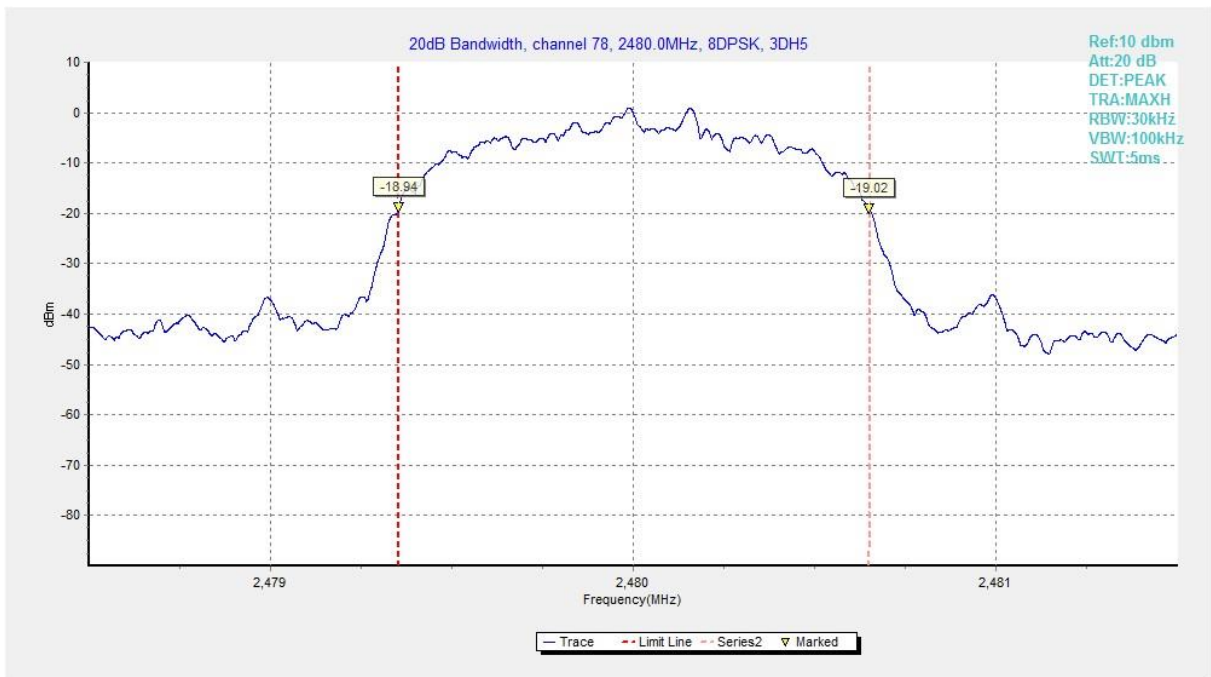


**Fig. 67 20dB Bandwidth (8DPSK, Ch 39)**



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



### A.6 Time of Occupancy (Dwell Time)

**Measurement Limit:**

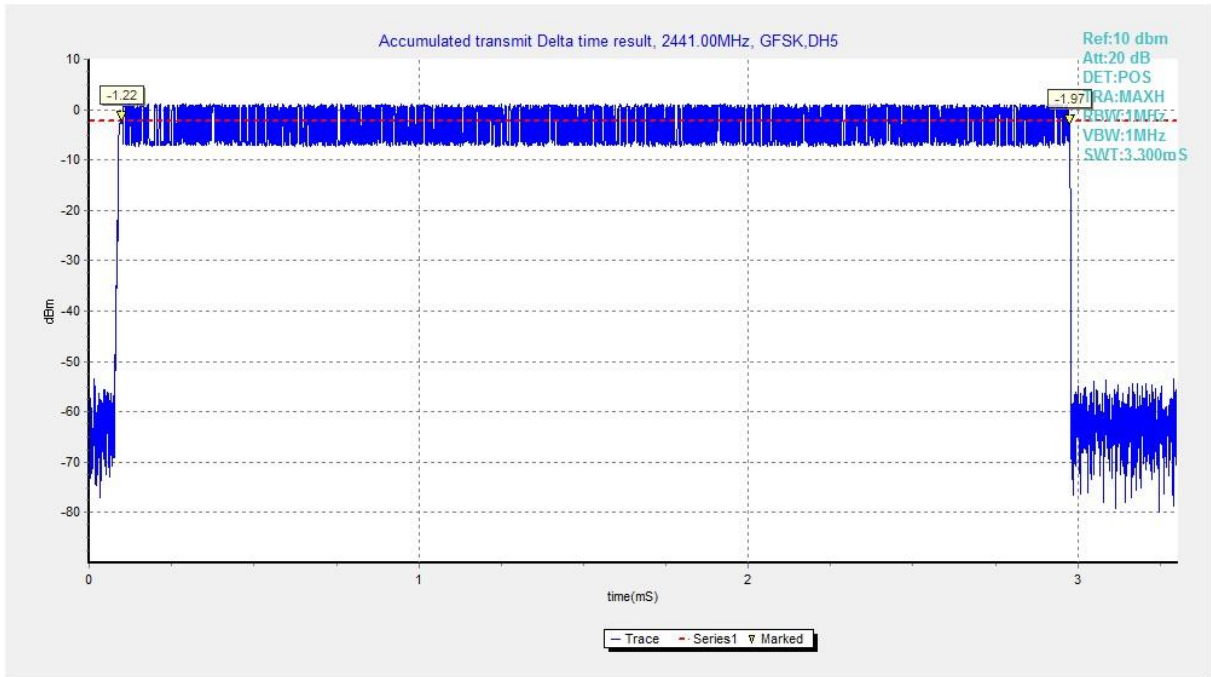
Standard	Limit
FCC 47 CFR Part 15.247(a) & RSS-247 Section 5.1	< 400 ms

**Measurement Results:**

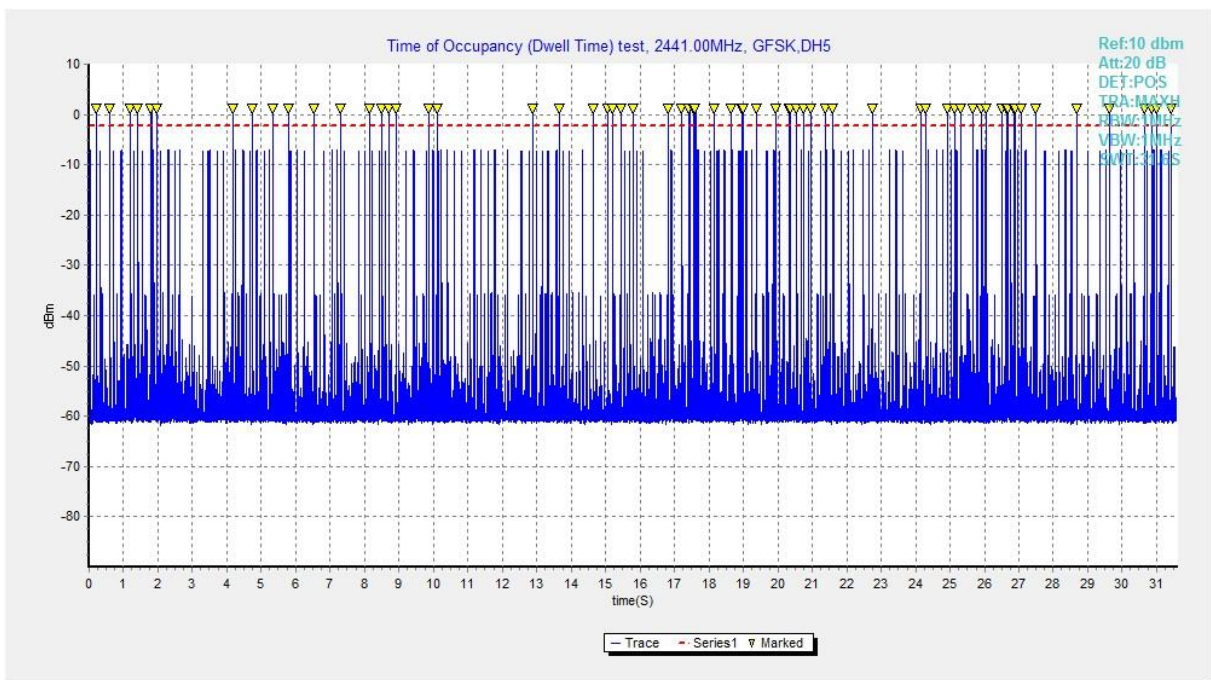
Mode	Channel	Packet	Dwell Time(ms)		Conclusion
GFSK	39	DH5	Fig.69	306.59	<b>P</b>
			Fig.70		
$\pi/4$ DQPSK	39	2-DH5	Fig.71	308.09	<b>P</b>
			Fig.72		
8DPSK	39	3-DH5	Fig.73	308.26	<b>P</b>
			Fig.74		

See below for test graphs.

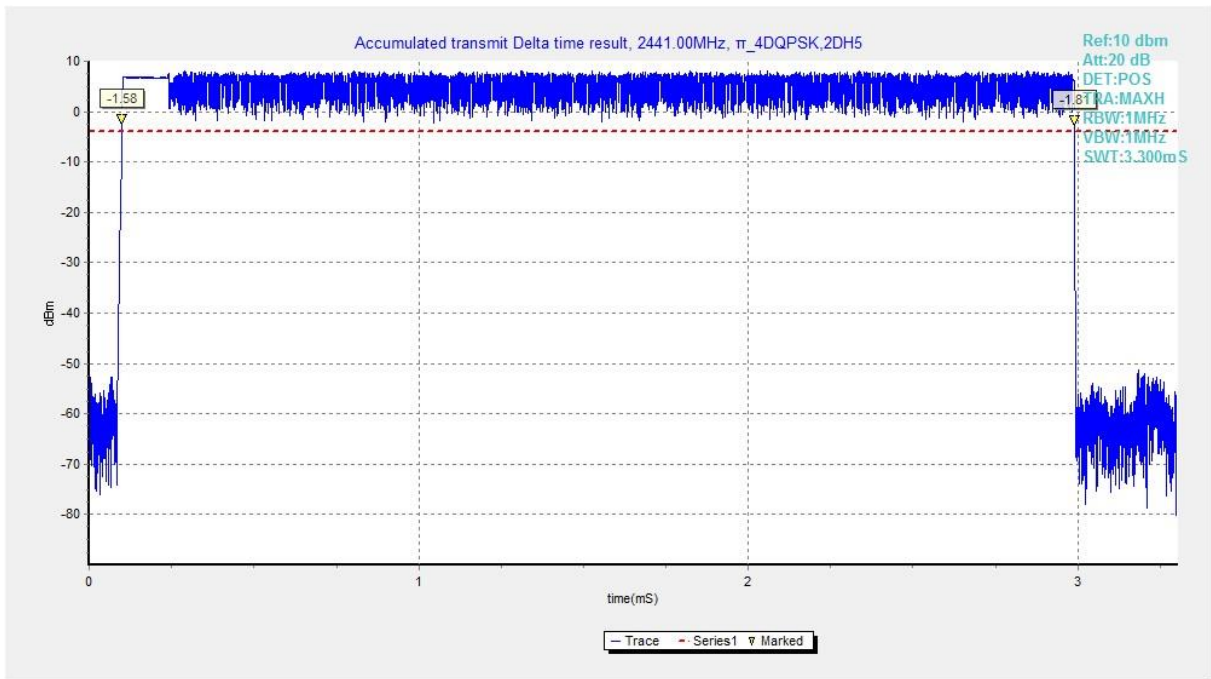
**Conclusion: Pass**



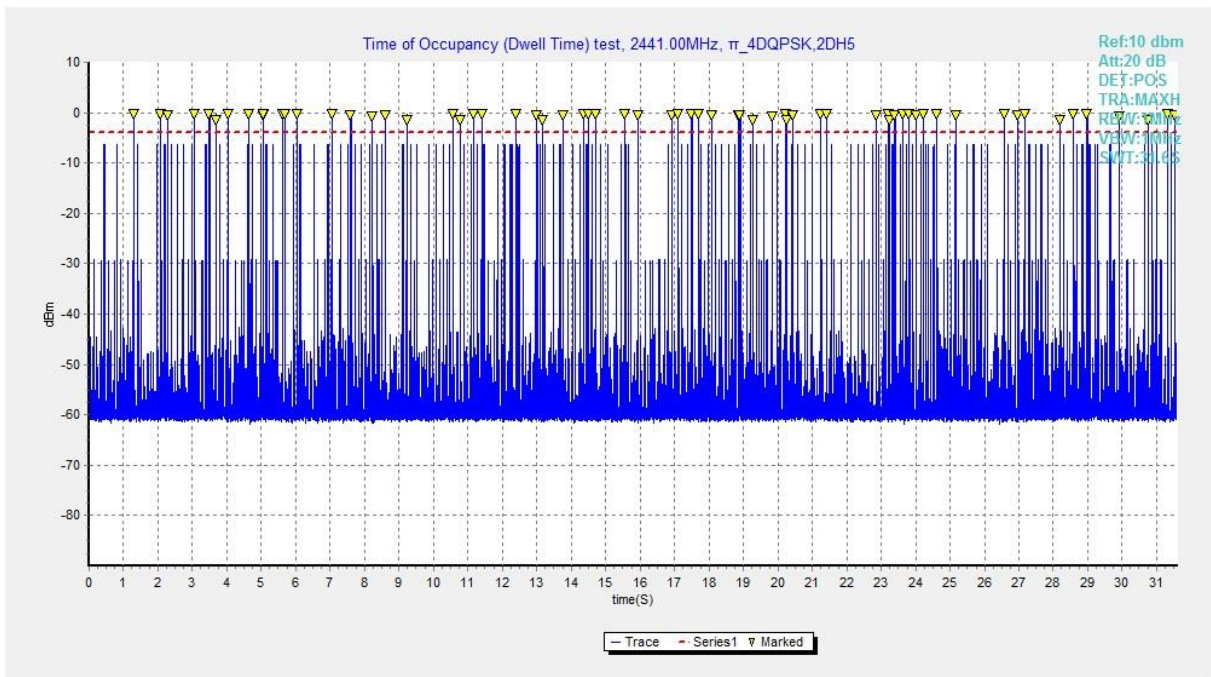
**Fig. 69 Time of Occupancy(Dwell Time) (GFSK, Ch39)**



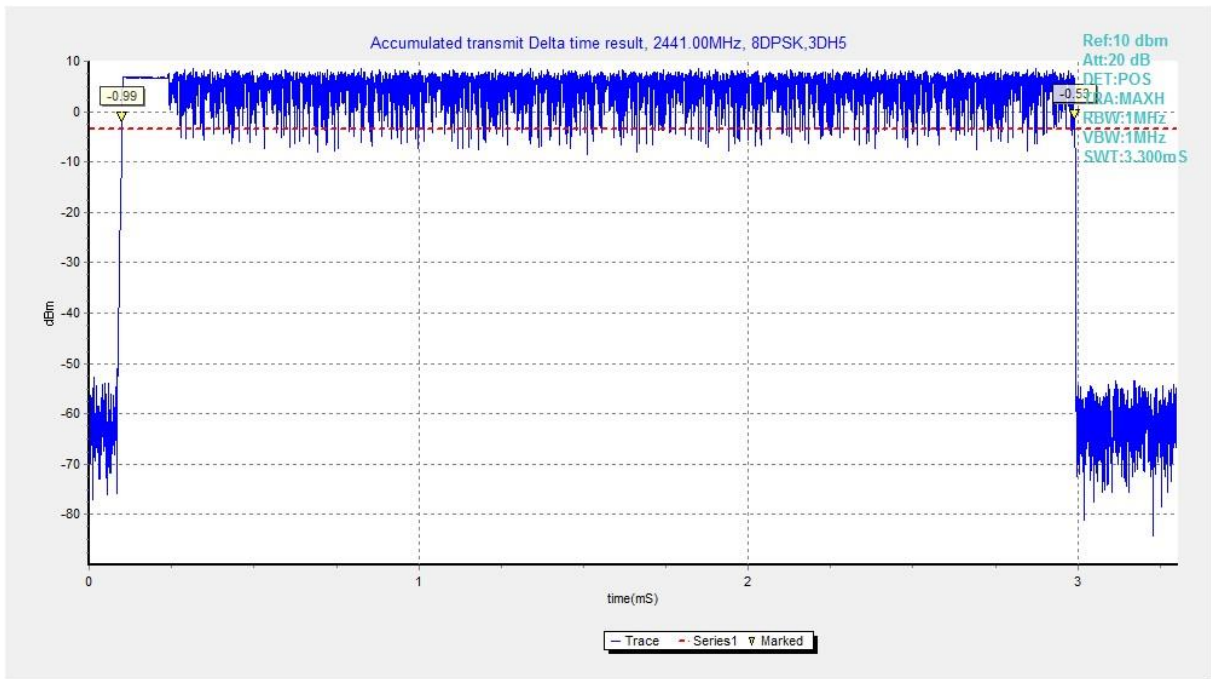
**Fig. 70 Time of Occupancy(Dwell Time) (GFSK, Ch39)**



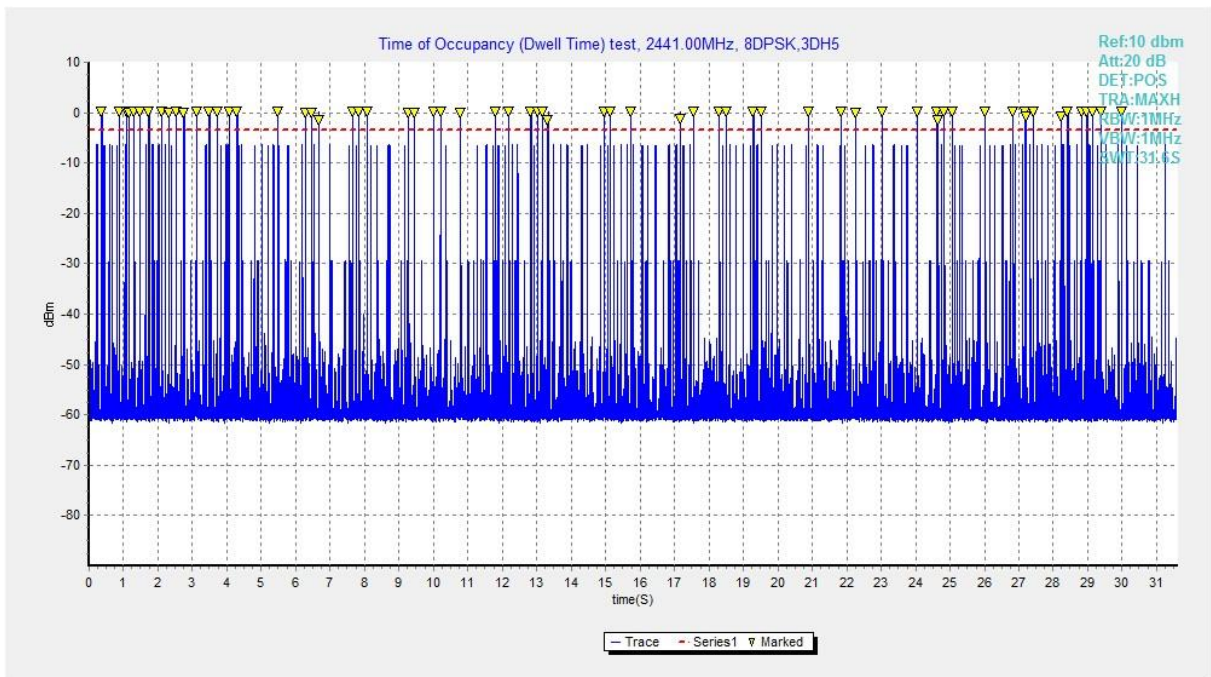
**Fig. 71 Time of Occupancy(Dwell Time) ( $\pi/4$  DQPSK, Ch39)**



**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:

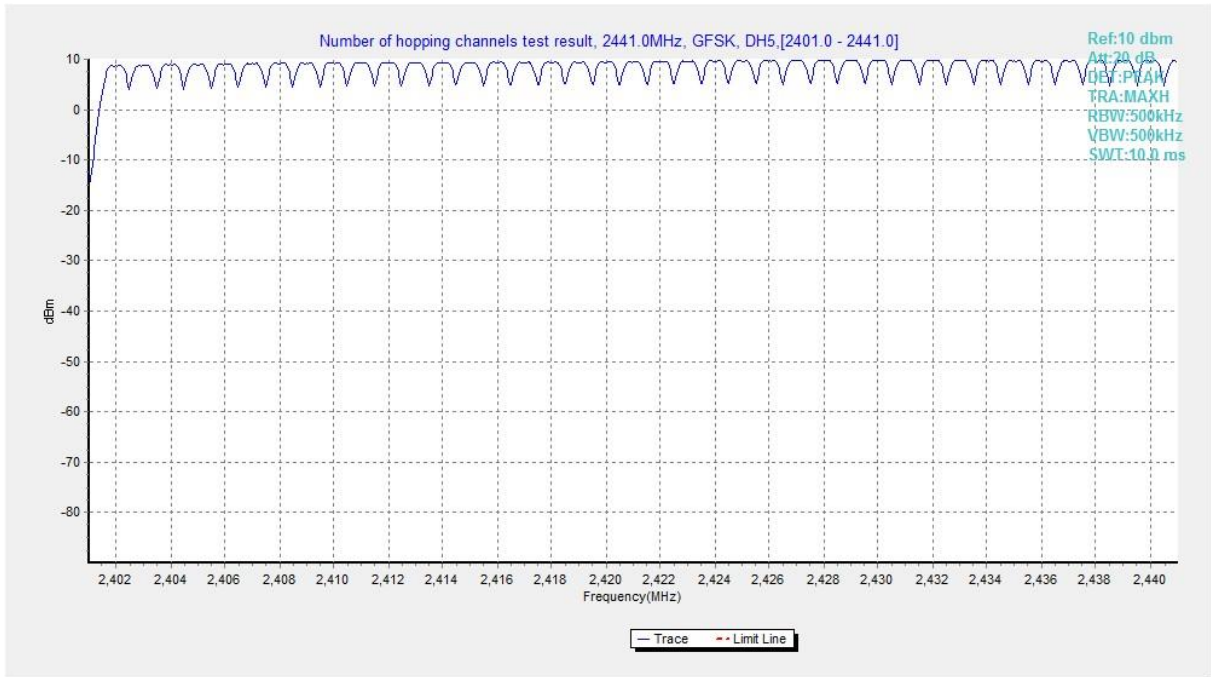
Standard	Limit
FCC 47 CFR Part 15.247(a) & RSS-247 Section 5.1	At least 15 non-overlapping channels

### Measurement Results:

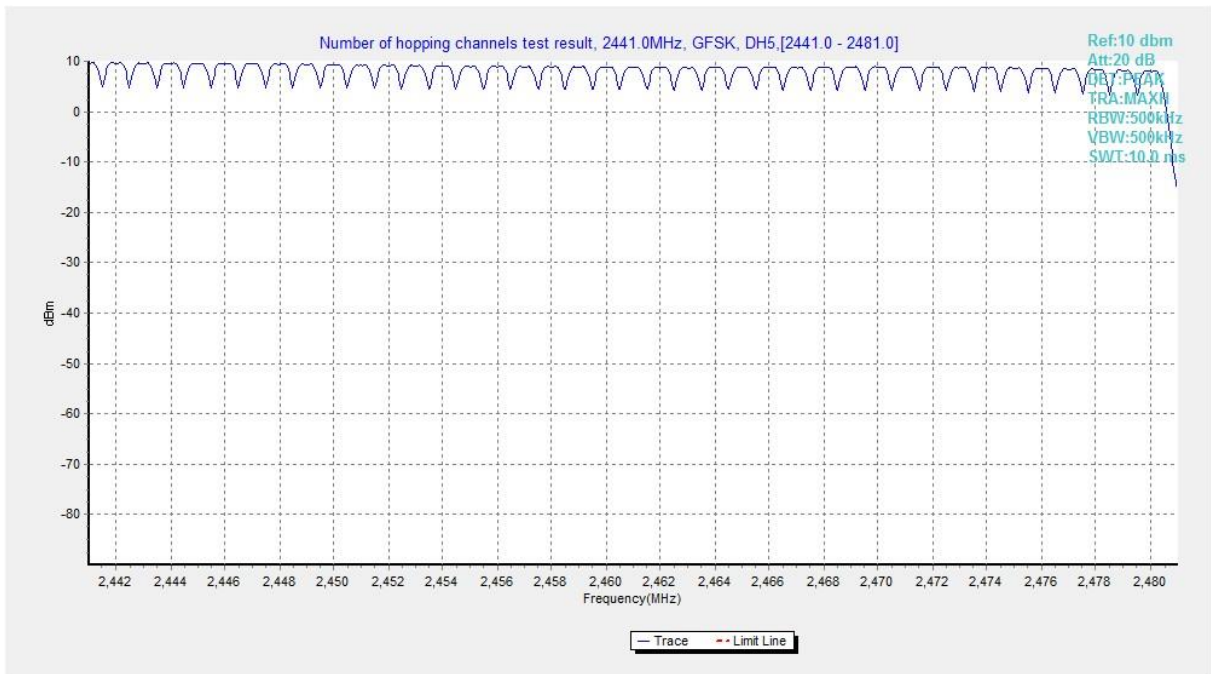
Mode	Packet	Number of hopping		Test result	Conclusion
GFSK	DH5	Fig.75	Fig.76	79	<b>P</b>
$\pi/4$ DQPSK	2-DH5	Fig.77	Fig.78	79	<b>P</b>
8DPSK	3-DH5	Fig.79	Fig.80	79	<b>P</b>

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)

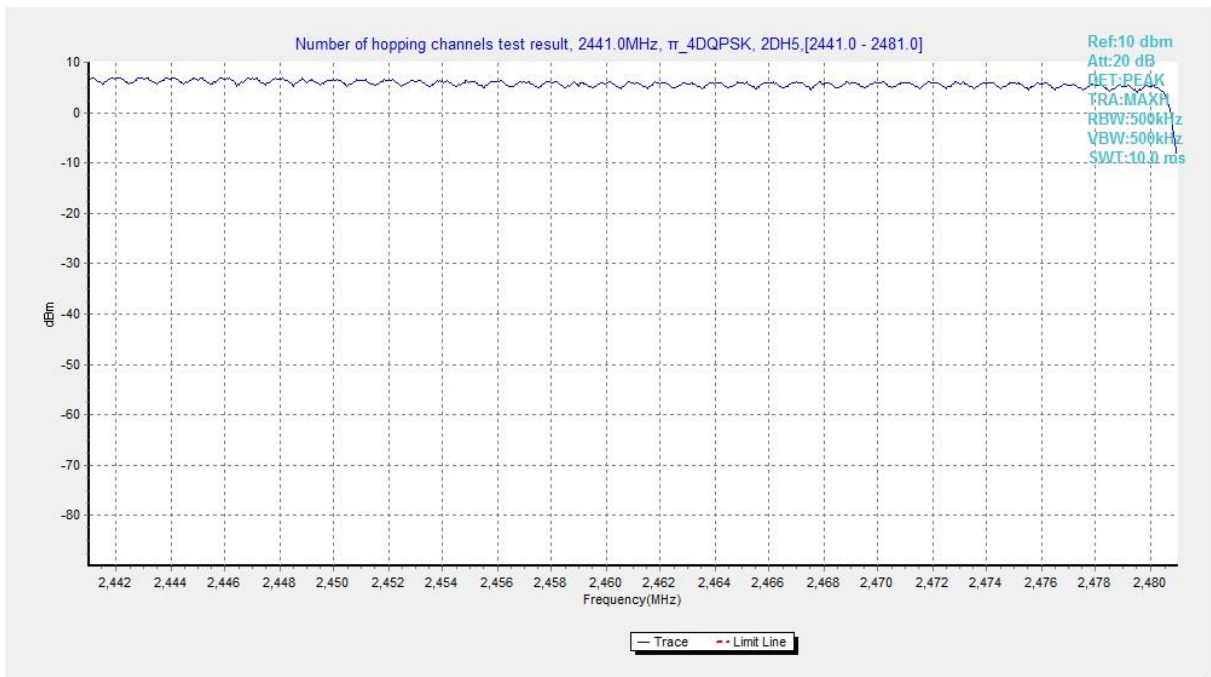


Fig. 78 Hopping channel ch39~78 ( $\pi/4$  DQPSK, Ch39)



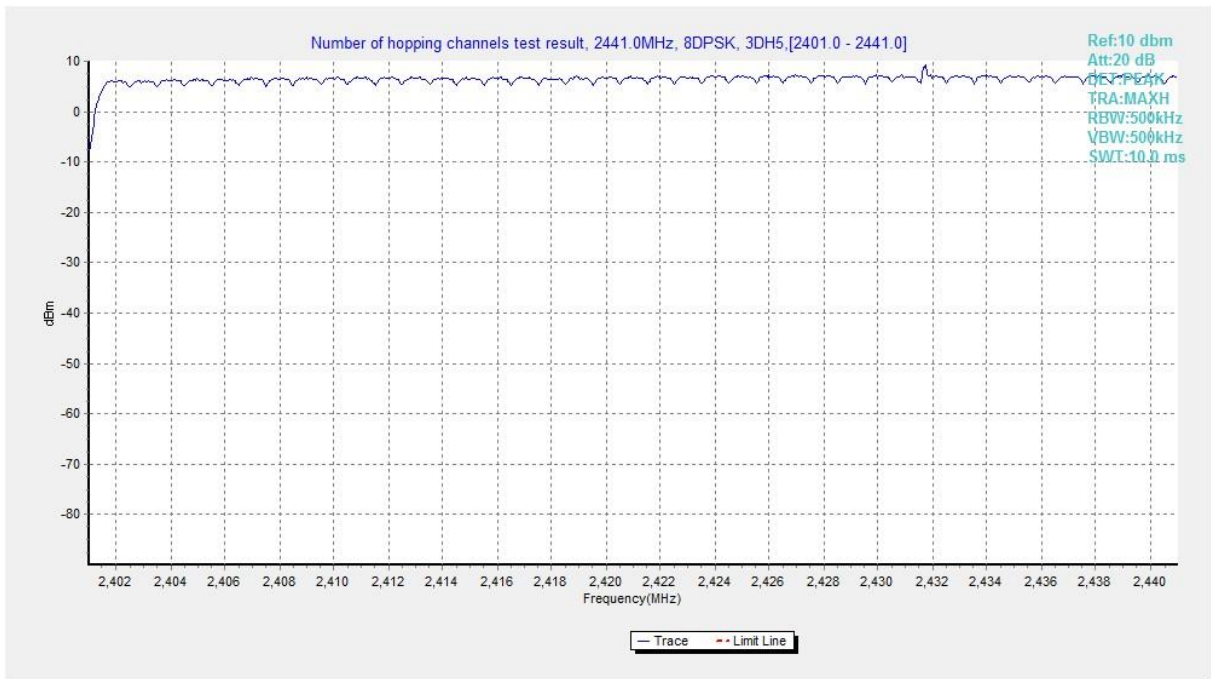


Fig. 79 Hopping channel ch0~39 (8DPSK, Ch39)

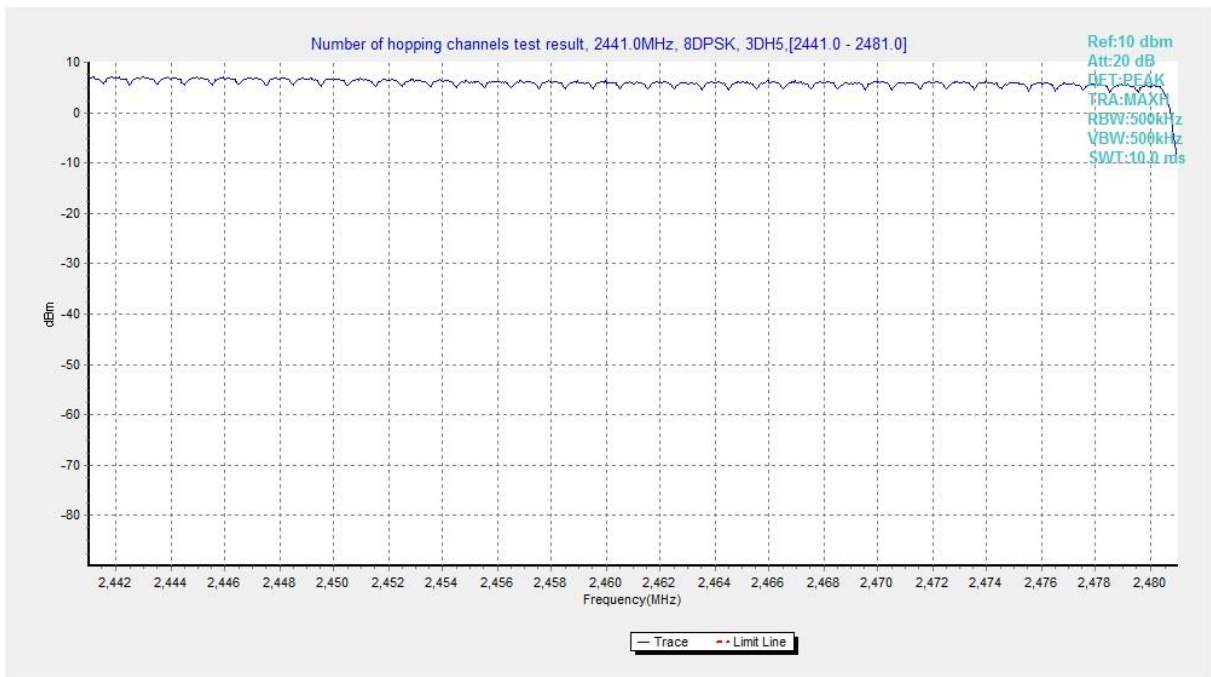


Fig. 80 Hopping channel ch39~78 (8DPSK, Ch39)

### A.8 Carrier Frequency Separation

**Measurement Limit:**

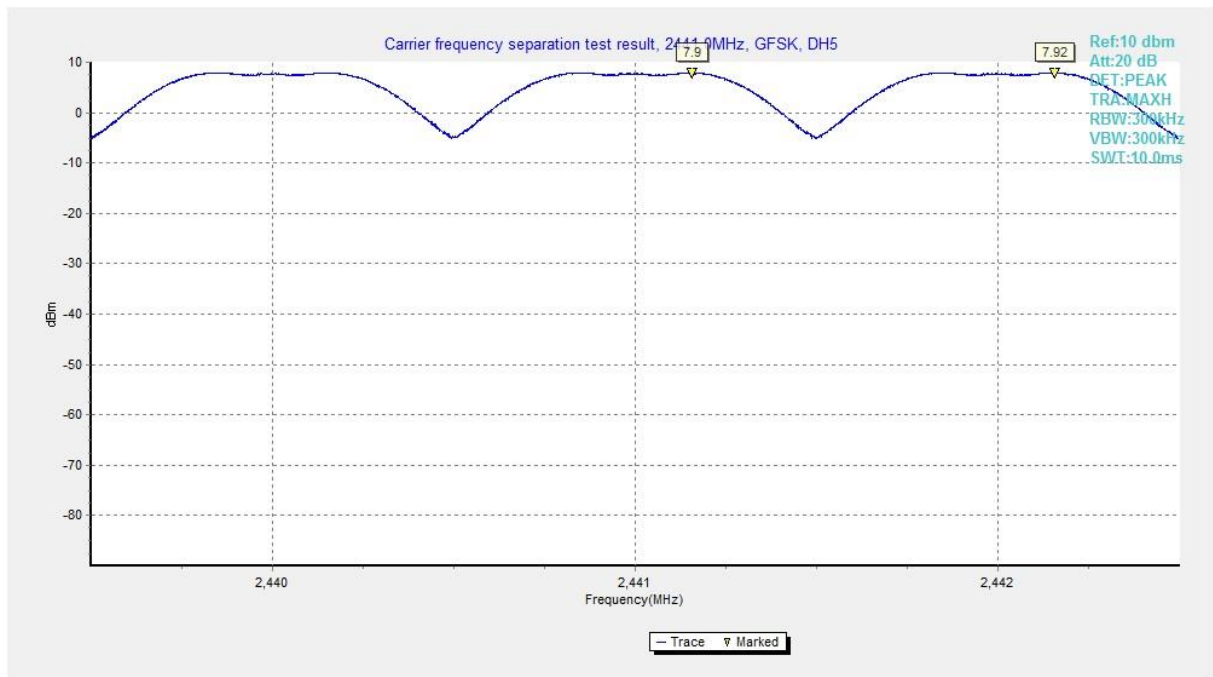
Standard	Limit
FCC 47 CFR Part 15.247(a) & RSS-247 Section 5.1	By a minimum of 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater

**Measurement Results:**

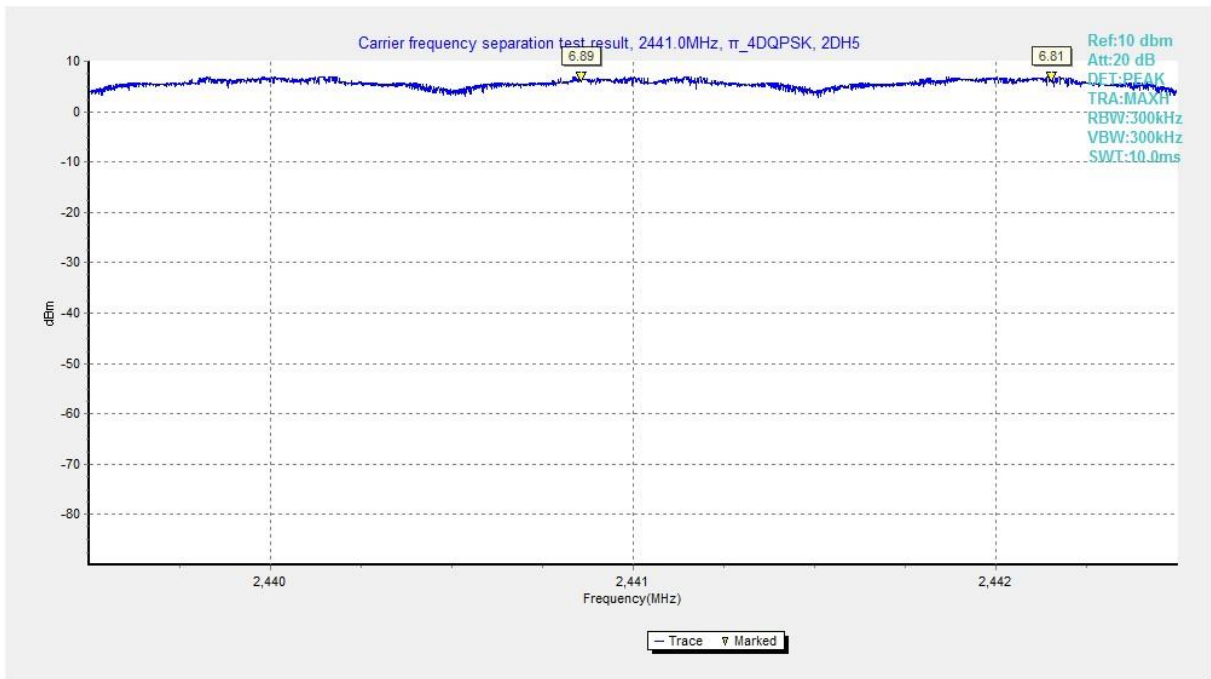
Mode	Channel	Packet	Separation of hopping channels	Test result (kHz)	Conclusion
GFSK	39	DH5	Fig.81	996.75	<b>P</b>
$\pi/4$ DQPSK	39	2-DH5	Fig.82	1296.75	<b>P</b>
8DPSK	39	3-DH5	Fig.83	1306.50	<b>P</b>

See below for test graphs.

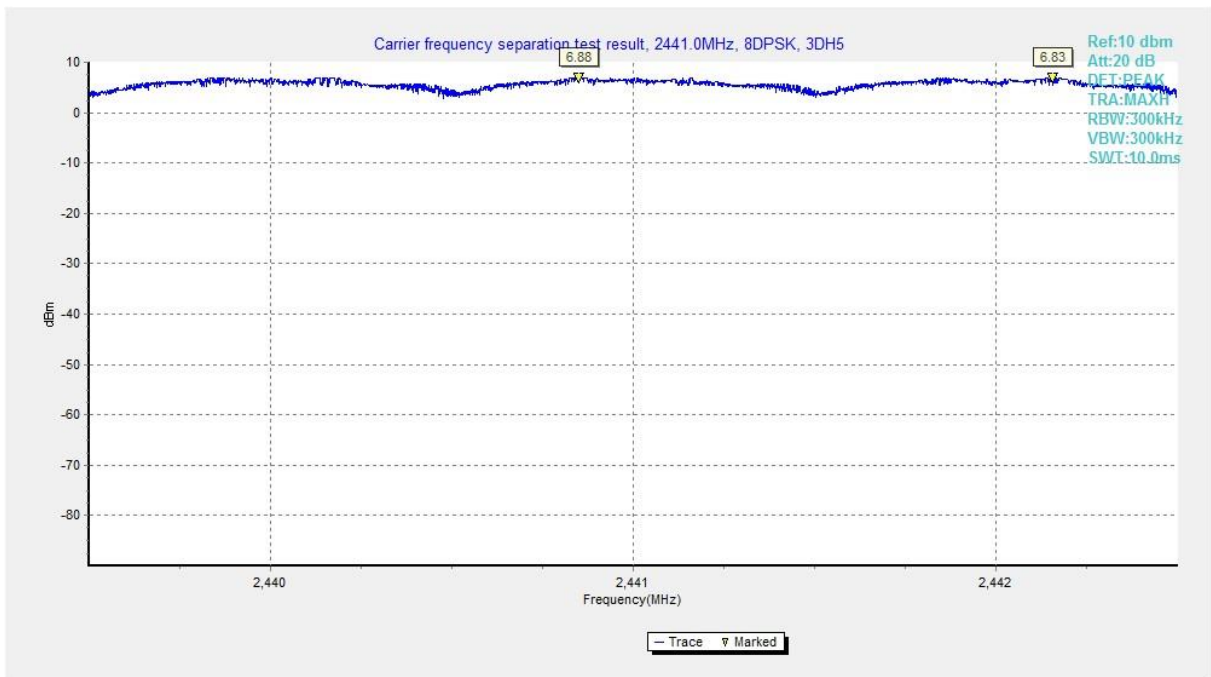
**Conclusion: Pass**



**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 (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		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)

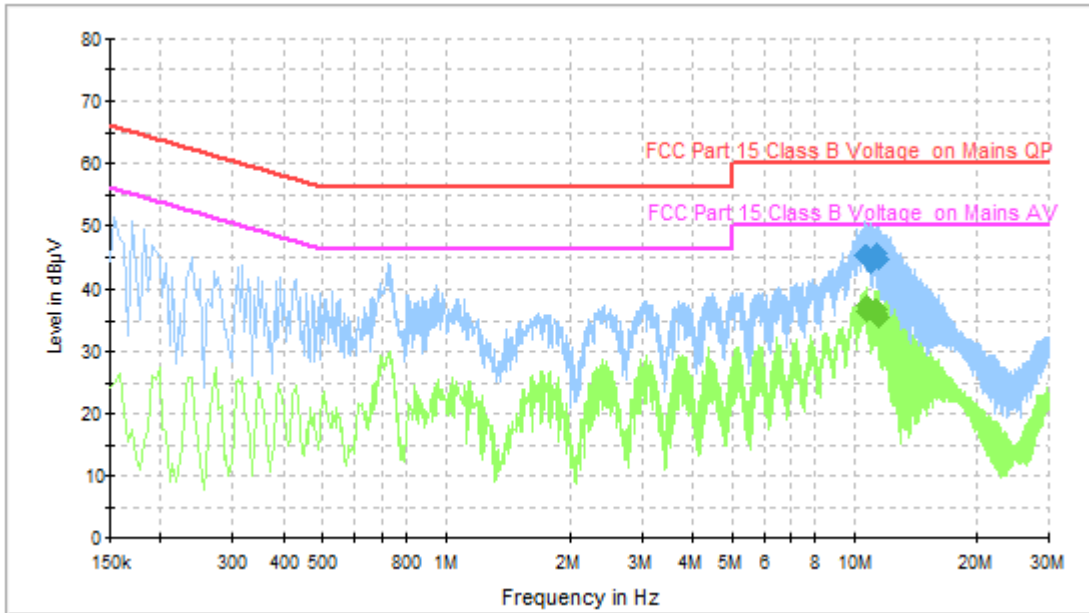
Frequency range (MHz)	Average-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.84	Fig.85	P
0.5 to 5	46			
5 to 30	50			

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**



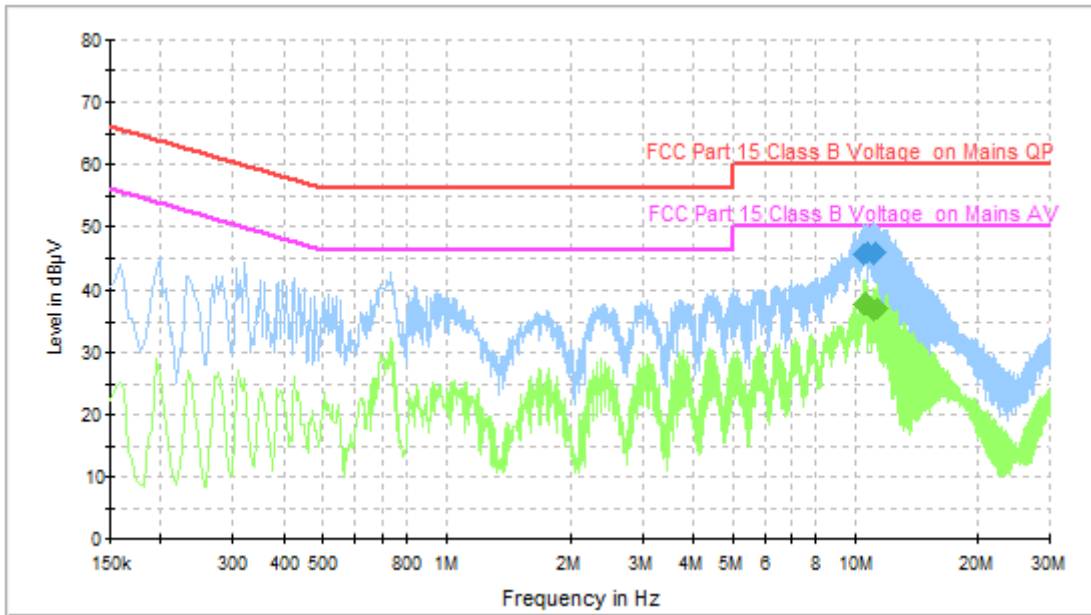
**Fig. 84 AC Powerline Conducted Emission (Traffic)**

**Measurement Results: Quasi Peak**

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
10.586000	45.1	60.0	15.0	N	9.8
10.730000	45.3	60.0	14.7	N	9.8
10.914000	44.4	60.0	15.6	N	9.9
10.990000	44.2	60.0	15.8	N	9.8
11.298000	45.4	60.0	14.6	N	9.9
11.518000	44.4	60.0	15.6	N	9.9

**Measurement Results: Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
10.662000	37.6	50.0	12.4	N	9.8
10.746000	36.6	50.0	13.4	N	9.8
11.266000	36.6	50.0	13.4	N	9.9
11.282000	36.7	50.0	13.3	N	9.9
11.350000	36.1	50.0	13.9	N	9.9
11.442000	35.5	50.0	14.5	N	9.9



**Fig. 85 AC Power line Conducted Emission (Idle)**

**Measurement Results: Quasi Peak**

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
10.482000	45.4	60.0	14.6	N	9.8
10.658000	45.9	60.0	14.1	N	9.8
10.682000	45.9	60.0	14.1	N	9.8
10.750000	45.7	60.0	14.3	N	9.8
11.090000	45.3	60.0	14.7	N	9.9
11.218000	45.8	60.0	14.2	N	9.9

**Measurement Results: Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
10.482000	37.7	50.0	12.3	N	9.8
10.574000	38.1	50.0	11.9	N	9.8
10.582000	37.8	50.0	12.2	N	9.8
11.094000	36.7	50.0	13.3	N	9.9
11.270000	37.1	50.0	12.9	N	9.9
11.278000	37.2	50.0	12.8	N	9.9

### A.10 Occupied Bandwidth

**Measurement Limit:**

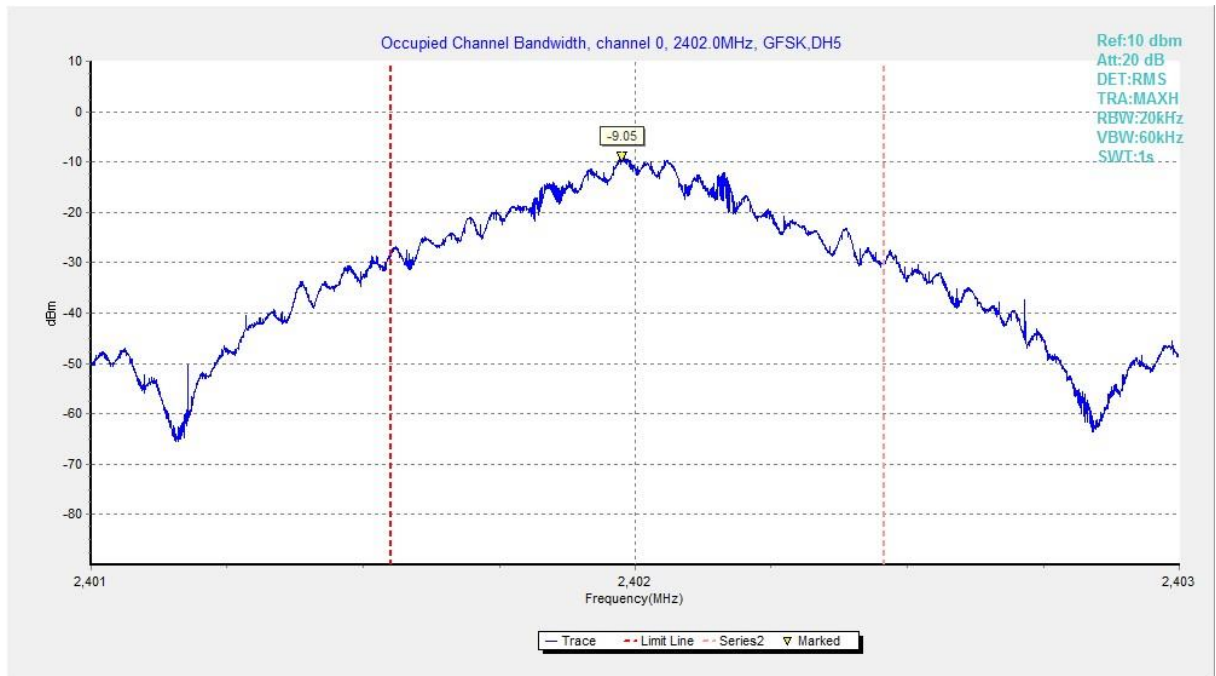
Standard	Limit
RSS-Gen section 6.7	/

**Measurement Result:**

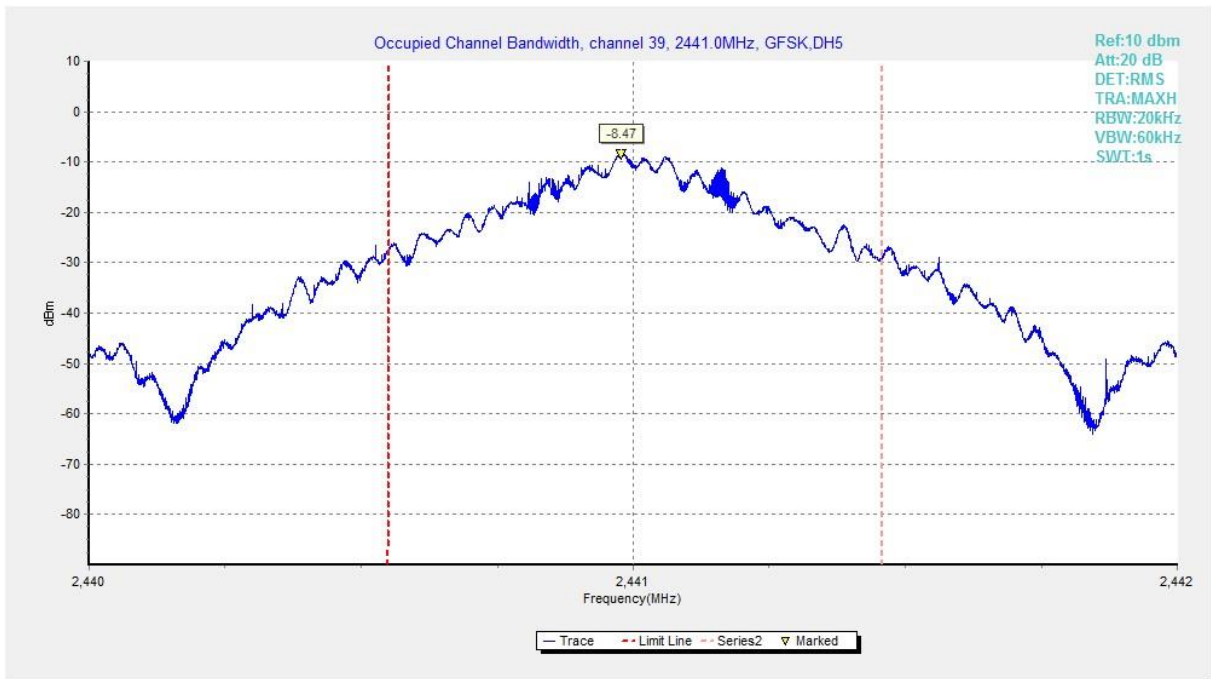
Mode	Channel	Occupied Bandwidth (kHz)	conclusion
GFSK	0	Fig.86	/
	39	Fig.87	
	78	Fig.88	
$\pi/4$ DQPSK	0	Fig.89	/
	39	Fig.90	
	78	Fig.91	
8DPSK	0	Fig.92	/
	39	Fig.93	
	78	Fig.94	

See below for test graphs.

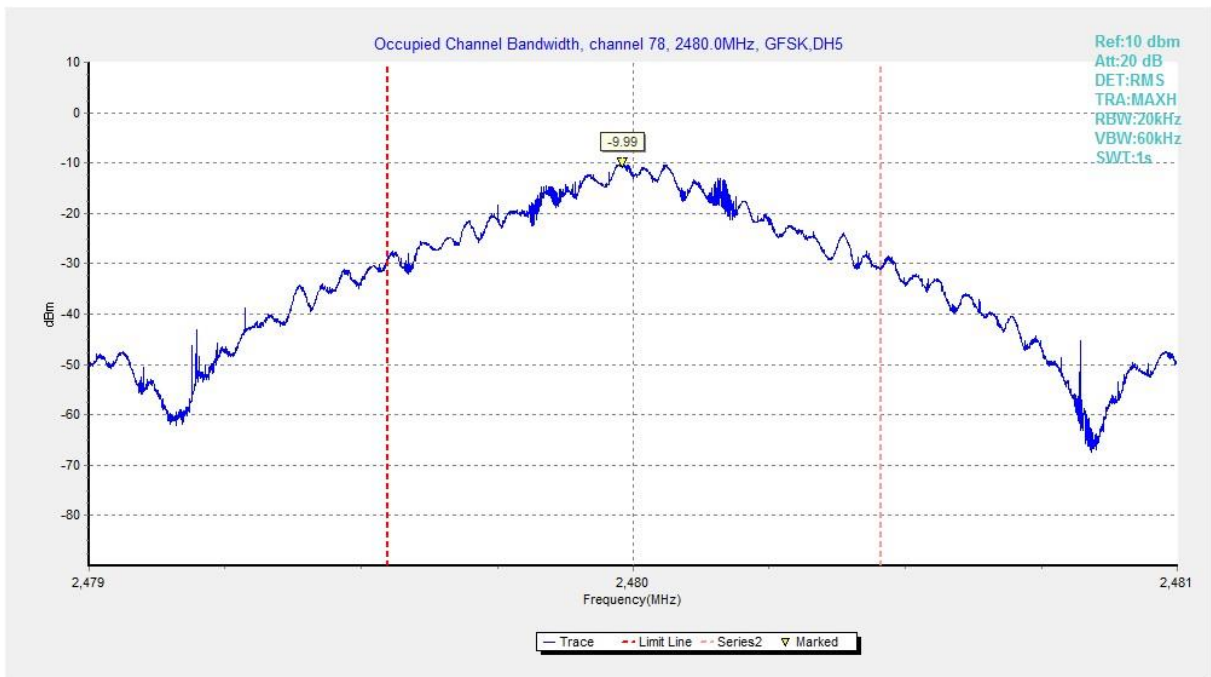
**Conclusion: Pass**



**Fig. 86 Occupied Bandwidth (GFSK, Ch 0)**

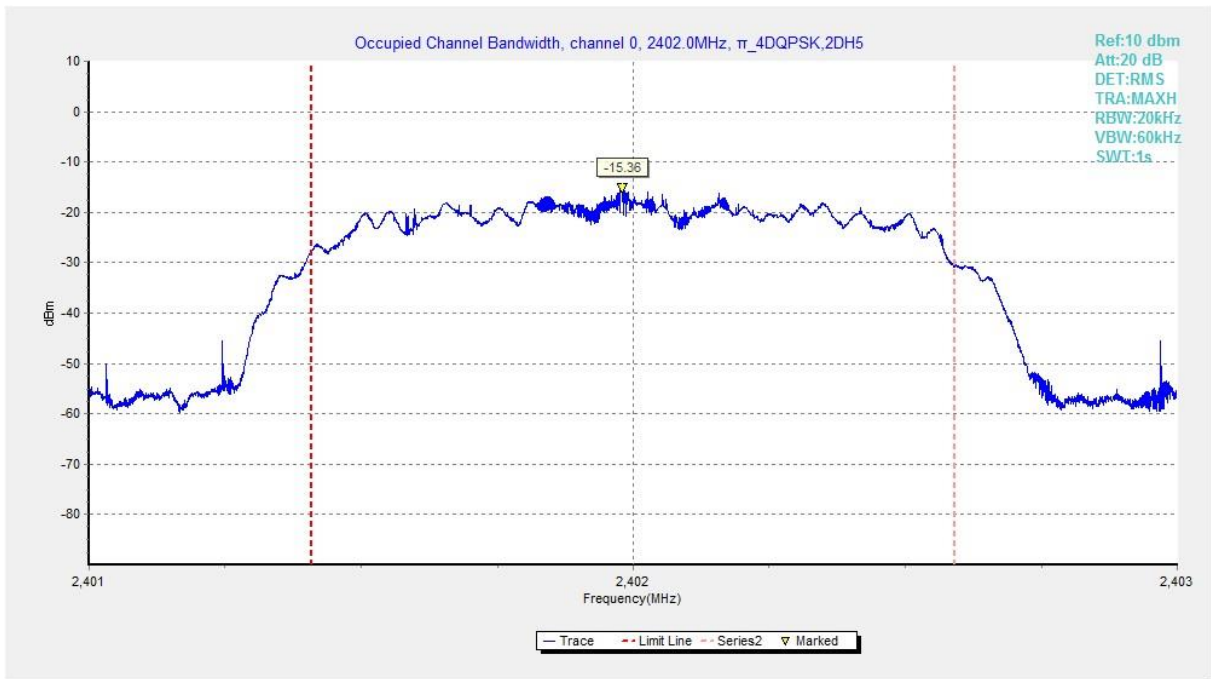


**Fig. 87 Occupied Bandwidth (GFSK, Ch 39)**

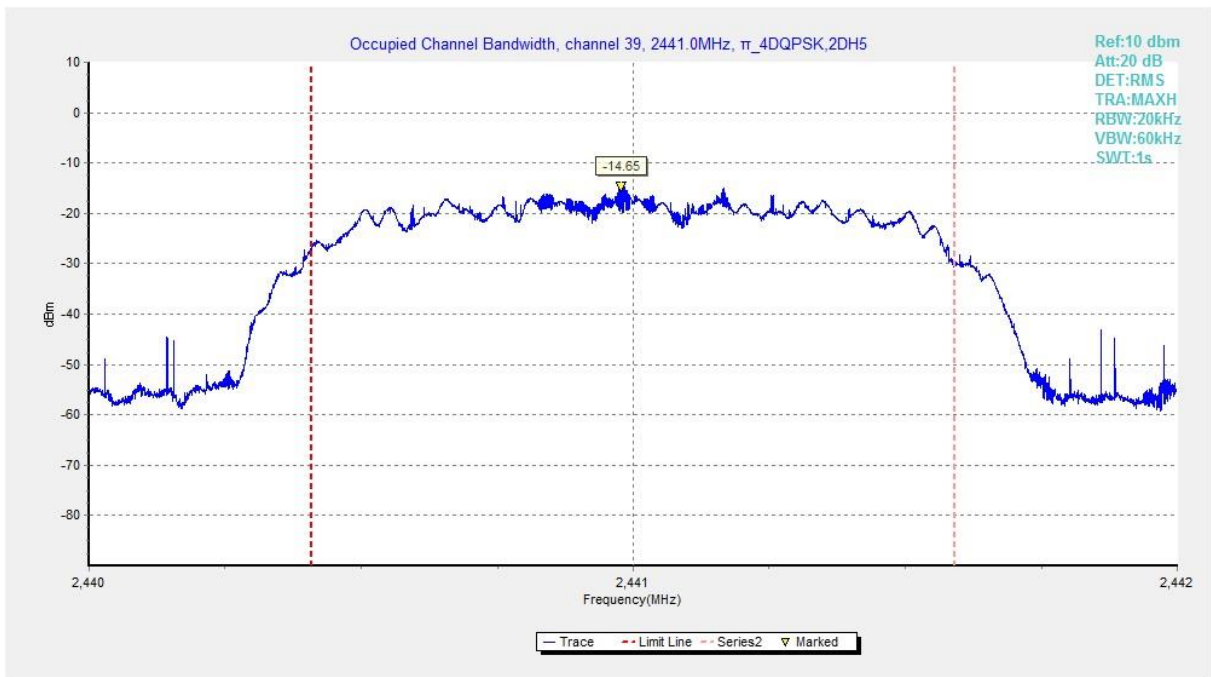


**Fig. 88 Occupied Bandwidth (GFSK, Ch 78)**

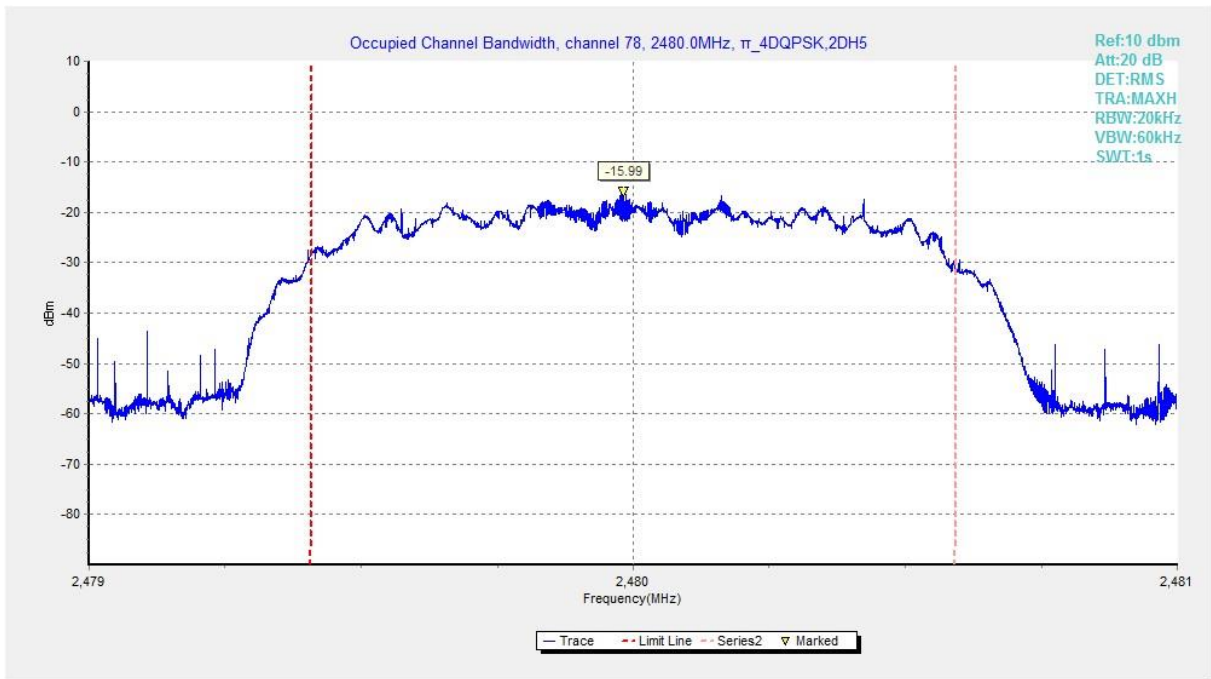




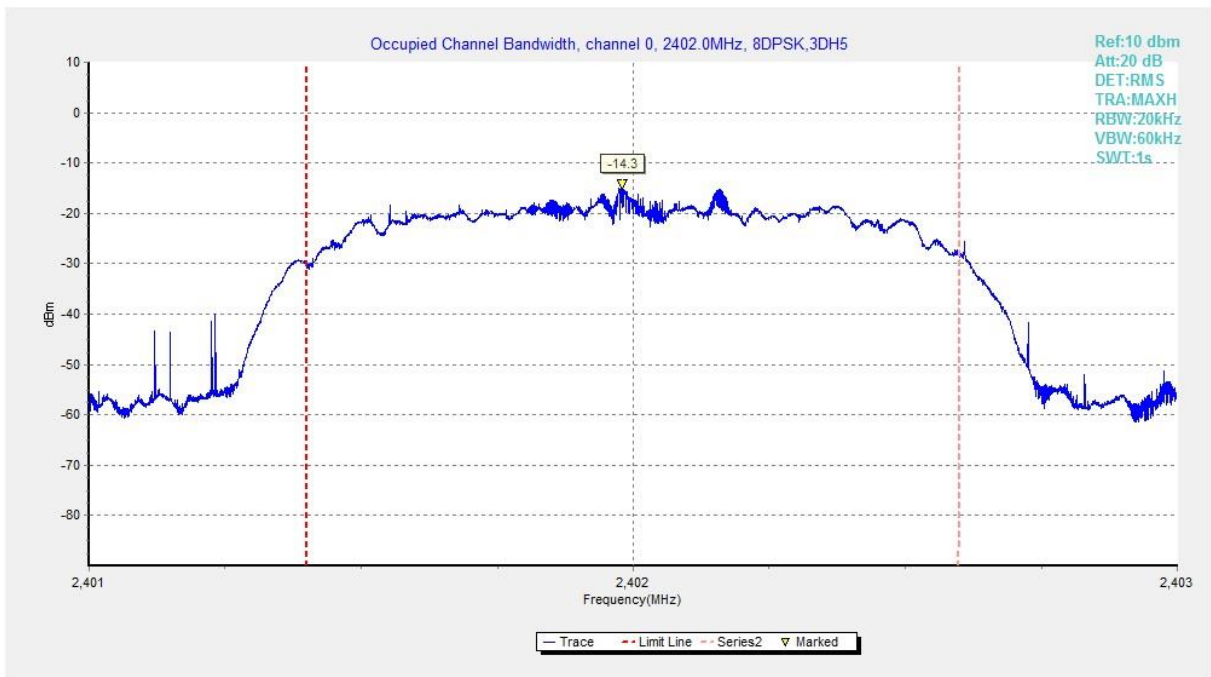
**Fig. 89 Occupied Bandwidth ( $\pi$ /4 DQPSK, Ch 0)**



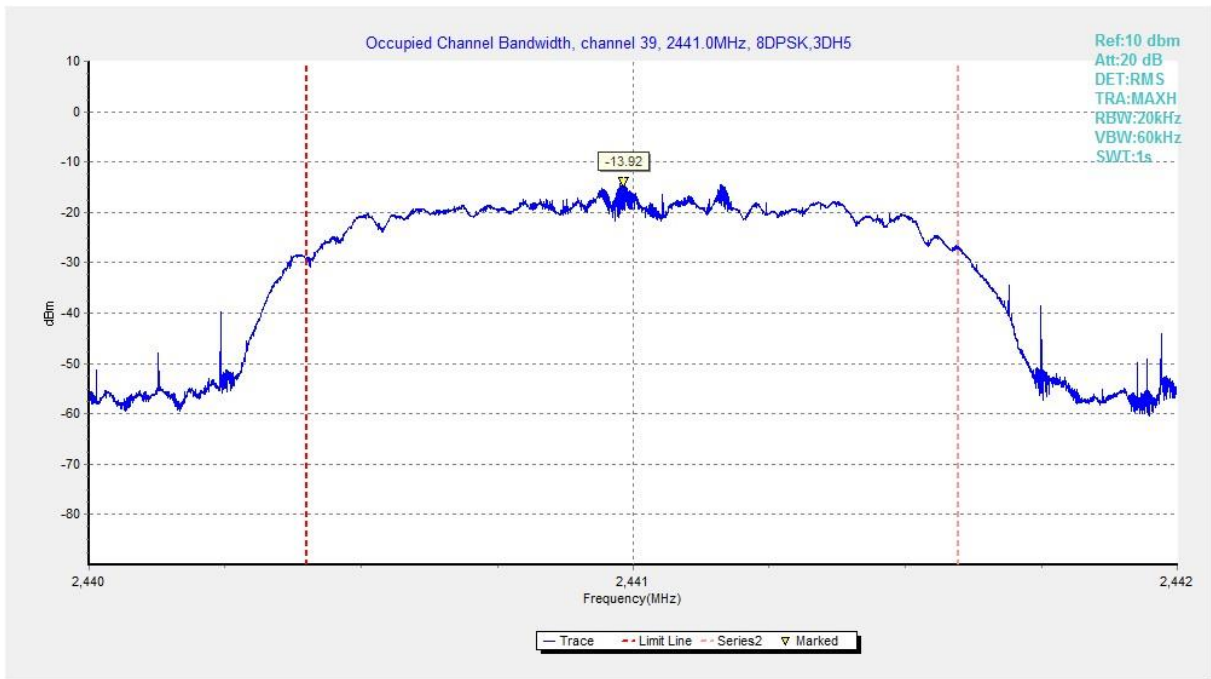
**Fig. 90 Occupied Bandwidth ( $\pi$ /4 DQPSK, Ch 39)**



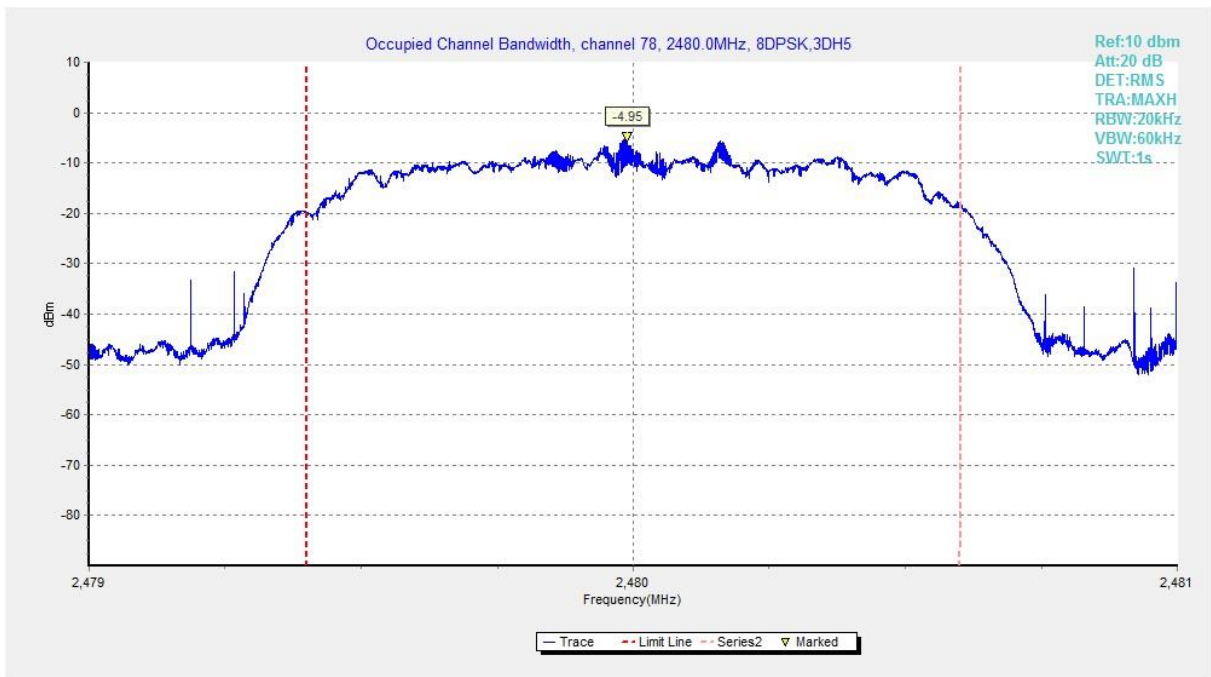
**Fig. 91 Occupied Bandwidth ( $\pi/4$  DQPSK, Ch 78)**



**Fig. 92 Occupied Bandwidth (8DPSK, Ch 0)**



**Fig. 93 Occupied Bandwidth (8DPSK, Ch 39)**



**Fig. 94 Occupied Bandwidth (8DPSK, Ch 78)**

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