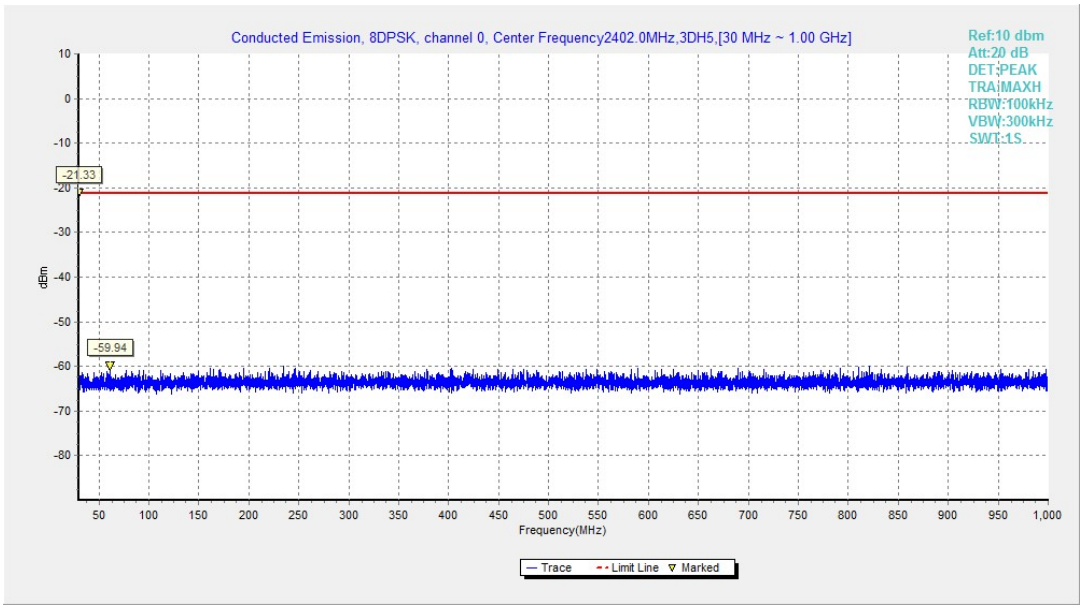


Fig.44. Conducted spurious emission: 8DPSK, Channel 0, 30MHz - 1GHz

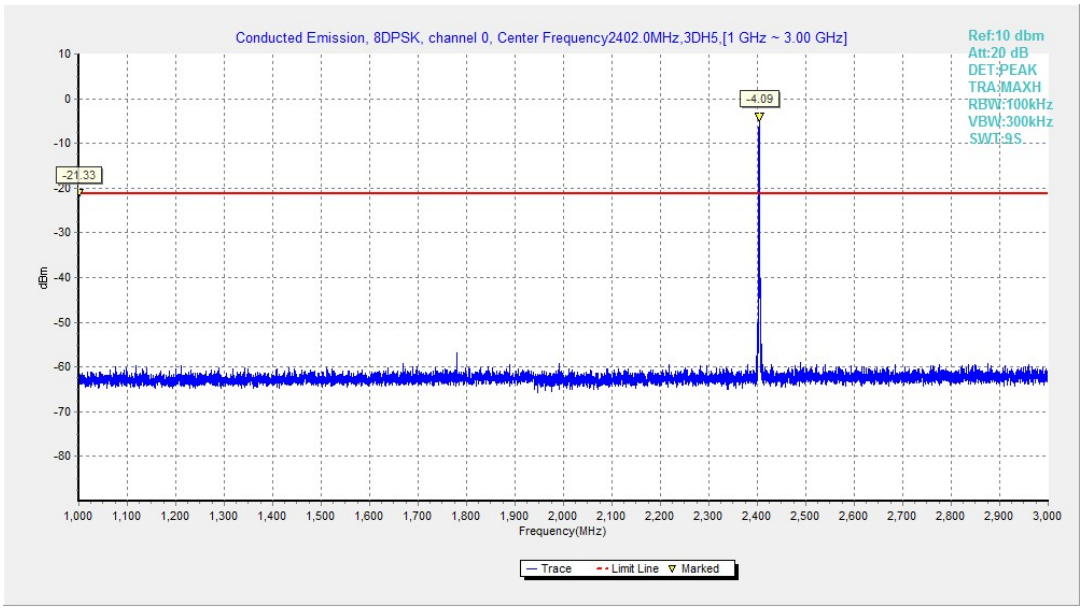


Fig.45. Conducted spurious emission: 8DPSK, Channel 0, 1GHz - 3GHz

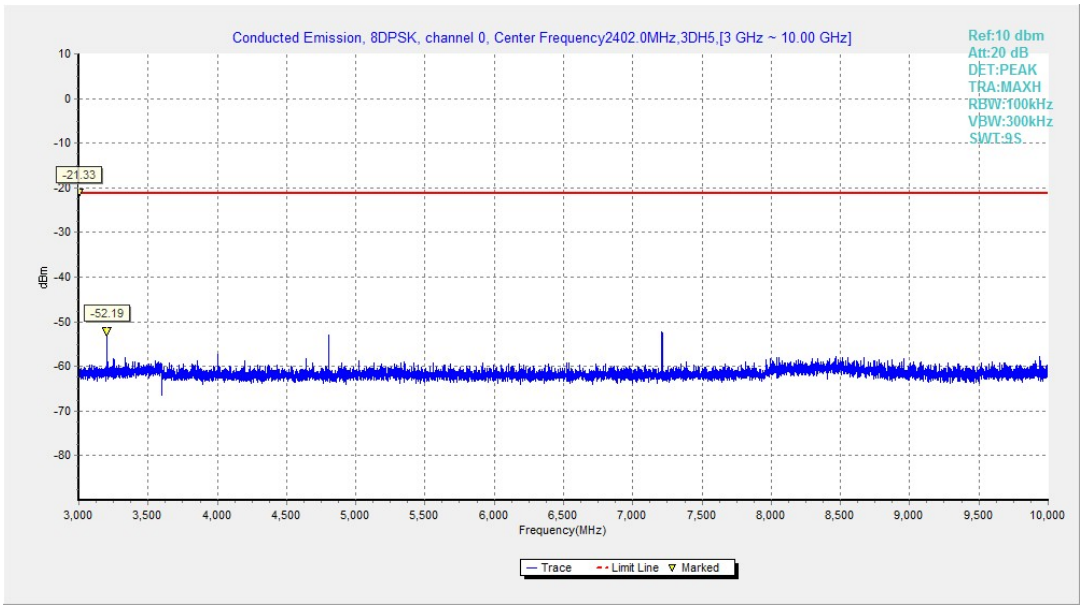


Fig.46. Conducted spurious emission: 8DPSK, Channel 0, 3GHz - 10GHz

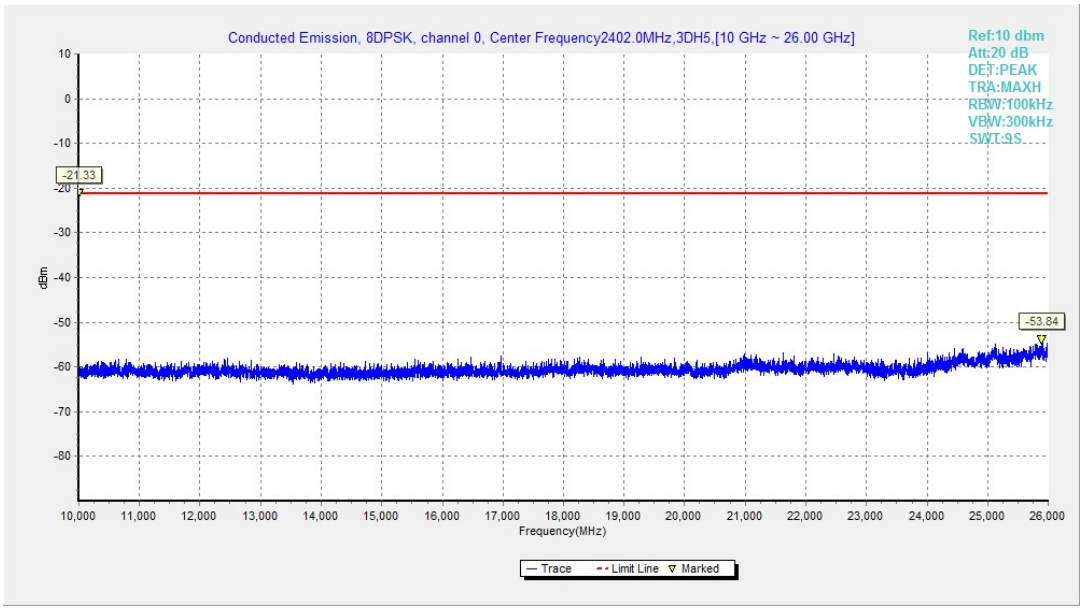


Fig.47. Conducted spurious emission: 8DPSK, Channel 0,10GHz - 26GHz

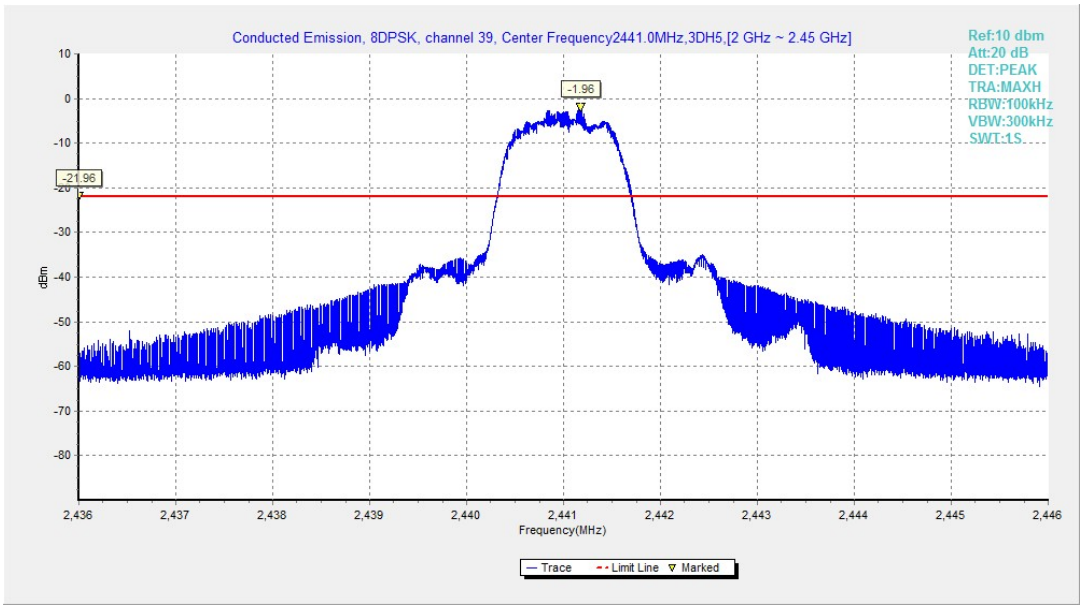


Fig.48. Conducted spurious emission: 8DPSK, Channel 39, 2441MHz

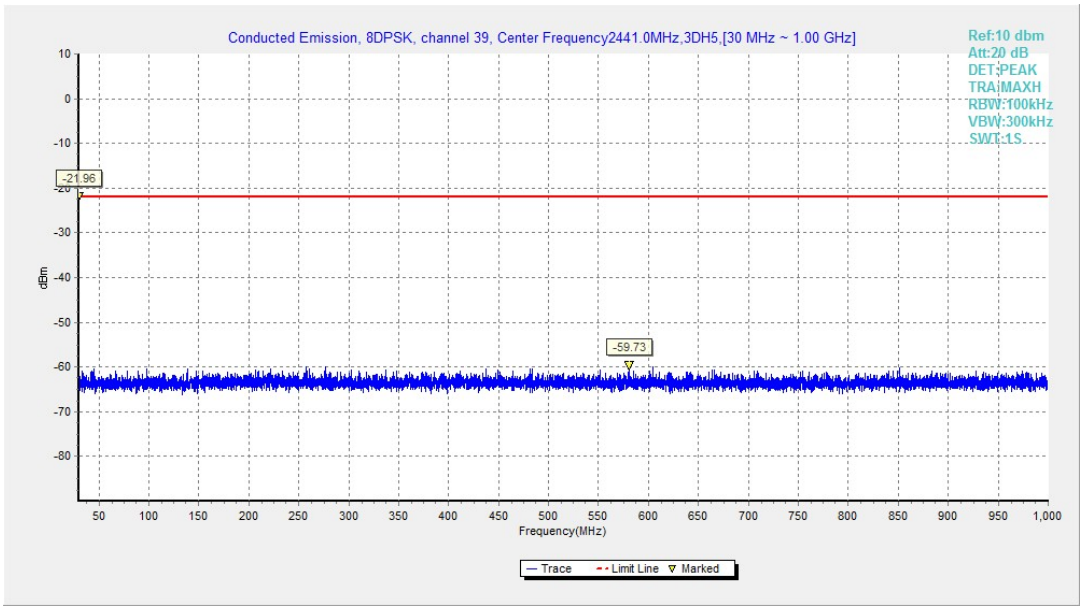


Fig.49. Conducted spurious emission: 8DPSK, Channel 39, 30MHz - 1GHz

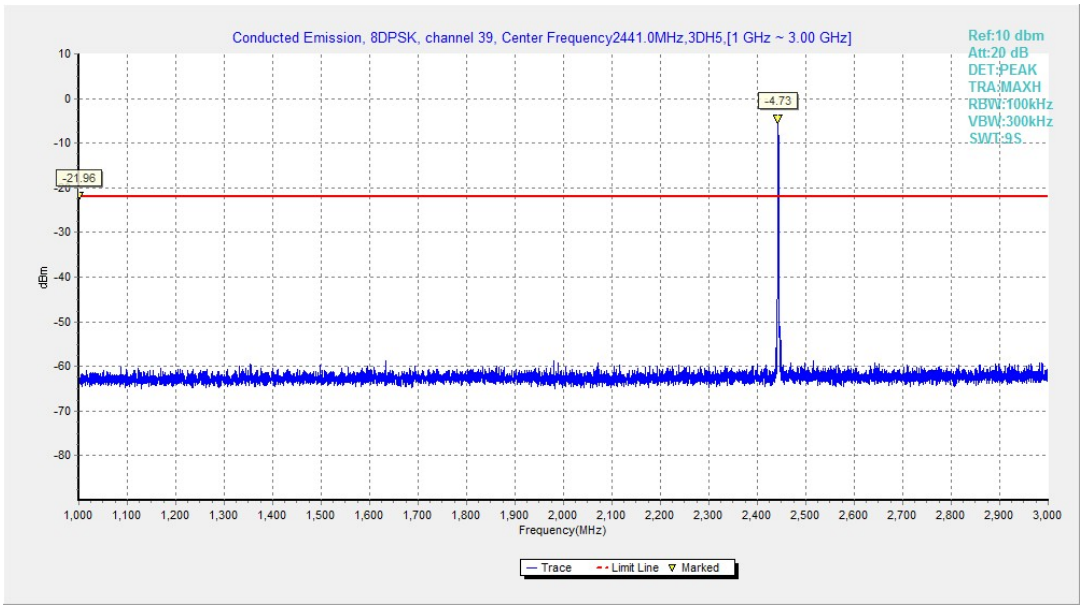


Fig.50. Conducted spurious emission: 8DPSK, Channel 39, 1GHz - 3GHz

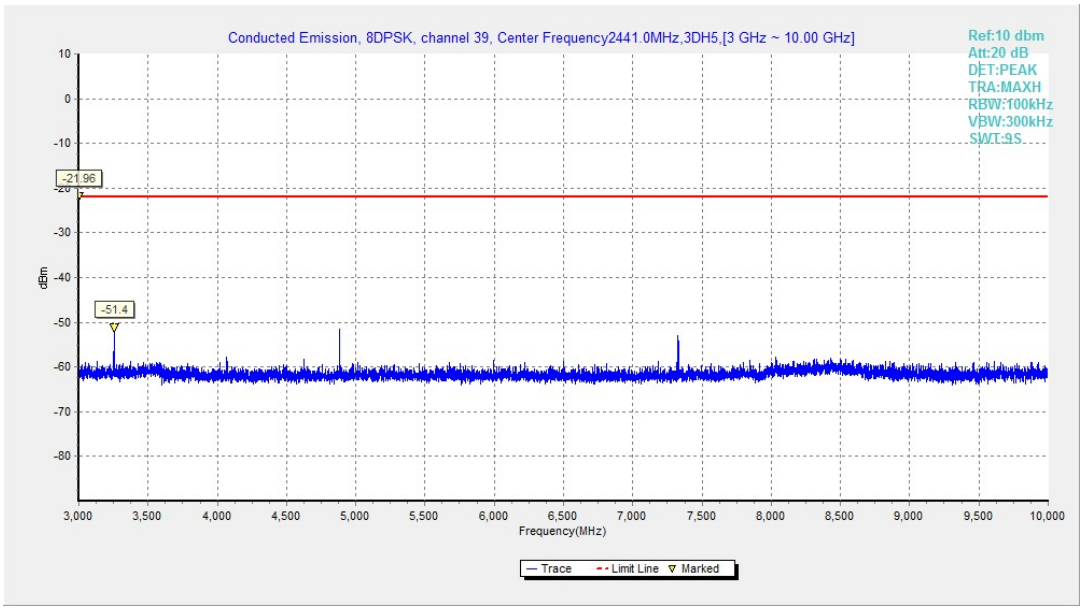


Fig.51. Conducted spurious emission: 8DPSK, Channel 39, 3GHz - 10GHz

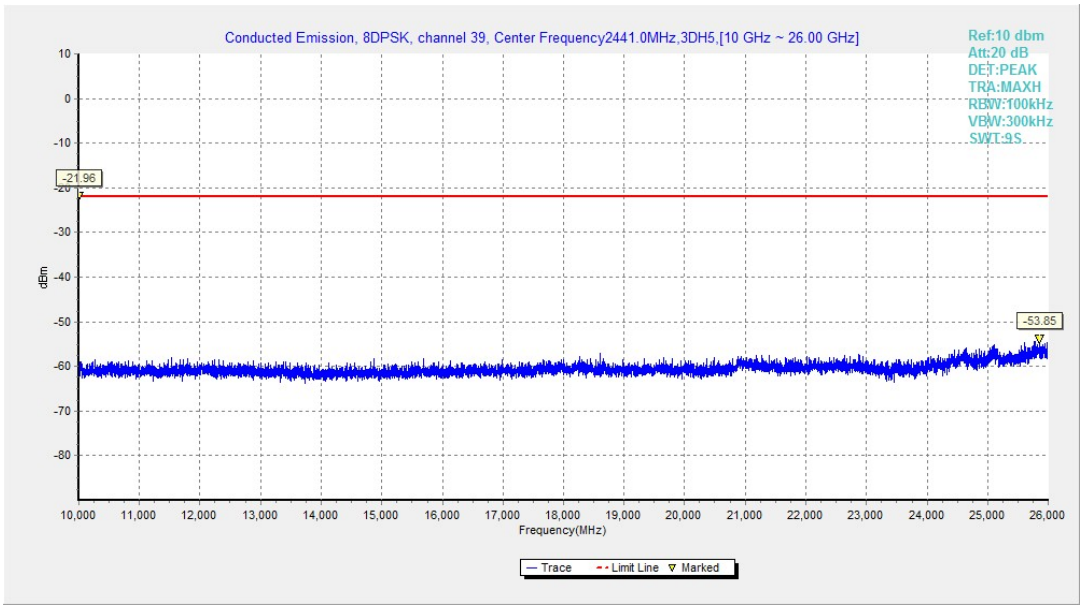


Fig.52. Conducted spurious emission: 8DPSK, Channel 39, 10GHz – 26GHz

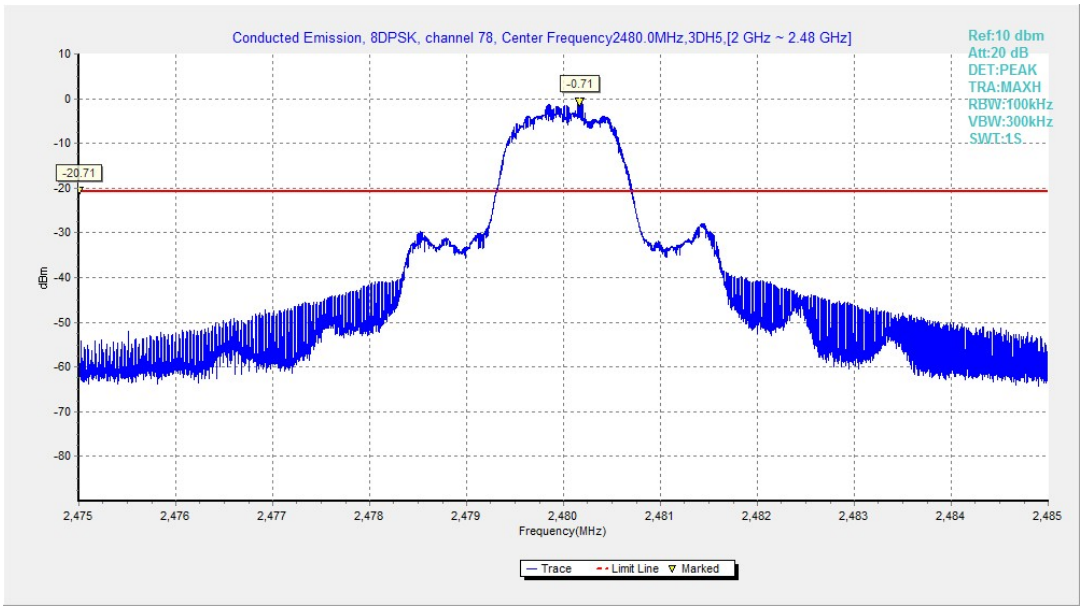


Fig.53. Conducted spurious emission: 8DPSK, Channel 78, 2480MHz

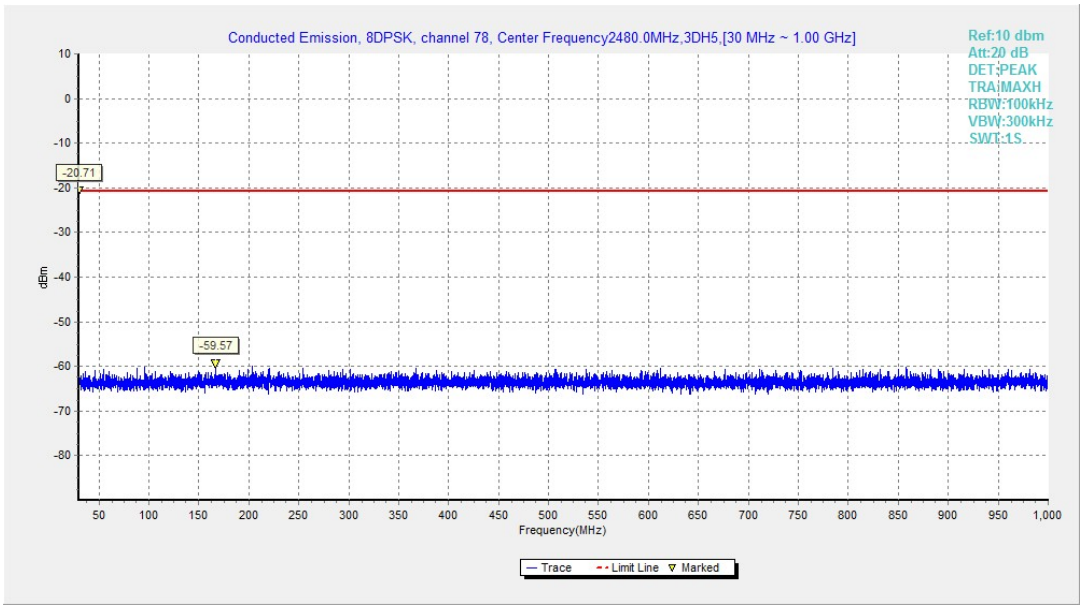


Fig.54. Conducted spurious emission: 8DPSK, Channel 78, 30MHz - 1GHz

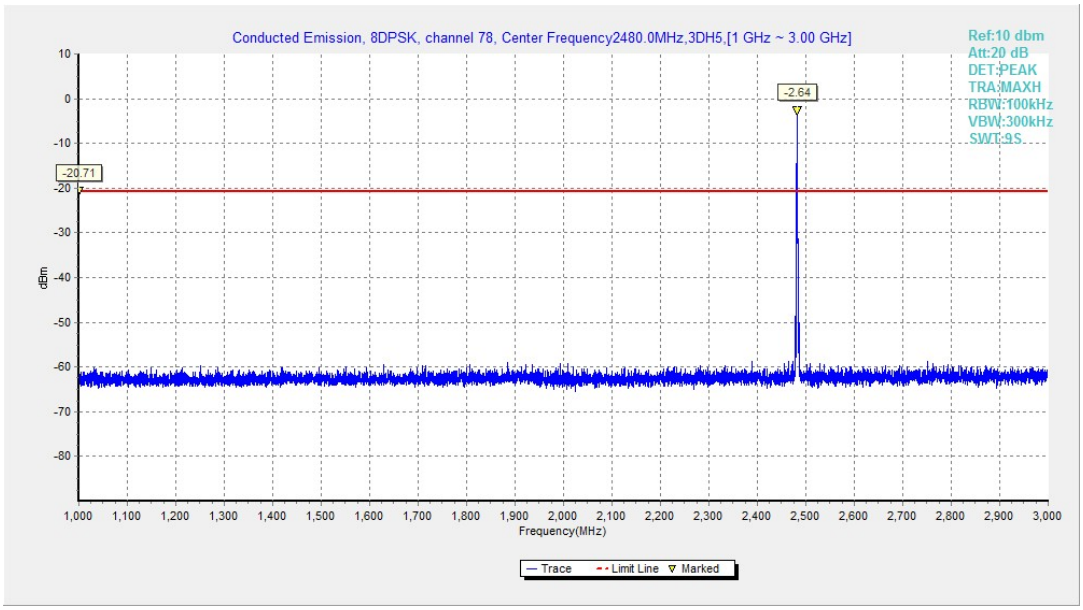


Fig.55. Conducted spurious emission: 8DPSK, Channel 78, 1GHz - 3GHz

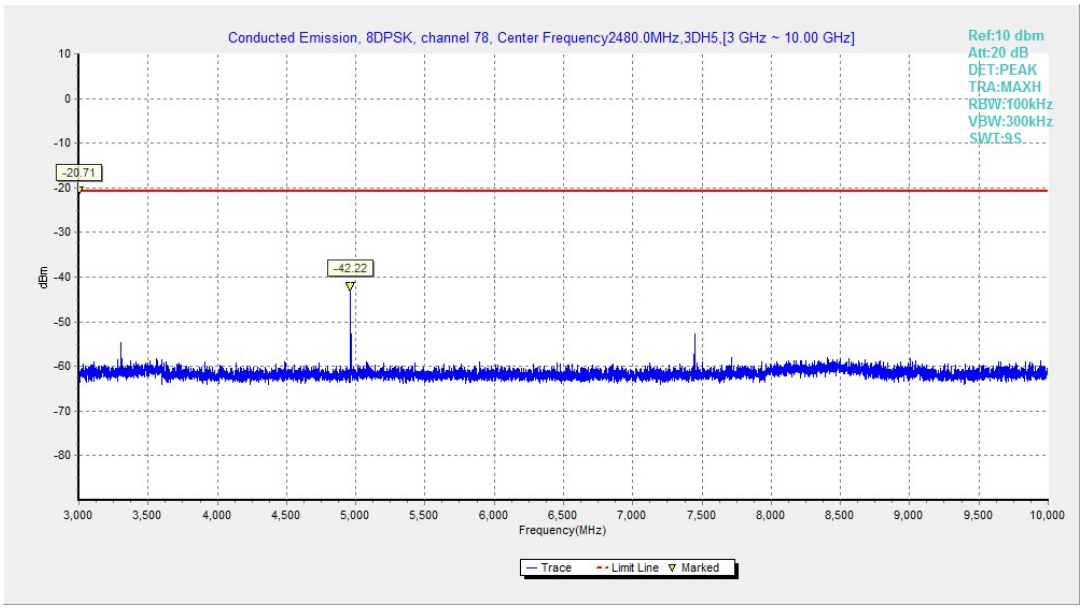


Fig.56. Conducted spurious emission: 8DPSK, Channel 78, 3GHz - 10GHz

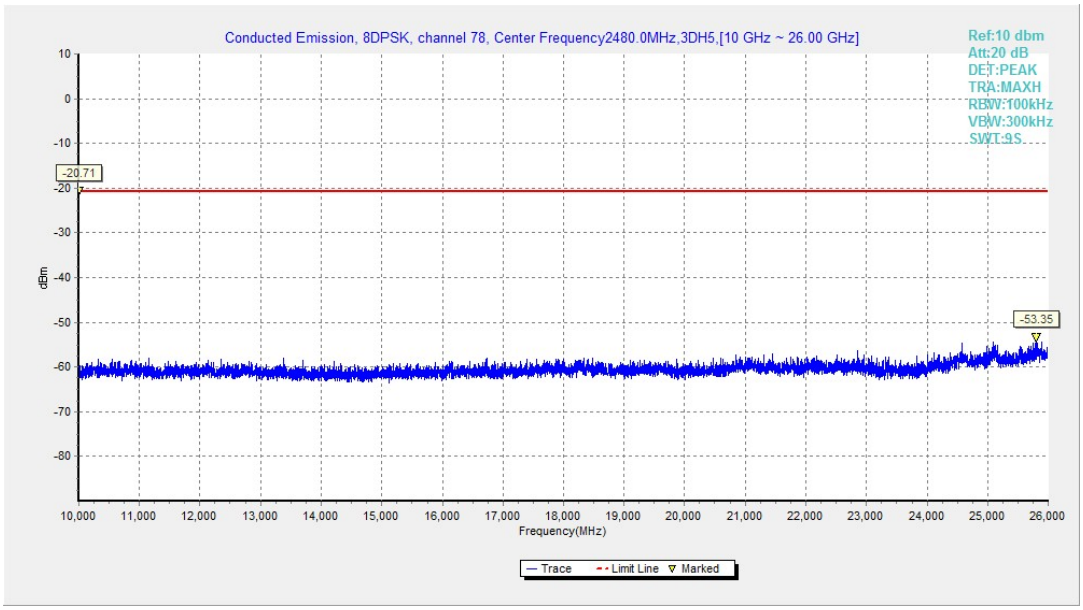


Fig.57. Conducted spurious emission: 8DPSK, Channel 78, 10GHz - 26GHz

A.5. Radiated Emission

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 for Set.10:

Result=P_{Mea}+ARPL

For GFSK

Channel	Frequency Range	Test Results	Conclusion
Ch 0 2402 MHz	1 GHz ~ 3 GHz	Fig.58	P
	3 GHz ~ 18 GHz	Fig.59	P
Ch 39 2440 MHz	9 kHz ~ 30 MHz	Fig.60	P
	30 MHz ~ 1 GHz	Fig.61	P
	1 GHz ~ 3 GHz	Fig.62	P
	3 GHz ~ 18 GHz	Fig.63	P
Ch 78 2480 MHz	1 GHz ~ 3 GHz	Fig.64	P
	3 GHz ~ 18 GHz	Fig.65	P
Power	2.38GHz~2.4GHz---L	Fig.66	P
Power	2.45GHz~2.5GHz---H	Fig.67	P
For all channels	18 GHz ~ 26 GHz	Fig.68	P

Forπ/4 DQPSK

Channel	Frequency Range	Test Results	Conclusion
Ch 0 2402 MHz	1 GHz ~ 3 GHz	Fig.69	P
	3 GHz ~ 18 GHz	Fig.70	P
Ch 39 2440 MHz	30 MHz ~ 1 GHz	Fig.71	P
	1 GHz ~ 3 GHz	Fig.72	P
	3 GHz ~ 18 GHz	Fig.73	P
Ch 78 2480 MHz	1 GHz ~ 3 GHz	Fig.74	P
	3 GHz ~ 18 GHz	Fig.75	P
Power	2.38GHz~2.4GHz---L	Fig.76	P
Power	2.45GHz~2.5GHz---H	Fig.77	P
For all channels	18 GHz ~ 26 GHz	Fig.78	P

For 8DPSK

Channel	Frequency Range	Test Results	Conclusion
Ch 0 2402 MHz	1 GHz ~ 3 GHz	Fig.79	P
	3 GHz ~ 18 GHz	Fig.80	P
Ch 39 2440 MHz	30 MHz ~ 1 GHz	Fig.81	P
	1 GHz ~ 3 GHz	Fig.82	P
	3 GHz ~ 18 GHz	Fig.83	P
Ch 78 2480 MHz	1 GHz ~ 3 GHz	Fig.84	P
	3 GHz ~ 18 GHz	Fig.85	P
Power	2.38GHz~2.4GHz---L	Fig.86	P
Power	2.45GHz~2.5GHz---H	Fig.87	P
For all channels	18 GHz ~ 26 GHz	Fig.88	P

GFSK Ch 0 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2381.825	46.0	-38.8	27.7	57.100	H
17975.500	51.5	-17.7	45.6	23.600	H
17974.500	51.5	-17.7	45.6	23.600	V
17956.500	51.4	-17.7	45.6	23.500	V
17956.000	51.4	-17.7	45.6	23.500	H
17970.000	51.3	-17.7	45.6	23.400	H

GFSK Ch 39 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
17968.000	51.6	-17.7	45.6	23.700	H
17973.500	51.6	-17.7	45.6	23.700	V
17982.000	51.4	-17.7	45.6	23.500	H
17985.500	51.3	-17.7	45.6	23.400	H
17981.500	51.3	-17.7	45.6	23.400	V
17978.000	51.3	-17.7	45.6	23.400	V

GFSK Ch 78 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2483.675	46.3	-38.9	27.7	57.5	V
17984.000	51.8	-17.7	45.6	23.9	H
17956.500	51.5	-17.7	45.6	23.6	V
17944.500	51.4	-17.7	45.6	23.5	V
17988.000	51.4	-17.7	45.6	23.5	V
17928.000	51.4	-17.7	45.6	23.5	H

GFSK Ch 0 – Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2381.810	59.1	-38.8	27.7	70.2	H
17973.000	63.2	-17.7	45.6	35.3	H
17827.000	63.1	-18.5	45.6	36.0	V
17959.000	63.1	-17.7	45.6	35.2	V
17921.000	62.9	-17.7	45.6	35.0	H
17995.500	62.8	-17.7	45.6	34.9	V

GFSK Ch 39 - Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
17964.000	63.6	-17.7	45.6	35.7	H
17915.000	63.3	-17.7	45.6	35.4	H
17970.000	63.2	-17.7	45.6	35.3	V
17989.500	63.1	-17.7	45.6	35.2	H
17935.500	63.1	-17.7	45.6	35.2	H
17895.500	63.0	-18.5	45.6	35.9	V

GFSK Ch 78 - Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2483.680	67.3	-38.9	27.7	78.5	V
17969.500	63.5	-17.7	45.6	35.6	H
17886.000	63.0	-18.5	45.6	35.9	V
17972.500	62.8	-17.7	45.6	34.9	H
17854.500	62.8	-18.5	45.6	35.7	H
17998.000	62.8	-17.7	45.6	34.9	H

π/4 DQPSK Ch 0 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2388.605	45.9	-38.8	27.7	57.0	H
17977.500	51.7	-17.7	45.6	23.8	H
17977.000	51.5	-17.7	45.6	23.6	V
17973.000	51.5	-17.7	45.6	23.6	H
17995.500	51.5	-17.7	45.6	23.6	H
17966.000	51.5	-17.7	45.6	23.6	V

π/4 DQPSK Ch 39 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
17976.000	51.8	-17.7	45.6	23.9	V
17972.000	51.5	-17.7	45.6	23.6	H
17973.500	51.5	-17.7	45.6	23.6	H
17985.500	51.4	-17.7	45.6	23.5	V
17971.000	51.4	-17.7	45.6	23.5	V
17981.500	51.4	-17.7	45.6	23.5	H

π/4 DQPSK Ch 78 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2483.565	46.0	-38.9	27.7	57.2	V
17982.000	51.5	-17.7	45.6	23.6	V
17981.500	51.4	-17.7	45.6	23.5	V
17985.000	51.4	-17.7	45.6	23.5	V
17924.000	51.3	-17.7	45.6	23.4	H
17950.500	51.3	-17.7	45.6	23.4	H

π/4 DQPSK Ch 0 – Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2388.355	59.1	-38.8	27.7	70.200	H
17925.000	63.5	-17.7	45.6	35.600	H
17931.500	63.4	-17.7	45.6	35.500	V
17911.000	63.0	-18.5	45.6	35.900	H
17925.500	62.8	-17.7	45.6	34.900	H
17964.000	62.7	-17.7	45.6	34.800	V

π/4 DQPSK Ch 39 - Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
17836.500	63.7	-18.5	45.6	36.6	H
17955.500	63.4	-17.7	45.6	35.5	H
17881.000	63.4	-18.5	45.6	36.3	V
17937.000	63.2	-17.7	45.6	35.3	V
17994.000	62.8	-17.7	45.6	34.9	V
17986.000	62.7	-17.7	45.6	34.8	V

π/4 DQPSK Ch 78 - Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2483.515	67.6	-38.9	27.7	78.8	H
17865.000	63.5	-18.5	45.6	36.4	V
17925.500	63.5	-17.7	45.6	35.6	V
17989.000	63.2	-17.7	45.6	35.3	H
17914.500	63.0	-17.7	45.6	35.1	H
17967.500	63.0	-17.7	45.6	35.1	V

8DPSK Ch 0 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2385.940	46.1	-38.8	27.7	57.2	H
17990.500	51.6	-17.7	45.6	23.7	H
17947.500	51.5	-17.7	45.6	23.6	V
17961.000	51.5	-17.7	45.6	23.6	H
17958.000	51.4	-17.7	45.6	23.5	V
17924.500	51.4	-17.7	45.6	23.5	H

8DPSK Ch 39 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
17970.000	51.8	-17.7	45.6	23.9	H
17989.000	51.5	-17.7	45.6	23.6	H
17979.500	51.5	-17.7	45.6	23.6	V
17917.000	51.5	-17.7	45.6	23.6	H
17987.000	51.4	-17.7	45.6	23.5	H
17968.000	51.3	-17.7	45.6	23.4	V

8DPSK Ch 78 - Average

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2483.540	46.3	-38.9	27.7	57.5	V
17979.000	51.5	-17.7	45.6	23.6	V
17995.500	51.5	-17.7	45.6	23.6	H
17935.000	51.5	-17.7	45.6	23.6	H
17984.500	51.5	-17.7	45.6	23.6	H
17940.500	51.5	-17.7	45.6	23.6	H

8DPSK Ch 0 – Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2382.760	59.0	-38.8	27.7	70.1	H
17992.500	63.4	-17.7	45.6	35.5	H
17886.000	63.2	-18.5	45.6	36.1	V
17994.500	63.0	-17.7	45.6	35.1	H
17972.000	62.9	-17.7	45.6	35.0	V
17986.500	62.9	-17.7	45.6	35.0	H

8DPSK Ch 39 - Peak

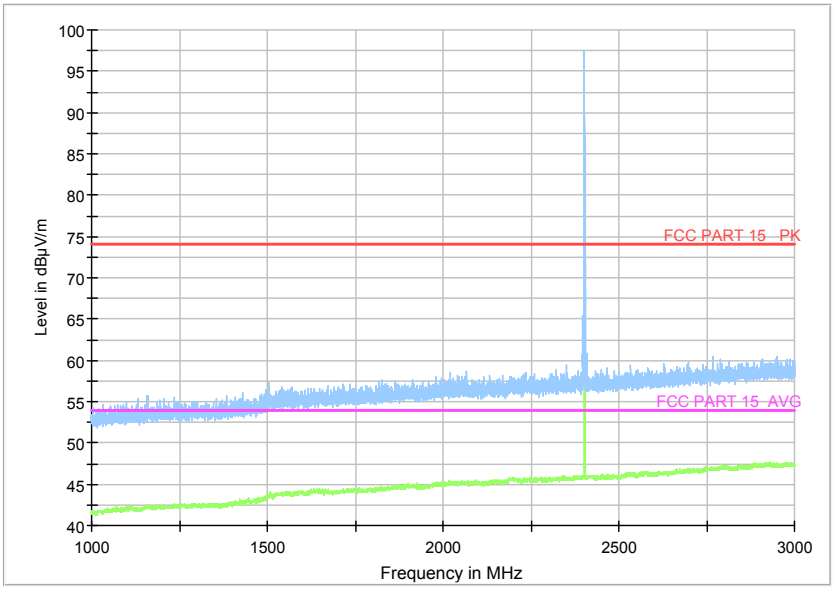
Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
17949.000	63.5	-17.7	45.6	35.6	V
17908.500	63.5	-18.5	45.6	36.4	H
17944.500	63.1	-17.7	45.6	35.2	V
17884.500	62.8	-18.5	45.6	35.7	H
17781.000	62.8	-18.5	45.6	35.7	H
17951.000	62.7	-17.7	45.6	34.8	H

8DPSK Ch 78 - Peak

Frequency(MHz)	Result(dBuv/m)	Cable Loss(dB)	Antenna Factor	PMea(dBuv/m)	Polarization
2483.565	67.1	-38.9	27.7	78.3	H
17966.000	64.1	-17.7	45.6	36.2	V
17970.000	63.4	-17.7	45.6	35.5	V
17863.500	63.3	-18.5	45.6	36.2	H
17996.000	63.2	-17.7	45.6	35.3	V
17955.500	63.2	-17.7	45.6	35.3	H

Conclusion: PASS

Test graphs as below for Set.1:



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.58. Radiated emission: GFSK, Channel 0, 1 GHz - 3 GHz

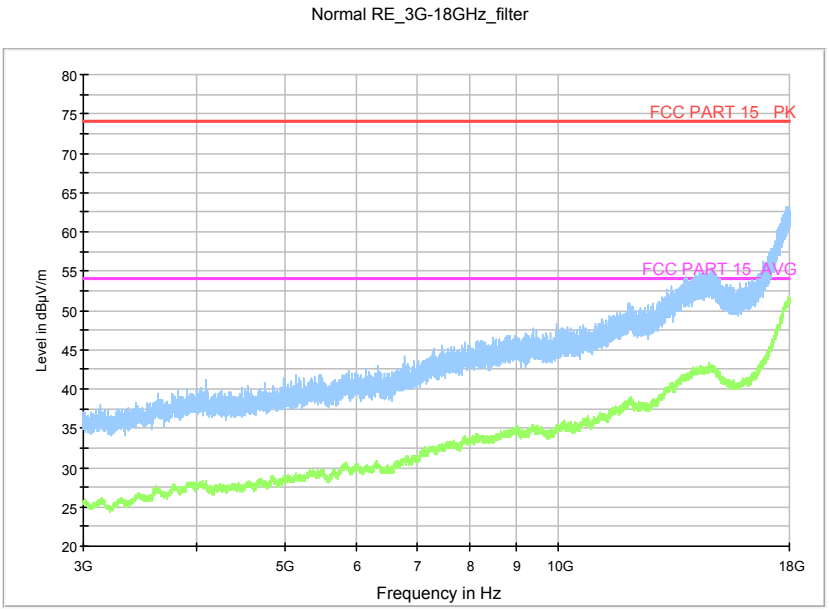


Fig.59. Radiated emission: GFSK, Channel 0, 3 GHz - 18 GHz

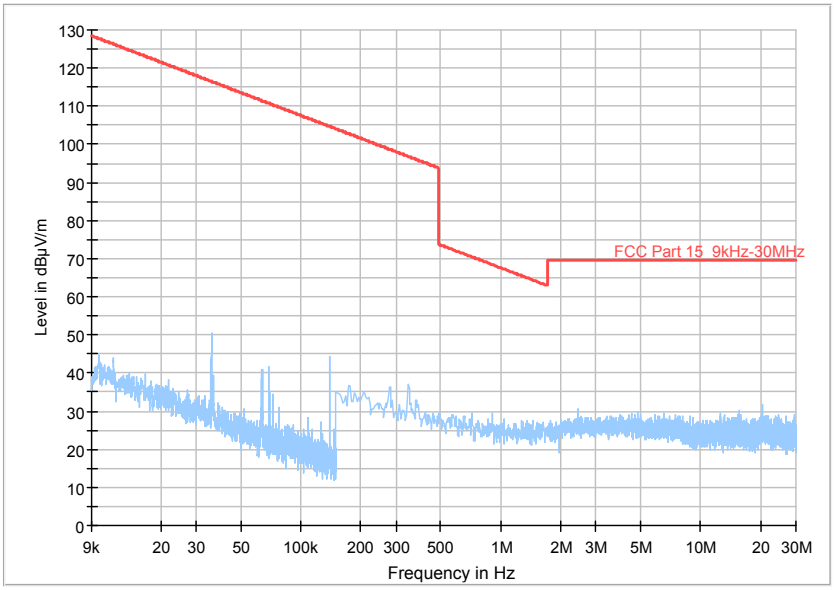


Fig.60. Radiated emission: GFSK, Channel 39, 9 kHz - 30 MHz

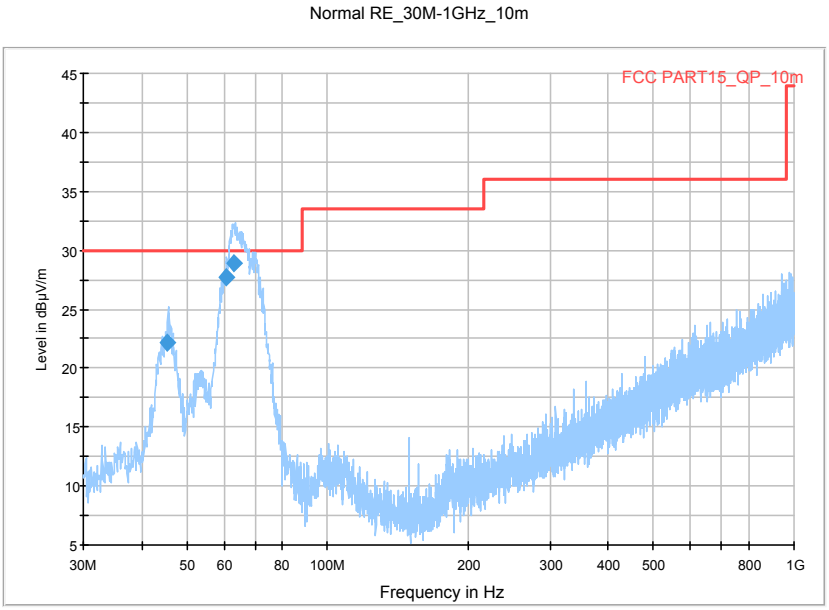
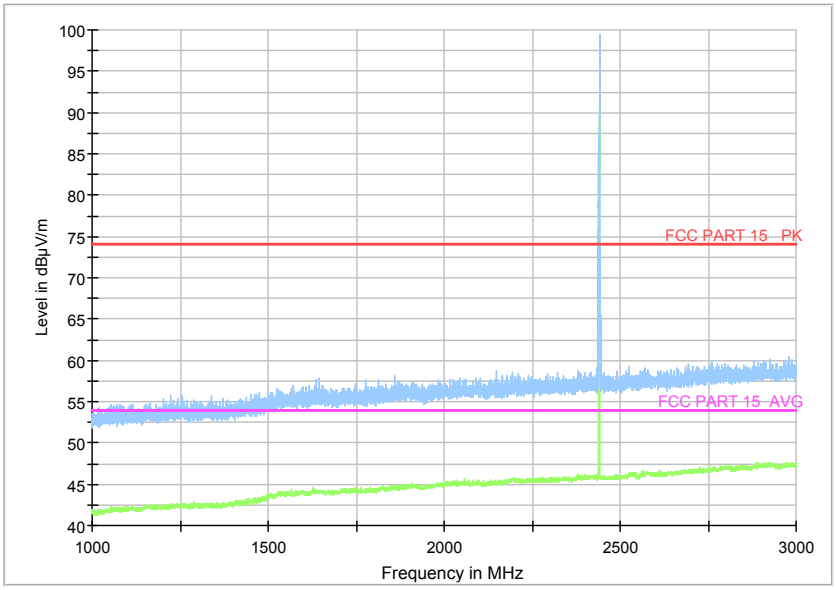


Fig.61. Radiated emission: GFSK, Channel 39, 30 MHz - 1 GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dB磺/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB磺/m)
45.377000	22.2	197.0	V	-29.0	-11.9	7.8	30.0
60.804000	27.7	103.0	V	-17.0	-12.4	2.3	30.0
62.985000	28.9	103.0	V	13.0	-13.1	1.1	30.0



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.62. Radiated emission: GFSK, Channel 39, 1 GHz - 3 GHz

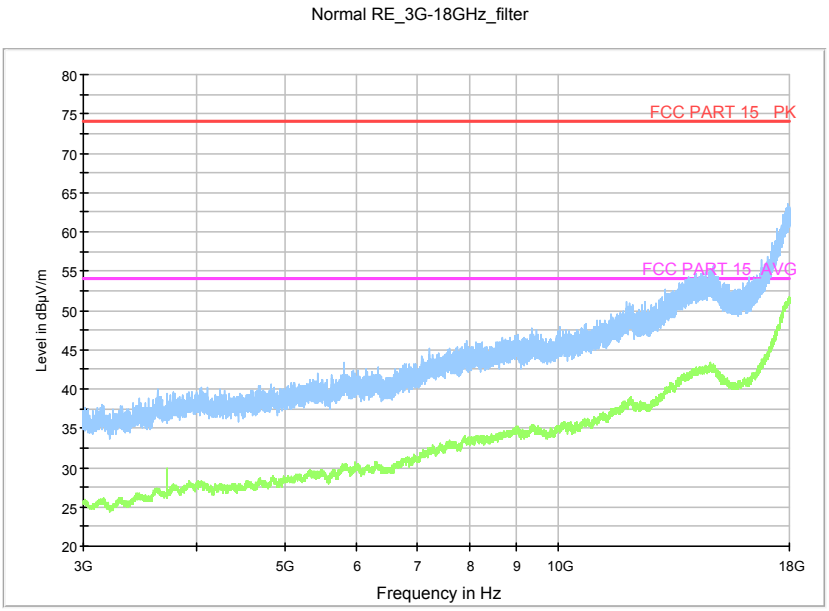
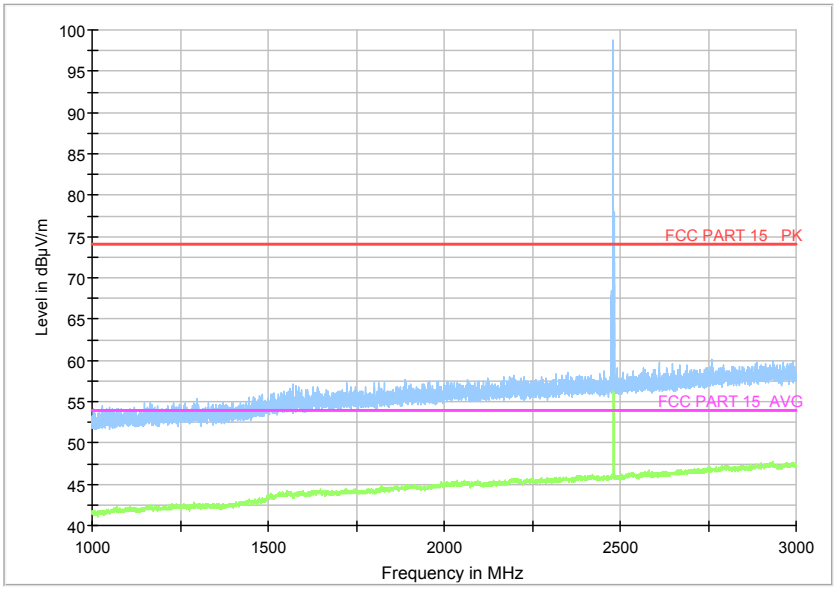


Fig.63. Radiated emission: GFSK, Channel 39, 3 GHz - 18 GHz



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.64. Radiated emission: GFSK, Channel 78, 1 GHz - 3 GHz

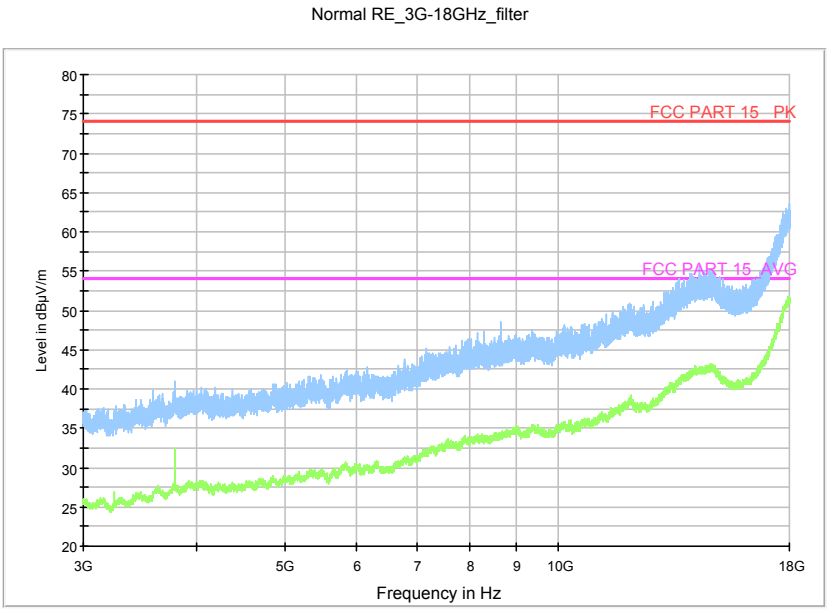


Fig.65. Radiated emission: GFSK, Channel 78, 3 GHz - 18 GHz

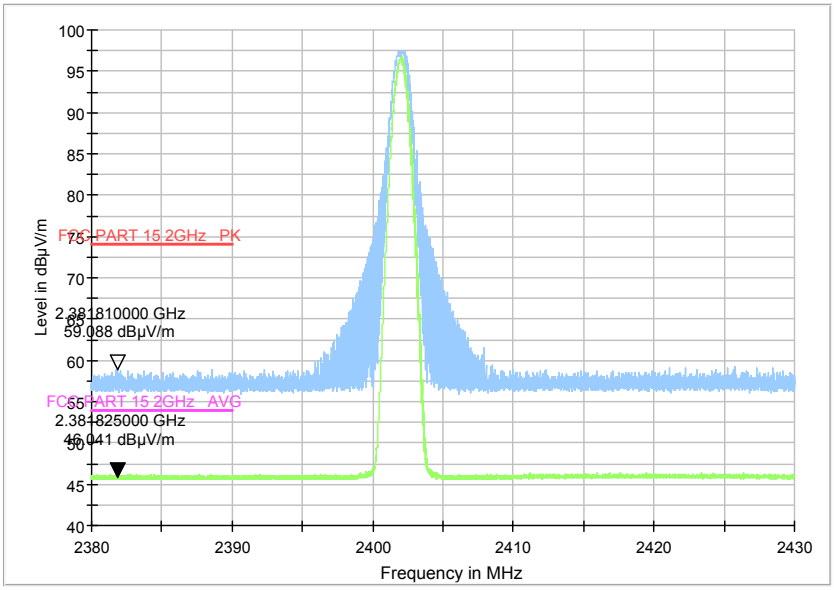


Fig.66. Radiated emission (Power): GFSK, low channel

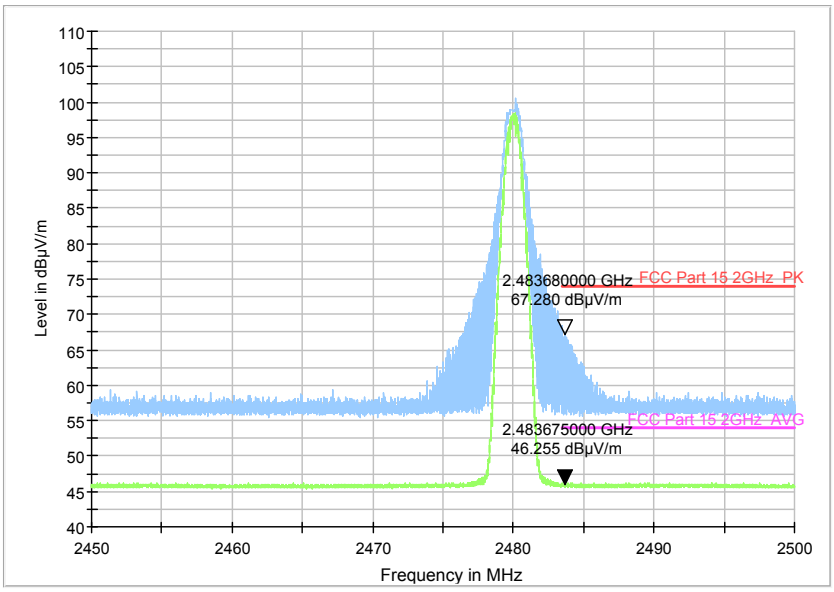


Fig.67. Radiated emission (Power) GFSK, high channel

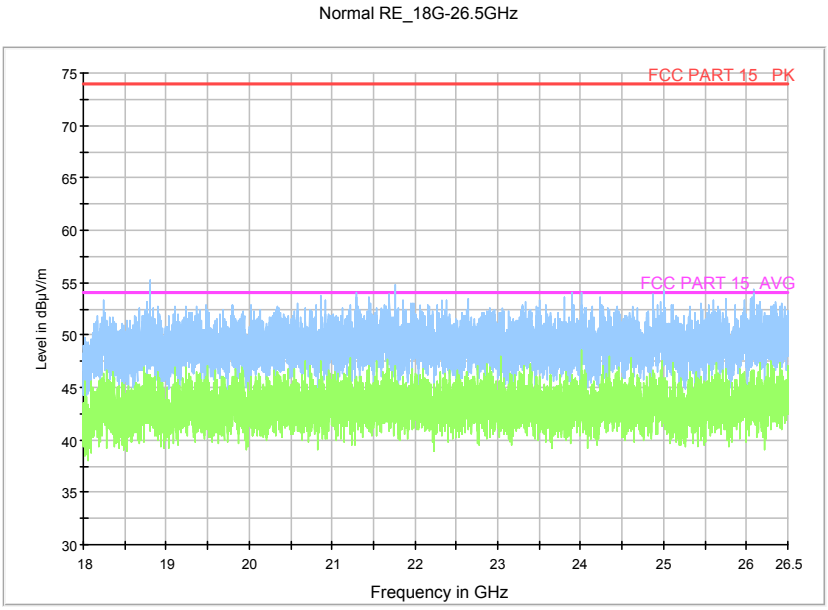
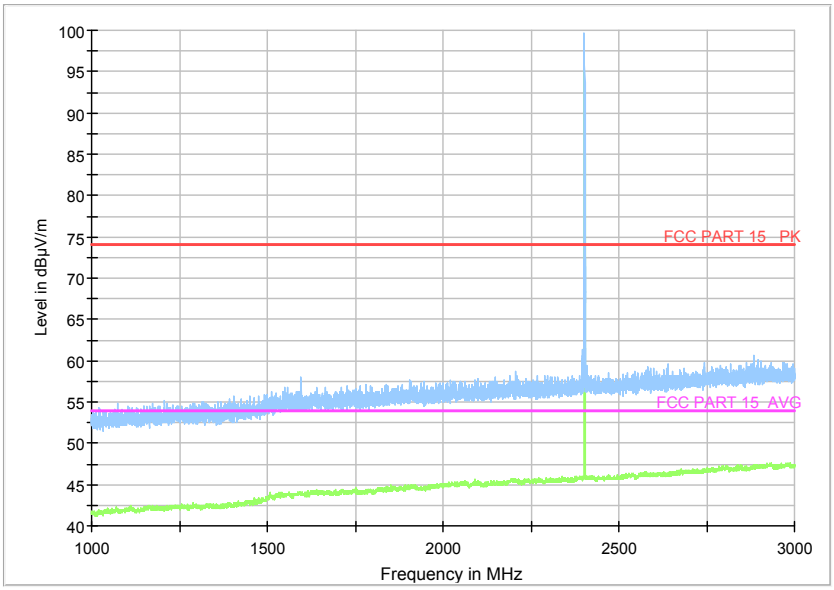


Fig.68. Radiated emission: GFSK, 18 GHz - 26 GHz



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.69. Radiated emission: π/4 DQPSK, Channel 0, 1 GHz - 3 GHz

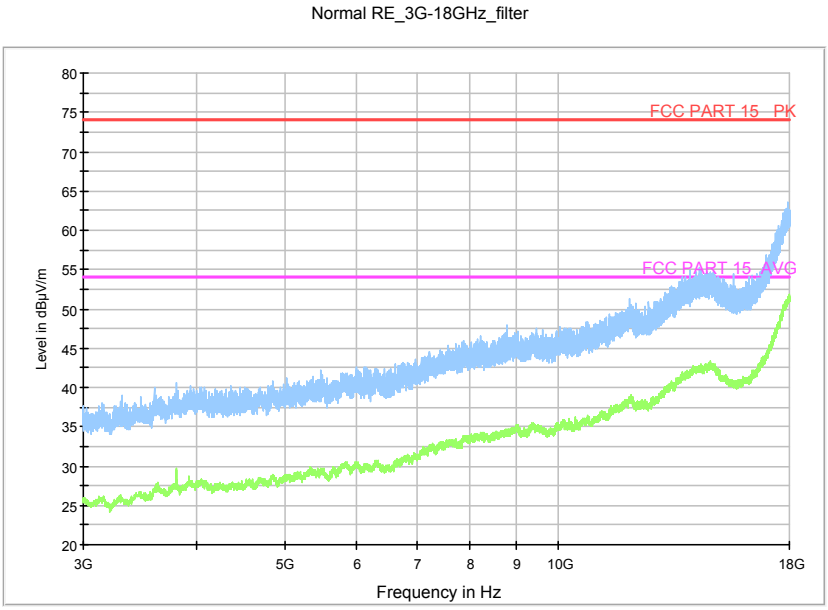


Fig.70. Radiated emission: π/4 DQPSK, Channel 0, 3 GHz - 18 GHz

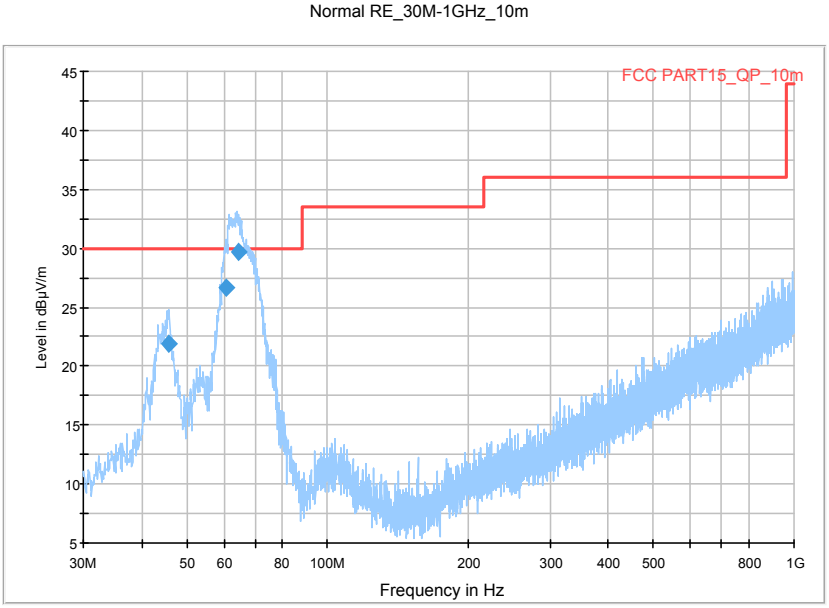
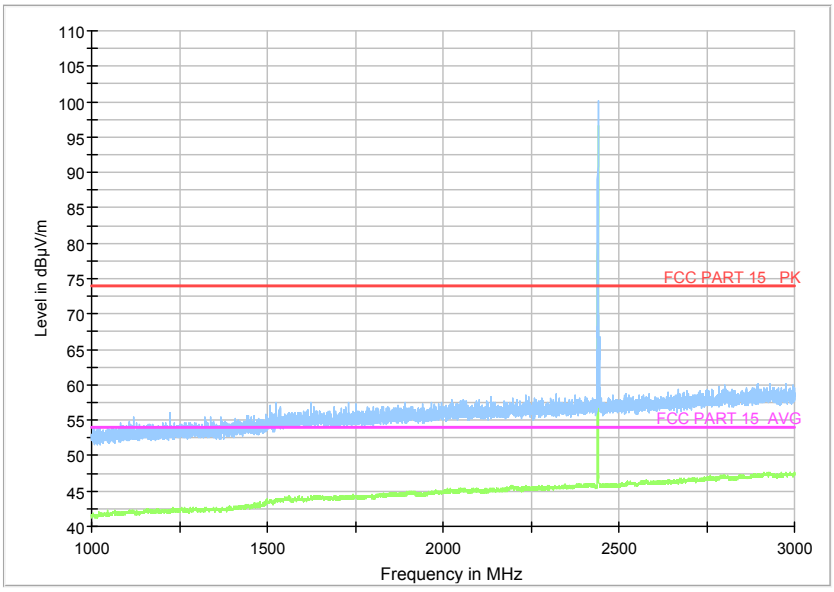


Fig.71. Radiated emission: π/4 DQPSK, Channel 39, 30 MHz - 1 GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dB磺/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB磺/m)
45.751000	21.9	206.0	V	300.0	-11.8	8.1	30.0
60.781000	26.6	100.0	V	60.0	-12.4	3.4	30.0
64.527000	29.7	100.0	V	300.0	-13.6	0.3	30.0



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.72. Radiated emission: π/4 DQPSK, Channel 39, 1 GHz - 3 GHz

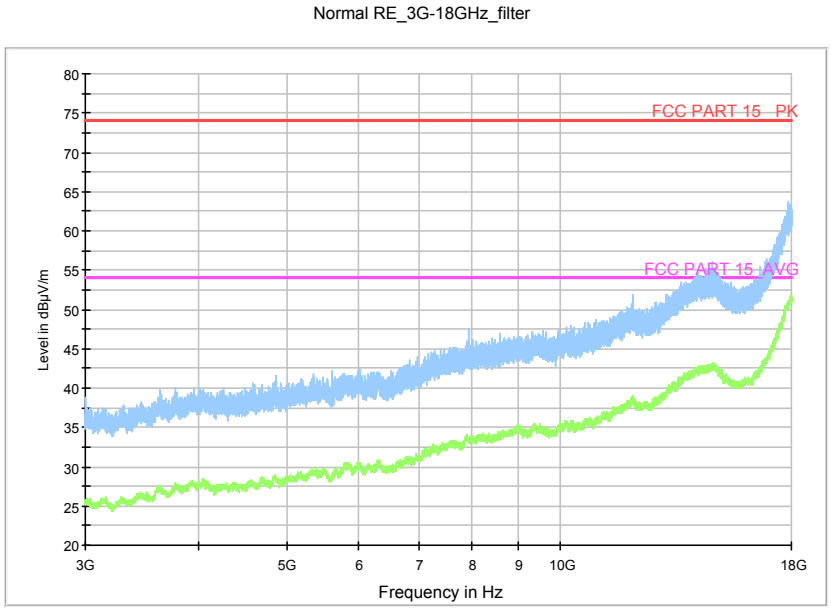
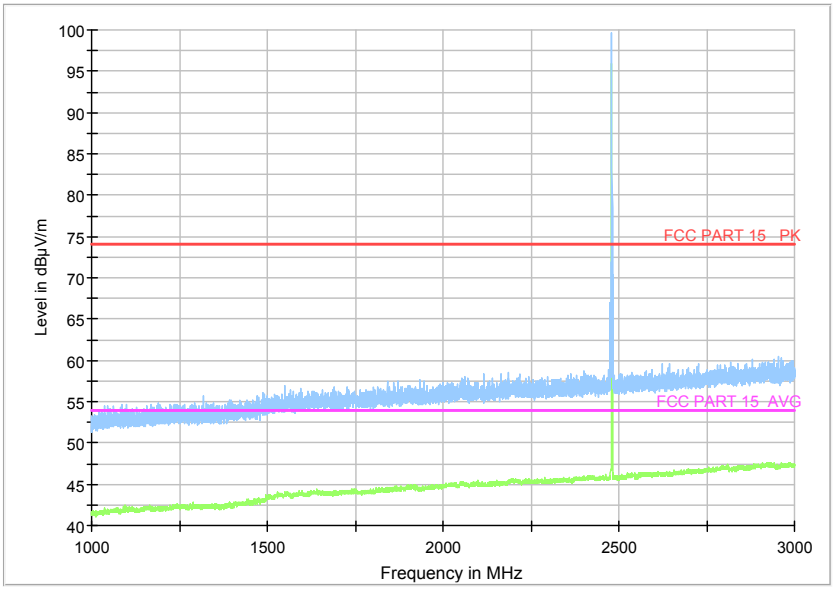


Fig.73. Radiated emission: π/4 DQPSK, Channel 39, 3 GHz - 18 GHz



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.74. Radiated emission: π/4 DQPSK, Channel 78, 1 GHz - 3 GHz

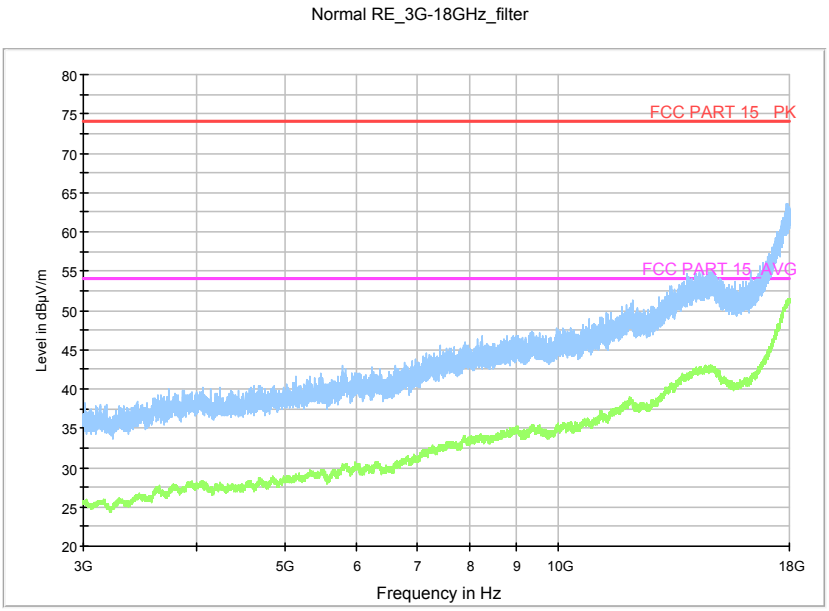


Fig.75. Radiated emission: π/4 DQPSK, Channel 78, 3 GHz - 18 GHz

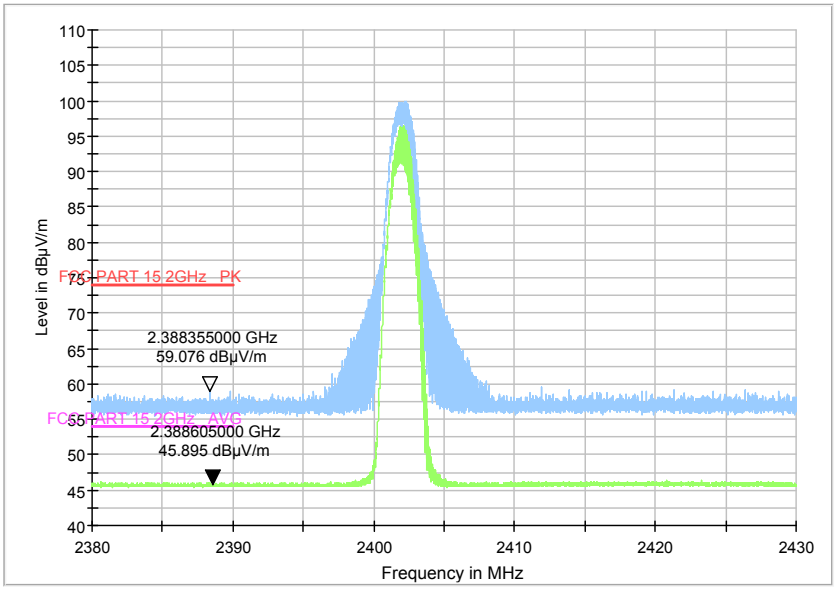


Fig.76. Radiated emission (Power): π/4 DQPSK, low channel

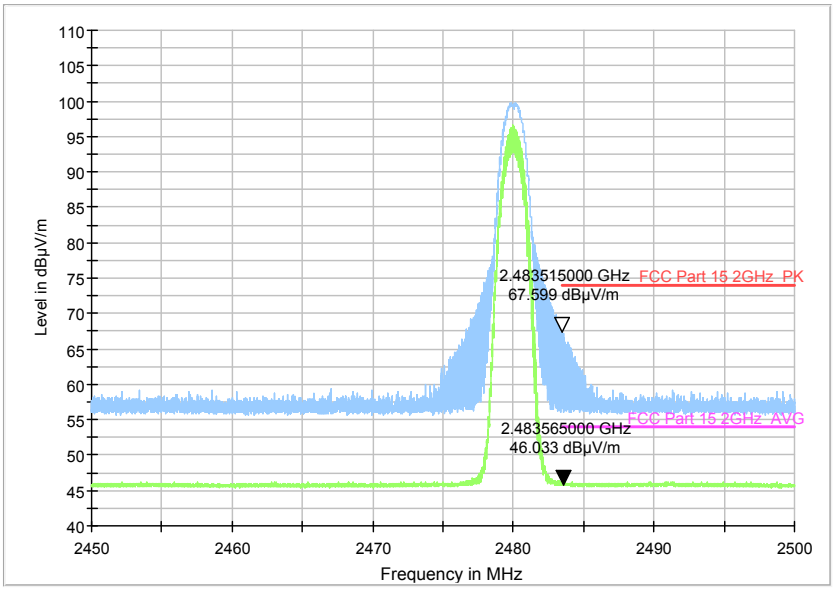


Fig.77. Radiated emission (Power): π/4 DQPSK, high channel

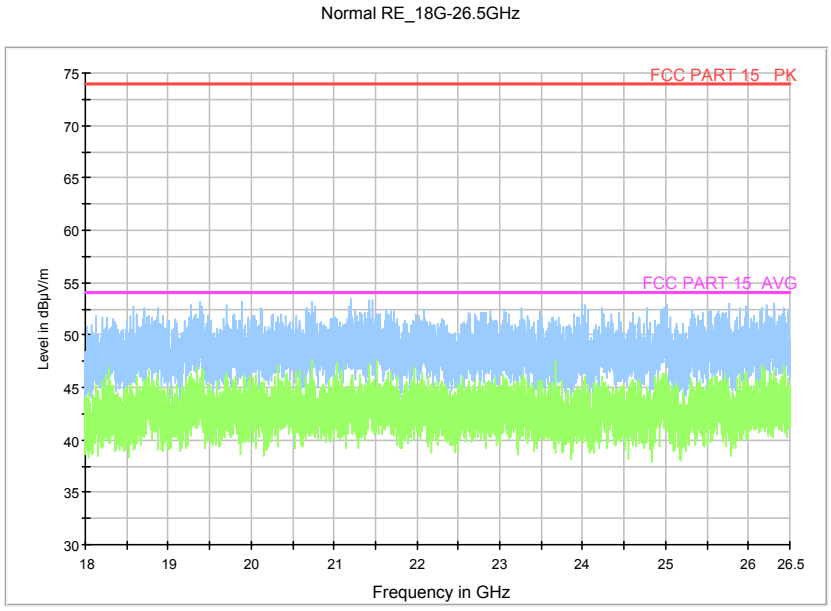
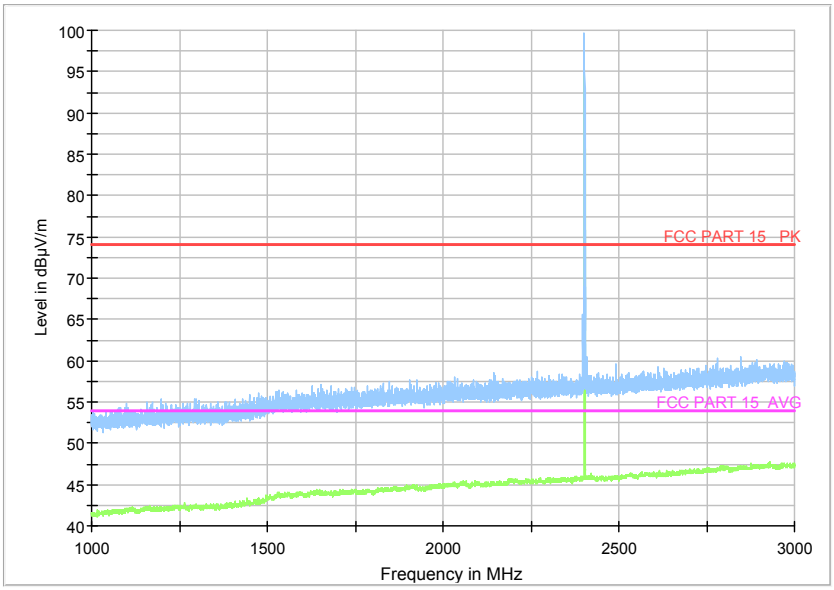


Fig.78. Radiated emission: π/4 DQPSK, 18 GHz - 26 GHz



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.79. Radiated emission: 8DPSK, Channel 0, 1 GHz - 3 GHz

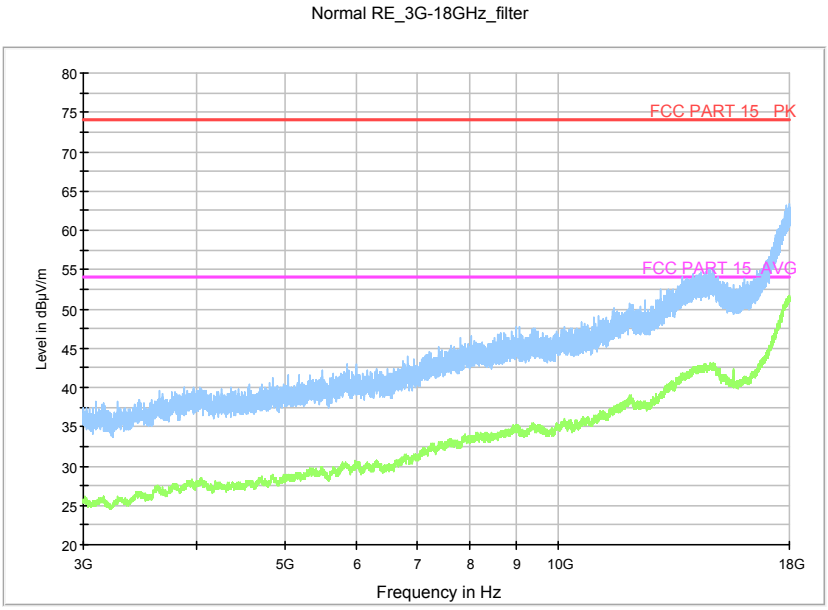


Fig.80. Radiated emission: 8DPSK, Channel 0, 3 GHz - 18 GHz

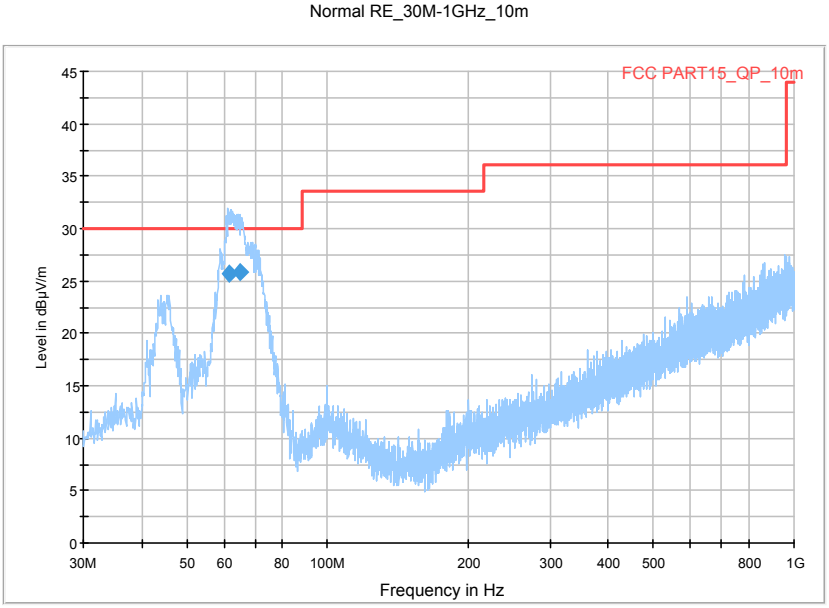
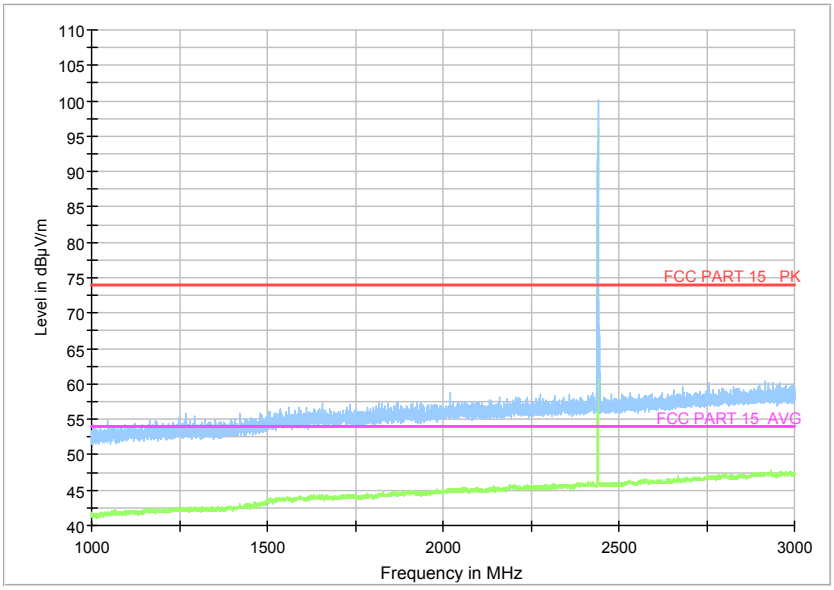


Fig.81. Radiated emission: 8DPSK, Channel 39, 30 MHz - 1 GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dB礦/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB礦/m)
61.631000	25.6	110.0	V	-22.0	-12.7	4.4	30.0
65.114000	25.9	102.0	V	-29.0	-13.8	4.1	30.0



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.82. Radiated emission: 8DPSK, Channel 39, 1 GHz - 3 GHz

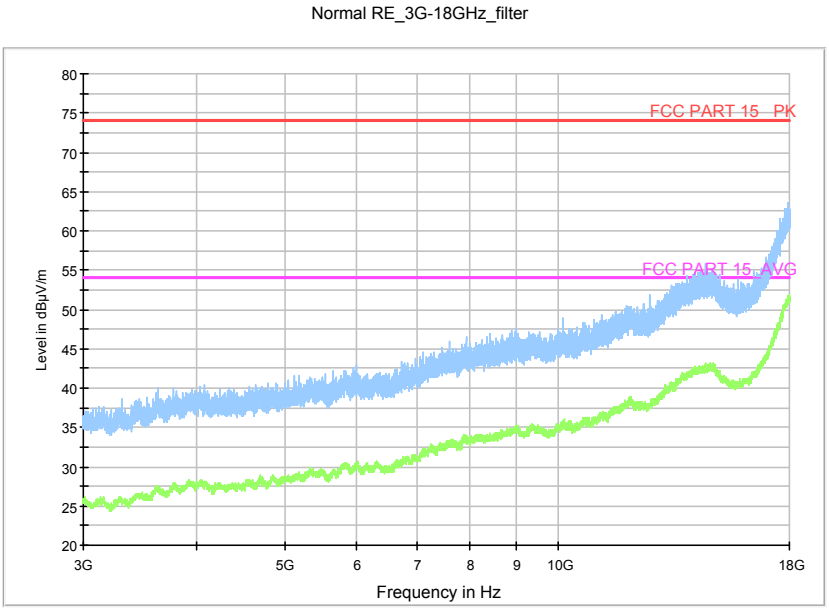
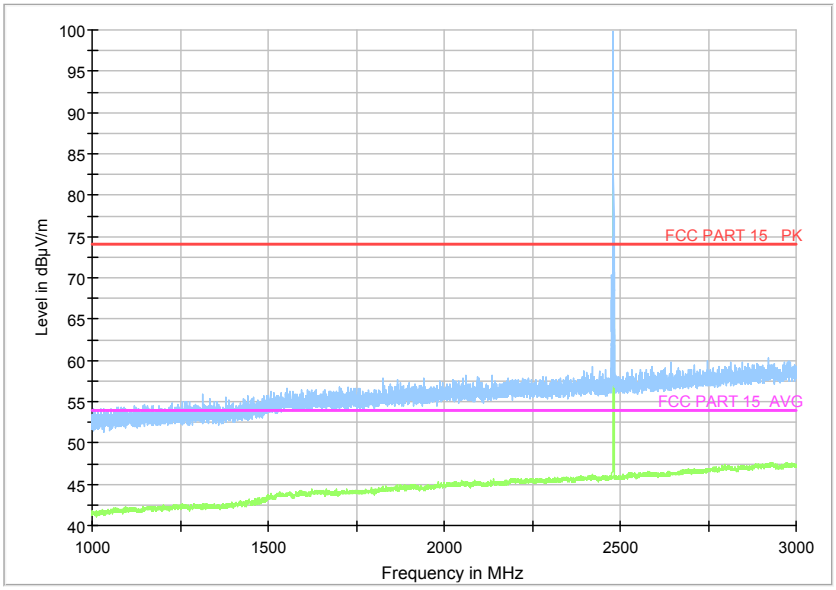


Fig.83. Radiated emission: 8DPSK, Channel 39, 3 GHz - 18 GHz



Note: the spike over the limit is the Bluetooth carrier frequency and coming from the radio equipment.

Fig.84. Radiated emission: 8DPSK, Channel 78, 1 GHz - 3 GHz

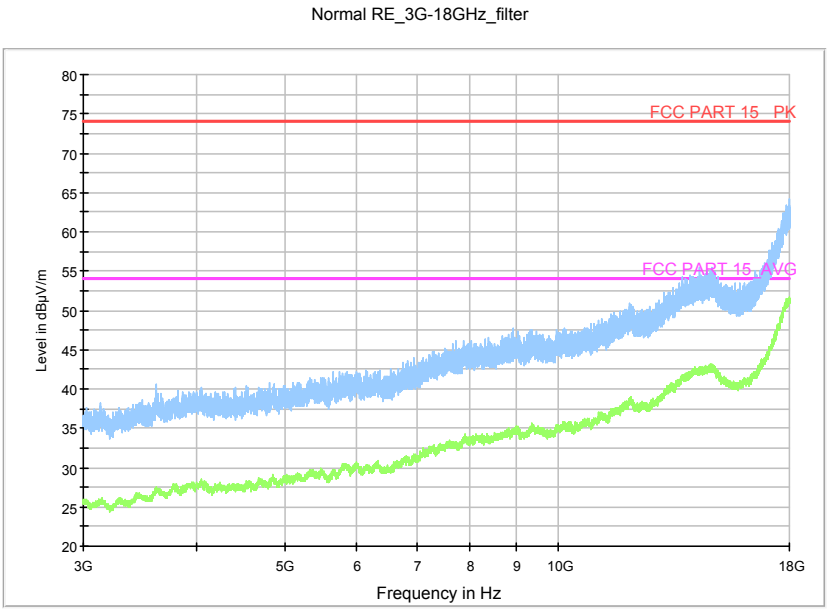


Fig.85. Radiated emission: 8DPSK, Channel 78, 3 GHz - 18 GHz

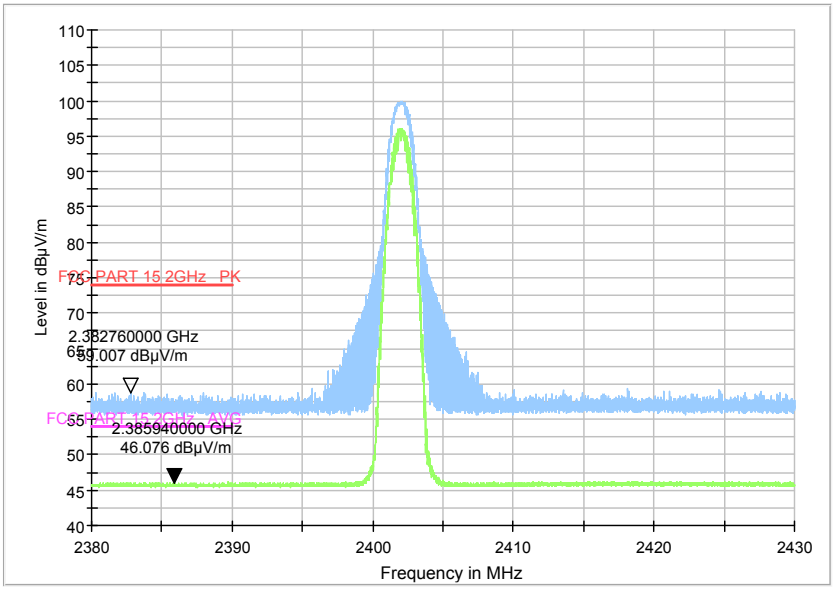


Fig.86. Radiated emission (Power): 8DPSK, low channel

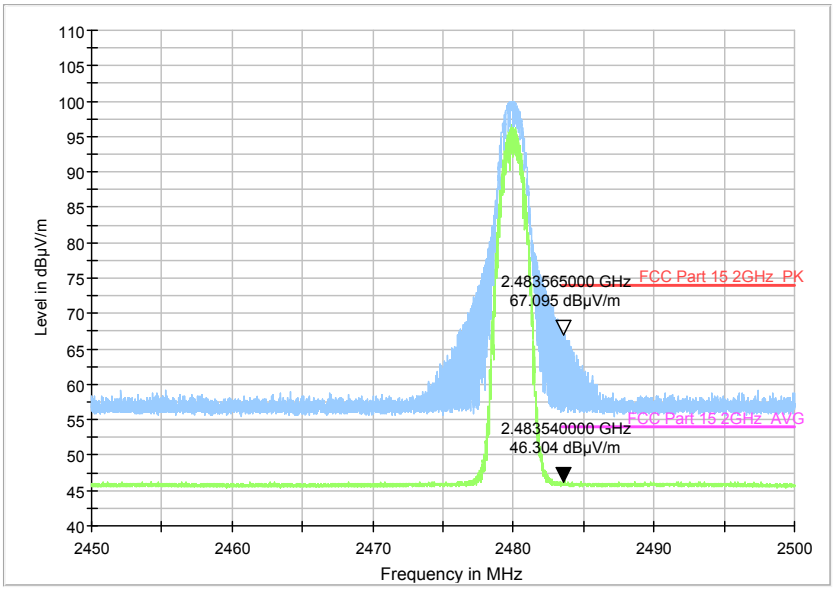


Fig.87. Radiated emission (Power): 8DPSK, high channel

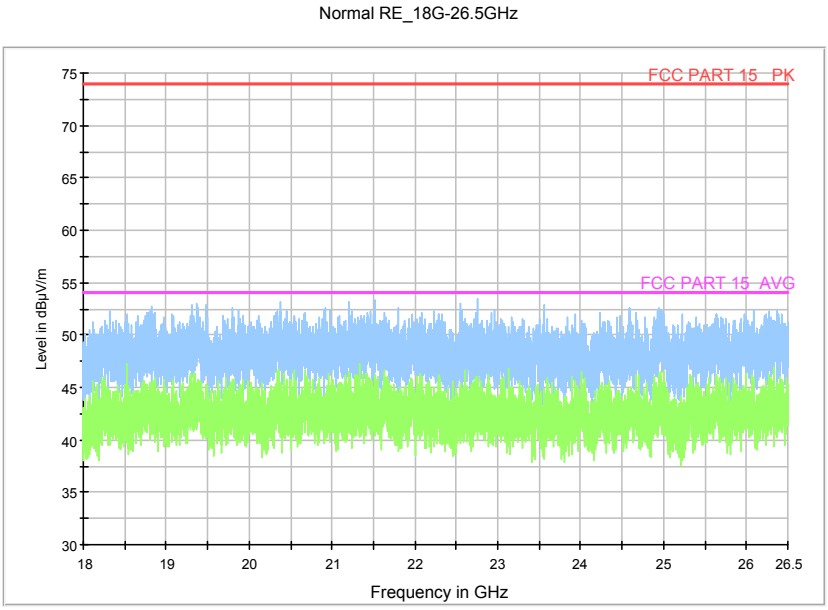


Fig.88. Radiated emission: 8DPSK, 18 GHz – 26.5 GHz

A.6. Time of Occupancy (Dwell Time)

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

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- Span = zero span, centered on a hopping channel
- RBW = 1 MHz
- VBW ≥ RBW
- Sweep = as necessary to capture the entire dwell time per hopping channel
- Detector function = peak
- Trace = max hold

Measure a pulse time in time domain at middle frequency and then count the hopping number in 31.6s(which equals with 0.4 multiply 79) of middle frequency ,then multiply the pulse time and hopping number and record them.

Measurement Limit:

Standard	Limit (ms)
FCC 47 CFR Part 15.247(a) (1)(iii)	< 400

Measurement Result:

For GFSK

Channel	Packet	Dwell Time (ms)		Conclusion
39	DH1	Fig.89	123.02	P
	DH3	Fig.90	259.09	P
	DH5	Fig.91	308.28	P

For π/4 DQPSK

Channel	Packet	Dwell Time (ms)		Conclusion
39	DH1	Fig.92	122.39	P
	DH3	Fig.93	261.52	P
	DH5	Fig.94	307.45	P

For 8DPSK

Channel	Packet	Dwell Time (ms)		Conclusion
39	DH1	Fig.95	122.18	P

	DH3	Fig.96	261.20	P
	DH5	Fig.97	307.54	P

Conclusion: PASS

Test graphs as below:

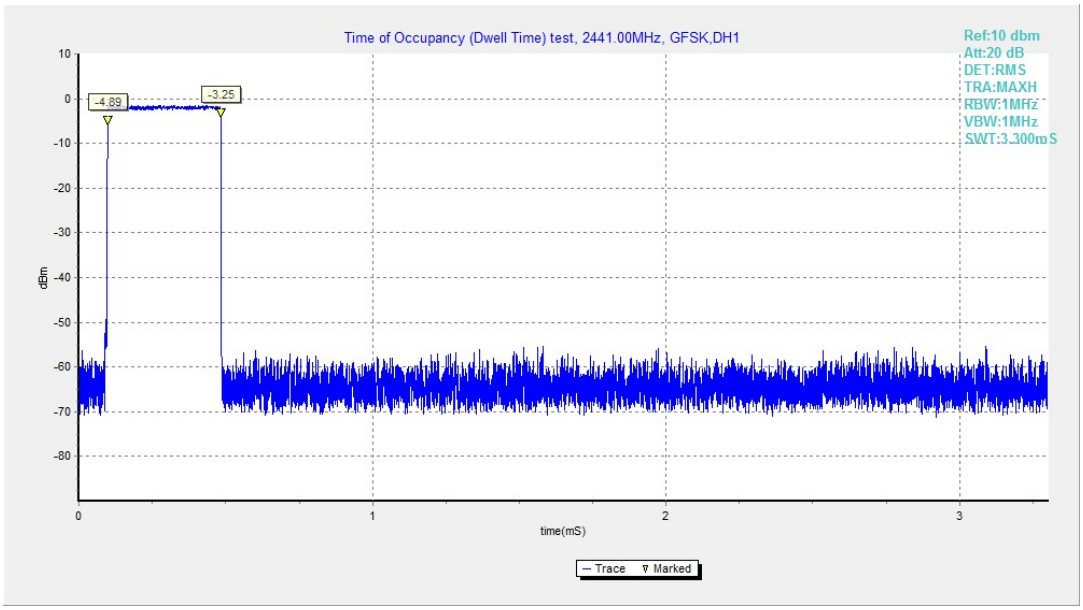


Fig.89. Time of occupancy (Dwell Time): Channel 39, Packet DH1

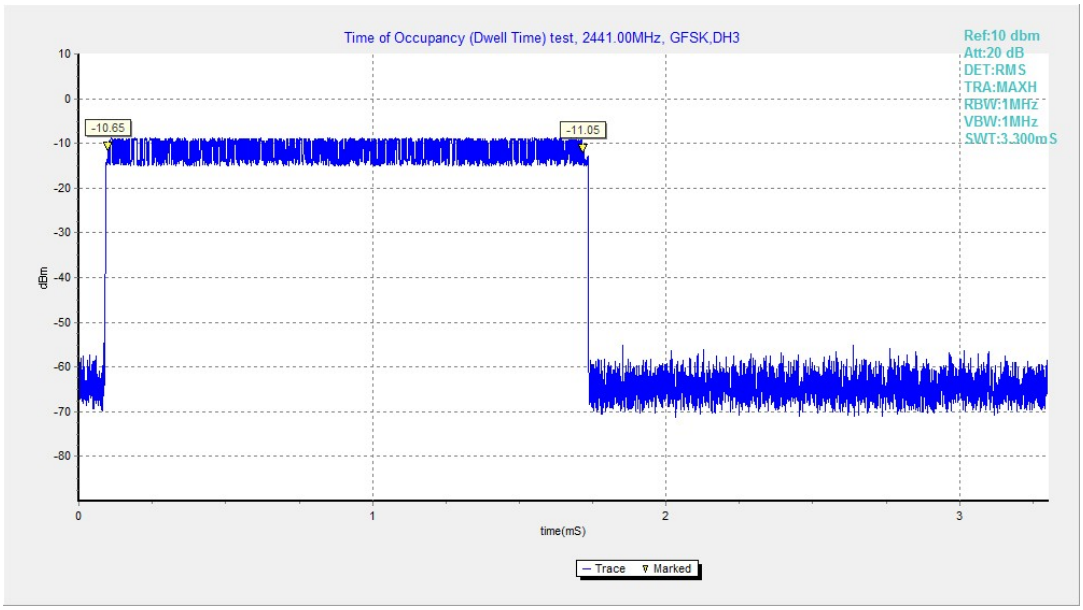


Fig.90. Time of occupancy (Dwell Time): Channel 39, Packet DH3

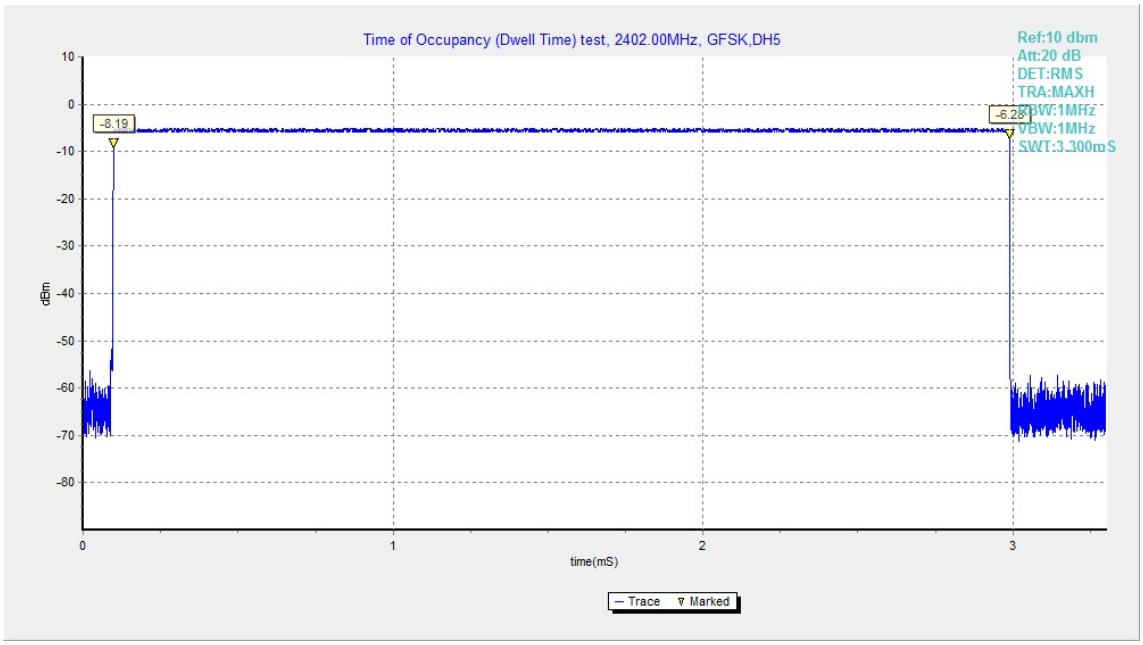


Fig.91. Time of occupancy (Dwell Time): Channel 39, Packet DH5

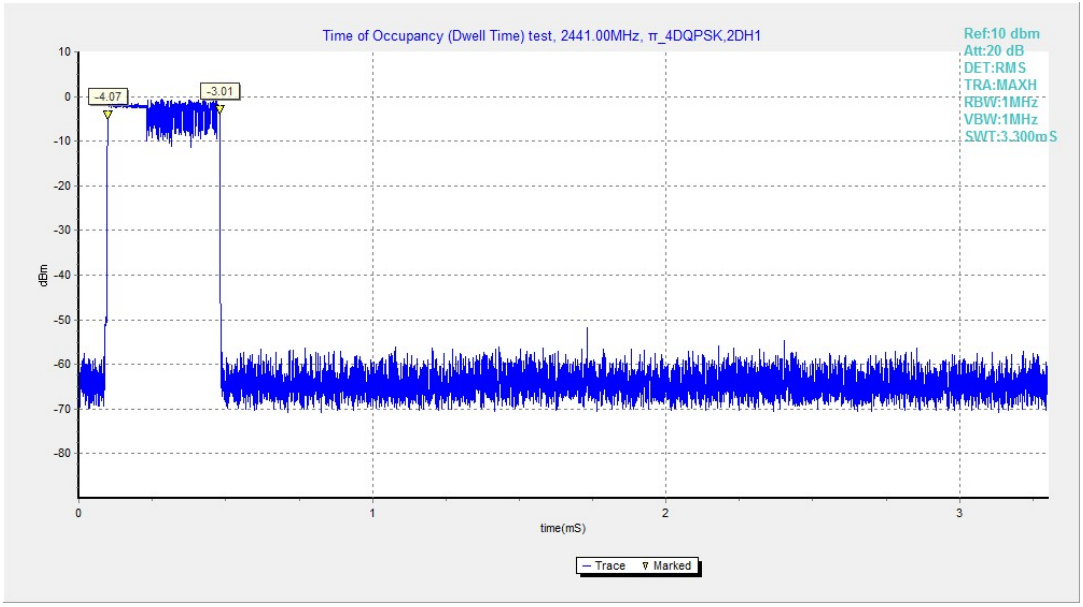


Fig.92. Time of occupancy (Dwell Time): Channel 39, Packet 2-DH1

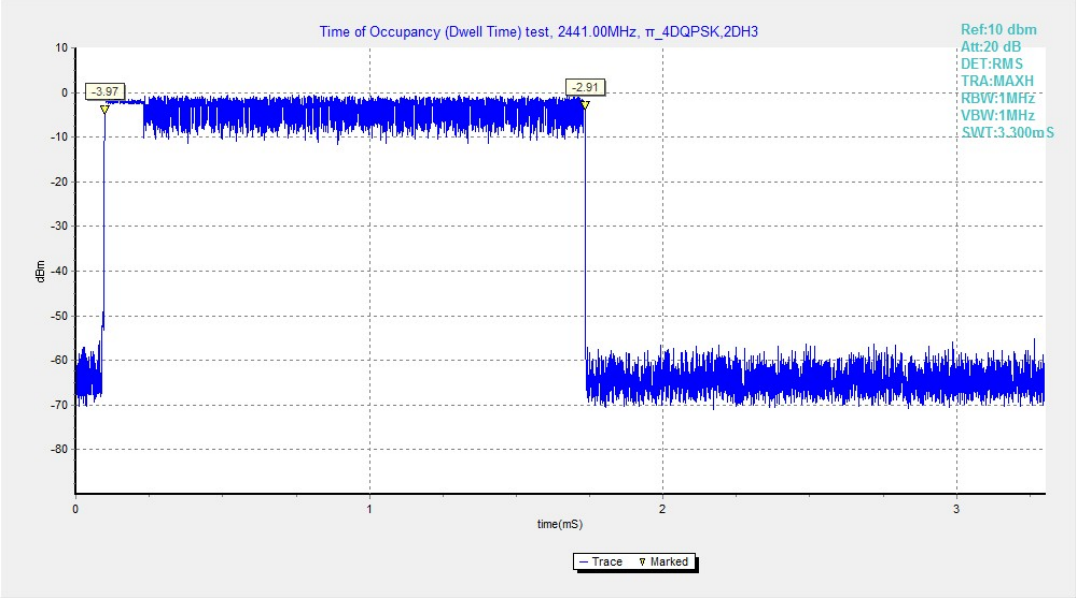


Fig.93. Time of occupancy (Dwell Time): Channel 39, Packet 2-DH3

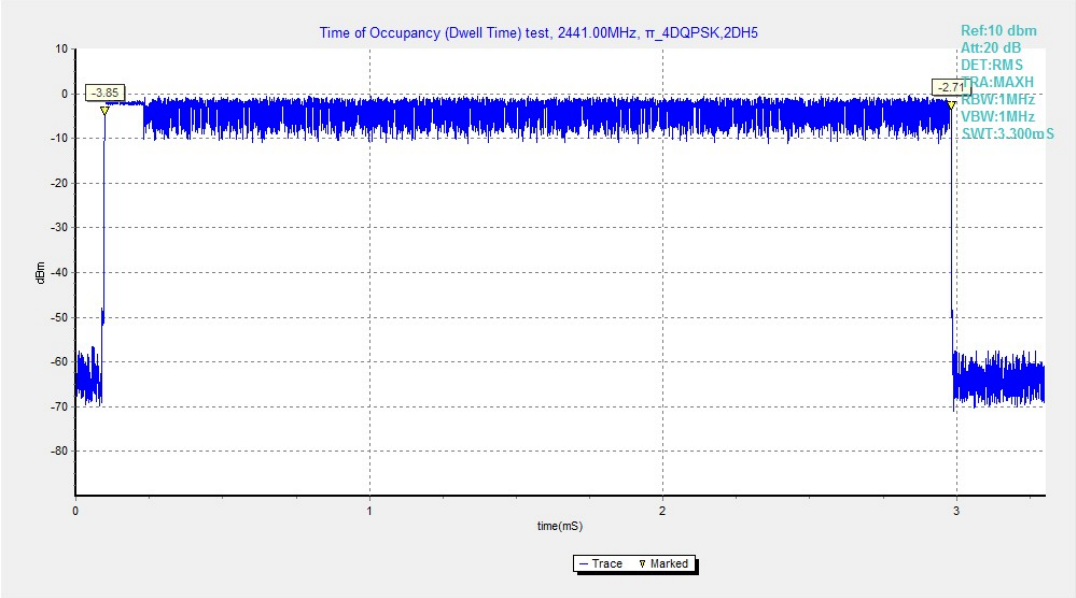


Fig.94. Time of occupancy (Dwell Time): Channel 39, Packet 2-DH5

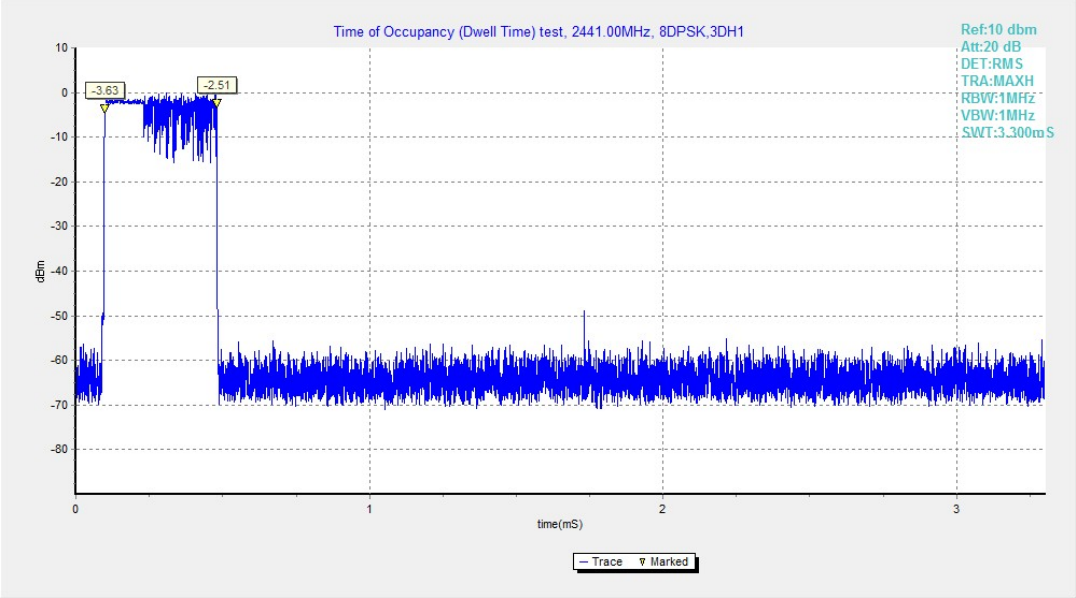


Fig.95. Time of occupancy (Dwell Time): Channel 39, Packet 3-DH1

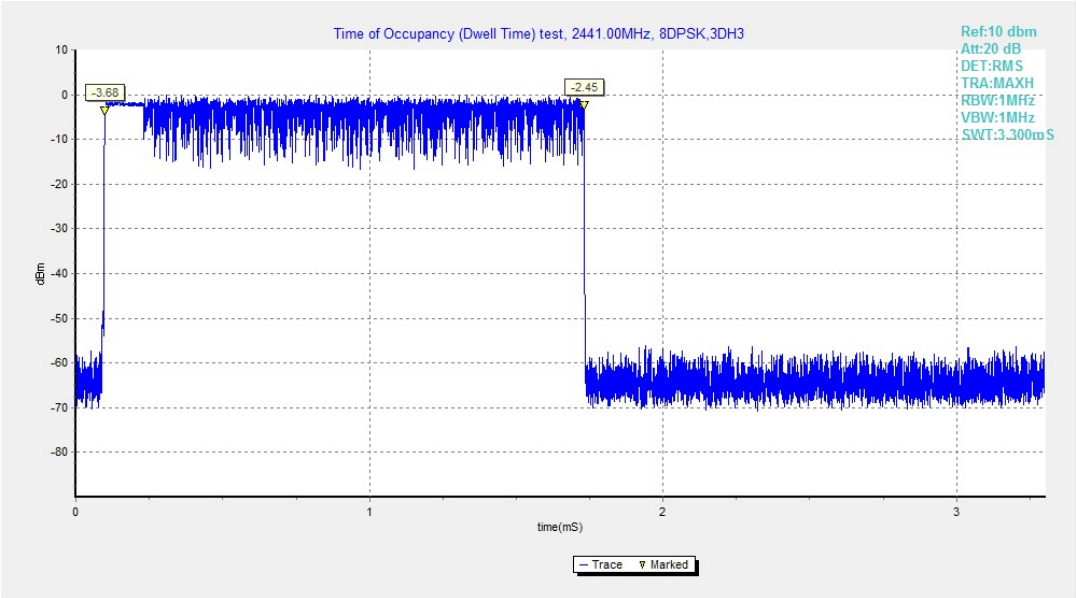


Fig.96. Time of occupancy (Dwell Time): Channel 39, Packet 3-DH3

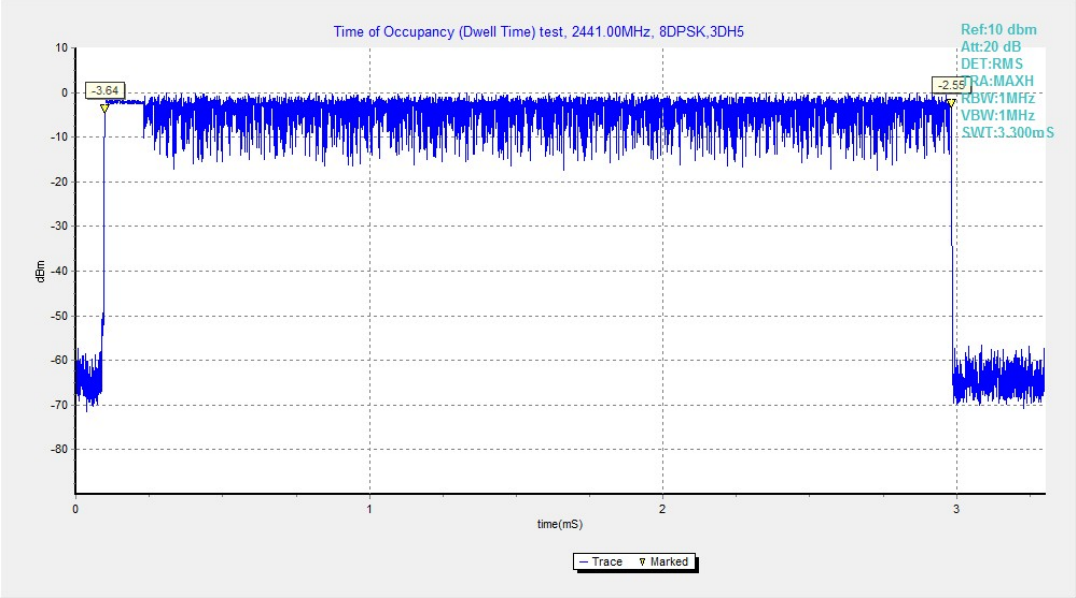


Fig.97. Time of occupancy (Dwell Time): Channel 39, Packet 3-DH5

A.7. 20dB Bandwidth

Method of Measurement: See ANSI C63.10-clause 6.9.2

Measurement Procedure - Unwanted Emissions

1. Set RBW = 20kHz.

2. Set VBW = 100 kHz.

3. Set span to 3MHz

4. Detector = peak.

5. Trace Mode = max hold.

6. Sweep = auto couple.

7. Allow the trace to stabilize (this may take some time, depending on the extent of the span).

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247(a)(1)	NA *

Use NdB Down function of the SA to measure the 20dB Bandwidth

* Comment: This test case is not required according to the latest FCC 47 CFR Part 15.247. But the test results are necessary for “carrier frequency separation” test case, in Annex A.8.

Measurement Results:

For GFSK

Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.98	950.00	NA
39	Fig.99	943.00	NA
78	Fig.100	942.00	NA

Forπ/4 DQPSK

Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.101	1319.00	NA
39	Fig.102	1319.00	NA
78	Fig.103	1320.00	NA

For 8DPSK

Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.104	1291.00	NA
39	Fig.105	1296.00	NA
78	Fig.106	1288.00	NA

Conclusion: NA

Test graphs as below:

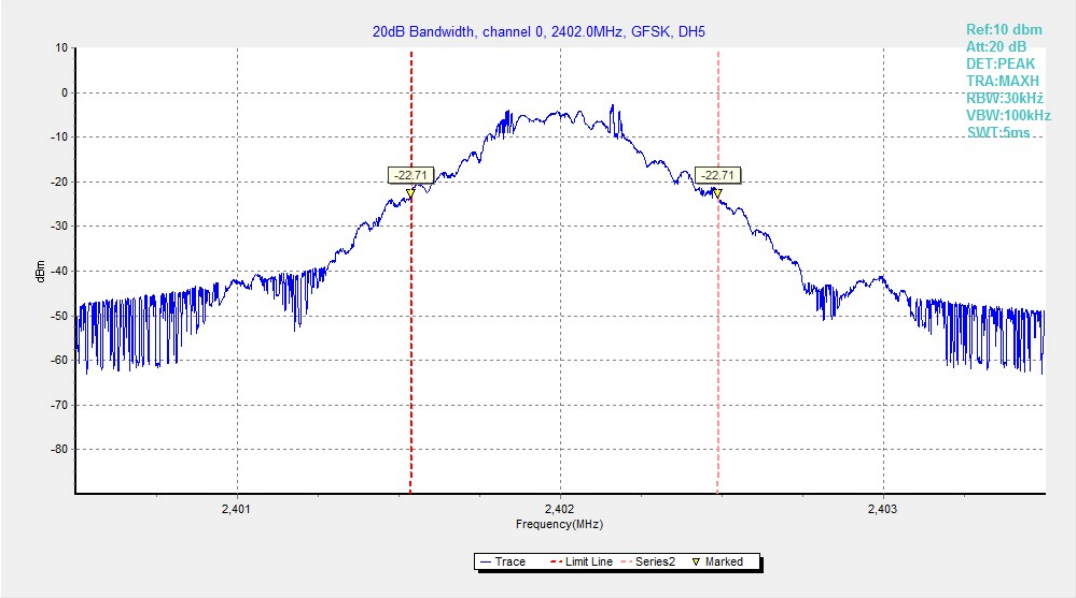


Fig.98. 20dB Bandwidth: GFSK, Channel 0

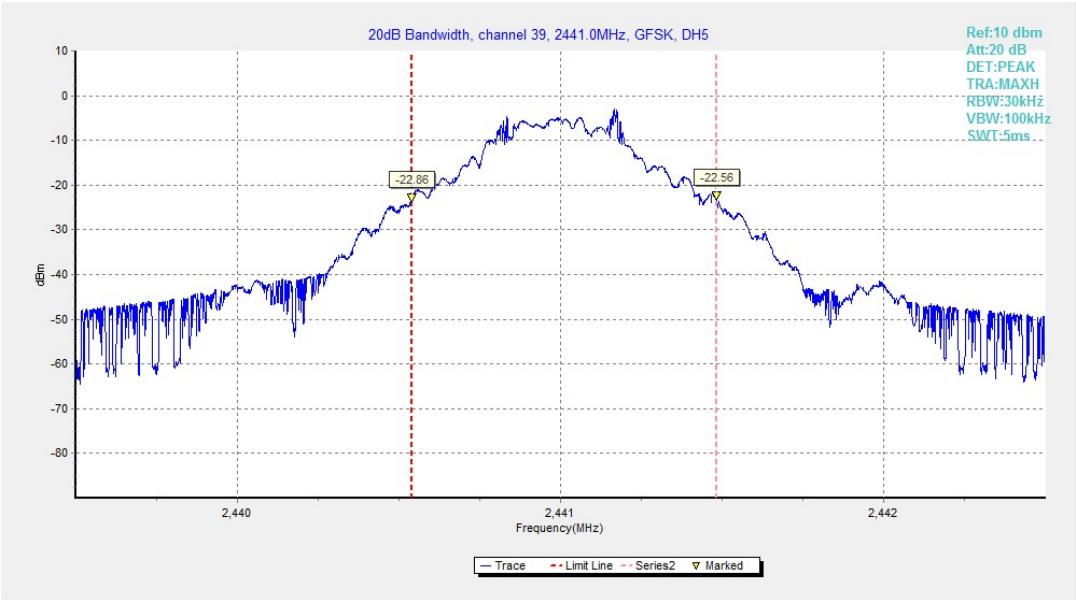


Fig.99. 20dB Bandwidth: GFSK, Channel 39

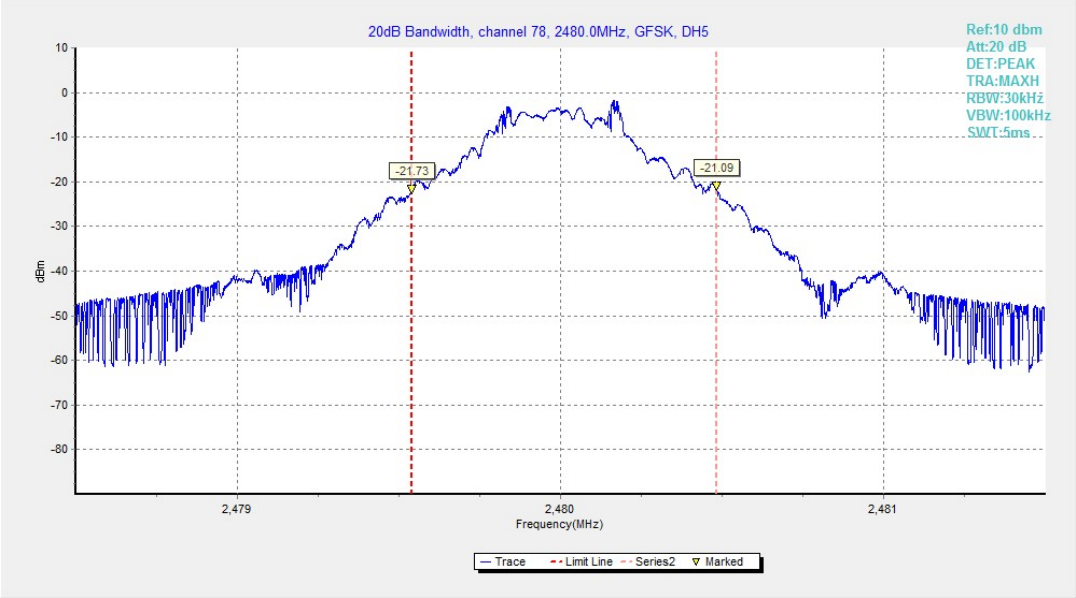


Fig.100. 20dB Bandwidth: GFSK, Channel 78

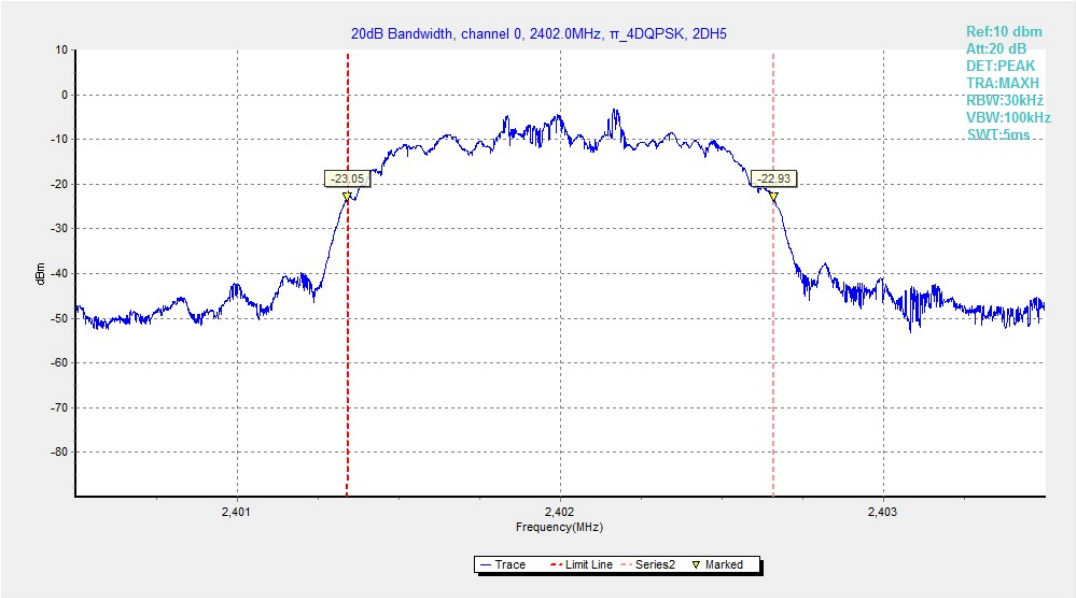


Fig.101. 20dB Bandwidth: π/4 DQPSK, Channel 0

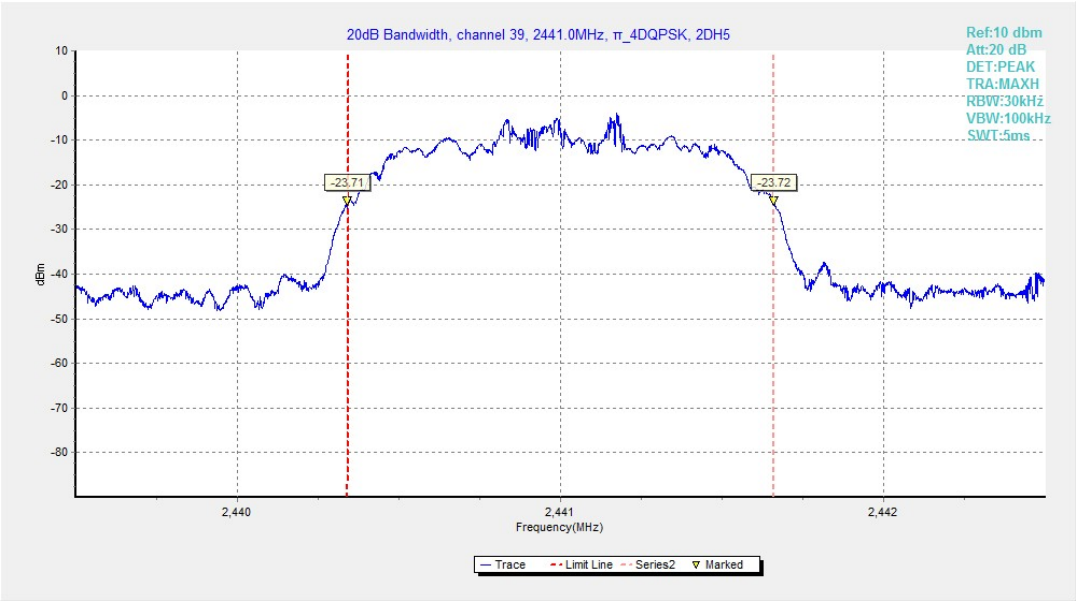


Fig.102. 20dB Bandwidth: π/4 DQPSK, Channel 39

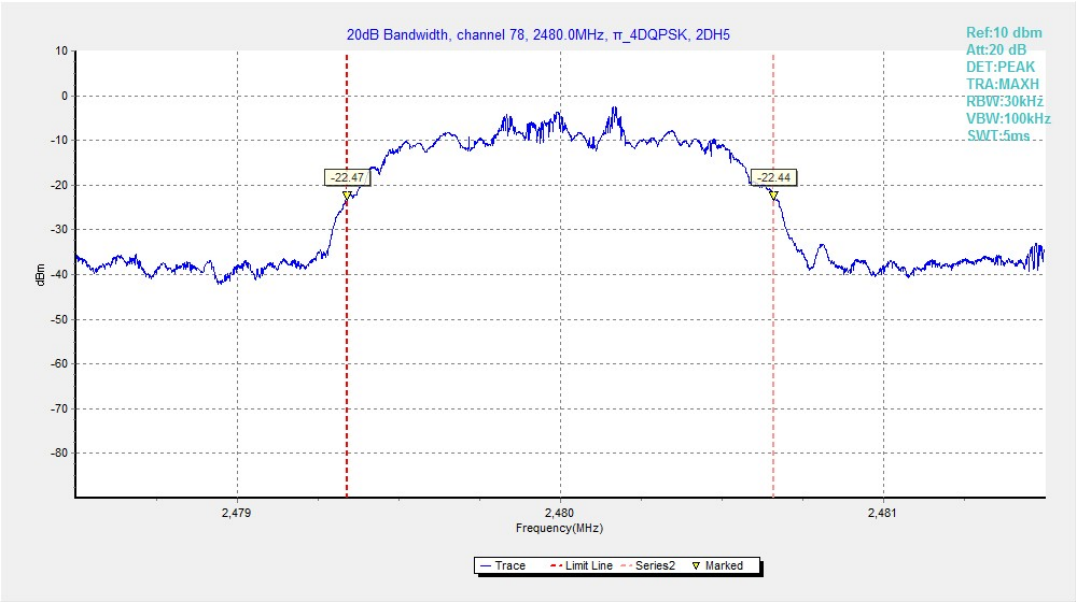


Fig.103. 20dB Bandwidth: π/4 DQPSK, Channel 78

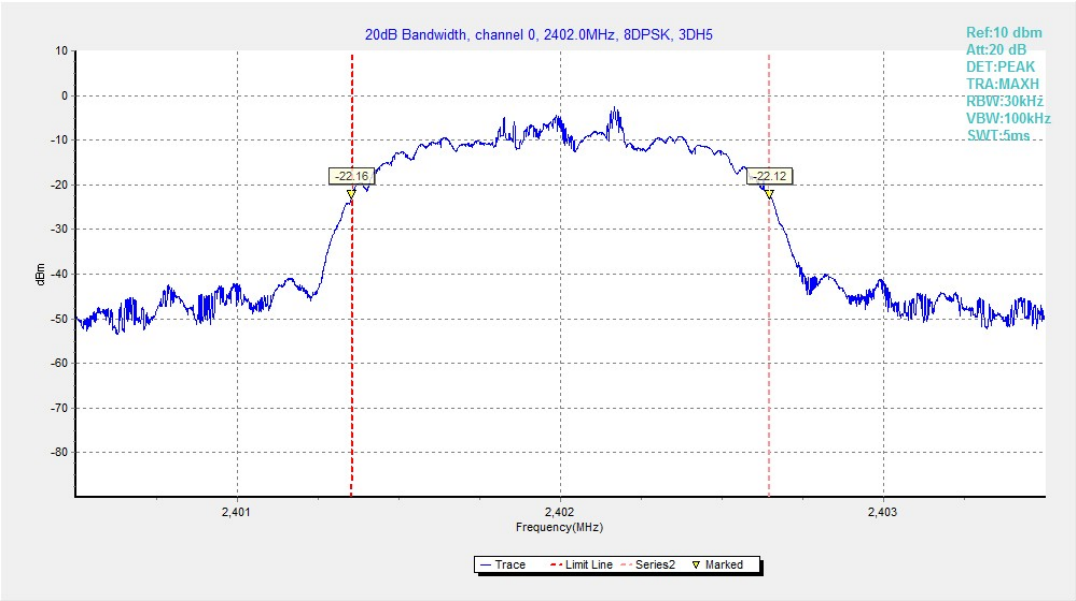


Fig.104. 20dB Bandwidth: 8DPSK, Channel 0

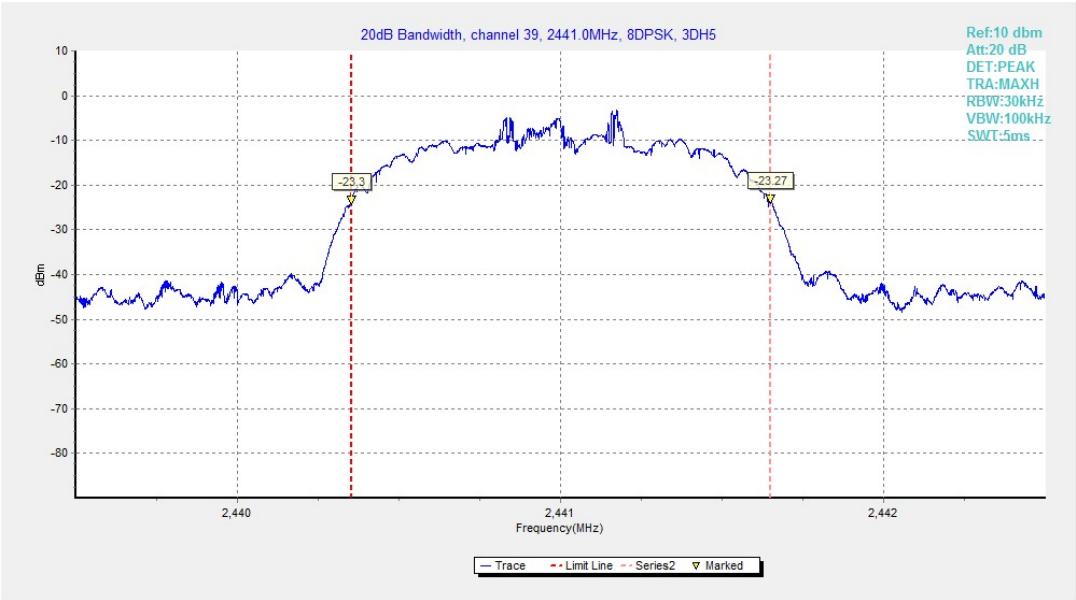


Fig.105. 20dB Bandwidth: 8DPSK, Channel 39

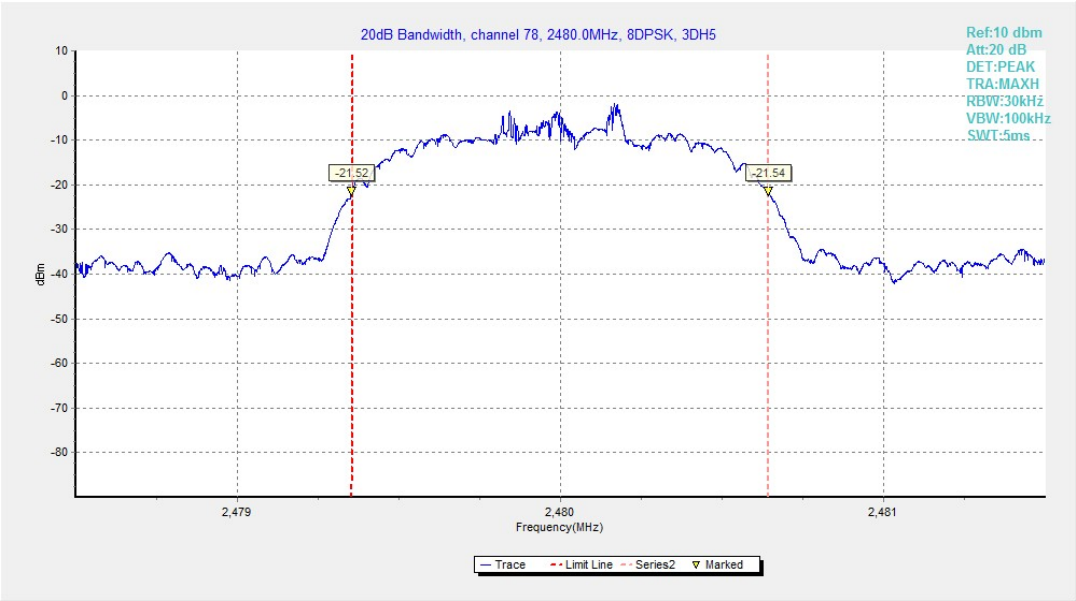


Fig.106. 20dB Bandwidth: 8DPSK, Channel 78

A.8. Carrier Frequency Separation

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

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- Span = 3MHz
- RBW=300kHz
- VBW=1MHz
- Sweep = auto
- Detector function = peak
- Trace = max hold
- Allow the trace to stabilize

Search the peak marks of the middle frequency and adjacent channel, then record the separation between them.

* Comment: This limit should be over 25 kHz or (2/3) * 20dB bandwidth, whichever is greater.

Measurement Limit:

Standard	Limit(kHz)
FCC 47 CFR Part 15.247(a)(1)	over 25 kHz or (2/3) * 20dB bandwidth

Measurement Result:

For GFSK

Channel	Carrier frequency separation (kHz)		Conclusion
39	Fig.107	1020.00	P

For π/4 DQPSK

Channel	Carrier frequency separation (kHz)		Conclusion
39	Fig.108	1300.00	P

For 8DPSK

Channel	Carrier frequency separation (kHz)		Conclusion
39	Fig.109	1370.00	P

Conclusion: PASS

Test graphs as below:

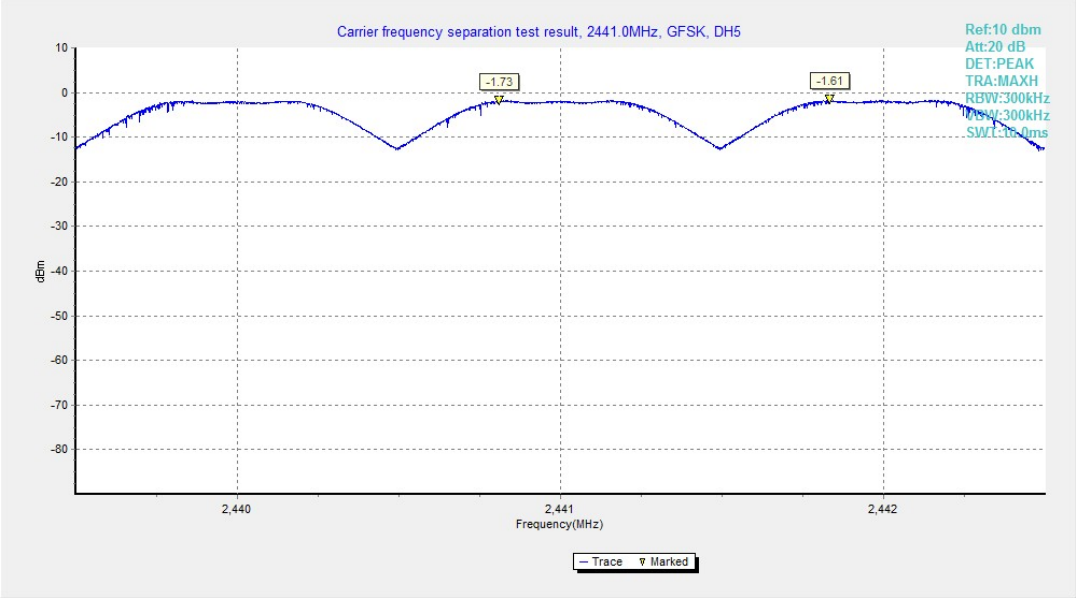


Fig.107. Carrier frequency separation measurement: GFSK, Channel 39

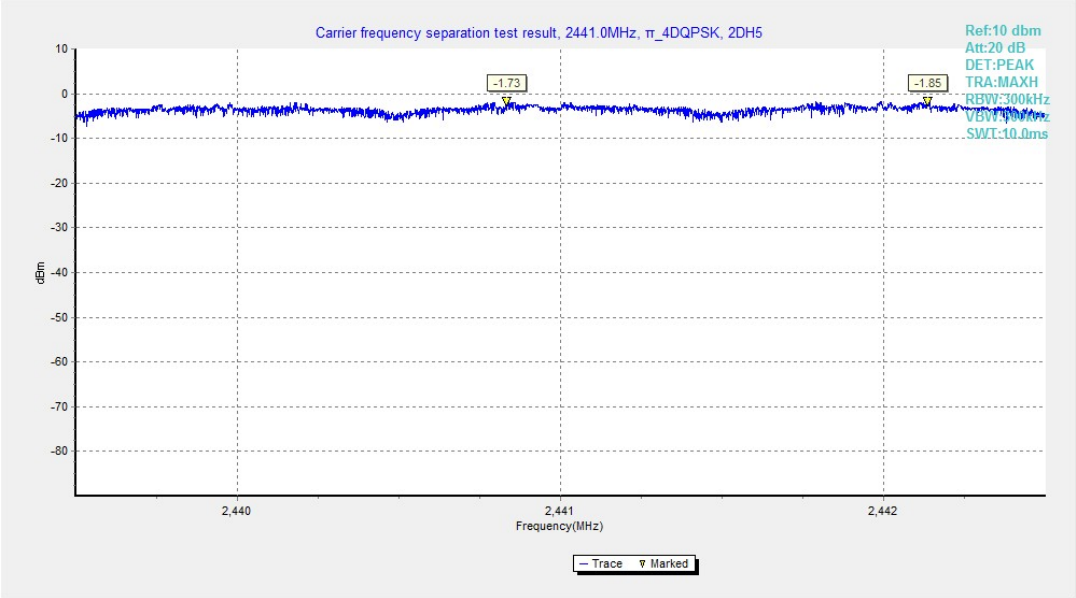


Fig.108. Carrier frequency separation measurement: π/4 DQPSK, Channel 39

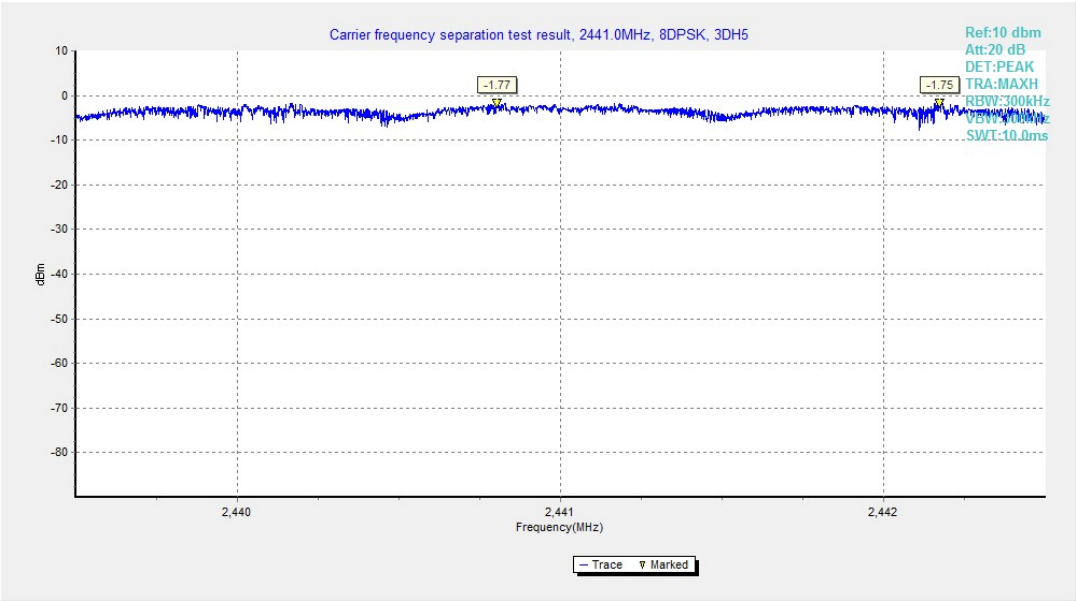


Fig.109. Carrier frequency separation measurement: 8DPSK, Channel 39

A.9. Number of Hopping Channels

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

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- Span = the frequency band of operation
- RBW = 500kHz
- VBW = 500kHz
- Sweep = auto
- Detector function = peak
- Trace = max hold
- Allow the trace to stabilize

It might prove necessary to break the span up into subranges to show clearly all of the hopping frequencies. Compliance of an EUT with the appropriate regulatory limit shall be determined for the number of hopping channels. A plot of the data shall be included in the test report.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247(a) (1)(iii)	At least 15 non-overlapping channels

Measurement Result:

For GFSK

Channel	Number of hopping channels		Conclusion
0~39	Fig.110	79	P
40~78	Fig.111		

Forπ/4 DQPSK

Channel	Number of hopping channels		Conclusion
0~39	Fig.112	79	P
40~78	Fig.113		

For 8DPSK

Channel	Number of hopping channels		Conclusion
0~39	Fig.114	79	P
40~78	Fig.115		

Conclusion: PASS

Test graphs as below:

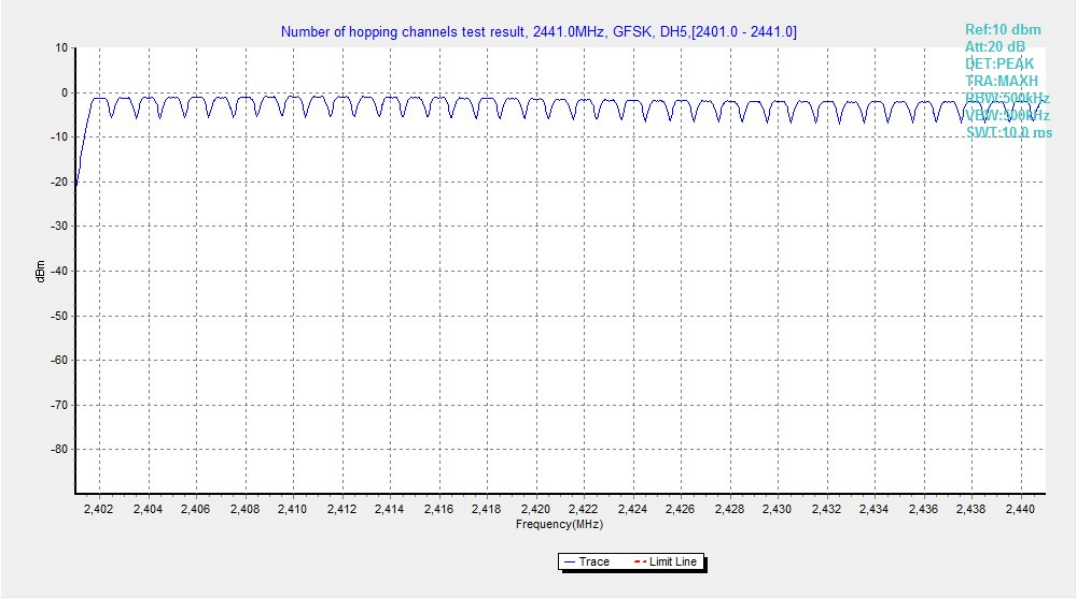


Fig.110. Number of hopping frequencies: GFSK, Channel 0 - 39

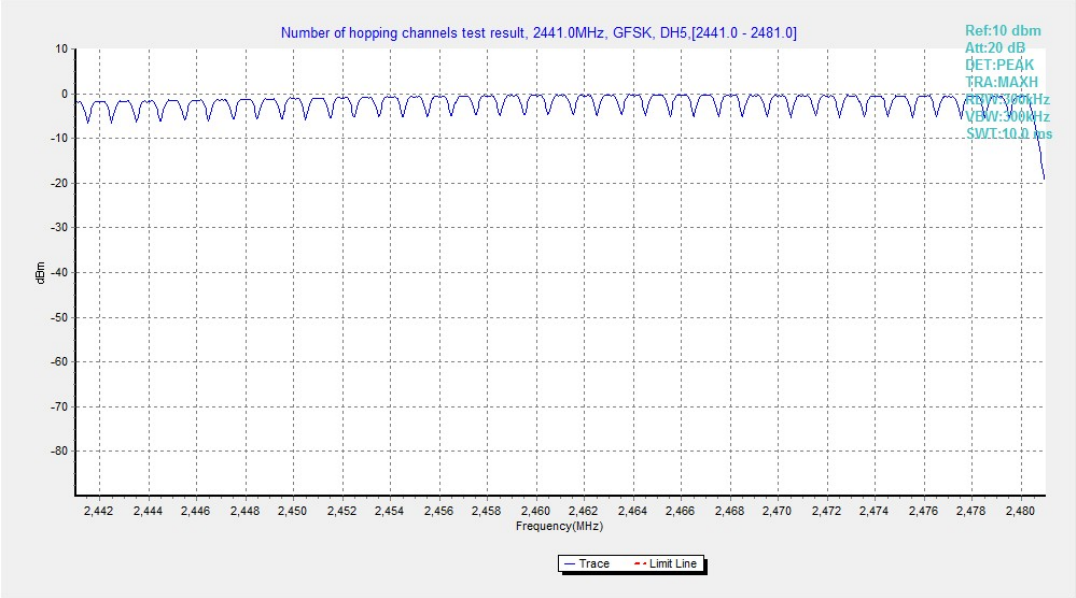


Fig.111. Number of hopping frequencies: GFSK, Channel 40 - 78

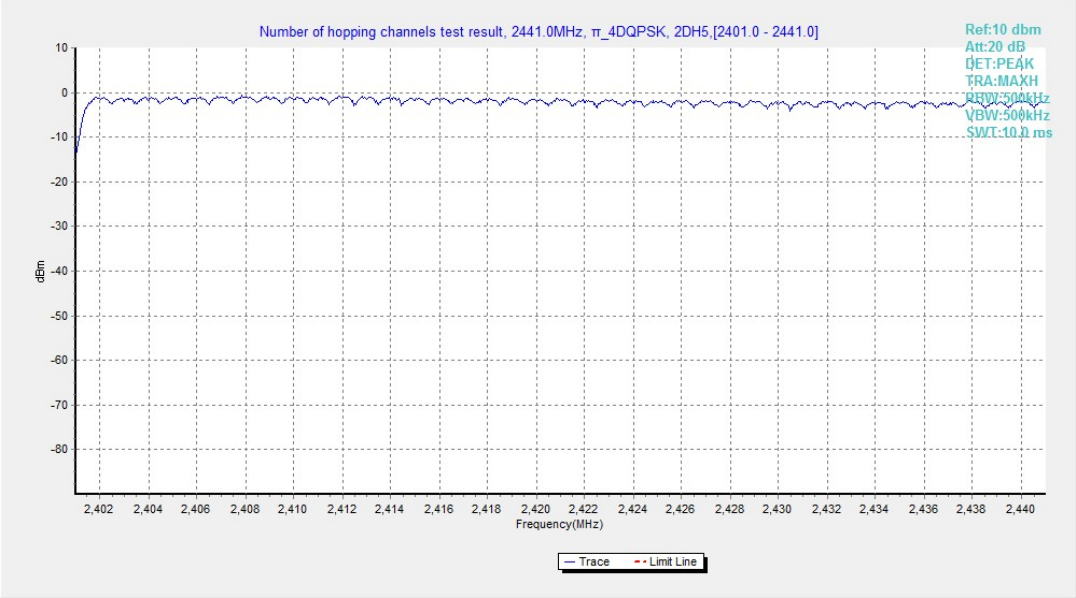


Fig.112. Number of hopping frequencies: π/4 DQPSK, Channel 0 - 39

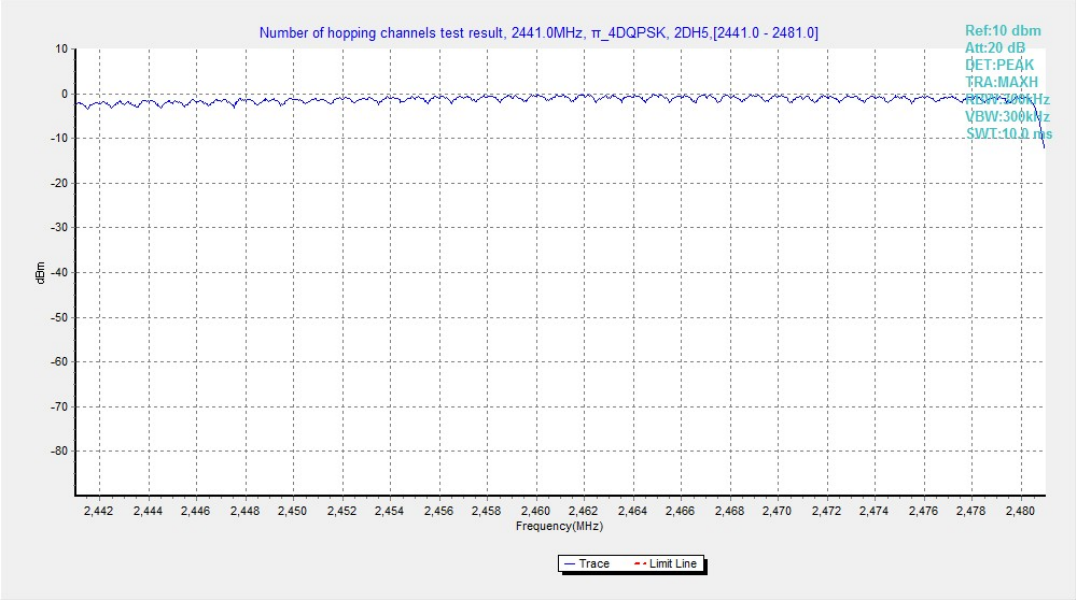


Fig.113. Number of hopping frequencies: π/4 DQPSK, Channel 40 - 78