

Fig. 68 Hopping channel ch0~39 ( $\pi/4$  DQPSK, Ch39)

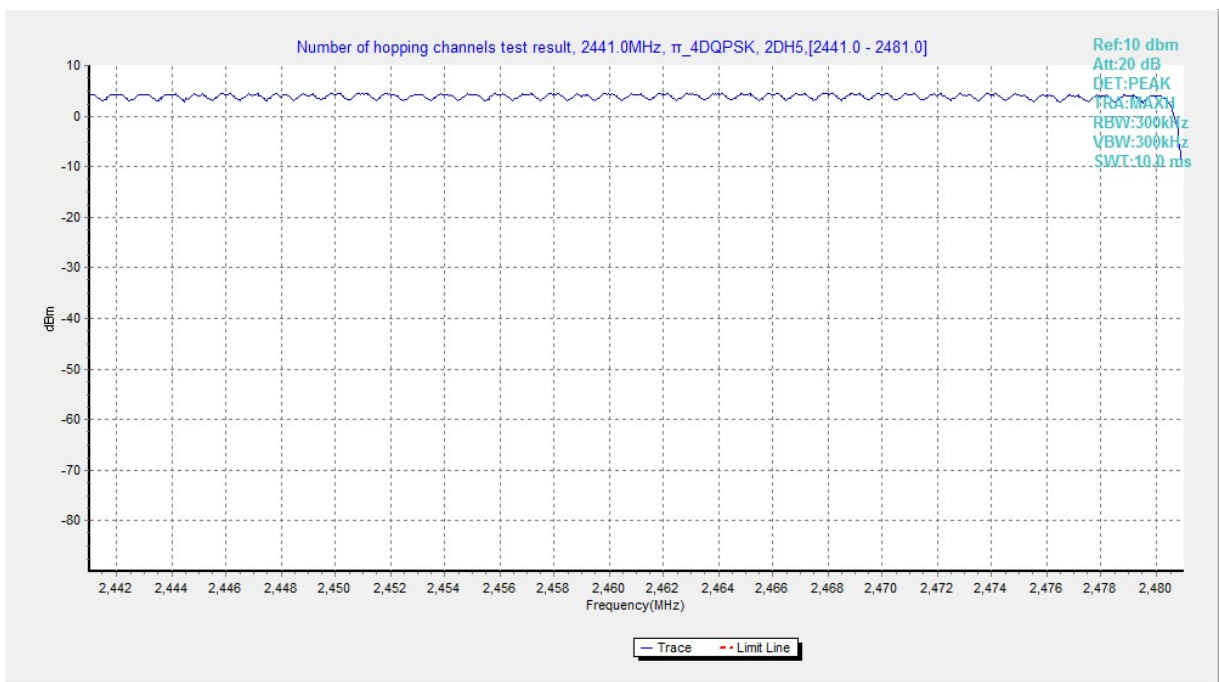


Fig. 69 Hopping channel ch39~78 ( $\pi/4$  DQPSK, Ch39)

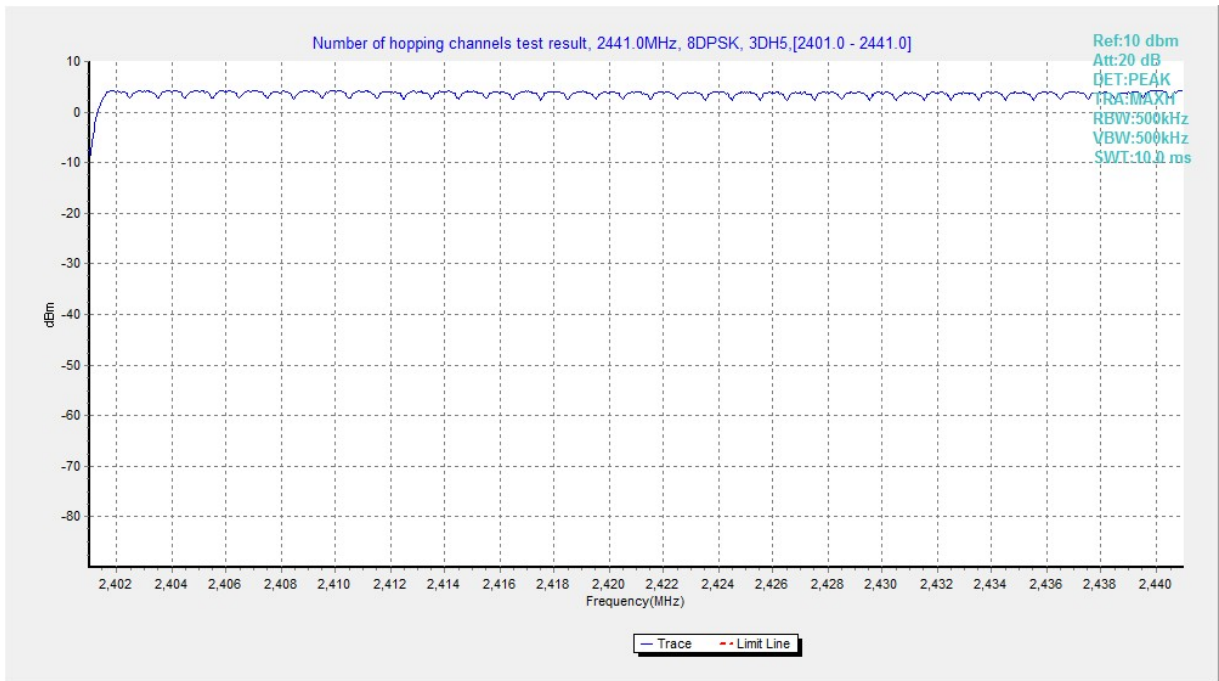


Fig. 70 Hopping channel ch0~39 (8DPSK, Ch39)

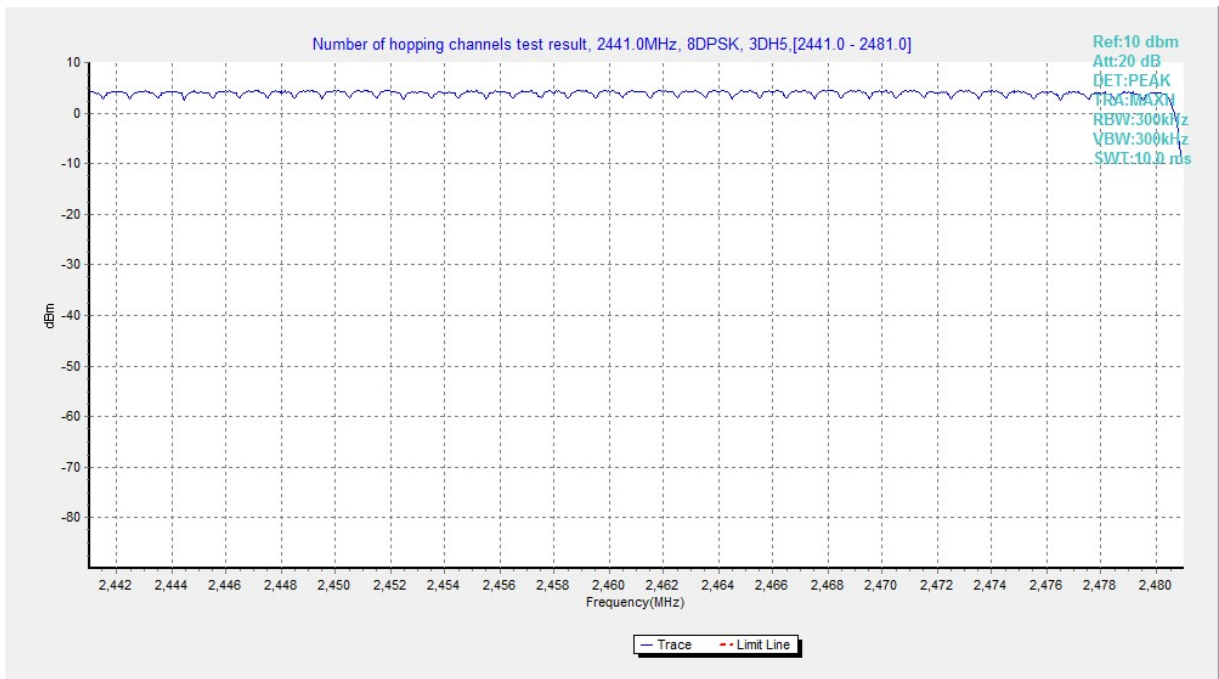


Fig. 71 Hopping channel ch39~78 (8DPSK, Ch39)

### A.8 Carrier Frequency Separation

**Measurement Limit:**

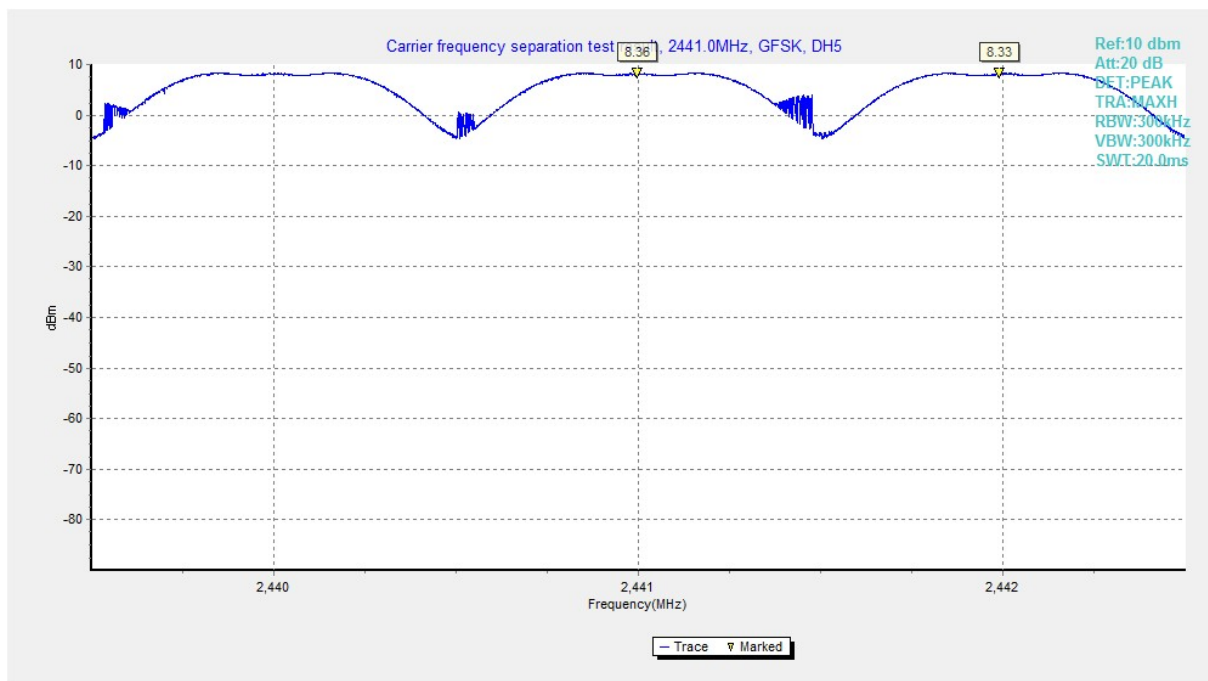
Standard	Limit
FCC 47 CFR Part 15.247(a) & RSS-247 Section 5.1	By a minimum of 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater

**Measurement Results:**

Mode	Channel	Packet	Separation of hopping channels	Test result (KHz)	Conclusion
GFSK	39	DH5	Fig.72	993.00	<b>P</b>
$\pi/4$ DQPSK	39	2-DH5	Fig.73	1002.75	<b>P</b>
8DPSK	39	3-DH5	Fig.74	1302.25	<b>P</b>

See below for test graphs.

**Conclusion: Pass**



**Fig. 72 Carrier Frequency Separation (GFSK, Ch39)**

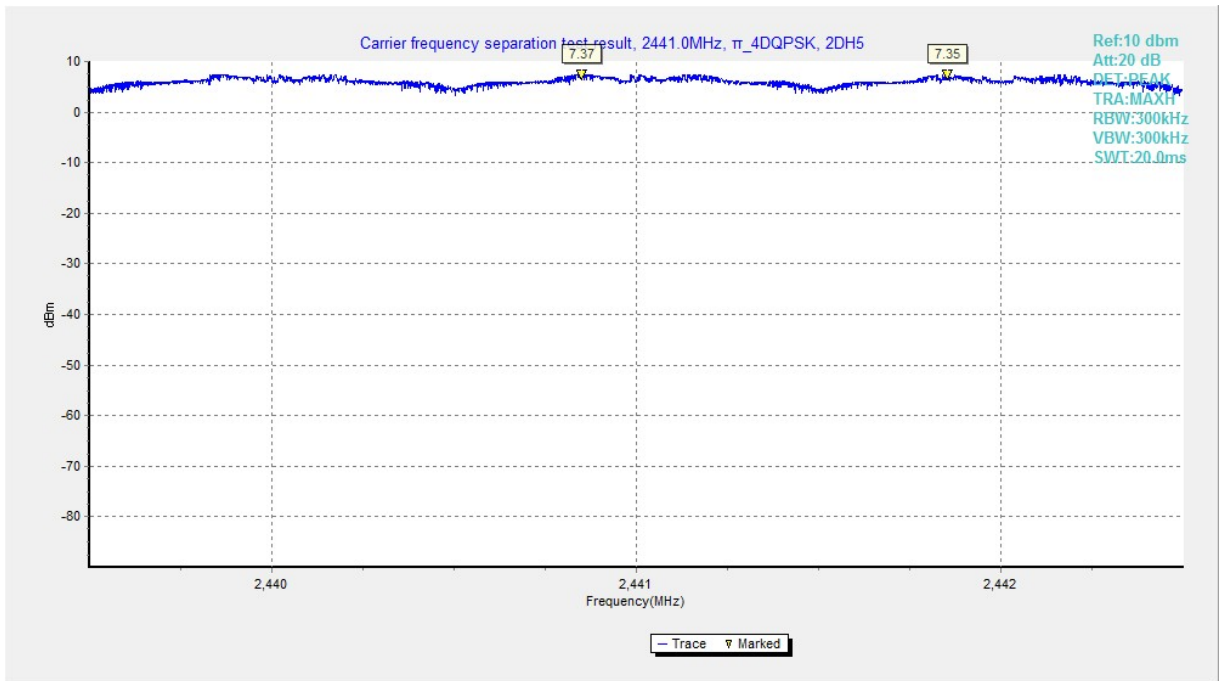


Fig. 73 Carrier Frequency Separation ( $\pi/4$  DQPSK, Ch39)

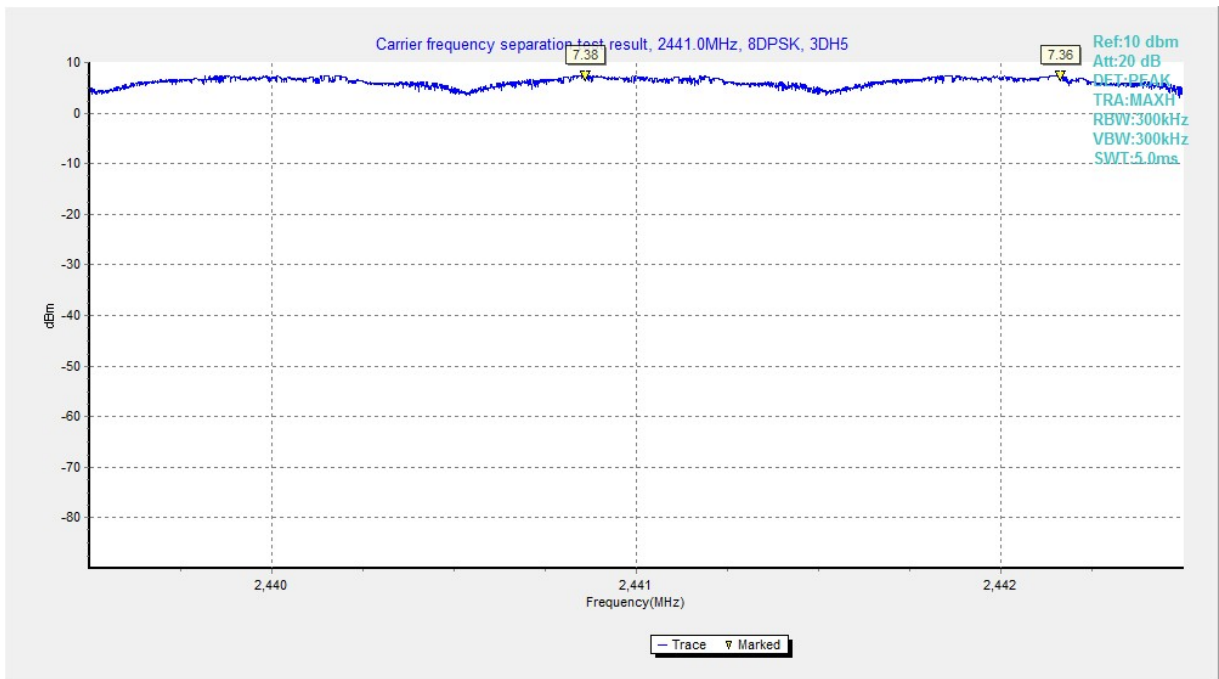


Fig. 74 Carrier Frequency Separation (8DPSK, Ch39)

## 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.93	Fig.94	<b>P</b>
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)

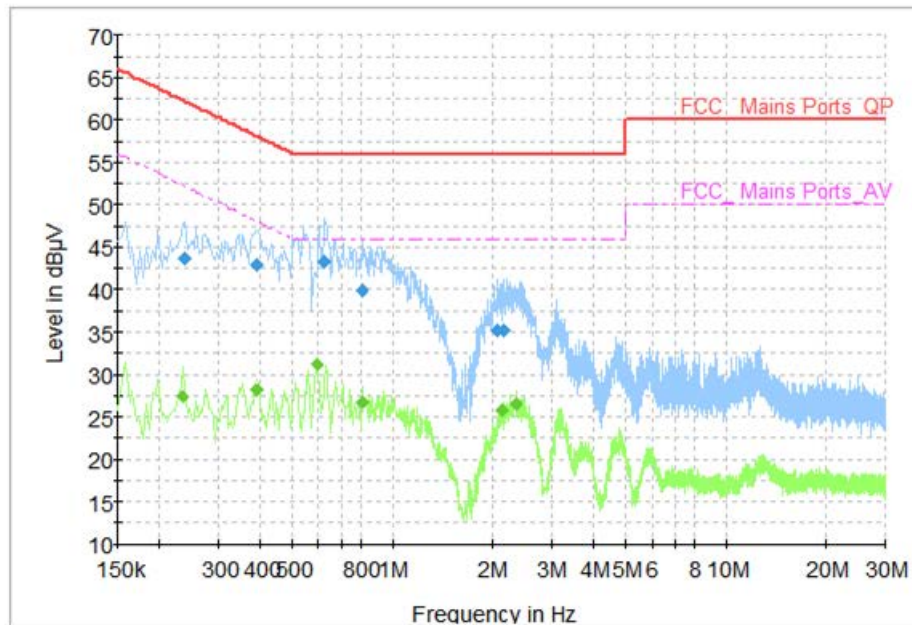
Frequency range (MHz)	Average-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig 93	Fig 94	<b>P</b>
0.5 to 5	46			
5 to 30	50			

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. 75 AC Power line Conducted Emission (Traffic)**

**Measurement Results: Quasi Peak**

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.238000	43.68	62.17	18.48	L1	ON	9.7
0.390000	42.97	58.06	15.10	L1	ON	9.7
0.622000	43.30	56.00	12.70	L1	ON	9.7
0.806000	39.97	56.00	16.03	L1	ON	9.7
2.066000	35.28	56.00	20.72	L1	ON	9.7
2.162000	35.31	56.00	20.69	N	ON	9.7

**Measurement Results : Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.234000	27.43	52.31	24.88	N	ON	9.6
0.390000	28.17	48.06	19.89	N	ON	9.6
0.590000	31.19	46.00	14.81	N	ON	9.7
0.814000	26.74	46.00	19.26	N	ON	9.7
2.118000	25.67	46.00	20.33	N	ON	9.7
2.342000	26.45	46.00	19.55	N	ON	9.7

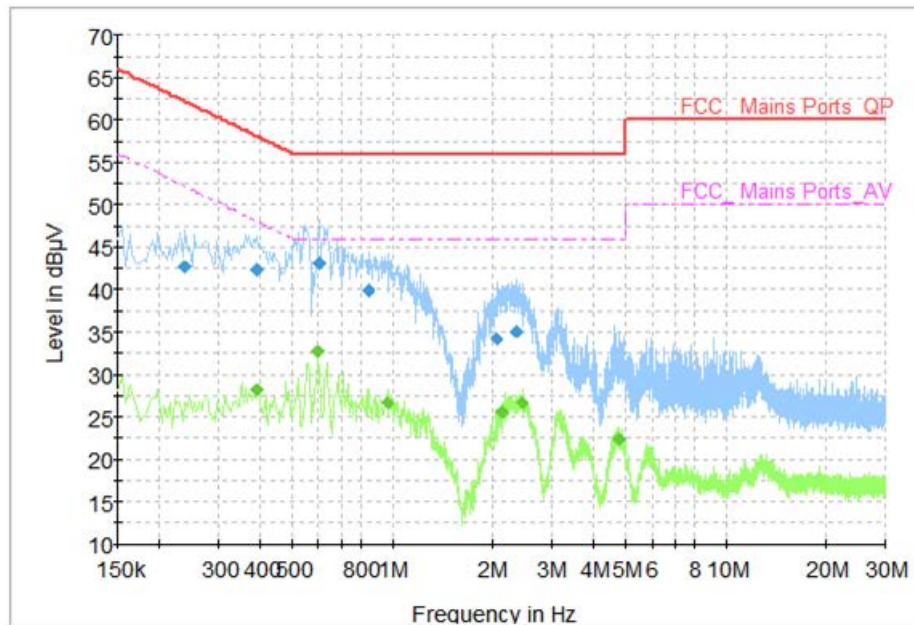


Fig. 76 AC Power line Conducted Emission (Idle)

**Measurement Results: Quasi Peak**

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.238000	42.67	62.17	19.50	N	ON	9.6
0.390000	42.30	58.06	15.76	N	ON	9.6
0.602000	43.02	56.00	12.98	L1	ON	9.7
0.846000	39.91	56.00	16.09	N	ON	9.7
2.054000	34.18	56.00	21.82	L1	ON	9.7
2.366000	35.15	56.00	20.85	L1	ON	9.7

**Measurement Results : Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.390000	28.18	48.06	19.88	N	ON	9.6
0.598000	32.70	46.00	13.30	N	ON	9.7
0.962000	26.58	46.00	19.42	N	ON	9.7
2.118000	25.58	46.00	20.42	N	ON	9.7
2.446000	26.56	46.00	19.44	N	ON	9.7
4.806000	22.42	46.00	23.58	N	ON	9.7

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