

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

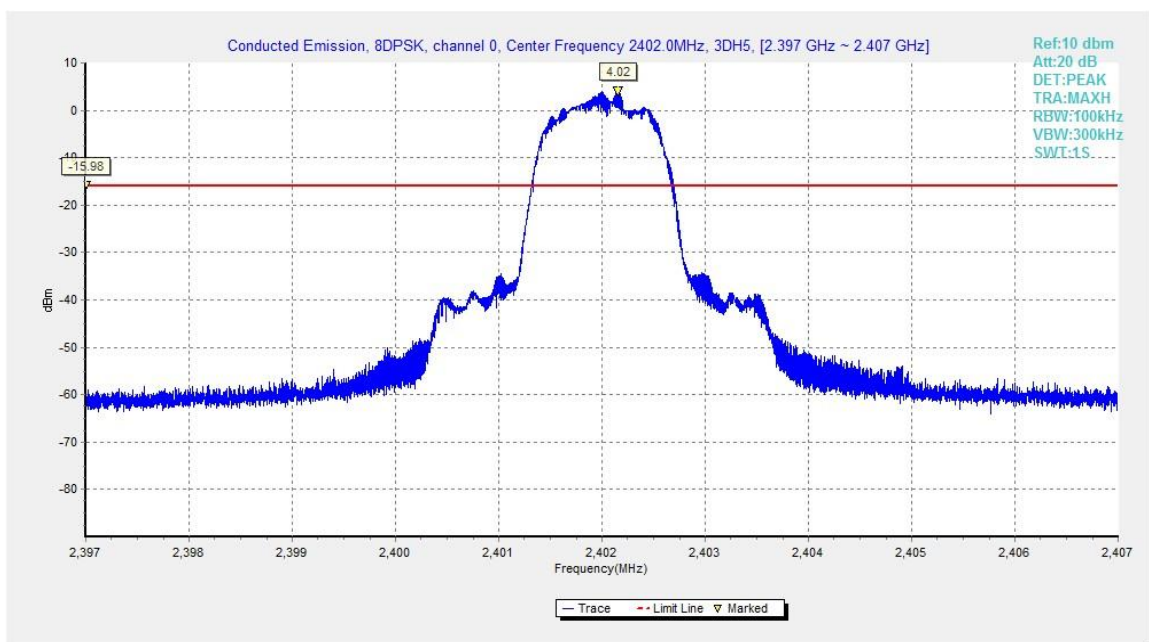


Fig.43. Conducted spurious emission: 8DPSK, Channel 0, 2402MHz

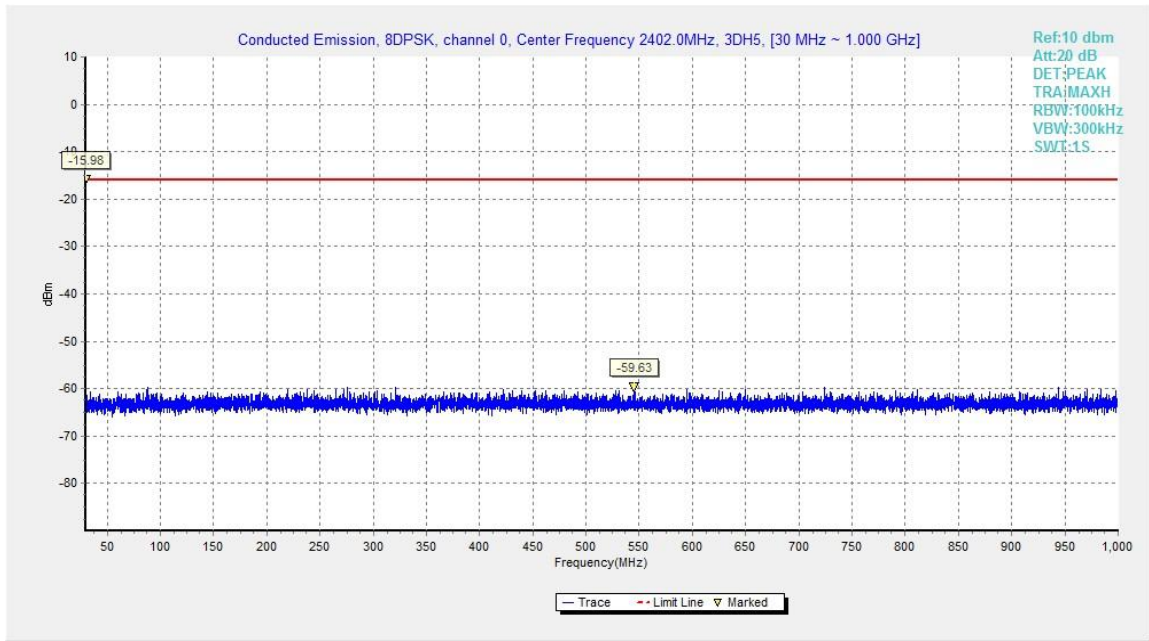


Fig.44. Conducted spurious emission: 8DPSK, Channel 0, 30MHz - 1GHz

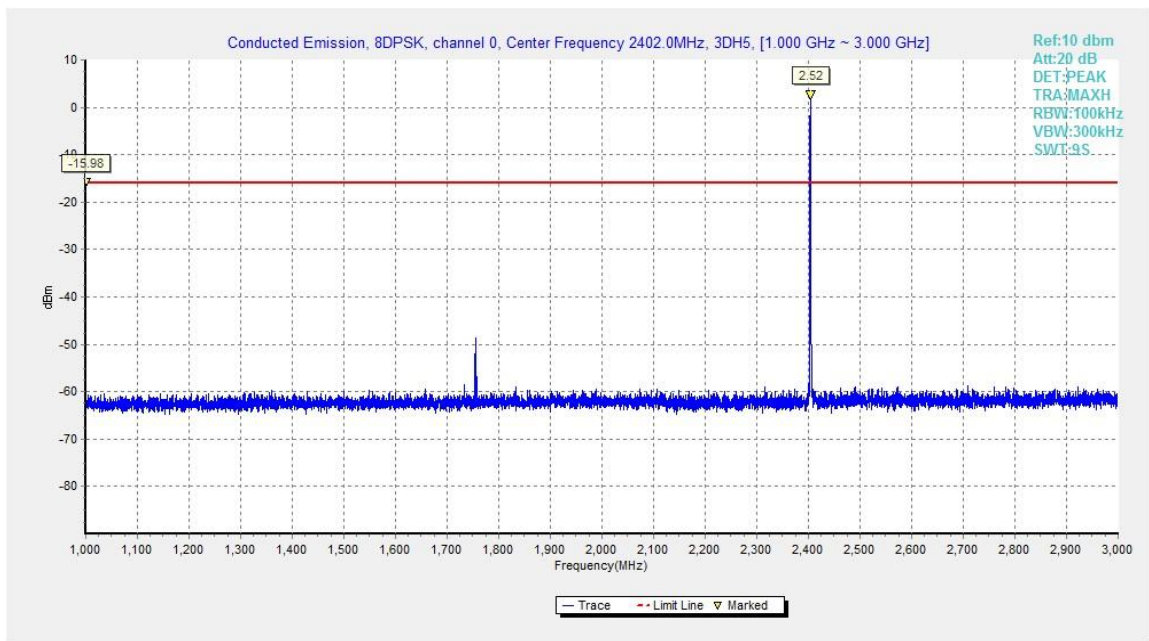


Fig.45. Conducted spurious emission: 8DPSK, Channel 0, 1GHz - 3GHz

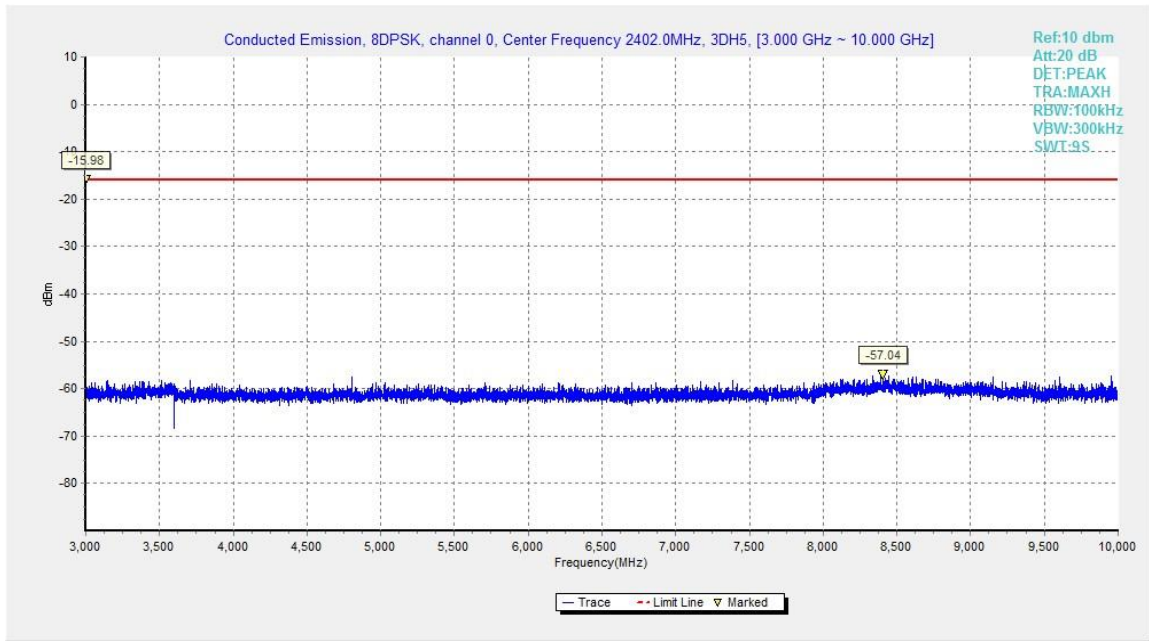


Fig.46. Conducted spurious emission: 8DPSK, Channel 0, 3GHz - 10GHz

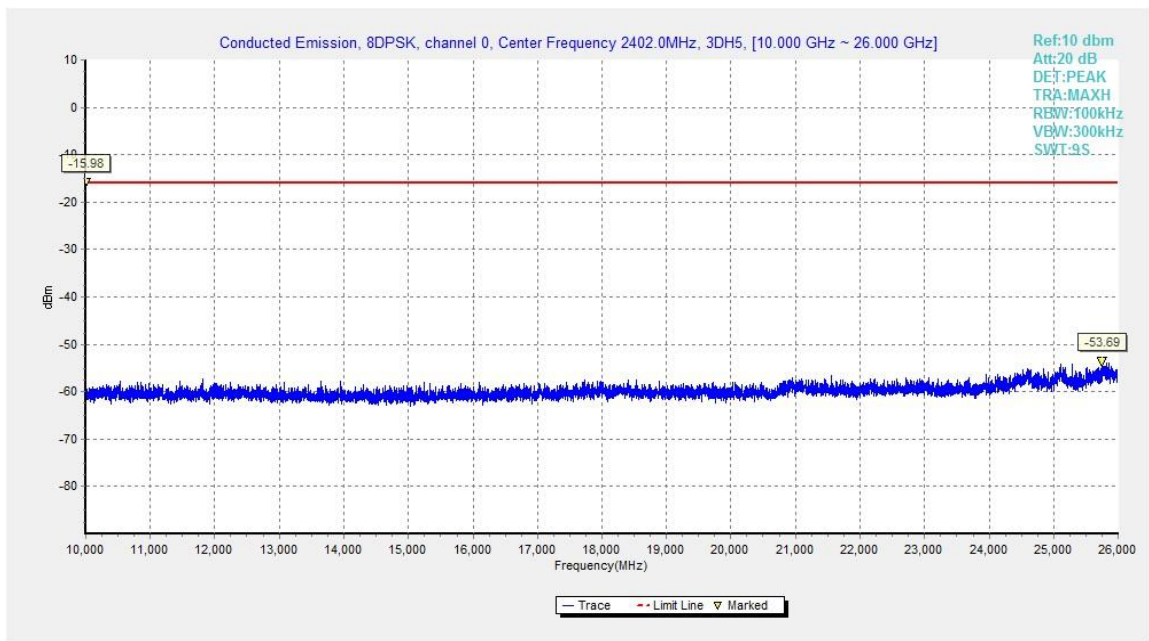


Fig.47. Conducted spurious emission: 8DPSK, Channel 0, 10GHz - 26GHz

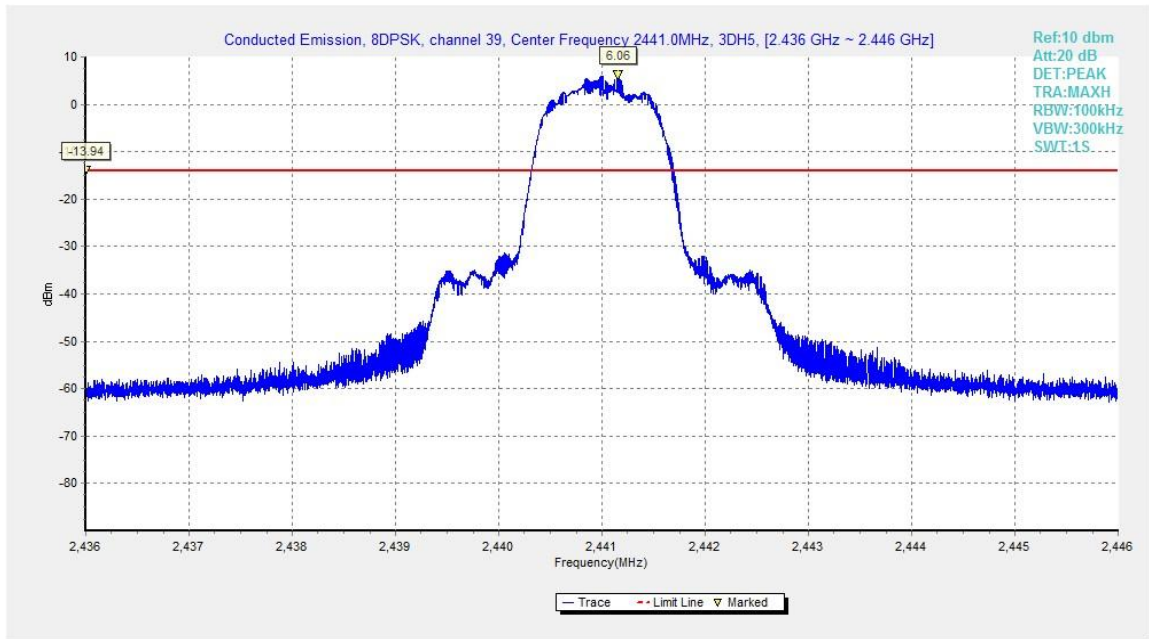


Fig.48. Conducted spurious emission: 8DPSK, Channel 39, 2441MHz

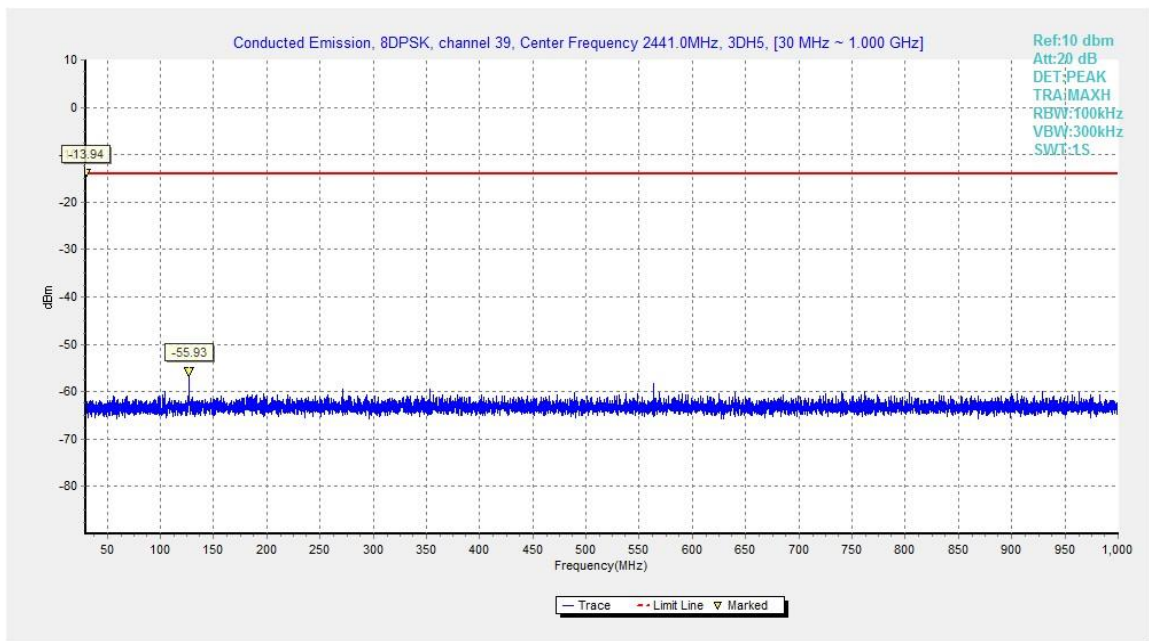


Fig.49. Conducted spurious emission: 8DPSK, Channel 39, 30MHz - 1GHz



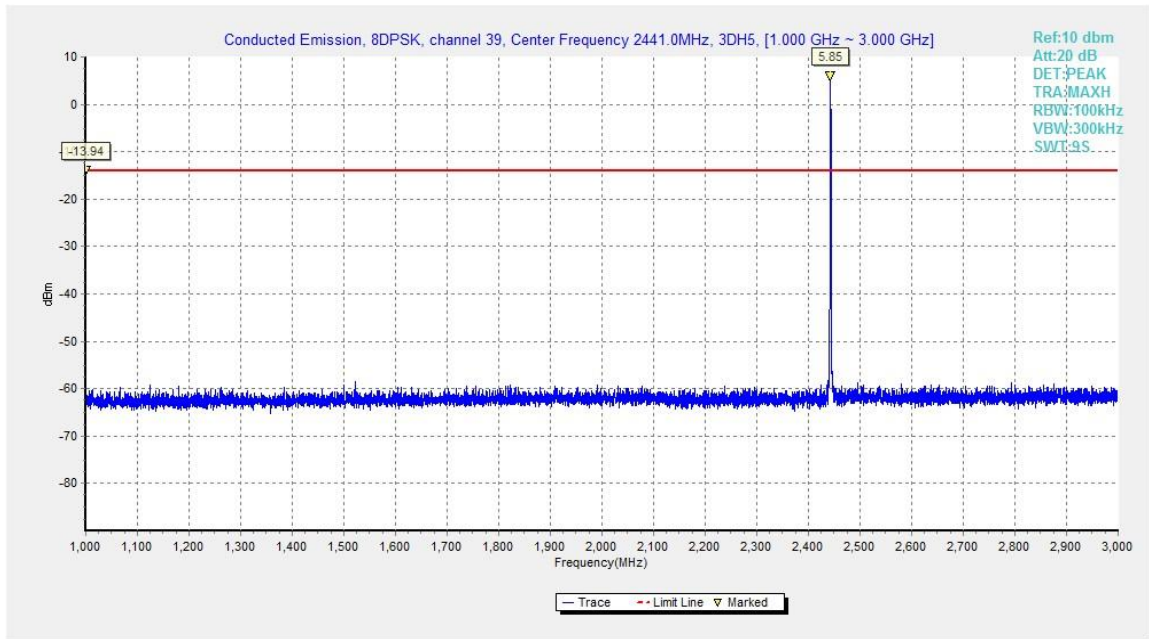


Fig.50. Conducted spurious emission: 8DPSK, Channel 39, 1GHz - 3GHz

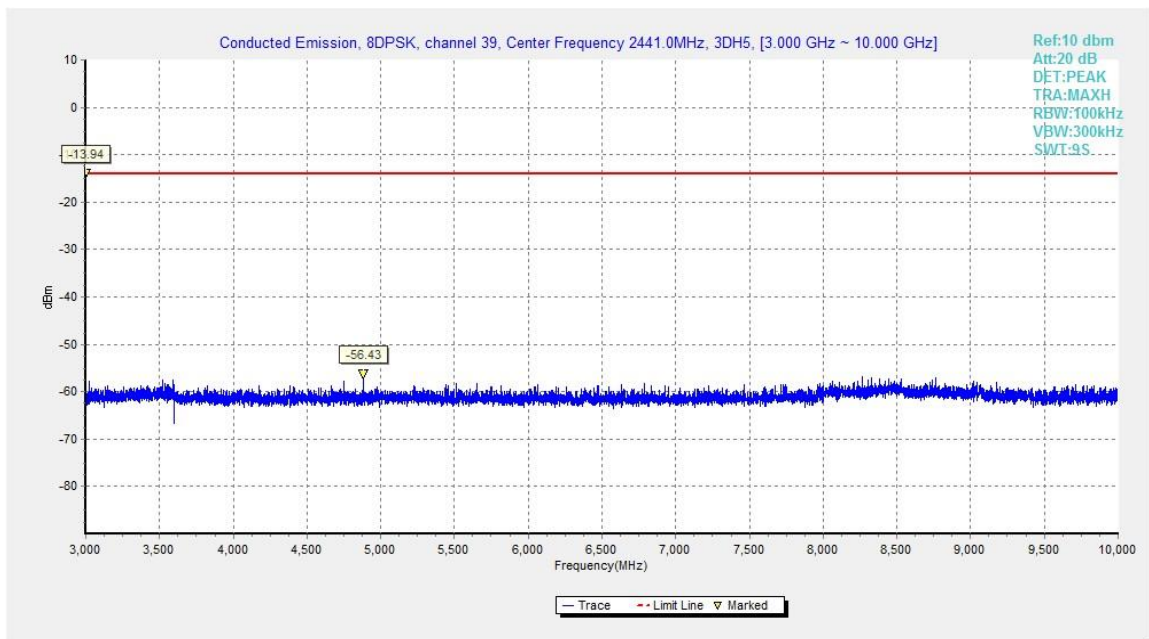


Fig.51. Conducted spurious emission: 8DPSK, Channel 39, 3GHz - 10GHz

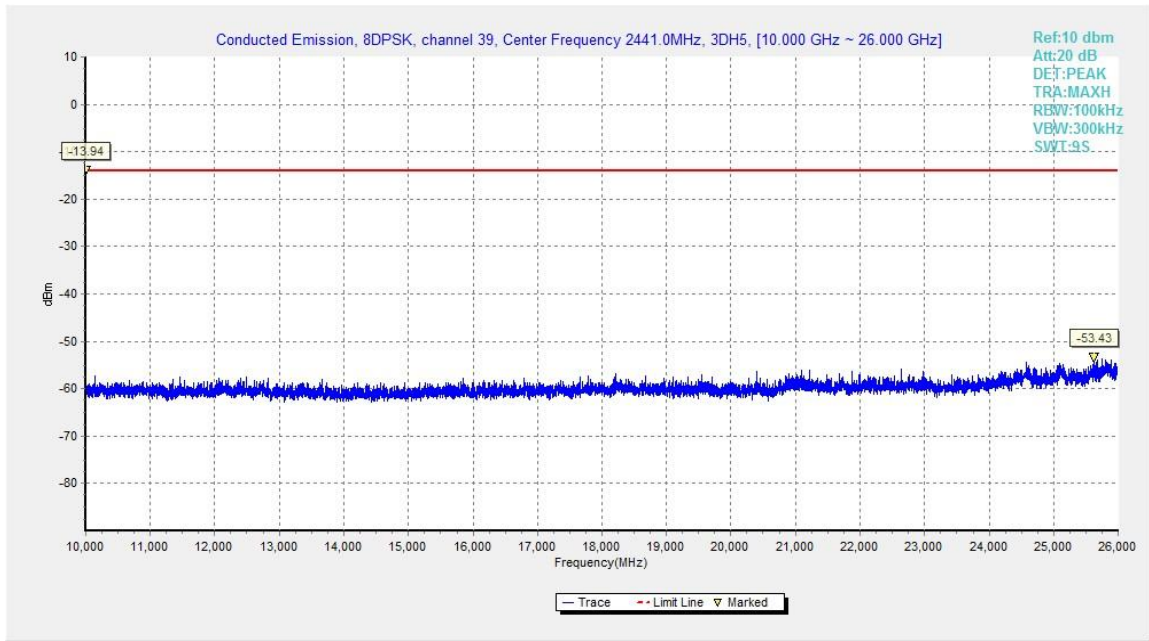


Fig.52. Conducted spurious emission: 8DPSK, Channel 39, 10GHz – 26GHz

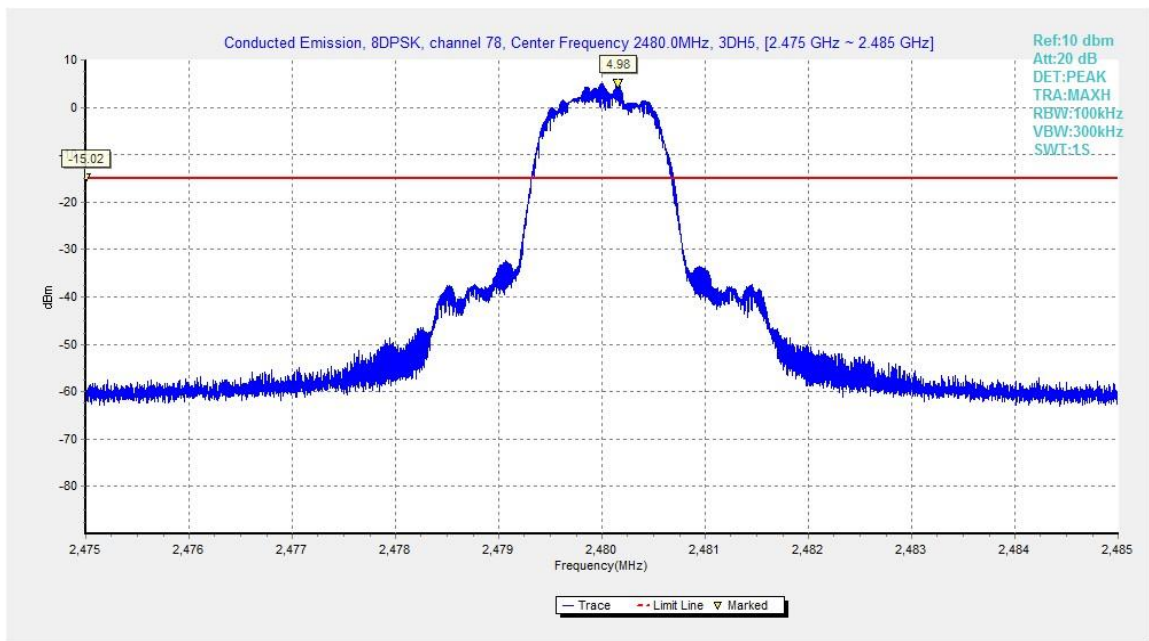


Fig.53. Conducted spurious emission: 8DPSK, Channel 78, 2480MHz

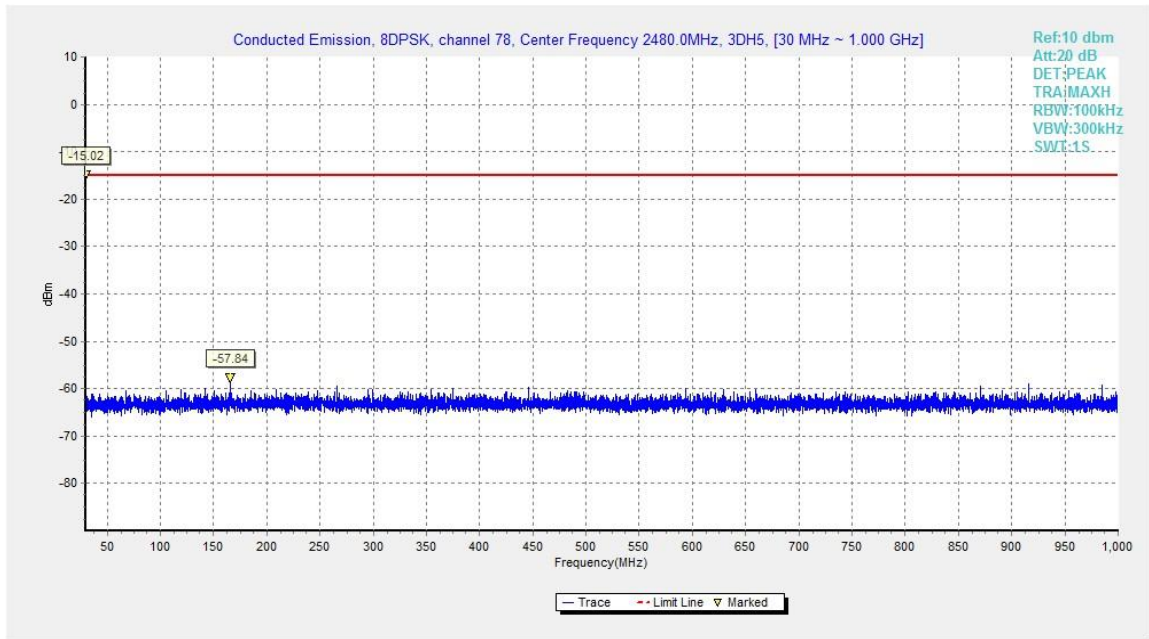


Fig.54. Conducted spurious emission: 8DPSK, Channel 78, 30MHz - 1GHz

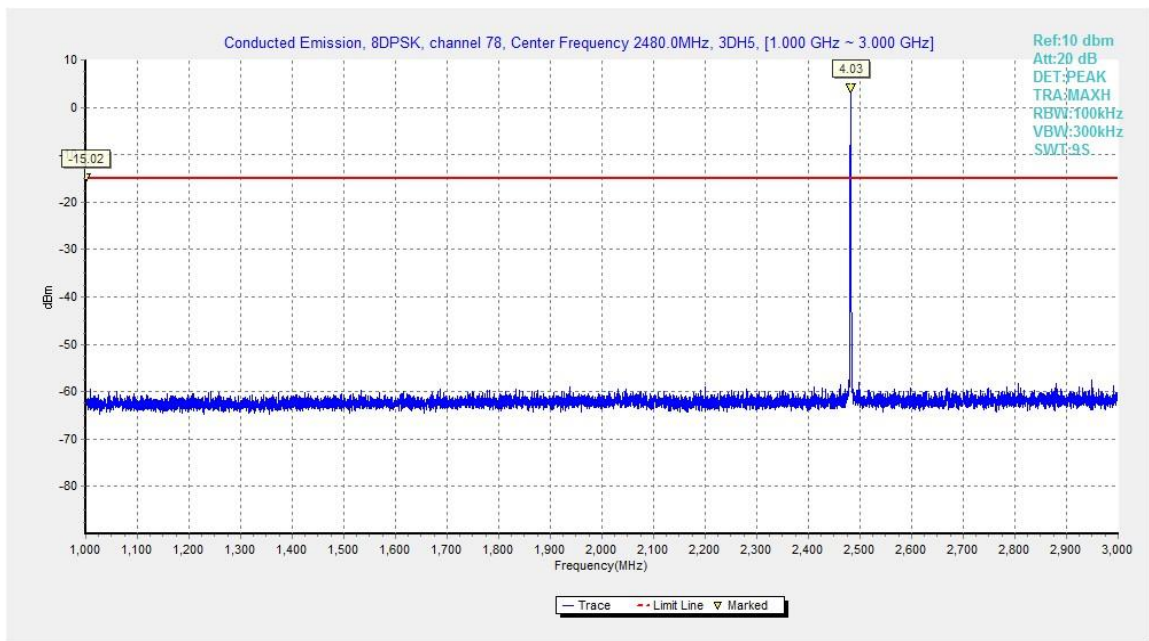


Fig.55. Conducted spurious emission: 8DPSK, Channel 78, 1GHz - 3GHz

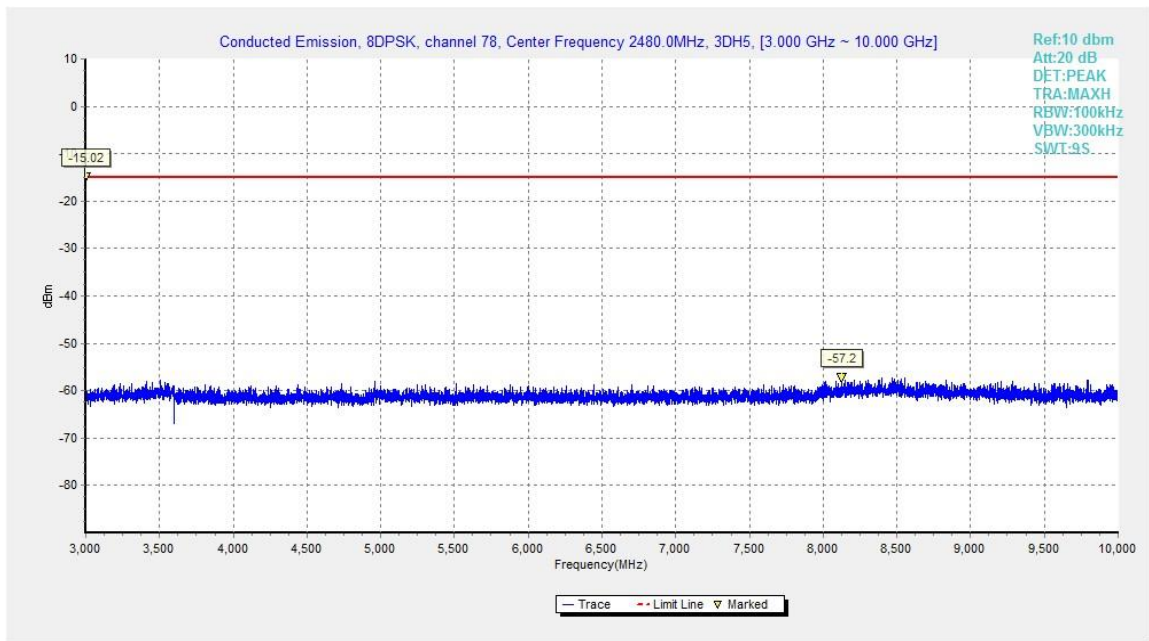


Fig.56. Conducted spurious emission: 8DPSK, Channel 78, 3GHz - 10GHz

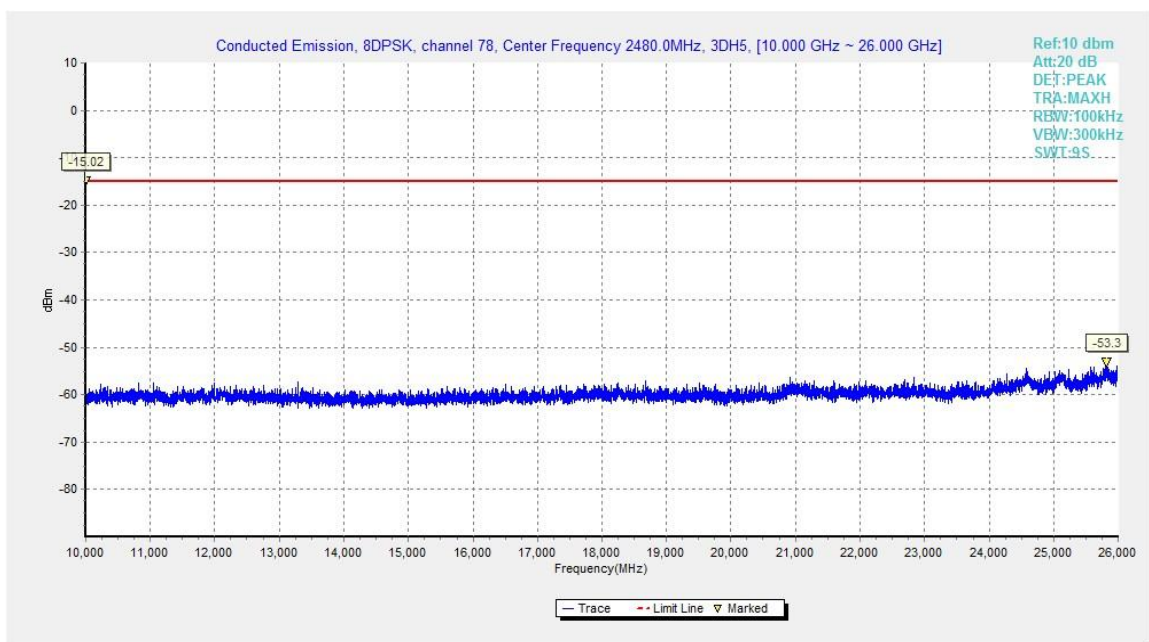


Fig.57. Conducted spurious emission: 8DPSK, Channel 78, 10GHz - 26GHz



### A.5. 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:

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

#### 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)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Antenna Pol. (H/V)
2388.585	39.2	-38.8	27.7	50.3	H
5989.500	40.2	-33.5	35.1	38.6	H
5760.000	39.8	-33.8	35.1	38.5	V
5758.500	33.6	-33.8	35.1	32.3	H
17824.500	31.4	-18.5	45.6	4.3	H
17794.500	31.4	-18.5	45.6	4.3	H

**GFSK Ch 39 - Average**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Antenna Pol. (H/V)
5989.500	39.9	-33.5	35.1	38.3	H
5760.000	39.8	-33.8	35.1	38.5	H
5758.500	33.7	-33.8	35.1	32.4	V
17953.500	31.4	-17.7	45.6	3.5	H
17965.500	31.4	-17.7	45.6	3.5	H
17988.000	31.4	-17.7	45.6	3.5	H

**GFSK Ch 78 - Average**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Antenna Pol. (H/V)
2484.345	38.9	-38.9	27.7	50.1	H
5989.500	40.8	-33.5	35.1	39.2	H
5760.000	39.7	-33.8	35.1	38.4	V
5758.500	33.2	-33.8	35.1	31.9	H
17829.000	31.4	-18.5	45.6	4.3	H
17998.500	31.4	-17.7	45.6	3.5	H

**GFSK Ch 0 – Peak**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
2389.055	51.8	-38.8	27.7	62.9	H
5989.500	46.4	-33.5	35.1	44.8	H
5760.000	46.1	-33.8	35.1	44.8	V
5758.500	45.8	-33.8	35.1	44.5	H
17503.500	44.1	-19.2	45.6	17.7	H
17560.500	43.5	-19.2	45.6	17.1	H

**GFSK Ch 39 - Peak**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5989.500	46.7	-33.5	35.1	45.1	H
5760.000	46.1	-33.8	35.1	44.8	H
5758.500	45.0	-33.8	35.1	43.7	V
5991.000	44.3	-33.5	35.1	42.7	H
17979.000	43.9	-17.7	45.6	16.0	H
17983.500	43.9	-17.7	45.6	16.0	H

**GFSK Ch 78 - Peak**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
2484.170	52.1	-38.9	27.7	63.3	H
5989.500	46.5	-33.5	35.1	44.9	H
5760.000	45.9	-33.8	35.1	44.6	V
5758.500	44.9	-33.8	35.1	43.6	H
17854.500	44.4	-18.5	45.6	17.3	H
17830.500	44.3	-18.5	45.6	17.2	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)	Antenna Pol. (H/V)
2389.515	39.6	-38.8	27.7	50.7	H
5989.500	40.1	-33.5	35.1	38.5	H
5760.000	40.0	-33.8	35.1	38.7	V
5758.500	33.7	-33.8	35.1	32.4	H
17790.000	31.4	-18.5	45.6	4.3	H
17971.500	31.4	-17.7	45.6	3.5	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)	Antenna Pol. (H/V)
5989.500	39.9	-33.5	35.1	38.3	H
5760.000	39.9	-33.8	35.1	38.6	H
5758.500	34.0	-33.8	35.1	32.7	V
5991.000	32.3	-33.5	35.1	30.7	H
17859.000	31.6	-18.5	45.6	4.5	H
17833.500	31.6	-18.5	45.6	4.5	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)	Antenna Pol. (H/V)
2484.425	39.3	-38.9	27.7	50.5	H
5989.500	40.9	-33.5	35.1	39.3	H
5760.000	39.8	-33.8	35.1	38.5	V
5758.500	33.6	-33.8	35.1	32.3	H
17974.500	31.4	-17.7	45.6	3.5	H
17886.000	31.4	-18.5	45.6	4.3	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)	Antenna Pol. (H/V)
2389.040	52.3	-38.8	27.7	63.400	H
5989.500	46.8	-33.5	35.1	45.200	H
5760.000	46.7	-33.8	35.1	45.400	V
5758.500	45.3	-33.8	35.1	44.000	H
5991.000	43.7	-33.5	35.1	42.100	H
17586.000	43.6	-18.9	45.6	16.900	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)	Antenna Pol. (H/V)
5989.500	46.8	-33.5	35.1	45.200	H
5760.000	46.1	-33.8	35.1	44.800	H
5991.000	45.5	-33.5	35.1	43.900	V
5758.500	45.1	-33.8	35.1	43.800	H
17961.000	44.9	-17.7	45.6	17.000	H
17995.500	44.5	-17.7	45.6	16.600	H

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

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Antenna Pol. (H/V)
2484.410	51.9	-38.9	27.7	63.1	H
5989.500	46.5	-33.5	35.1	44.9	H
5760.000	46.4	-33.8	35.1	45.1	V
5758.500	45.1	-33.8	35.1	43.8	H
17802.000	43.8	-18.5	45.6	16.7	H
17823.000	43.5	-18.5	45.6	16.4	H

**8DPSK Ch 0 - Average**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
2389.295	38.6	-38.8	27.7	49.7	H
5989.500	40.4	-33.5	35.1	38.8	H
5760.000	40.0	-33.8	35.1	38.7	V
5758.500	33.6	-33.8	35.1	32.3	H
17979.000	31.6	-17.7	45.6	3.7	H
17956.500	31.5	-17.7	45.6	3.6	H

**8DPSK Ch 39 - Average**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5760.000	39.9	-33.8	35.1	38.6	H
5989.500	39.6	-33.5	35.1	38.0	H
5758.500	34.1	-33.8	35.1	32.8	V
5991.000	33.3	-33.5	35.1	31.7	H
17973.000	31.6	-17.7	45.6	3.7	H
17980.500	31.5	-17.7	45.6	3.6	H

**8DPSK Ch 78 - Average**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
2483.625	39.8	-38.9	27.7	51.0	H
5989.500	41.3	-33.5	35.1	39.7	H
5760.000	40.9	-33.8	35.1	39.6	V
5758.500	34.4	-33.8	35.1	33.1	H
17790.000	32.0	-18.5	45.6	4.9	H
17967.000	31.9	-17.7	45.6	4.0	H

**8DPSK Ch 0 – Peak**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
2388.750	51.5	-38.8	27.7	62.6	H
5989.500	46.3	-33.5	35.1	44.7	H
5760.000	46.2	-33.8	35.1	44.9	V
5758.500	45.8	-33.8	35.1	44.5	H
17524.500	44.9	-19.2	45.6	18.5	H
17451.000	43.8	-19.2	41.5	21.5	H

**8DPSK Ch 39 - Peak**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5989.500	46.8	-33.5	35.1	45.2	H
5760.000	46.4	-33.8	35.1	45.1	H
5758.500	45.4	-33.8	35.1	44.1	V
5991.000	45.3	-33.5	35.1	43.7	H
17631.000	44.5	-18.9	45.6	17.8	H
17724.000	44.4	-18.9	45.6	17.7	H

**8DPSK Ch 78 - Peak**

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
2484.585	52.4	-38.9	27.7	63.6	H
5760.000	47.6	-33.8	35.1	46.3	H
5989.500	47.5	-33.5	35.1	45.9	V
5758.500	46.1	-33.8	35.1	44.8	H
17860.500	44.2	-18.5	45.6	17.1	H
17821.500	44.1	-18.5	45.6	17.0	H

**Conclusion: PASS**

**Test graphs as below:**