

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

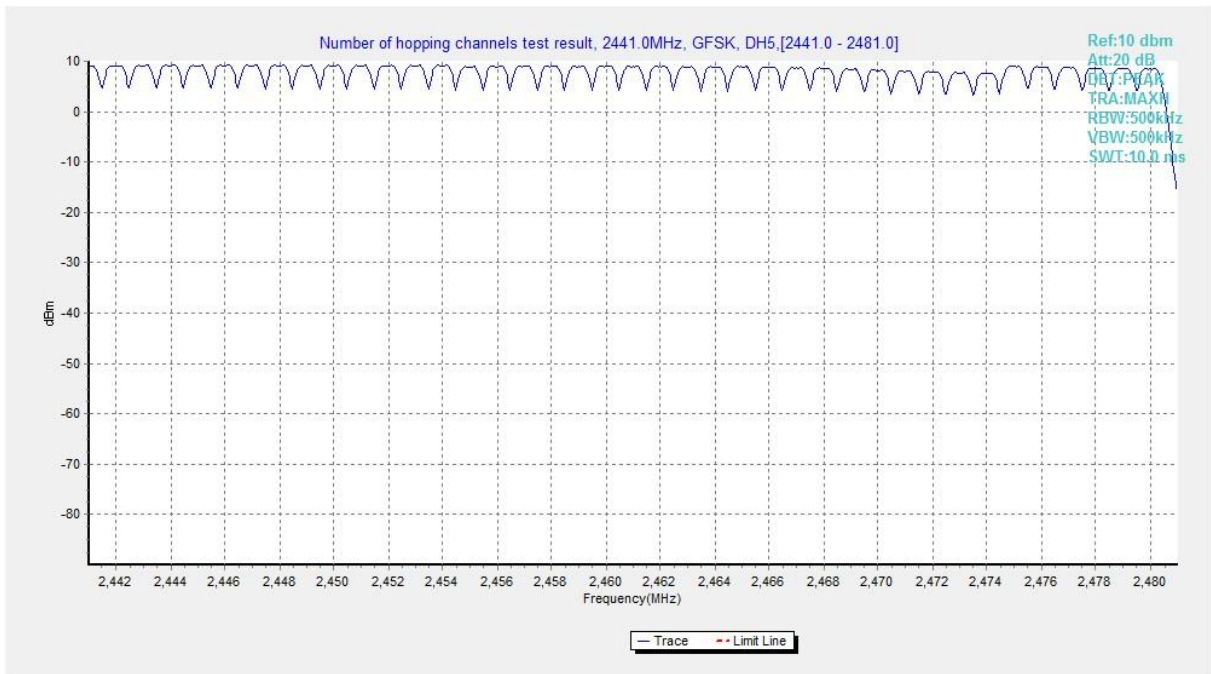


Fig. 76 Hopping channel ch39~78 (GFSK, Ch39)



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

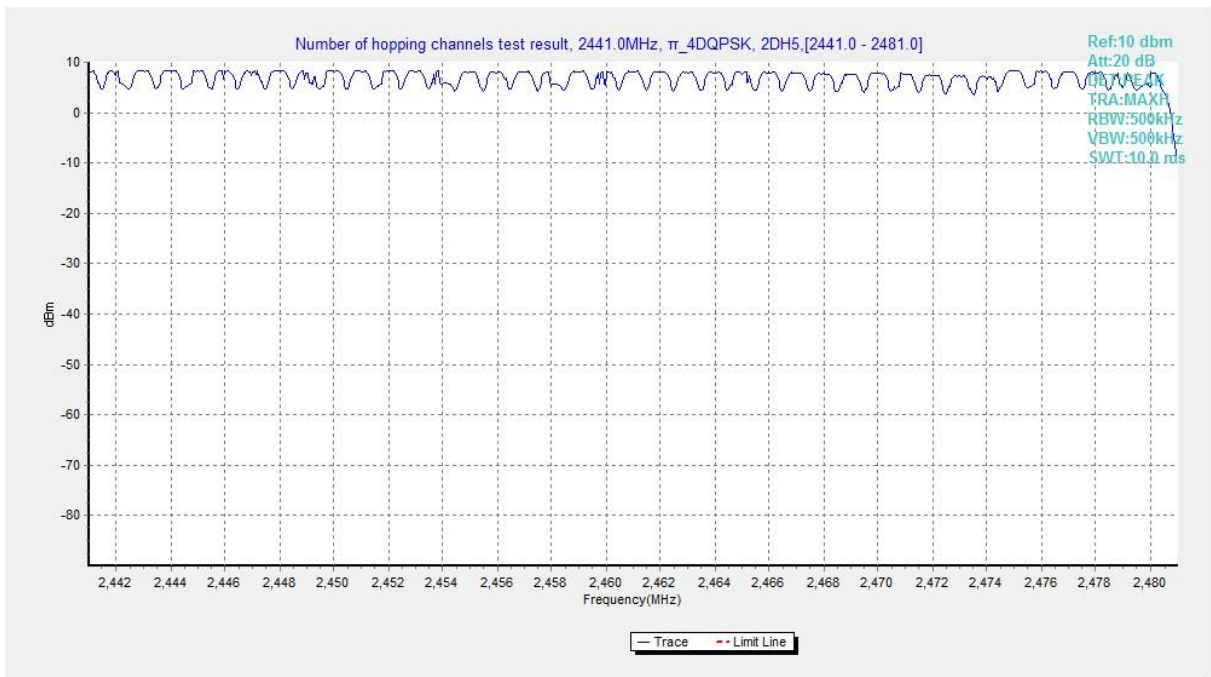


Fig. 78 Hopping channel ch39~78 (π /4 DQPSK, Ch39)

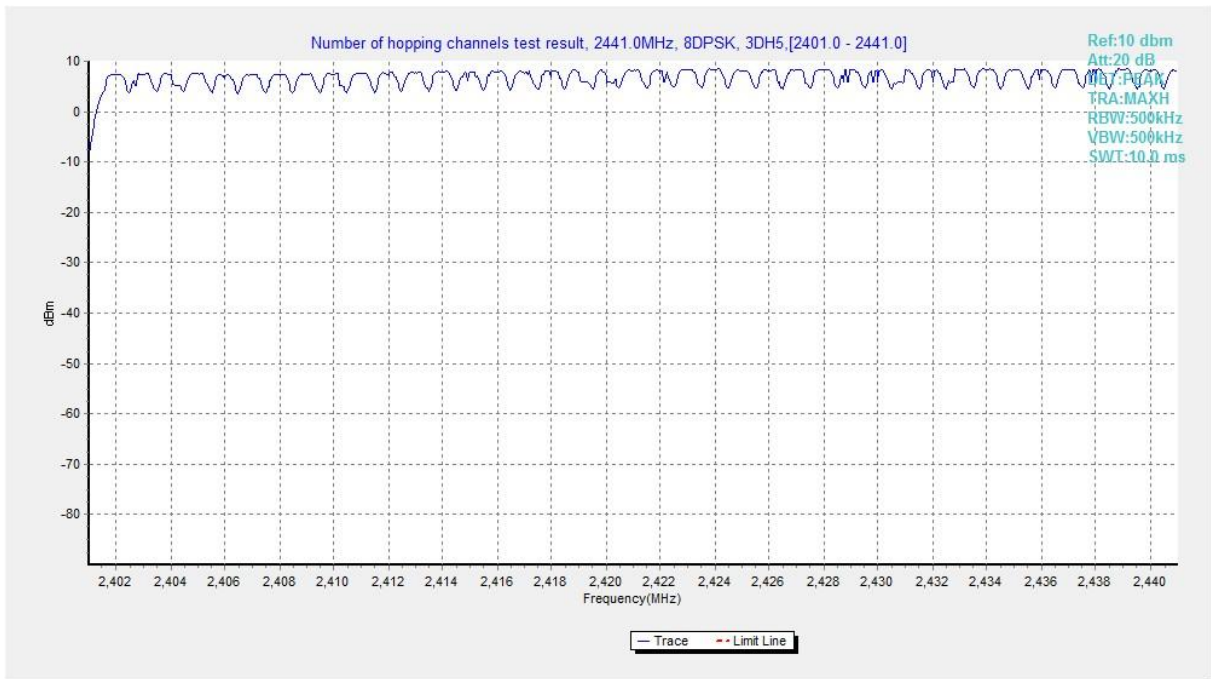


Fig. 79 Hopping channel ch0~39 (8DPSK, Ch39)

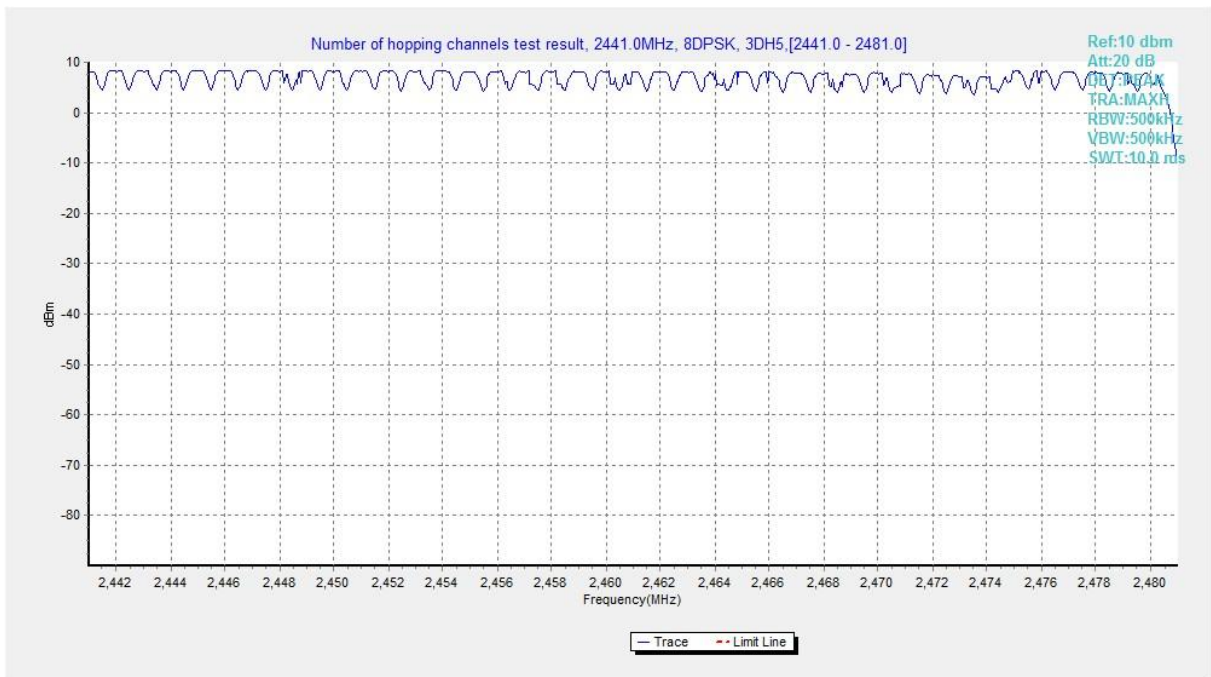


Fig. 80 Hopping channel ch39~78 (8DPSK, Ch39)

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	989.25	P
$\pi/4$ DQPSK	39	2-DH5	Fig.82	998.25	P
8DPSK	39	3-DH5	Fig.83	989.25	P

See below for test graphs.

Conclusion: Pass

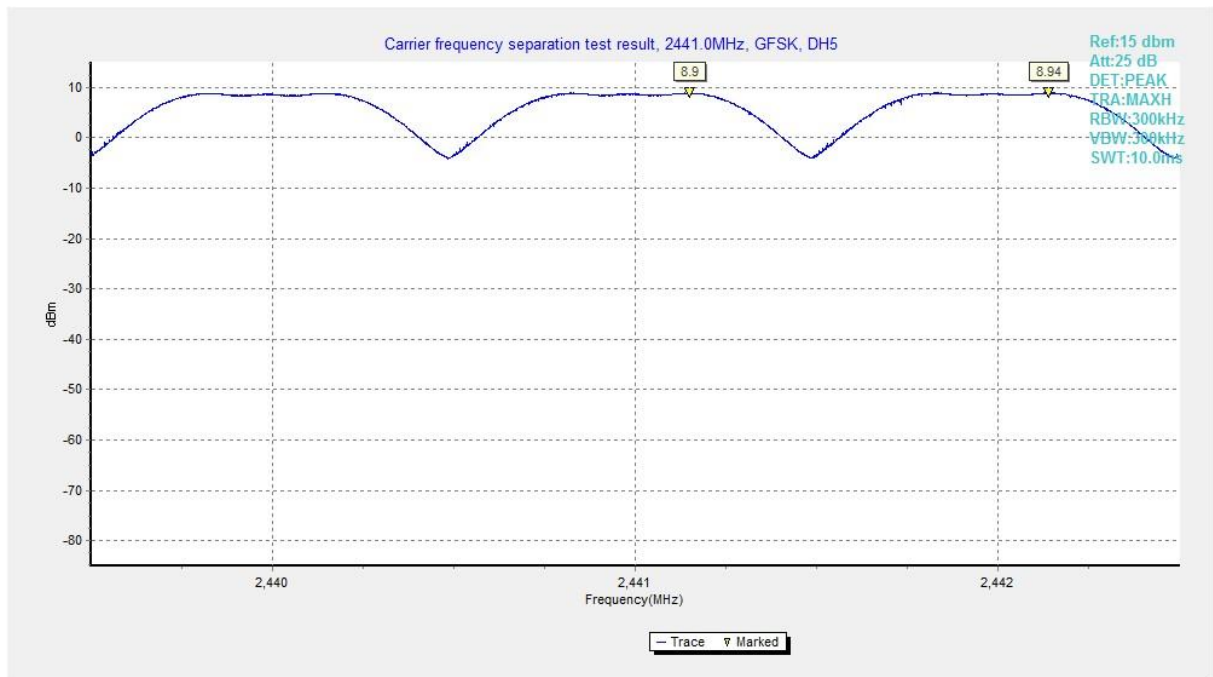


Fig. 81 Carrier Frequency Separation (GFSK, Ch39)

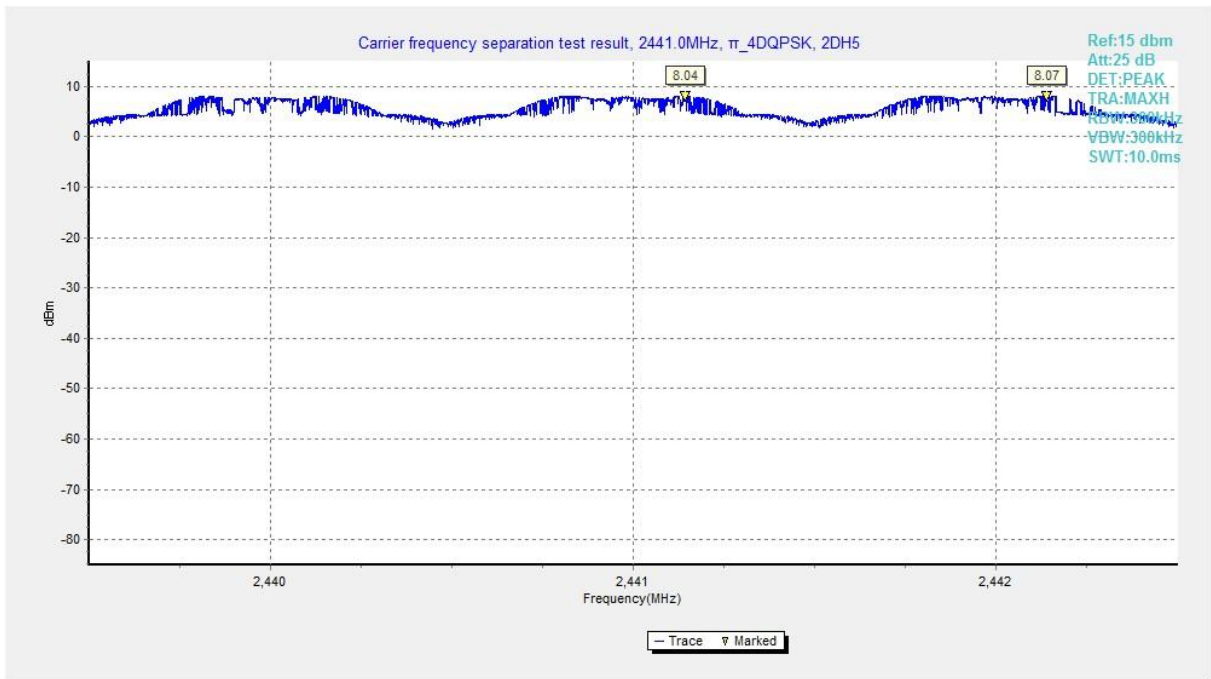


Fig. 82 Carrier Frequency Separation ($\pi/4$ DQPSK, Ch39)

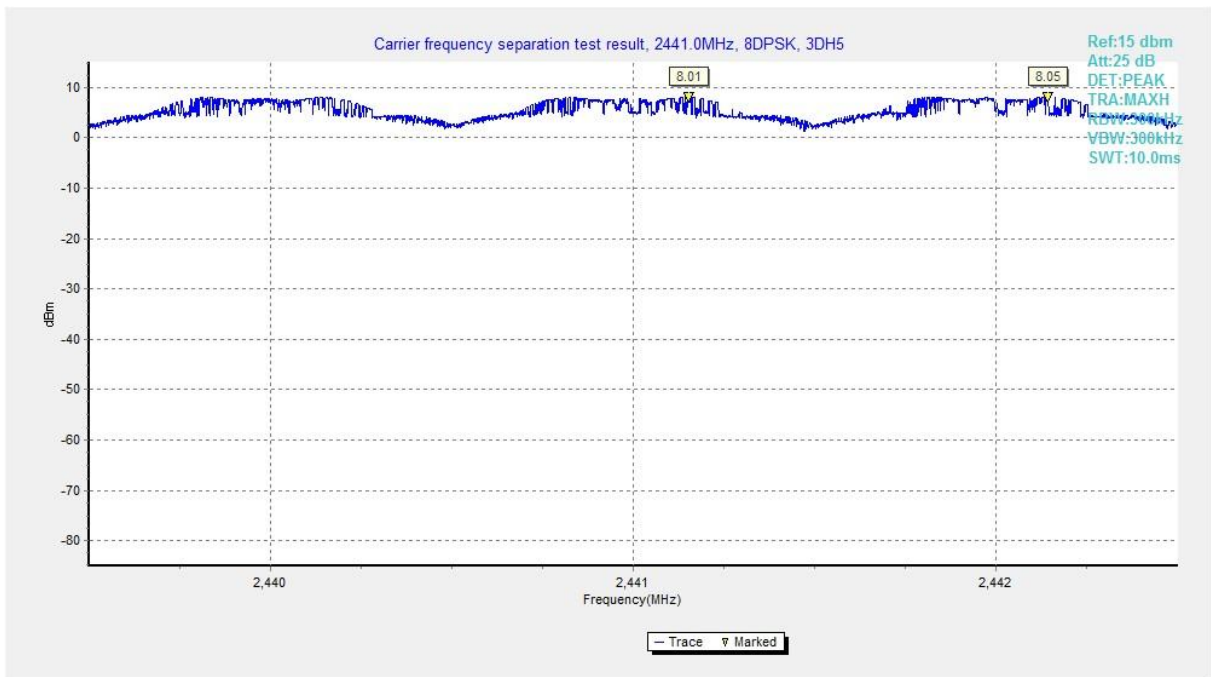


Fig. 83 Carrier Frequency Separation (8DPSK, Ch39)

**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 μ V)	Result (dB μ 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 μ V)	Result (dB μ 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

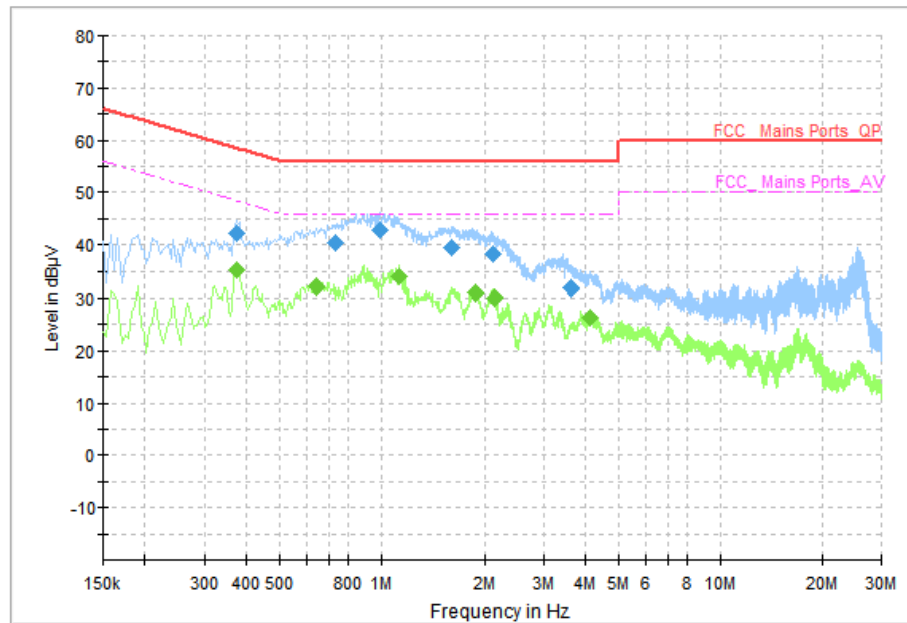


Fig. 84 AC Powerline Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.374000	42.07	58.41	16.34	N	ON	9.6
0.734000	40.33	56.00	15.67	N	ON	9.7
0.990000	42.77	56.00	13.23	N	ON	9.7
1.594000	39.34	56.00	16.66	L1	ON	9.7
2.122000	38.37	56.00	17.63	L1	ON	9.7
3.618000	31.83	56.00	24.17	L1	ON	9.7

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.374000	35.30	48.41	13.11	N	ON	9.6
0.642000	32.06	46.00	13.94	N	ON	9.7
1.126000	34.04	46.00	11.96	N	ON	9.7
1.882000	30.79	46.00	15.21	N	ON	9.7
2.134000	29.87	46.00	16.13	N	ON	9.7
4.122000	26.30	46.00	19.70	N	ON	9.7

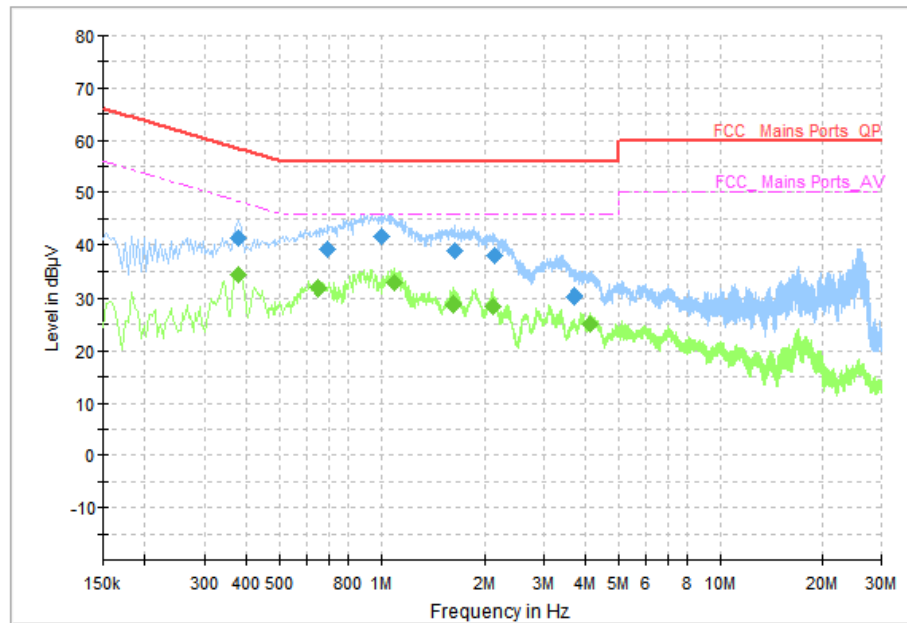


Fig. 85 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.378000	41.37	58.32	16.95	N	ON	9.6
0.694000	39.08	56.00	16.92	N	ON	9.7
1.002000	41.56	56.00	14.44	N	ON	9.7
1.634000	38.70	56.00	17.30	L1	ON	9.7
2.146000	37.94	56.00	18.06	L1	ON	9.7
3.686000	30.44	56.00	25.56	N	ON	9.7

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.378000	34.42	48.32	13.90	N	ON	9.6
0.650000	31.70	46.00	14.30	N	ON	9.7
1.094000	32.70	46.00	13.30	N	ON	9.7
1.622000	28.88	46.00	17.12	N	ON	9.7
2.122000	28.44	46.00	17.56	N	ON	9.7
4.114000	25.22	46.00	20.78	N	ON	9.7



ANNEX B: Spot Check of Output Power

Company Name: IDEMIA Identity and Security France

Product Name: ID Screen US

Model Name: MPH-MB003A/MPH-MB003B (FCC ID: ZBW-MPHMB003), MPH-MB003C (FCC ID: ZBW-MPHMB003C)

Spot Check of Different Mode

Model	Mode	Frequency (MHz)	Conducted Power (dBm)
MPH-MB003A/MPH-MB003B	LE 1M	2440 (CH19)	-2.41
	BR (GFSK)	2441 (CH39)	9.71
	802.11b	2437 (CH6)	16.89
	802.11a	5180 (Ch36)	12.67
		5745 (CH149)	11.63
MPH-MB003C	LE 1M	2440 (CH19)	-2.46
	BR (GFSK)	2441 (CH39)	9.65
	802.11b	2437 (CH6)	16.72
	802.11a	5180 (Ch36)	12.47
		5745 (CH149)	11.51

Note: Spot check test data included for the variants based on worst-case results reported in the original FCC ID filing. From the above data, it can be concluded that the conducted output power of the variant is less than or near to the original. And the variant test data can refer to the original report. This condition applies to the reports I20N00956.

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