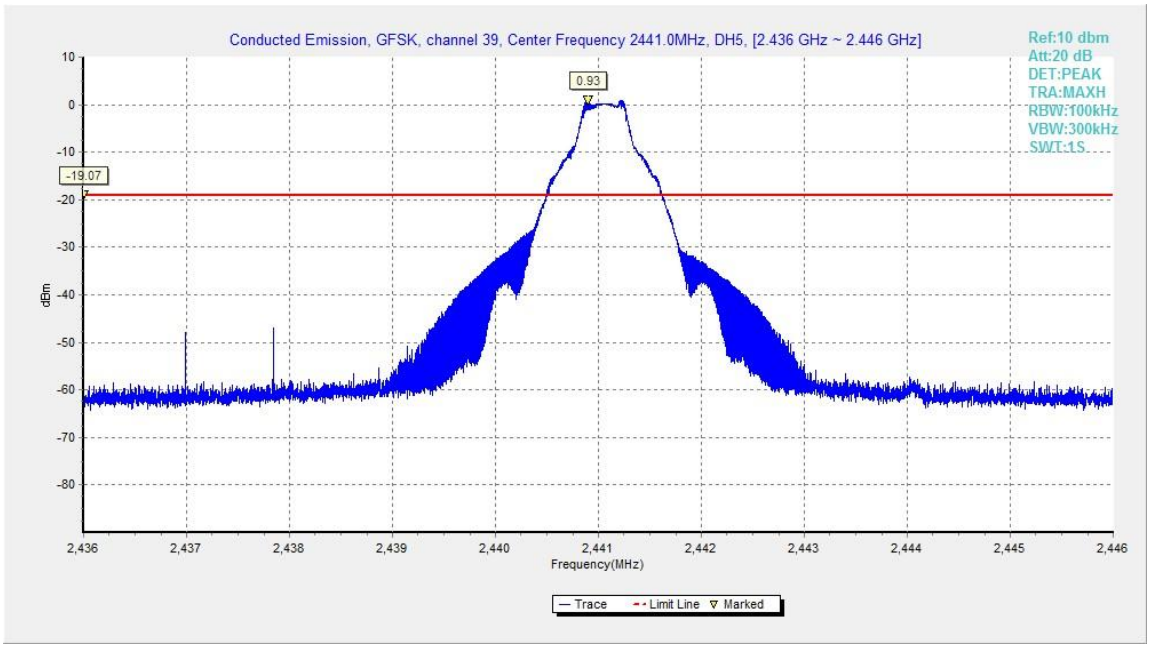

Fig.18. Conducted spurious emission: GFSK, Channel 39, 2441MHz

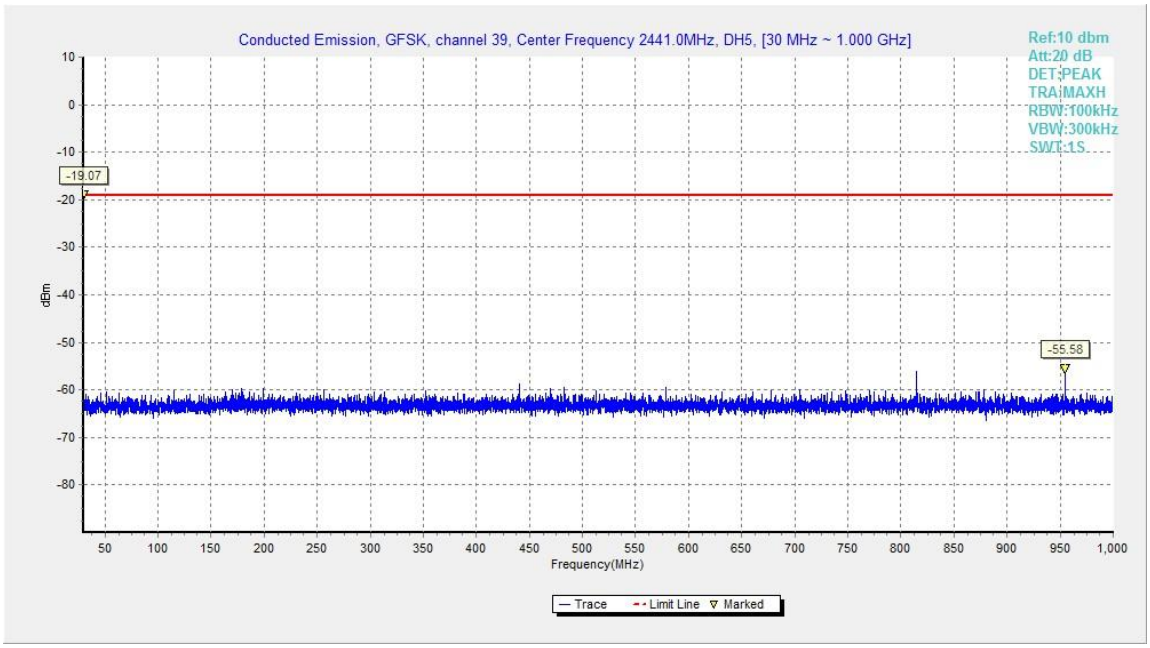

Fig.19. Conducted spurious emission: GFSK, Channel 39, 30MHz - 1GHz

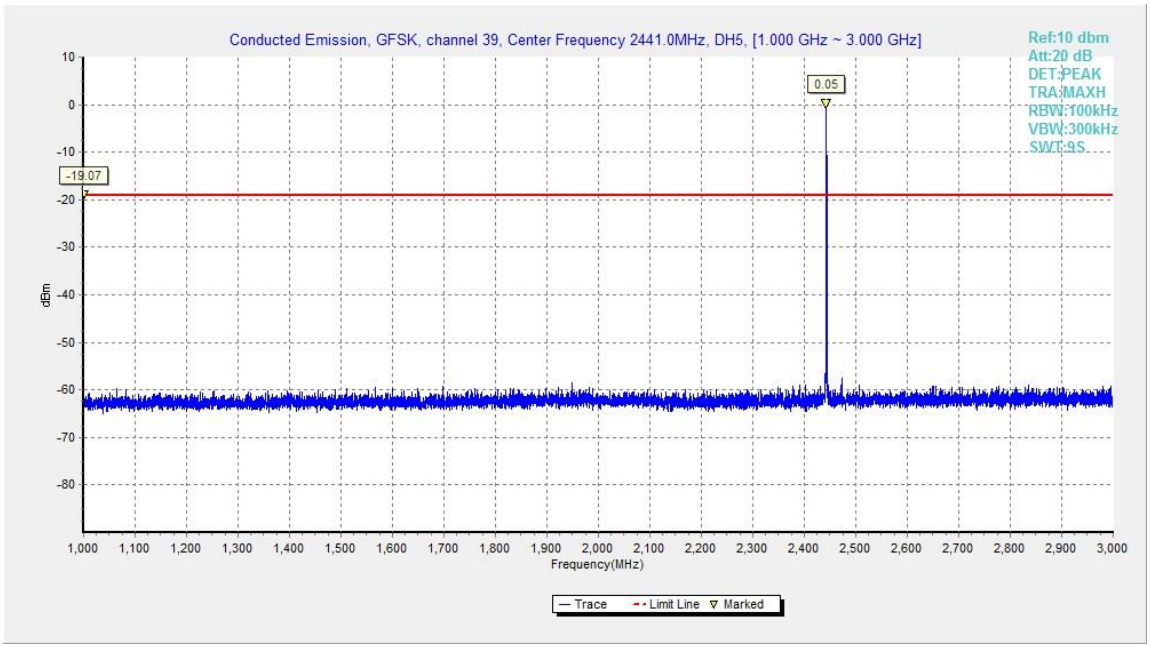

Fig.20. Conducted spurious emission: GFSK, Channel 39, 1GHz – 3GHz

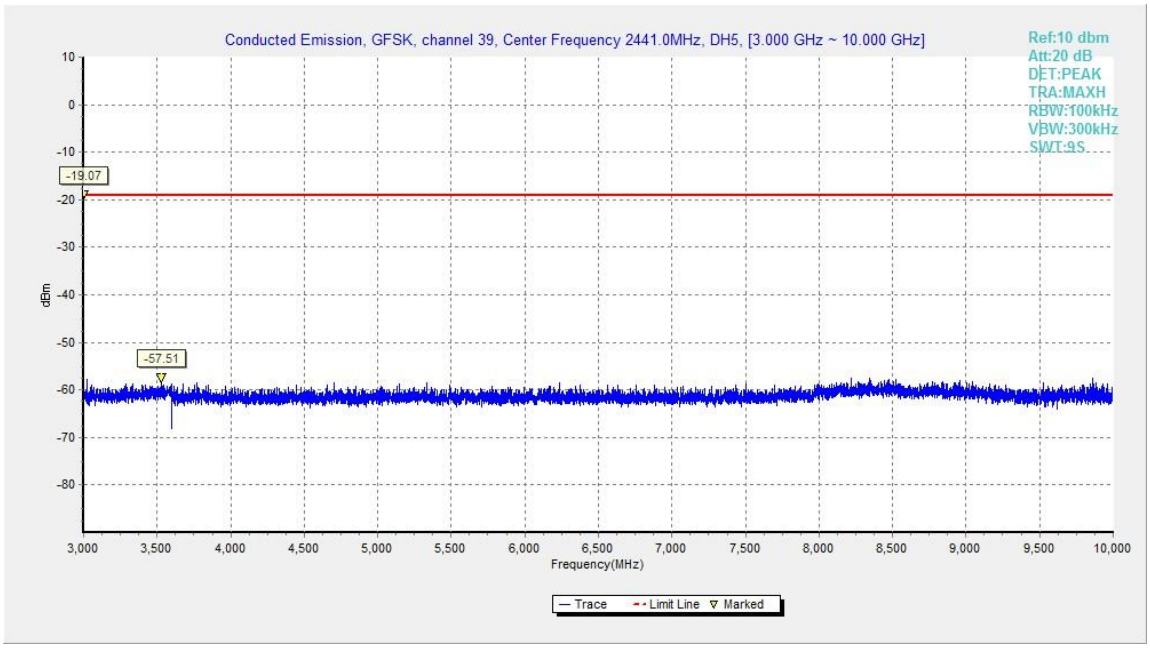

Fig.21. Conducted spurious emission: GFSK, Channel 39, 3GHz – 10GHz

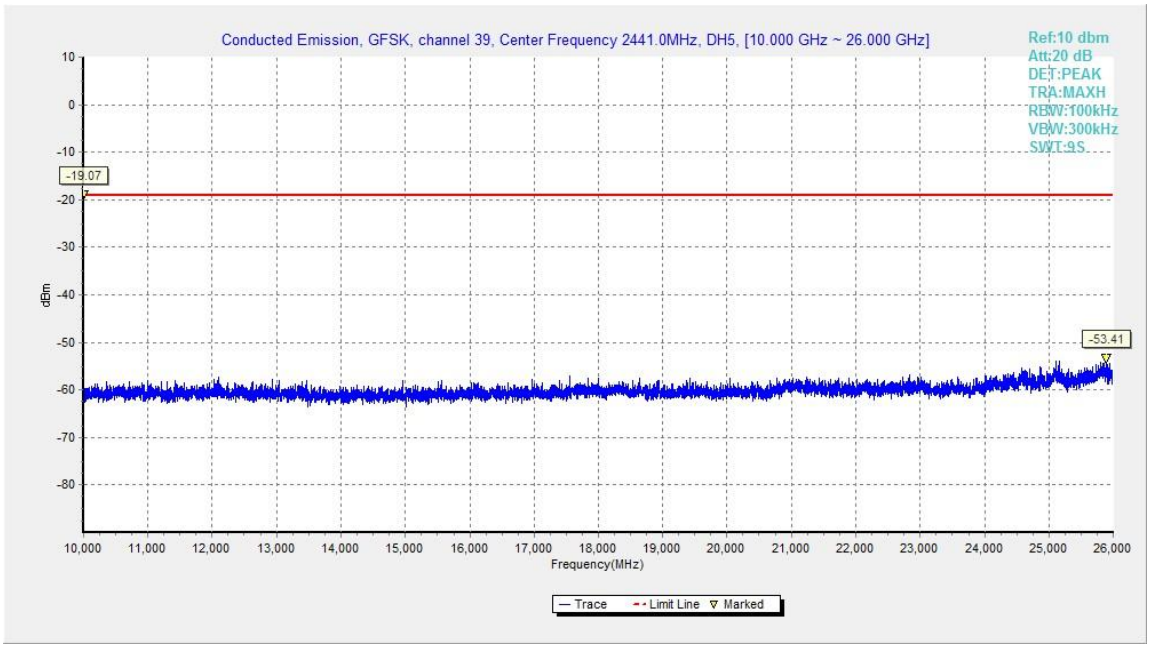

Fig.22. Conducted spurious emission: GFSK, Channel 39, 10GHz – 26GHz

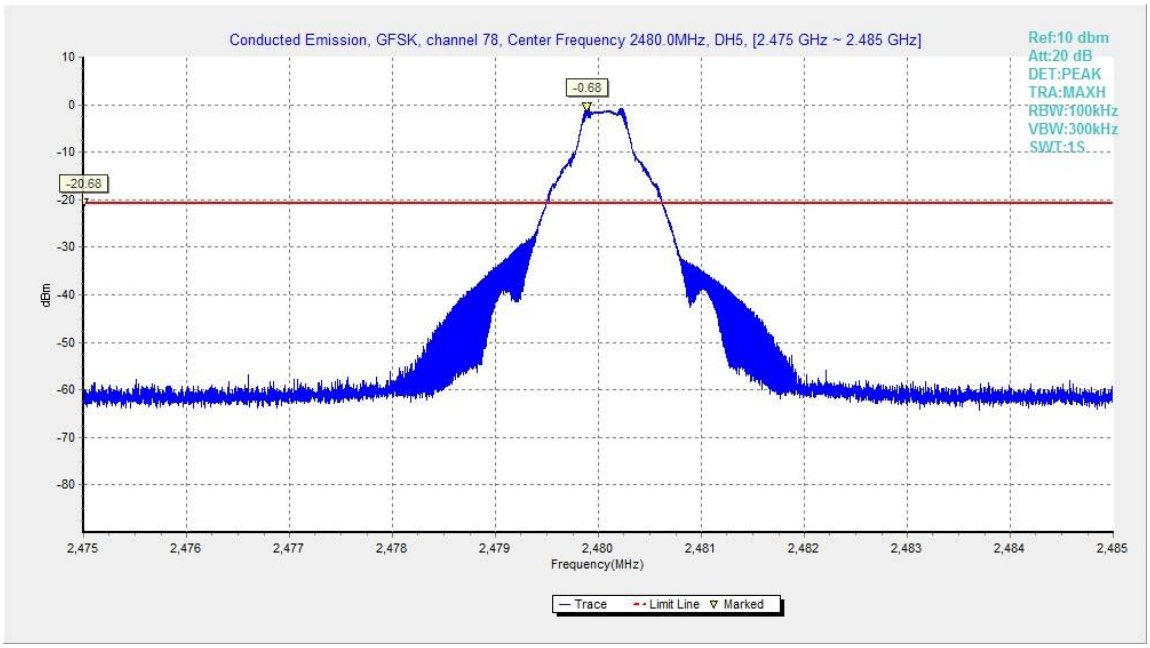

Fig.23. Conducted spurious emission: GFSK, Channel 78, 2480MHz

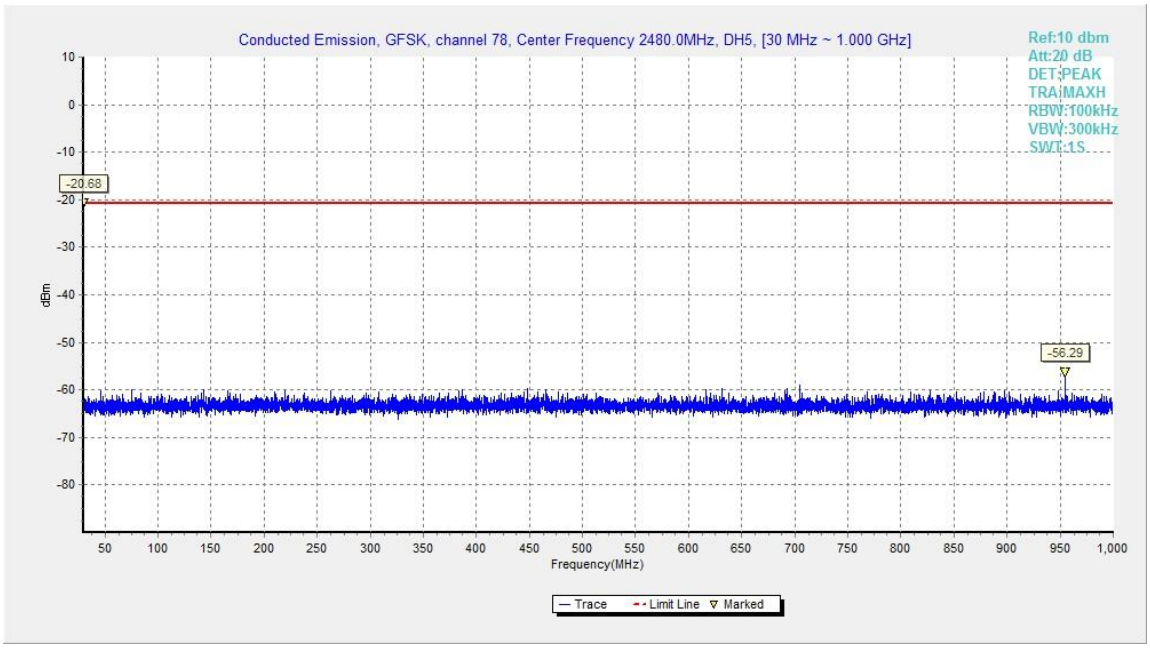

Fig.24. Conducted spurious emission: GFSK, Channel 78, 30MHz - 1GHz

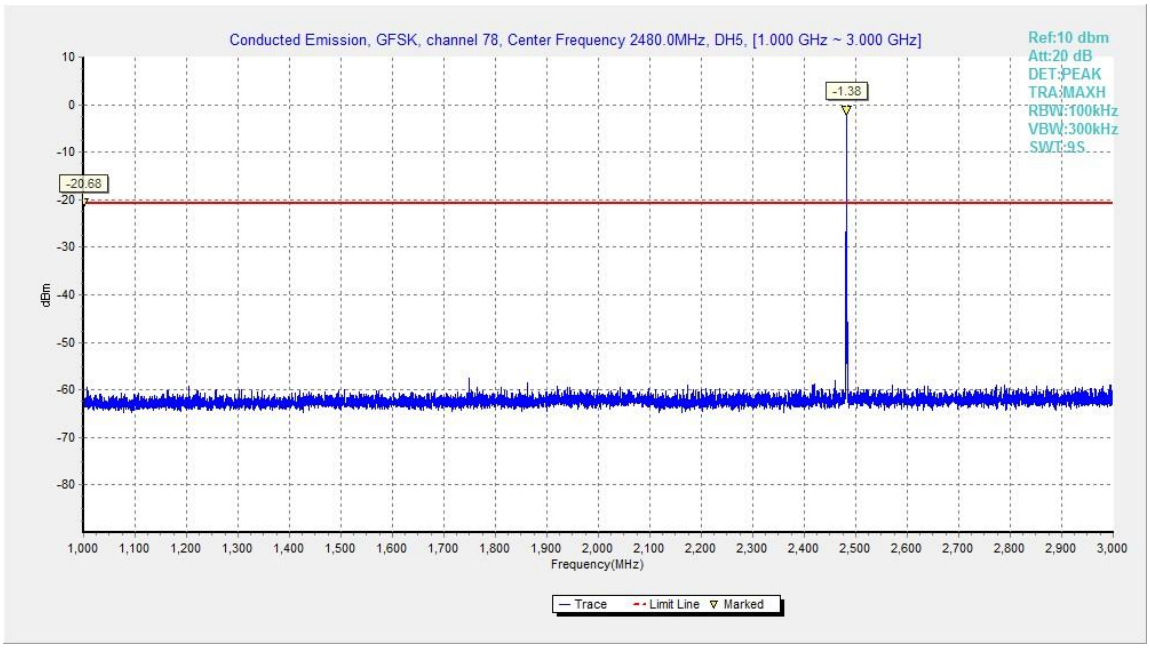

Fig.25. Conducted spurious emission: GFSK, Channel 78, 1GHz - 3GHz

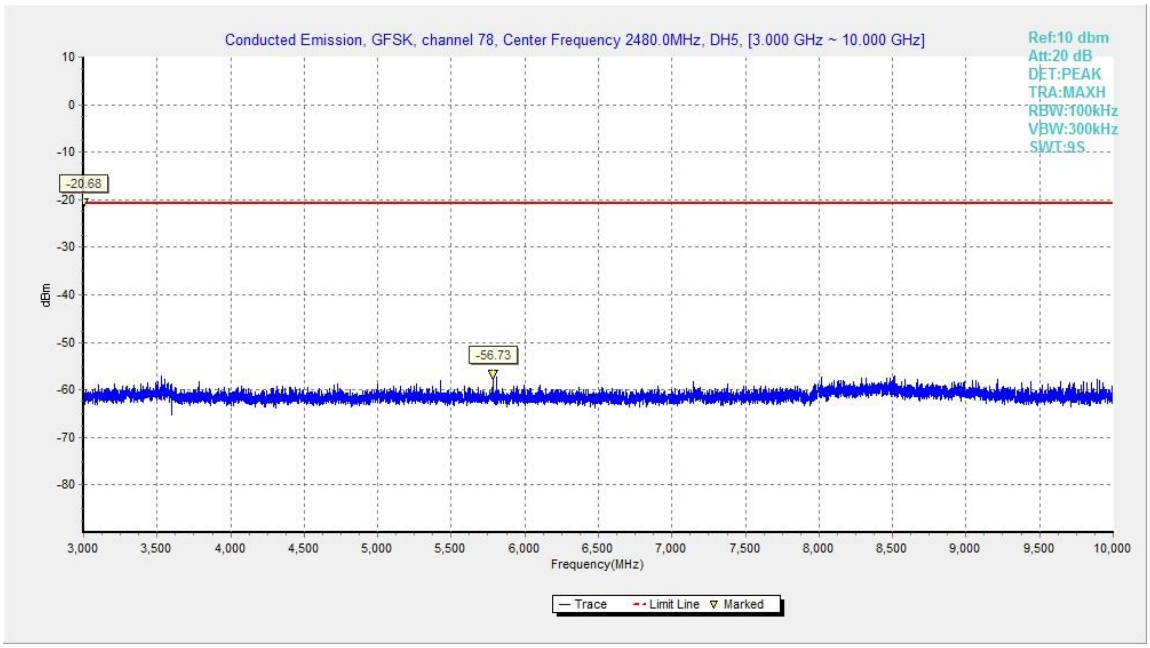

Fig.26. Conducted spurious emission: GFSK, Channel 78, 3GHz - 10GHz

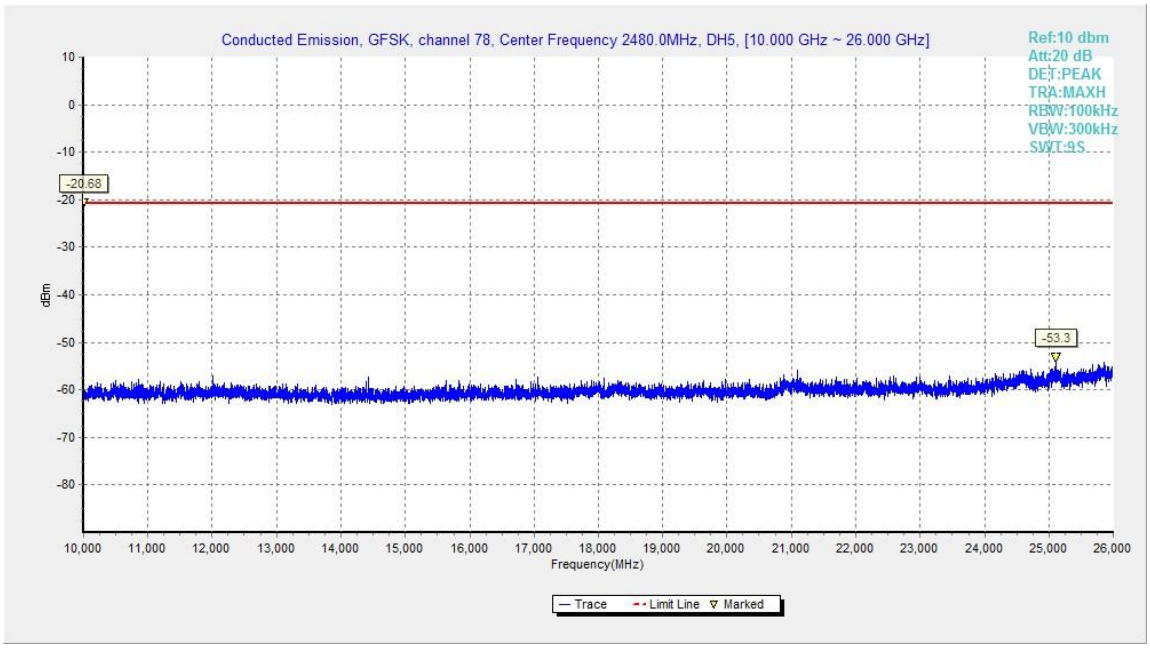

Fig.27. Conducted spurious emission: GFSK, Channel 78, 10GHz - 26GHz

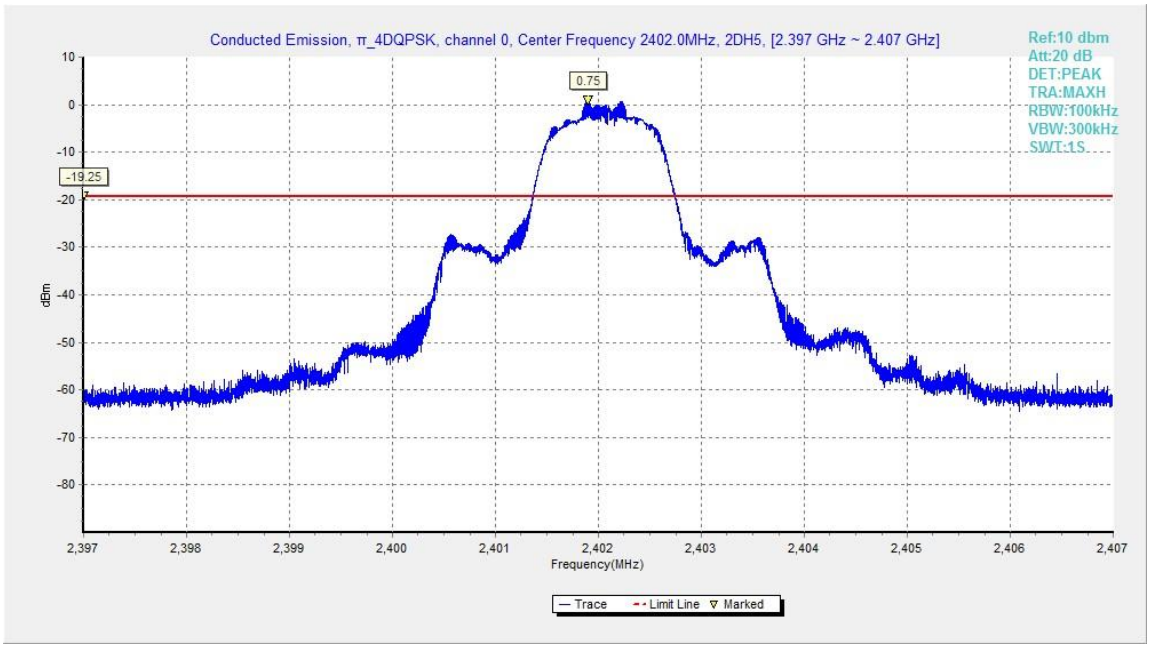

Fig.28. Conducted spurious emission: π/4 DQPSK, Channel 0,2402MHz

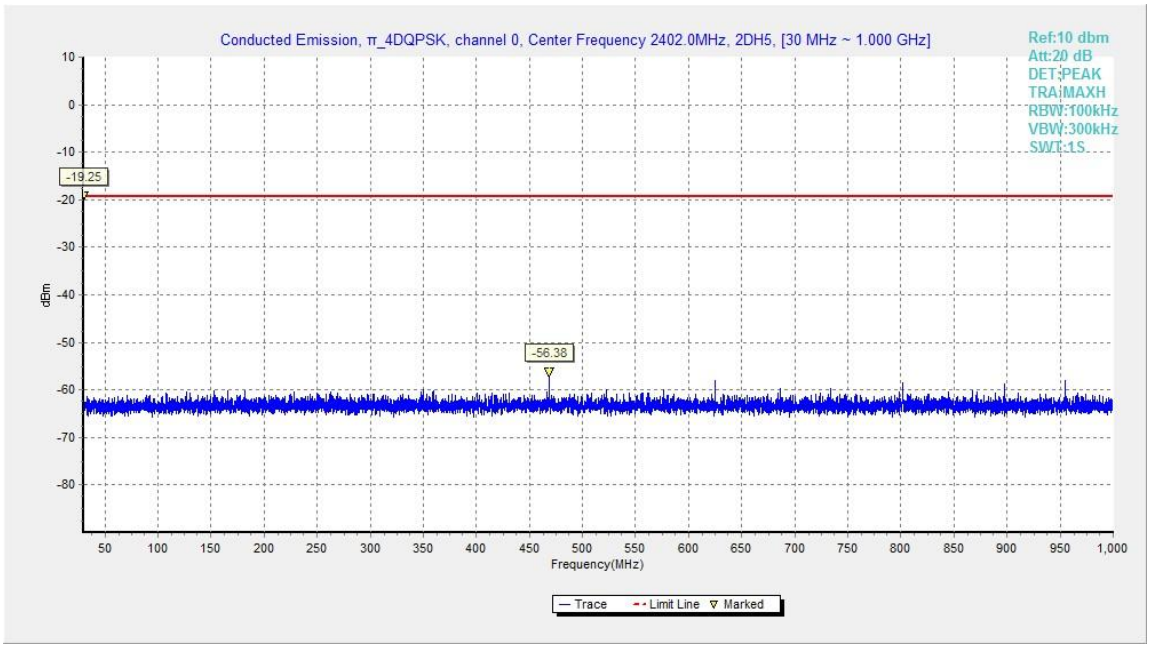

Fig.29. Conducted spurious emission: π/4 DQPSK, Channel 0, 30MHz - 1GHz

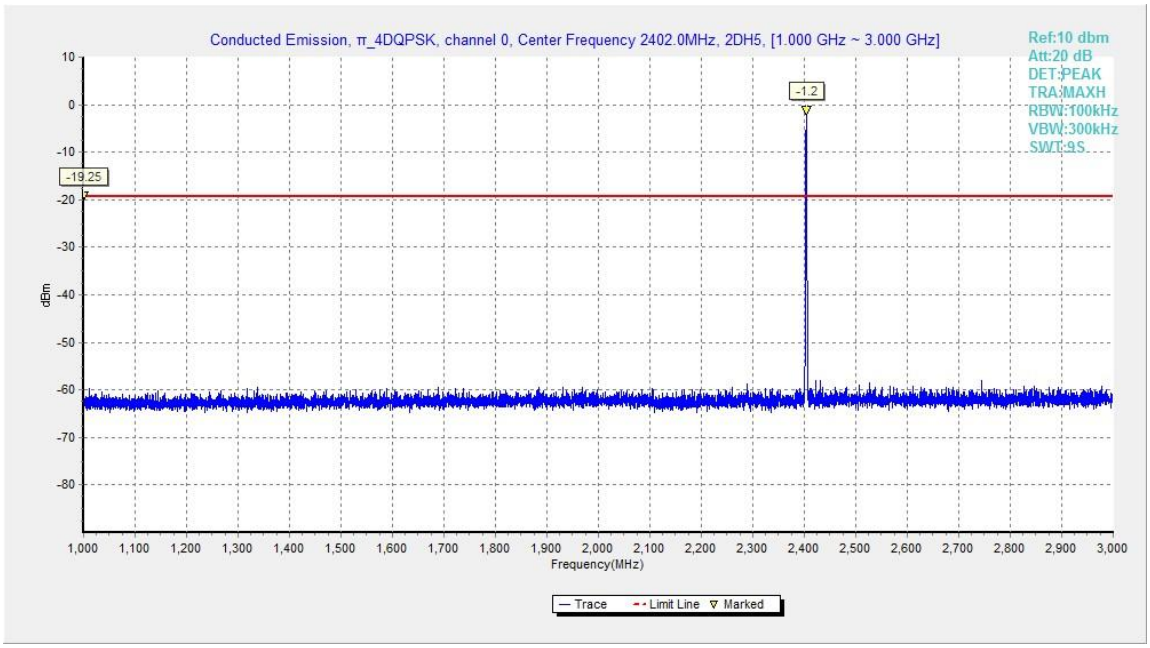

Fig.30. Conducted spurious emission: π/4 DQPSK, Channel 0, 1GHz - 3GHz

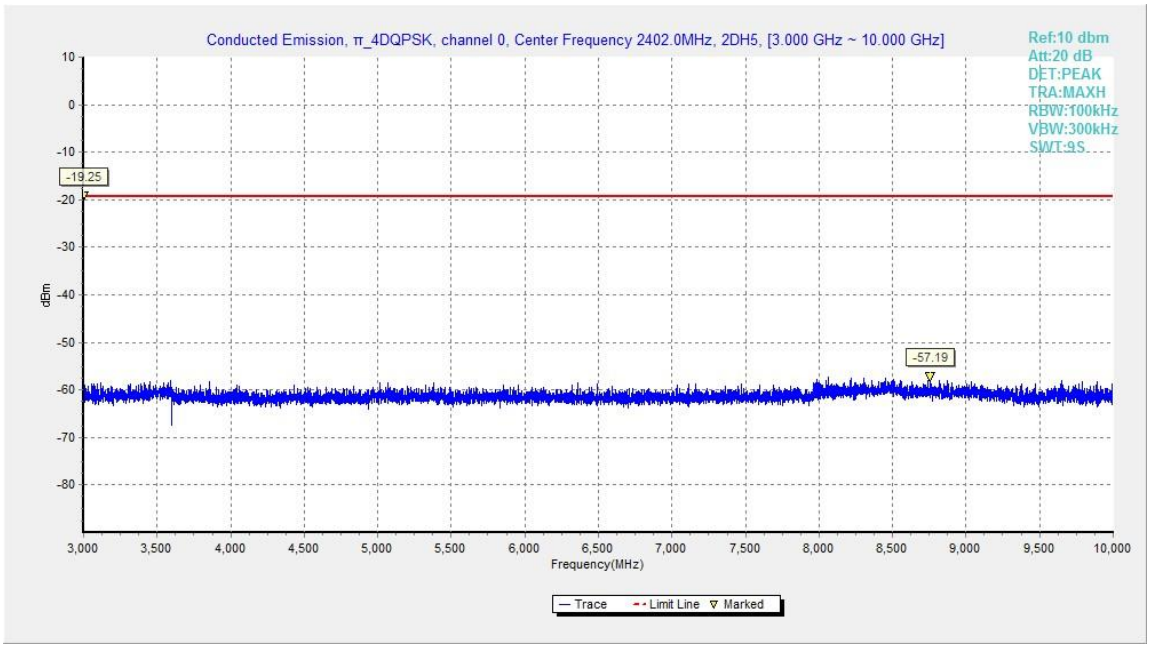

Fig.31. Conducted spurious emission: π/4 DQPSK, Channel 0, 3GHz - 10GHz

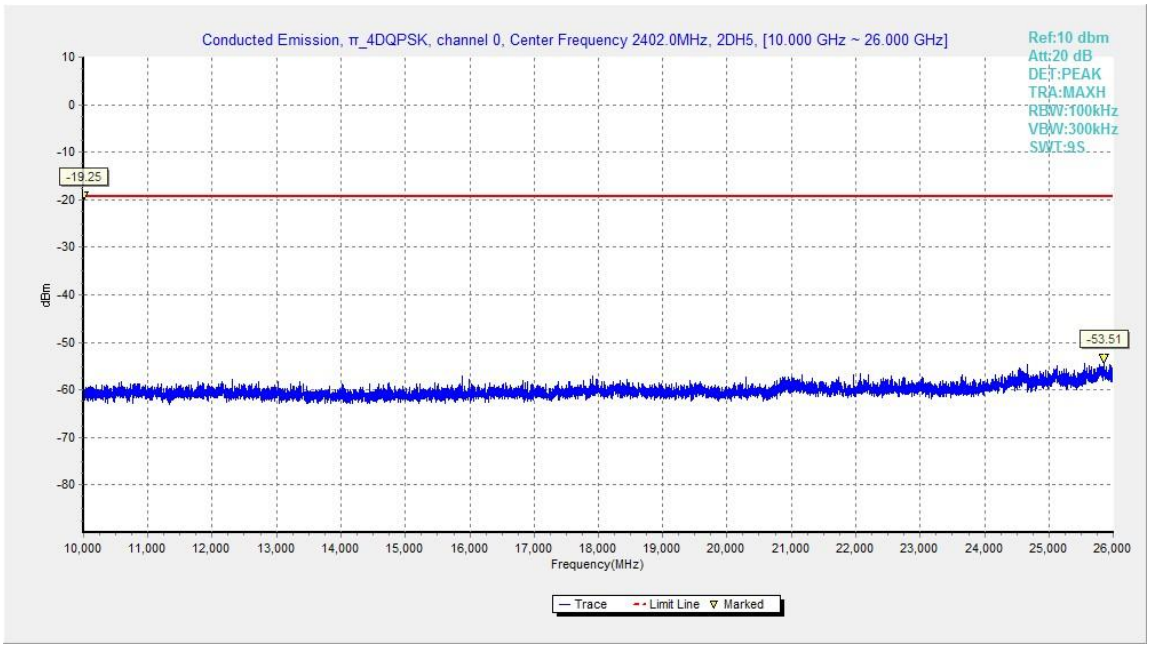

Fig.32. Conducted spurious emission: π/4 DQPSK, Channel 0,10GHz - 26GHz

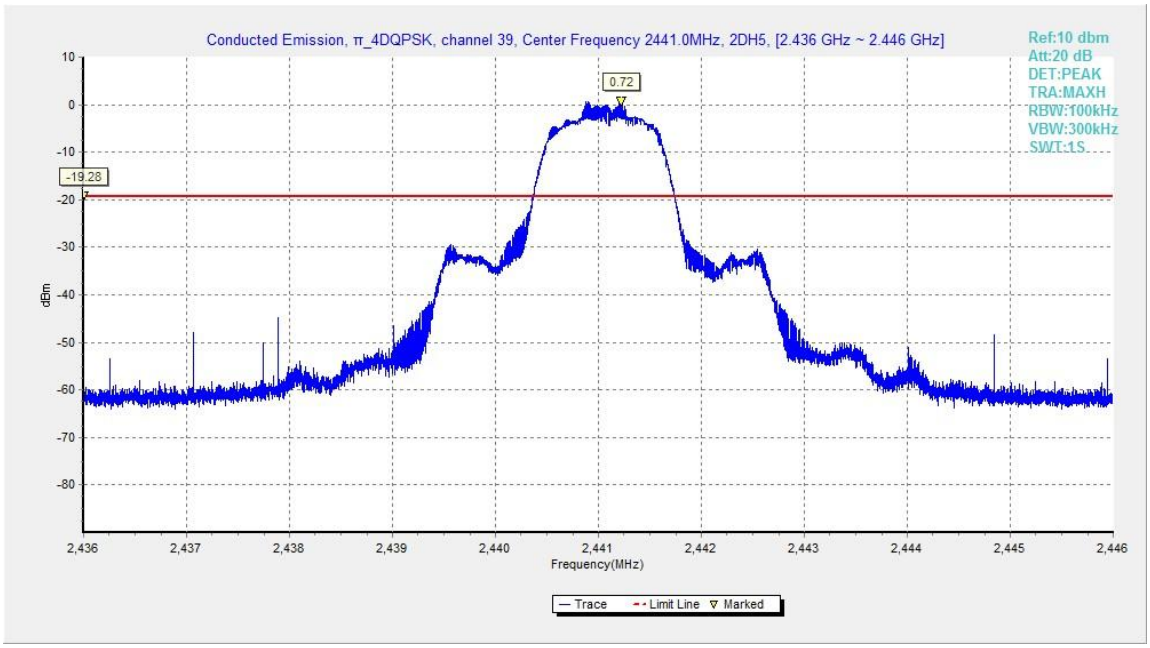

Fig.33. Conducted spurious emission: π/4 DQPSK, Channel 39, 2441MHz

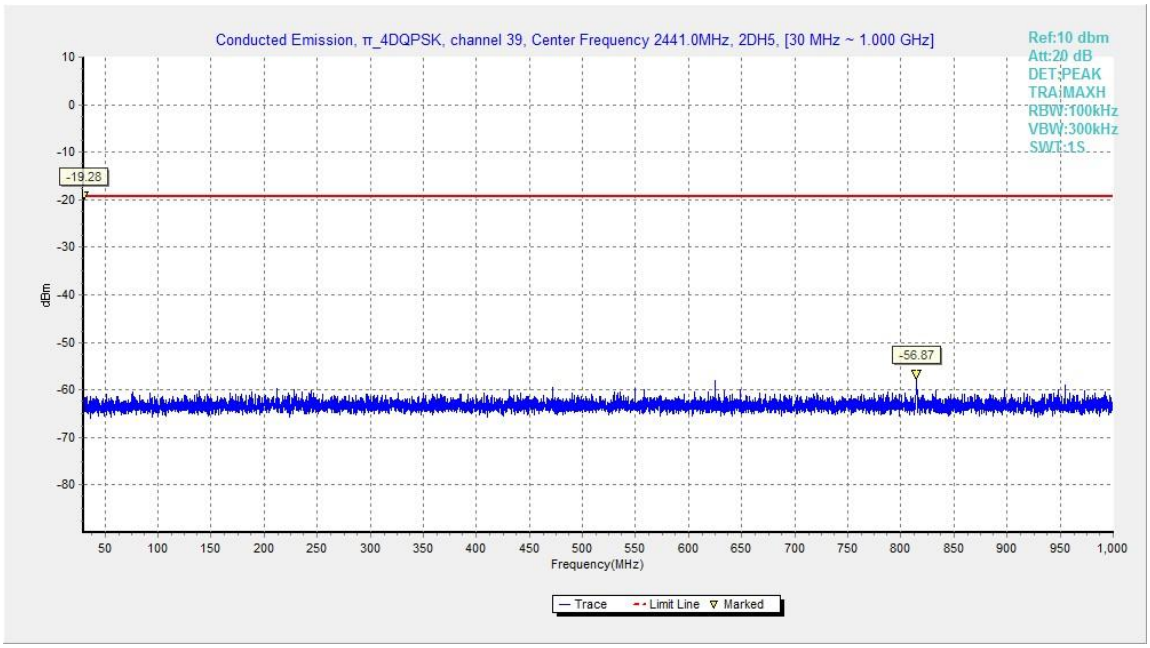

Fig.34. Conducted spurious emission: π/4 DQPSK, Channel 39, 30MHz - 1GHz

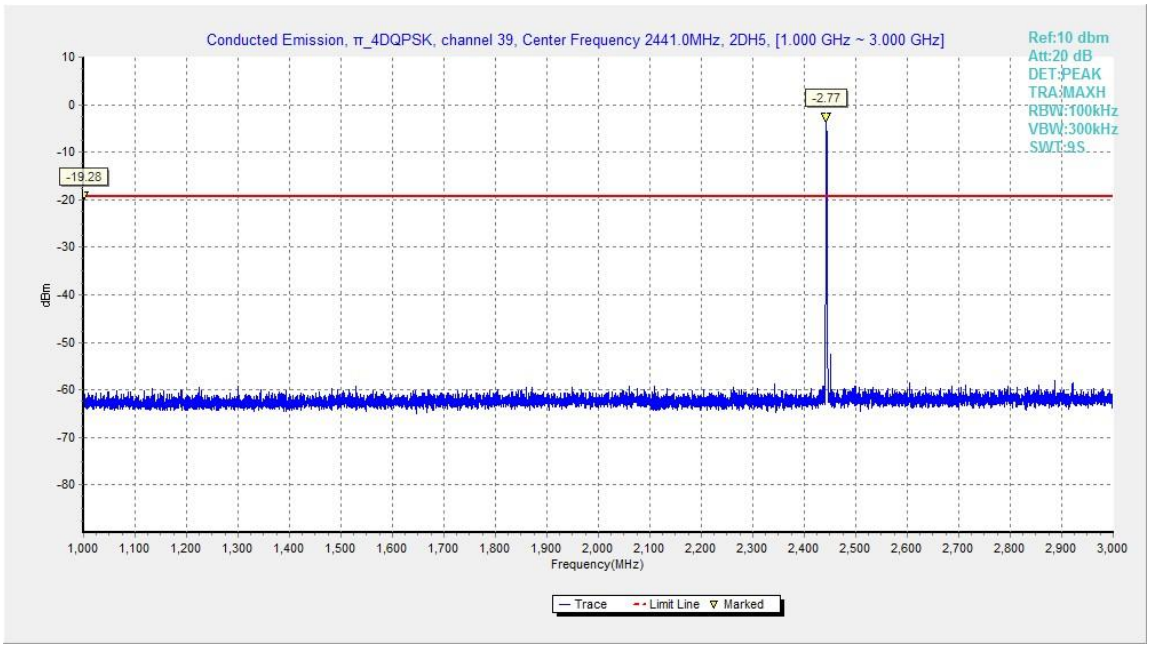

Fig.35. Conducted spurious emission: π/4 DQPSK, Channel 39, 1GHz - 3GHz

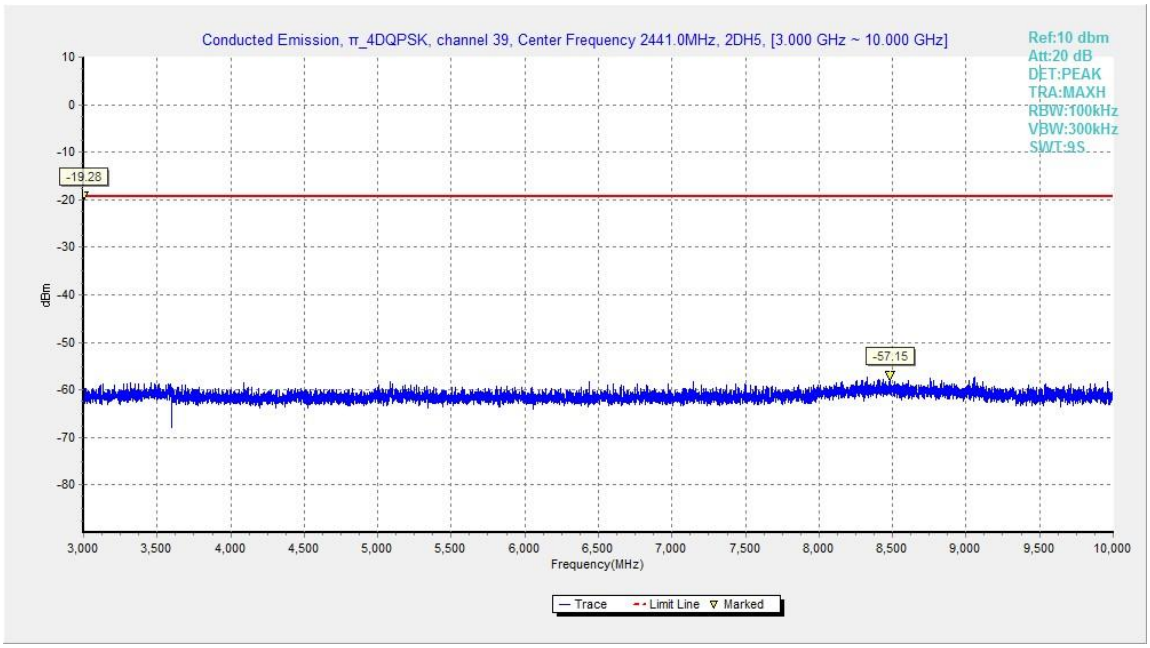

Fig.36. Conducted spurious emission: π/4 DQPSK, Channel 39, 3GHz - 10GHz

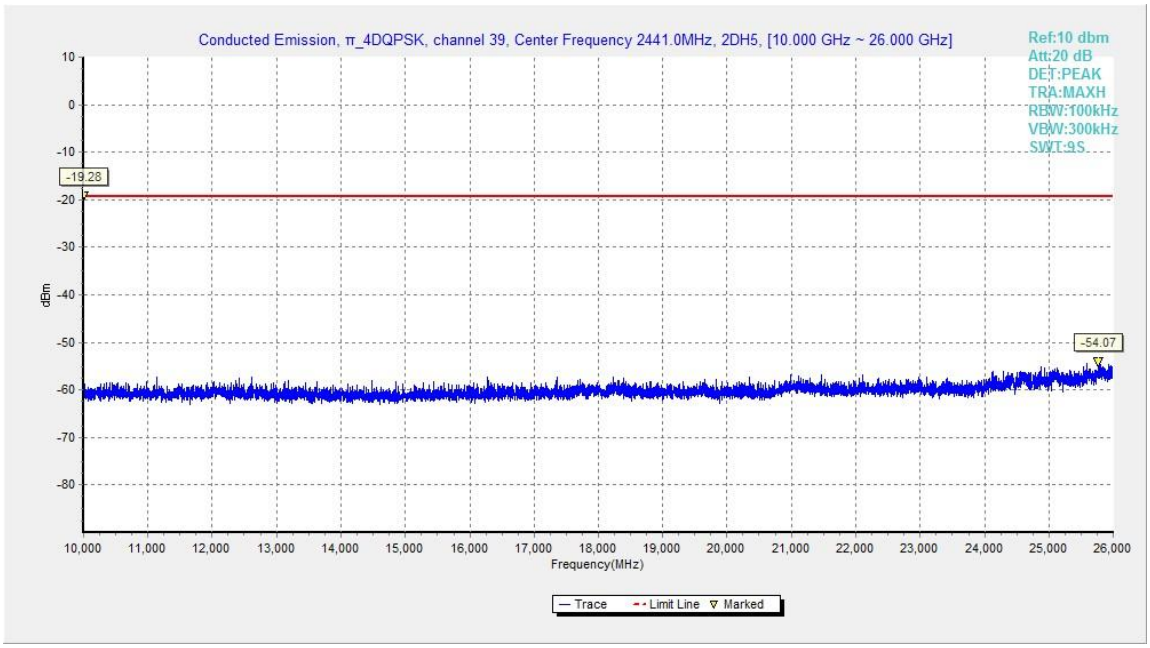

Fig.37. Conducted spurious emission: π/4 DQPSK, Channel 39, 10GHz – 26GHz

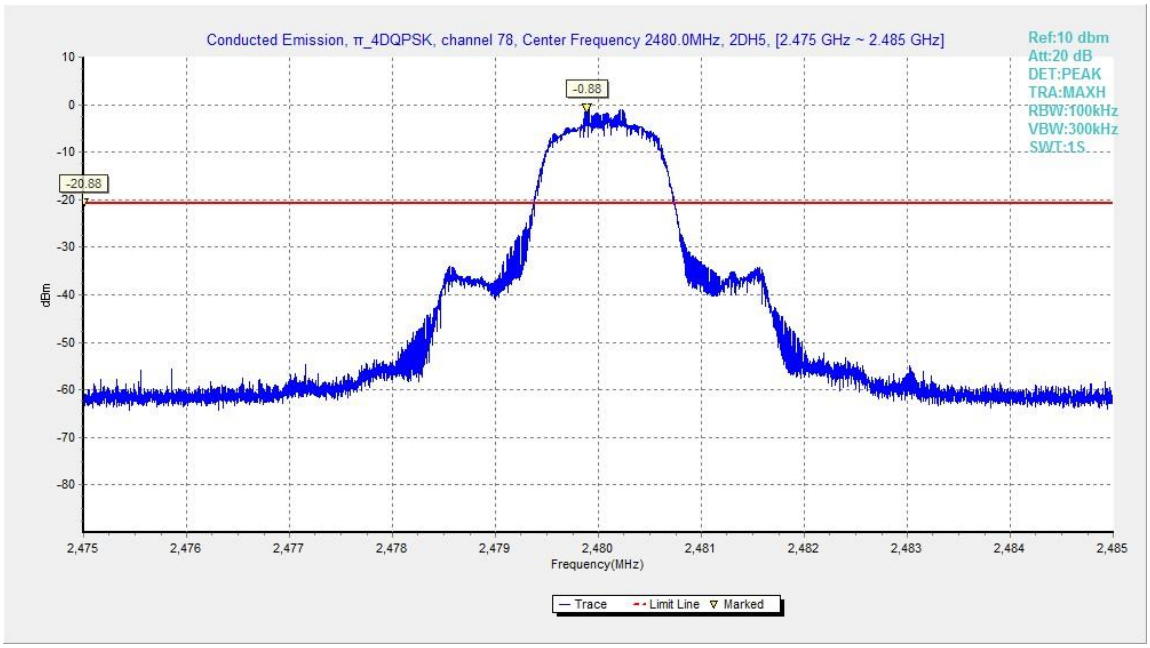

Fig.38. Conducted spurious emission: π/4 DQPSK, Channel 78, 2480MHz

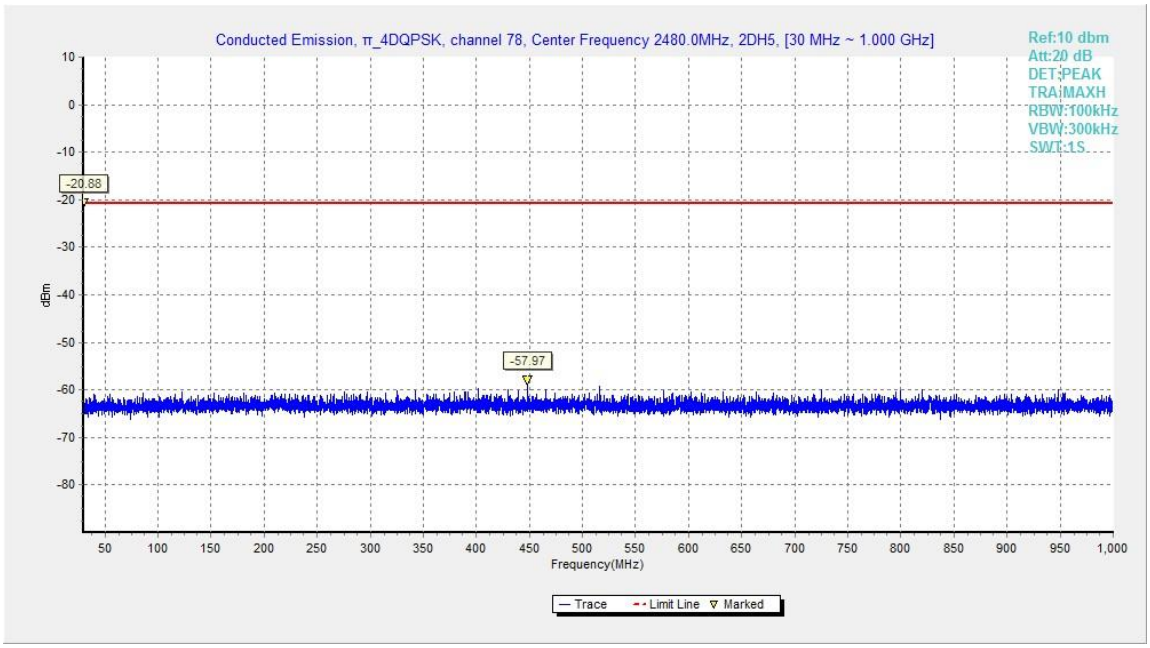

Fig.39. Conducted spurious emission: π/4 DQPSK, Channel 78, 30MHz - 1GHz

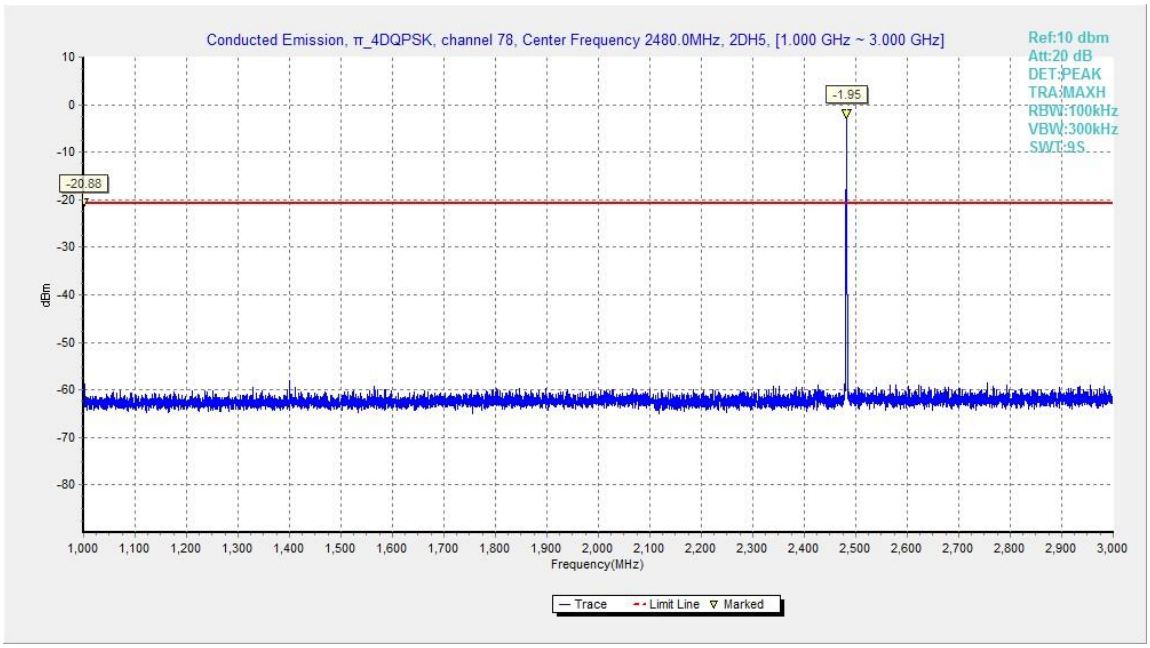

Fig.40. Conducted spurious emission: π/4 DQPSK, Channel 78, 1GHz - 3GHz

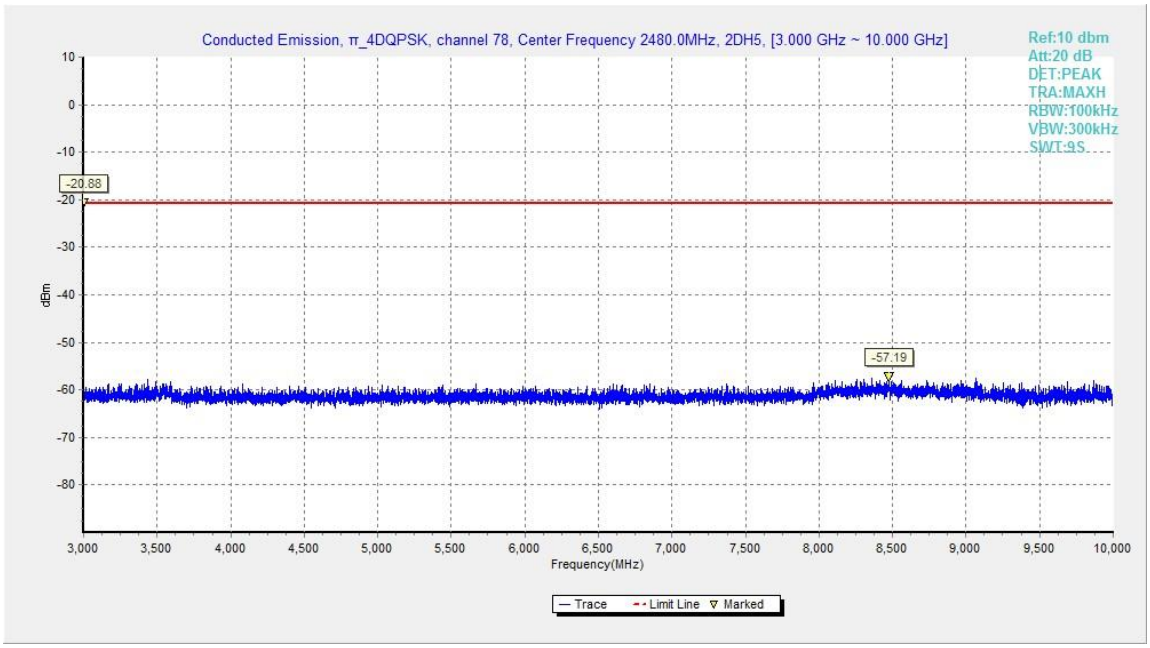

Fig.41. Conducted spurious emission: π/4 DQPSK, Channel 78, 3GHz - 10GHz

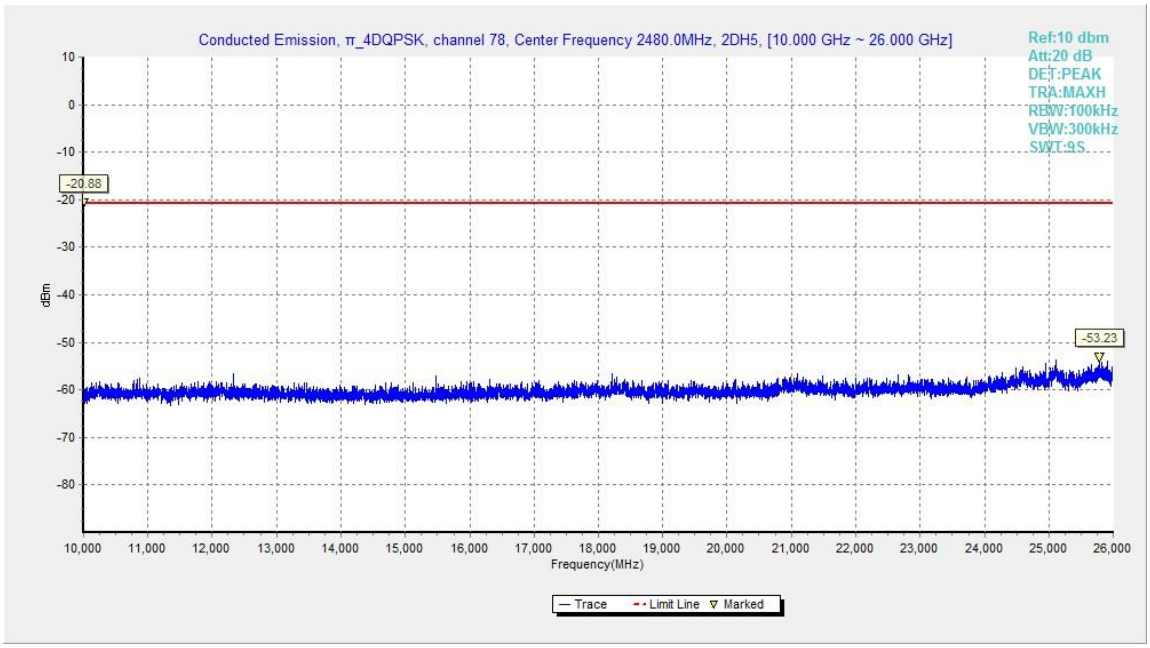

Fig.42. Conducted spurious emission: π/4 DQPSK, Channel 78, 10GHz - 26GHz

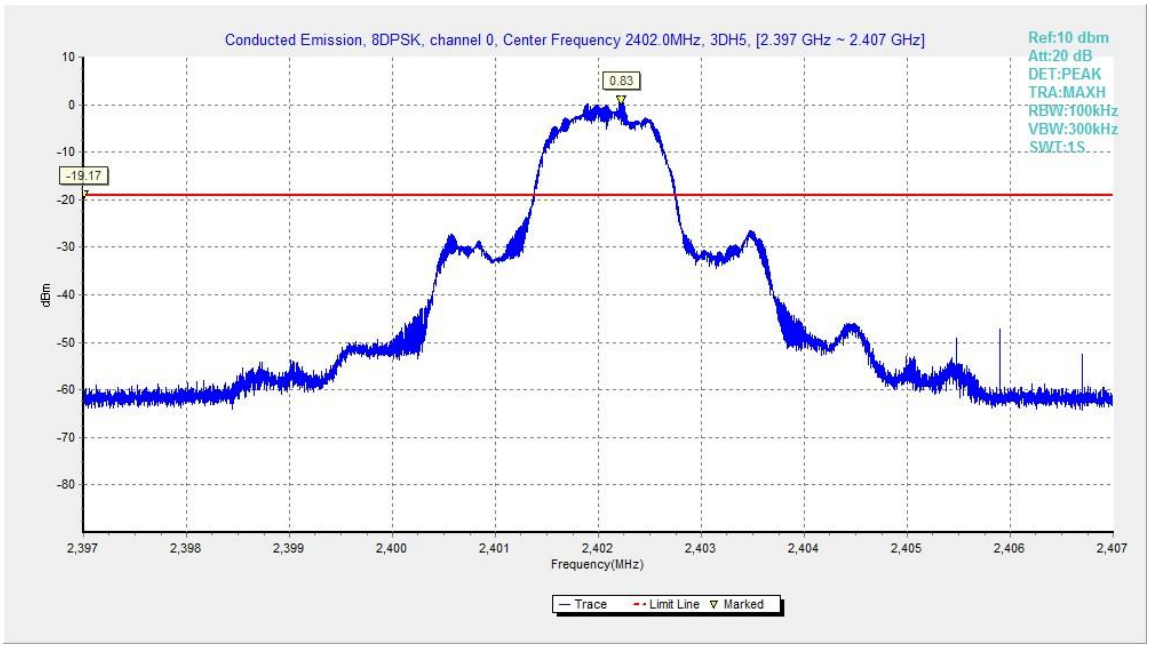

Fig.43. Conducted spurious emission: 8DPSK, Channel 0,2402MHz

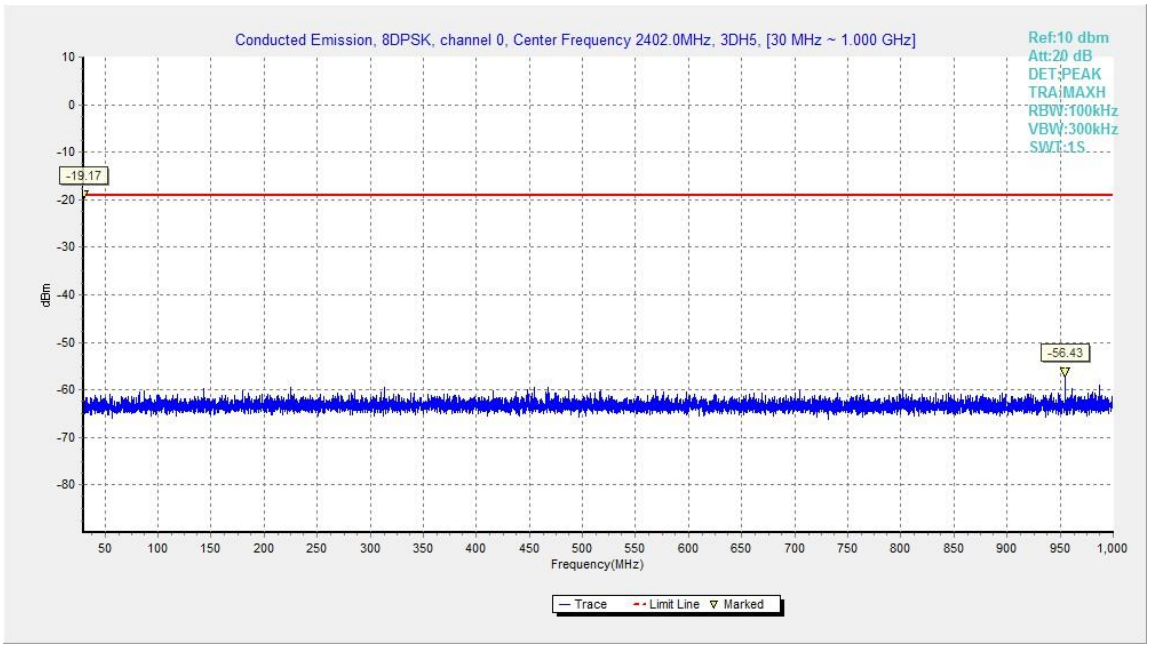

Fig.44. Conducted spurious emission: 8DPSK, Channel 0, 30MHz - 1GHz

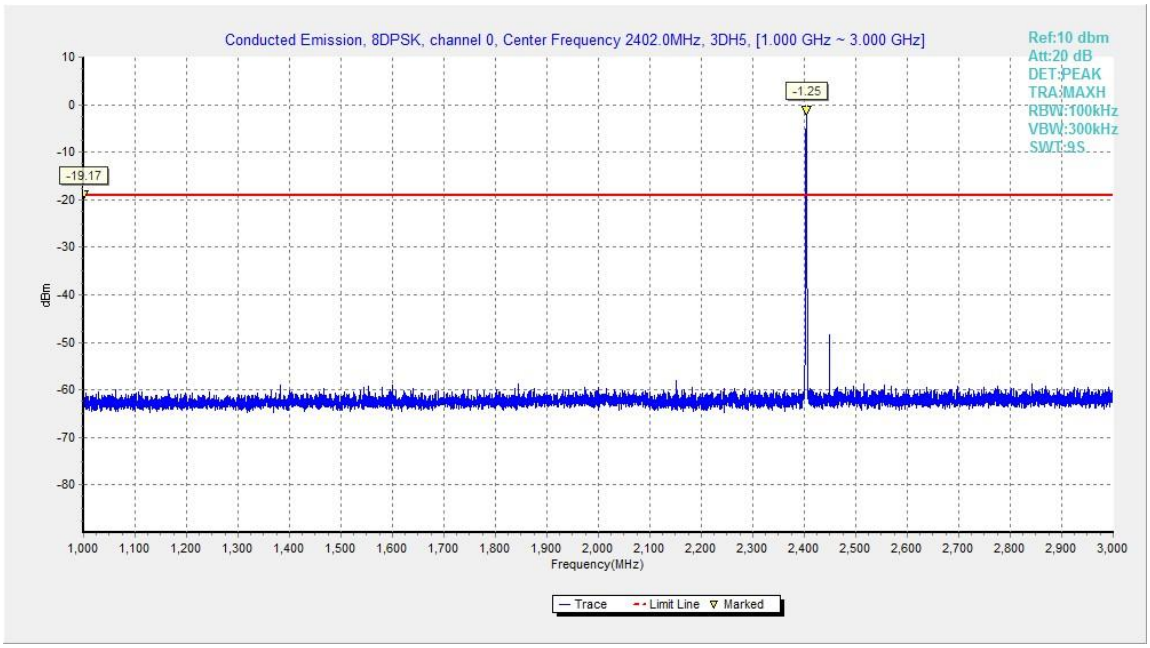

Fig.45. Conducted spurious emission: 8DPSK, Channel 0, 1GHz - 3GHz

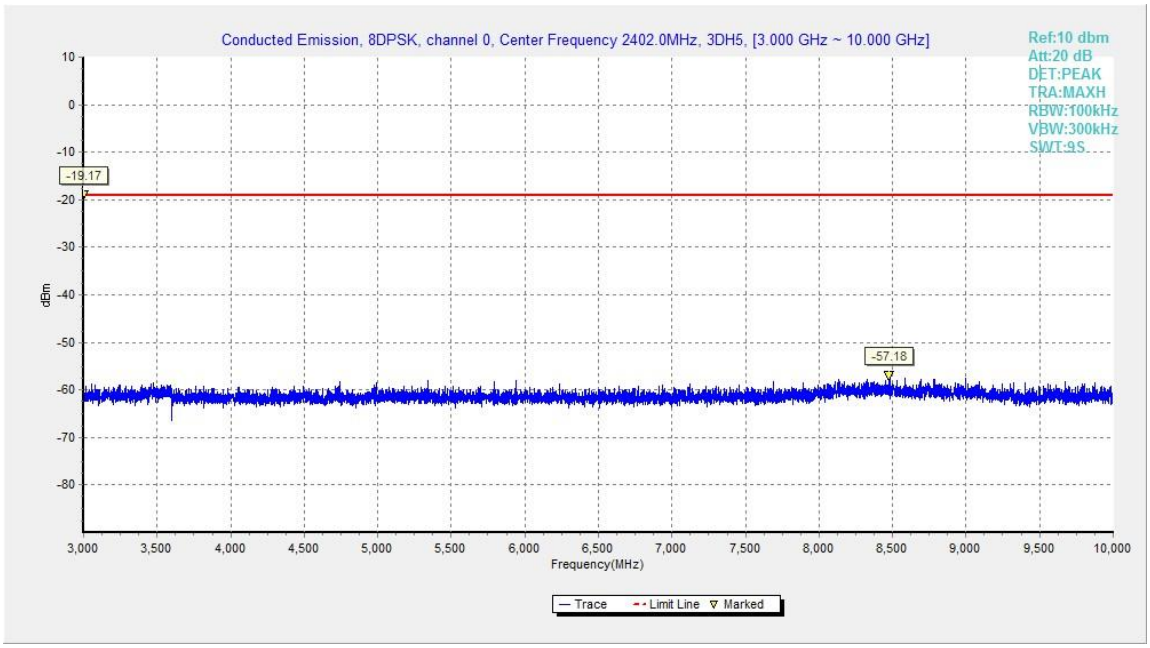

Fig.46. Conducted spurious emission: 8DPSK, Channel 0, 3GHz - 10GHz

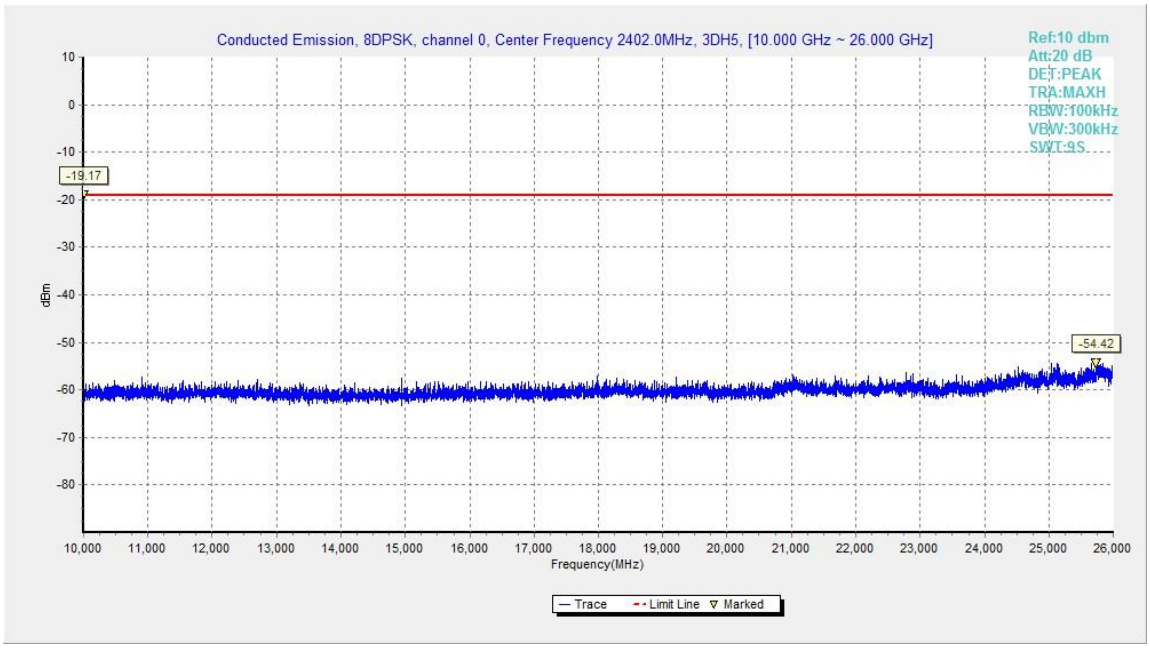

Fig.47. Conducted spurious emission: 8DPSK, Channel 0,10GHz - 26GHz

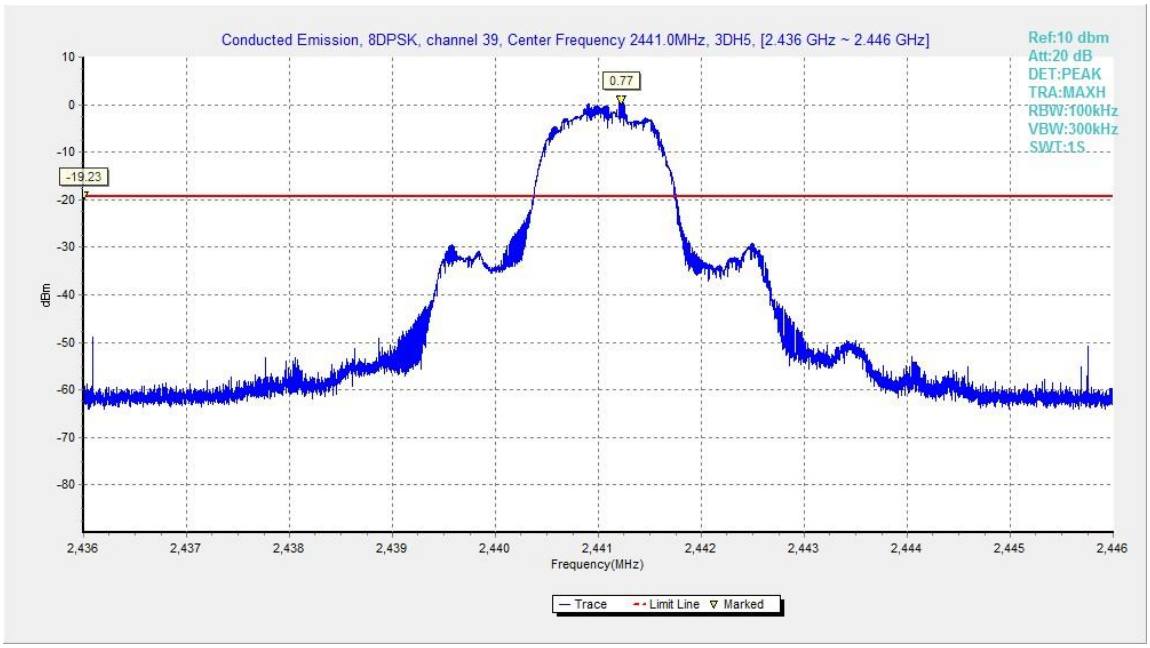

Fig.48. Conducted spurious emission: 8DPSK, Channel 39, 2441MHz

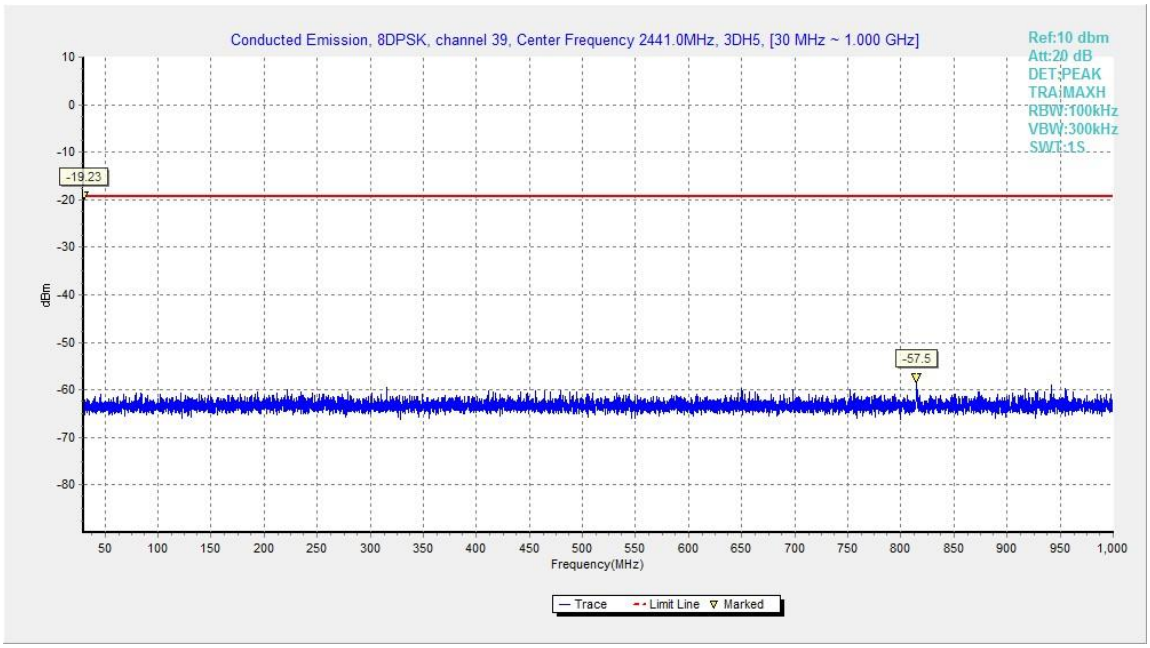

Fig.49. Conducted spurious emission: 8DPSK, Channel 39, 30MHz - 1GHz

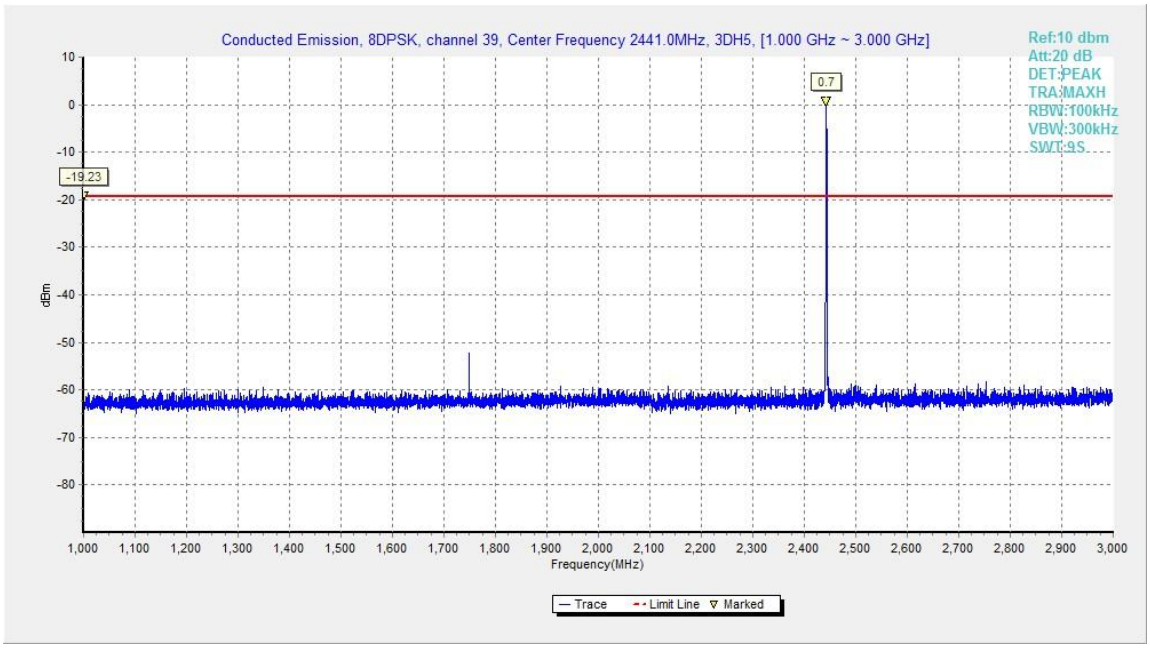

Fig.50. Conducted spurious emission: 8DPSK, Channel 39, 1GHz - 3GHz

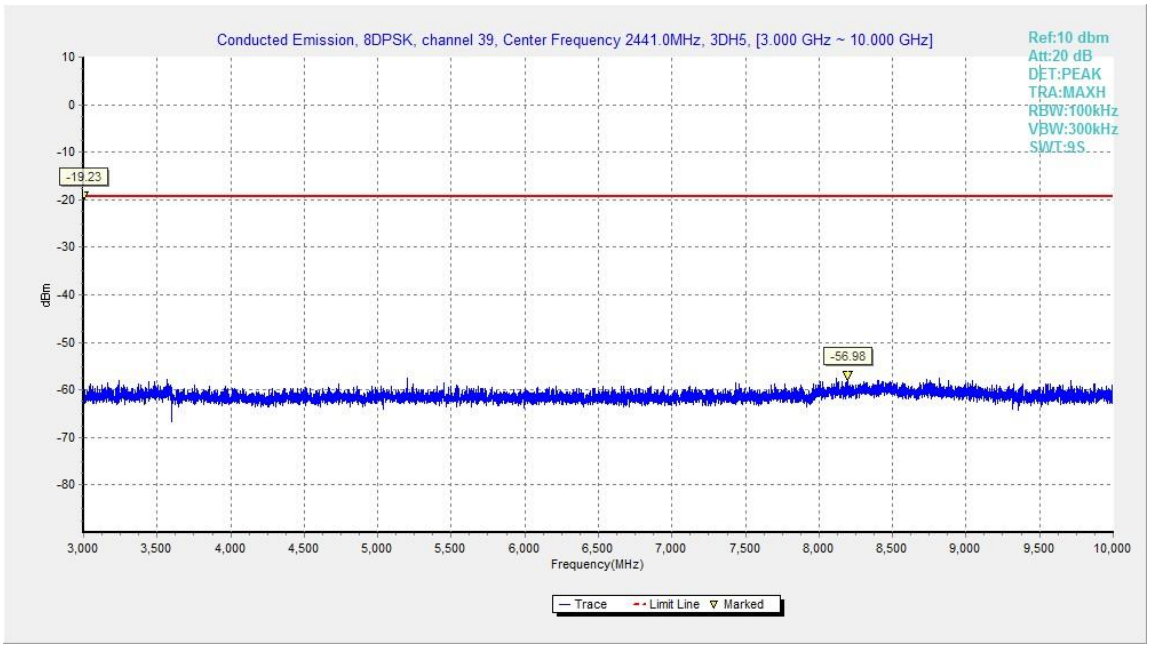

Fig.51. Conducted spurious emission: 8DPSK, Channel 39, 3GHz - 10GHz

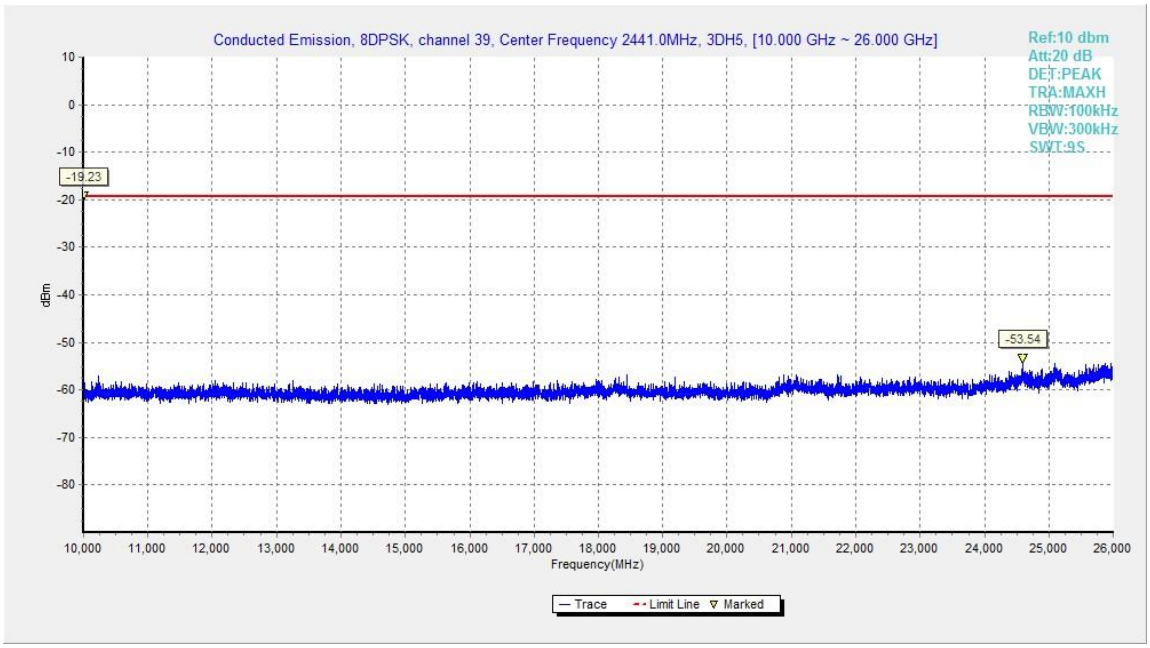

Fig.52. Conducted spurious emission: 8DPSK, Channel 39, 10GHz – 26GHz

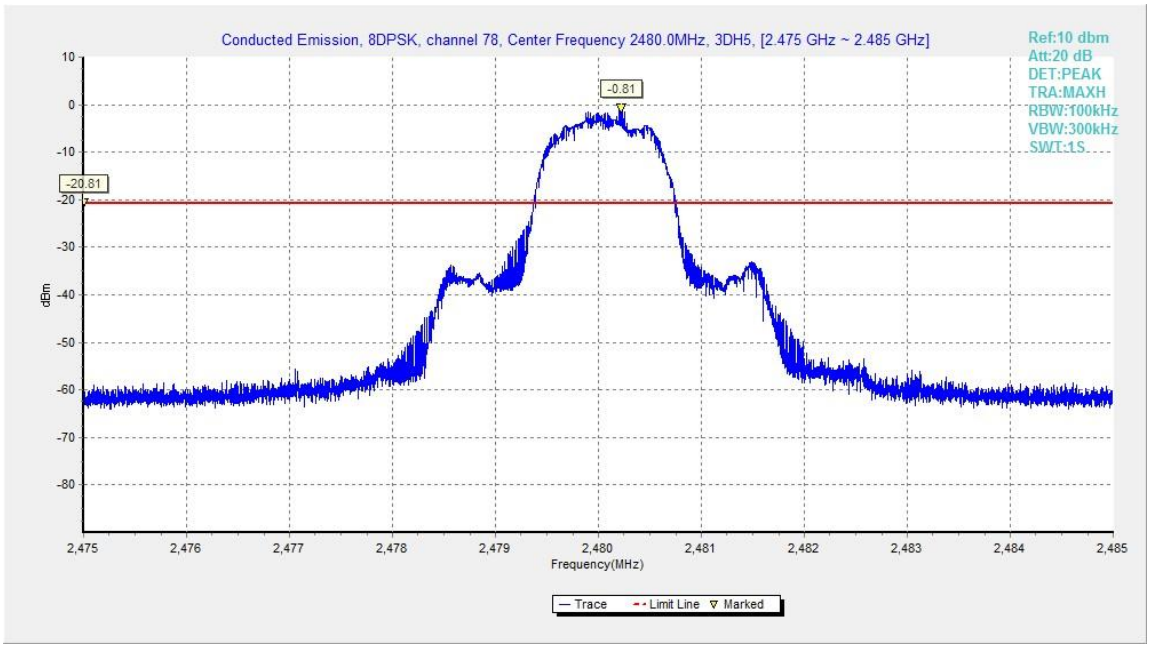

Fig.53. Conducted spurious emission: 8DPSK, Channel 78, 2480MHz

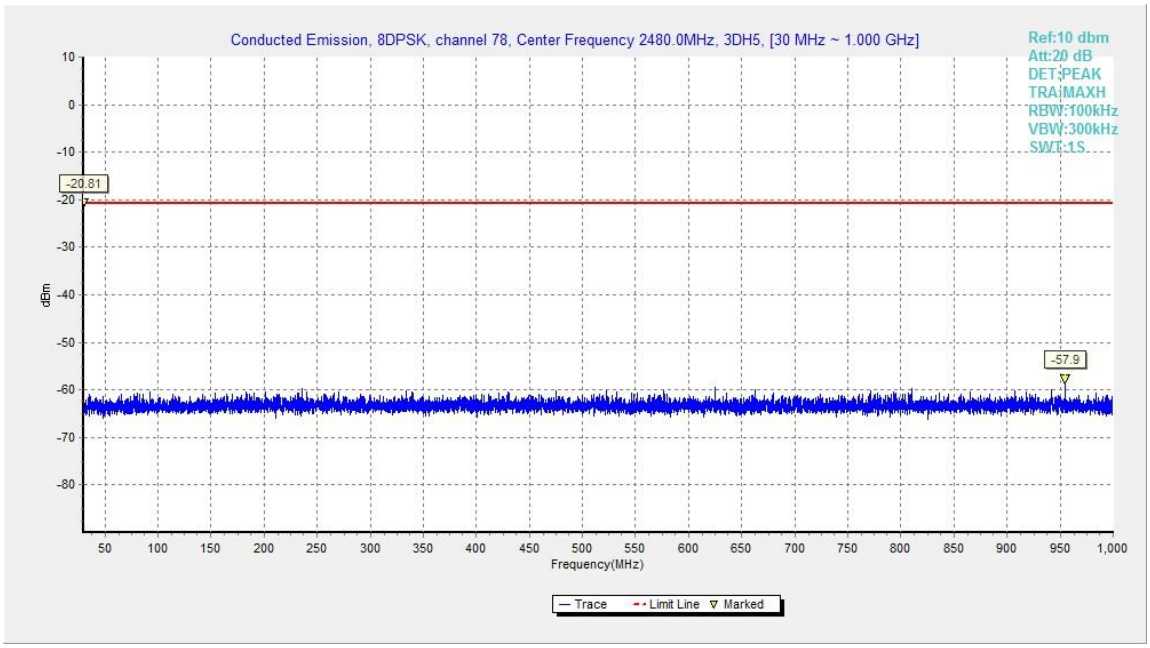

Fig.54. Conducted spurious emission: 8DPSK, Channel 78, 30MHz - 1GHz

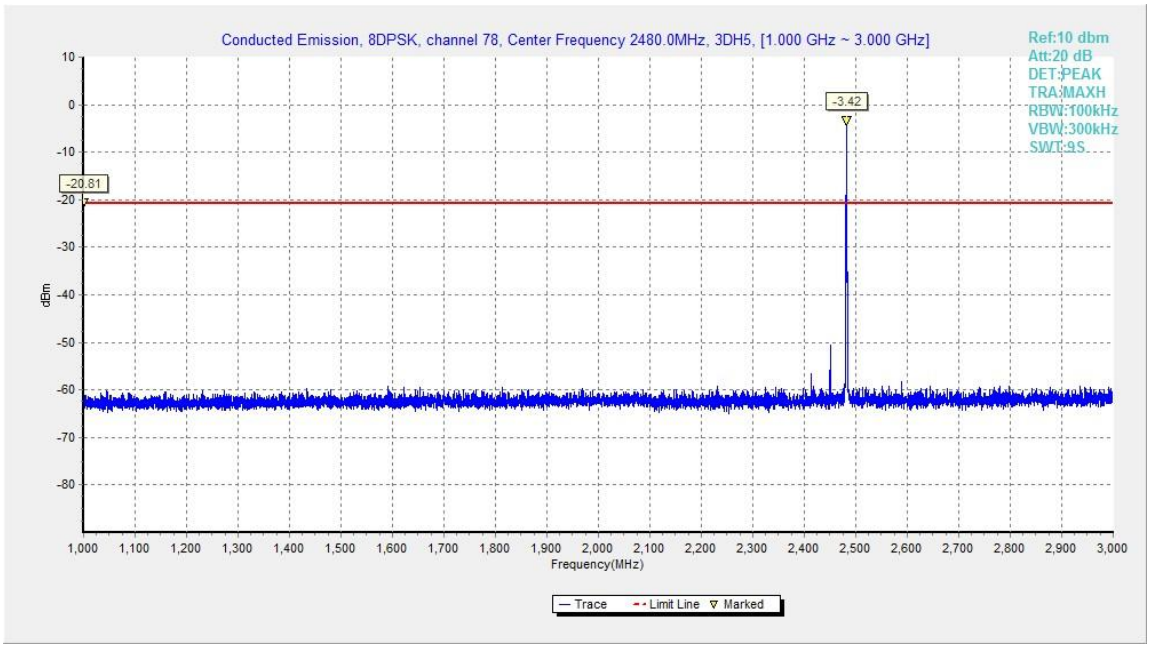

Fig.55. Conducted spurious emission: 8DPSK, Channel 78, 1GHz - 3GHz

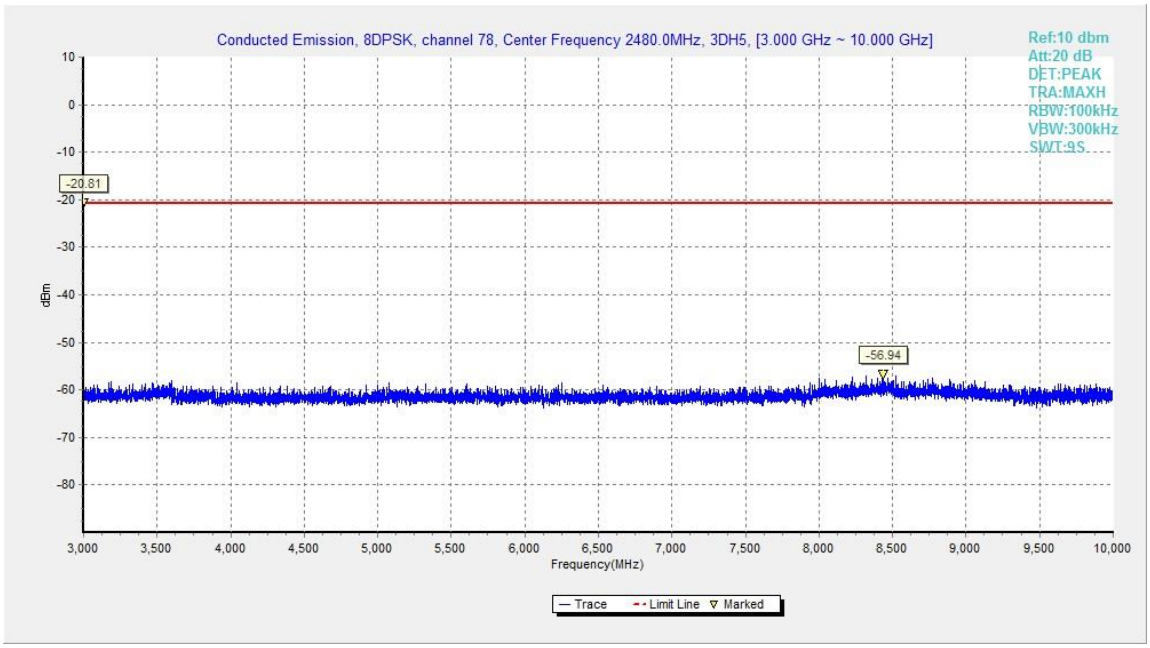

Fig.56. Conducted spurious emission: 8DPSK, Channel 78, 3GHz - 10GHz

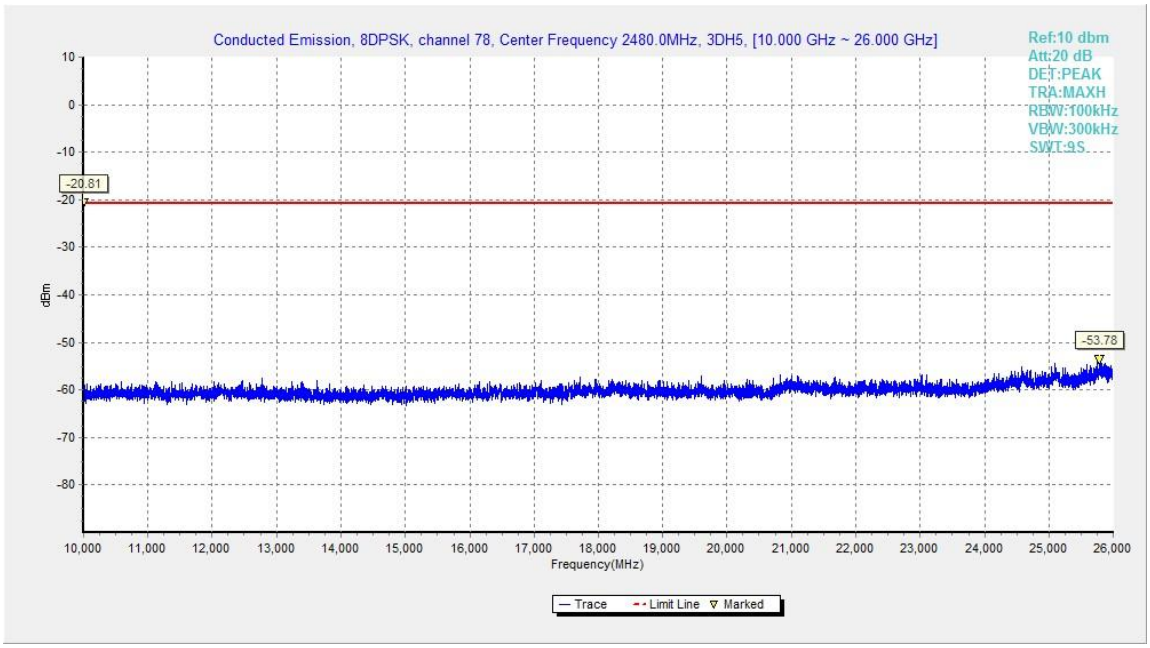

Fig.57. Conducted spurious emission: 8DPSK, Channel 78, 10GHz - 26GHz

A.5. Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

The measurement is made according to ANSI C63.10

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

Measurement Results:

Result=P_{Mea}+ARPL

For GFSK

Channel	Frequency Range	Test Results	Conclusion
Power	2.38GHz~2.4GHz---L	Fig.58	P
Power	2.45GHz~2.5GHz---H	Fig.59	P

Forπ/4 DQPSK

Channel	Frequency Range	Test Results	Conclusion
Power	2.38GHz~2.4GHz---L	Fig.60	P
Power	2.45GHz~2.5GHz---H	Fig.61	P

For 8DPSK

Channel	Frequency Range	Test Results	Conclusion
Power	2.38GHz~2.4GHz---L	Fig.62	P
Power	2.45GHz~2.5GHz---H	Fig.63	P

GFSK Ch 0 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	PMea(dBuv/m)	Polarization
2386.545	41.8	-11.6	53.449	V
17992.500	41.2	17.9	23.302	V
17995.500	41.1	17.9	23.202	H
17997.000	41.1	17.9	23.202	V
17998.500	41.1	17.9	23.202	H
18000.000	41.0	19.9	21.105	H

GFSK Ch 39 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
17998.500	41.0	17.9	23.102	V
17995.500	41.0	17.9	23.102	H
17992.500	40.9	17.9	23.002	V
17997.000	40.9	17.9	23.002	V
17994.000	40.9	17.9	23.002	H
18000.000	40.9	19.9	21.005	H

GFSK Ch 78 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2483.855	42.2	-11.8	54.014	V
17997.000	41.0	17.9	23.102	H
17994.000	41.0	17.9	23.102	H
17998.500	40.9	17.9	23.002	H
18000.000	40.9	19.9	21.005	V
17988.000	40.8	17.9	22.902	V

π/4 DQPSK Ch 0 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2387.620	41.7	-11.6	53.349	V
18000.000	41.1	19.9	21.205	H
17992.500	40.9	17.9	23.002	V
17997.000	40.9	17.9	23.002	V
17989.500	40.9	17.9	23.002	H
17995.500	40.8	17.9	22.902	H

π/4 DQPSK Ch 39 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
17998.500	41.2	17.9	23.302	V
18000.000	41.2	19.9	21.305	V
17994.000	41.0	17.9	23.102	H
17988.000	40.9	17.9	23.002	V
17995.500	40.9	17.9	23.002	V
17986.500	40.9	17.9	23.002	H

π/4 DQPSK Ch 78 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2484.155	42.2	-11.8	54.014	V
17997.000	41.2	17.9	23.302	H
17998.500	41.1	17.9	23.202	V
17983.500	41.0	17.9	23.102	V
17991.000	40.9	17.9	23.002	H
18000.000	40.9	19.9	21.005	H

8DPSK Ch 0 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2389.110	41.8	-11.6	53.449	V
17998.500	41.2	17.9	23.302	H
18000.000	41.1	19.9	21.205	H
17992.500	41.0	17.9	23.102	V
17997.000	40.9	17.9	23.002	V
17971.500	40.8	17.9	22.902	H

8DPSK Ch 39 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
18000.000	41.2	19.9	21.305	V
17994.000	41.1	17.9	23.202	H
17997.000	41.0	17.9	23.102	H
17991.000	41.0	17.9	23.102	H
17998.500	41.0	17.9	23.102	V
17986.500	40.9	17.9	23.002	V

8DPSK Ch 78 - Average

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2485.335	42.3	-11.8	54.114	V
18000.000	41.1	19.9	21.205	H
17998.500	41.0	17.9	23.102	V
17986.500	41.0	17.9	23.102	V
17997.000	41.0	17.9	23.102	H
17992.500	40.9	17.9	23.002	V

GFSK Ch 0 – Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	PMea(dBuv/m)	Polarization
2386.715	54.0	-11.6	65.649	V
17791.500	52.4	17.7	34.742	H
17989.500	52.2	17.9	34.302	V
17817.000	52.2	17.7	34.542	H
17908.500	52.2	17.7	34.542	V
17970.000	52.2	17.9	34.302	V

GFSK Ch 39 - Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
17872.500	53.4	17.7	35.742	H
17934.000	52.7	17.9	34.802	V
17971.500	52.5	17.9	34.602	V
17988.000	52.4	17.9	34.502	H
17889.000	52.1	17.7	34.442	V
17998.500	52.1	17.9	34.202	V

GFSK Ch 78 - Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2483.645	55.1	-11.8	66.914	V
17977.500	52.7	17.9	34.802	H
17844.000	52.4	17.7	34.742	H
17905.500	52.1	17.7	34.442	H
17965.500	52.0	17.9	34.102	V
17991.000	52.0	17.9	34.102	V

π/4 DQPSK Ch 0 - Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2385.895	54.7	-11.6	66.349	V
17914.500	53.0	17.9	35.102	H
17935.500	52.7	17.9	34.802	V
17883.000	52.6	17.7	34.942	V
17946.000	52.6	17.9	34.702	H
17824.500	52.5	17.7	34.842	H

π/4 DQPSK Ch 39 -Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
17995.500	52.8	17.9	34.902	V
17820.000	52.8	17.7	35.142	V
18000.000	52.7	19.9	32.805	H
17910.000	52.2	17.7	34.542	V
17887.500	52.1	17.7	34.442	V
17818.500	52.1	17.7	34.442	H

π/4 DQPSK Ch 78 - Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2485.040	55.2	-11.8	67.014	V
17985.000	52.9	17.9	35.002	H
17911.500	52.8	17.7	35.142	V
17962.500	52.5	17.9	34.602	V
17997.000	52.5	17.9	34.602	H
17928.000	52.2	17.9	34.302	H

8DPSK Ch 0 -Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2389.290	54.9	-11.6	66.549	V
17991.000	52.5	17.9	34.602	H
17842.500	52.5	17.7	34.842	H
18000.000	52.3	19.9	32.405	V
17938.500	52.3	17.9	34.402	V
17817.000	52.3	17.7	34.642	H

8DPSK Ch 39 - Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
17913.000	52.6	17.7	34.942	H
17791.500	52.6	17.7	34.942	H
17932.500	52.4	17.9	34.502	V
17994.000	52.2	17.9	34.302	V
18000.000	52.1	19.9	32.205	V
17985.000	52.1	17.9	34.202	H

8DPSK Ch 78 - Peak

Frequency(MHz)	Result(dBuv/m)	ARPL (dB)	Pmea(dBuv/m)	Polarization
2485.100	55.2	-11.8	67.014	V
17904.000	53.6	17.7	35.942	H
17992.500	53.3	17.9	35.402	V
17941.500	53.2	17.9	35.302	V
17899.500	53.2	17.7	35.542	H
18000.000	53.2	19.9	33.305	V

Conclusion: PASS

Test graphs as below:

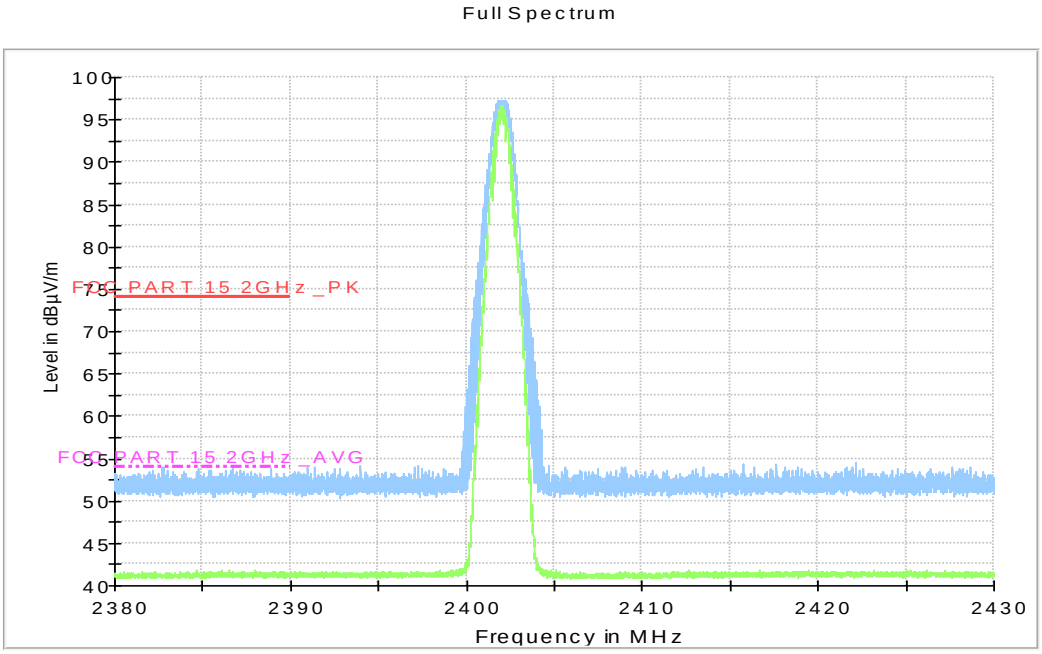

Fig.58. Radiated emission (Power): GFSK, low channel

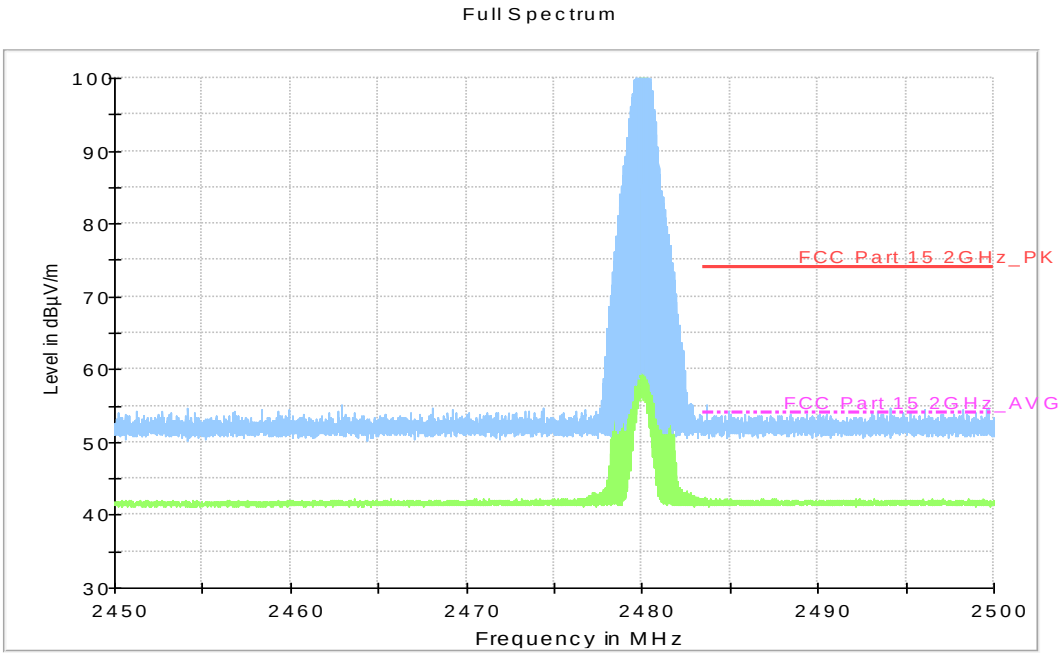

Fig.59. Radiated emission (Power) GFSK, high channel

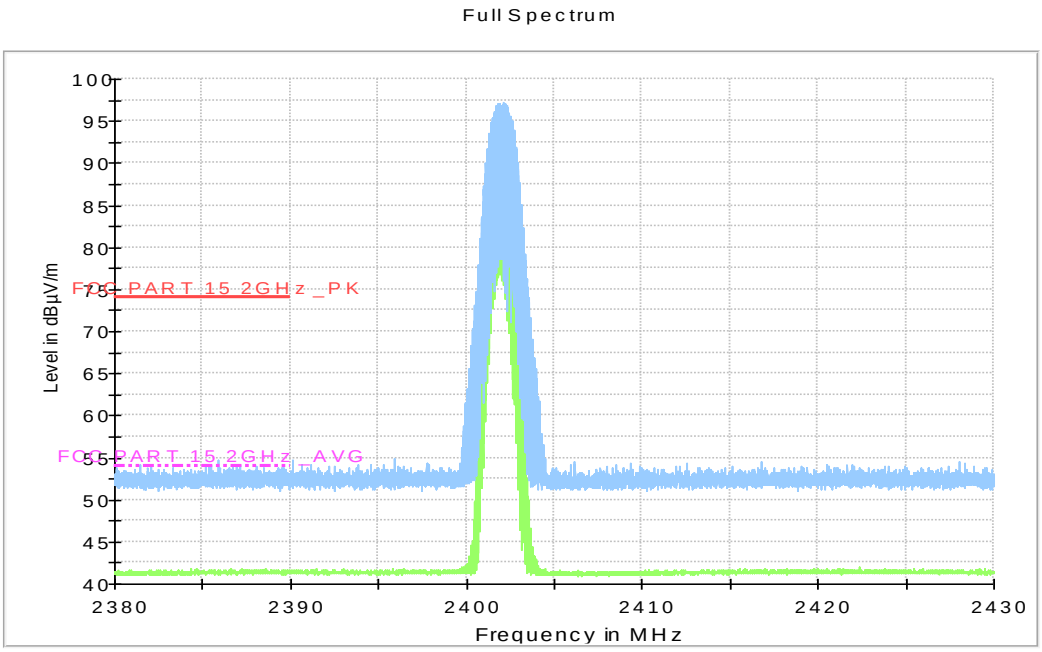

Fig.60. Radiated emission (Power): π/4 DQPSK, low channel

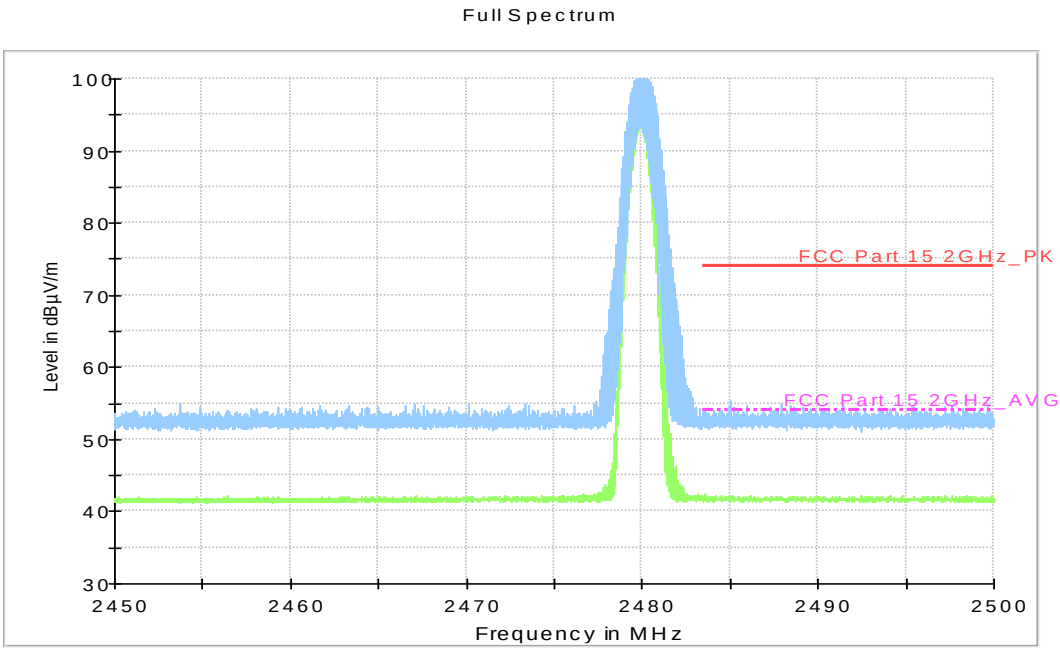

Fig.61. Radiated emission (Power): π/4 DQPSK, high channel