

Fig. 64 20dB Bandwidth (8DPSK, CH0)

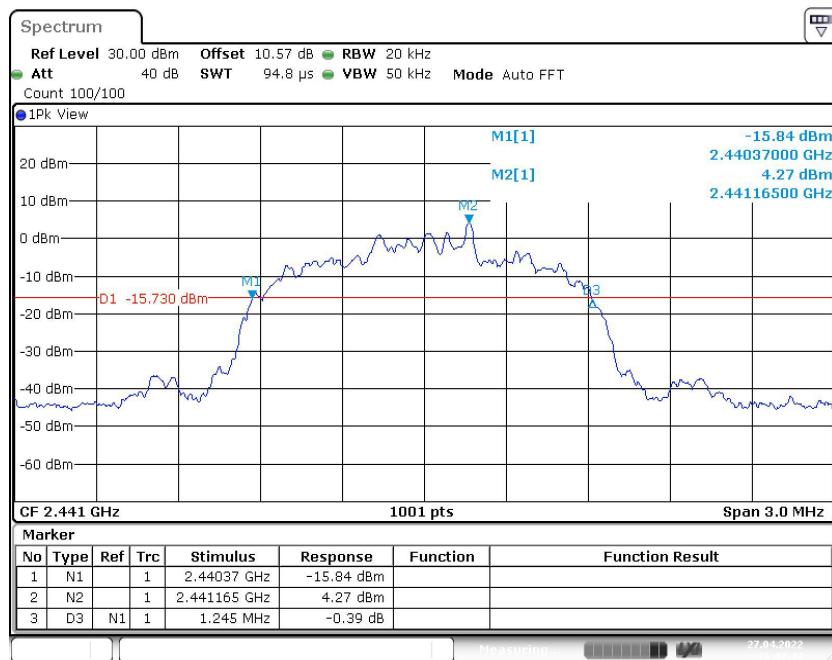


Fig. 65 20dB Bandwidth (8DPSK, CH39)

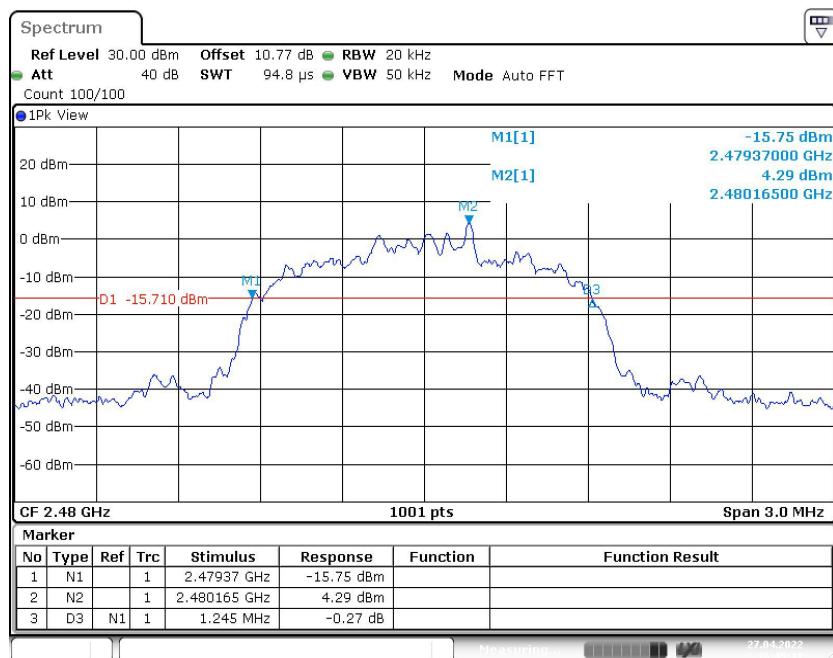


Fig. 66 20dB Bandwidth (8DPSK, CH78)

A.6 Time of Occupancy (Dwell Time)

Method of Measurement: See ANSI C63.10-clause 7.8.4.

Measurement Limit:

Standard	Limit (s)
FCC 47 CFR Part 15.247(a)	< 0.4

Measurement Results:

Mode	Channel	Packet	BurstWidth (ms)		TotalHops (Num)		Result (s)	Conclusion
GFSK	39	DH5	Fig.67	2.86	Fig.68	100	0.29	P
$\pi/4$ DQPSK	39	2-DH5	Fig.69	2.87	Fig.70	100	0.29	P
8DPSK	39	3-DH5	Fig.71	2.87	Fig.72	90	0.26	P

See below for test graphs.

Conclusion: Pass

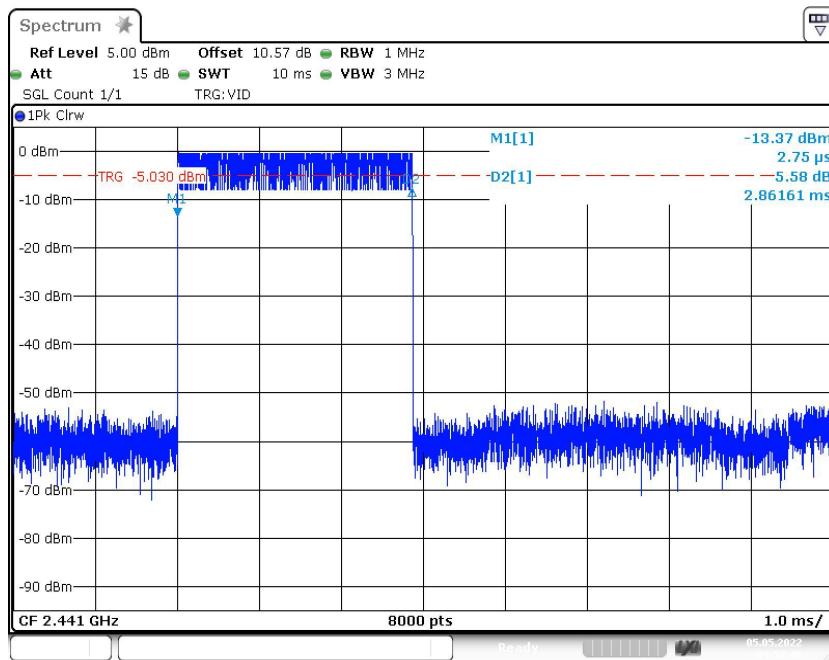


Fig. 67 BurstWidth (Dwell Time) (GFSK, CH39)

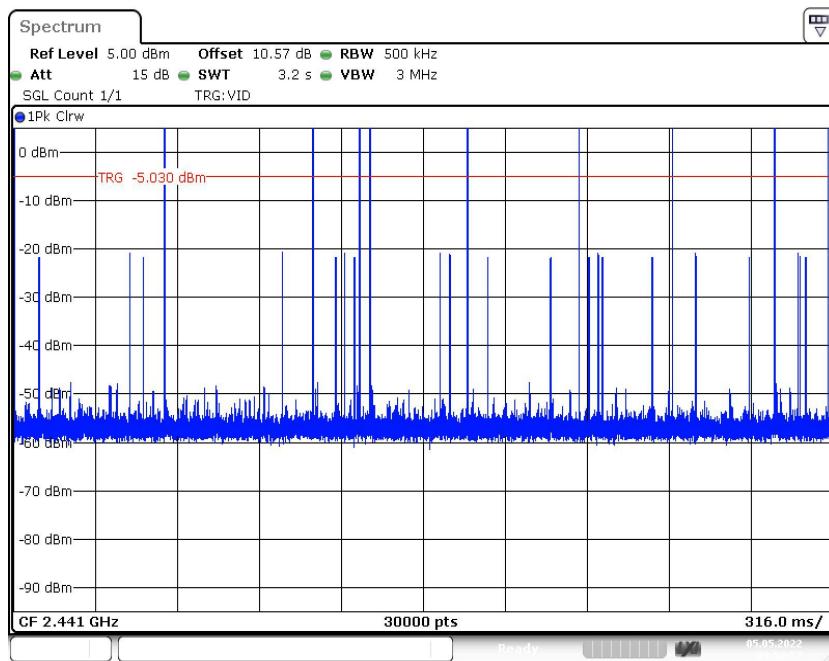


Fig. 68 Number of Burst in Observation Period (Dwell Time) (GFSK, CH39)

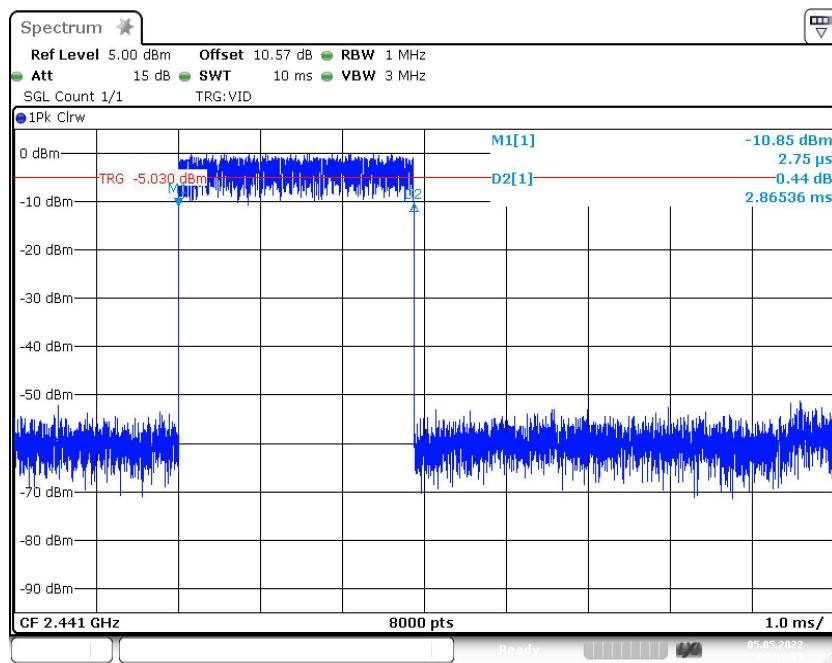


Fig. 69 BurstWidth (Dwell Time) ($\pi/4$ DQPSK, CH39)

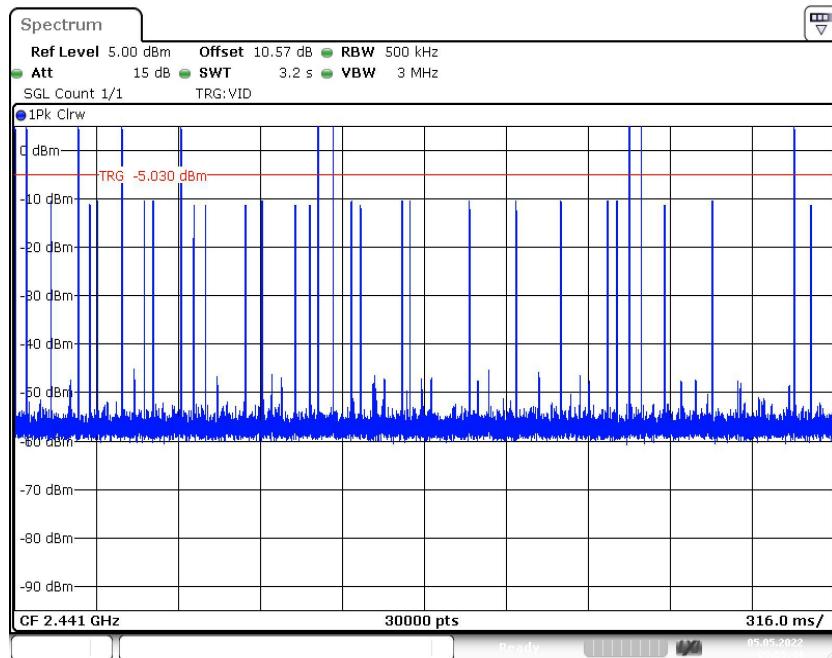


Fig. 70 Number of Burst in Observation Period (Dwell Time) ($\pi/4$ DQPSK, CH39)

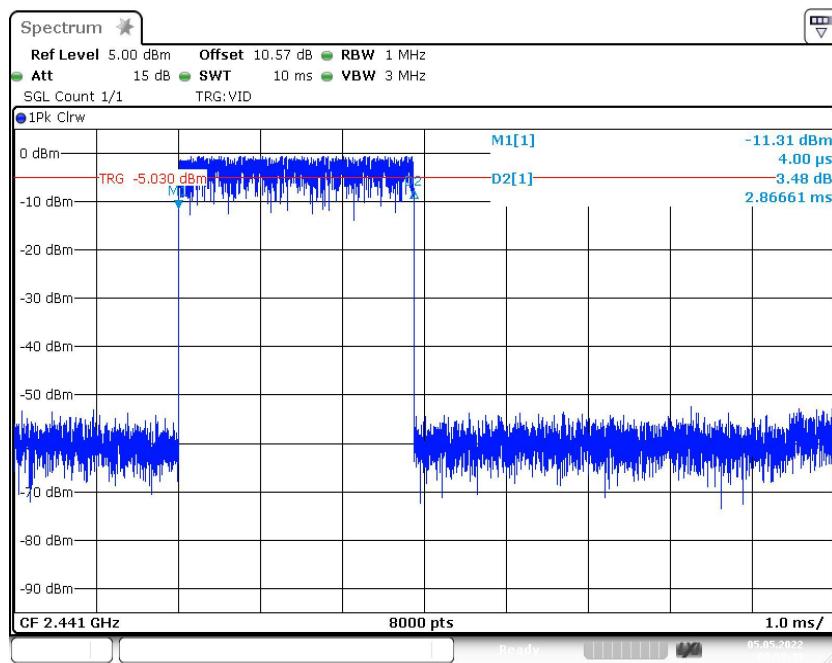


Fig. 71 BurstWidth (Dwell Time) (8DPSK, CH39)

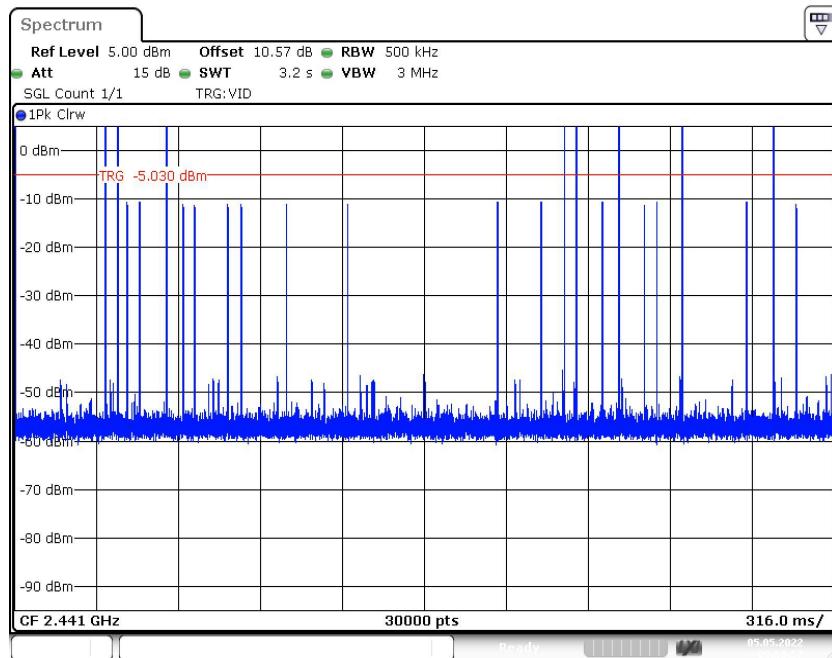


Fig. 72 Number of Burst in Observation Period (Dwell Time) (8DPSK, CH39)

A.7 Number of Hopping Channels

Method of Measurement: See ANSI C63.10-clause 7.8.3.

Measurement Limit:

Standard	Limit (Num)
FCC 47 CFR Part 15.247(a)	At least 15 non-overlapping channels

Measurement Results:

Mode	Packet	Number of Hopping Channels	Test results (Num)	Conclusion
GFSK	DH5	Fig.73	79	P
$\pi/4$ DQPSK	2-DH5	Fig.74	79	P
8DPSK	3-DH5	Fig.75	79	P

See below for test graphs.

Conclusion: Pass

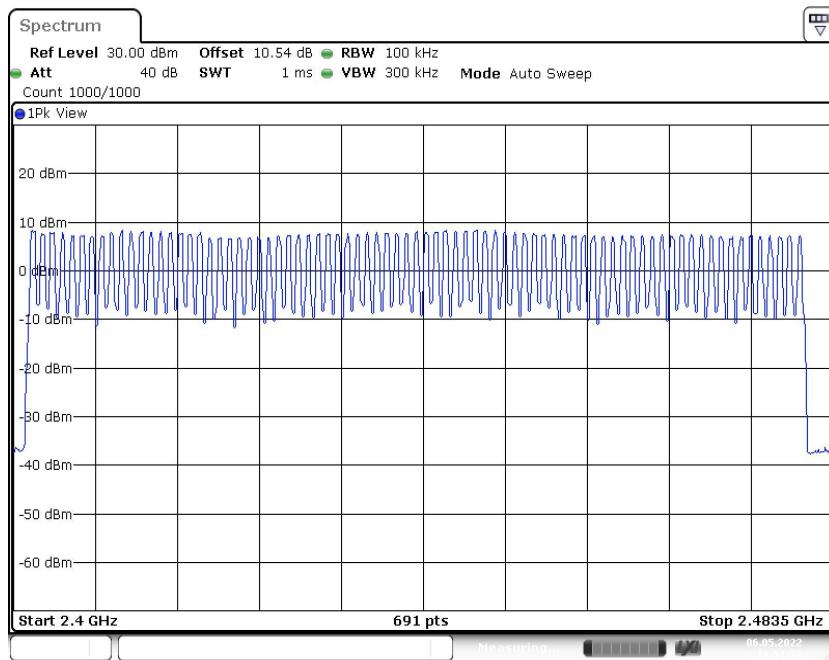


Fig. 73 Number of Hopping Channels (GFSK, Hopping)

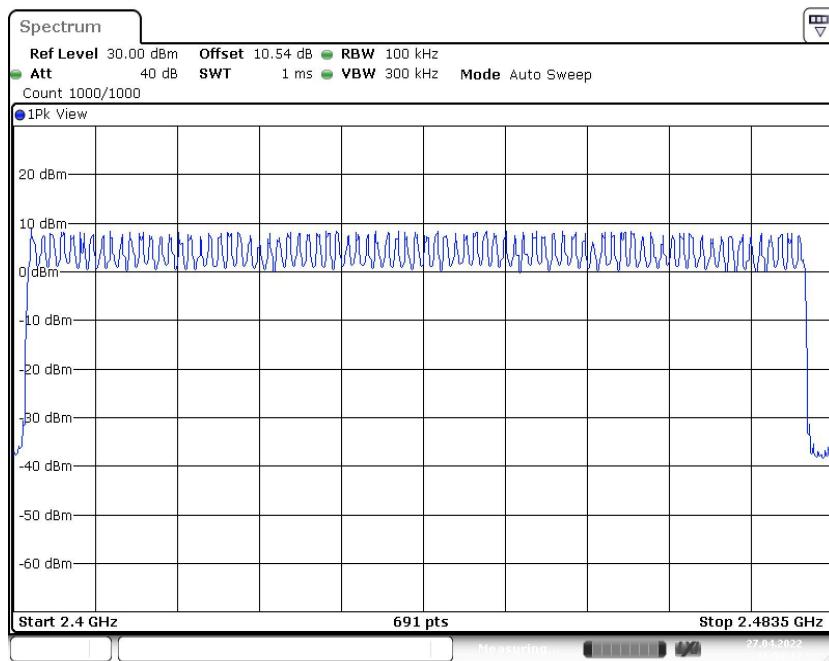


Fig. 74 Number of Hopping Channels ($\pi/4$ DQPSK, Hopping)

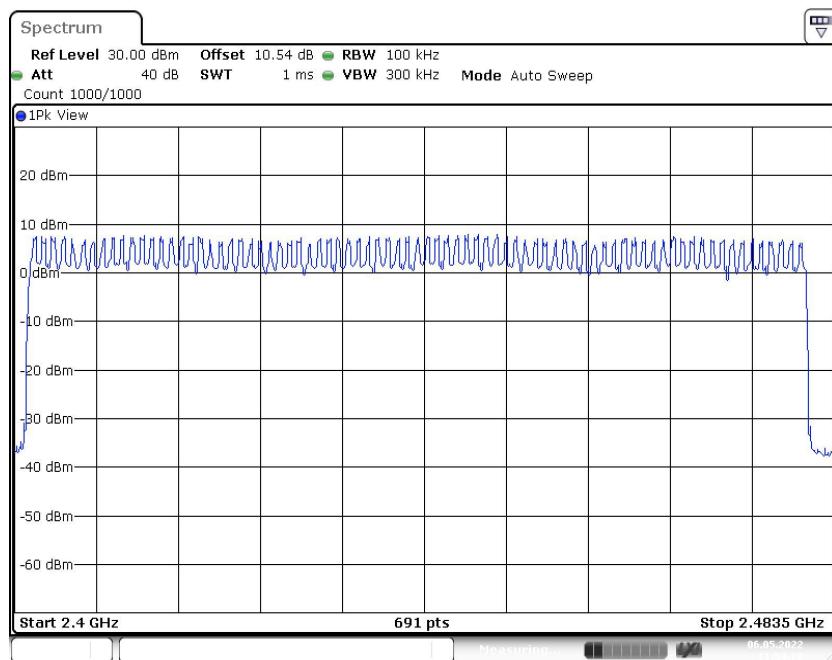


Fig. 75 Number of Hopping Channels (8DPSK, Hopping)

A.8 Carrier Frequency Separation

Method of Measurement: See ANSI C63.10-clause 7.8.2.

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.76	1014.00	P
$\pi/4$ DQPSK	39	2-DH5	Fig.77	1009.00	P
8DPSK	39	3-DH5	Fig.78	1000.00	P

See below for test graphs.

Conclusion: Pass

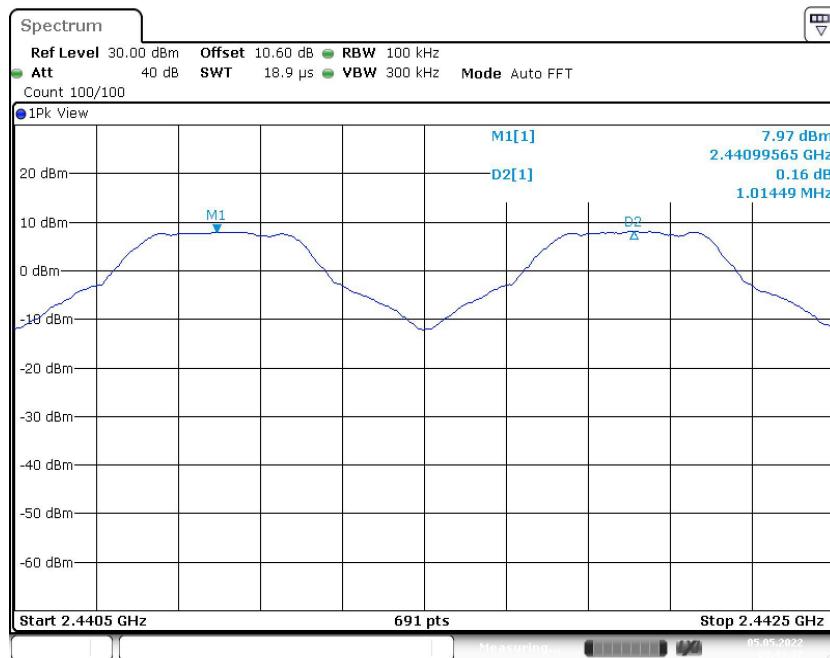


Fig. 76 Carrier Frequency Separation (GFSK, CH39)

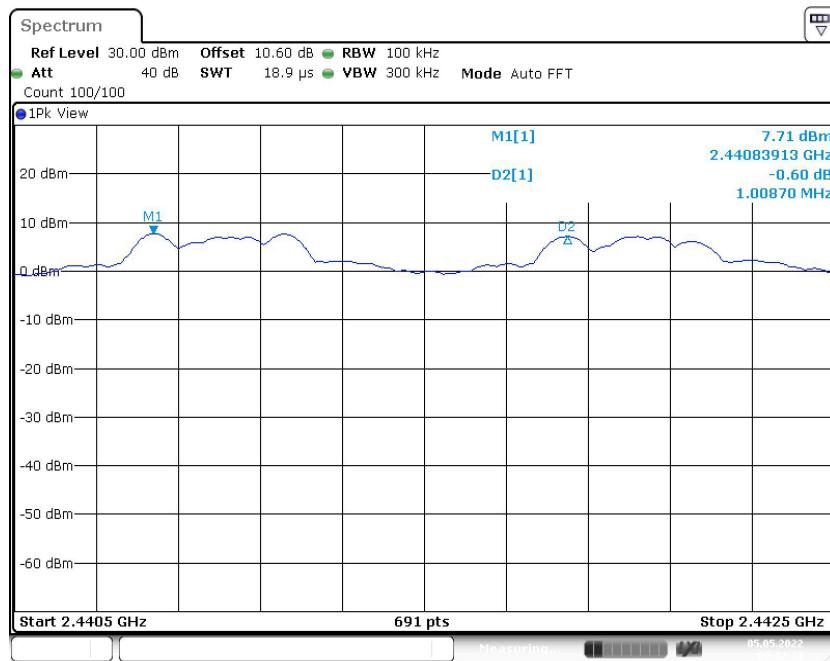


Fig. 77 Carrier Frequency Separation ($\pi/4$ DQPSK, CH39)

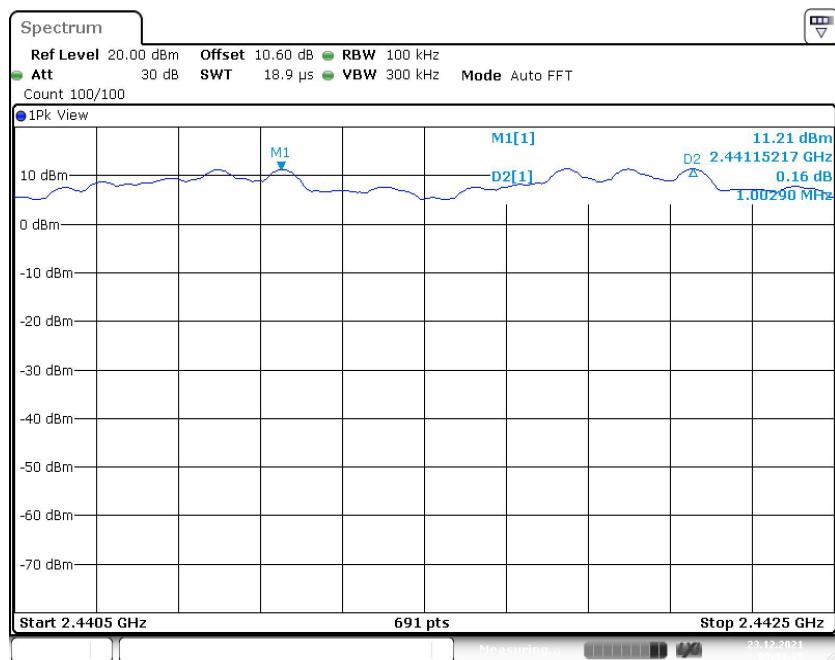


Fig. 78 Carrier Frequency Separation (8DPSK, CH39)

A.9 AC Power line Conducted Emission

Method of Measurement: See ANSI C63.10-clause 6.2

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

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Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.79	Fig.80	P
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

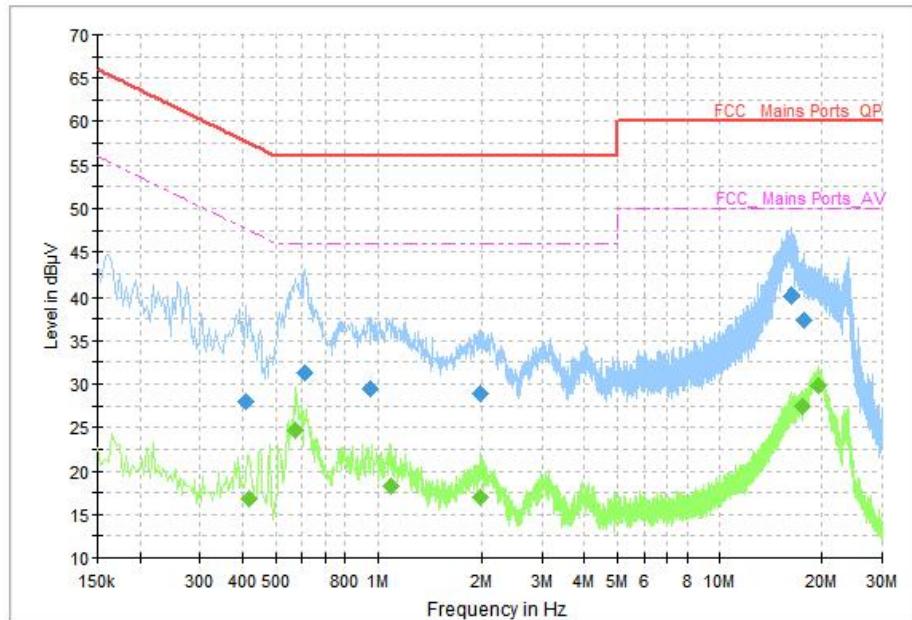


Fig. 79 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Filter	Corr. (dB)
0.410000	28.01	57.65	29.63	N	ON	10
0.610000	31.33	56.00	24.67	N	ON	10
0.946000	29.36	56.00	26.64	N	ON	10
1.978000	28.90	56.00	27.10	N	ON	10
16.206000	40.13	60.00	19.87	N	ON	11
17.670000	37.28	60.00	22.72	N	ON	11

Measurement Results: Average

Frequency (MHz)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Filter	Corr. (dB)
0.418000	16.82	47.49	30.67	N	ON	10
0.570000	24.60	46.00	21.40	L1	ON	10
1.090000	18.33	46.00	27.67	N	ON	10
1.982000	16.89	46.00	29.11	N	ON	10
17.522000	27.49	50.00	22.51	N	ON	11
19.454000	29.90	50.00	20.10	N	ON	10

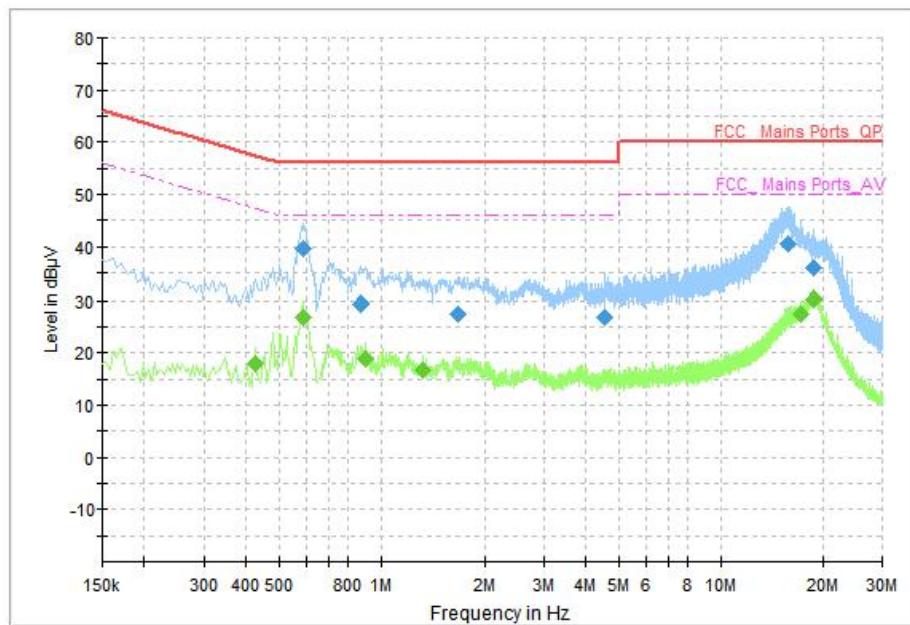


Fig. 80 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Filter	Corr. (dB)
0.586000	39.54	56.00	16.46	N	ON	10
0.874000	29.23	56.00	26.77	L1	ON	10
1.670000	27.40	56.00	28.60	L1	ON	10
4.558000	26.74	56.00	29.26	L1	ON	10
15.878000	40.48	60.00	19.52	L1	ON	10
18.842000	35.89	60.00	24.11	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Filter	Corr. (dB)
0.426000	17.97	47.33	29.36	N	ON	10
0.586000	26.83	46.00	19.17	N	ON	10
0.902000	18.92	46.00	27.08	N	ON	10
1.326000	16.62	46.00	29.38	N	ON	10
17.282000	27.38	50.00	22.62	L1	ON	10
18.842000	30.27	50.00	19.73	L1	ON	10

END OF REPORT