

Fig. 61 20dB Bandwidth (GFSK, CH39)

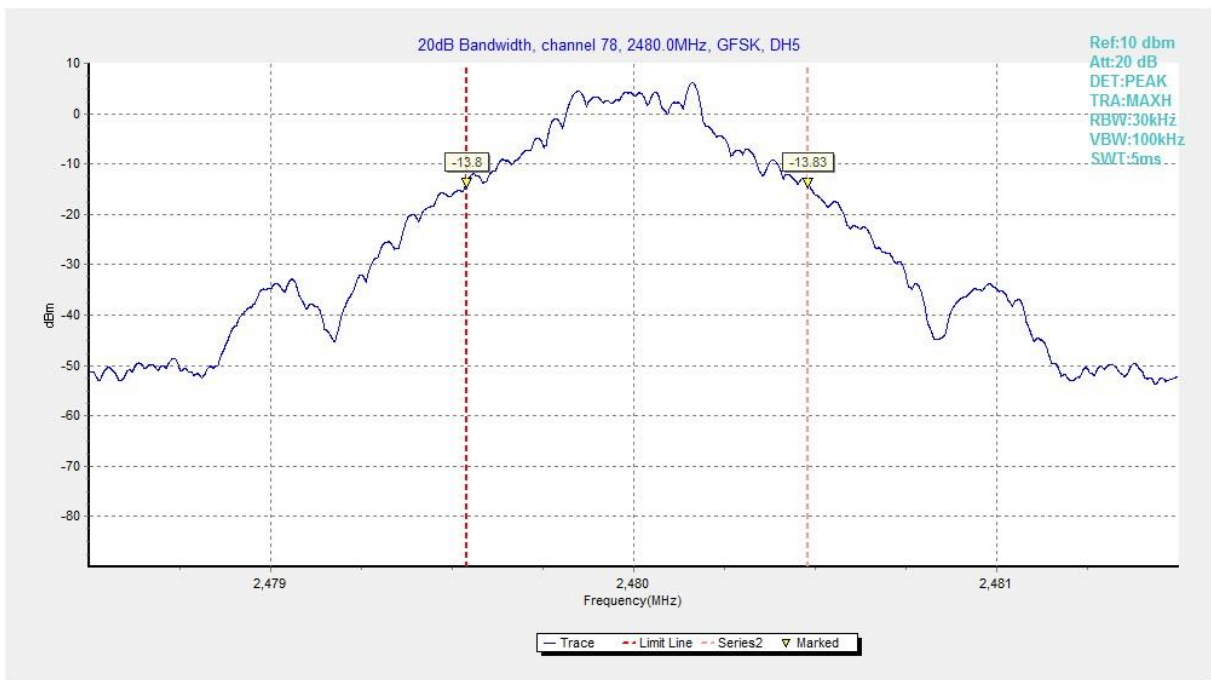


Fig. 62 20dB Bandwidth (GFSK, CH78)

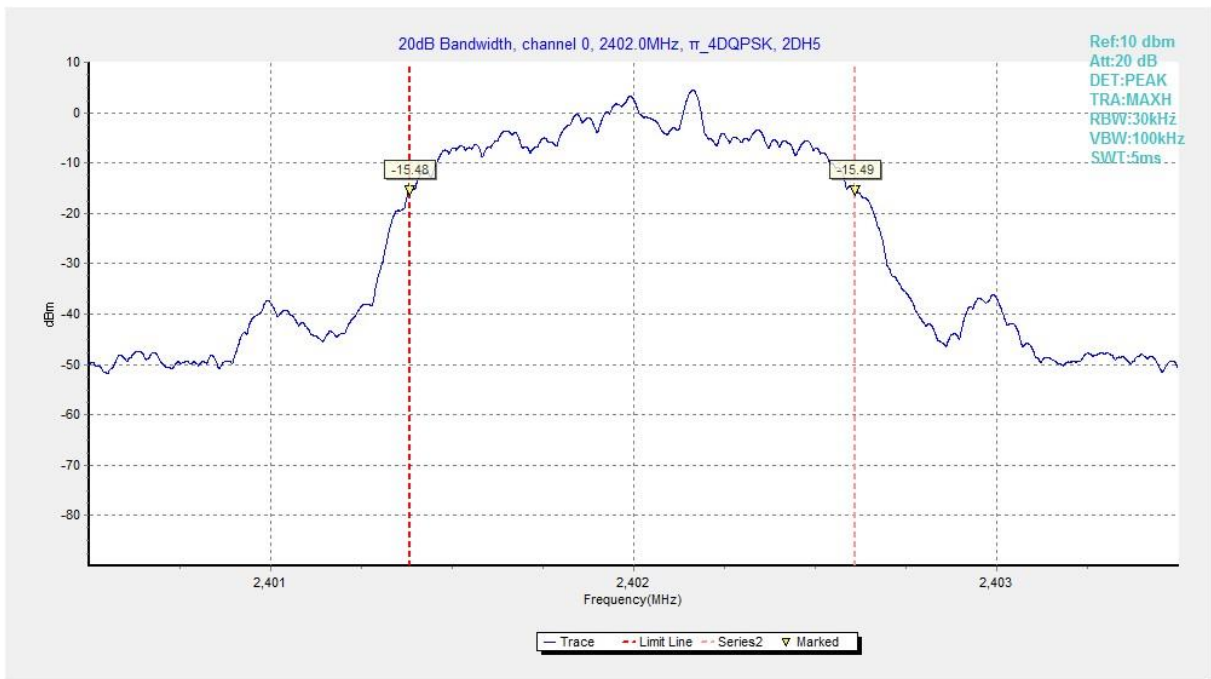


Fig. 63 20dB Bandwidth ( $\pi/4$  DQPSK, CH0)

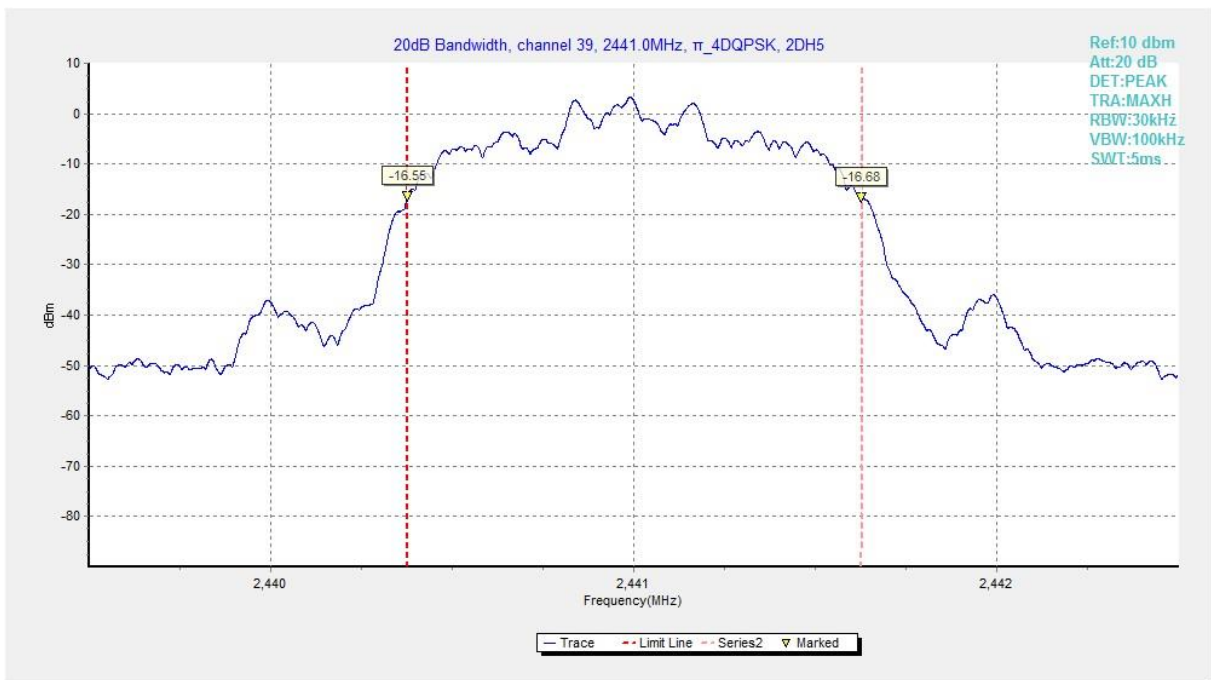


Fig. 64 20dB Bandwidth ( $\pi/4$  DQPSK, CH39)

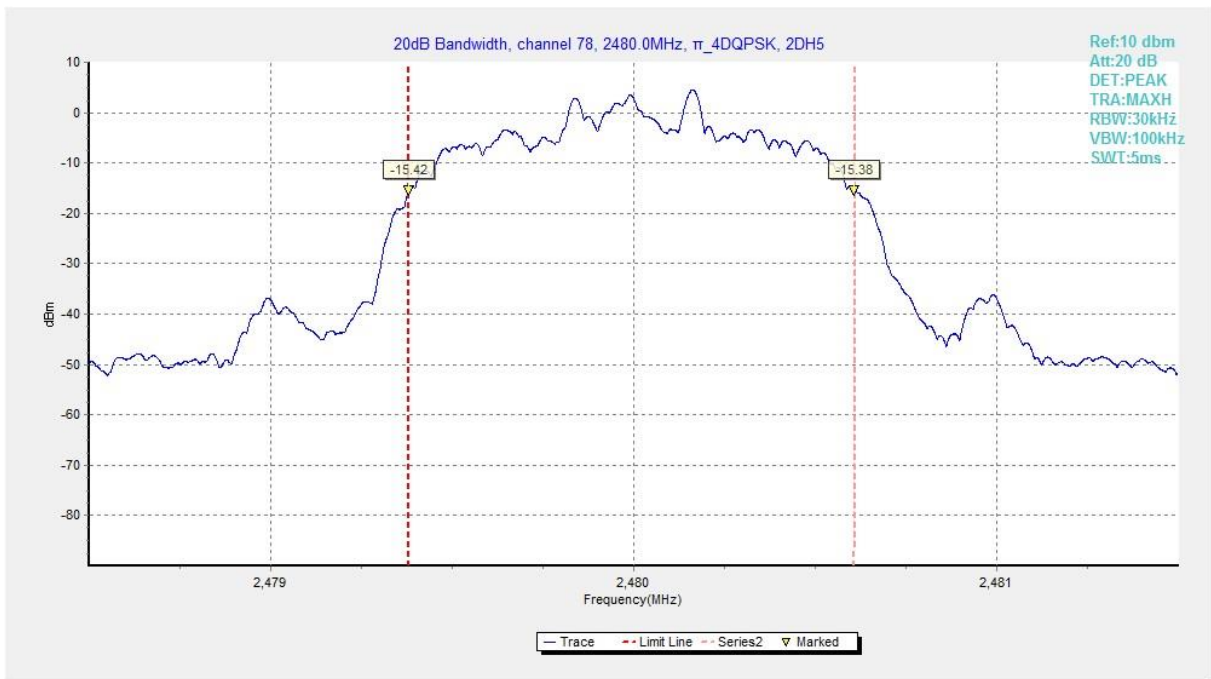


Fig. 65 20dB Bandwidth ( $\pi/4$  DQPSK, CH78)



Fig. 66 20dB Bandwidth (8DPSK, CH0)

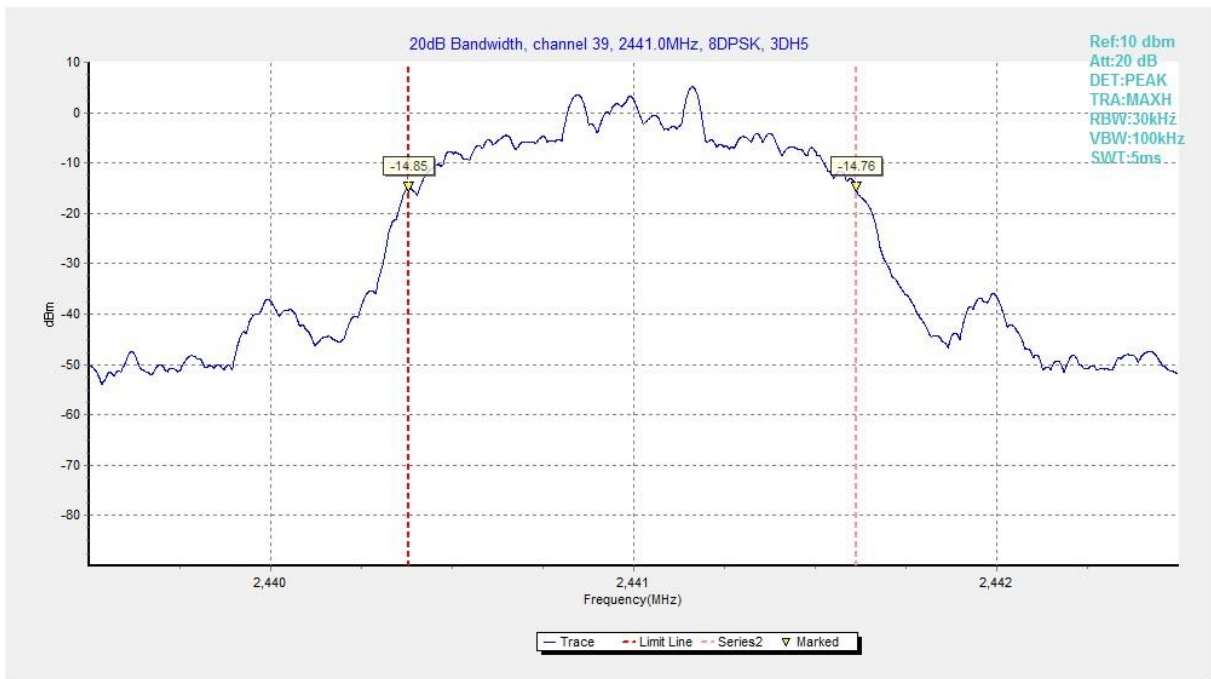


Fig. 67 20dB Bandwidth (8DPSK, CH39)

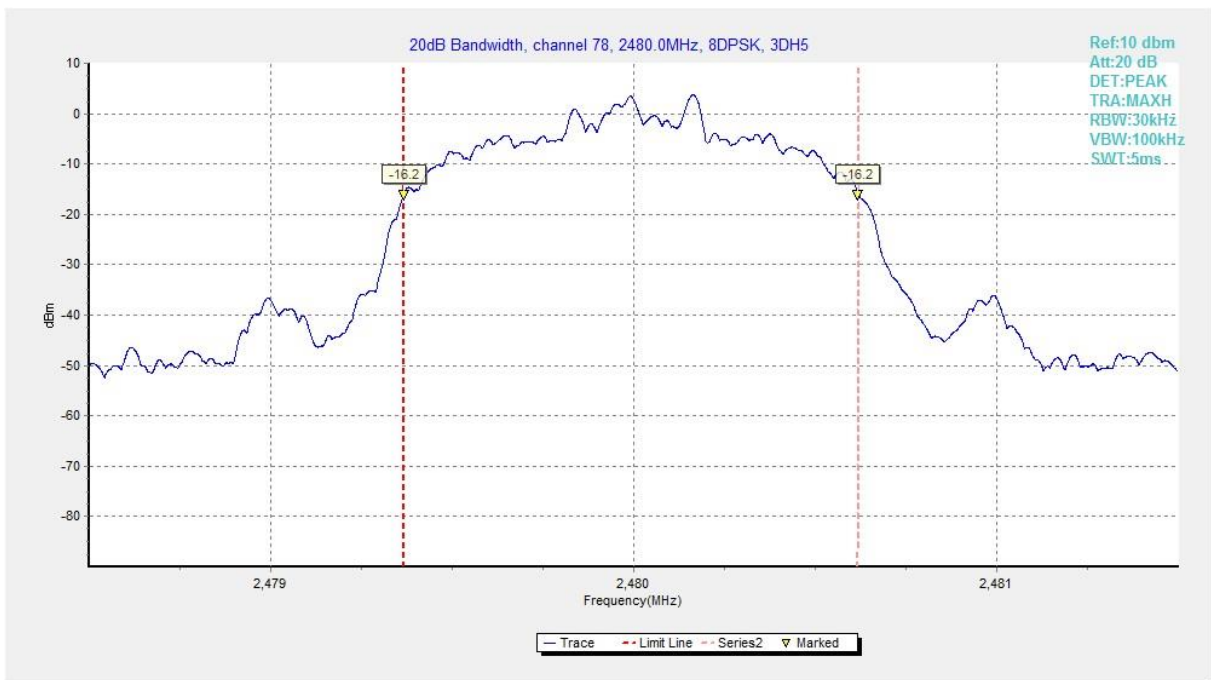


Fig. 68 20dB Bandwidth (8DPSK, CH78)

**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	306.36	<b>P</b>
			Fig.70		
$\pi/4$ DQPSK	39	2-DH5	Fig.71	307.28	<b>P</b>
			Fig.72		
8DPSK	39	3-DH5	Fig.73	307.14	<b>P</b>
			Fig.74		

See below for test graphs.

**Conclusion: Pass**

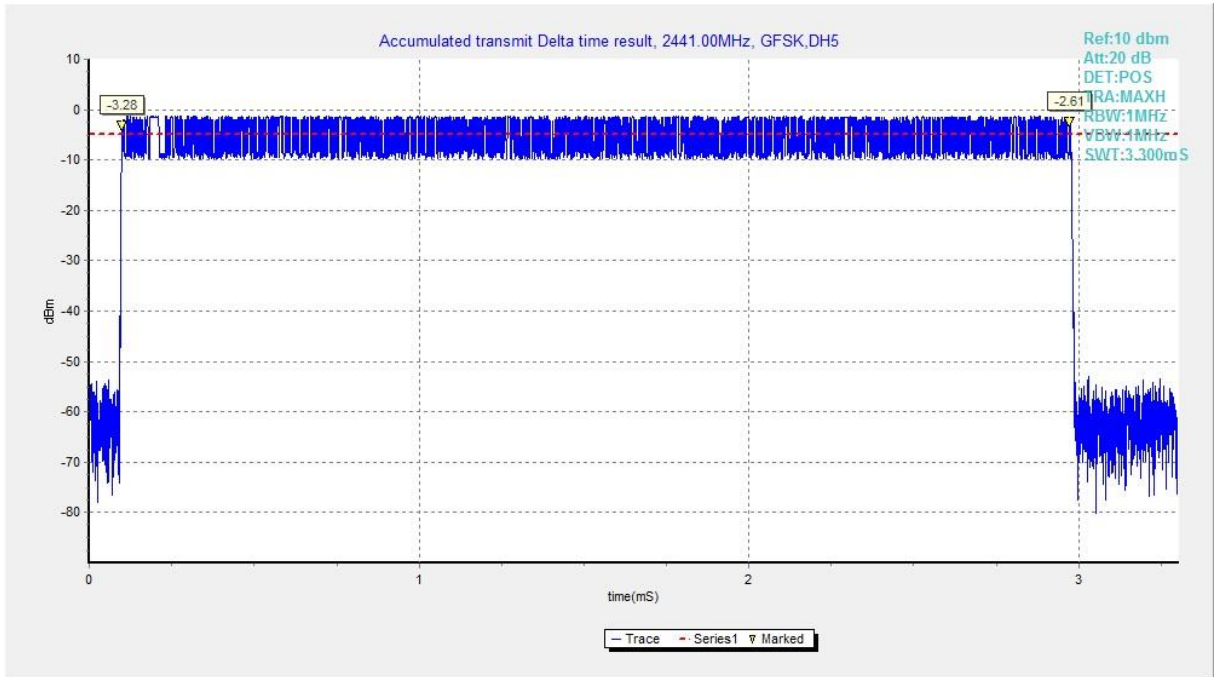


Fig. 69 Time of Occupancy (Dwell Time) (GFSK, CH39)

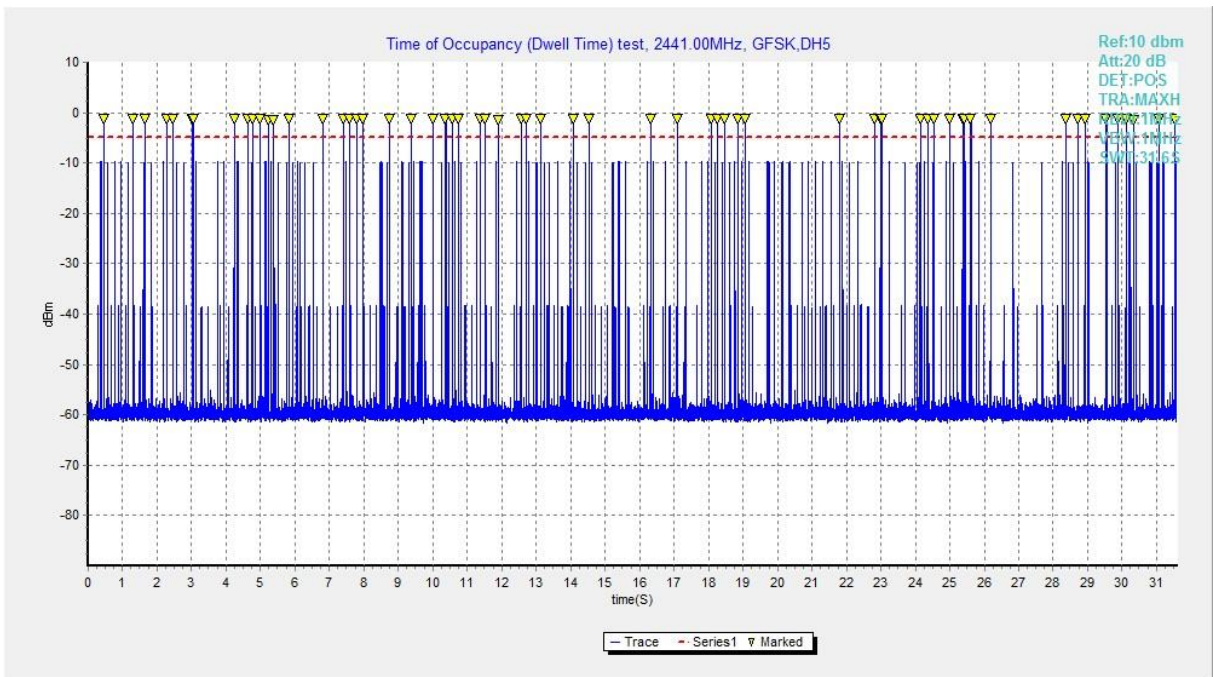


Fig. 70 Time of Occupancy (Dwell Time) (GFSK, CH39)

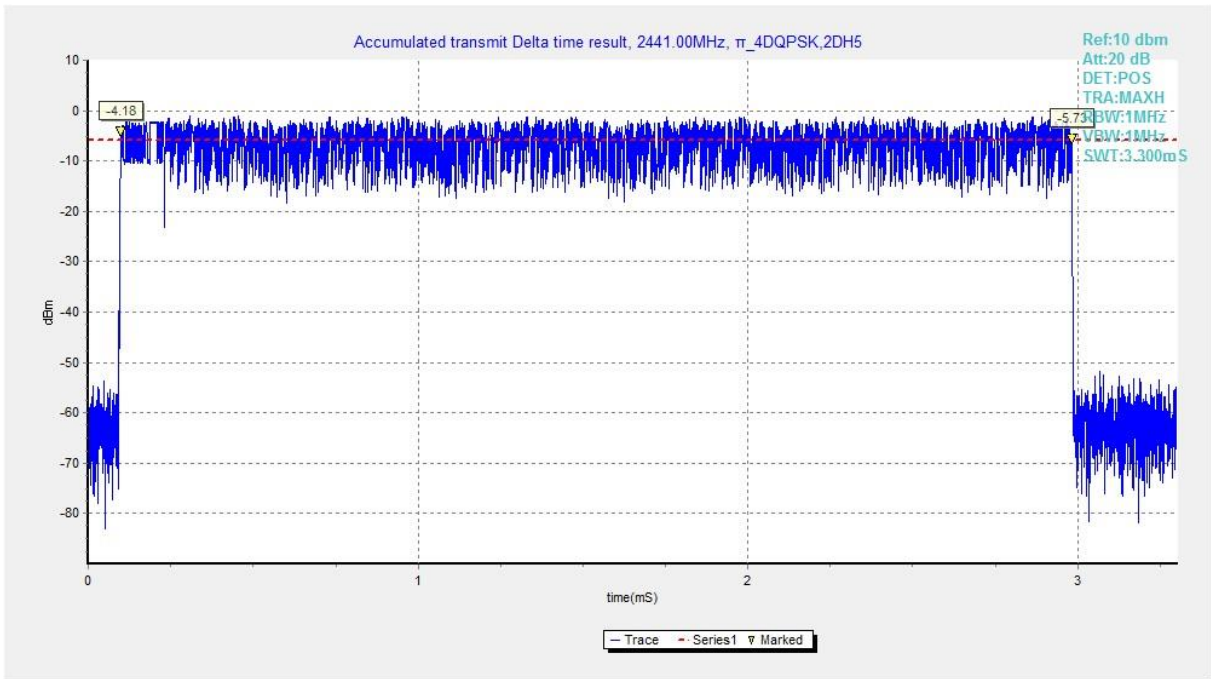


Fig. 71 Time of Occupancy (Dwell Time) ( $\pi/4$  DQPSK, CH39)

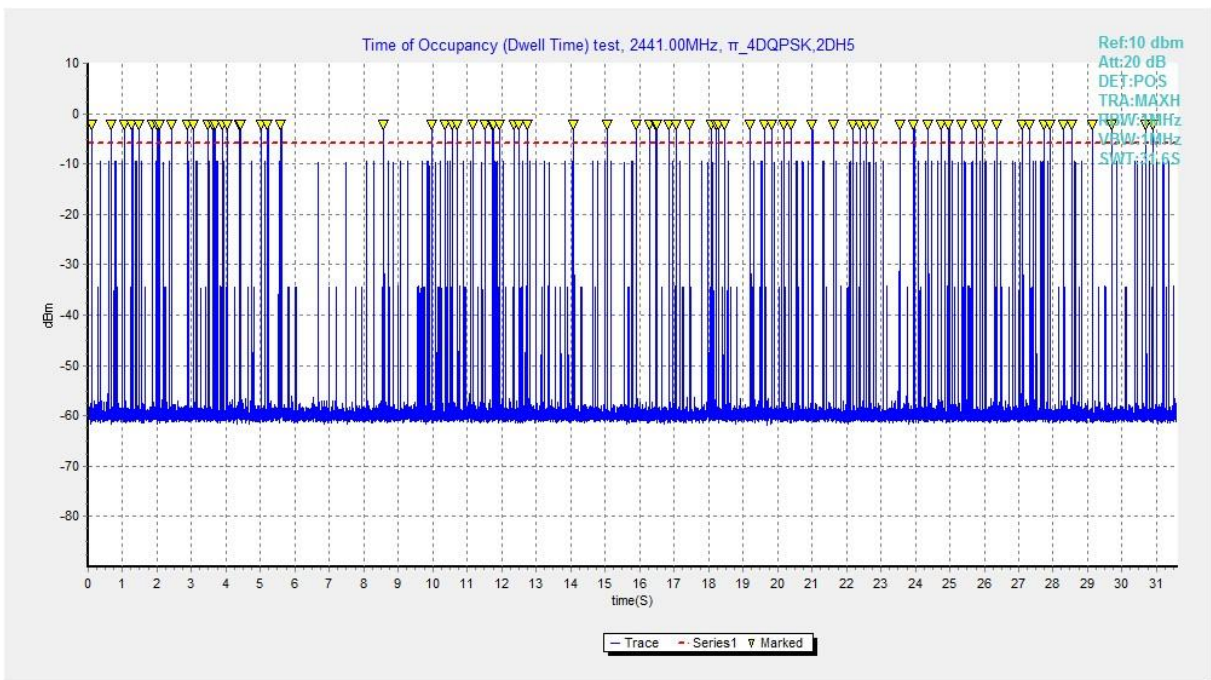


Fig. 72 Time of Occupancy (Dwell Time) ( $\pi/4$  DQPSK, CH39)

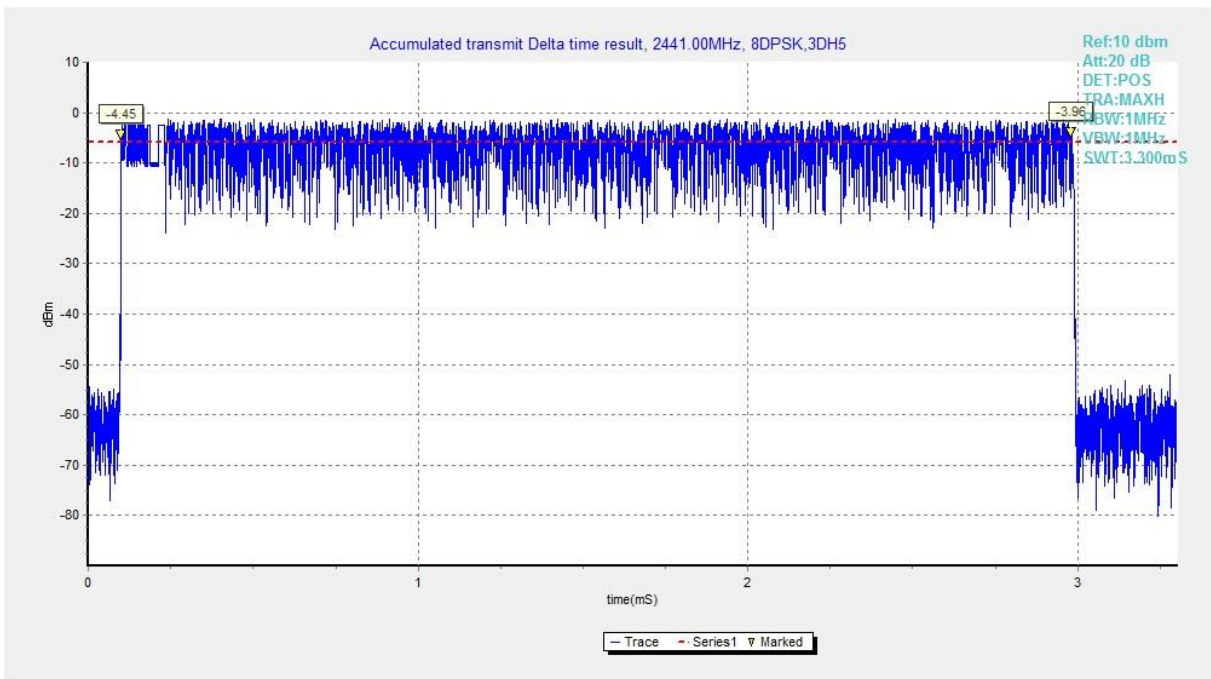


Fig. 73 Time of Occupancy (Dwell Time) (8DPSK, CH39)

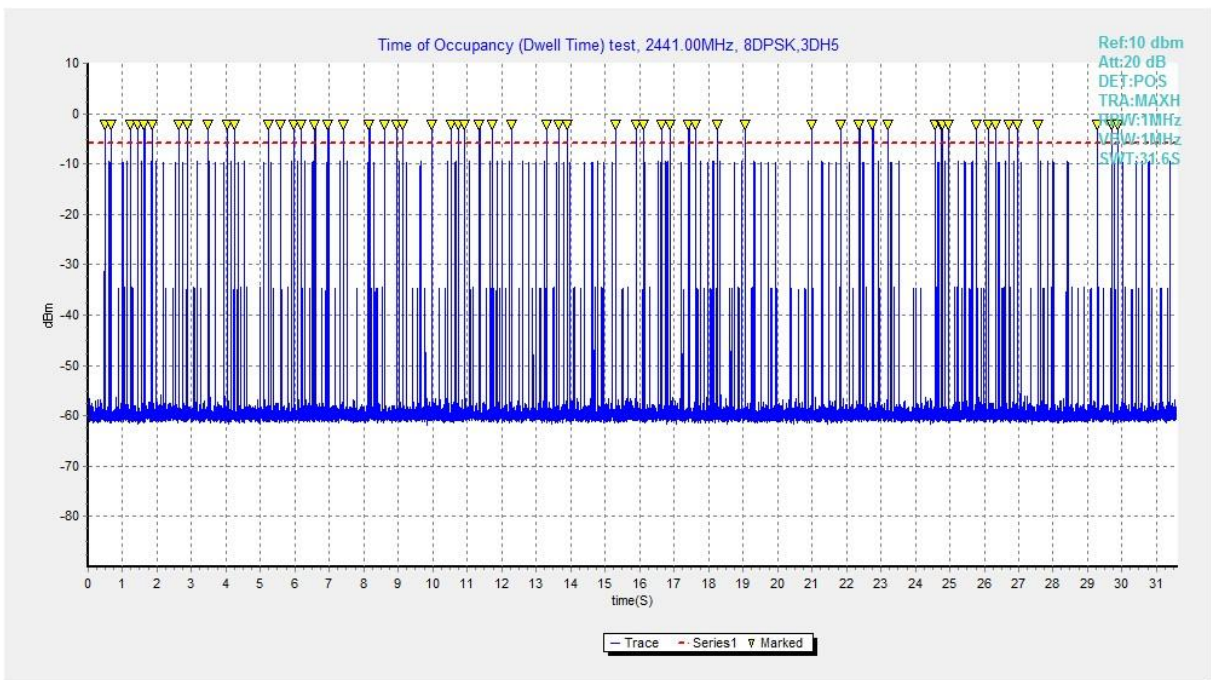


Fig. 74 Time of Occupancy (Dwell Time) (8DPSK, CH39)





### A.7 Number of Hopping Channels

**Measurement Limit:**

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

**Measurement Results:**

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

See below for test graphs.

**Conclusion: Pass**

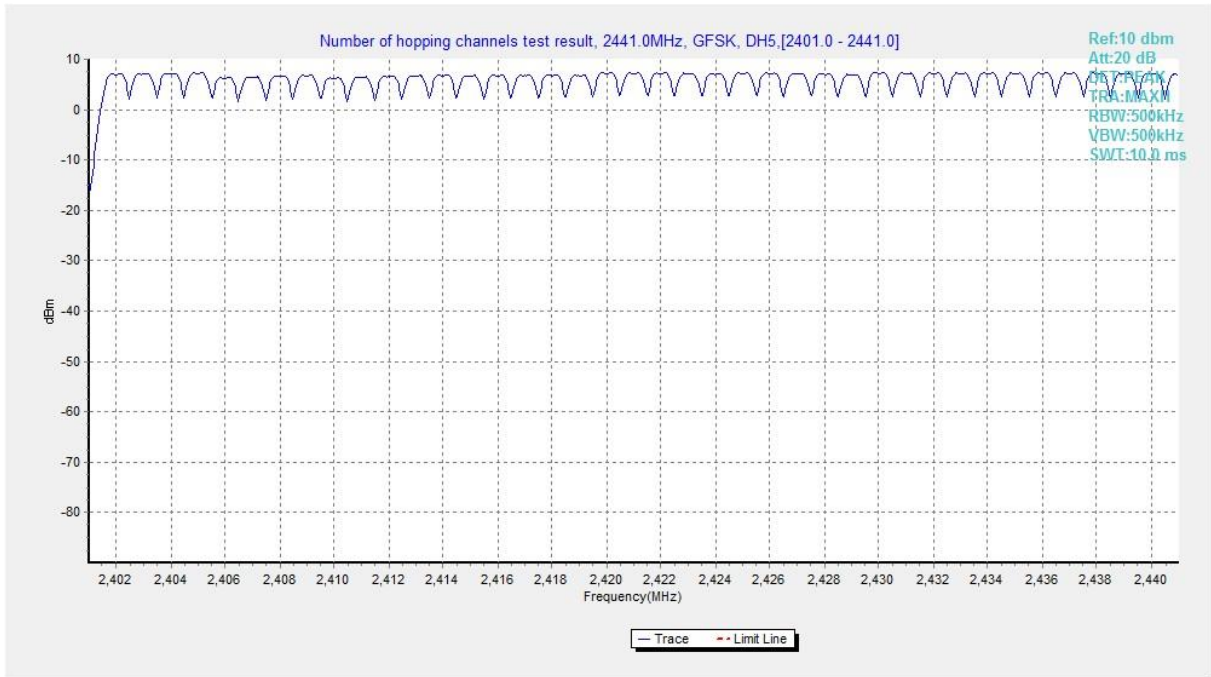


Fig. 75 Hopping channel ch0~39 (GFSK, CH39)

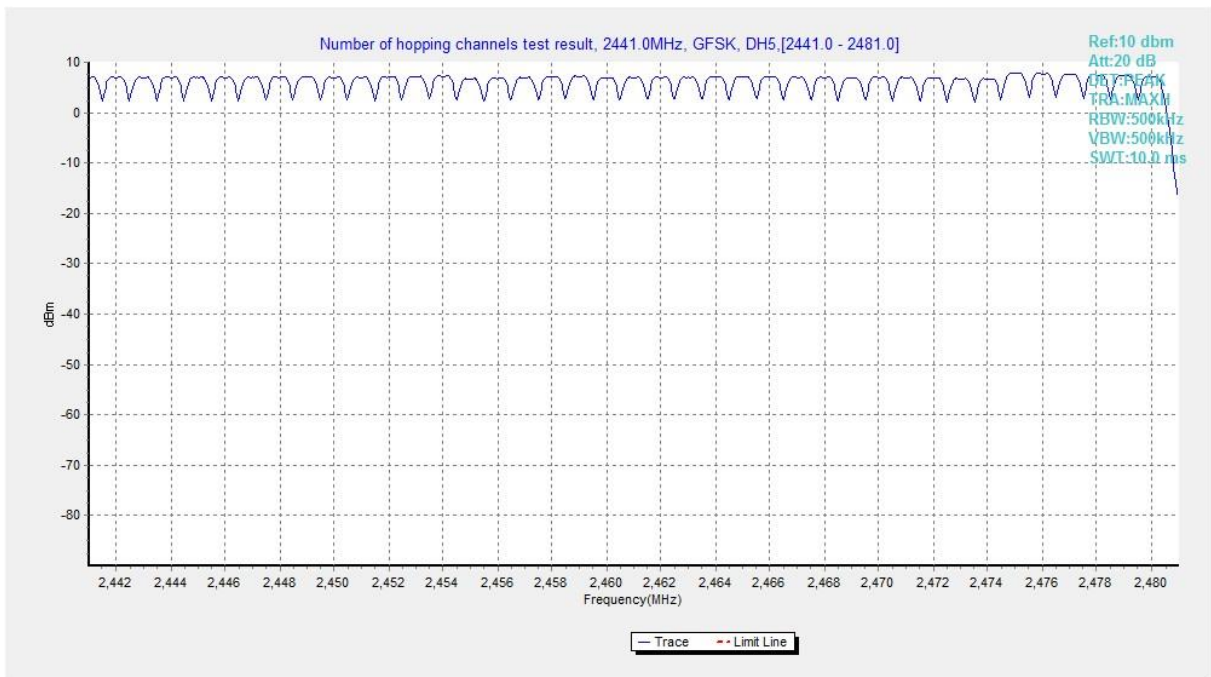


Fig. 76 Hopping channel ch39~78 (GFSK, CH39)

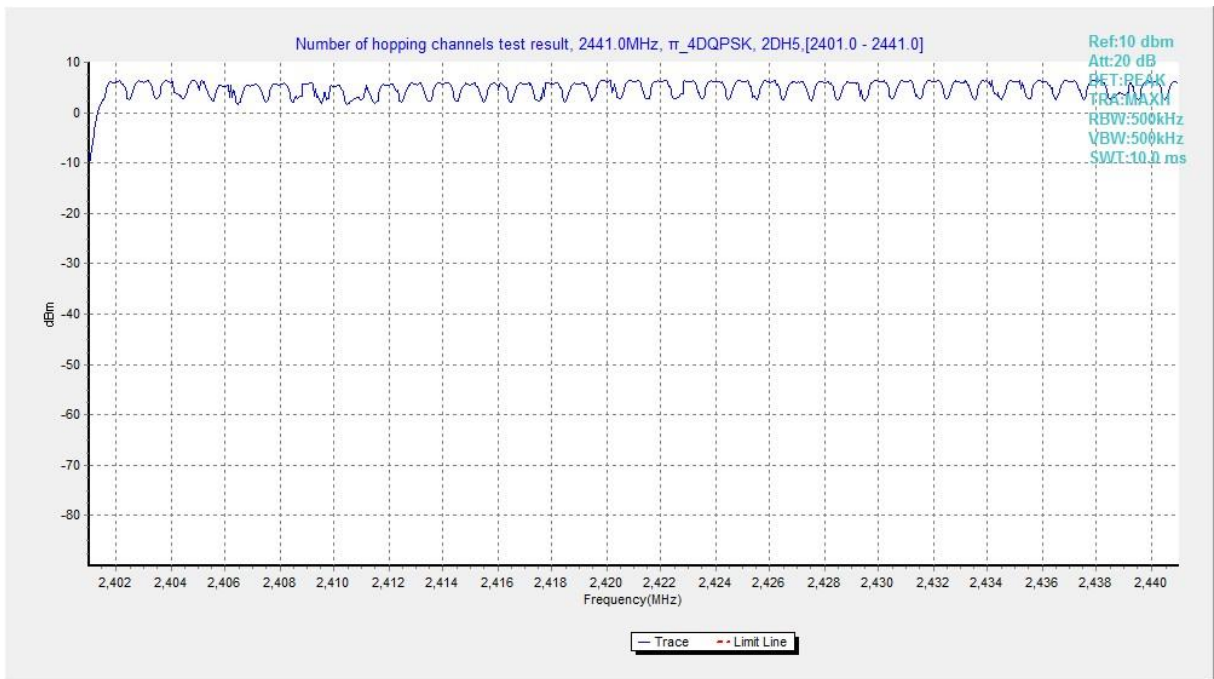


Fig. 77 Hopping channel ch0~39 ( $\pi/4$  DQPSK, CH39)

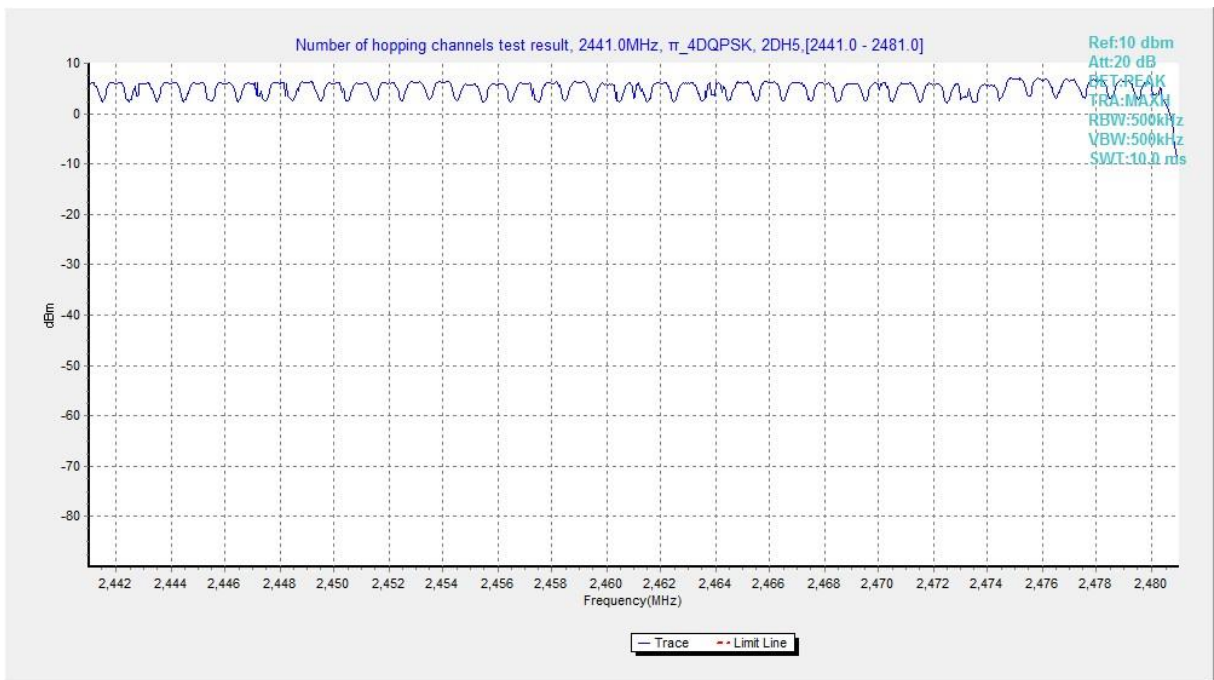


Fig. 78 Hopping channel ch39~78 ( $\pi/4$  DQPSK, CH39)

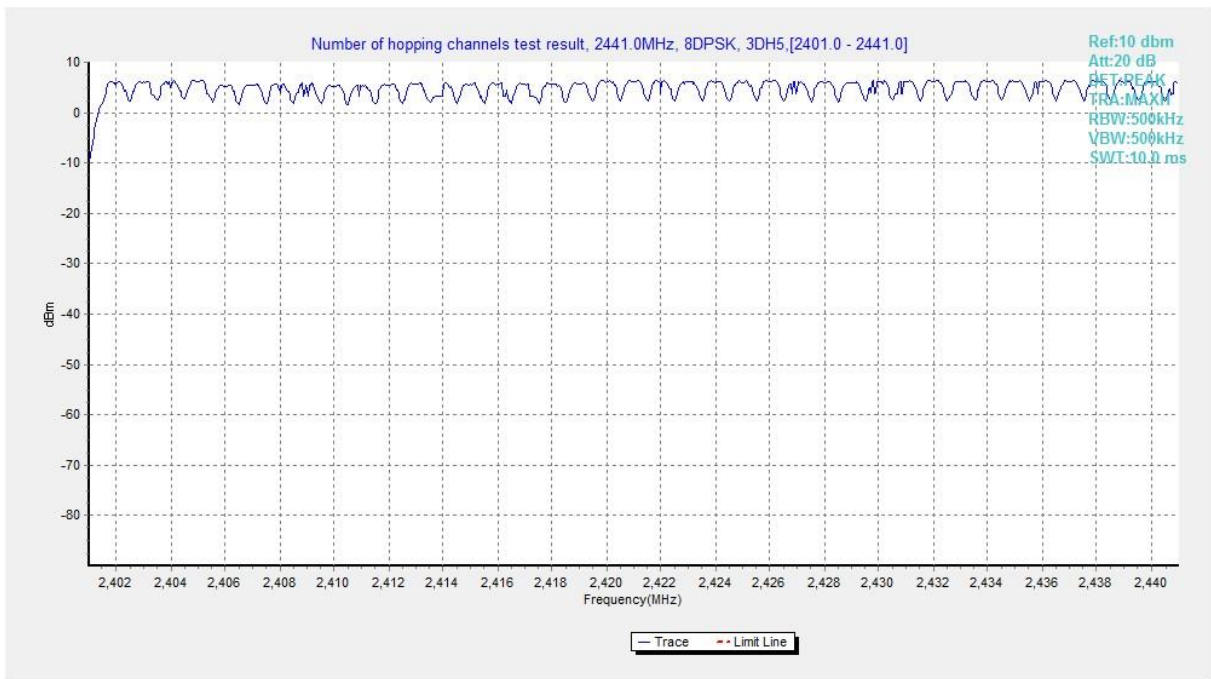


Fig. 79 Hopping channel ch0~39 (8DPSK, CH39)

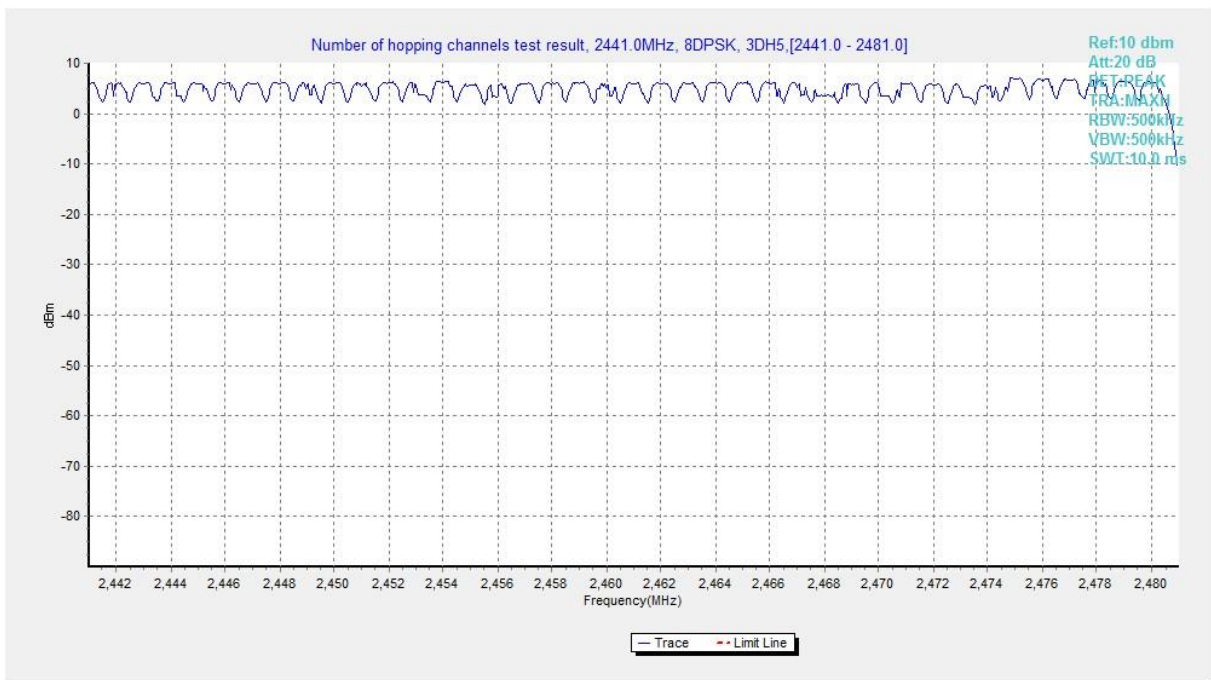


Fig. 80 Hopping channel ch39~78 (8DPSK, CH39)

### A.8 Carrier Frequency Separation

**Measurement Limit:**

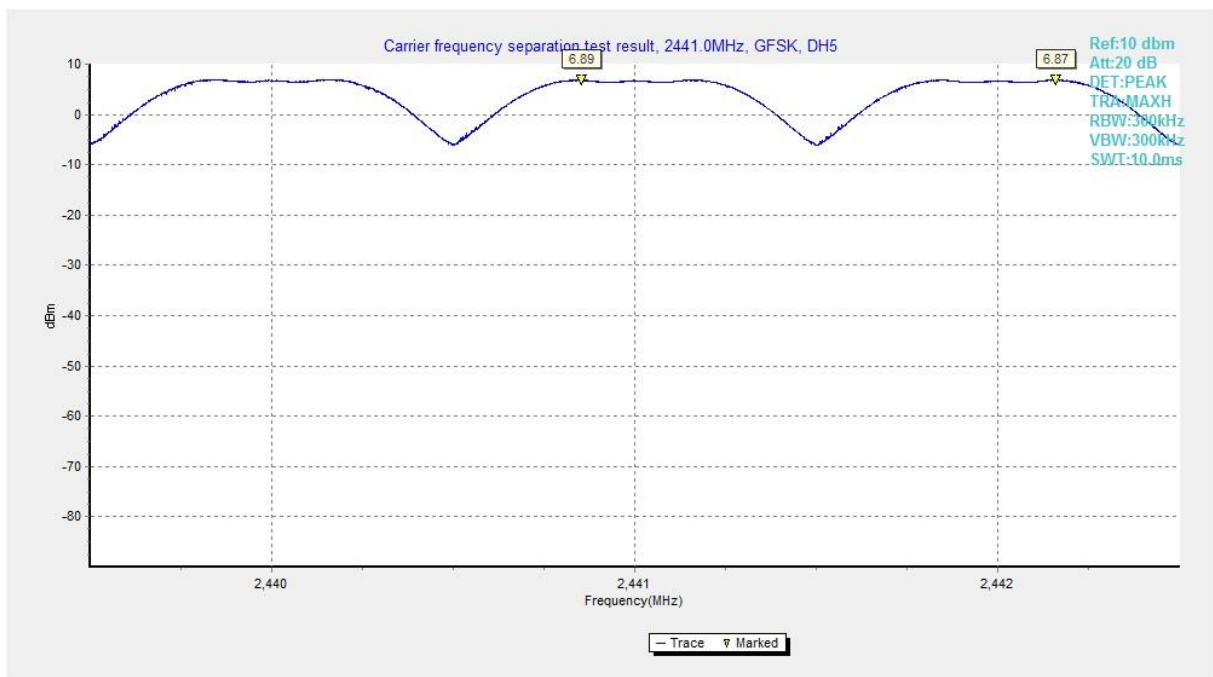
Standard	Limit
FCC 47 CFR Part 15.247(a)	By a minimum of 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater

**Measurement Results:**

Mode	Channel	Packet	Separation of hopping channels	Test result (kHz)	Conclusion
GFSK	39	DH5	Fig.81	1305.75	<b>P</b>
$\pi/4$ DQPSK	39	2-DH5	Fig.82	1317.75	<b>P</b>
8DPSK	39	3-DH5	Fig.83	1005.00	<b>P</b>

See below for test graphs.

**Conclusion: Pass**



**Fig. 81 Carrier Frequency Separation (GFSK, CH39)**

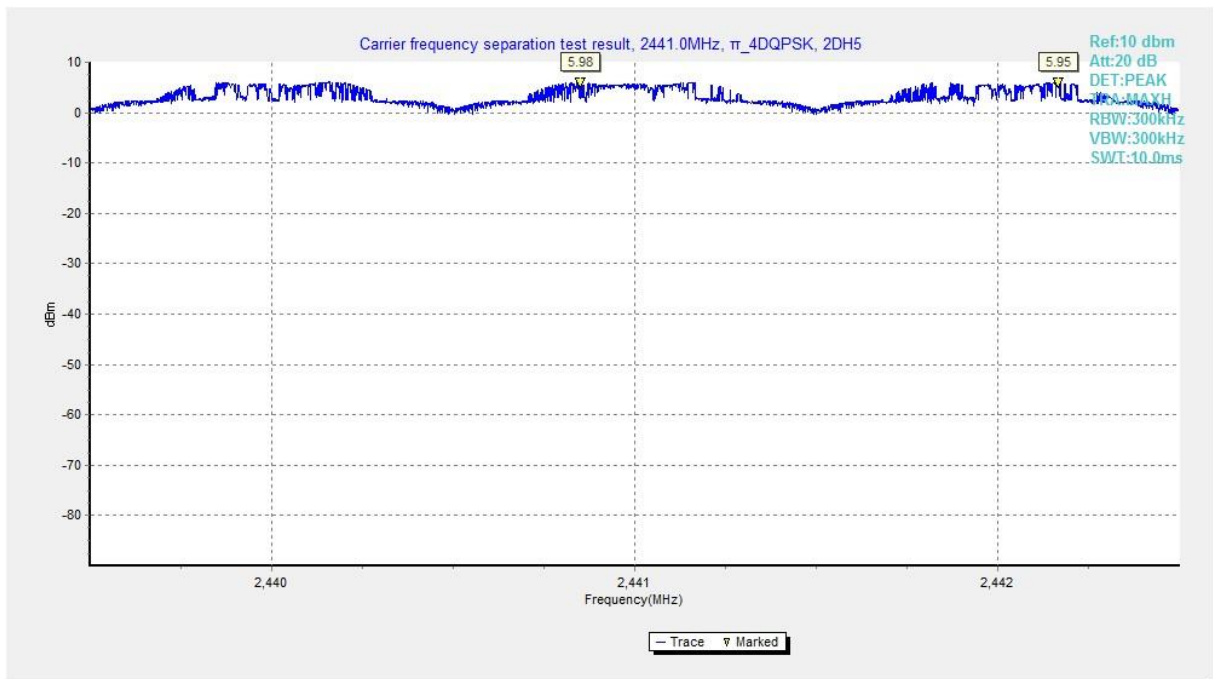


Fig. 82 Carrier Frequency Separation ( $\pi/4$  DQPSK, CH39)

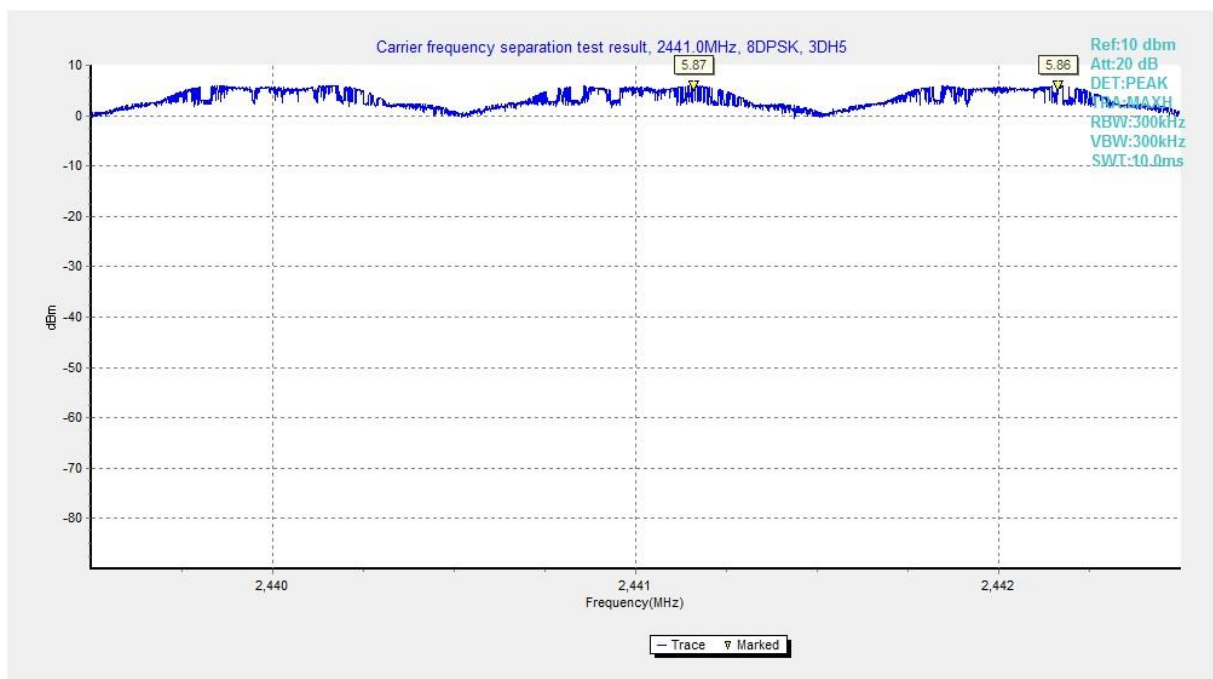


Fig. 83 Carrier Frequency Separation (8DPSK, CH39)

**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 $\mu$ V)	Average-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.84	Fig.85	<b>P</b>
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**

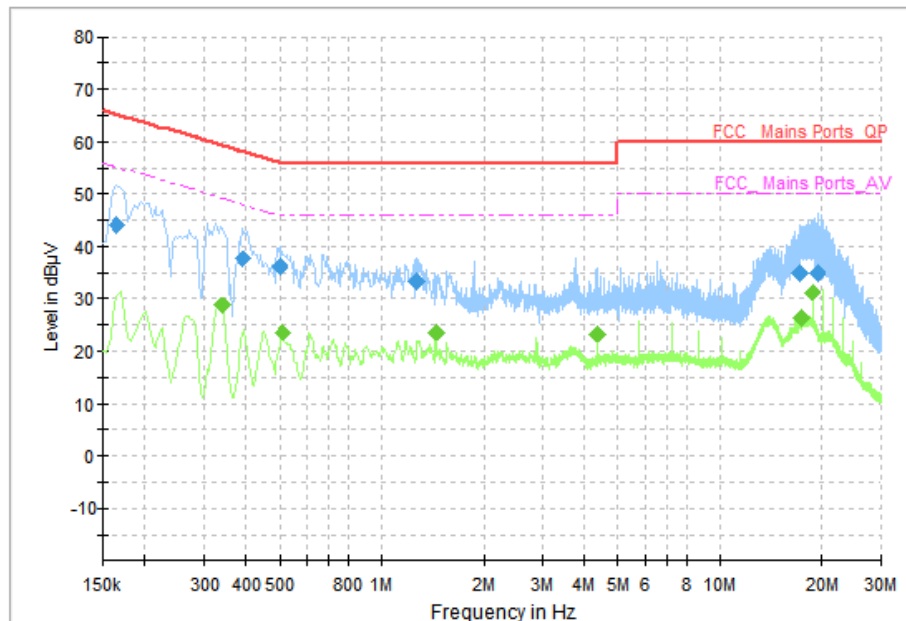


Fig. 84 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.166000	44.04	65.16	21.12	L1	ON	10
0.390000	37.69	58.06	20.37	L1	ON	10
0.502000	36.00	56.00	20.00	L1	ON	10
1.278000	33.50	56.00	22.50	L1	ON	10
17.322000	34.82	60.00	25.18	L1	ON	10
19.330000	34.99	60.00	25.01	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.338000	28.80	49.25	20.45	L1	ON	10
0.510000	23.53	46.00	22.47	L1	ON	10
1.446000	23.74	46.00	22.26	L1	ON	10
4.338000	23.42	46.00	22.58	L1	ON	10
17.346000	26.25	50.00	23.75	L1	ON	10
18.790000	31.12	50.00	18.88	L1	ON	10



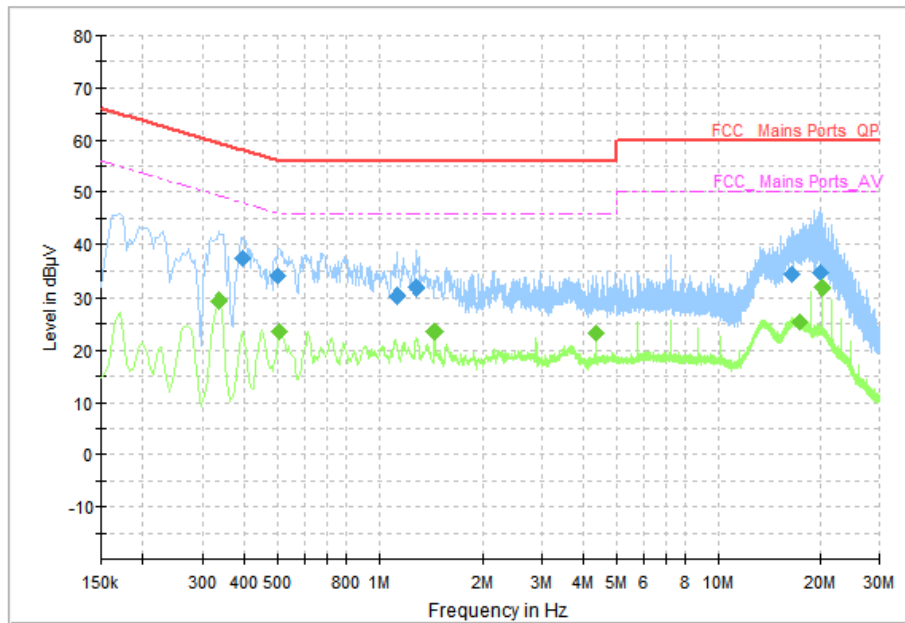


Fig. 85 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.394000	37.38	57.98	20.60	L1	ON	10
0.498000	33.88	56.03	22.16	L1	ON	10
1.126000	30.24	56.00	25.76	L1	ON	10
1.294000	31.87	56.00	24.13	L1	ON	10
16.538000	34.30	60.00	25.70	L1	ON	10
20.050000	34.47	60.00	25.53	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.334000	29.40	49.35	19.95	L1	ON	10
0.506000	23.51	46.00	22.49	L1	ON	10
1.446000	23.50	46.00	22.50	L1	ON	10
4.334000	23.37	46.00	22.63	L1	ON	10
17.346000	25.44	50.00	24.56	L1	ON	10
20.234000	31.85	50.00	18.15	L1	ON	10

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