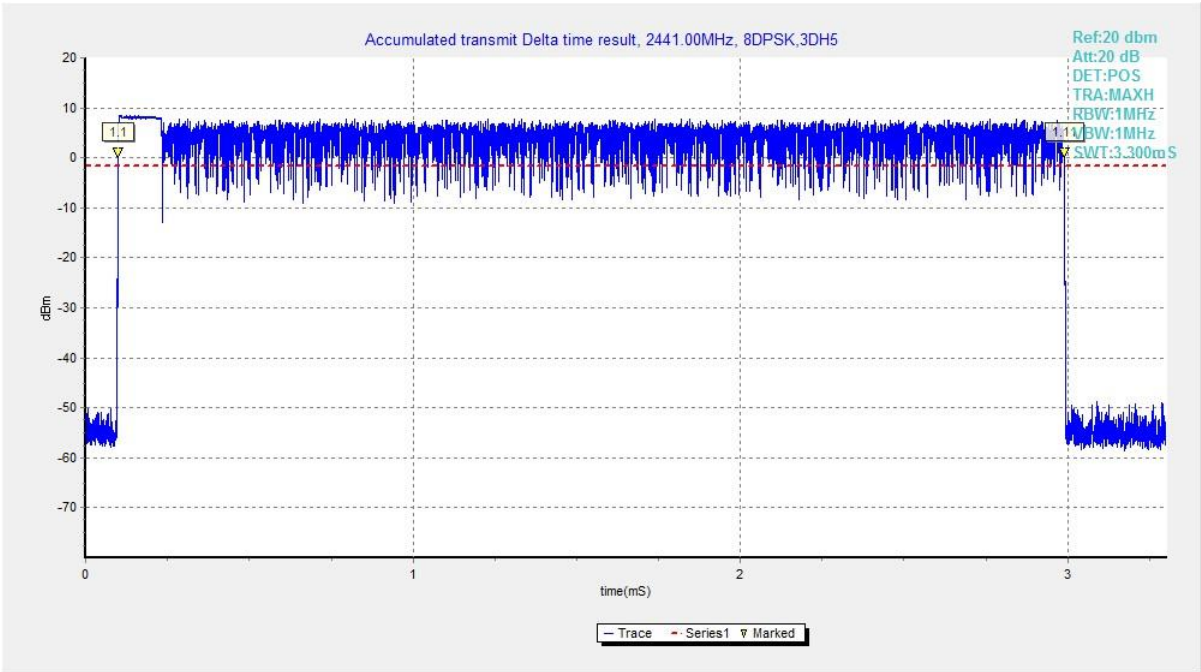

Fig. 73 Time of Occupancy(Dwell Time) (8DPSK, Ch39)

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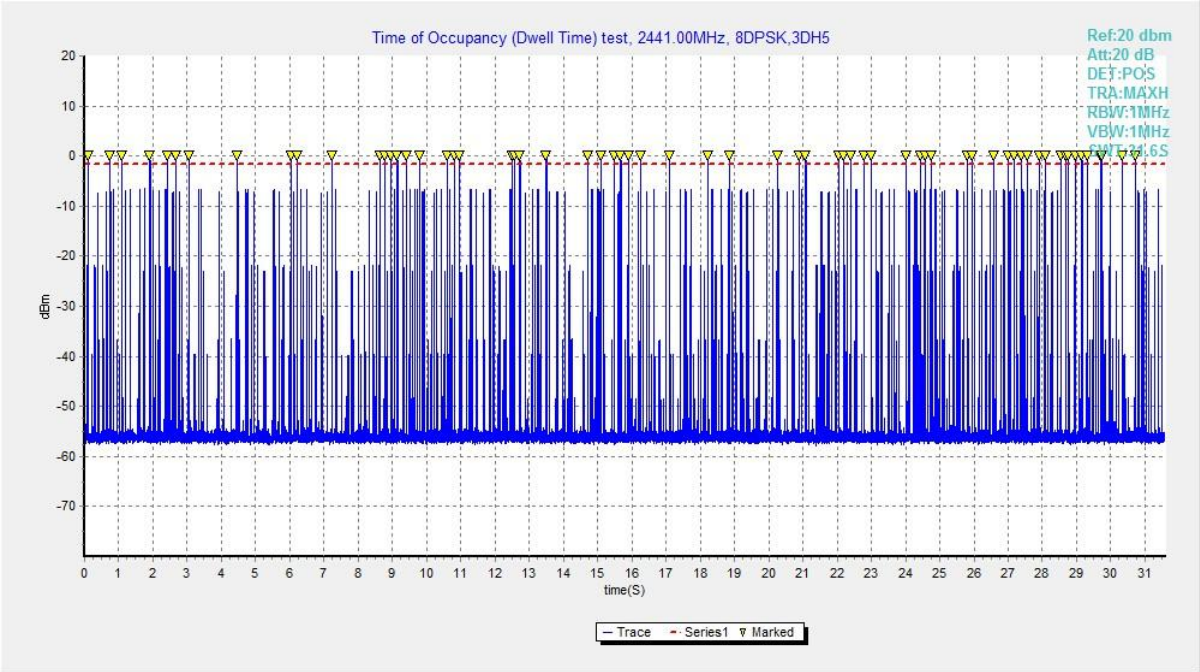

Fig. 74 Time of Occupancy(Dwell Time) (8DPSK, Ch39)

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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.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

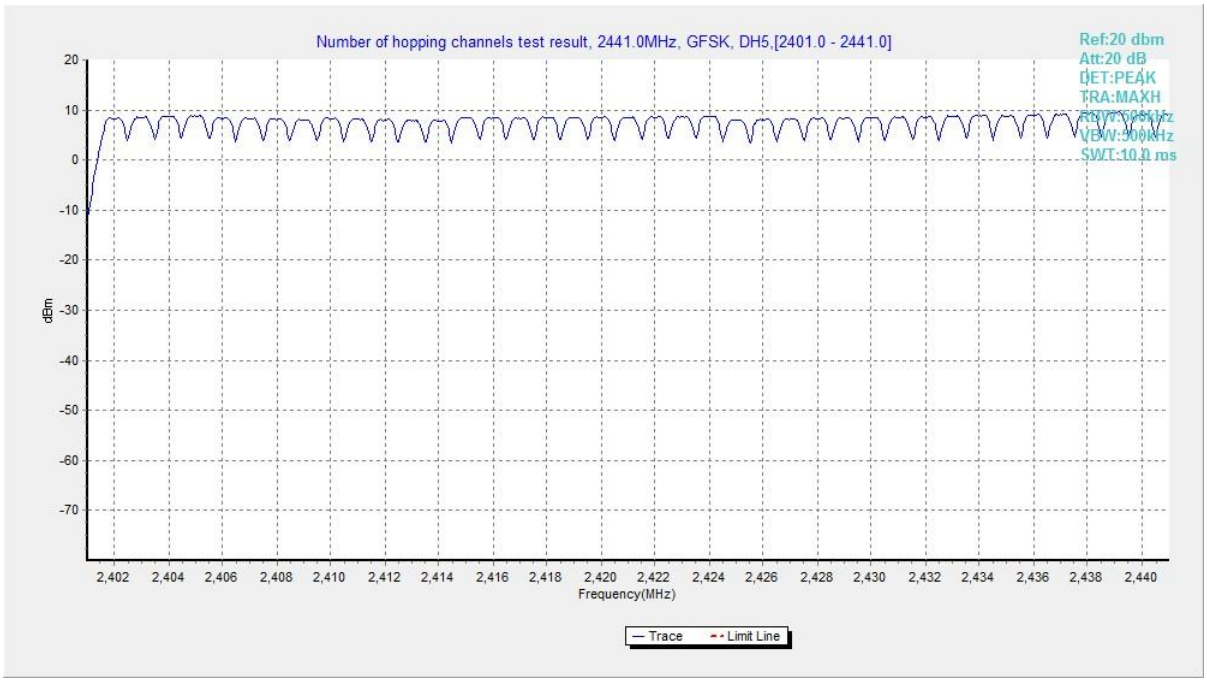

Fig. 75 Hopping channel ch0~39 (GFSK, Ch39)

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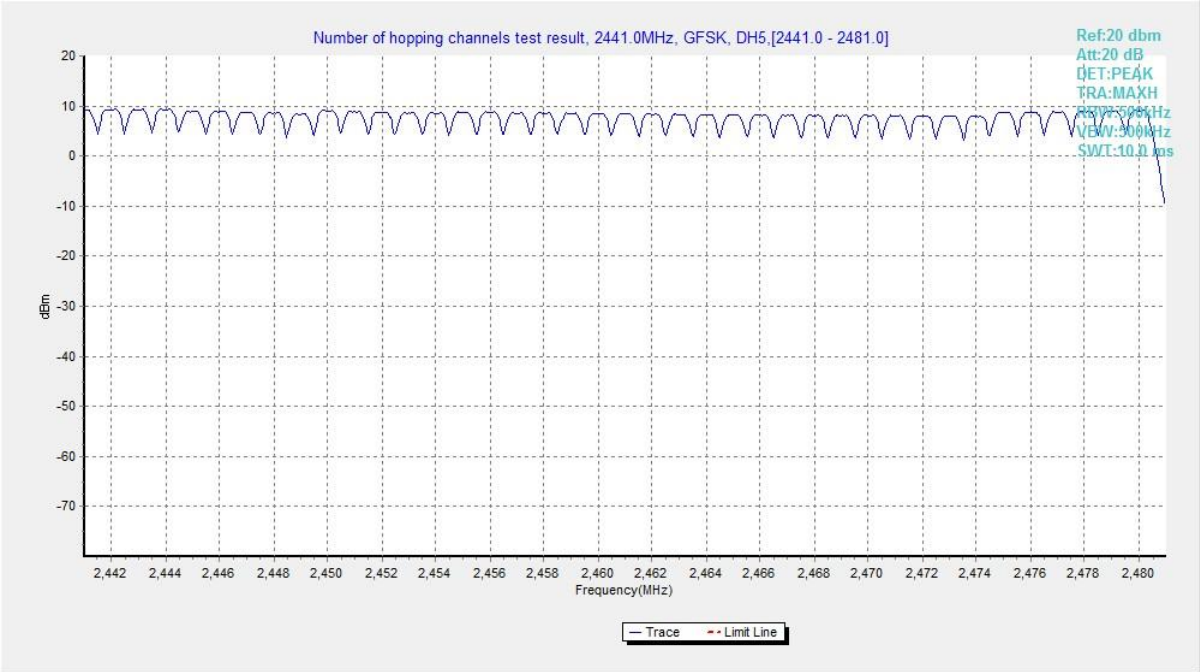

Fig. 76 Hopping channel ch40~78 (GFSK, Ch39)

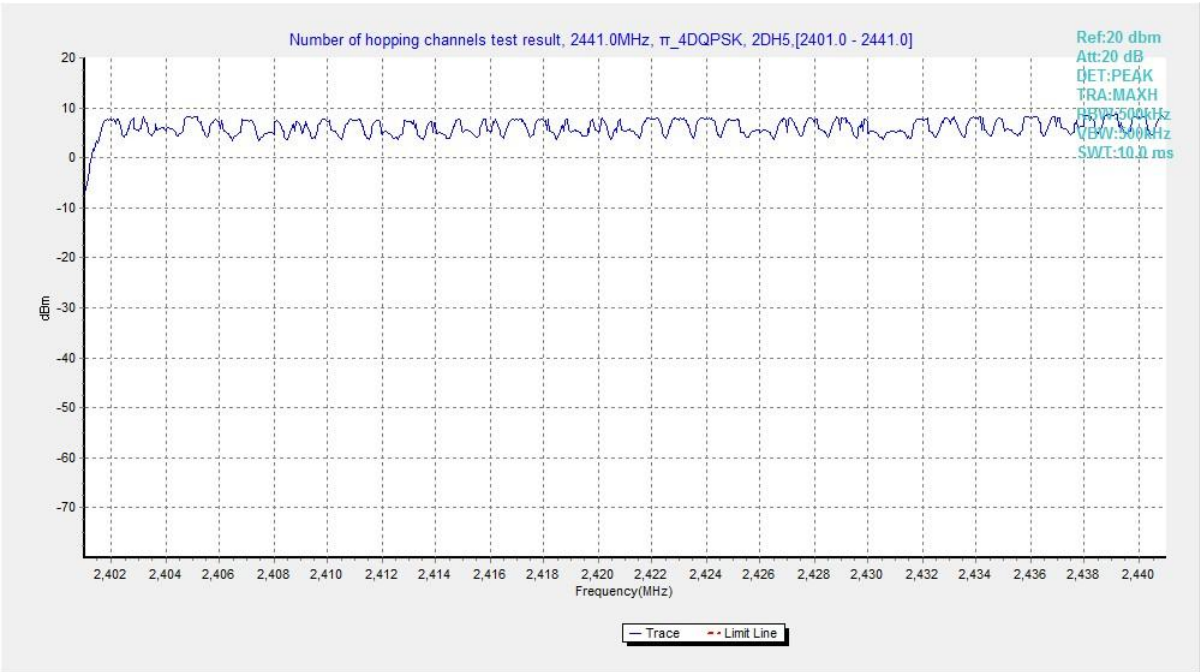

Fig. 77 Hopping channel ch0~39 (π /4 DQPSK, Ch39)

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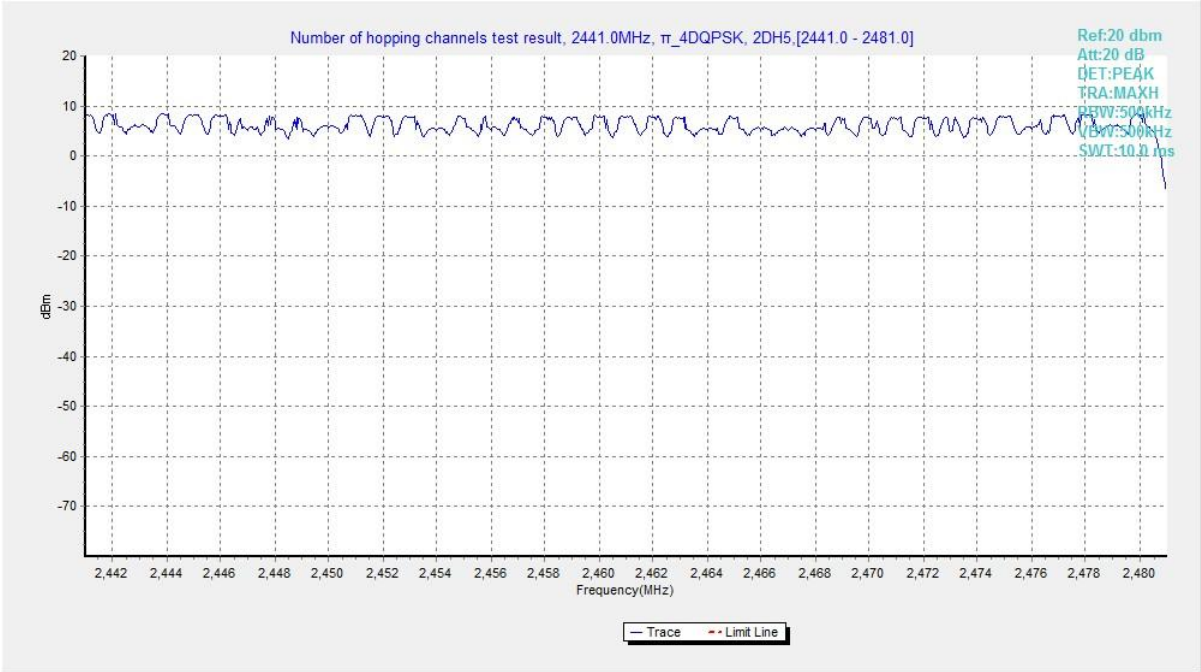

Fig. 78 Hopping channel ch40~78 (π /4 DQPSK, Ch39)

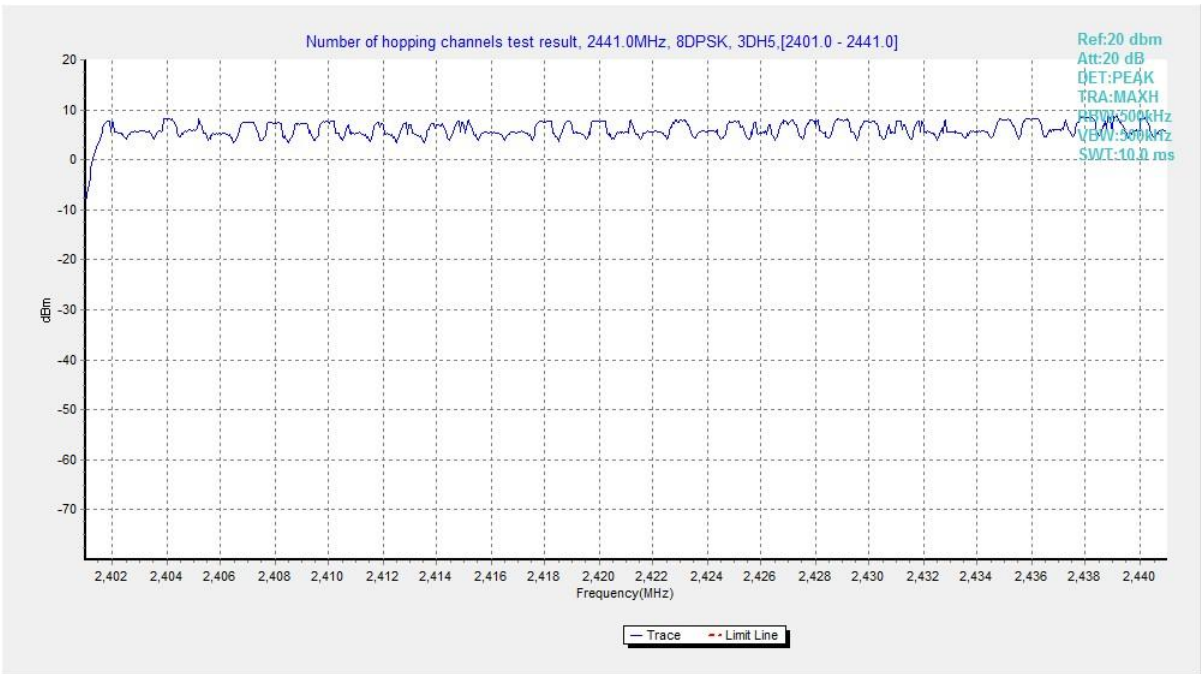

Fig. 79 Hopping channel ch0~39 (8DPSK, Ch39)

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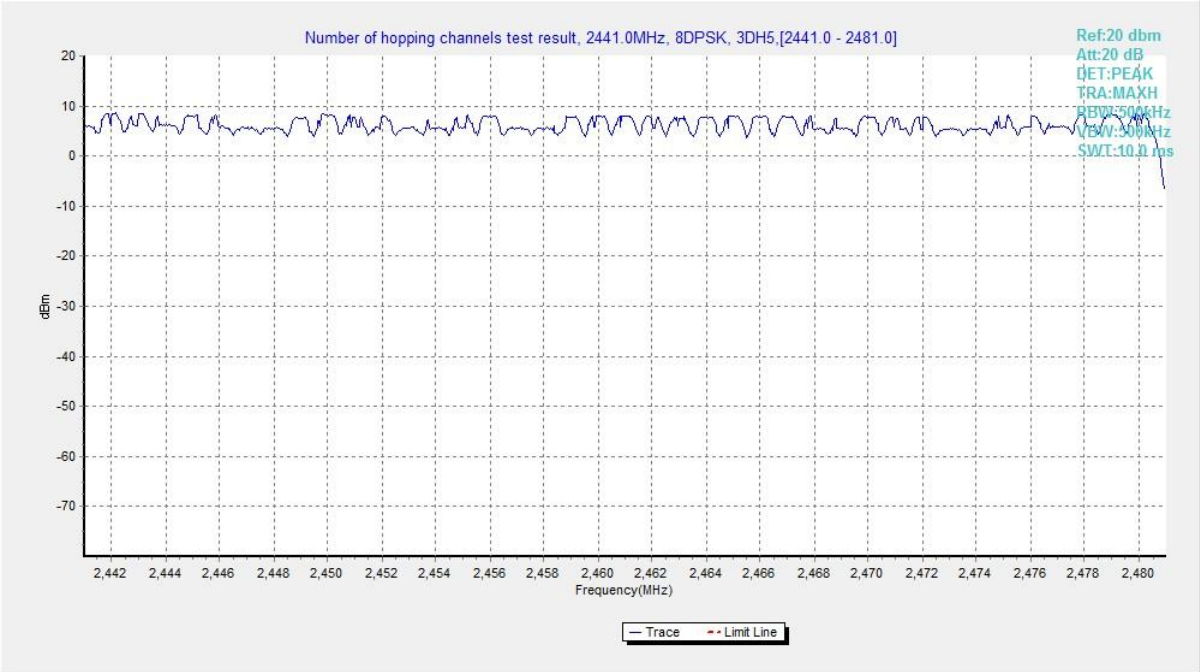

Fig. 80 Hopping channel ch40~78 (8DPSK, Ch39)

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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.81	1.00	**P**
π /4 DQPSK	39	2-DH5	Fig.82	1.00	**P**
8DPSK	39	3-DH5	Fig.83	1.01	**P**

See below for test graphs.

Conclusion: Pass

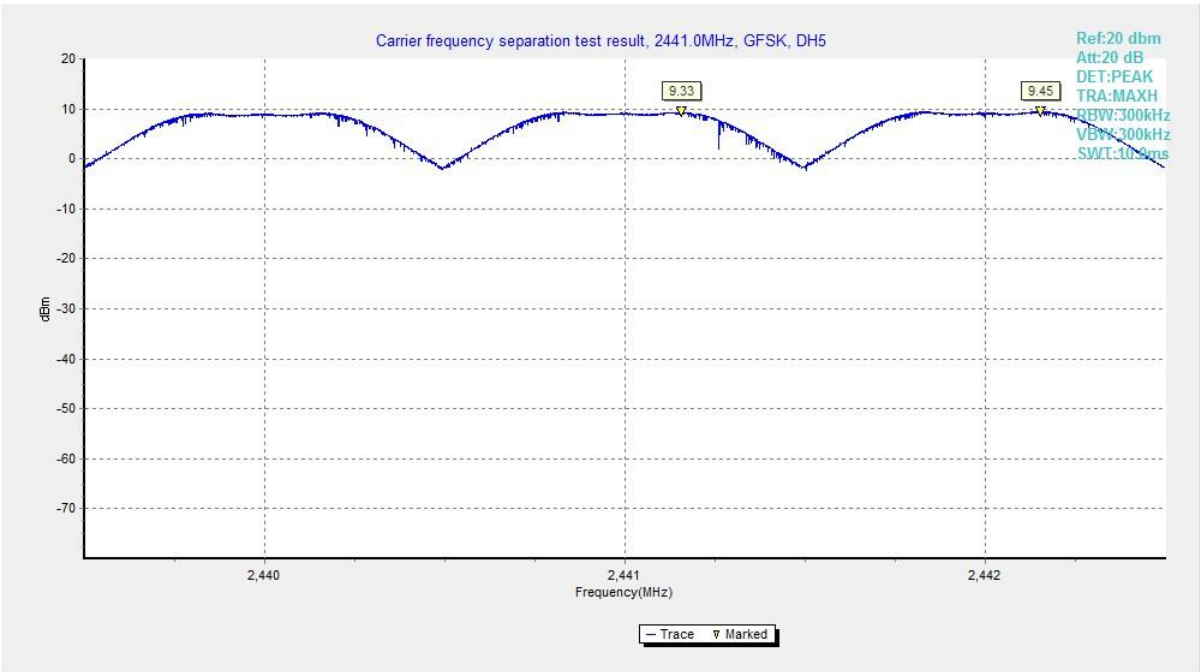

Fig. 81 Carrier Frequency Separation (GFSK, Ch39)

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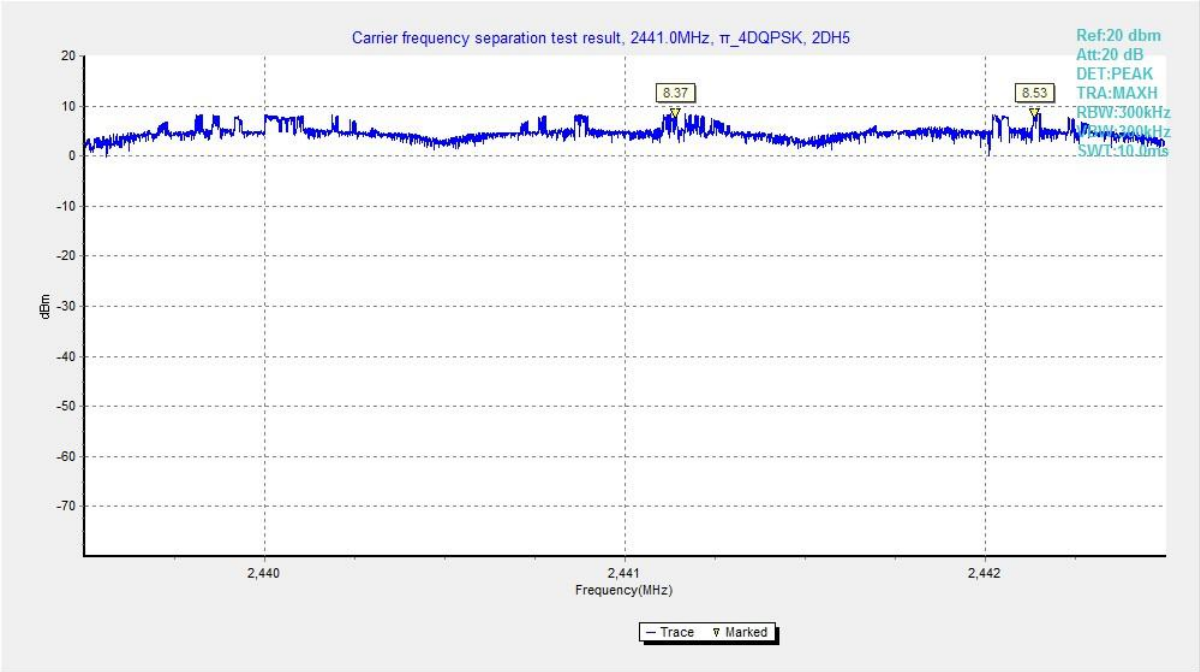

Fig. 82 Carrier Frequency Separation (π /4 DQPSK, Ch39)

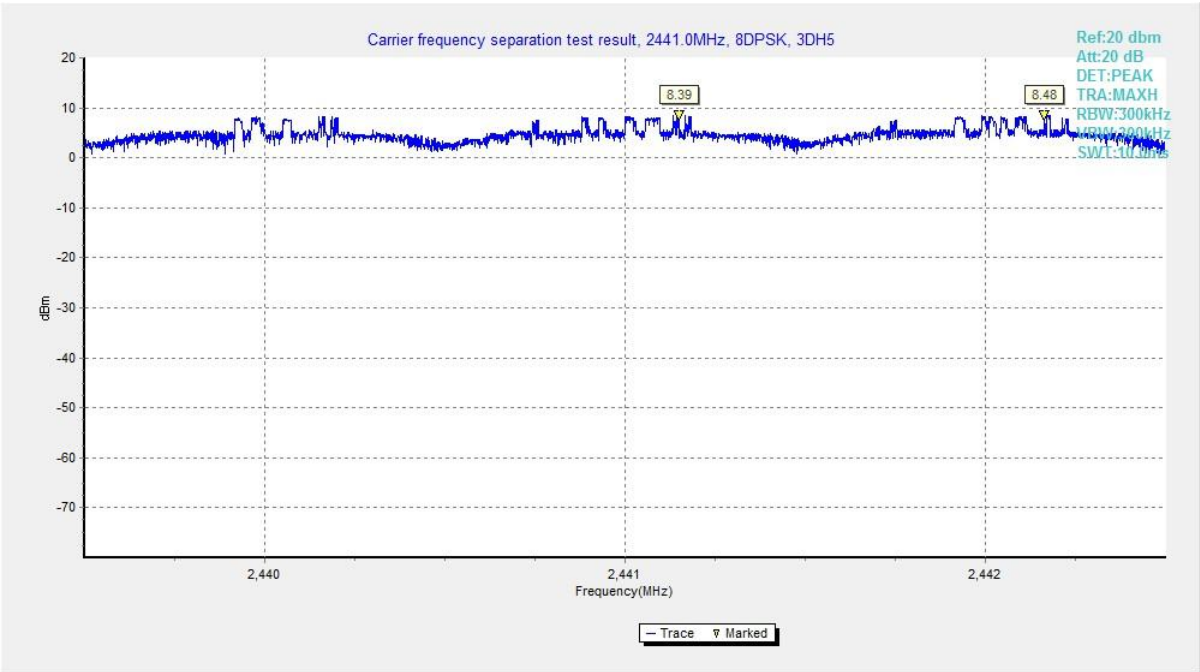

Fig. 83 Carrier Frequency Separation (8DPSK, Ch39)

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A.9 AC Power line Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

BT (Quasi-peak Limit) - AE2

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) - AE2

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

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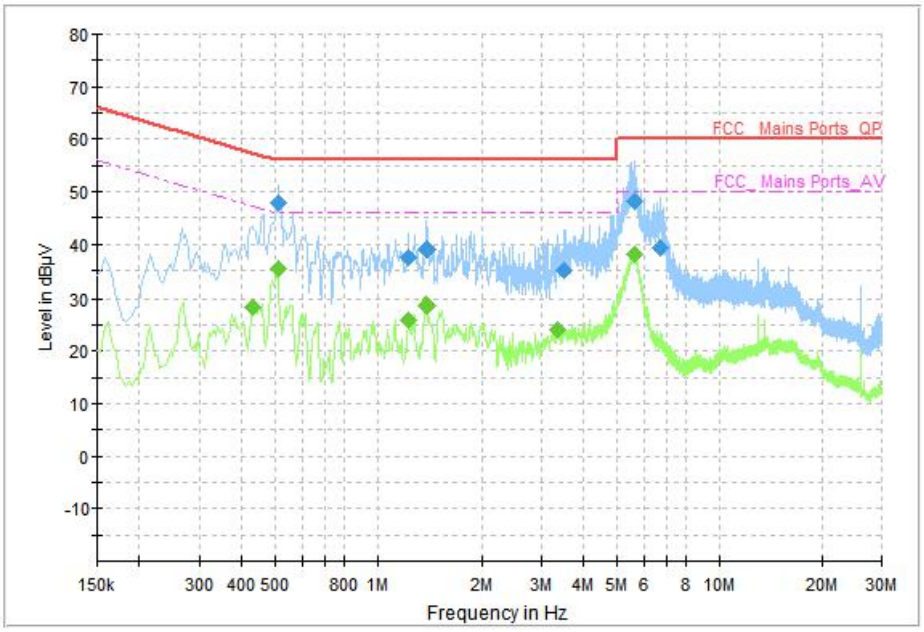

Fig. 84 AC Powerline Conducted Emission (Traffic, AE2, 120V)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.510000	48.02	56.00	7.98	L1	ON	10
1.234000	37.42	56.00	18.58	L1	ON	10
1.394000	39.13	56.00	16.87	L1	ON	10
3.498000	35.13	56.00	20.87	L1	ON	10
5.606000	48.18	60.00	11.82	L1	ON	10
6.698000	39.26	60.00	20.74	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.430000	28.46	47.25	18.80	N	ON	10
0.510000	35.23	46.00	10.77	L1	ON	10
1.234000	25.79	46.00	20.21	N	ON	10
1.390000	28.71	46.00	17.29	N	ON	10
3.350000	23.89	46.00	22.11	N	ON	10
5.626000	38.13	50.00	11.87	L1	ON	10

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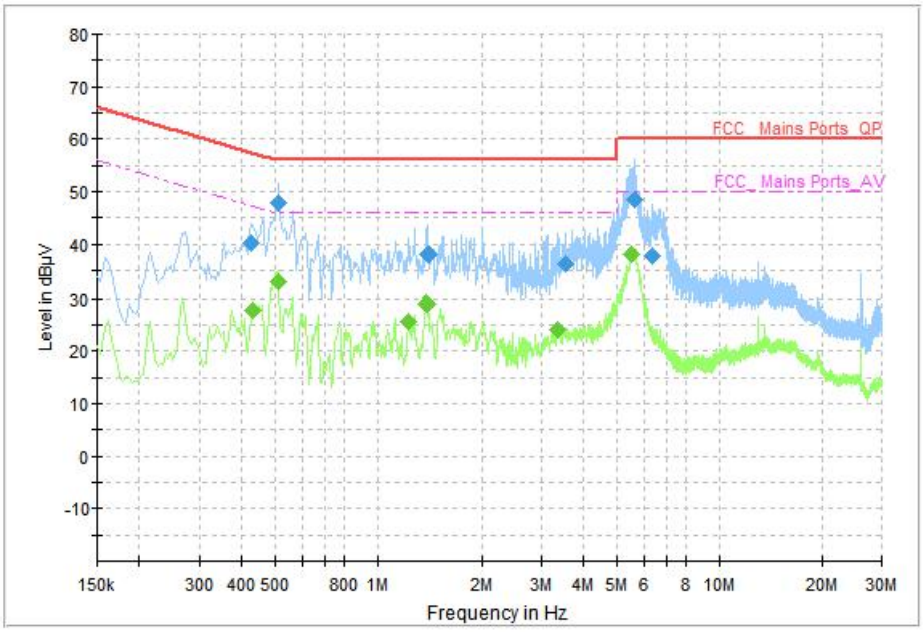

Fig. 85 AC Power line Conducted Emission (Idle, AE2, 120V)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.426000	40.23	57.33	17.10	L1	ON	10
0.510000	48.00	56.00	8.00	L1	ON	10
1.398000	37.98	56.00	18.02	L1	ON	10
3.546000	36.15	56.00	19.85	L1	ON	10
5.662000	48.56	60.00	11.44	L1	ON	10
6.322000	37.69	60.00	22.31	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.430000	27.82	47.25	19.44	L1	ON	10
0.510000	32.95	46.00	13.05	N	ON	10
1.230000	25.42	46.00	20.58	N	ON	10
1.390000	28.87	46.00	17.13	N	ON	10
3.350000	23.93	46.00	22.07	N	ON	10
5.506000	38.17	50.00	11.83	L1	ON	10

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

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