

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

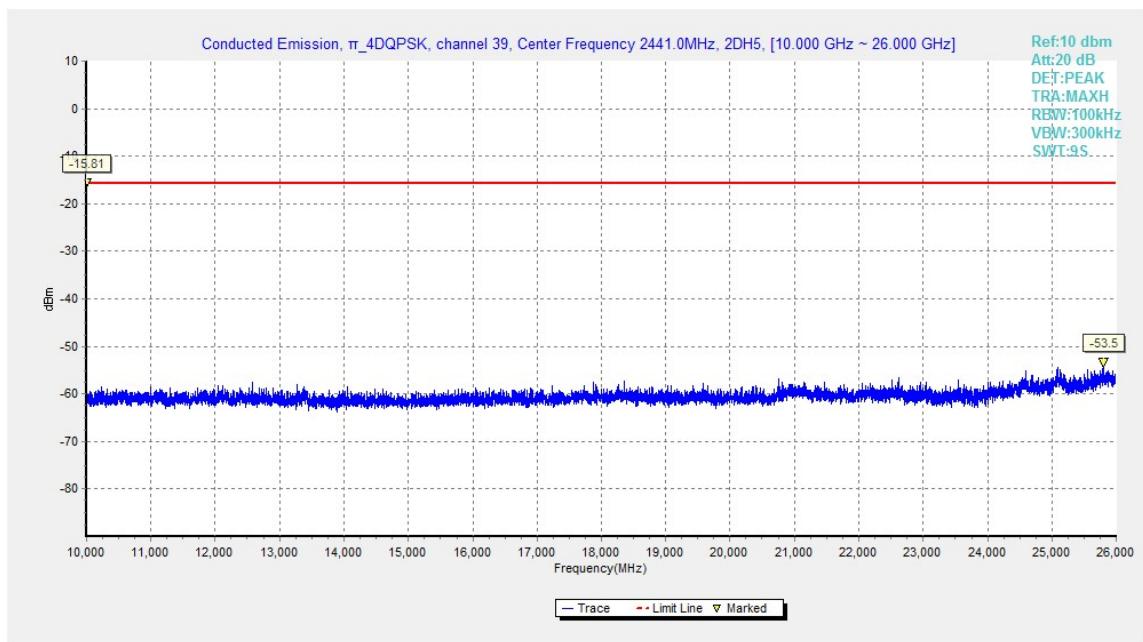


Fig.37. Conducted spurious emission: π/4 DQPSK, Channel 39, 10GHz – 26GHz

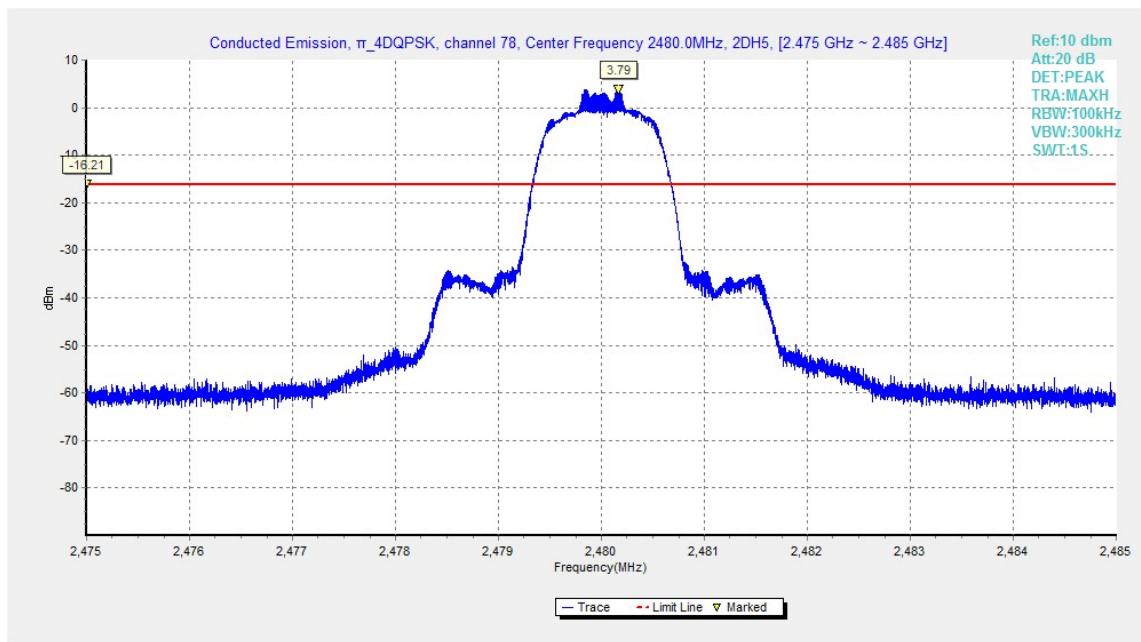


Fig.38. Conducted spurious emission:  $\pi/4$  DQPSK, Channel 78, 2480MHz

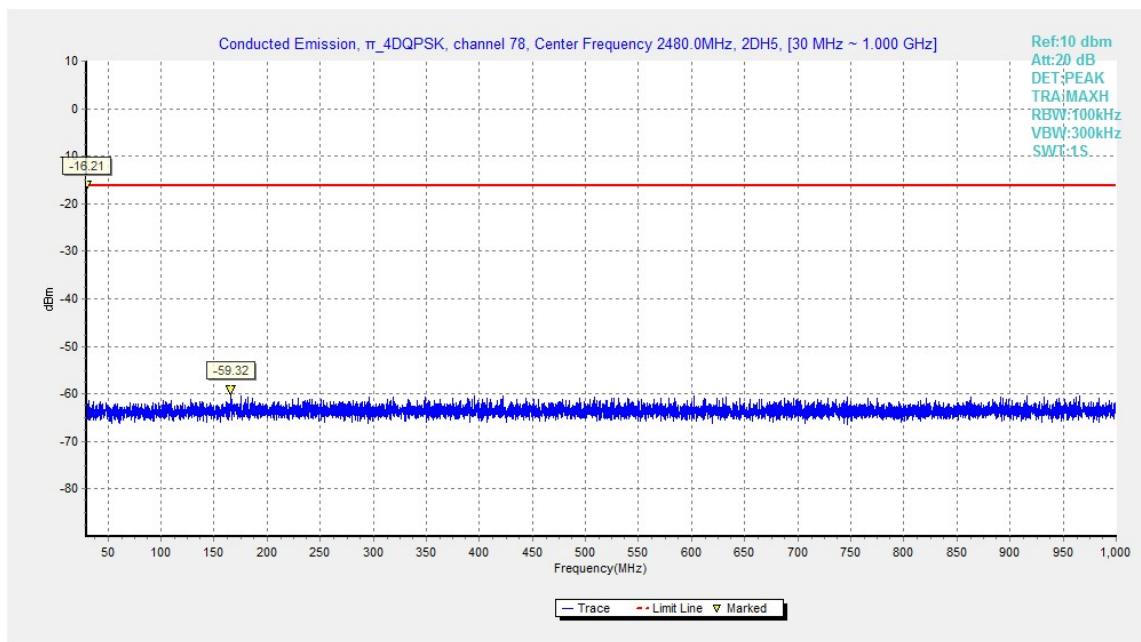


Fig.39. Conducted spurious emission:  $\pi/4$  DQPSK, Channel 78, 30MHz - 1GHz

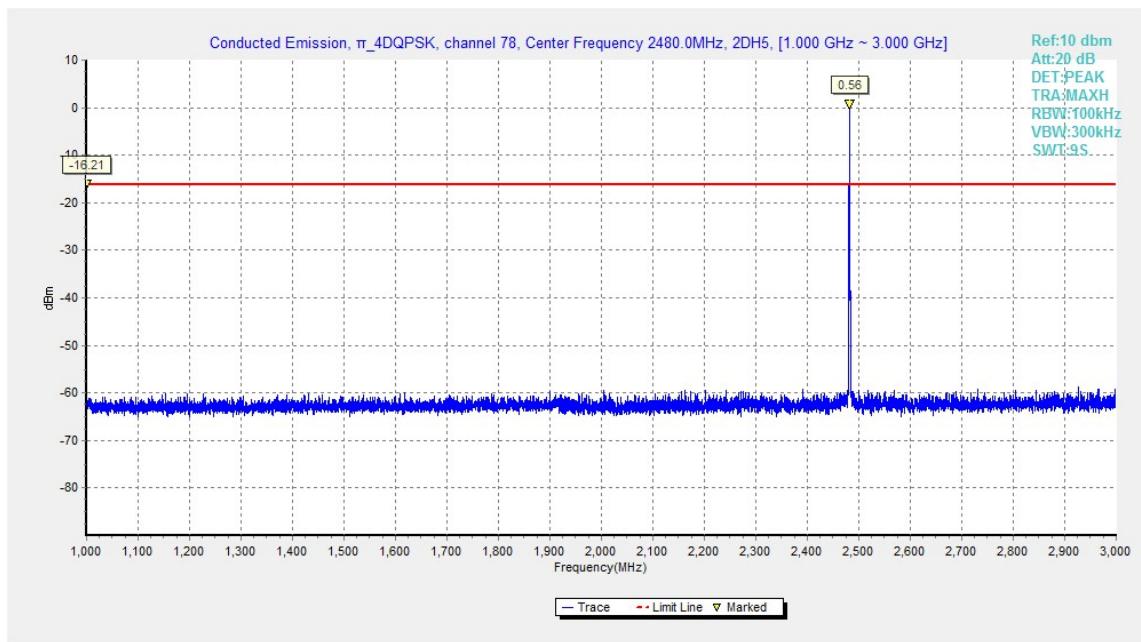


Fig.40. Conducted spurious emission:  $\pi/4$  DQPSK, Channel 78, 1GHz - 3GHz

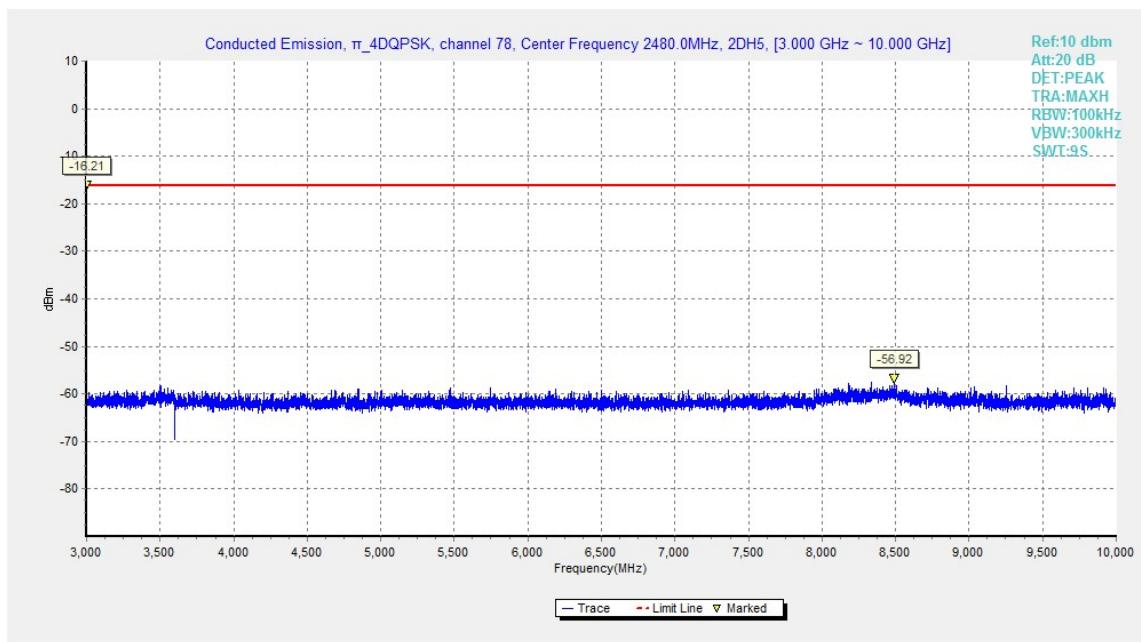


Fig.41. Conducted spurious emission:  $\pi/4$  DQPSK, Channel 78, 3GHz - 10GHz

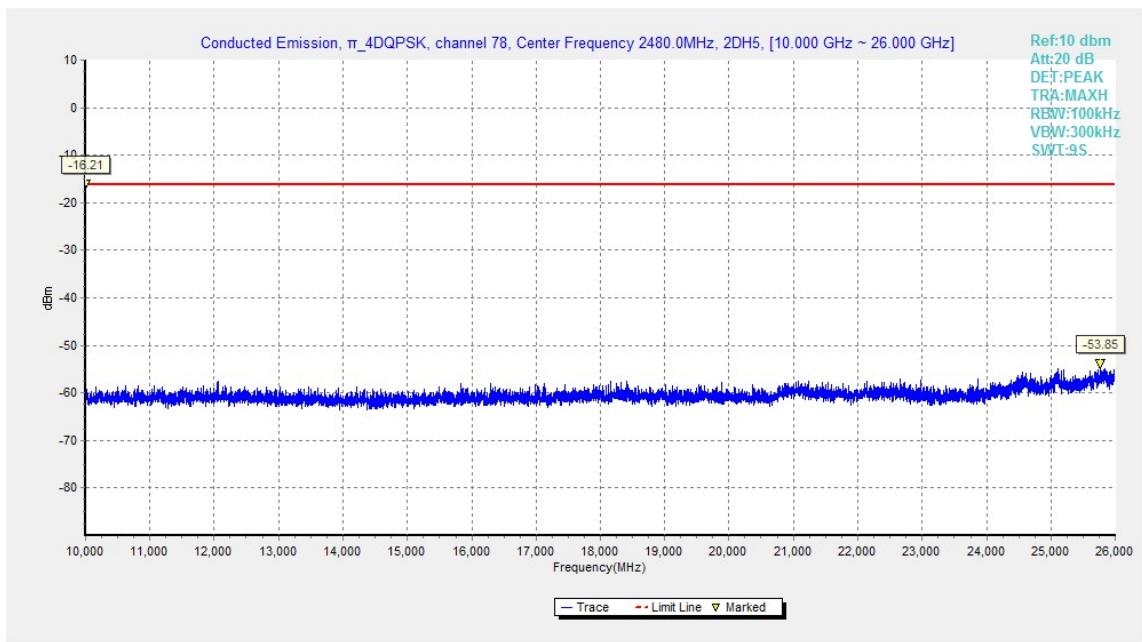


Fig.42. Fig.30 Conducted spurious emission:  $\pi/4$  DQPSK, Channel 78, 10GHz - 26GHz

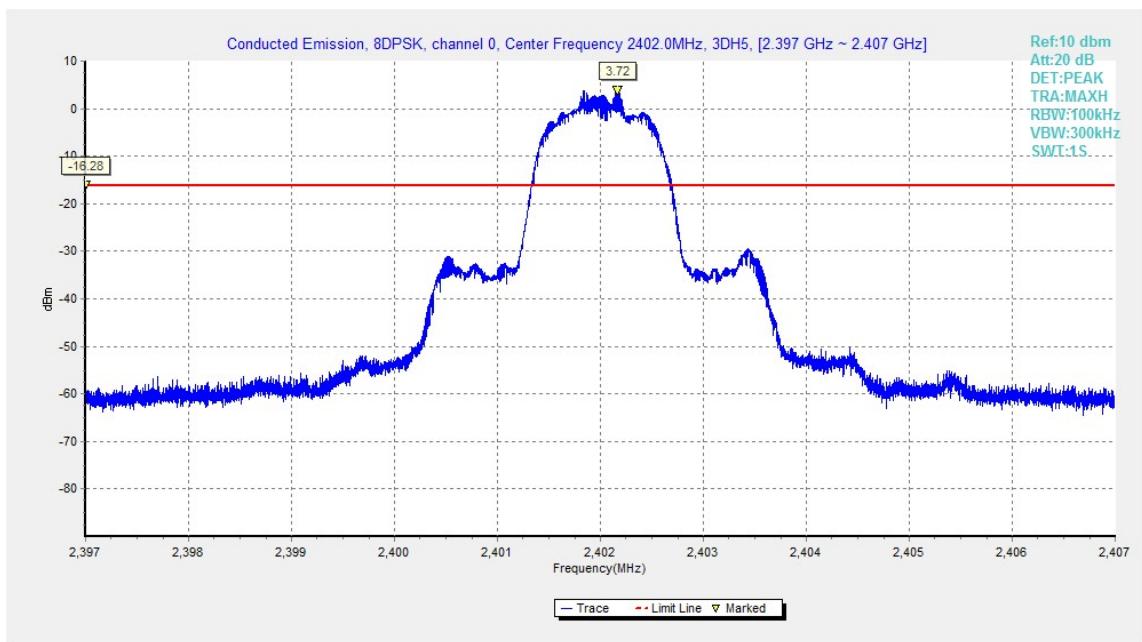


Fig.43. Conducted spurious emission: 8DPSK, Channel 0, 2402MHz

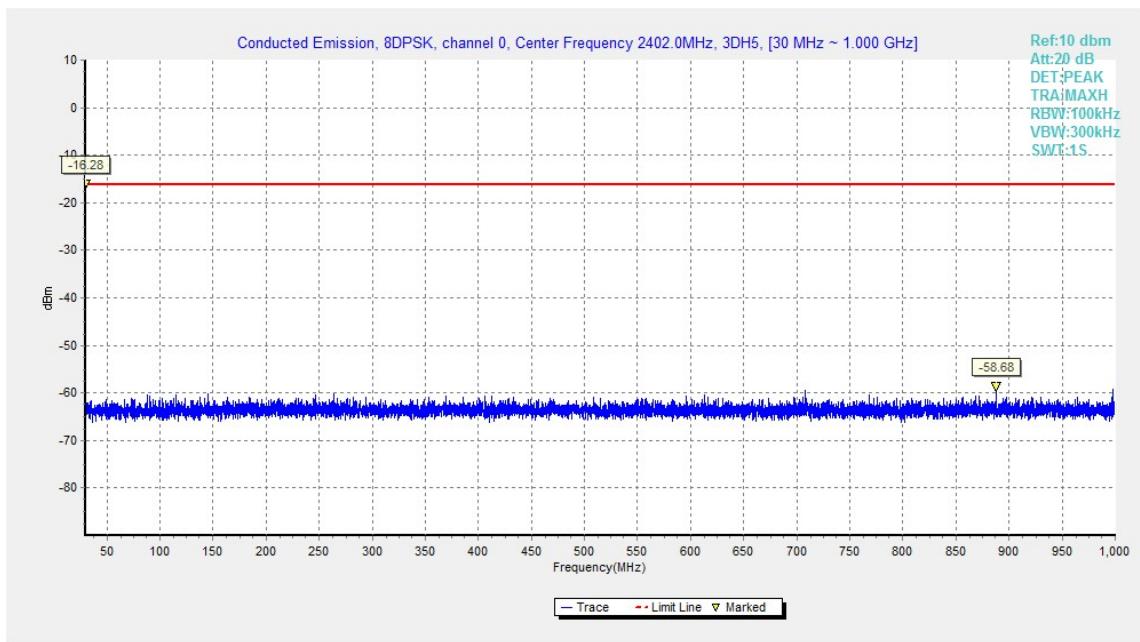


Fig.44. Conducted spurious emission: 8DPSK, Channel 0, 30MHz - 1GHz

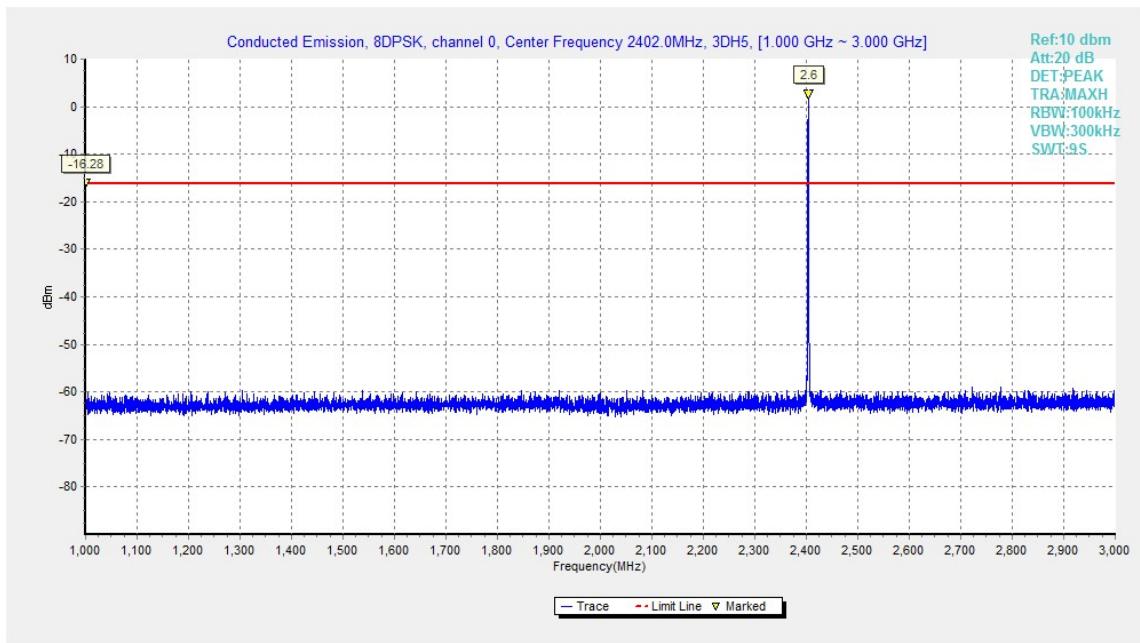


Fig.45. Conducted spurious emission: 8DPSK, Channel 0, 1GHz - 3GHz

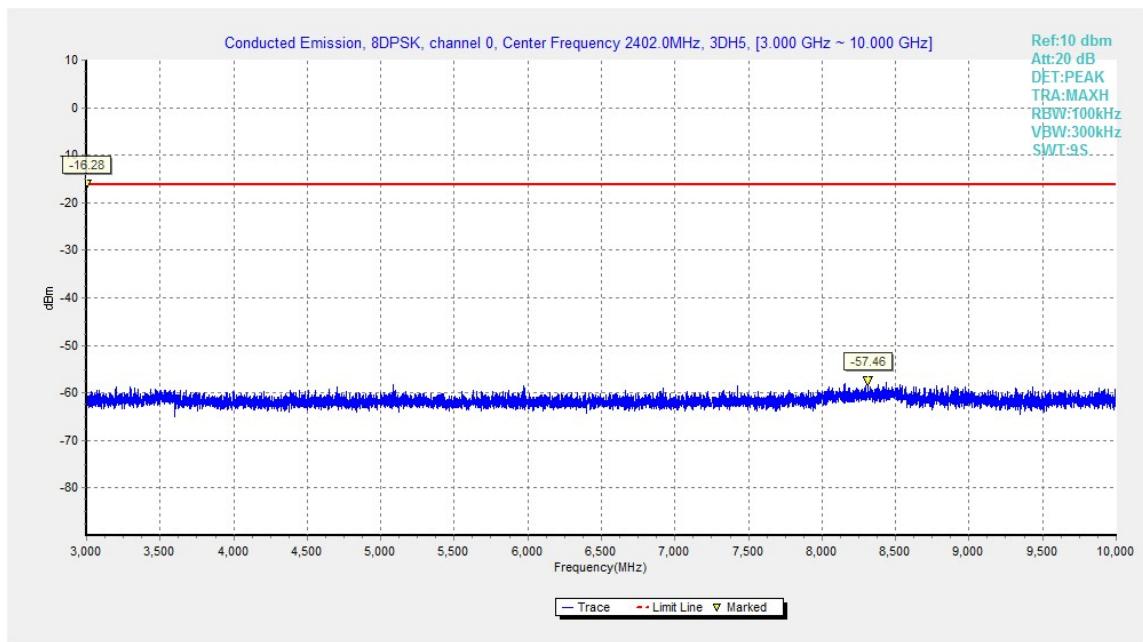


Fig.46. Conducted spurious emission: 8DPSK, Channel 0, 3GHz - 10GHz

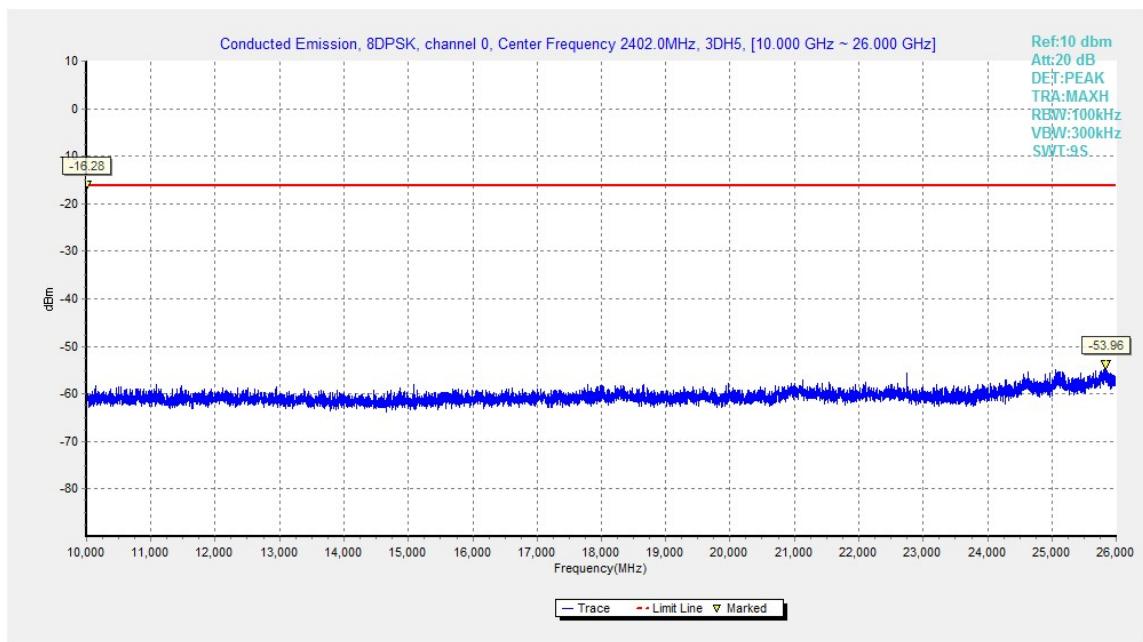


Fig.47. Conducted spurious emission: 8DPSK, Channel 0, 10GHz - 26GHz

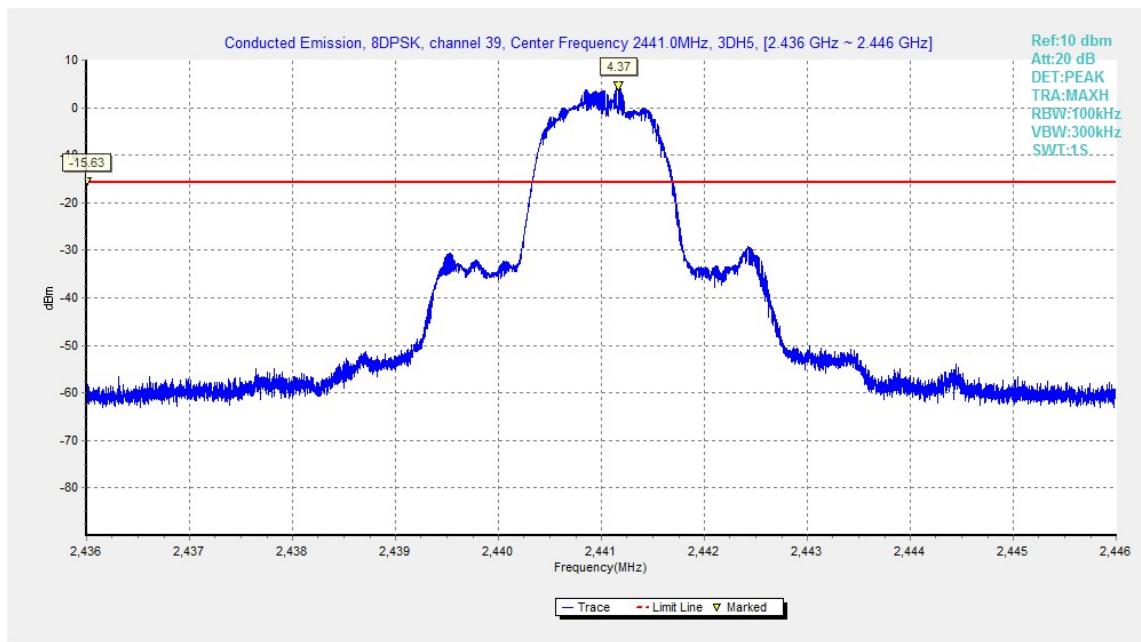


Fig.48. Conducted spurious emission: 8DPSK, Channel 39, 2441MHz

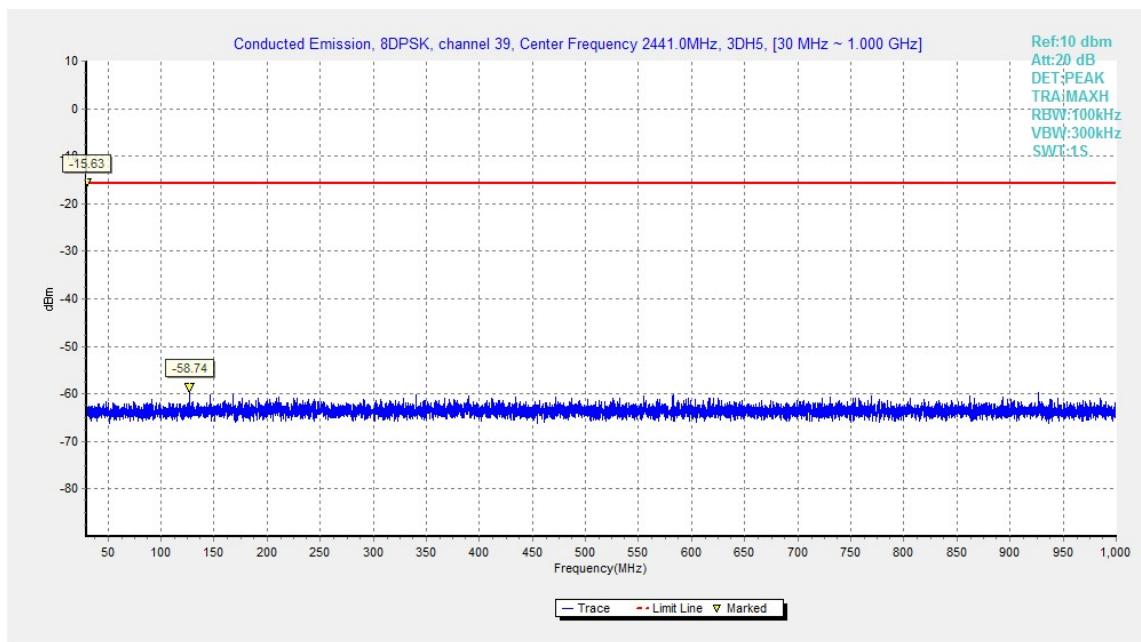


Fig.49. Conducted spurious emission: 8DPSK, Channel 39, 30MHz - 1GHz

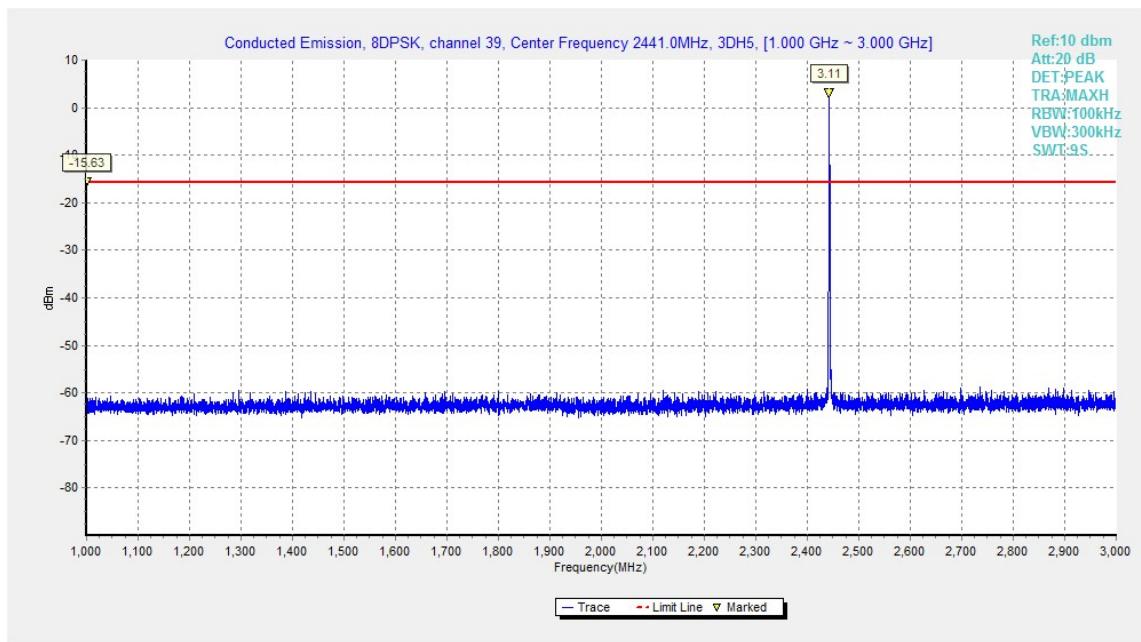


Fig.50. Conducted spurious emission: 8DPSK, Channel 39, 1GHz - 3GHz

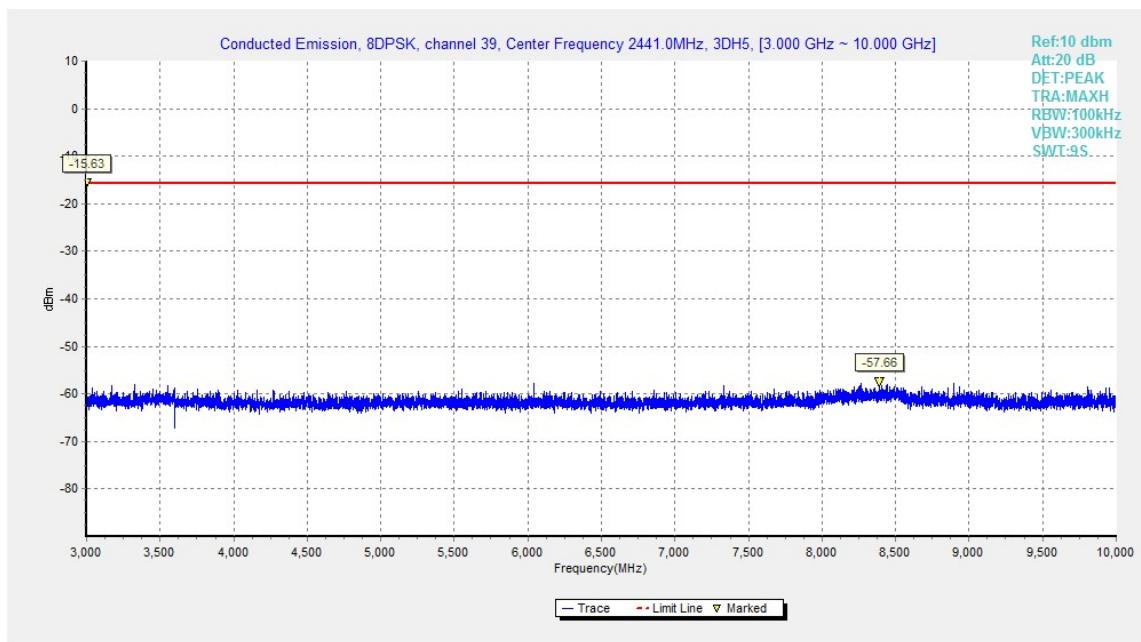


Fig.51. Conducted spurious emission: 8DPSK, Channel 39, 3GHz - 10GHz

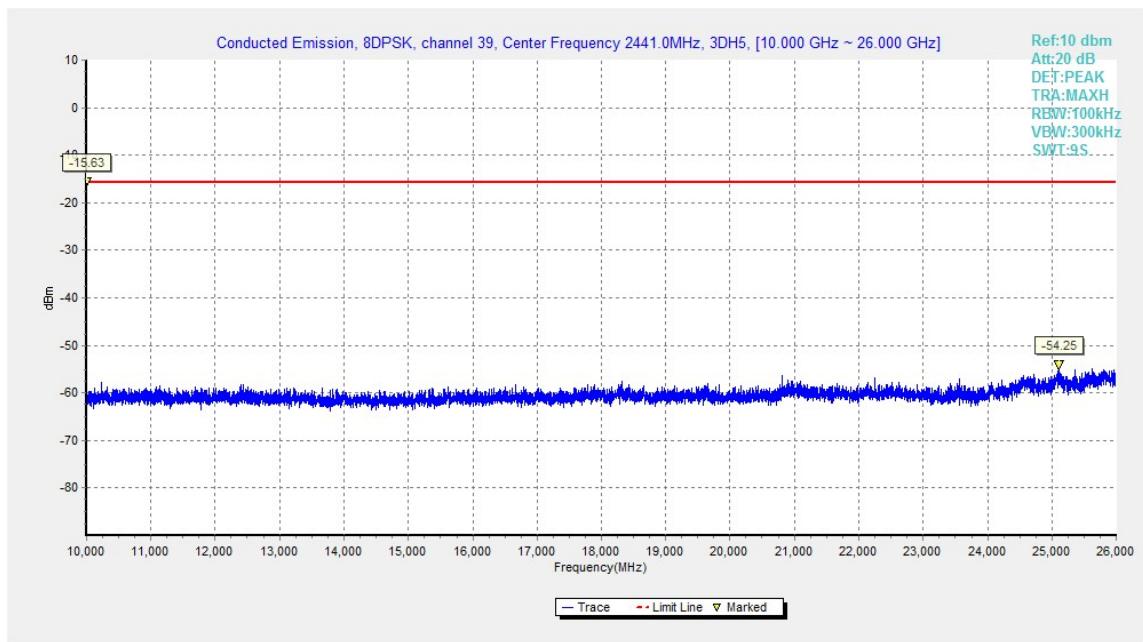


Fig.52. Conducted spurious emission: 8DPSK, Channel 39, 10GHz – 26GHz

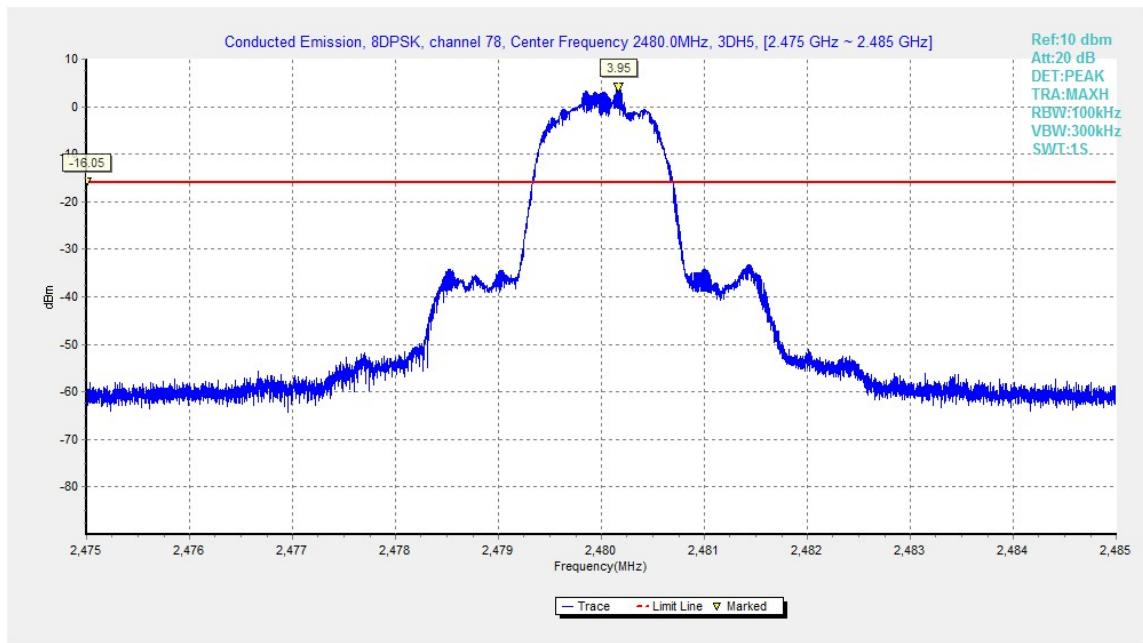


Fig.53. Conducted spurious emission: 8DPSK, Channel 78, 2480MHz

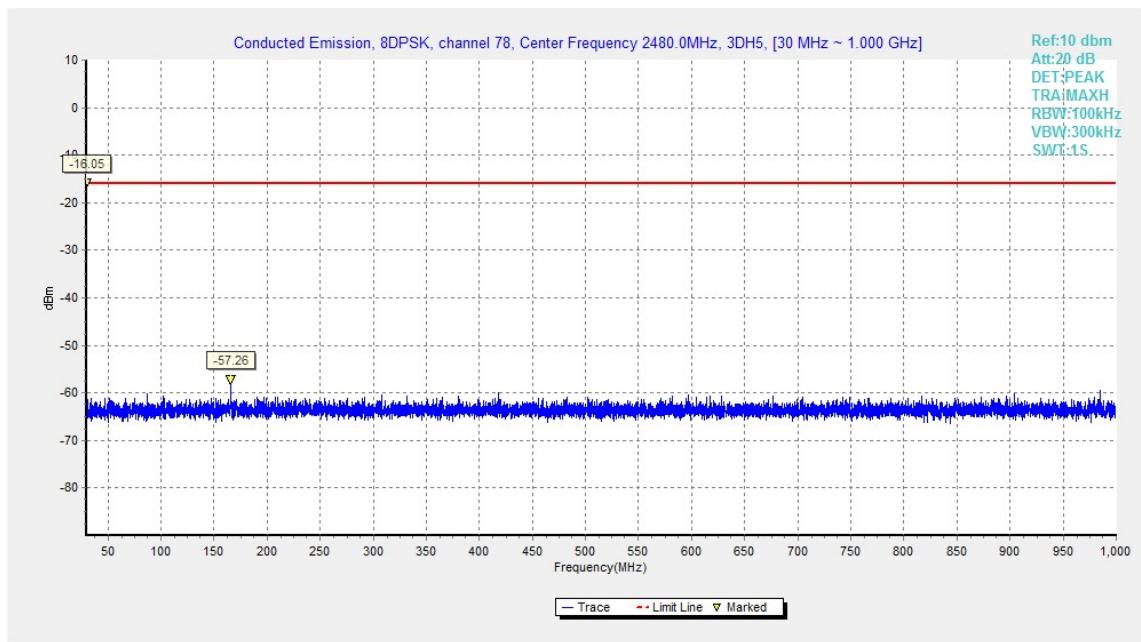


Fig.54. Conducted spurious emission: 8DPSK, Channel 78, 30MHz - 1GHz

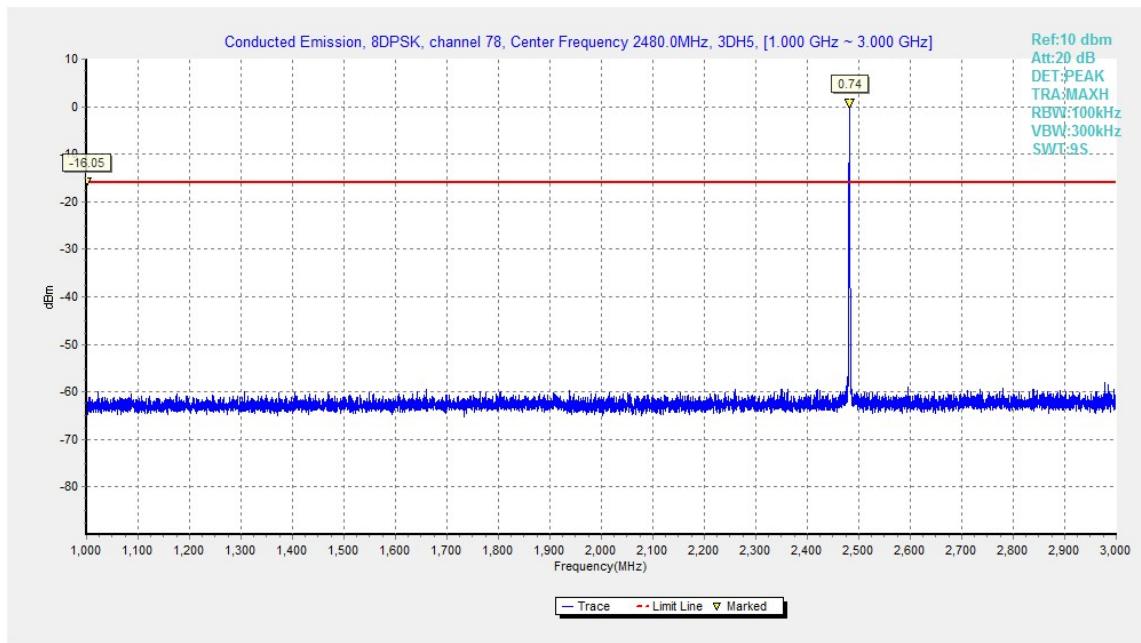


Fig.55. Conducted spurious emission: 8DPSK, Channel 78, 1GHz - 3GHz

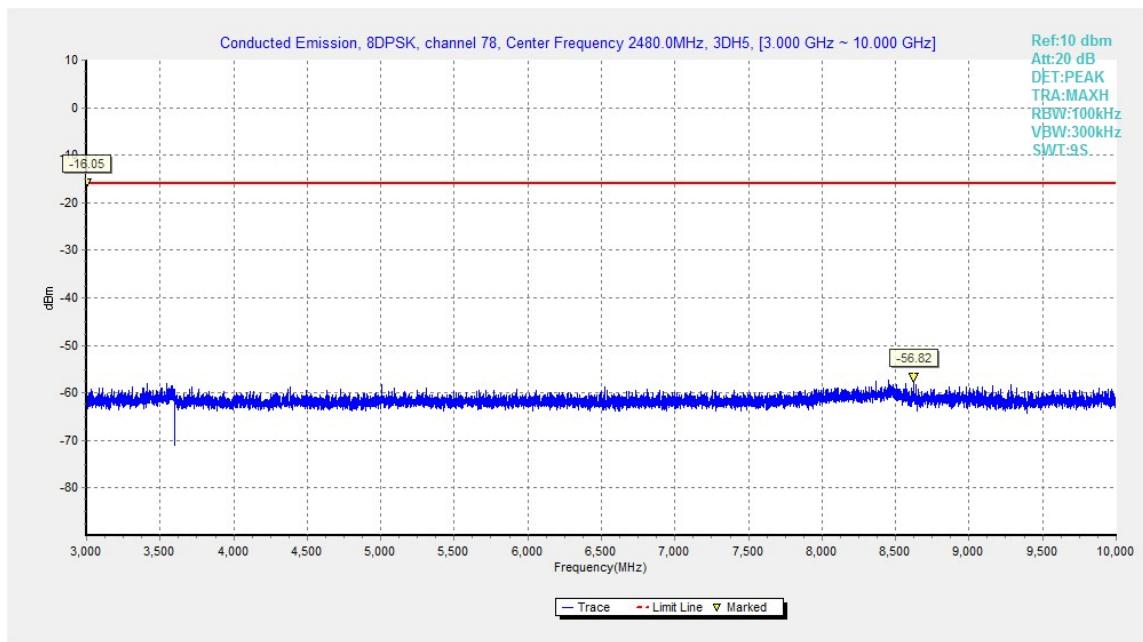


Fig.56. Conducted spurious emission: 8DPSK, Channel 78, 3GHz - 10GHz

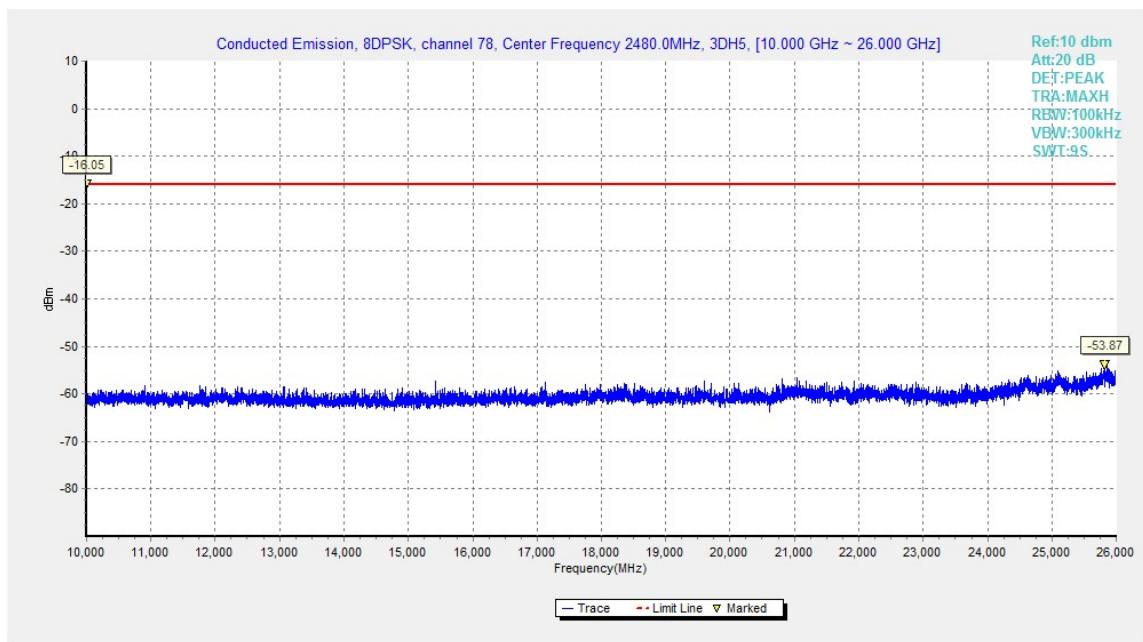


Fig.57. Conducted spurious emission: 8DPSK, Channel 78, 10GHz - 26GHz

## A.5. 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:

$$\text{Result} = P_{\text{Mea}} + \text{ARPL}$$

### 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 2441 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
------------------	-----------------	--------	---

**Form/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 2441 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 2441 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)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2385.400	46.8	2.9	32.0	11.930	54.0	7.2	H
2389.000	46.8	2.9	32.0	11.950	54.0	7.2	H
4804.500	37.7	-17.3	34.5	20.437	54.0	16.3	H
7206.000	39.8	-16.4	36.1	20.059	54.0	14.2	H
9607.500	38.7	-18.2	37.0	20.019	54.0	15.3	H
12010.500	41.5	-17.4	39.3	19.597	54.0	12.5	H

**GFSK Ch 39 - Average**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)

				(dBμV)			
2376.700	46.7	2.9	32.1	11.750	54.0	7.3	H
2487.000	47.8	2.9	32.7	12.183	54.0	6.2	H
4882.500	36.4	-18.5	34.5	20.413	54.0	17.6	H
7323.000	37.5	-18.5	36.1	19.903	54.0	16.5	H
9763.500	39.3	-17.8	37.2	19.879	54.0	14.7	H
12205.500	40.8	-17.8	39.2	19.318	54.0	13.2	H

**GFSK Ch 78 - Average**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.400	47.8	2.9	32.7	12.175	54.0	6.2	H
2488.300	47.8	2.9	32.6	12.250	54.0	6.2	H
4960.500	37.0	-18.2	34.5	20.713	54.0	17.0	H
7440.000	39.3	-16.9	36.0	20.144	54.0	14.7	H
9919.500	40.2	-17.1	37.4	19.863	54.0	13.8	H
12400.500	41.0	-17.5	39.1	19.348	54.0	13.0	H

**GFSK Ch 0 – Peak**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2382.996	60.1	2.9	32.0	25.18	74.0	13.9	H
2386.580	60.0	2.9	32.0	25.09	74.0	14.0	H
17644.500	60.1	-13.0	41.1	32.062	74.0	13.9	V
17622.000	59.8	-13.1	41.1	31.783	74.0	14.2	V
17562.750	59.2	-13.8	41.1	31.827	74.0	14.8	V
17215.500	59.0	-14.4	41.2	32.206	74.0	15.0	V

**GFSK Ch 39 - Peak**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2356.400	49.3	-27.7	31.8	45.20	74.0	24.7	H
2510.800	50.9	-26.5	32.5	44.93	74.0	23.1	H
17965.500	60.1	-13.6	40.8	32.907	74.0	13.9	V
17610.750	59.8	-13.2	41.1	31.891	74.0	14.2	V
17268.750	59.7	-14.0	41.2	32.550	74.0	14.3	V
17408.250	59.6	-14.6	41.2	33.038	74.0	14.4	H

**GFSK Ch 78 - Peak**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.970	62.1	2.9	32.7	26.38	74.0	11.9	H
2484.580	61.2	2.9	32.7	25.58	74.0	12.8	H
17740.500	60.2	-13.3	41.0	32.510	74.0	13.8	V
17668.500	59.9	-13.1	41.1	31.954	74.0	14.1	H
17934.000	59.8	-13.6	40.9	32.503	74.0	14.2	V
17350.500	59.8	-14.3	41.2	32.854	74.0	14.2	H

$\pi/4$  DQPSK Ch 0 - Average

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2373.000	46.7	2.9	32.1	11.745	54.0	7.3	H
2381.400	46.8	2.9	32.0	11.850	54.0	7.2	H
4804.500	37.6	-17.3	34.5	20.345	54.0	16.4	H
7206.000	39.8	-16.4	36.1	20.066	54.0	14.2	H
9607.500	38.8	-18.2	37.0	20.053	54.0	15.2	H
12010.500	41.6	-17.4	39.3	19.639	54.0	12.4	H

$\pi/4$  DQPSK Ch 39 - Average

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2378.300	46.8	2.9	32.1	11.850	54.0	7.2	H
2484.600	47.9	2.9	32.7	12.247	54.0	6.1	H
4882.500	36.4	-18.5	34.5	20.457	54.0	17.6	H
7323.000	37.5	-18.5	36.1	19.932	54.0	16.5	H
9763.500	39.5	-17.8	37.2	20.018	54.0	14.5	H
12205.500	40.8	-17.8	39.2	19.339	54.0	13.2	H

$\pi/4$  DQPSK Ch 78 - Average

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2487.500	47.8	2.9	32.6	12.204	54.0	6.2	H
2491.900	47.7	2.9	32.5	12.238	54.0	6.3	H
4960.500	37.0	-18.2	34.5	20.669	54.0	17.0	H
7440.000	39.3	-16.9	36.0	20.223	54.0	14.7	H
9919.500	40.2	-17.1	37.4	19.835	54.0	13.9	H
2487.500	47.8	2.9	32.6	12.204	54.0	6.2	H

**$\pi/4$  DQPSK Ch 0 – Peak**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2386.600	59.9	2.9	32.0	25.02	74.0	14.1	H
2389.170	59.4	2.9	32.0	24.57	74.0	14.6	V
17925.000	59.8	-13.6	40.9	32.539	74.0	14.2	H
17636.250	59.6	-13.0	41.1	31.473	74.0	14.4	H
17601.750	59.5	-13.3	41.1	31.697	74.0	14.5	V
17258.250	59.4	-14.1	41.2	32.349	74.0	14.6	H

 **$\pi/4$  DQPSK Ch 39 - Peak**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2346.000	49.9	-27.6	31.6	45.93	74.0	24.1	H
2511.000	51.6	-26.5	32.5	45.63	74.0	22.4	H
17653.500	59.5	-13.1	41.1	31.530	74.0	14.5	V
17387.250	59.5	-14.5	41.2	32.789	74.0	14.5	H
17613.000	59.4	-13.2	41.1	31.502	74.0	14.6	H
17689.500	59.3	-13.2	41.0	31.445	74.0	14.7	V

 **$\pi/4$  DQPSK Ch 78 - Peak**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2487.190	61.8	2.9	32.7	26.16	74.0	12.2	H
2489.160	61.2	2.9	32.6	25.67	74.0	12.8	H
17283.750	59.9	-13.9	41.2	32.602	74.0	14.1	H
17594.250	59.7	-13.4	41.1	32.044	74.0	14.3	H
17774.250	59.7	-13.4	41.0	32.117	74.0	14.3	H
17746.500	59.6	-13.3	41.0	31.856	74.0	14.4	H

**8DPSK Ch 0 - Average**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2379.800	46.7	2.9	32.1	11.793	54.0	7.3	H
2385.400	46.8	2.9	32.0	11.933	54.0	7.2	H
4804.500	37.7	-17.3	34.5	20.471	54.0	16.3	H
7206.000	39.7	-16.4	36.1	20.022	54.0	14.3	H
9607.500	38.6	-18.2	37.0	19.906	54.0	15.4	H
12010.500	41.5	-17.4	39.3	19.587	54.0	12.5	H

**8DPSK Ch 39 - Average**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2386.000	46.8	2.9	32.0	11.914	54.0	7.2	H
2486.900	47.8	2.9	32.7	12.163	54.0	6.2	H
4882.500	36.4	-18.5	34.5	20.425	54.0	17.6	H
7323.000	37.5	-18.5	36.1	19.887	54.0	16.5	H
9763.500	37.5	-17.8	37.2	17.998	54.0	16.5	H
12205.500	37.5	-17.8	39.2	16.033	54.0	16.5	H

**8DPSK Ch 78 - Average**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2485.300	47.9	2.9	32.7	12.218	54.0	6.1	H
2489.900	47.7	2.9	32.6	12.213	54.0	6.3	H
4960.500	37.0	-18.2	34.5	20.634	54.0	17.0	H
7440.000	39.3	-16.9	36.0	20.212	54.0	14.7	H
9919.500	40.2	-17.1	37.4	19.931	54.0	13.8	H
12400.500	40.9	-17.5	39.1	19.285	54.0	13.1	H

#### 8DPSK Ch 0 – Peak

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2385.376	59.5	2.9	32.0	24.66	74.0	14.5	H
2388.456	59.7	2.9	32.0	24.85	74.0	14.3	H
17796.000	60.5	-13.4	41.0	32.95	74.0	13.5	H
17647.500	59.8	-13.0	41.1	31.75	74.0	14.2	V
17902.500	59.7	-13.6	40.9	32.40	74.0	14.3	V
17652.750	59.5	-13.1	41.1	31.50	74.0	14.5	V

#### 8DPSK Ch 39 - Peak

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2375.800	50.5	-26.6	32.1	44.98	74.0	23.5	H
2507.600	51.6	-26.4	32.4	45.61	74.0	22.4	H
17619.000	59.9	-13.2	41.1	31.92	74.0	14.1	H
17250.000	59.8	-14.2	41.2	32.81	74.0	14.2	H
17934.000	59.6	-13.6	40.9	32.30	74.0	14.4	H
17749.500	59.5	-13.3	41.0	31.80	74.0	14.5	V

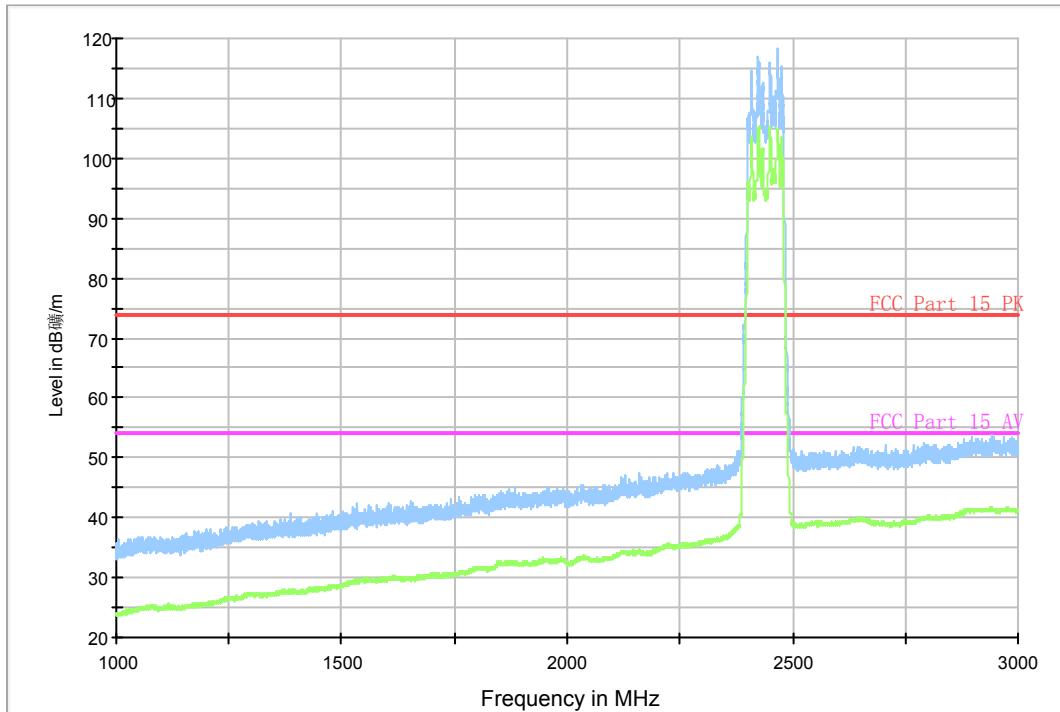
#### 8DPSK Ch 78 - Peak

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2484.040	61.3	2.9	32.7	25.61	74.0	12.7	V
2484.850	61.1	2.9	32.7	25.47	74.0	12.9	H
17756.250	59.4	-13.3	41.0	31.72	74.0	14.6	V
17568.000	59.2	-13.7	41.1	31.80	74.0	14.8	H
17733.000	59.2	-13.3	41.0	31.46	74.0	14.8	V
17652.000	59.2	-13.1	41.1	31.16	74.0	14.8	H

**Conclusion: PASS**

**Test graphs as below for Set.10:**

## RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

RE - 3GHz-18GHz

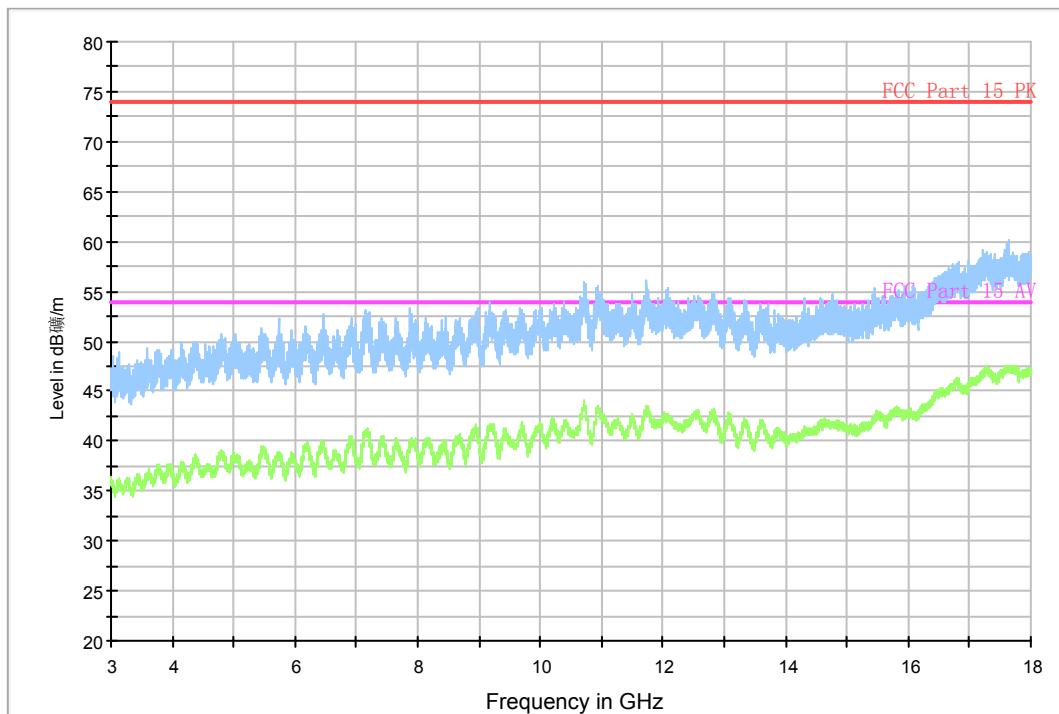


Fig.59. Radiated emission: GFSK, Channel 0, 3 GHz - 18 GHz

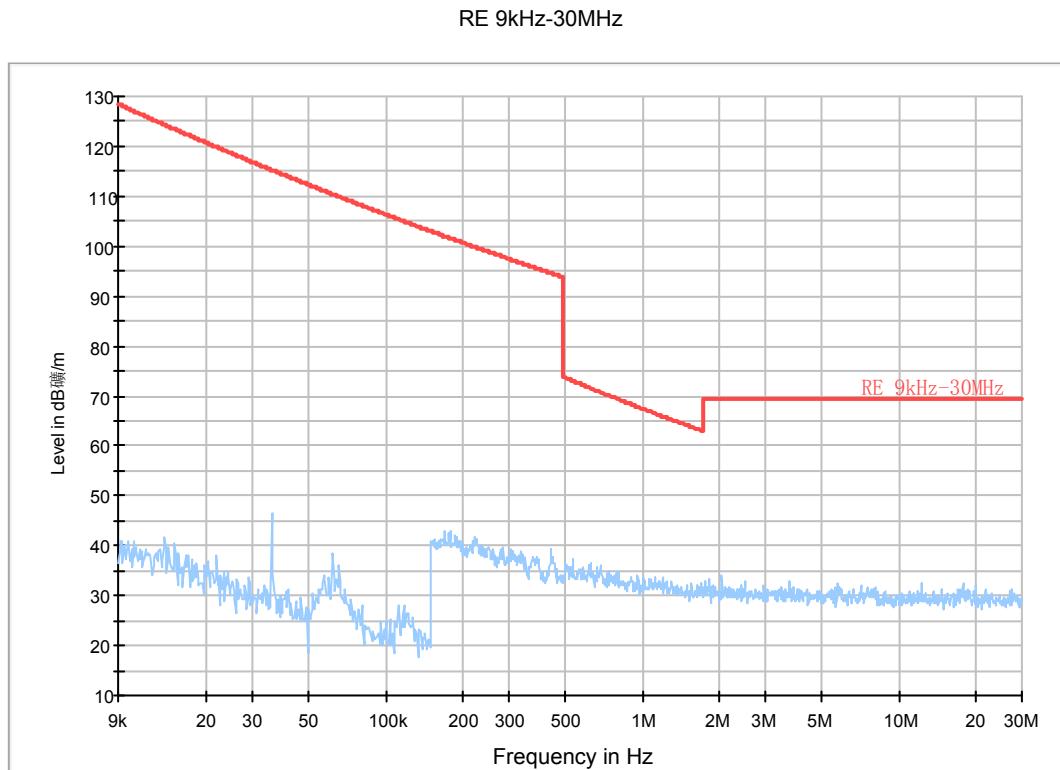


Fig.60. Radiated emission: GFSK, Channel 39, 9 kHz - 30 MHz

Normal RE\_30M-1GHz\_10m

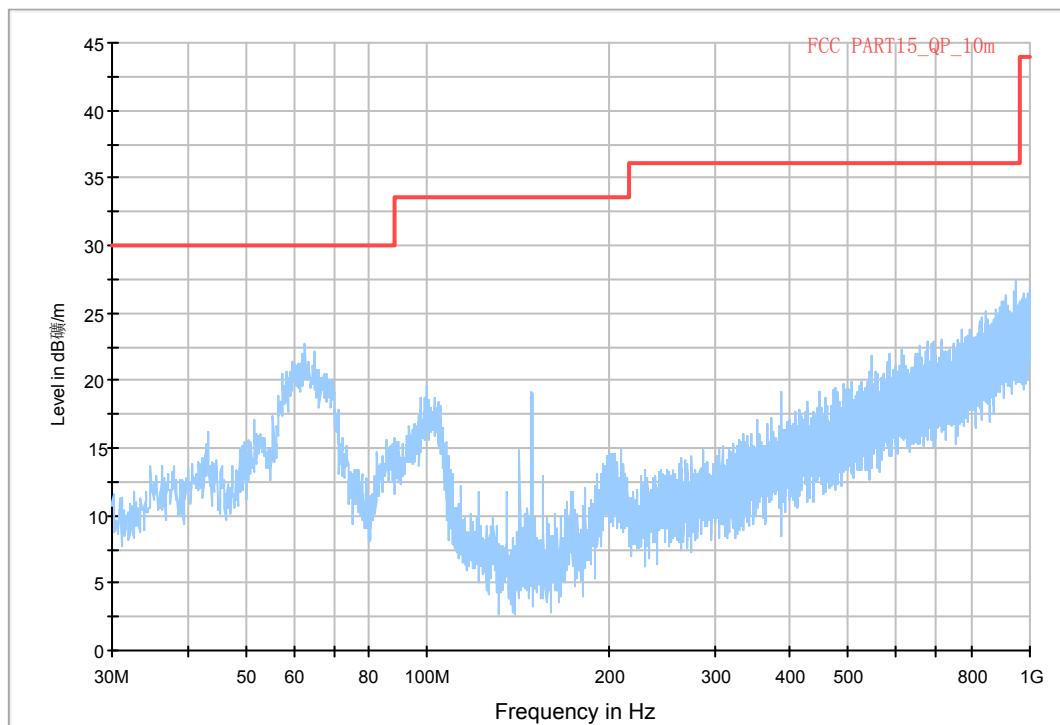
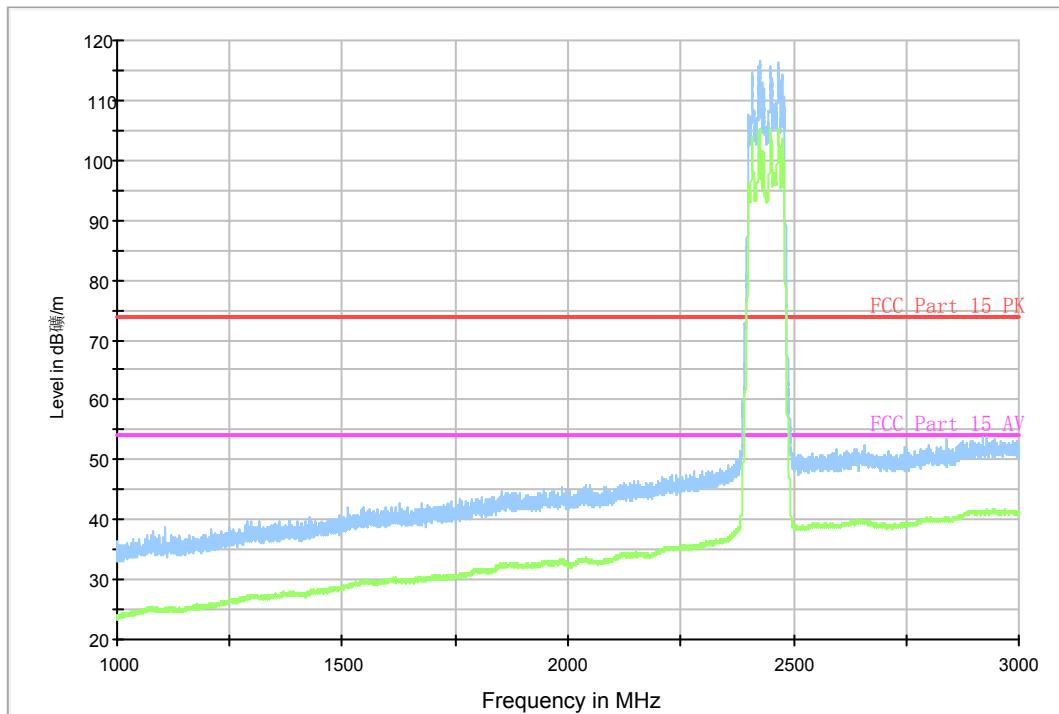


Fig.61. Radiated emission: GFSK, Channel 39, 30 MHz - 1 GHz

RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

RE - 3GHz-18GHz

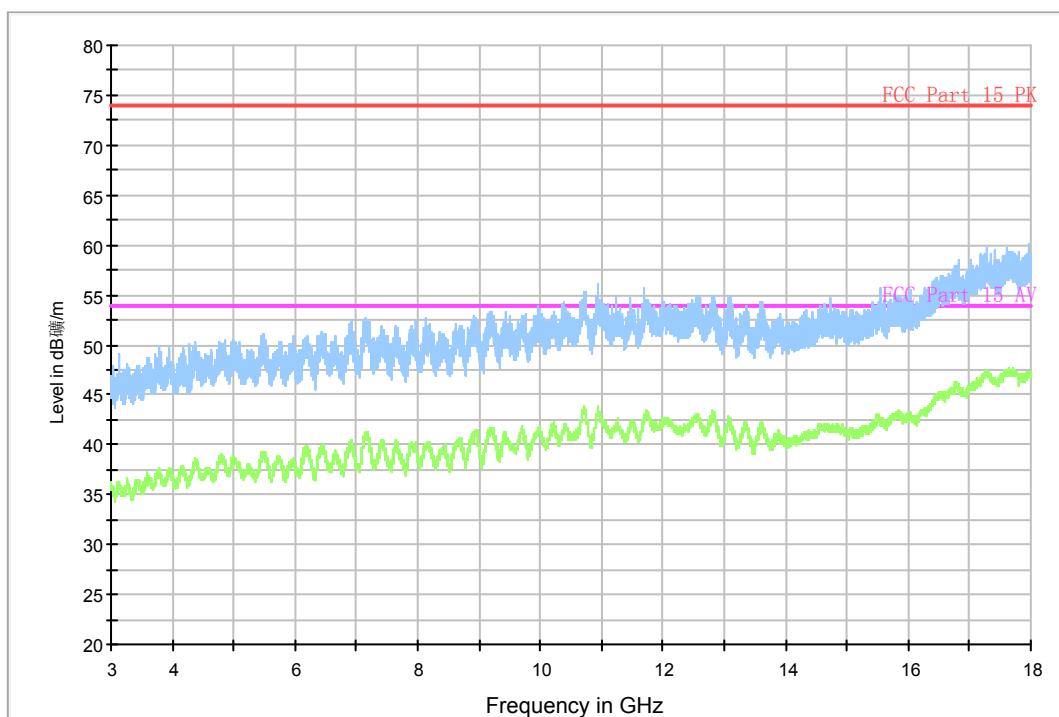
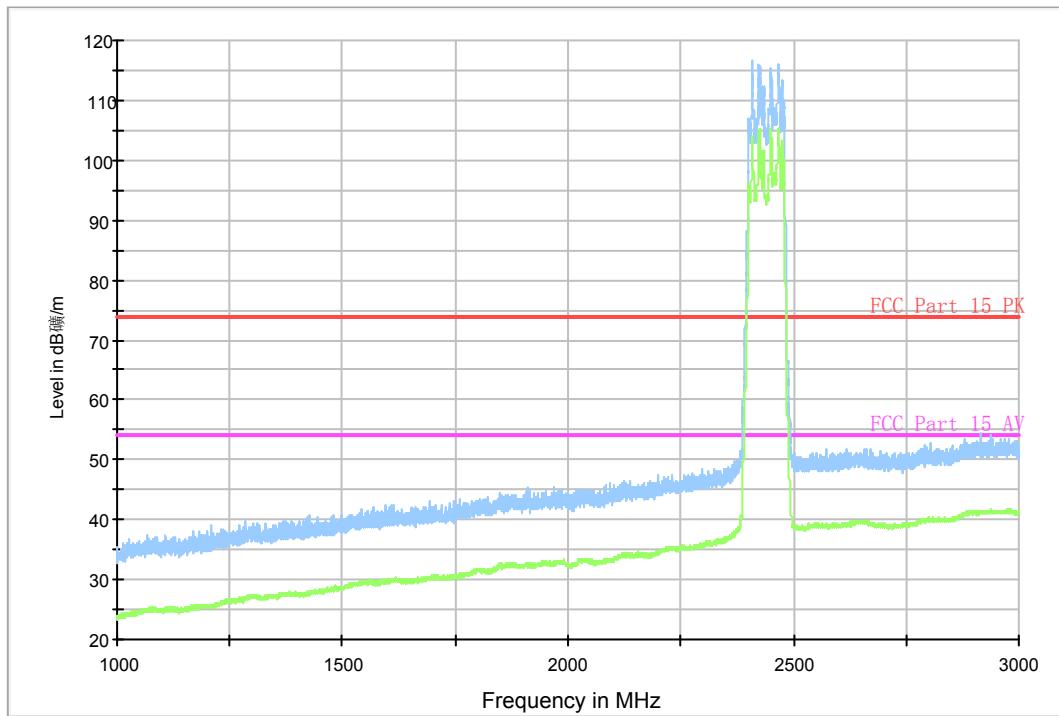


Fig.63. Radiated emission: GFSK, Channel 39, 3 GHz - 18 GHz

## RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

## RE - 3GHz-18GHz

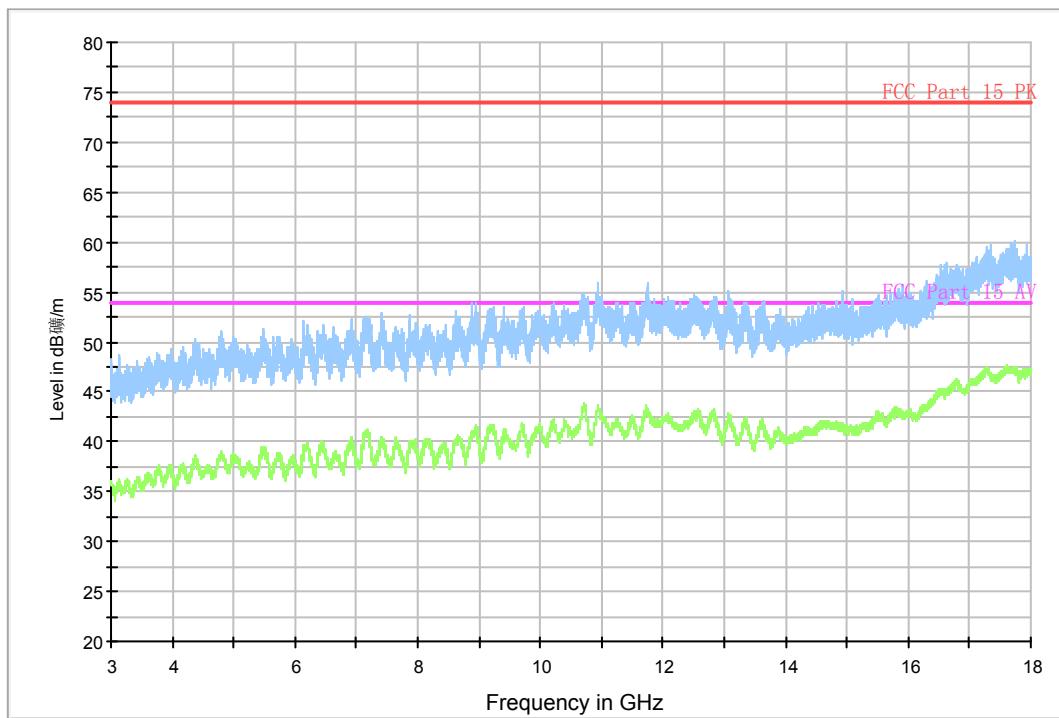


Fig.65. Radiated emission: GFSK, Channel 78, 3 GHz - 18 GHz

RE - Power-2.38GHz-2.45GHz

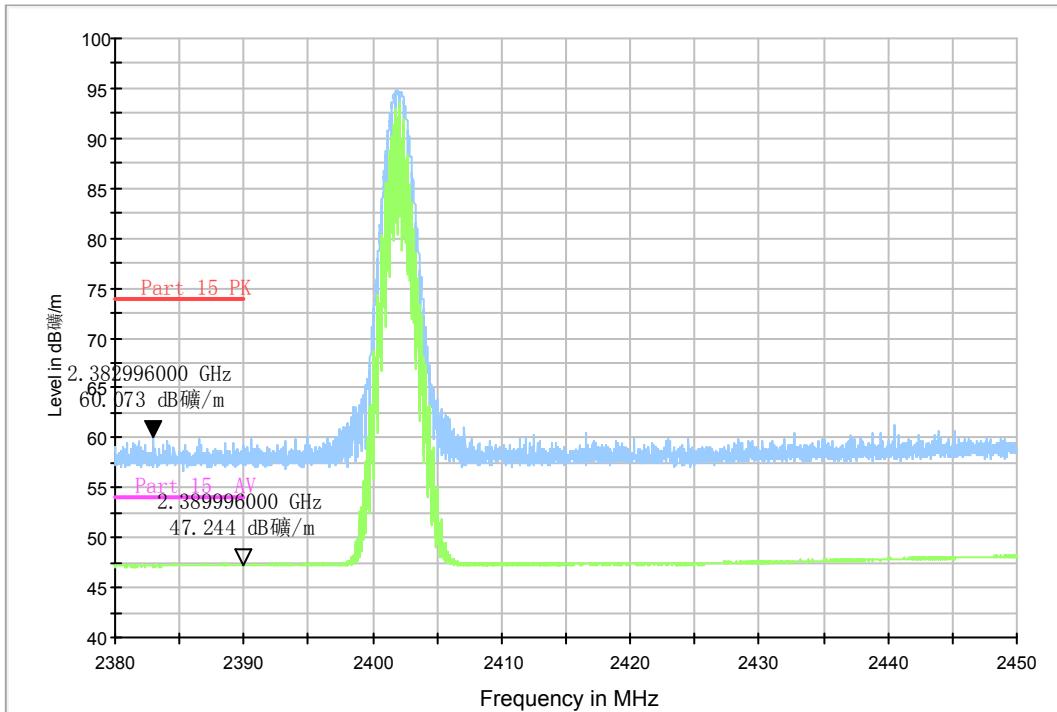


Fig.66. Radiated emission (Power): GFSK, low channel

RE - Power-2.45GHz-2.5GHz

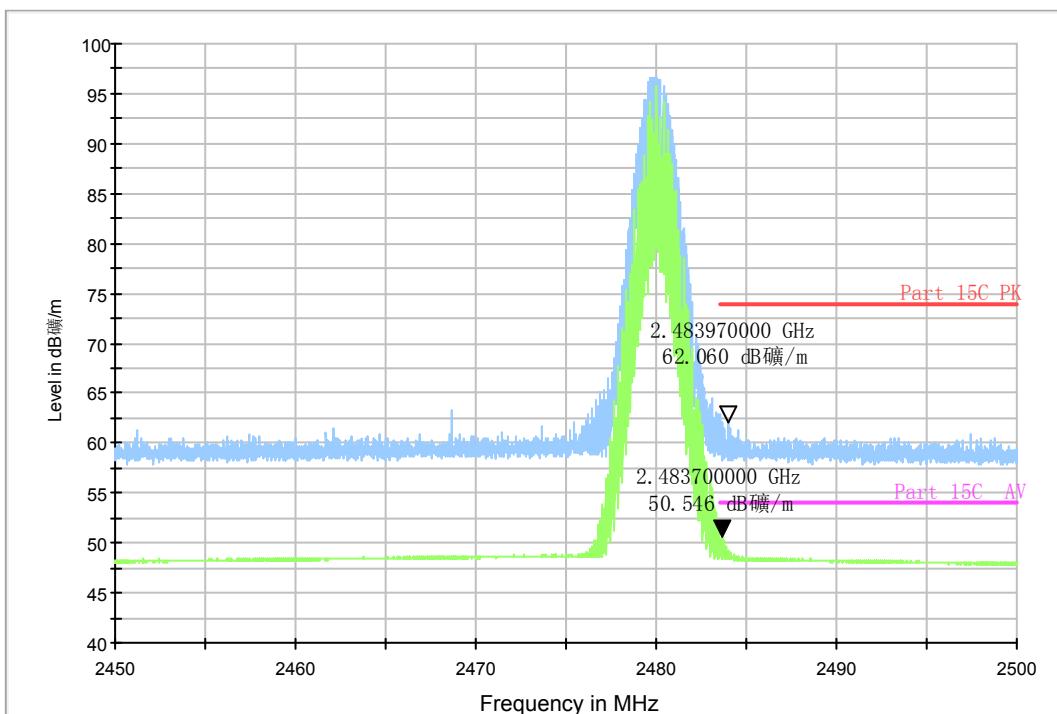


Fig.67. Radiated emission (Power) GFSK, high channel

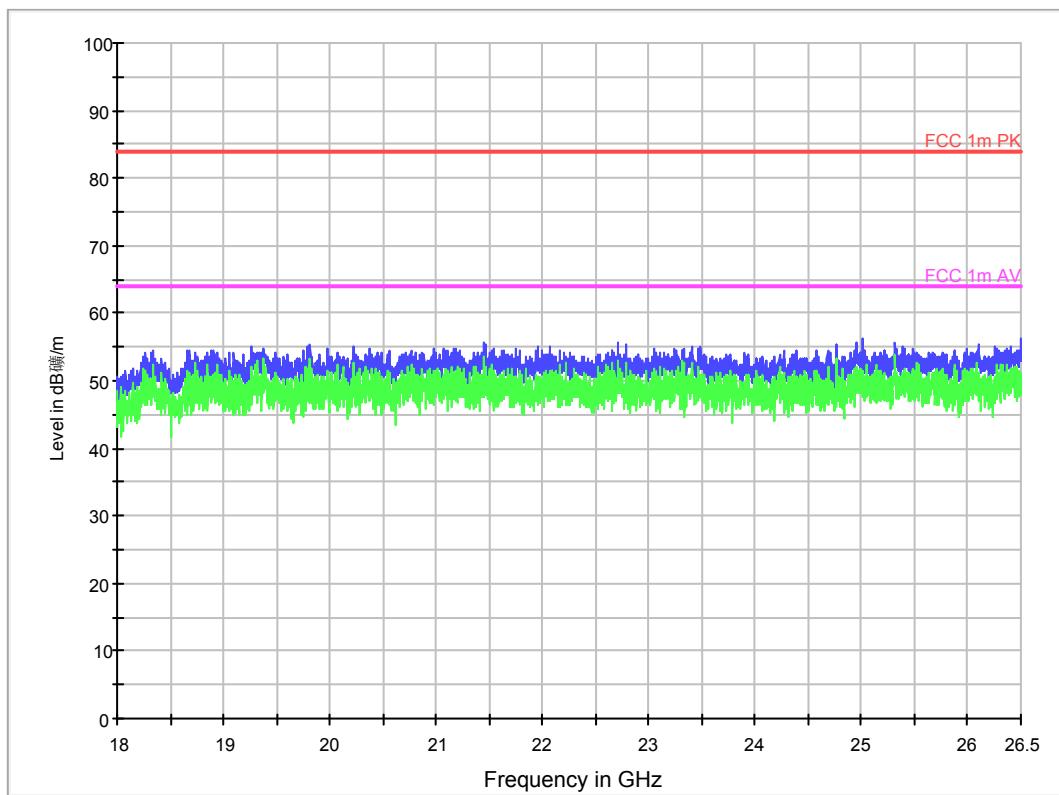
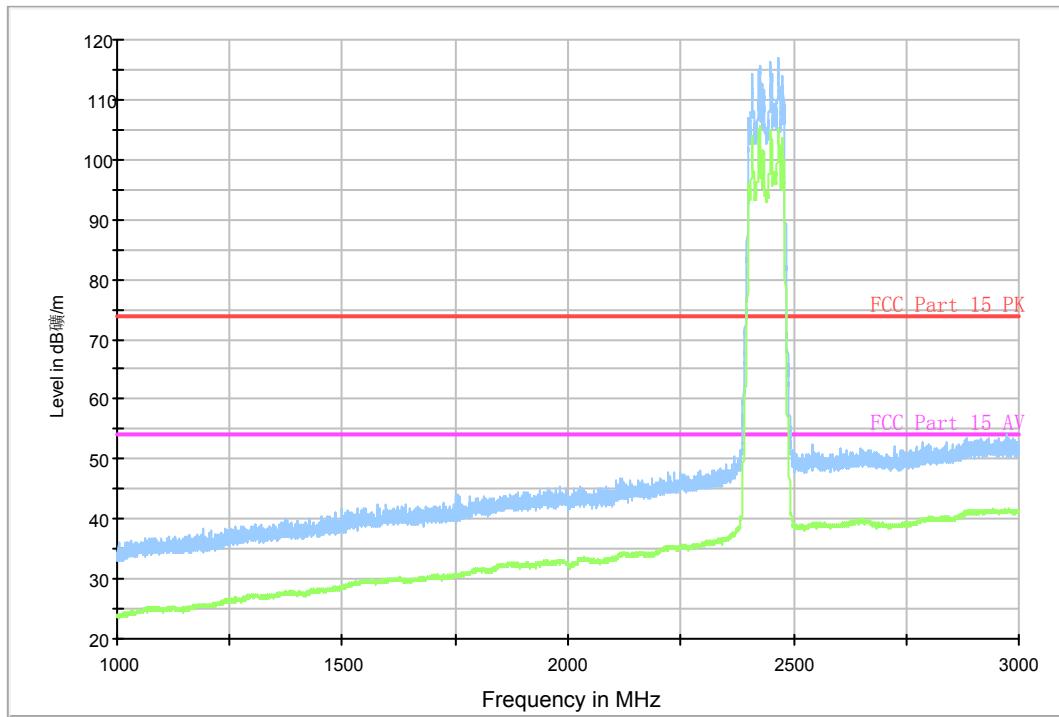


Fig.68. Radiated emission: GFSK, 18 GHz - 26 GHz

RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

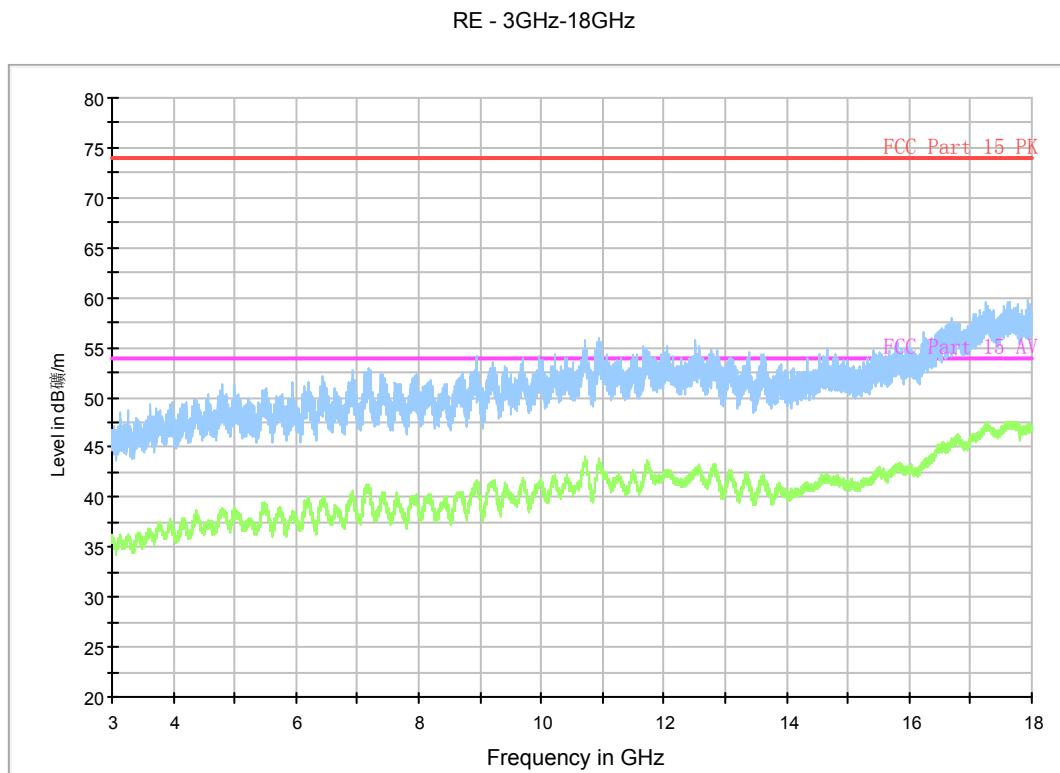


Fig.70. Radiated emission:  $\pi/4$  DQPSK, Channel 0, 3 GHz - 18 GHz  
Normal RE\_30M-1GHz\_10m

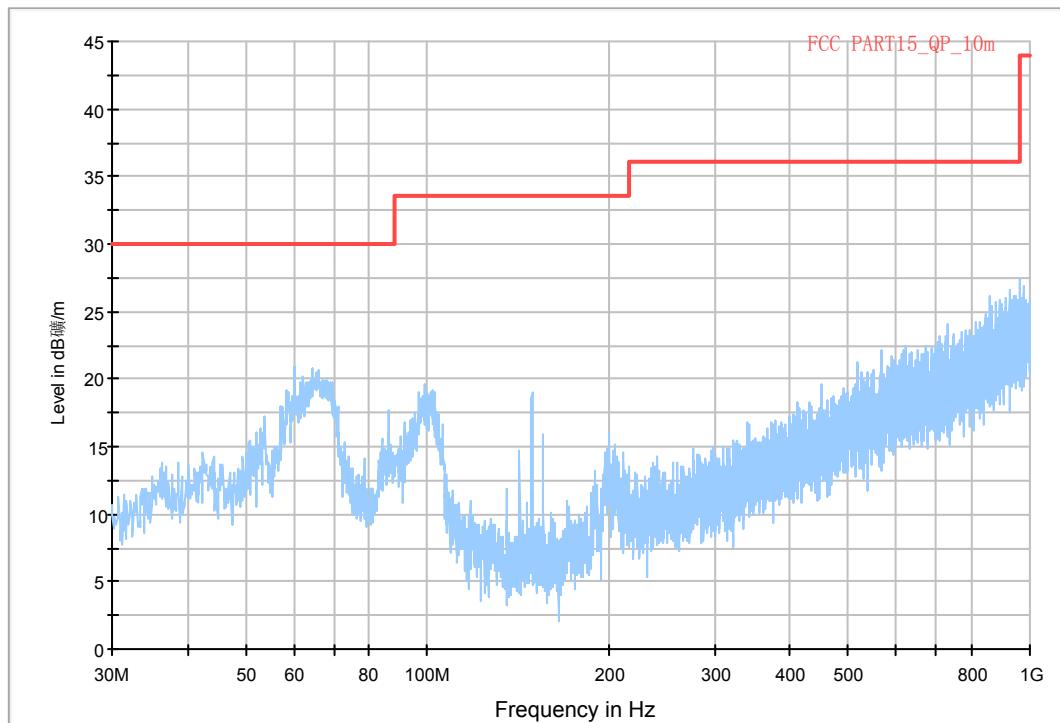
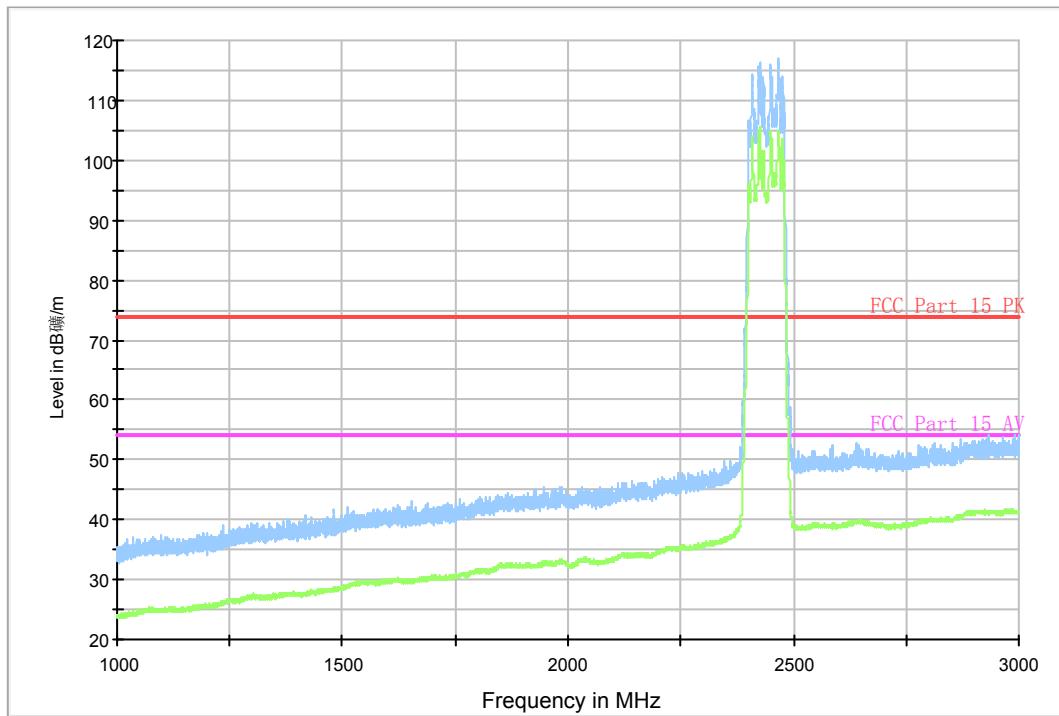


Fig.71. Radiated emission:  $\pi/4$  DQPSK, Channel 39, 30 MHz - 1 GHz

RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

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

RE - 3GHz-18GHz

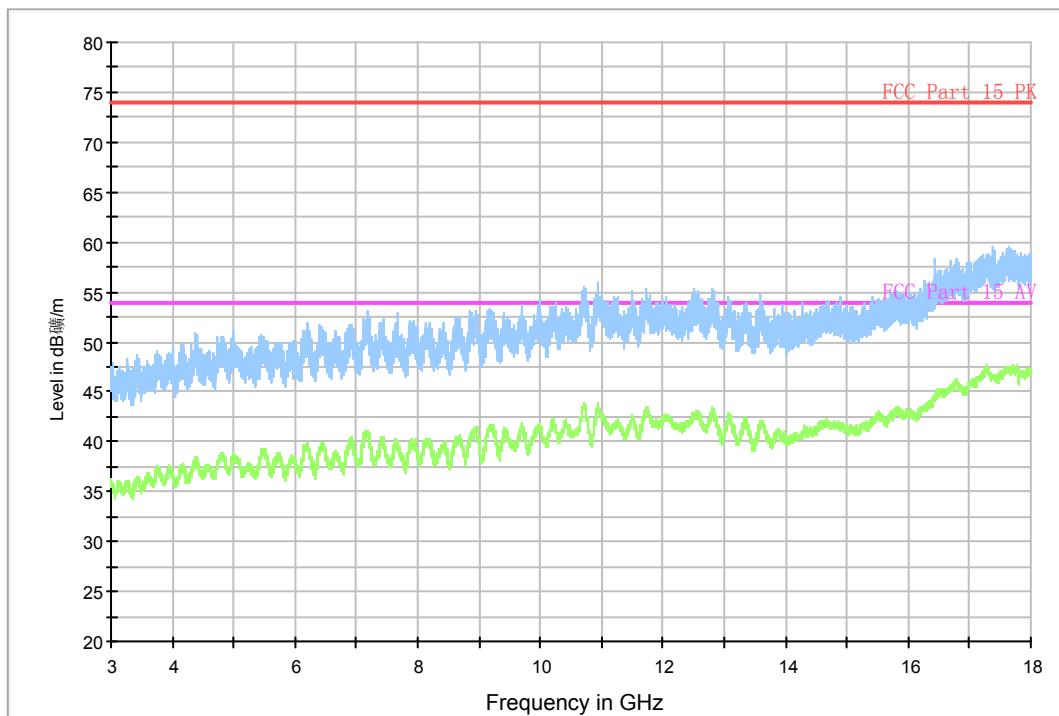
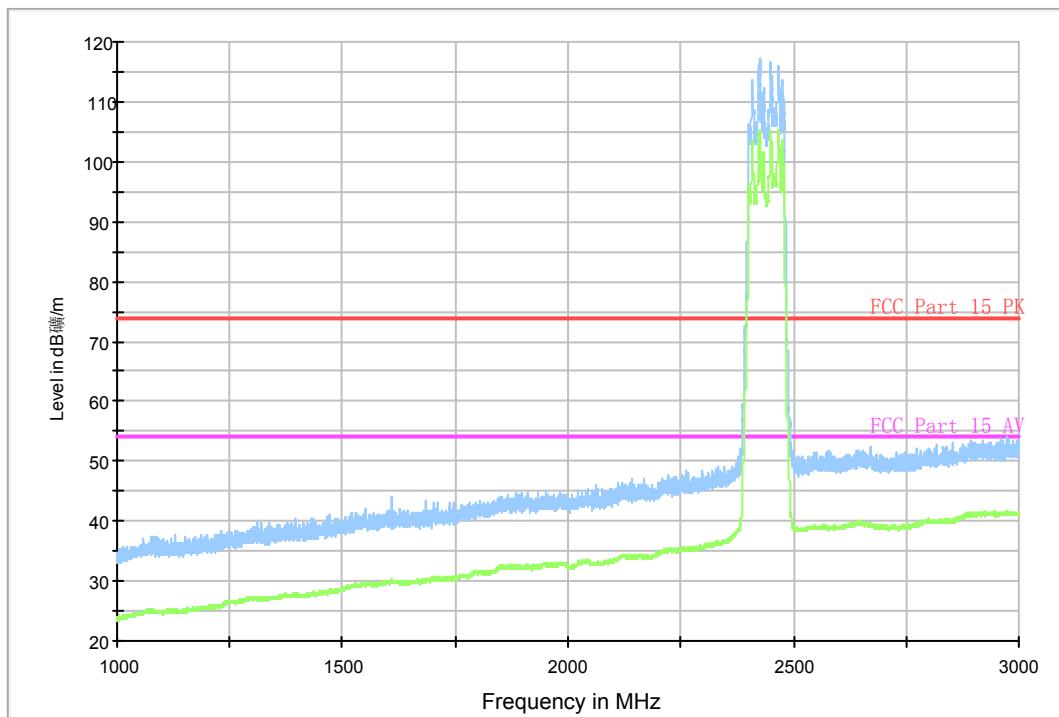


Fig.73. Radiated emission:  $\pi/4$  DQPSK, Channel 39, 3 GHz - 18 GHz

RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

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

RE - 3GHz-18GHz

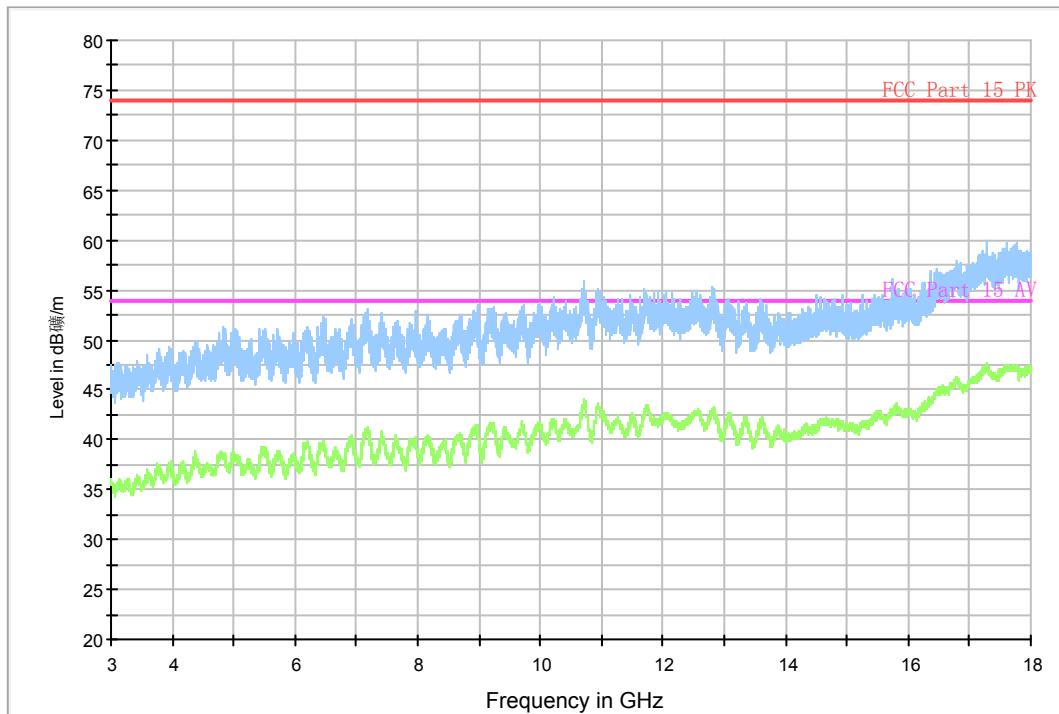


Fig.75. Radiated emission:  $\pi/4$  DQPSK, Channel 78, 3 GHz - 18 GHz

RE - Power-2.38GHz-2.45GHz

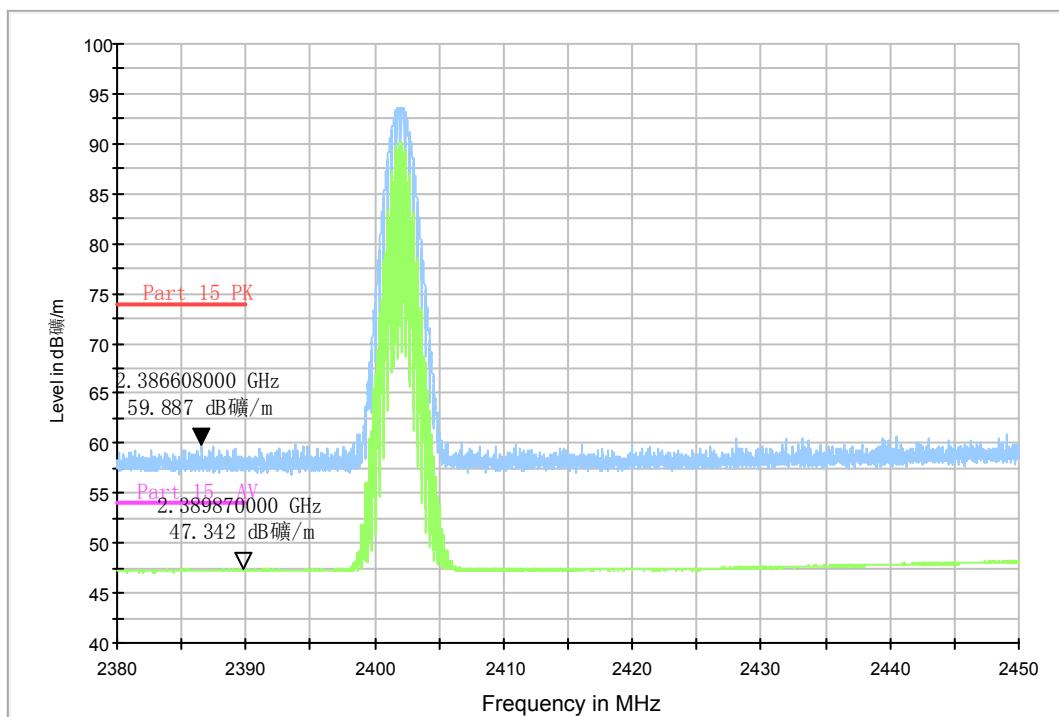


Fig.76. Radiated emission (Power):  $\pi/4$  DQPSK, low channel

RE - Power-2.45GHz-2.5GHz

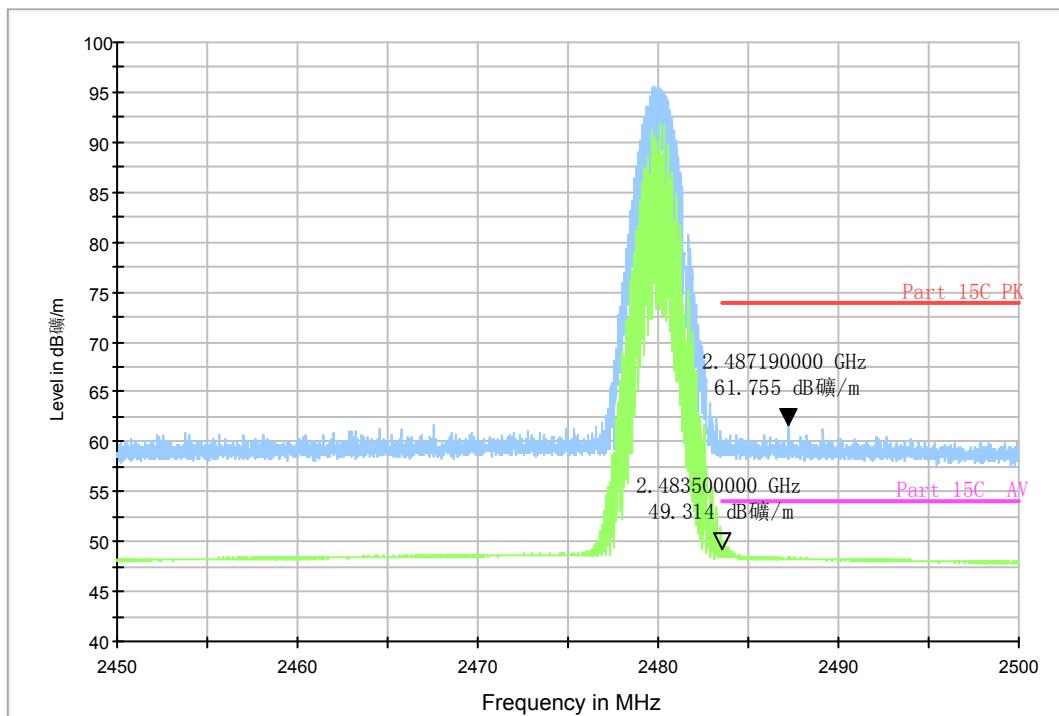


Fig.77. Radiated emission (Power):  $\pi/4$  DQPSK, high channel

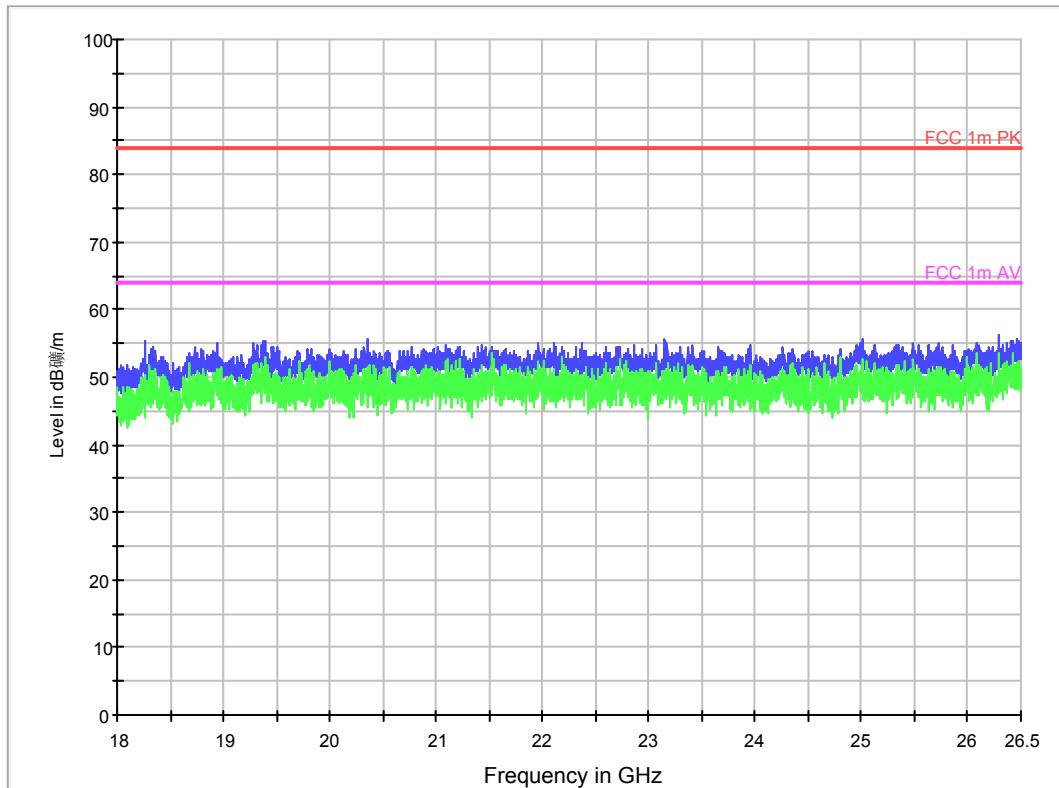
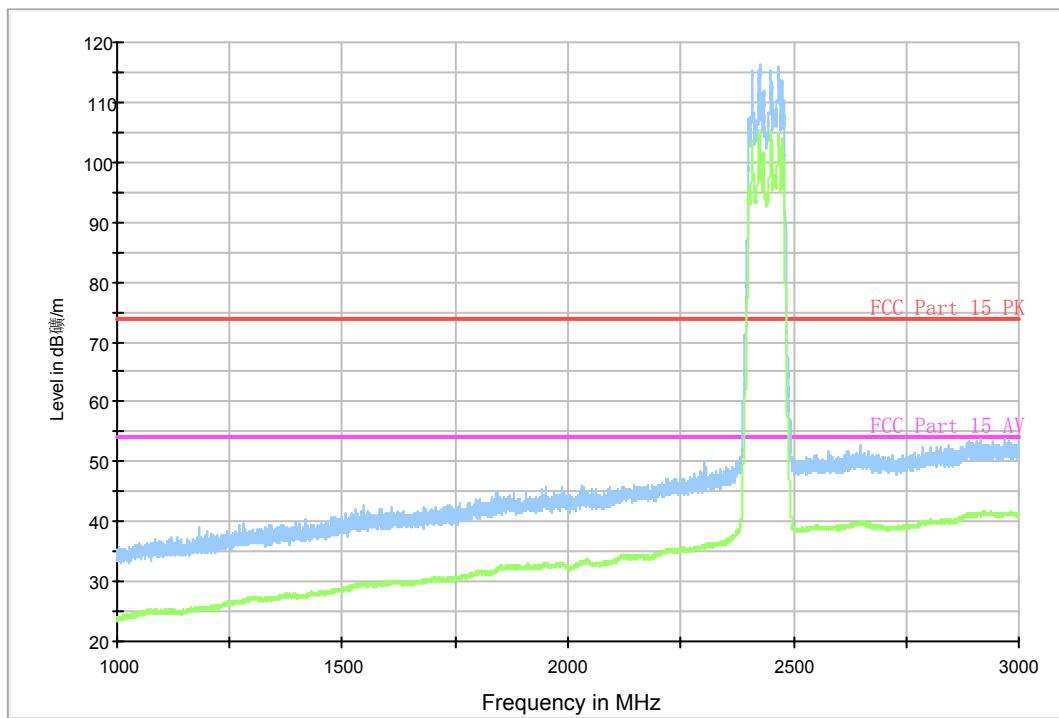


Fig.78. Radiated emission:  $\pi/4$  DQPSK, 18 GHz - 26 GHz

RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

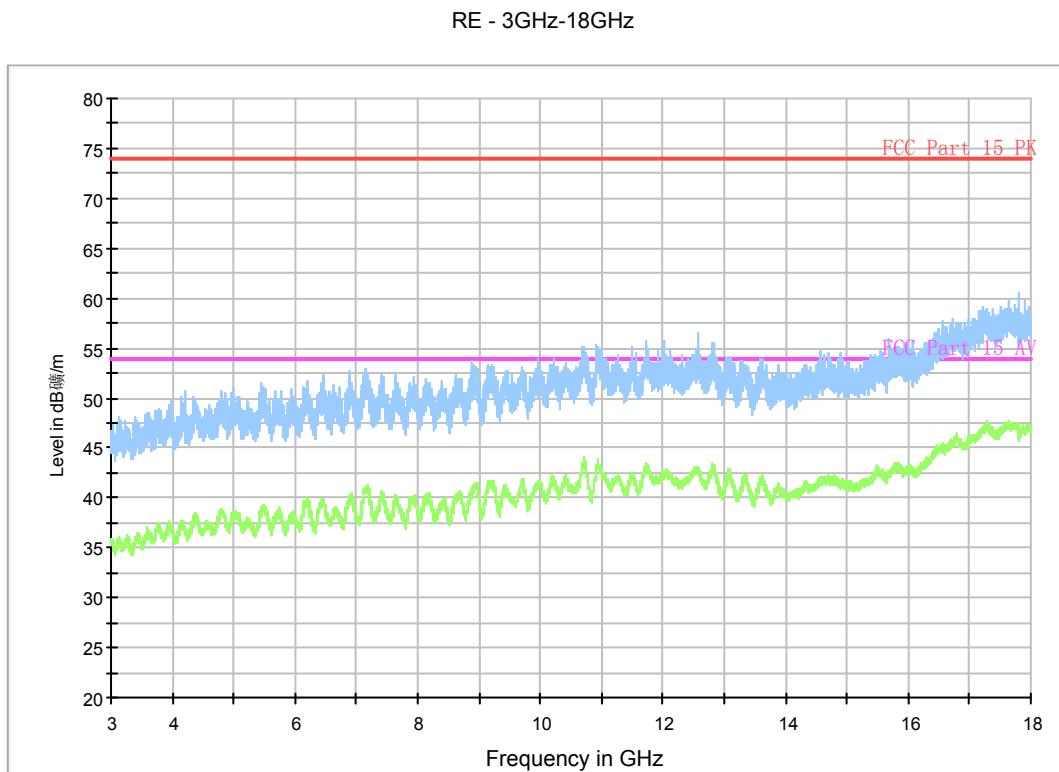


Fig.80. Radiated emission: 8DPSK, Channel 0, 3 GHz - 18 GHz

Normal RE\_30M-1GHz\_10m

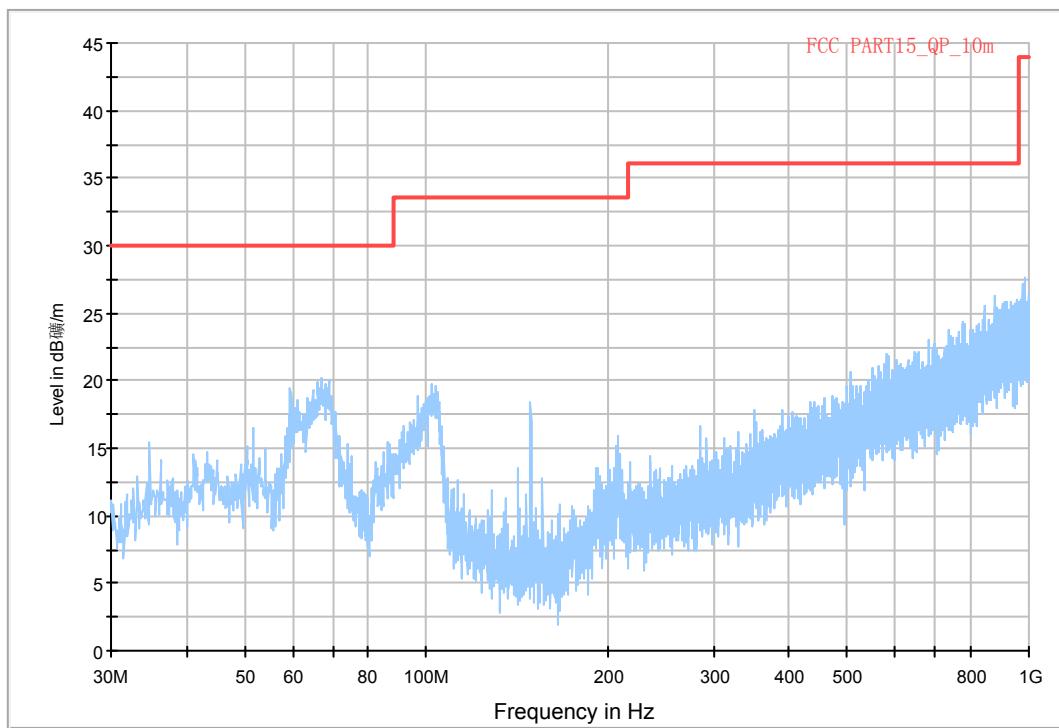
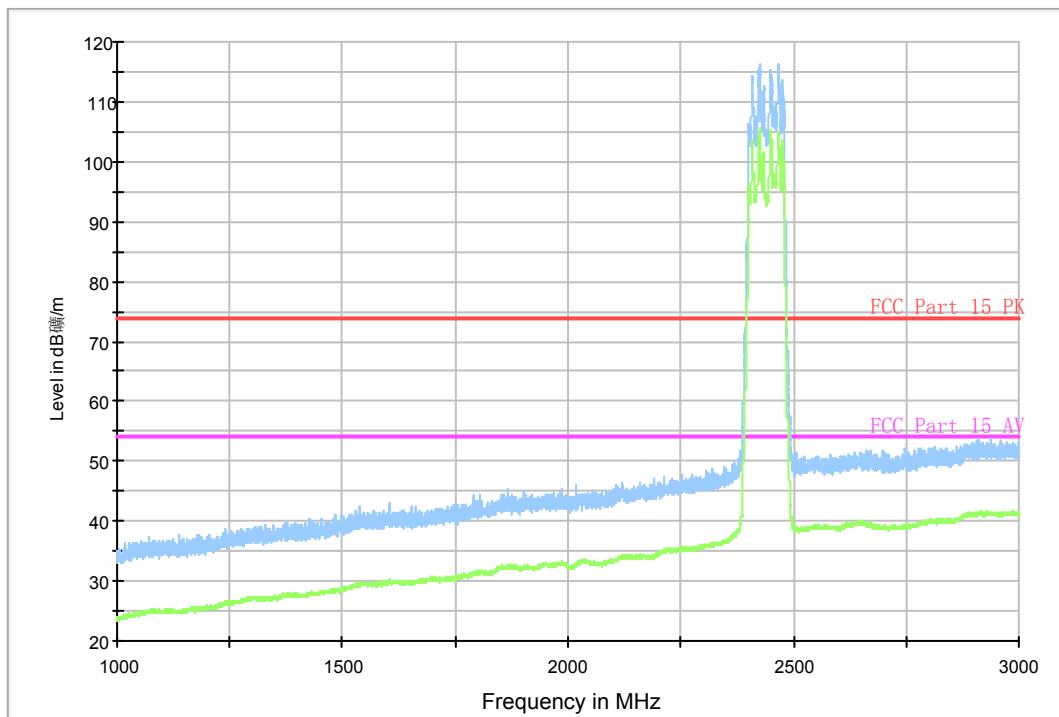


Fig.81. Radiated emission: 8DPSK, Channel 39, 30 MHz - 1 GHz

RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

RE - 3GHz-18GHz

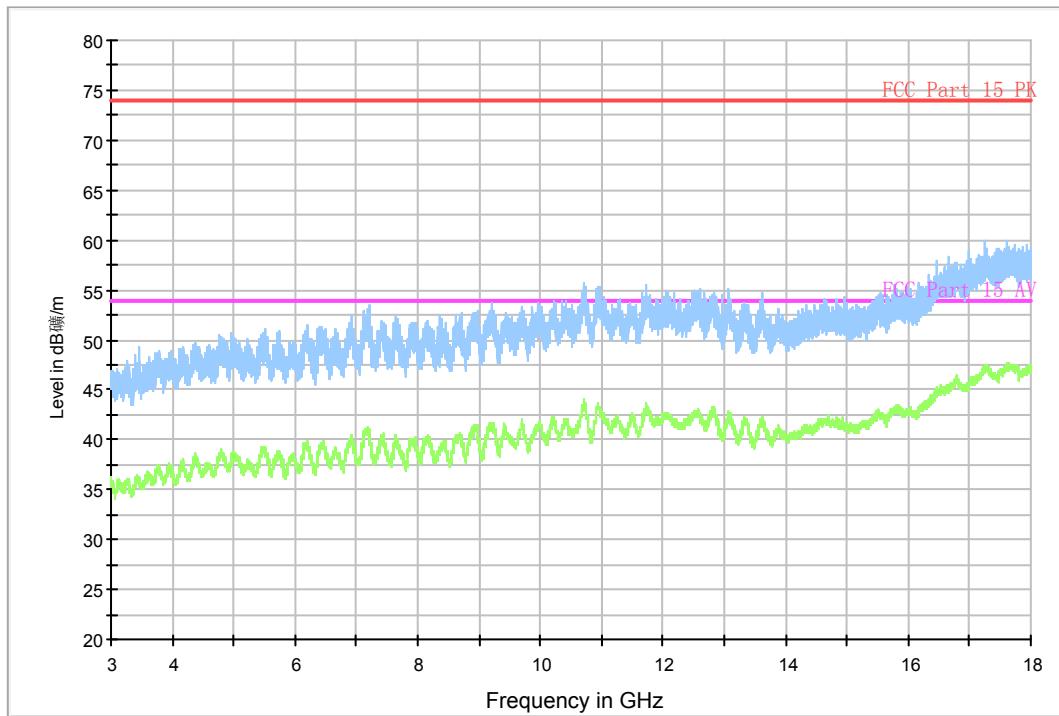
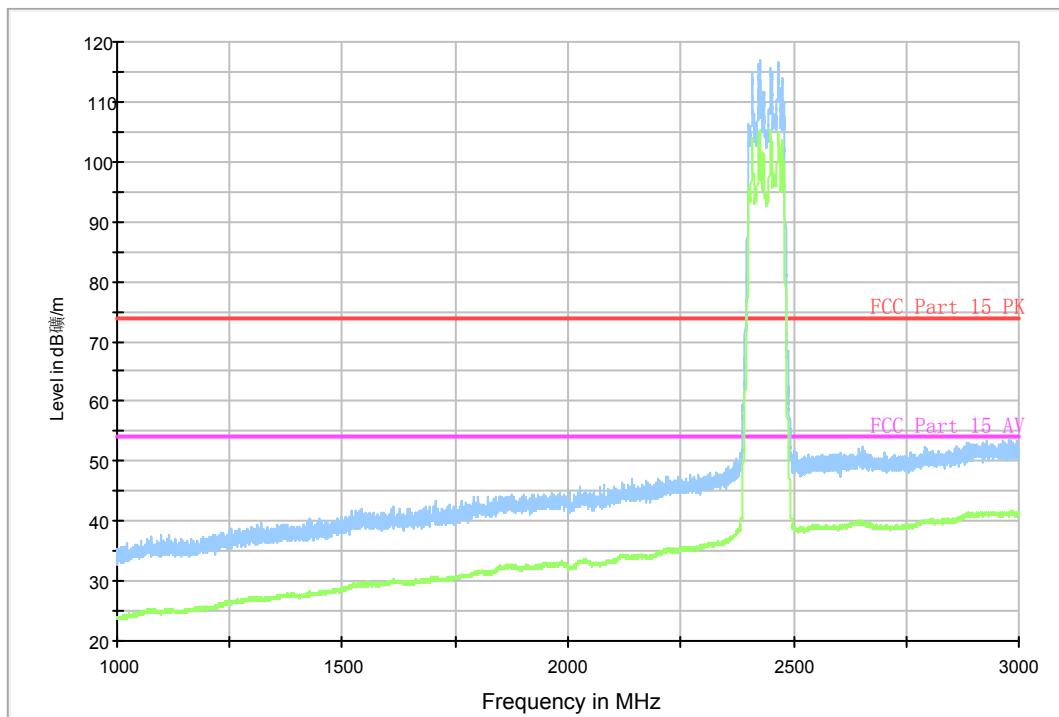


Fig.83. Radiated emission: 8DPSK, Channel 39, 3 GHz - 18 GHz

RE - TX - WLAN BT +AV+PK\_1GHz-3GHz



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

RE - 3GHz-18GHz

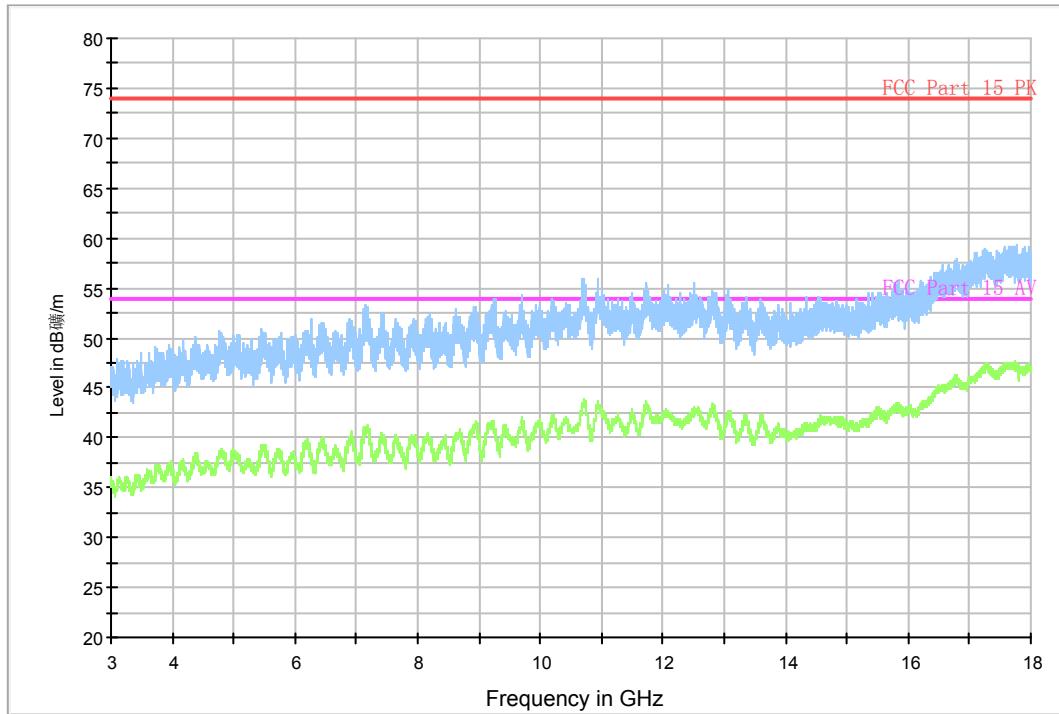


Fig.85. Radiated emission: 8DPSK, Channel 78, 3 GHz - 18 GHz

RE - Power-2.38GHz-2.45GHz

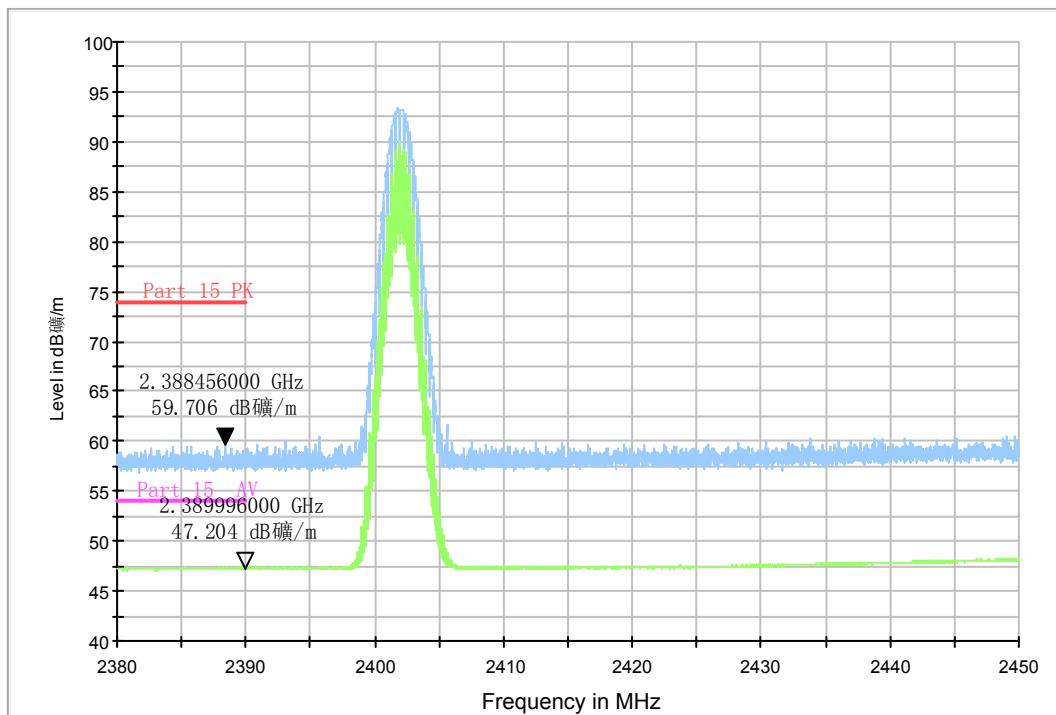


Fig.86. Radiated emission (Power): 8DPSK, low channel

RE - Power-2.45GHz-2.5GHz

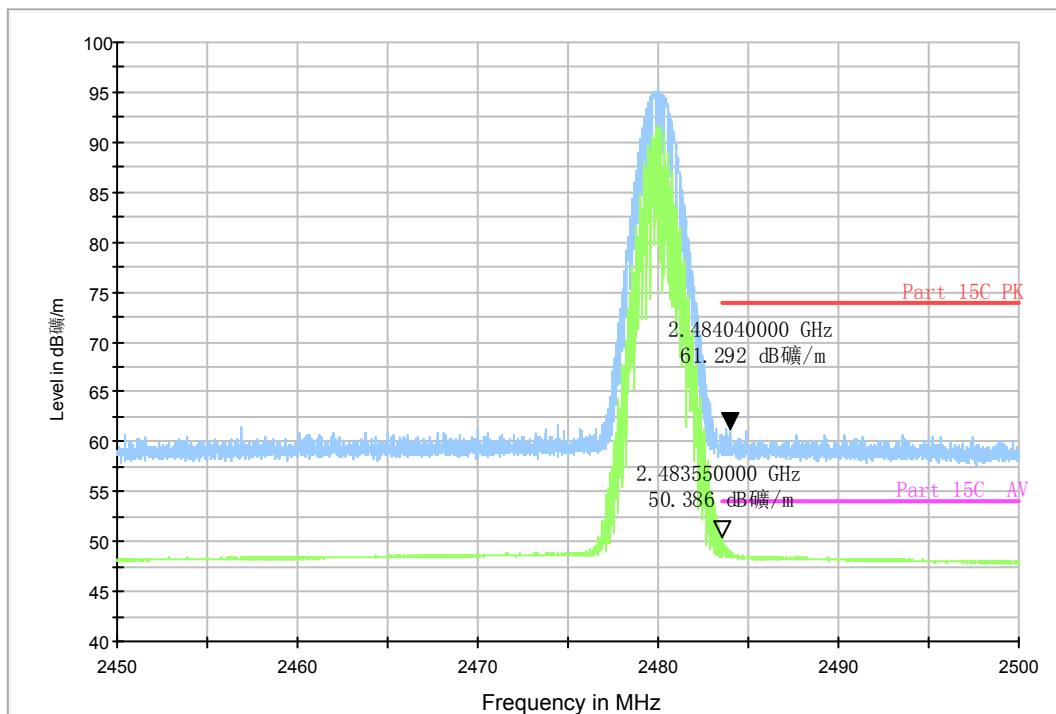


Fig.87. Radiated emission (Power): 8DPSK, high channel

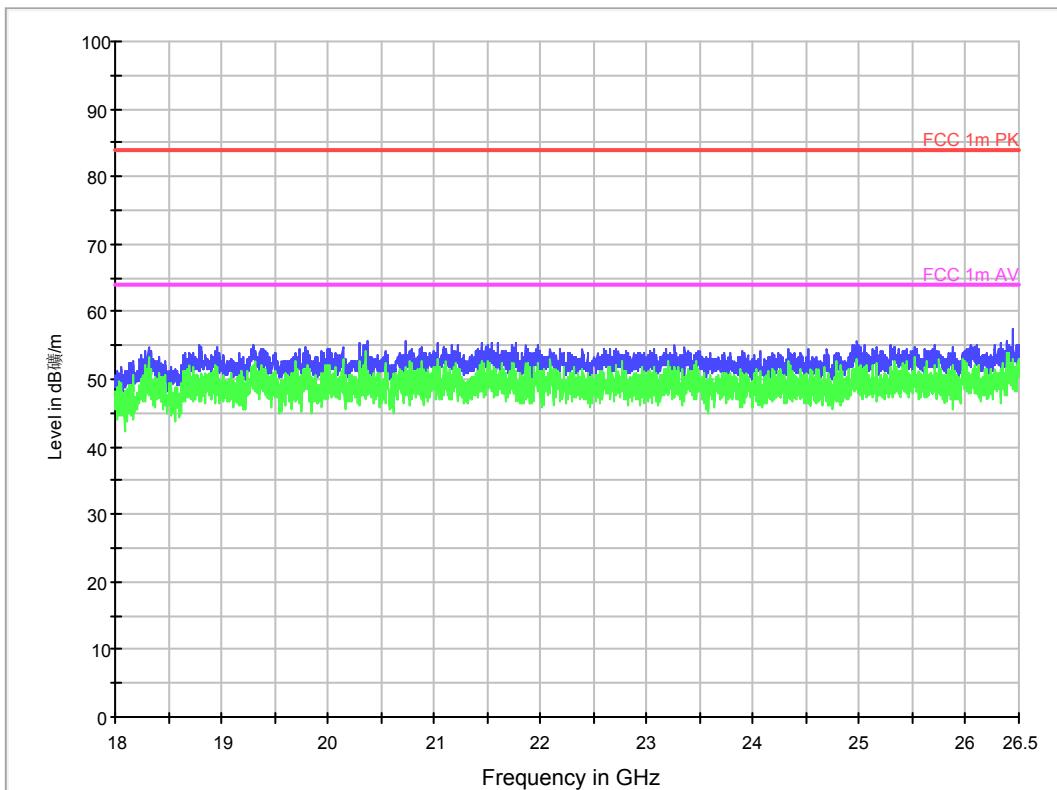


Fig.88. Radiated emission: 8DPSK, 18 GHz – 26.5 GHz

## 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  $\geq$  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	118.32	P
	DH3	Fig.90	260.12	P
	DH5	Fig.91	306.54	P

##### For $\pi/4$ DQPSK

Channel	Packet	Dwell Time (ms)		Conclusion
39	DH1	Fig.92	120.60	P
	DH3	Fig.93	260.65	P
	DH5	Fig.94	306.87	P

##### For 8DPSK

Channel	Packet	Dwell Time (ms)		Conclusion
39	DH1	Fig.95	120.91	P

	DH3	Fig.96	260.46	P
	DH5	Fig.97	306.70	P

**Conclusion: PASS**

**Test graphs as below:**

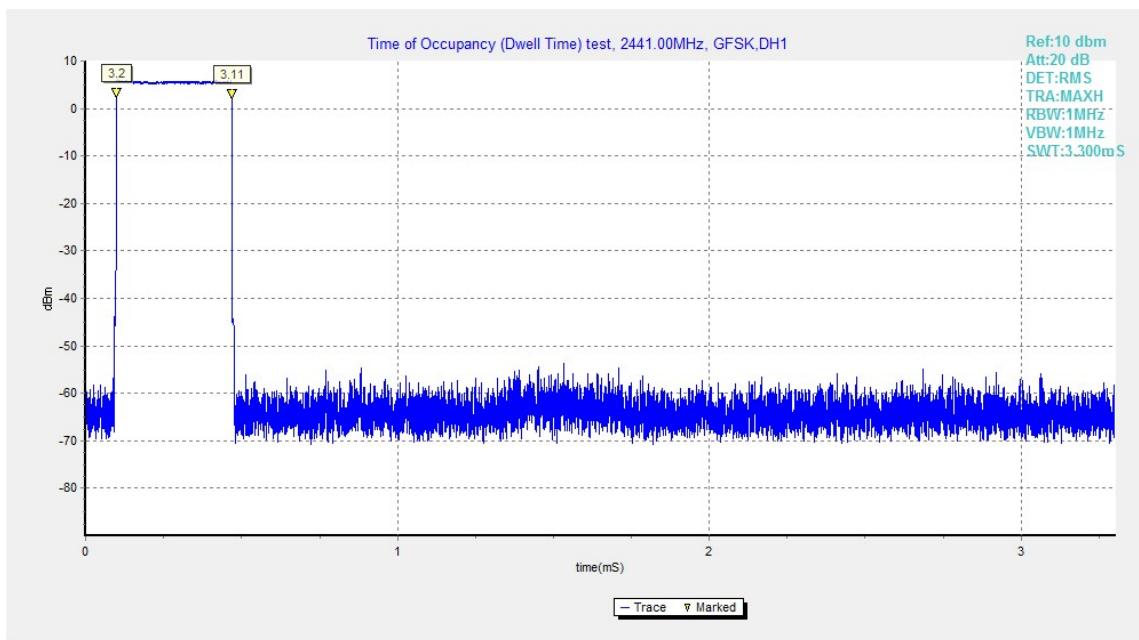


Fig.89. Time of occupancy (Dwell Time): Channel 39, Packet DH1

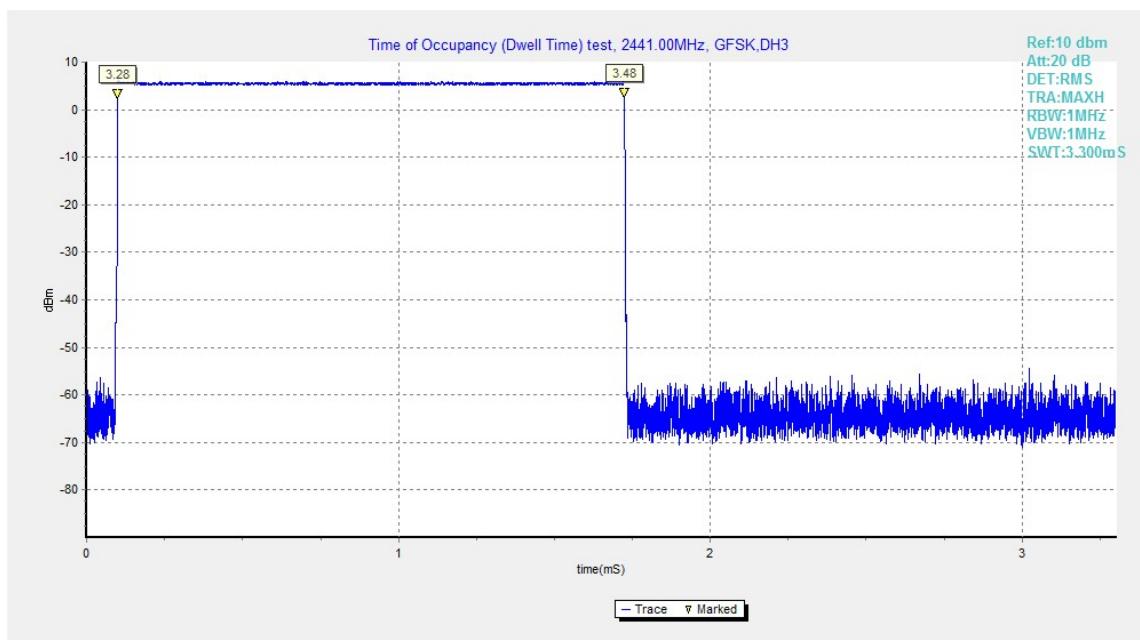


Fig.90. Time of occupancy (Dwell Time): Channel 39, Packet DH3

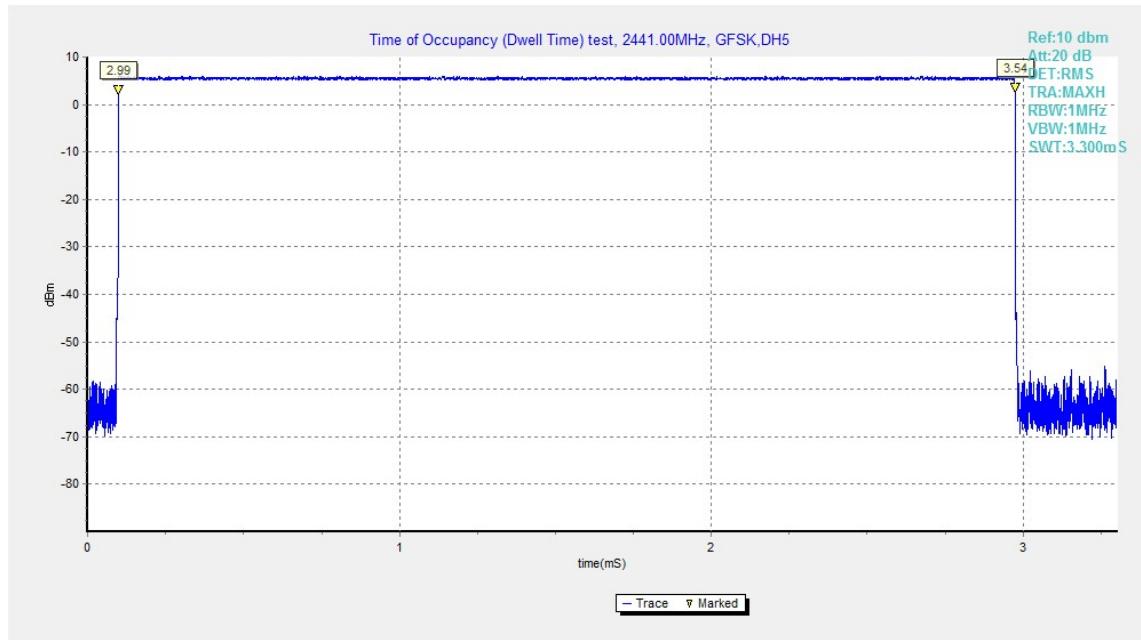


Fig.91. Time of occupancy (Dwell Time): Channel 39, Packet DH5

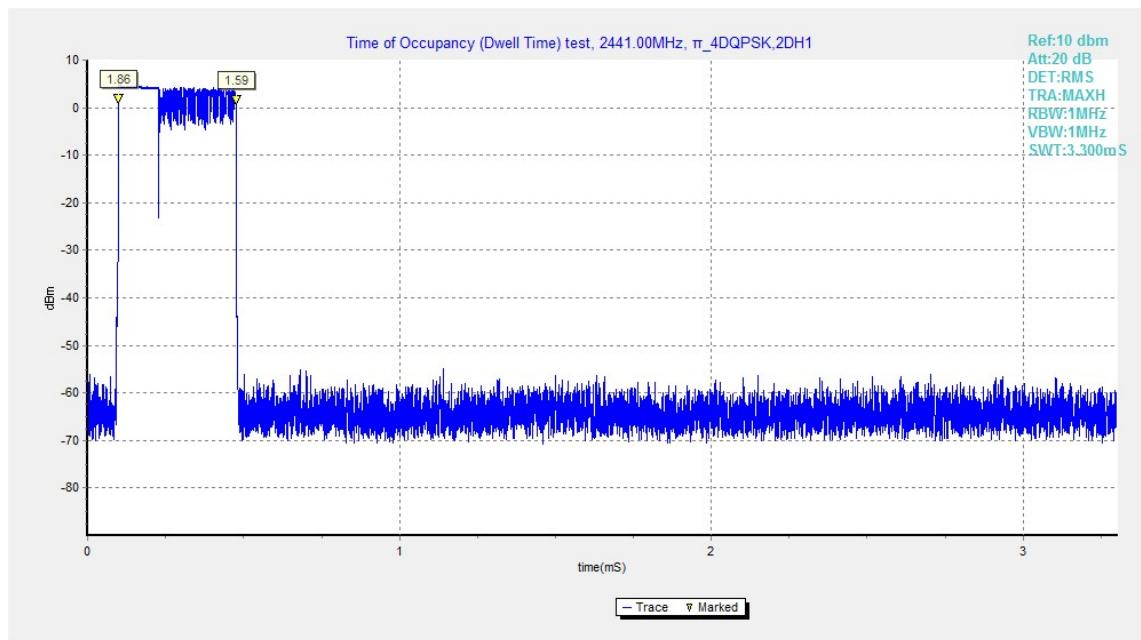


Fig.92. Time of occupancy (Dwell Time): Channel 39, Packet 2-DH1

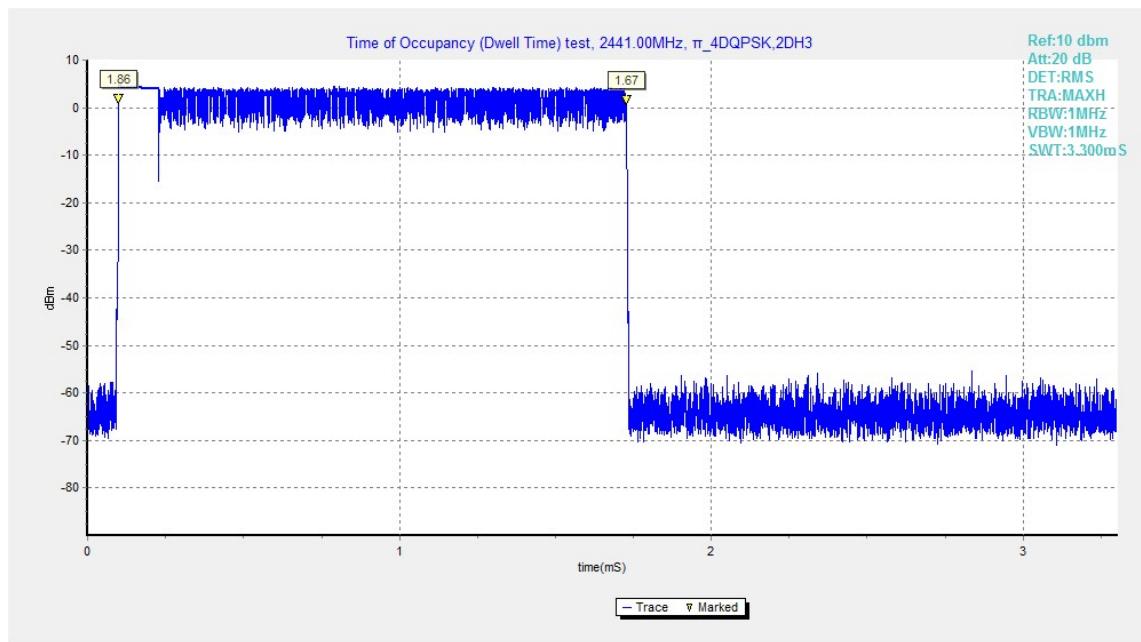


Fig.93. Time of occupancy (Dwell Time): Channel 39, Packet 2-DH3

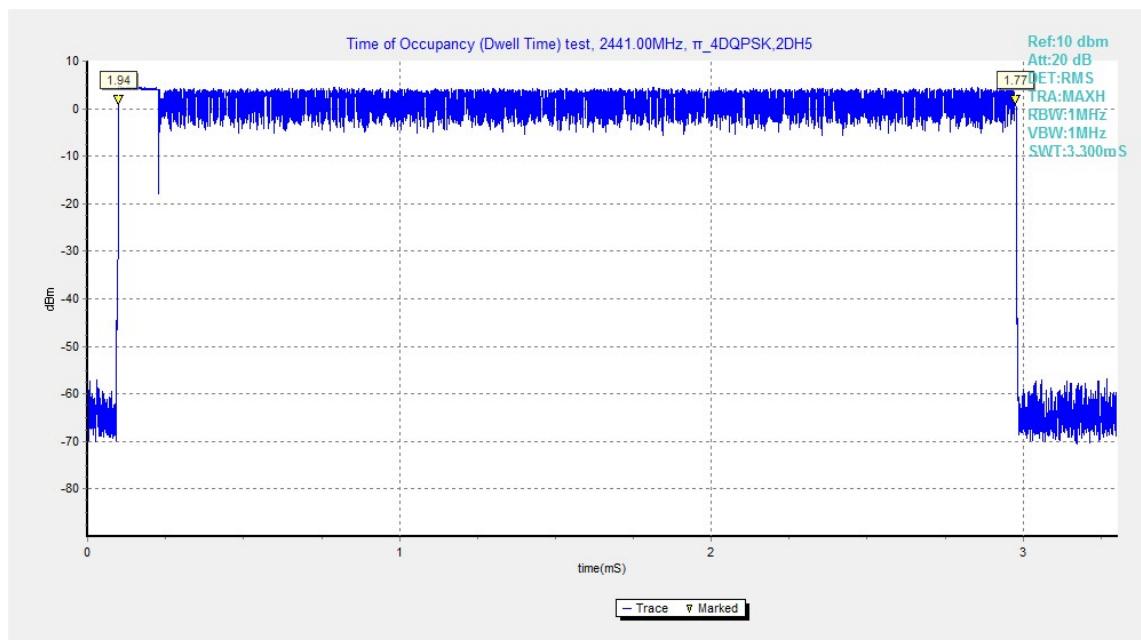


Fig.94. Time of occupancy (Dwell Time): Channel 39, Packet 2-DH5

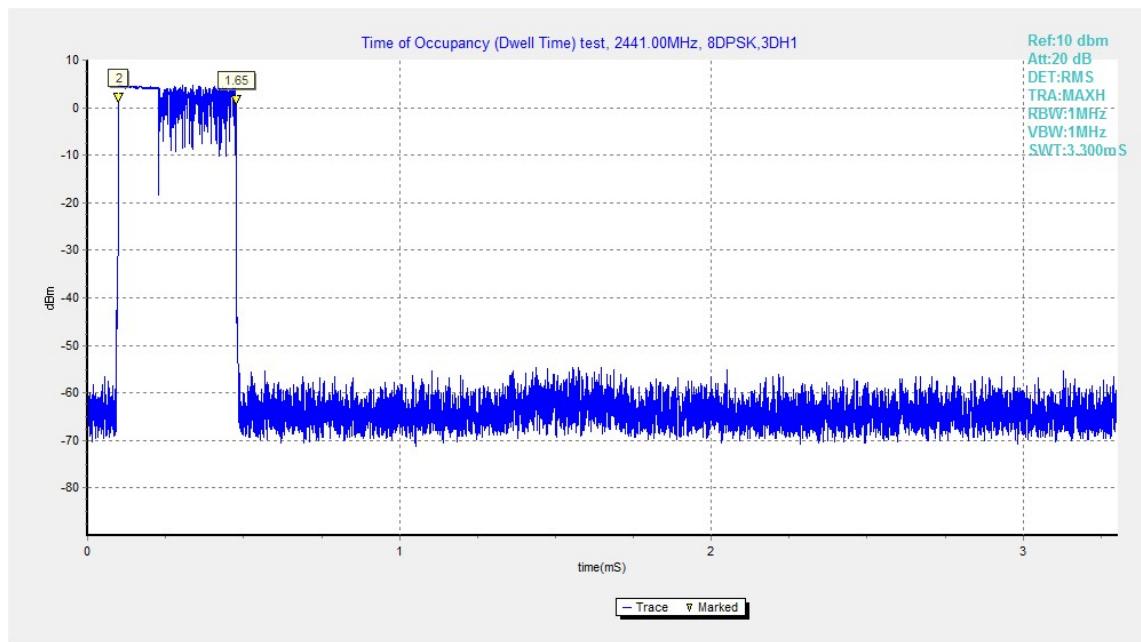


Fig.95. Time of occupancy (Dwell Time): Channel 39, Packet 3-DH1

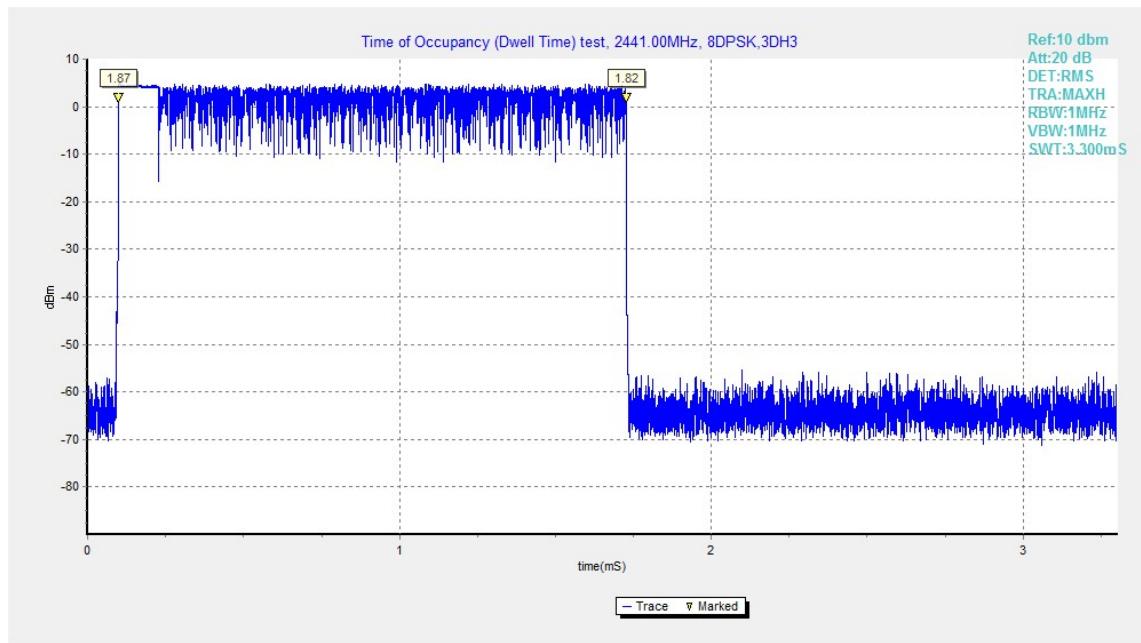


Fig.96. Time of occupancy (Dwell Time): Channel 39, Packet 3-DH3

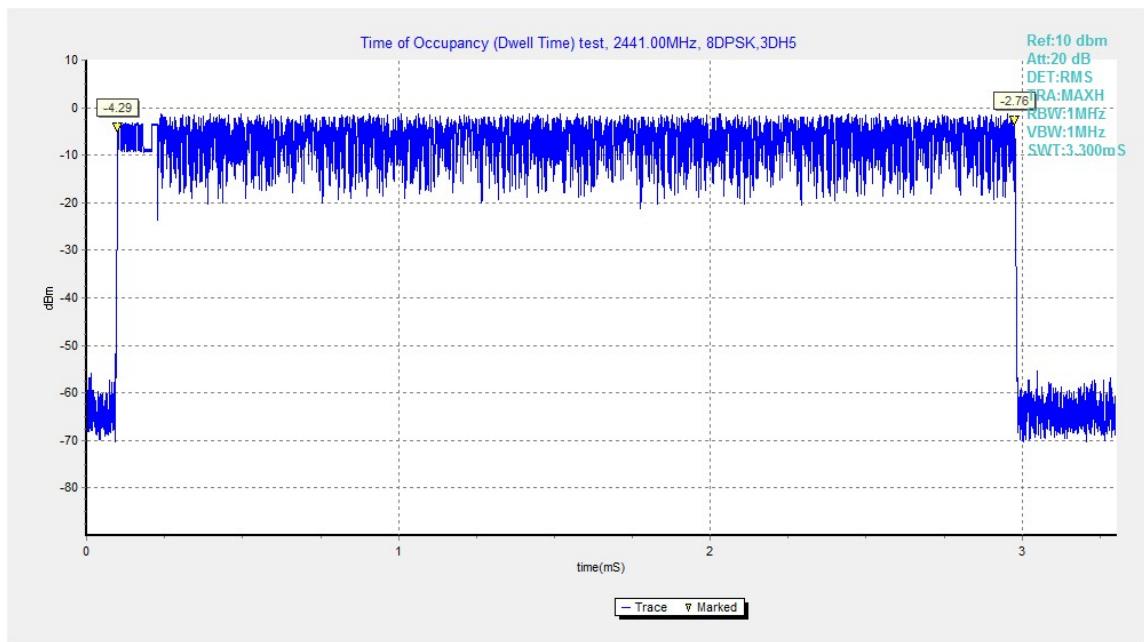


Fig.97. Time of occupancy (Dwell Time): Channel 39, Packet 3-DH5

## A.7. 20dB Bandwidth

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

Measurement Procedure - Unwanted Emissions

1. Set RBW = 30kHz.
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	943.00	NA
39	Fig.99	943.00	NA
78	Fig.100	947.00	NA

#### **For π/4 DQPSK**

Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.101	1283.00	NA
39	Fig.102	1284.00	NA
78	Fig.103	1262.00	NA

#### **For 8DPSK**

Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.104	1267.00	NA
39	Fig.105	1267.00	NA
78	Fig.106	1267.00	NA

**Conclusion: NA**

**Test graphs as below:**