

Fig. 59 Radiated Spurious Emission (All Channels, 18 GHz ~26.5 GHz)

## A.5 20dB Bandwidth

### Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a) & RSS-247 Section 5.1	/

### Measurement Result:

Mode	Channel	20dB Bandwidth ( kHz)		conclusion
GFSK	0	Fig.60	1032.75	/
	39	Fig.61	1031.25	
	78	Fig.62	1029.00	
$\pi/4$ DQPSK	0	Fig.63	1209.00	/
	39	Fig.64	1203.75	
	78	Fig.65	1184.25	
8DPSK	0	Fig.66	1243.50	/
	39	Fig.67	1245.00	
	78	Fig.68	1245.00	

See below for test graphs.

Conclusion: PASS

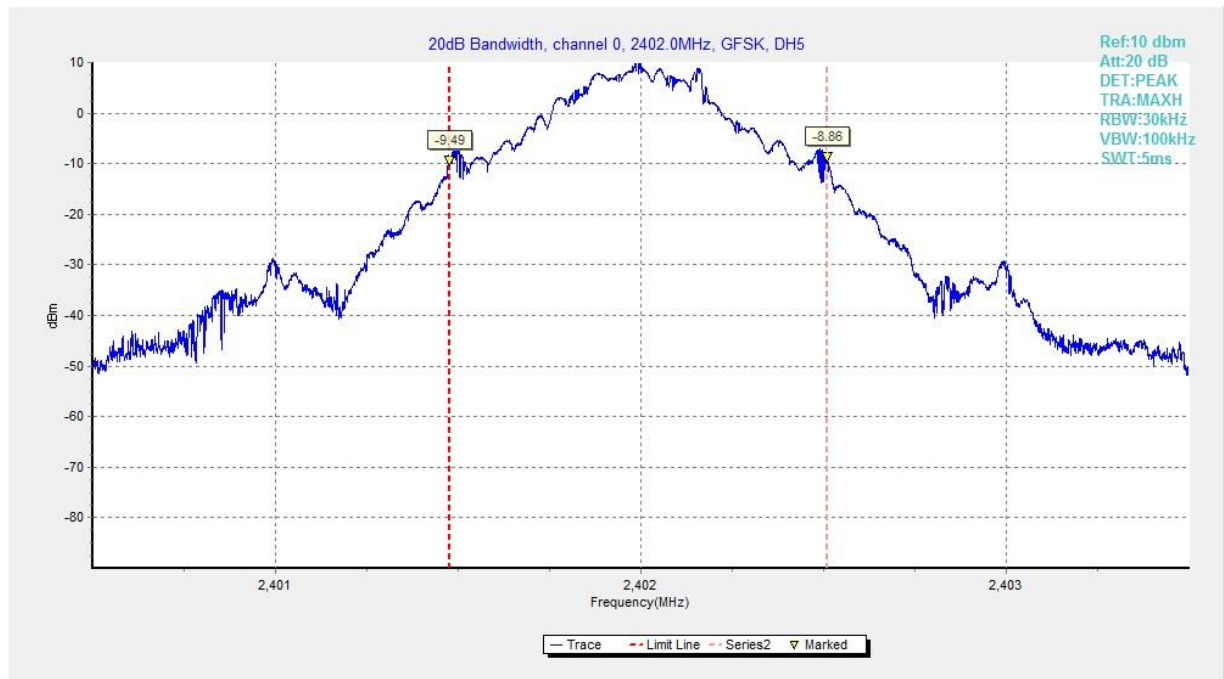


Fig. 60 20dB Bandwidth (GFSK, Ch 0)

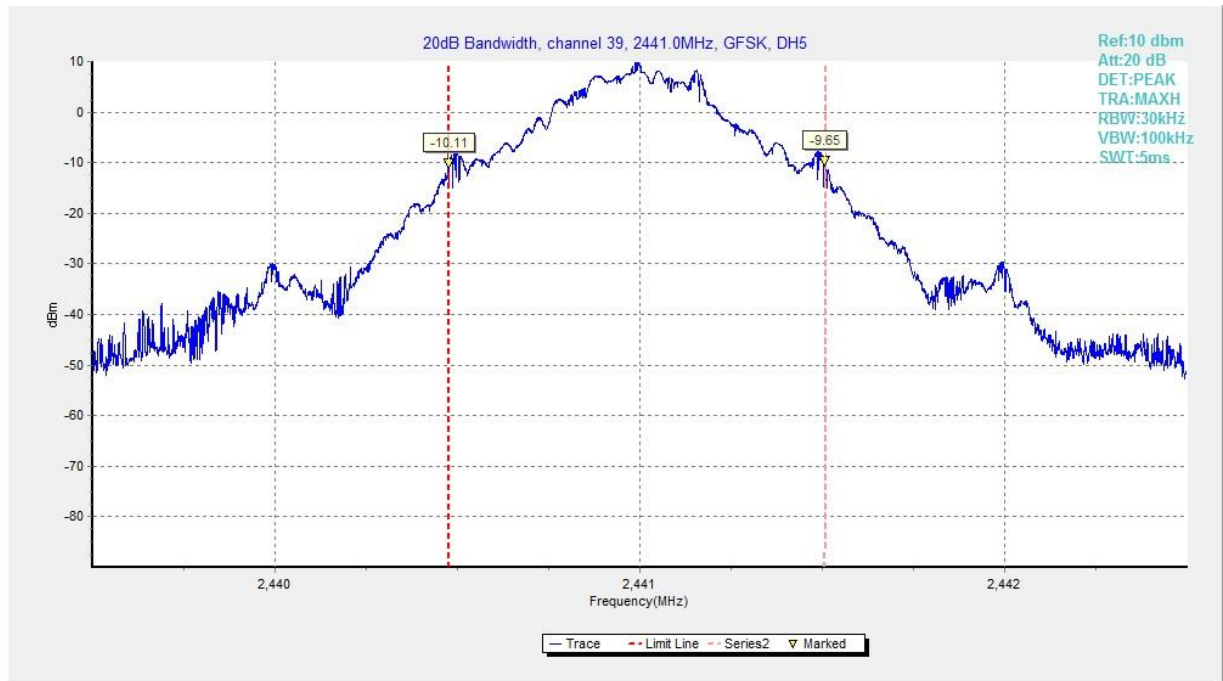


Fig. 61 20dB Bandwidth (GFSK, Ch 39)

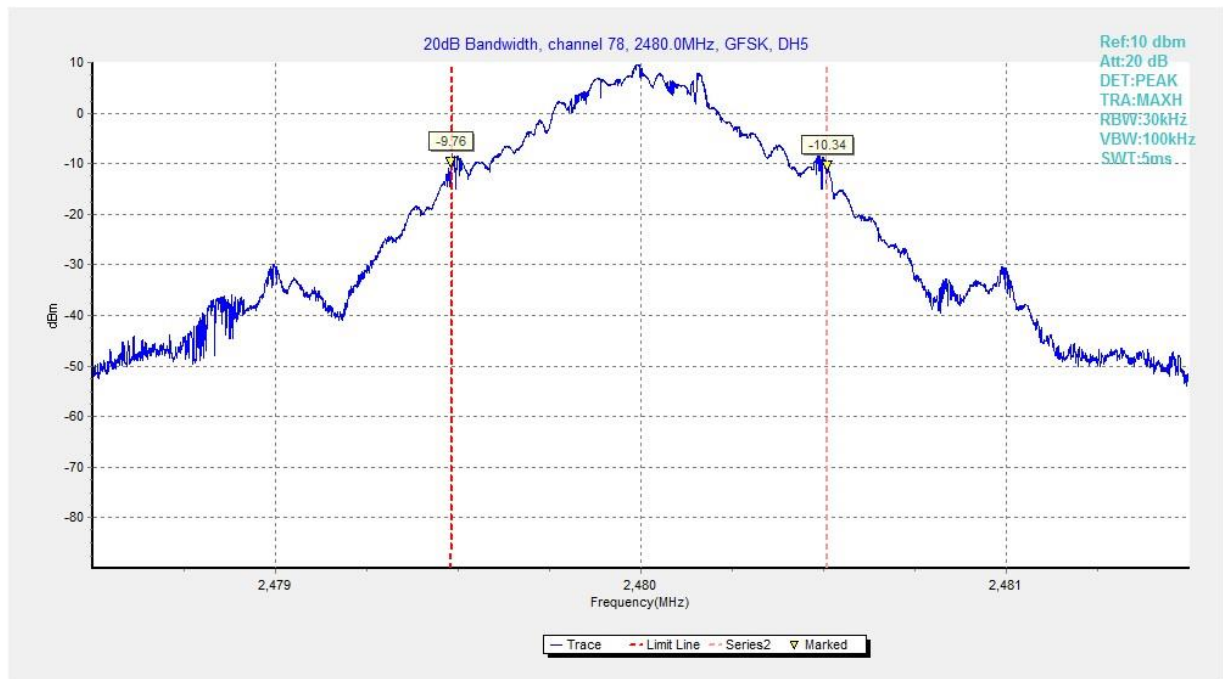


Fig. 62 20dB Bandwidth (GFSK, Ch 78)

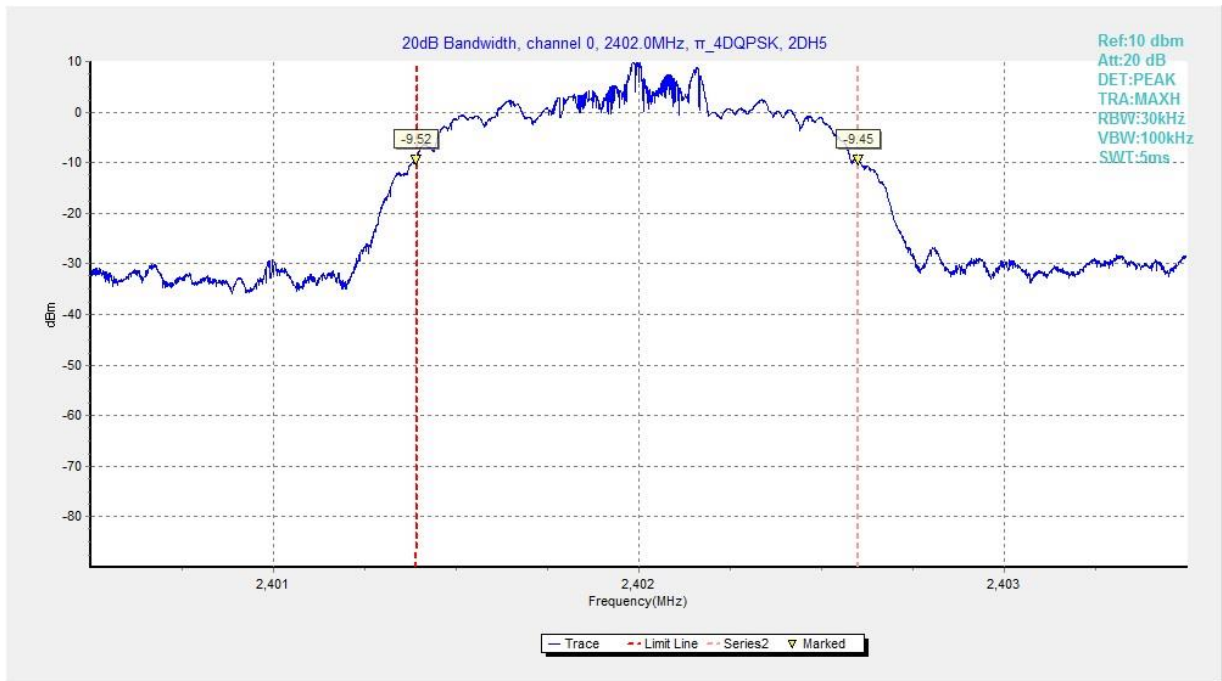


Fig. 63 20dB Bandwidth ( $\pi$ /4 DQPSK, Ch 0)

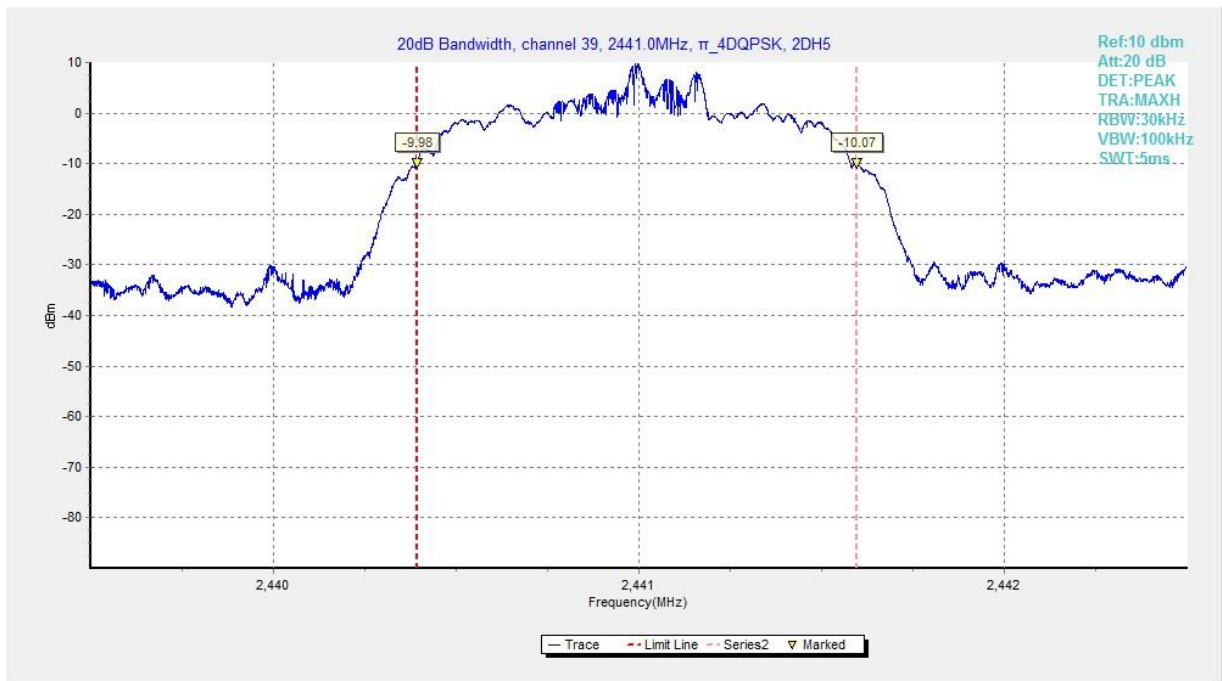


Fig. 64 20dB Bandwidth ( $\pi$ /4 DQPSK, Ch 39)

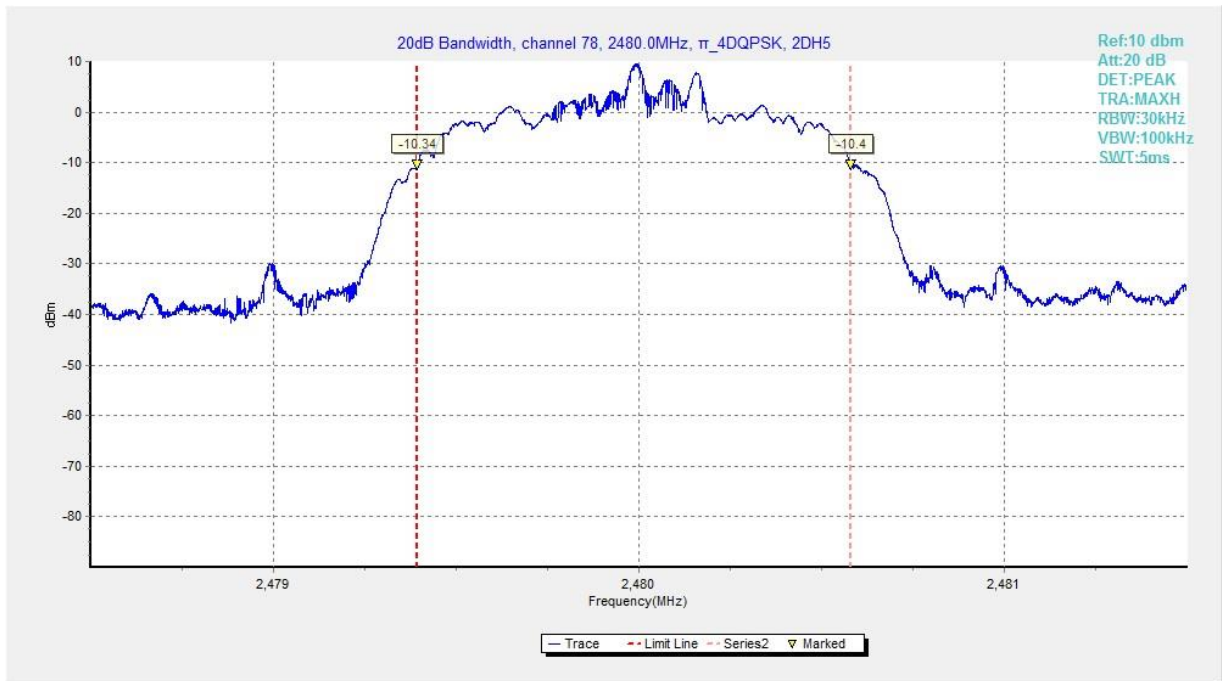


Fig. 65 20dB Bandwidth ( $\pi/4$  DQPSK, Ch 78)

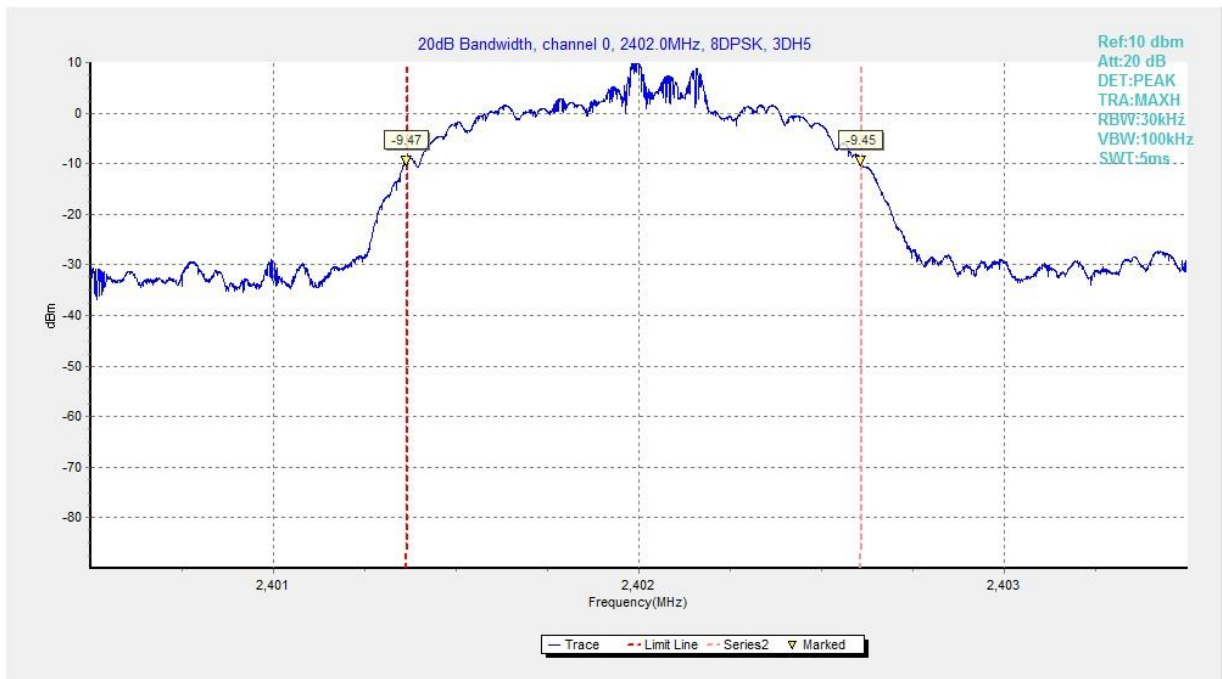


Fig. 66 20dB Bandwidth (8DPSK, Ch 0)

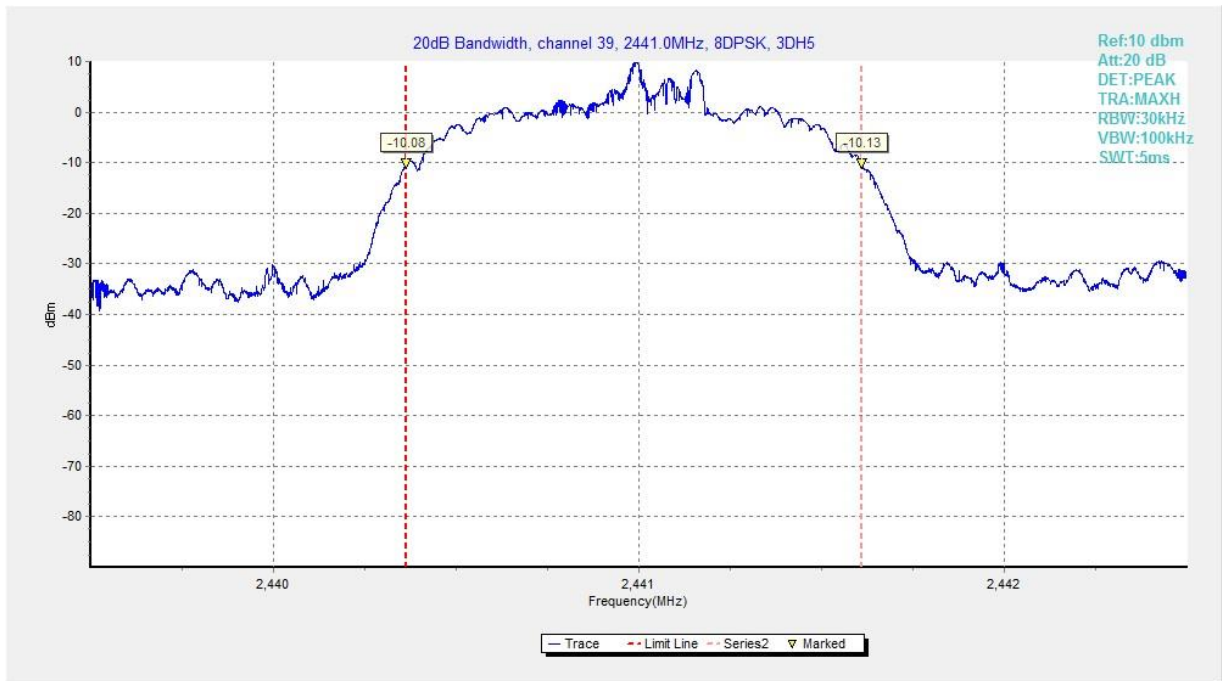


Fig. 67 20dB Bandwidth (8DPSK, Ch 39)

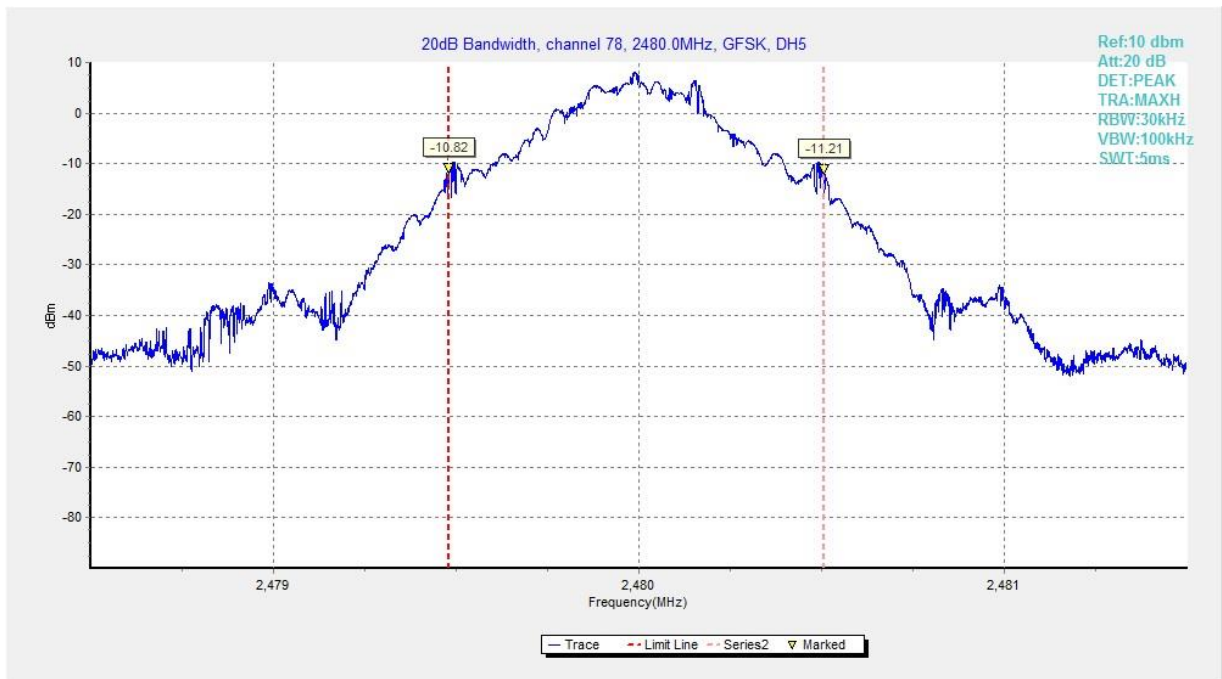


Fig. 68 20dB Bandwidth (8DPSK, Ch 78)

## A.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	313.11	<b>P</b>
			Fig.70		
$\pi/4$ DQPSK	39	2-DH5	Fig.71	273.33	<b>P</b>
			Fig.72		
8DPSK	39	3-DH5	Fig.73	251.30	<b>P</b>
			Fig.74		

See below for test graphs.

**Conclusion: Pass**



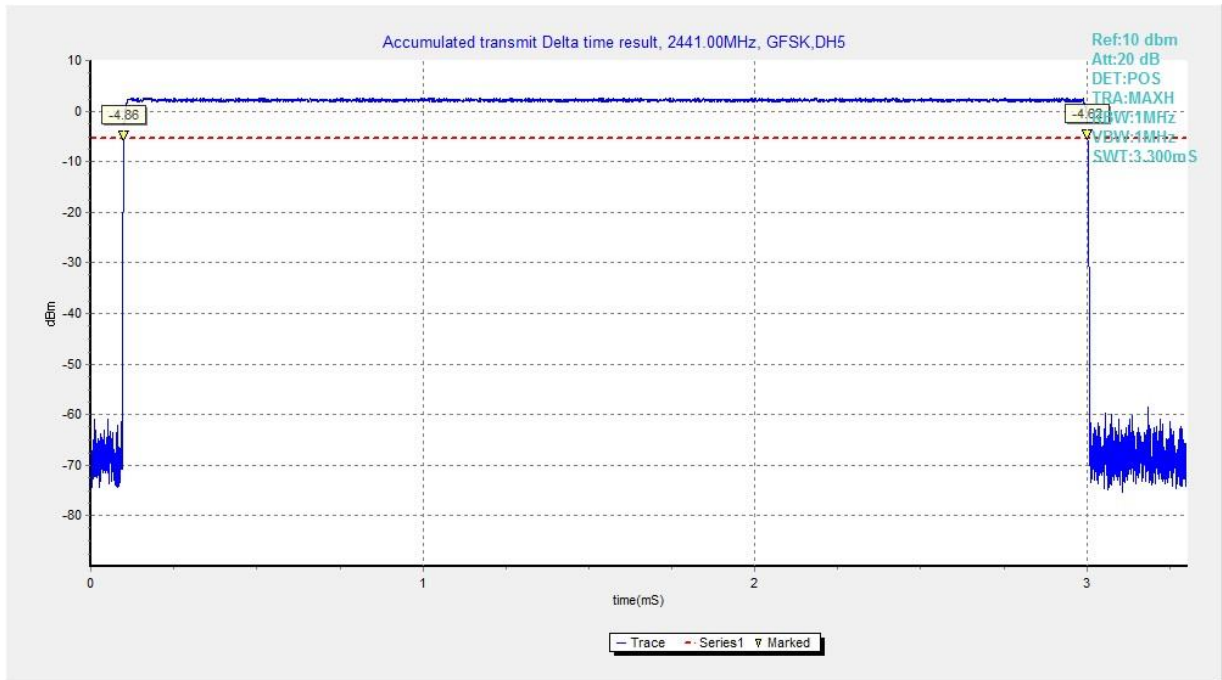


Fig. 69 Time of Occupancy(Dwell Time) (GFSK, Ch39)

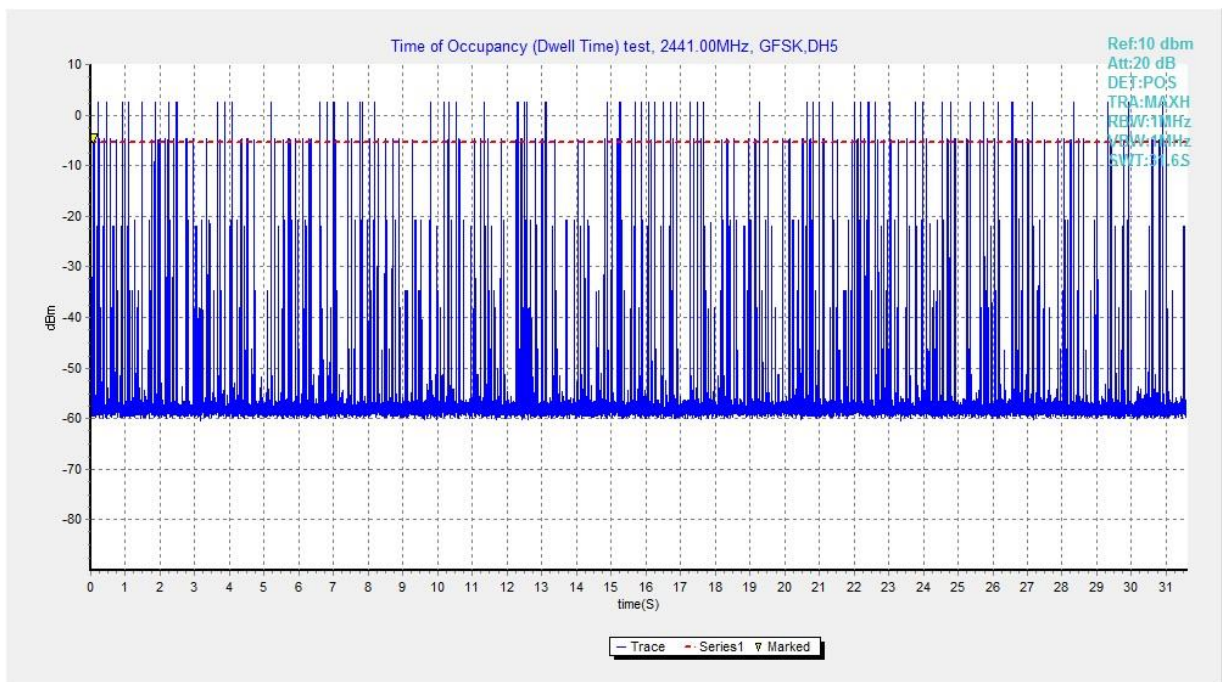


Fig. 70 Time of Occupancy(Dwell Time) (GFSK, Ch39)



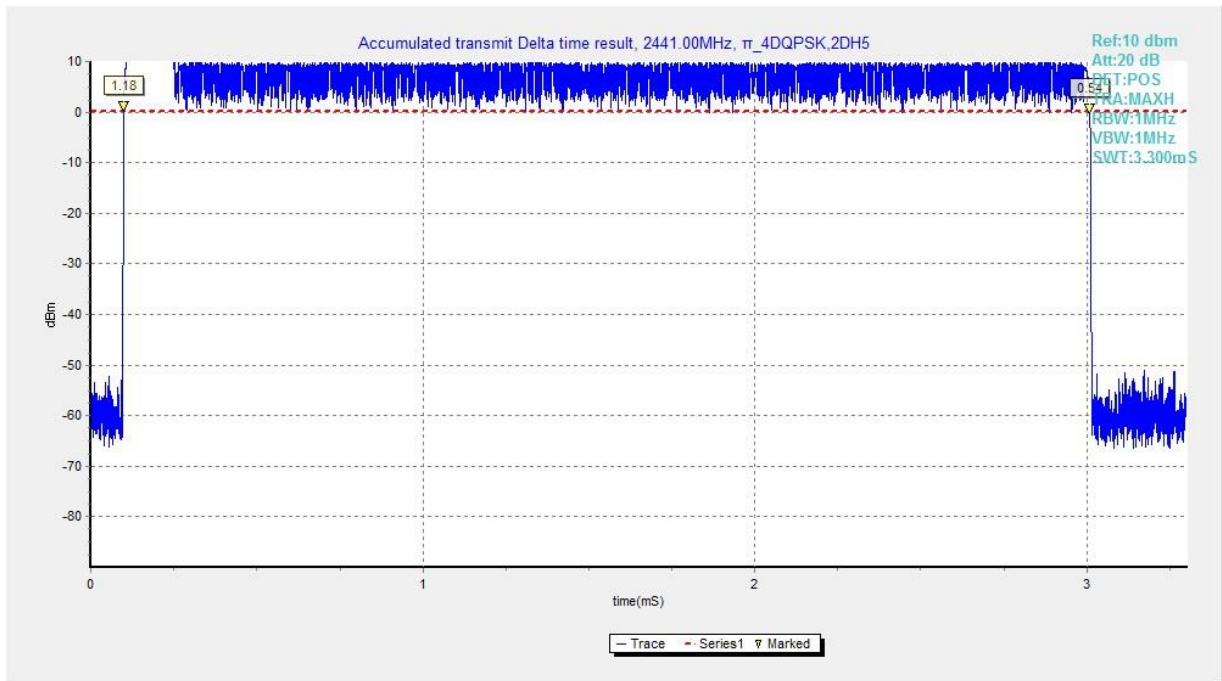


Fig. 71 Time of Occupancy(Dwell Time) ( $\pi_4$  DQPSK, Ch39)

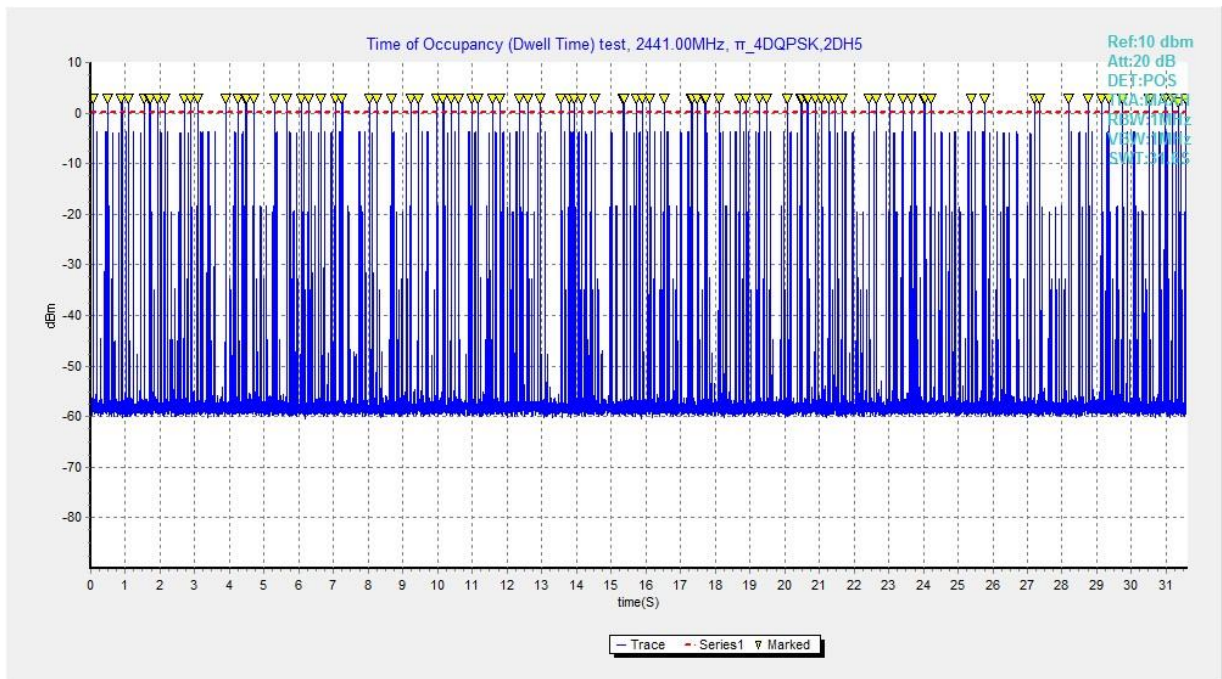


Fig. 72 Time of Occupancy(Dwell Time) ( $\pi_4$  DQPSK, Ch39)

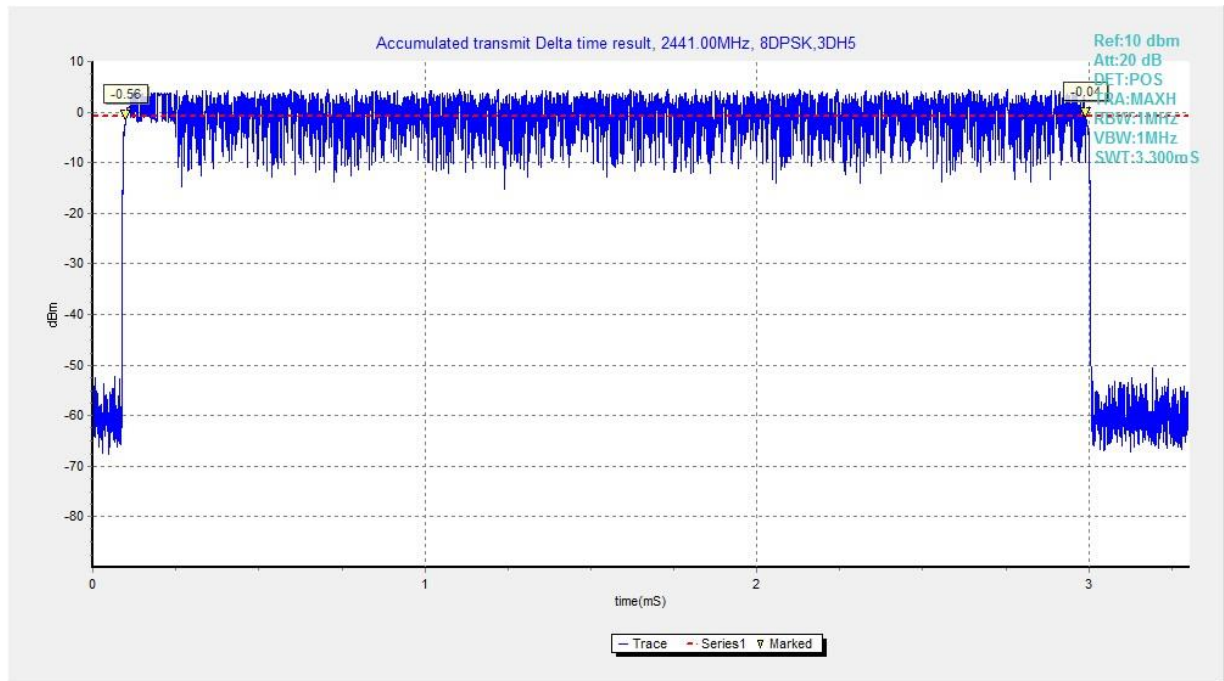


Fig. 73 Time of Occupancy(Dwell Time) (8DPSK, Ch39)

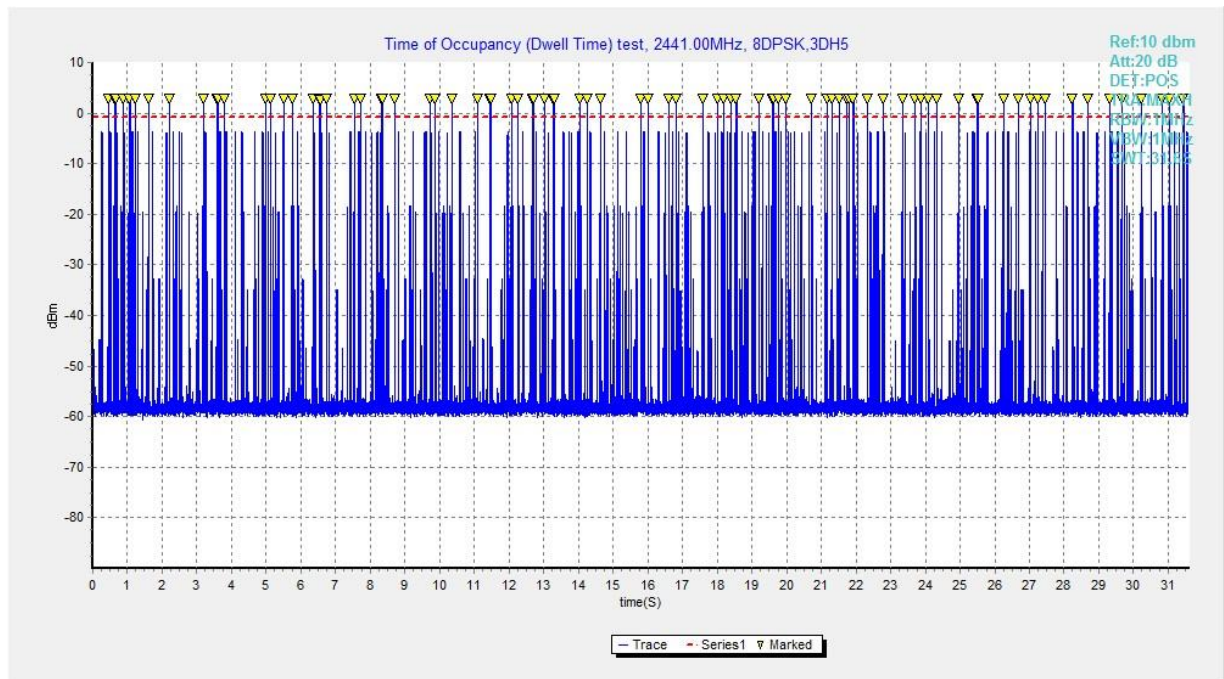


Fig. 74 Time of Occupancy(Dwell Time) (8DPSK, Ch39)

## 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**

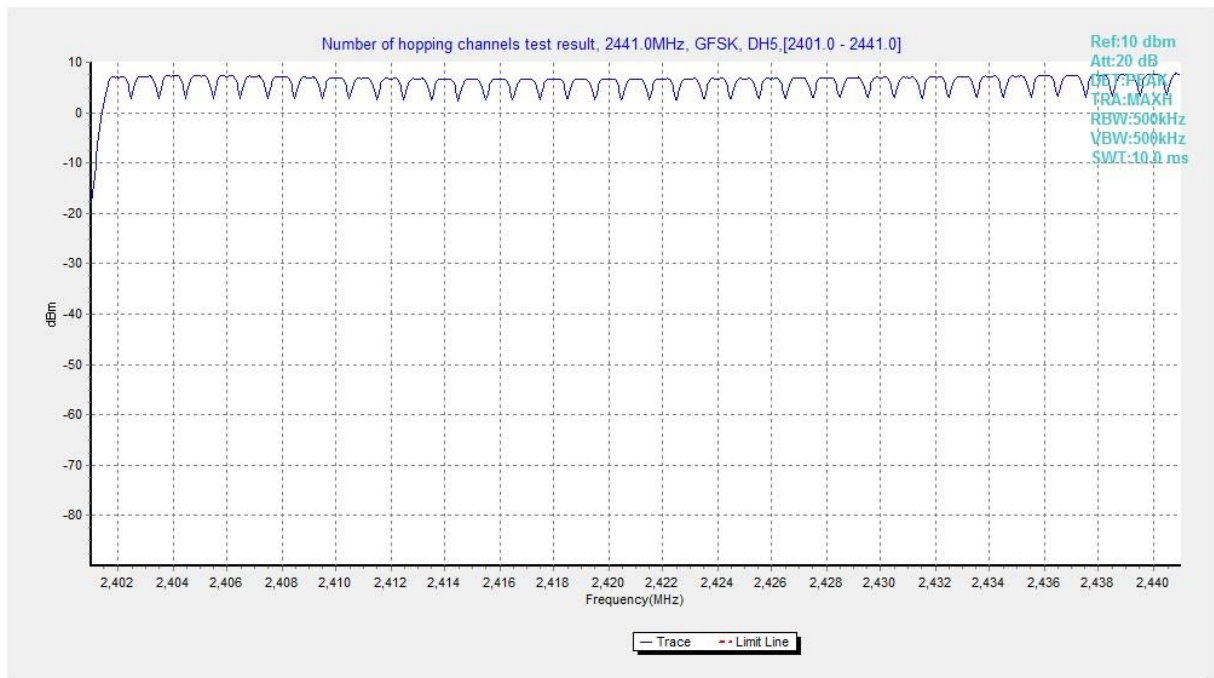


Fig. 75 Hopping channel ch0~39 (GFSK, Ch39)

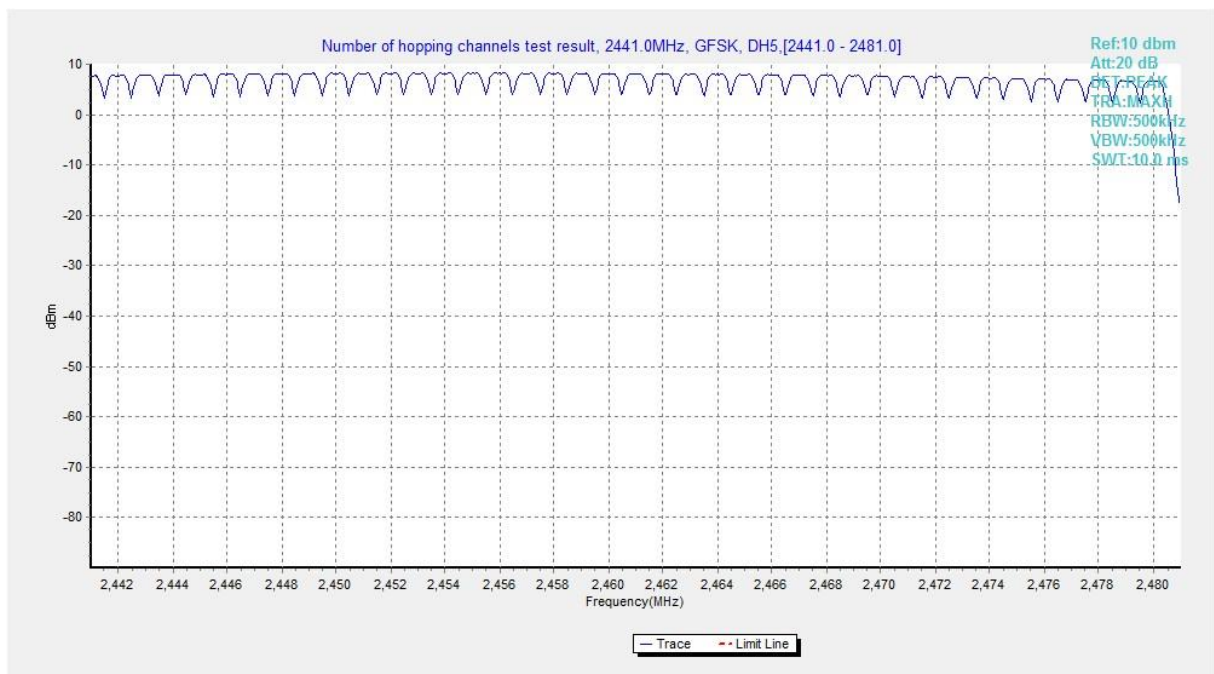


Fig. 76 Hopping channel ch39~78 (GFSK, Ch39)



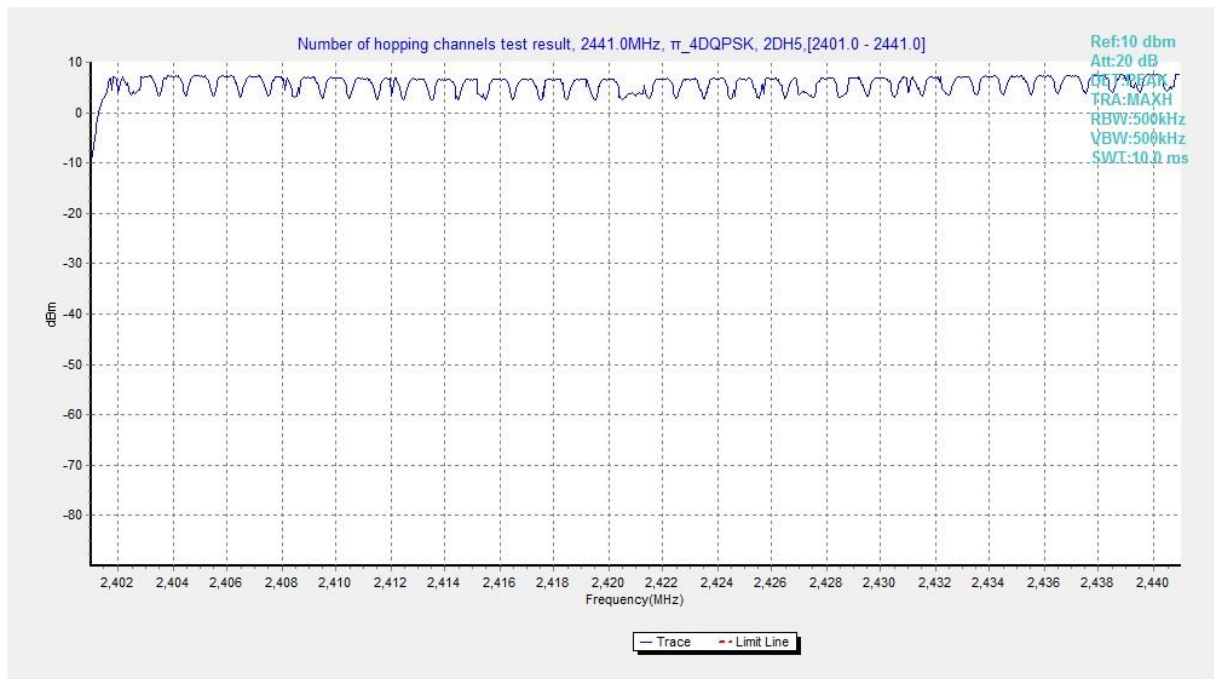


Fig. 77 Hopping channel ch0~39 ( $\pi/4$  DQPSK, Ch39)

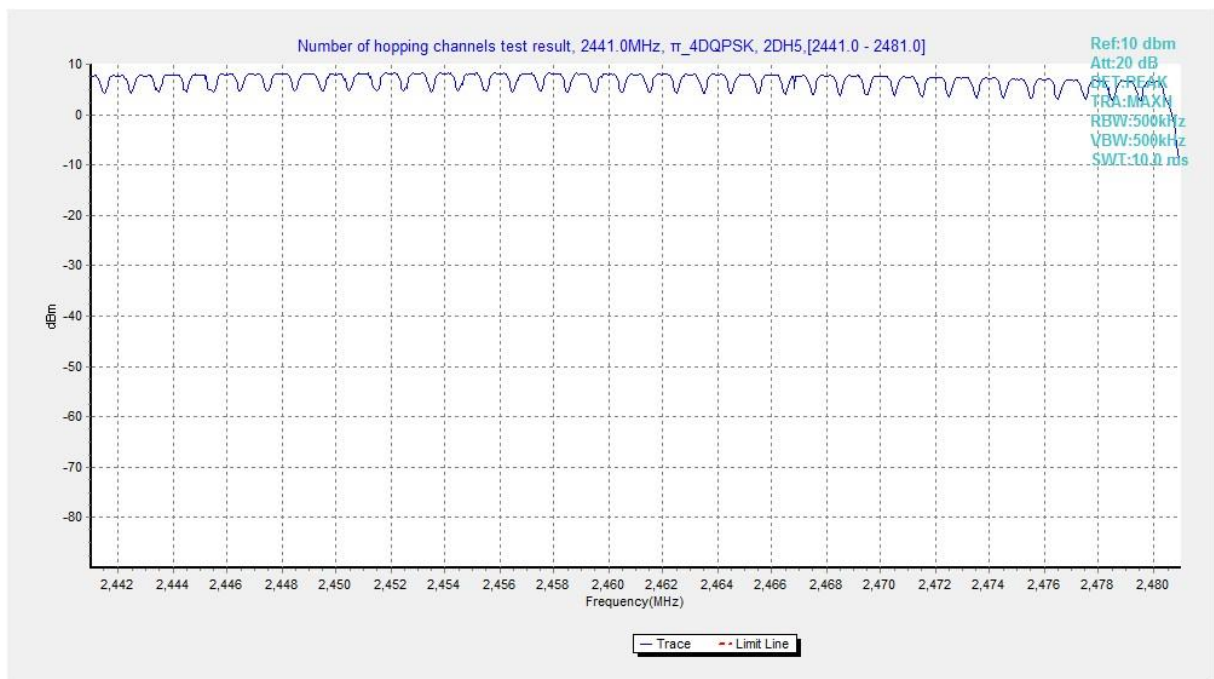
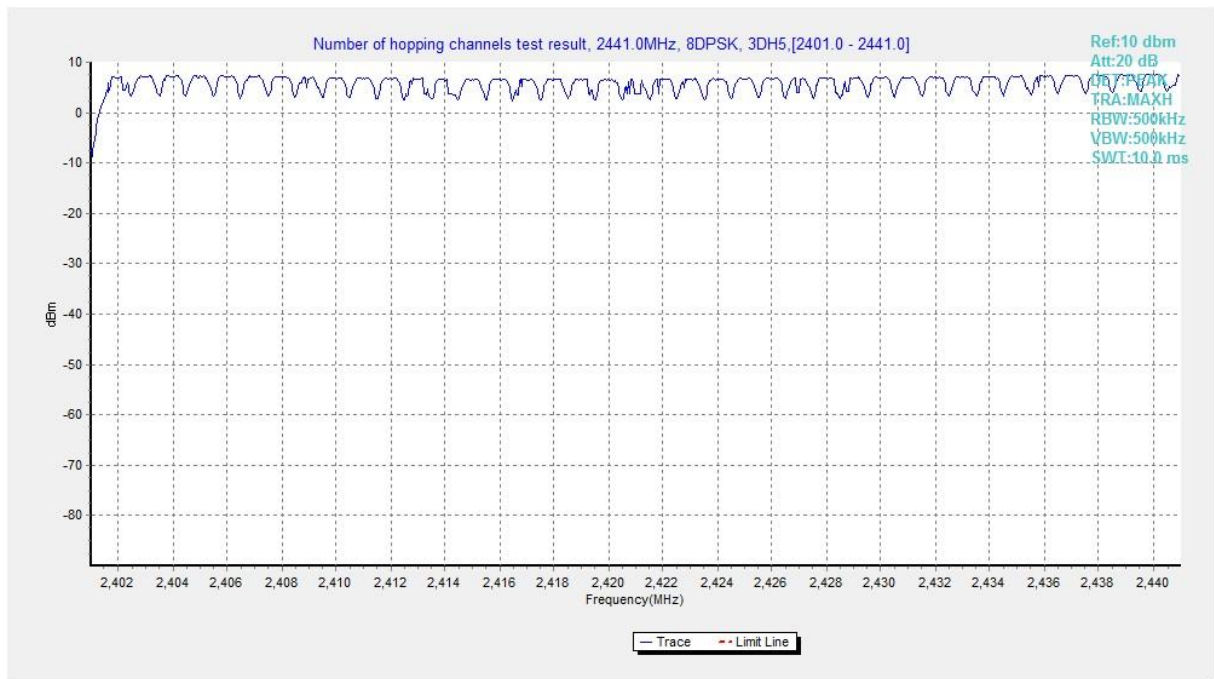
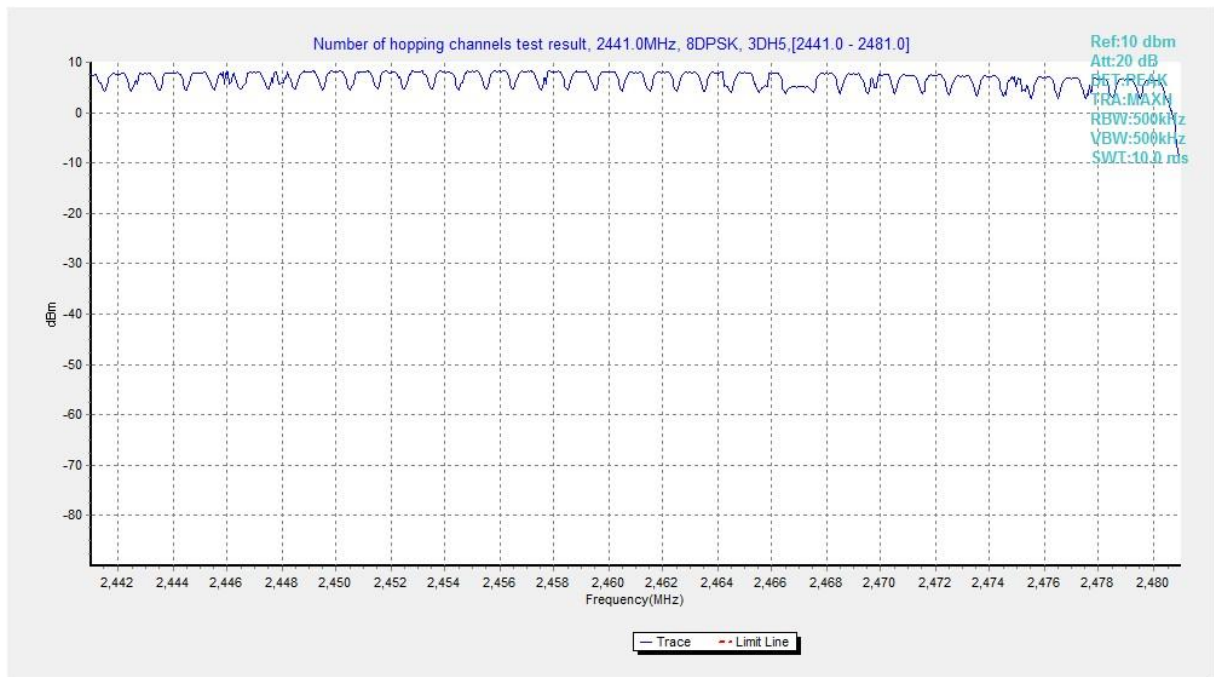


Fig. 78 Hopping channel ch39~78 ( $\pi/4$  DQPSK, Ch39)



**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	1010.50	<b>P</b>
$\pi/4$ DQPSK	39	2-DH5	Fig.82	1010.25	<b>P</b>
8DPSK	39	3-DH5	Fig.83	1190.50	<b>P</b>

See below for test graphs.

Conclusion: Pass

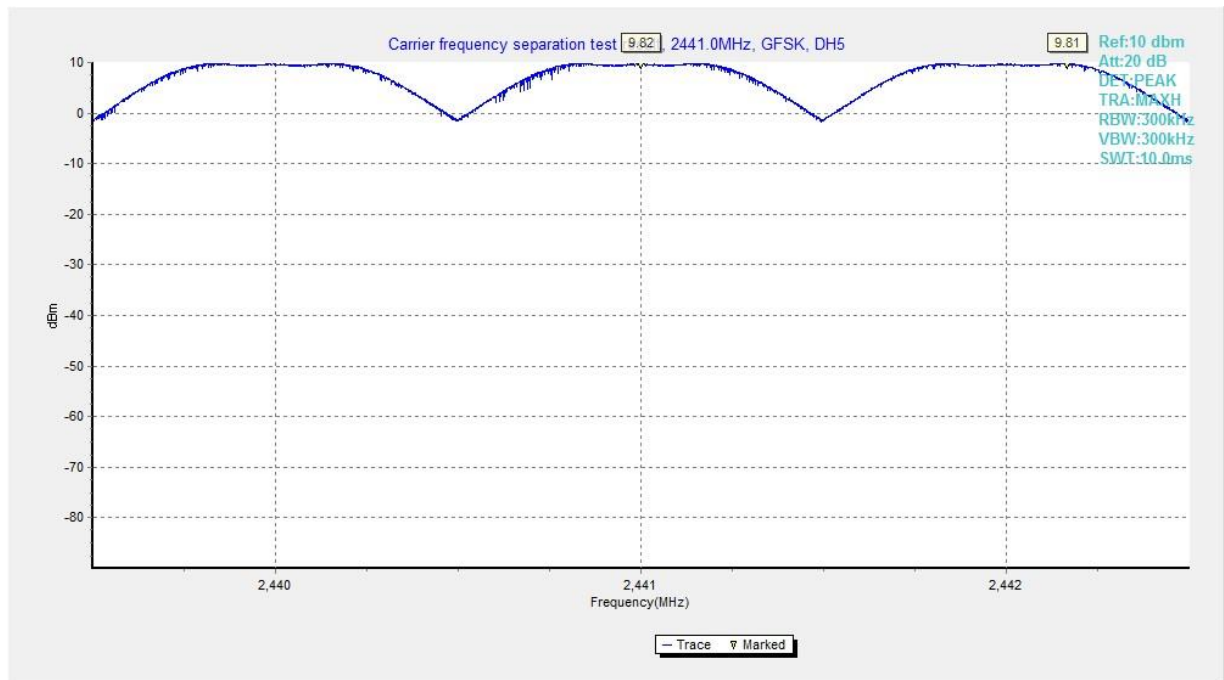


Fig. 81 Carrier Frequency Separation (GFSK, Ch39)

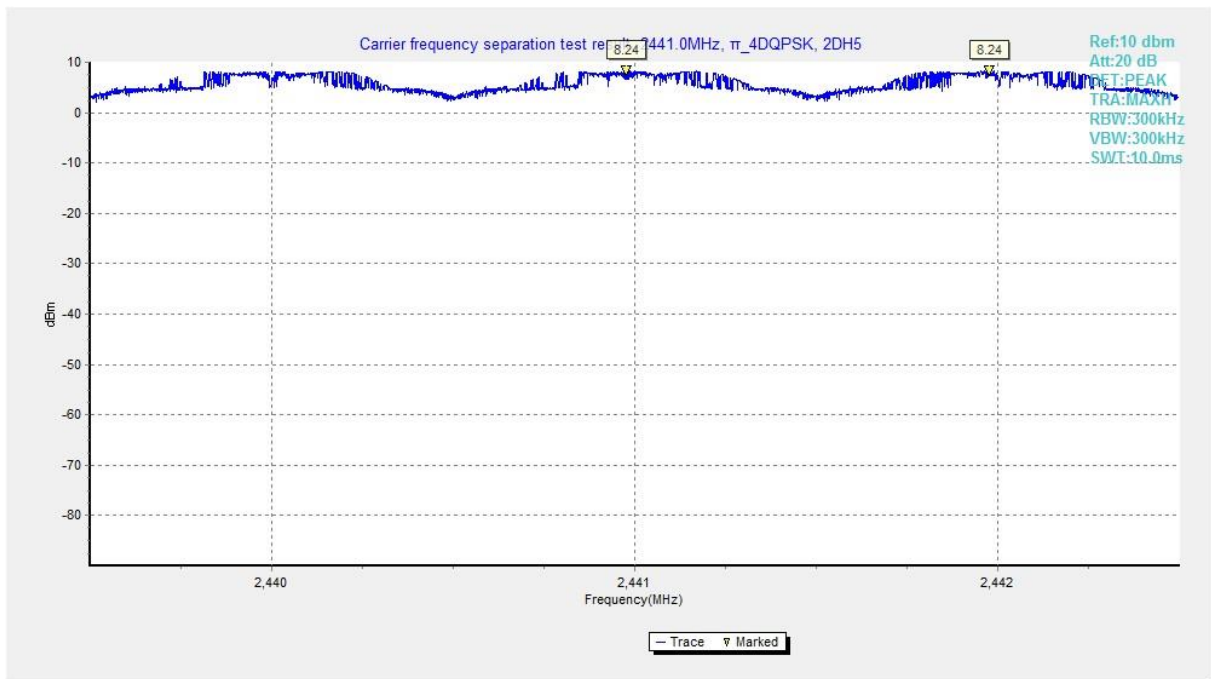


Fig. 82 Carrier Frequency Separation ( $\pi/4$  DQPSK, Ch39)

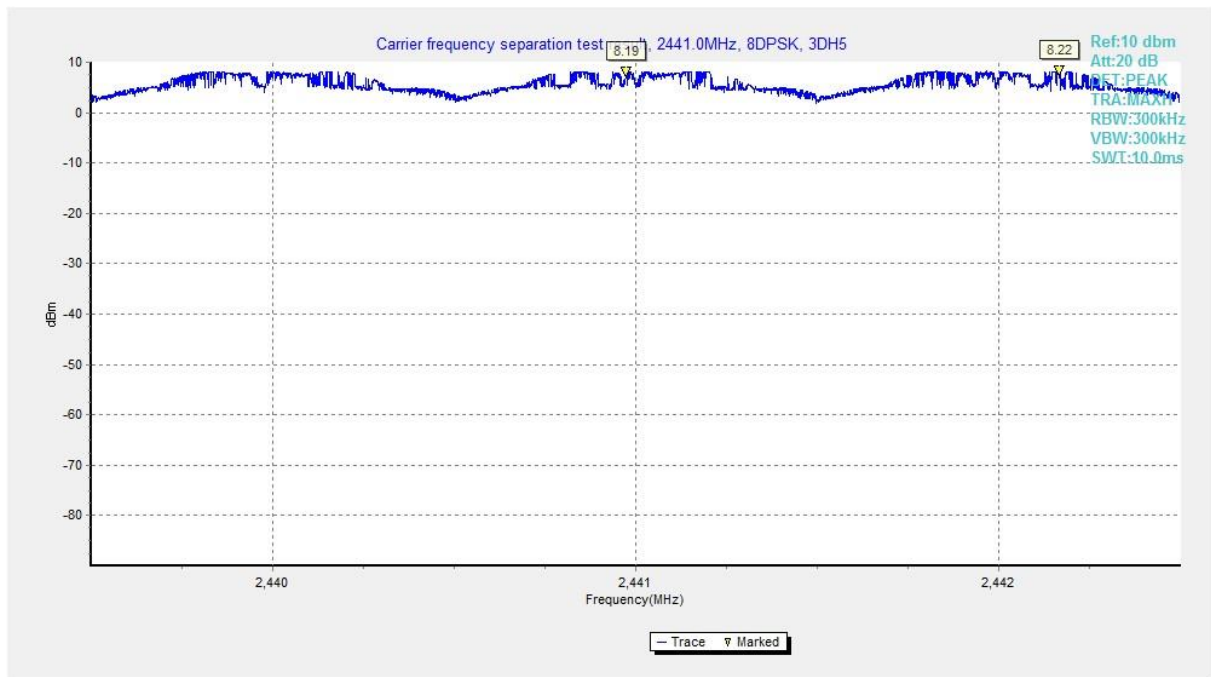


Fig. 83 Carrier Frequency Separation (8DPSK, Ch39)

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