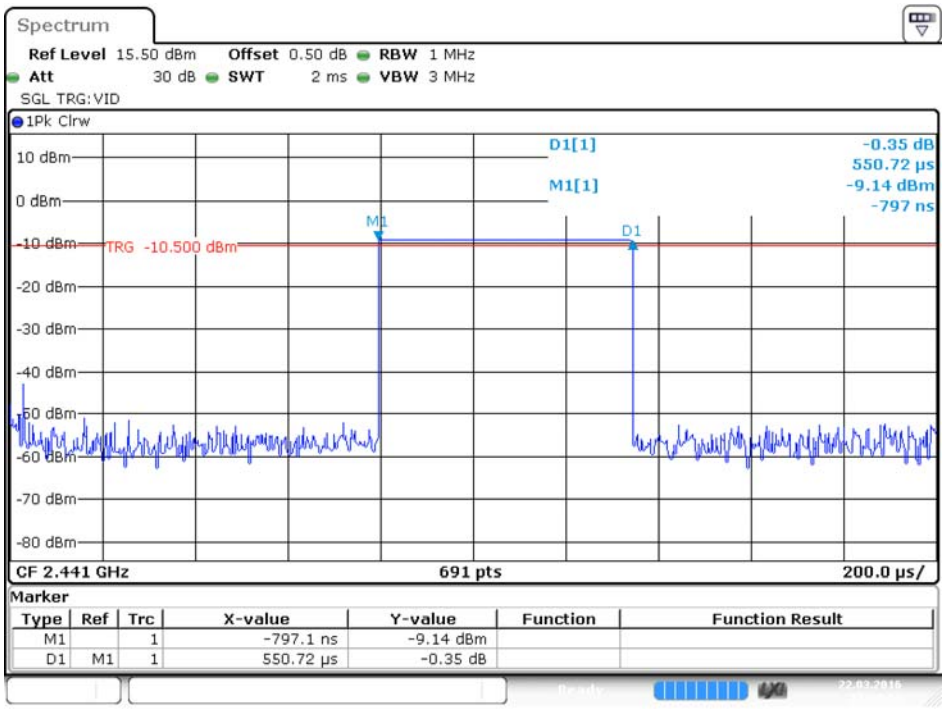
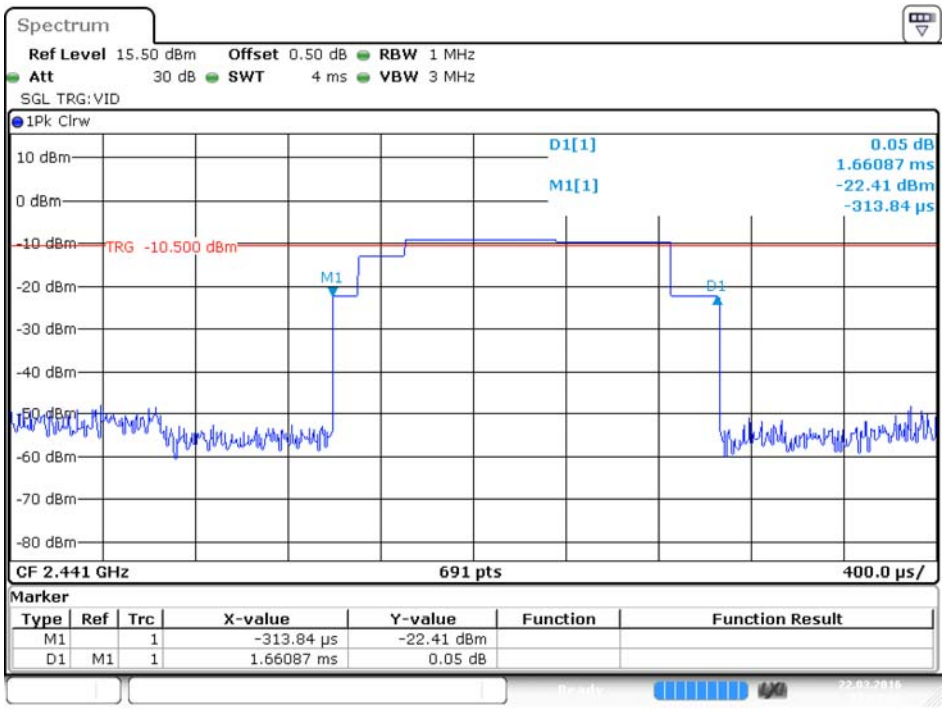
Test Plots

GFSK DH1



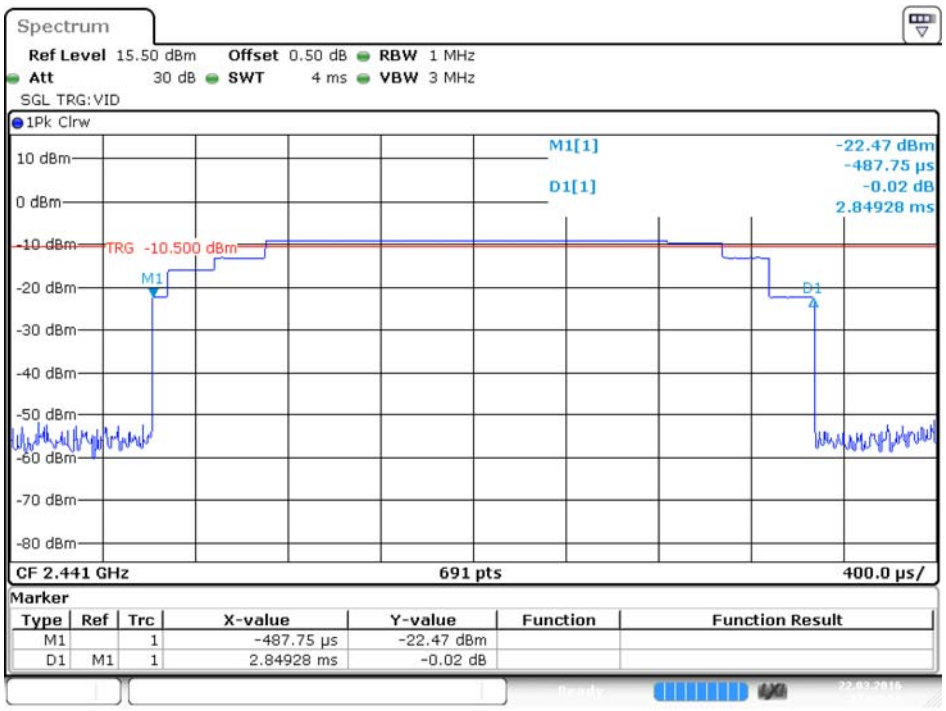
Date: 22.MAR.2016 17:30:17

GFSK DH3



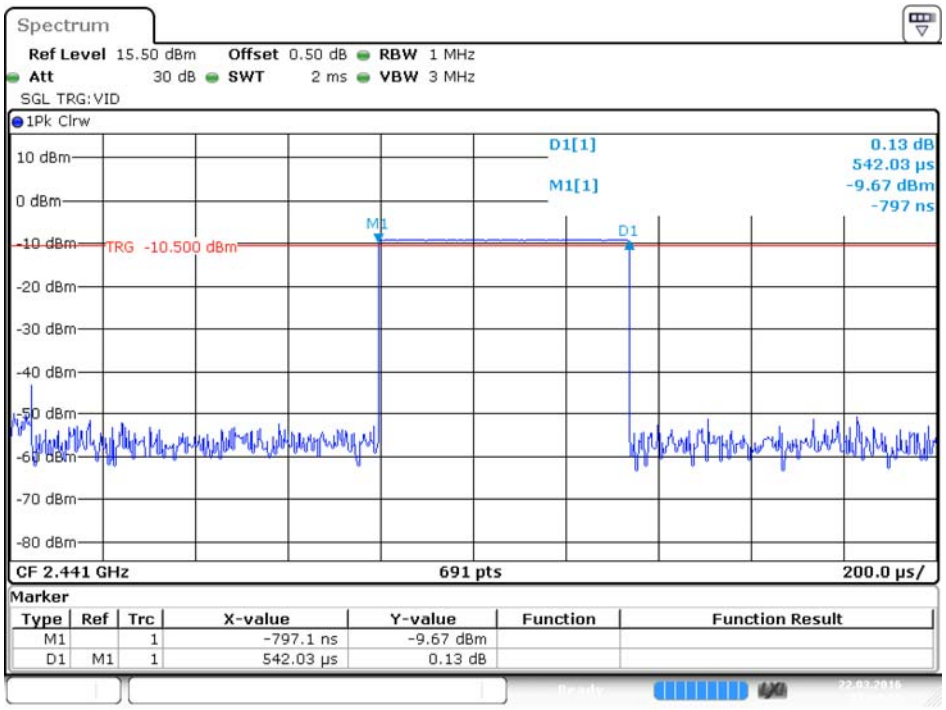
Date: 22.MAR.2016 17:32:39

GFSK DH5



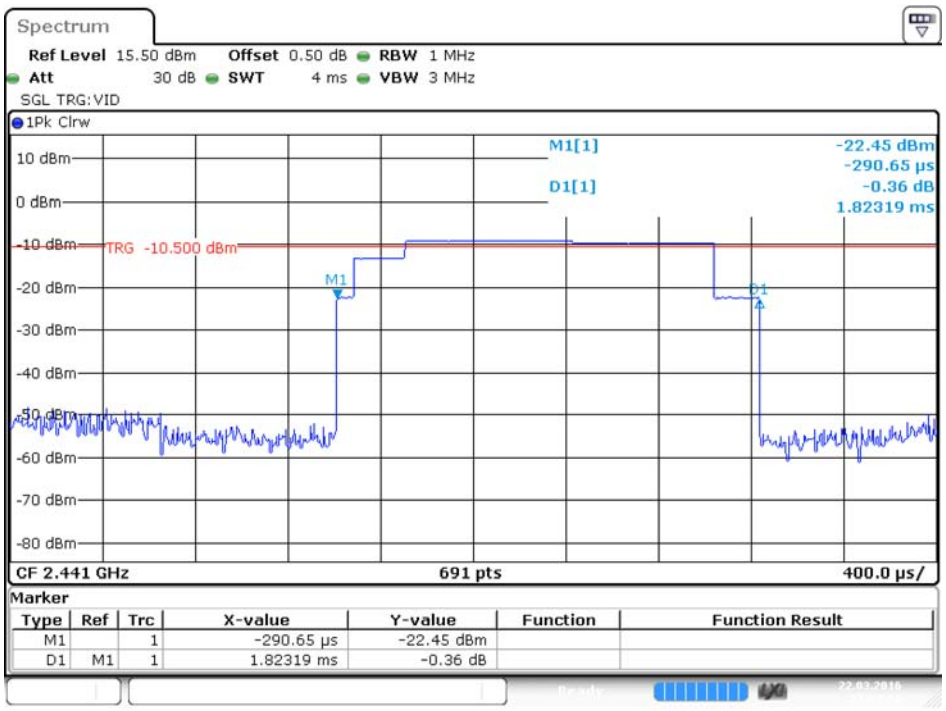
Date: 22.MAR.2016 17:37:57

Π/4-DQPSK DH1



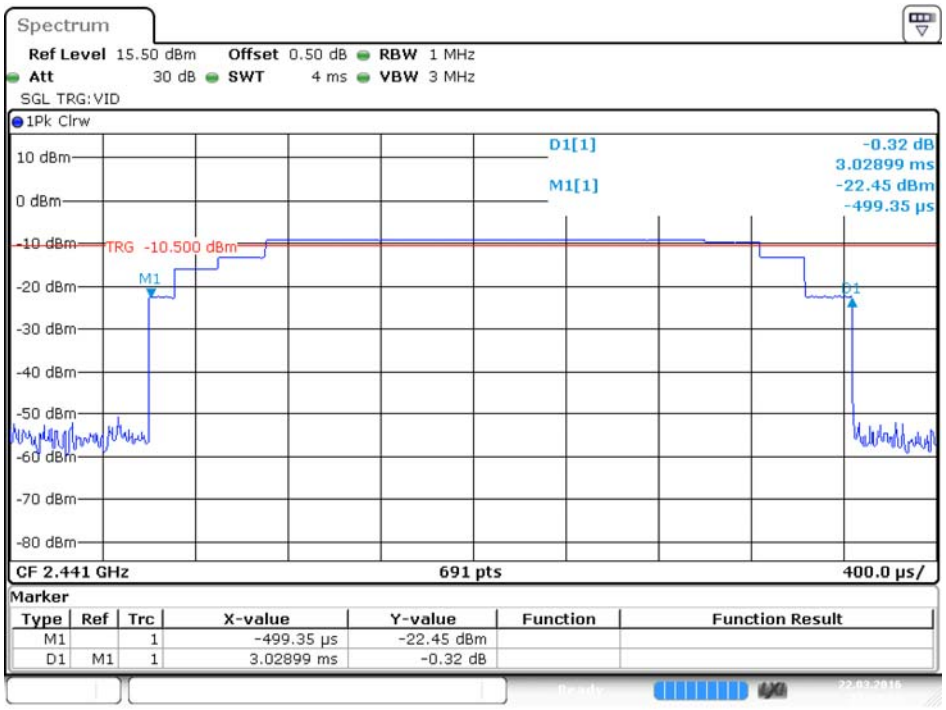
Date: 22.MAR.2016 17:30:52

Π/4-DQPSK DH3



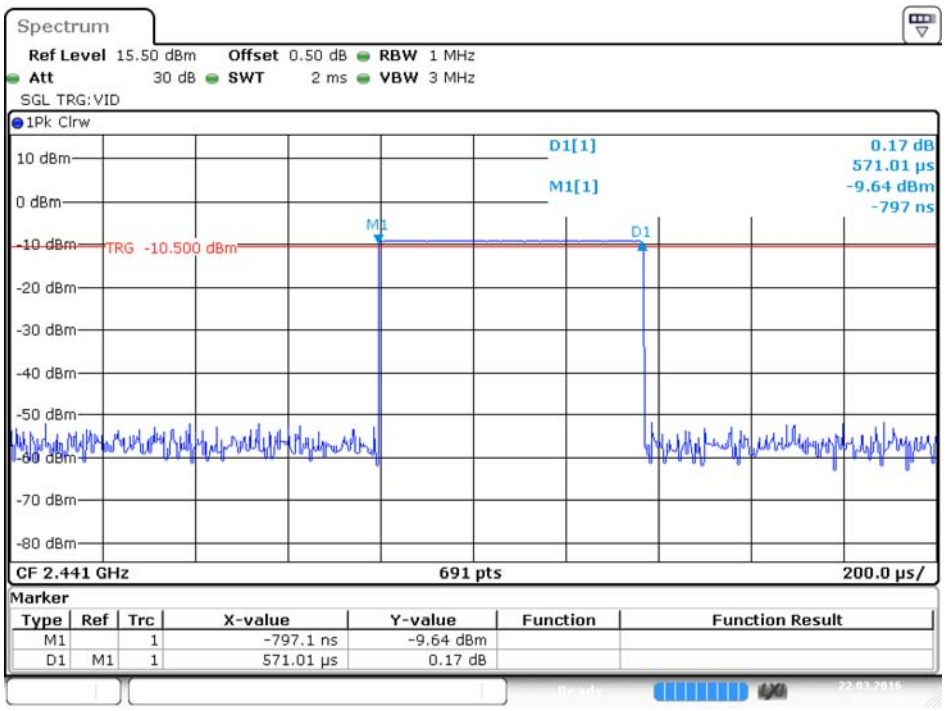
Date: 22.MAR.2016 17:33:18

Π/4-DQPSK DH5



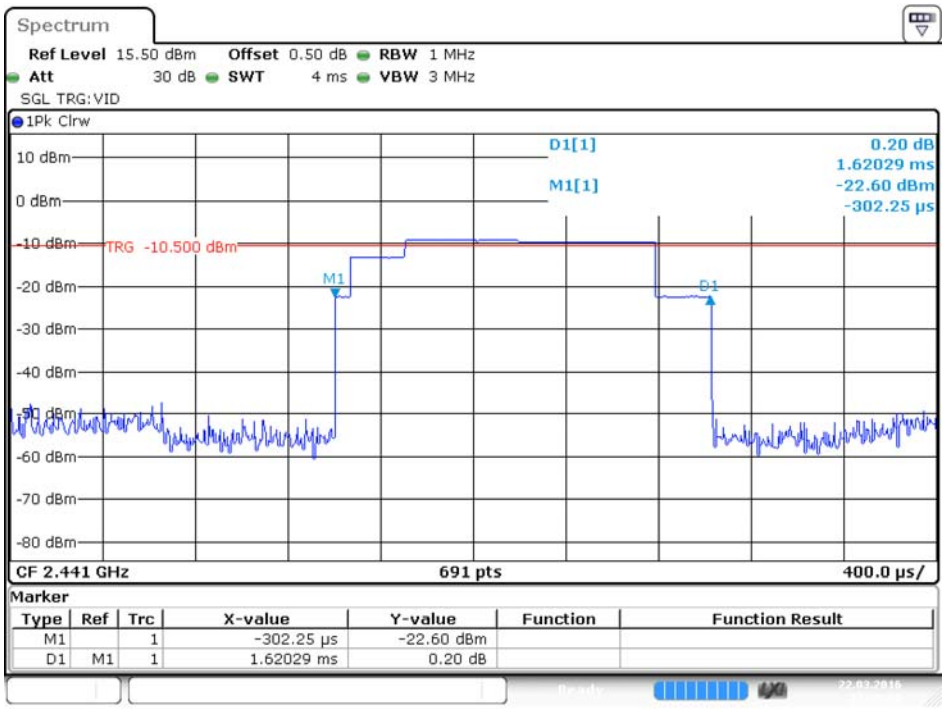
Date: 22.MAR.2016 17:38:37

8-DPSK DH1



Date: 22.MAR.2016 17:31:24

8-DPSK DH3



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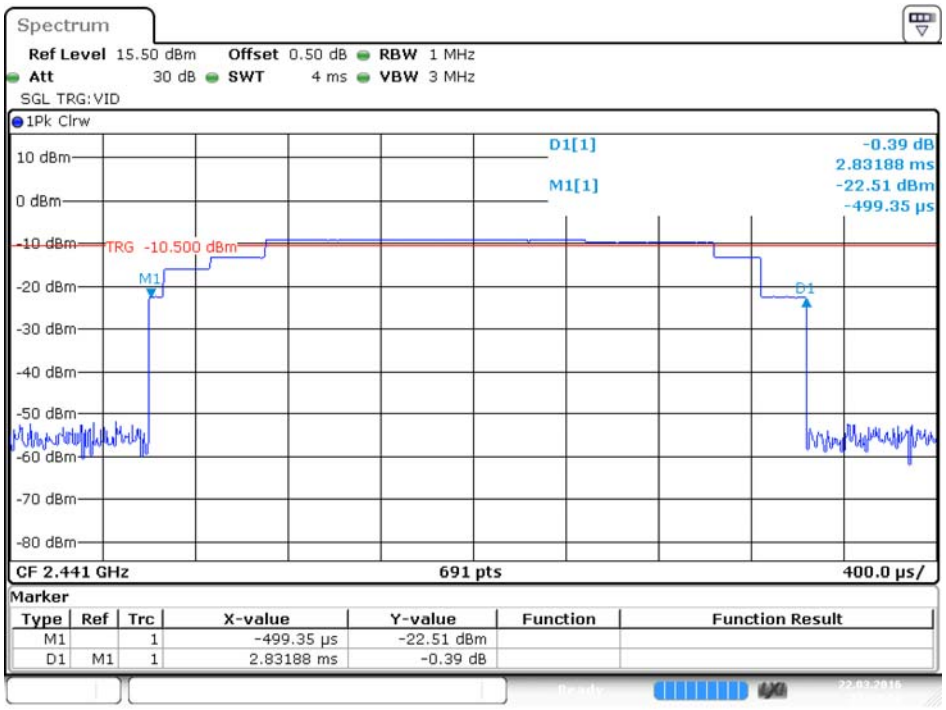
8-DPSK DH5



Date: 22.MAR.2016 17:39:12

A.6 Conducted Spurious Emissions

Test Data

GFSK Mode:

Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-48.23	-6.35	-26.35	Pass
Middle	-37.56	-9.30	-29.30	Pass
High	-49.19	-11.25	-31.25	Pass

∏/4-DQPSK Mode:

Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-42.29	-6.81	-26.81	Pass
Middle	-39.23	-9.18	-29.18	Pass
High	-41.63	-11.36	-31.36	Pass

8-DPSK Mode:

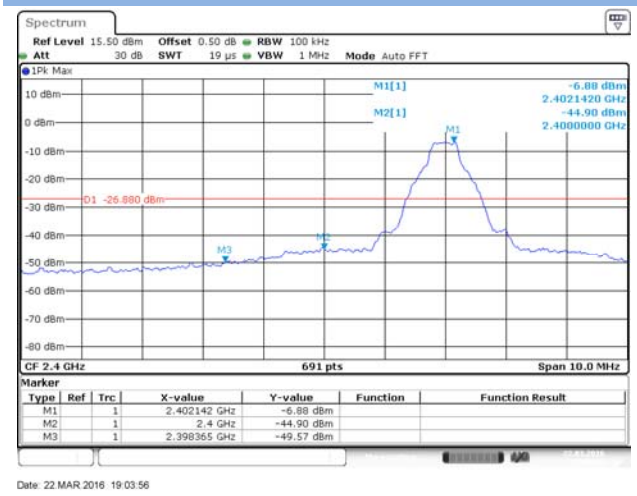
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-41.69	-6.58	-26.58	Pass
Middle	-41.62	-9.38	-29.38	Pass
High	-40.01	-11.46	-31.46	Pass

Hopping Mode:

Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-35.89	-6.49	-26.49	Pass
Middle	-38.45	-7.01	-27.01	Pass
High	-40.54	-7.10	-27.1	Pass

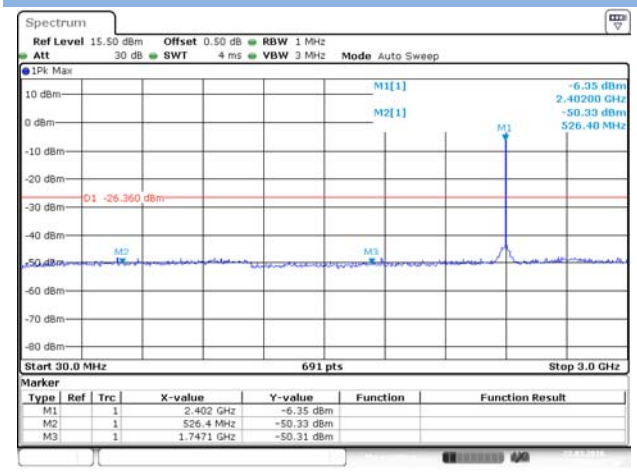
Test Plots

GFSK LOW CHANNEL , BAND EDGE



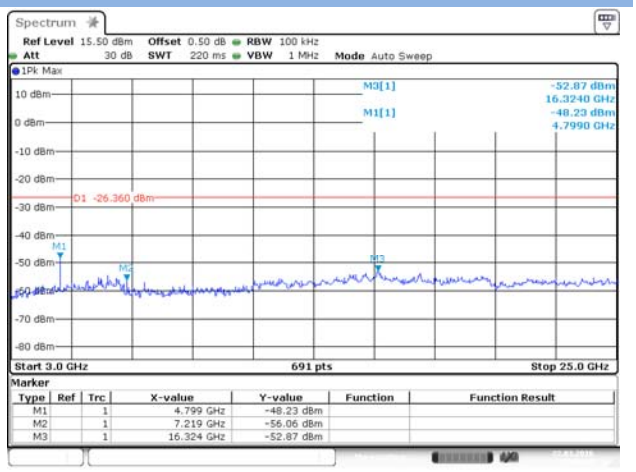
Date: 22.MAR.2016 19:03:56

GFSK LOW CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



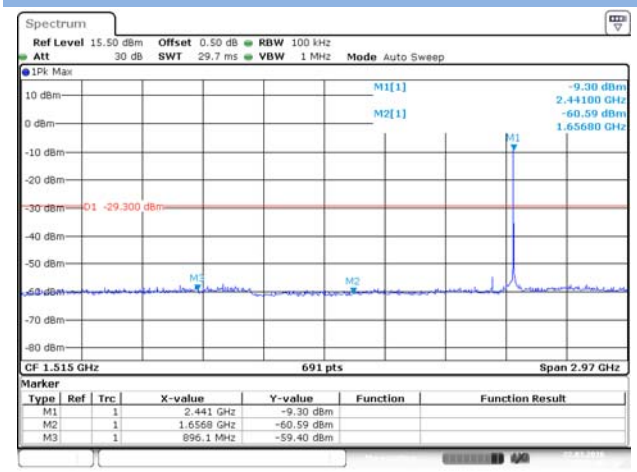
Date: 22.MAR.2016 17:46:09

GFSK LOW CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



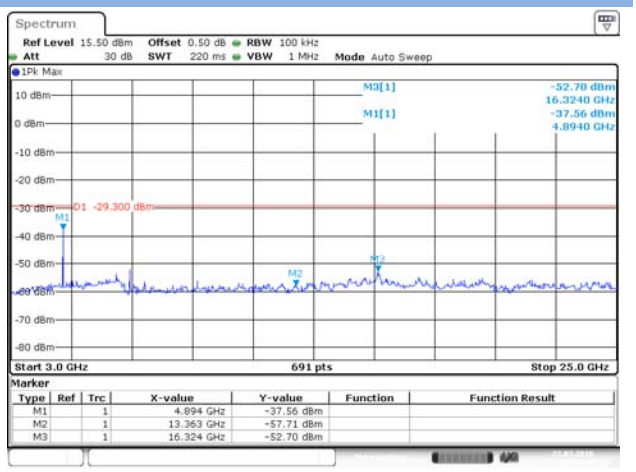
Date: 22.MAR.2016 17:48:31

GFSK MIDDLE CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



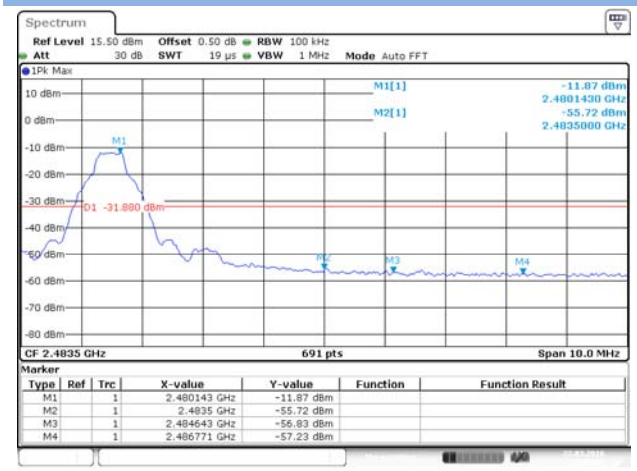
Date: 22.MAR.2016 17:51:46

GFSK MIDDLE CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



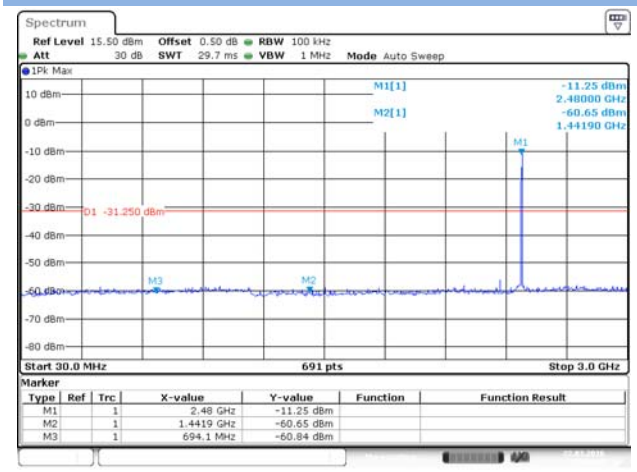
Date: 22.MAR.2016 17:52:41

GFSK High CHANNEL , BAND EDGE



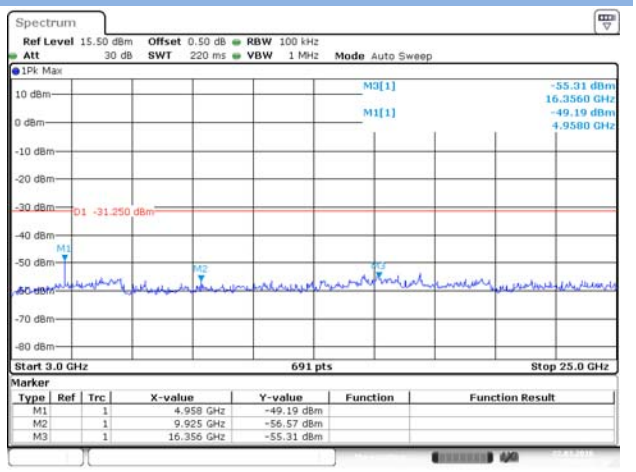
Date: 22.MAR.2016 15:44:53

GFSK High CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



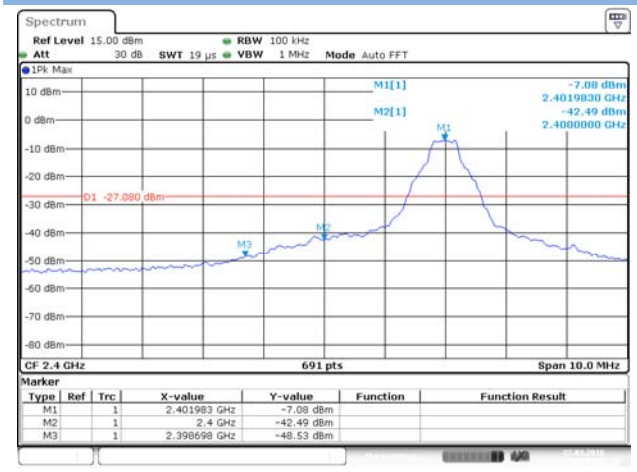
Date: 22.MAR.2016 17:54:14

GFSK High CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



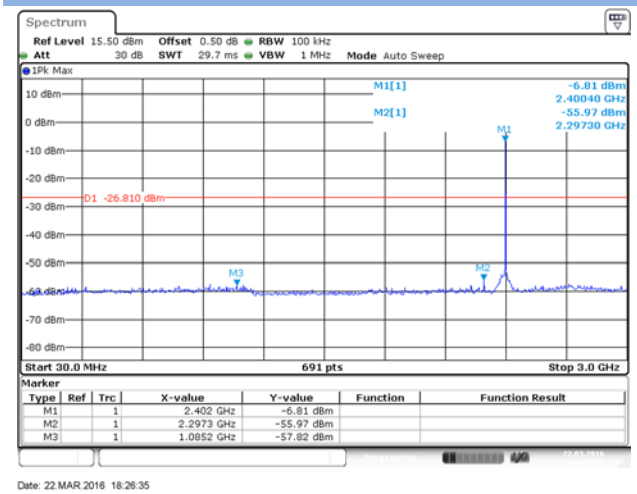
Date: 22.MAR.2016 17:54:56

Π/4-DQPSK LOW CHANNEL , BAND EDGE



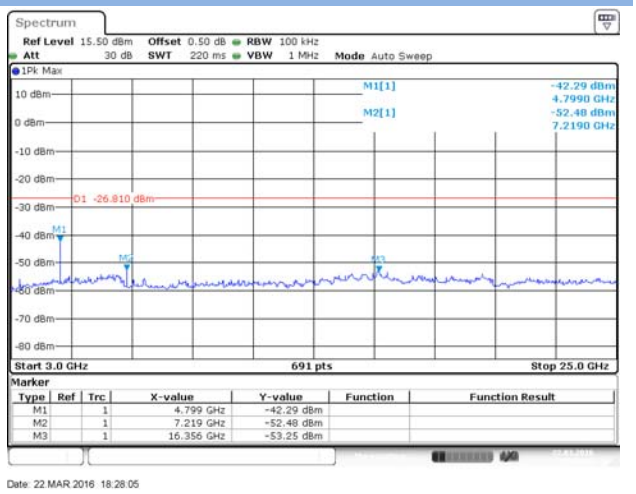
Date: 22.MAR.2016 19:31:11

Π/4-DQPSK LOW CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



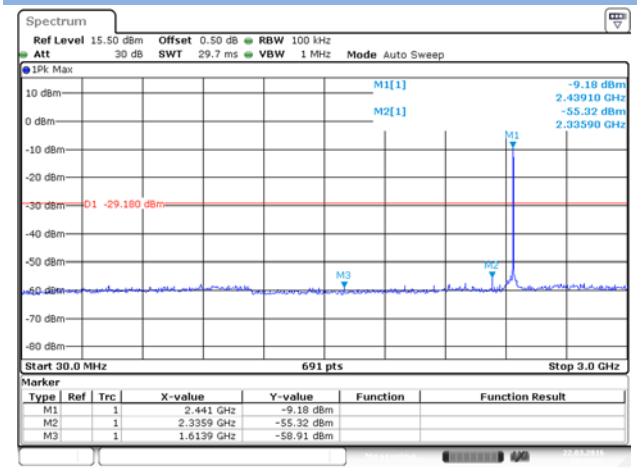
Date: 22.MAR.2016 18:26:35

Π/4-DQPSK LOW CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



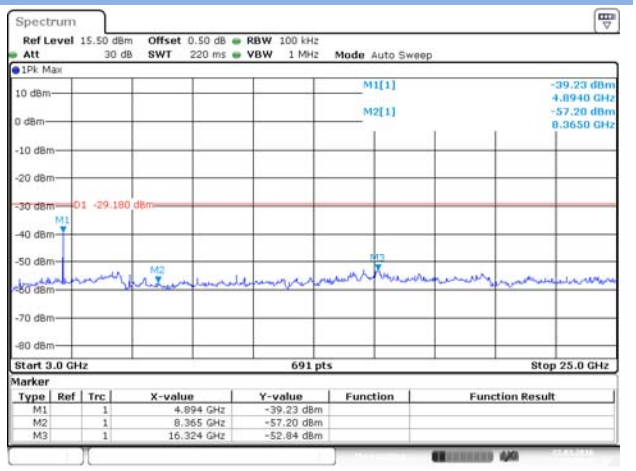
Date: 22.MAR.2016 18:28:05

Π/4-DQPSK MIDDLE CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



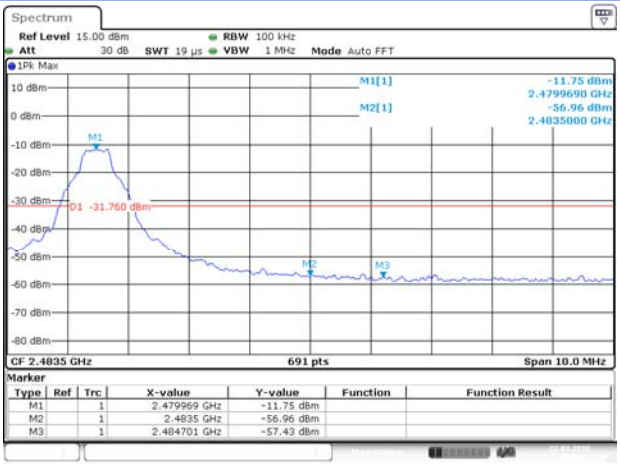
Date: 22.MAR.2016 18:34:07

Π/4-DQPSK MIDDLE CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



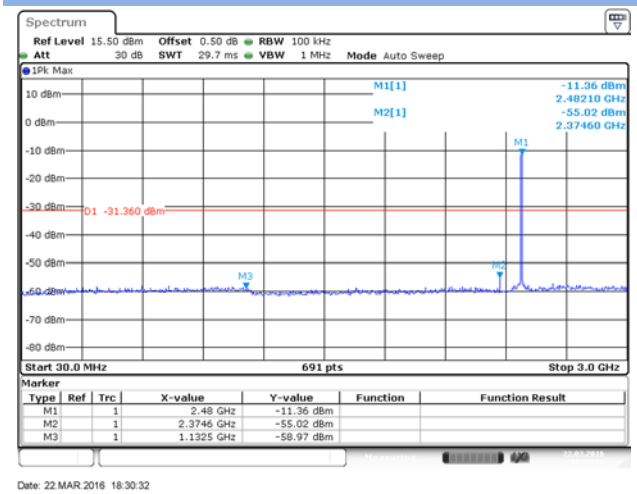
Date: 22.MAR.2016 18:35:40

Π/4-DQPSK High CHANNEL , BAND EDGE



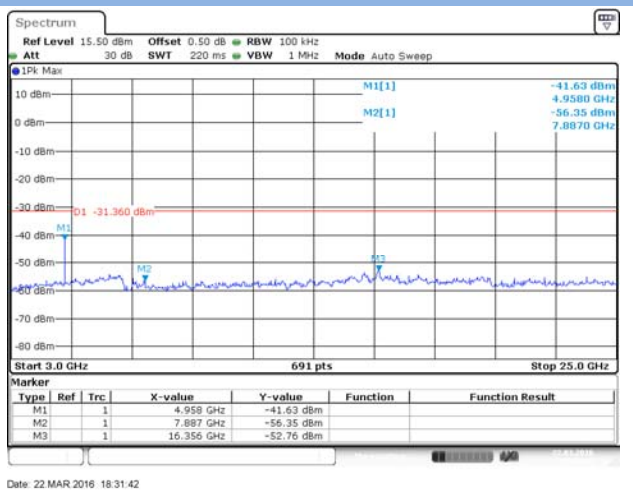
Date: 22.MAR.2016 19:33:32

Π/4-DQPSK High CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



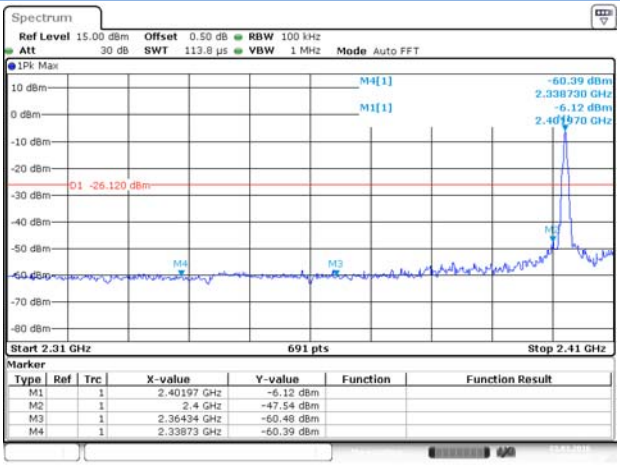
Date: 22.MAR.2016 18:30:32

Π/4-DQPSK High CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



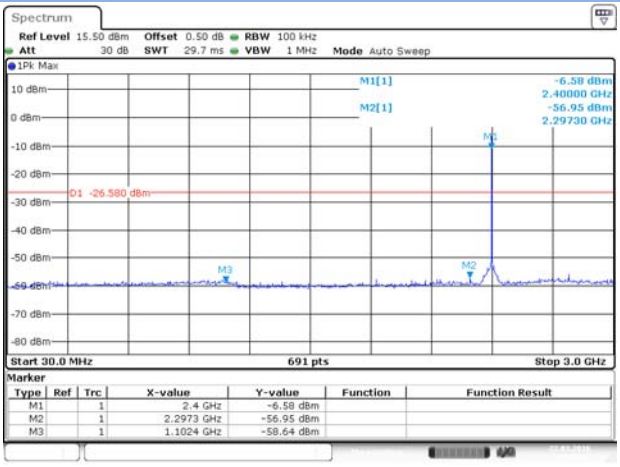
Date: 22.MAR.2016 18:31:42

8-DPSK LOW CHANNEL , BAND EDGE



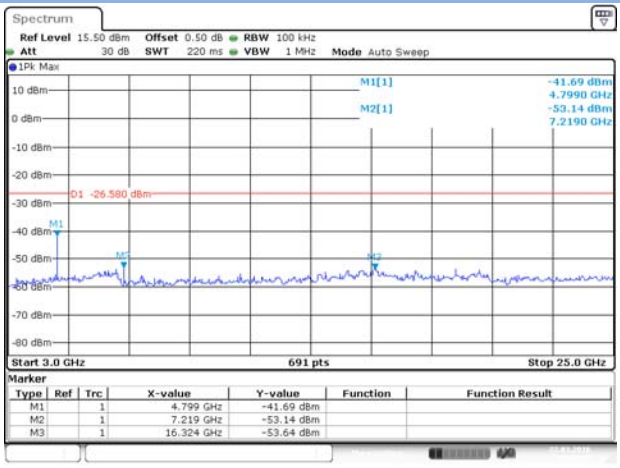
Date: 23.MAR.2016 17:20:05

8-DPSK LOW CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



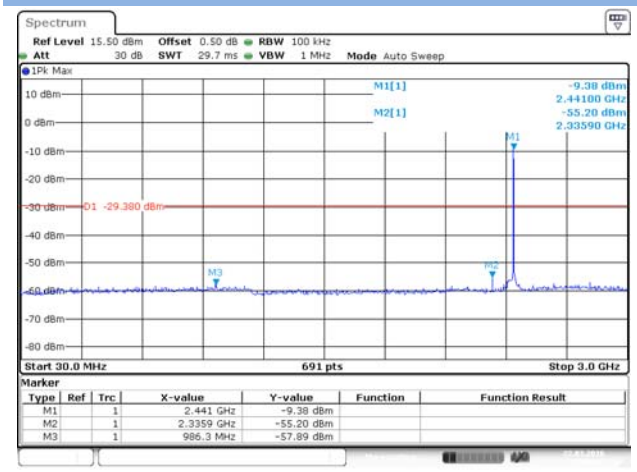
Date: 22.MAR.2016 18:39:57

8-DPSK LOW CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



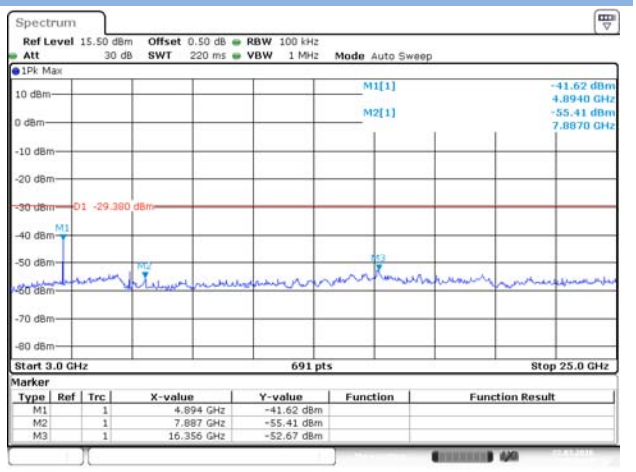
Date: 22.MAR.2016 18:41:17

8-DPSK MIDDLE CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



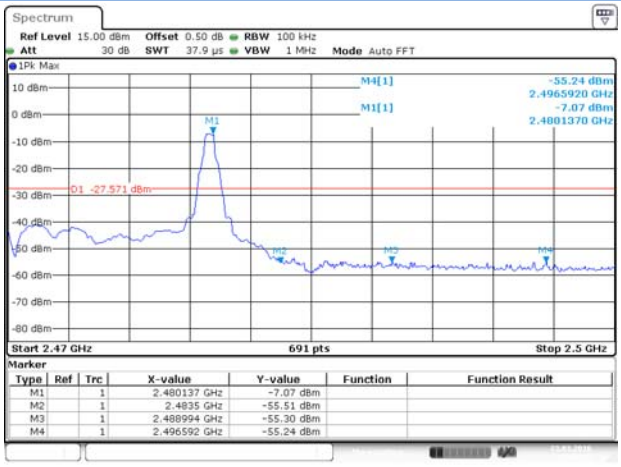
Date: 22.MAR.2016 18:50:27

8-DPSK MIDDLE CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



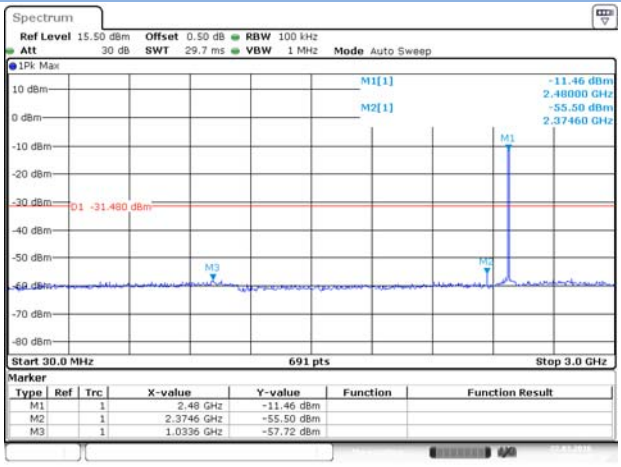
Date: 22.MAR.2016 18:52:04

8-DPSK High CHANNEL , BAND EDGE



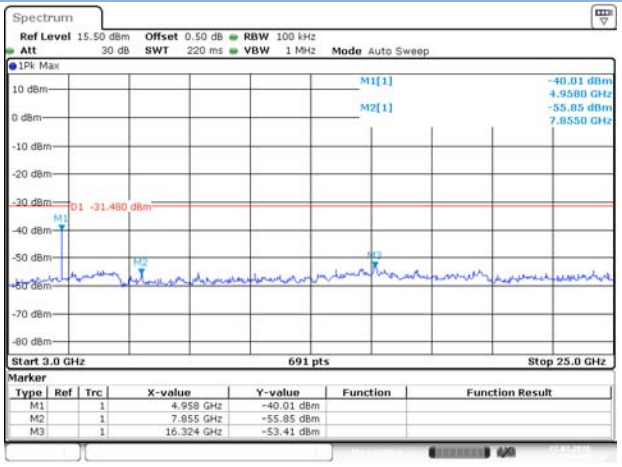
Date: 23.MAR.2016 17:17:36

8-DPSK High CHANNEL , SPURIOUS 30 MHz ~ 3 GHz



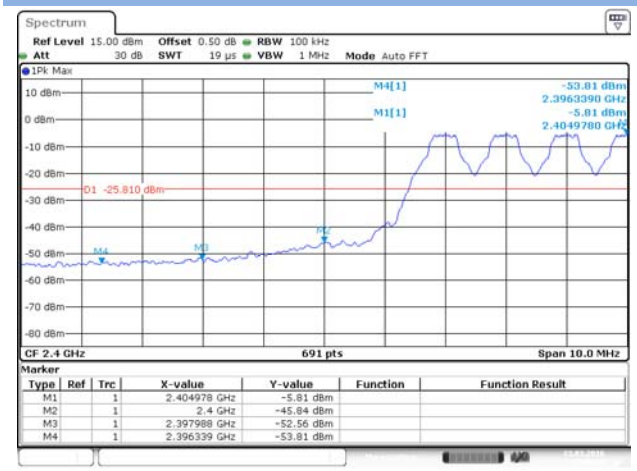
Date: 22.MAR.2016 18:53:40

8-DPSK High CHANNEL , SPURIOUS 3 GHz ~ 25 GHz



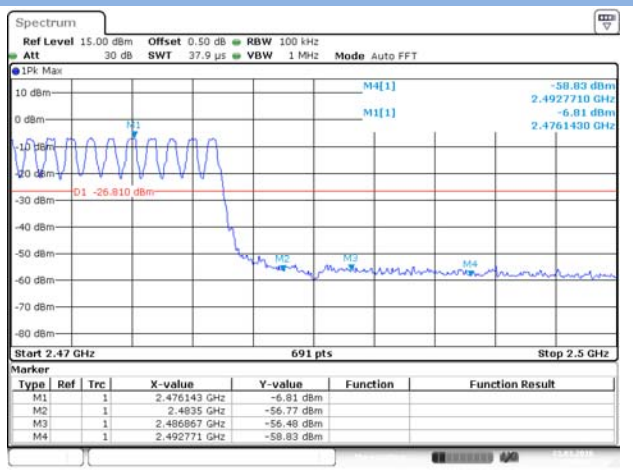
Date: 22.MAR.2016 18:54:42

GFSK Hopping BAND EDGE (LOW)



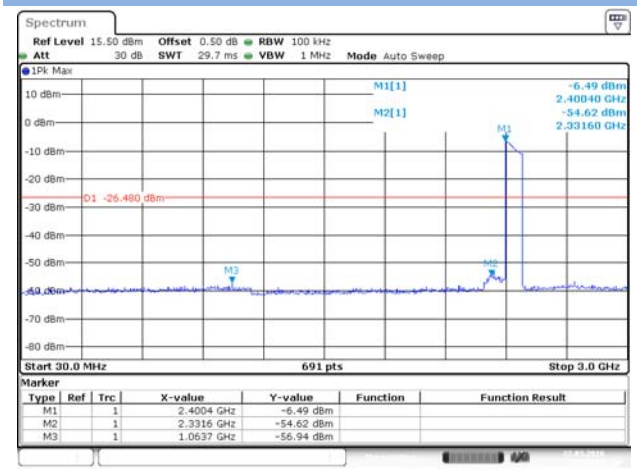
Date: 23.MAR.2016 17:01:30

GFSK Hopping BAND EDGE (HIGH)



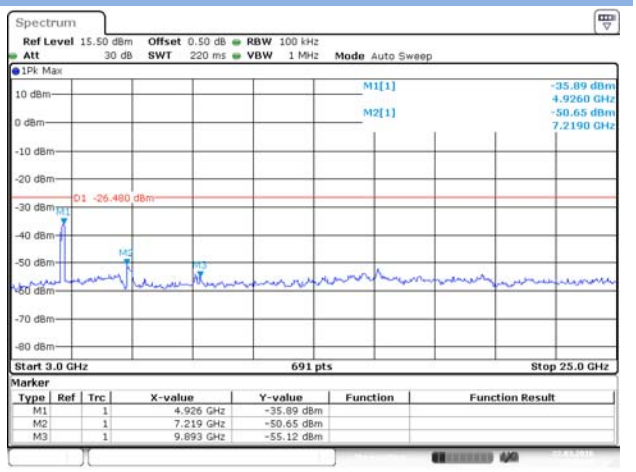
Date: 23.MAR.2016 17:03:27

GFSK Hopping Mode, SPURIOUS 30 MHz ~ 3 GHz



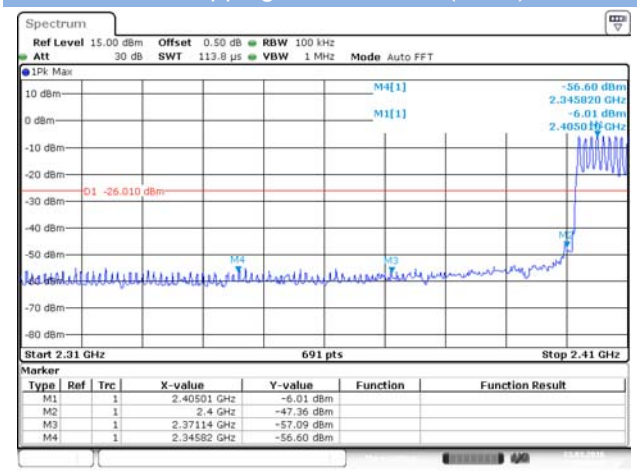
Date: 22.MAR.2016 18:17:05

GFSK Hopping Mode, SPURIOUS 30 3GHz ~ 25 GHz



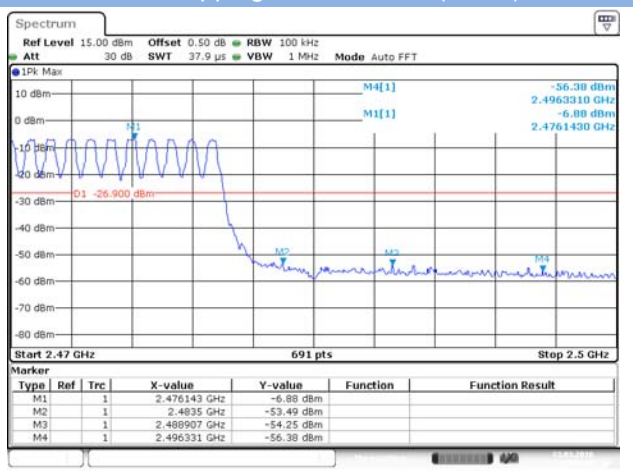
Date: 22.MAR.2016 18:20:04

Π/4-DQPSK Hopping BAND EDGE (LOW)



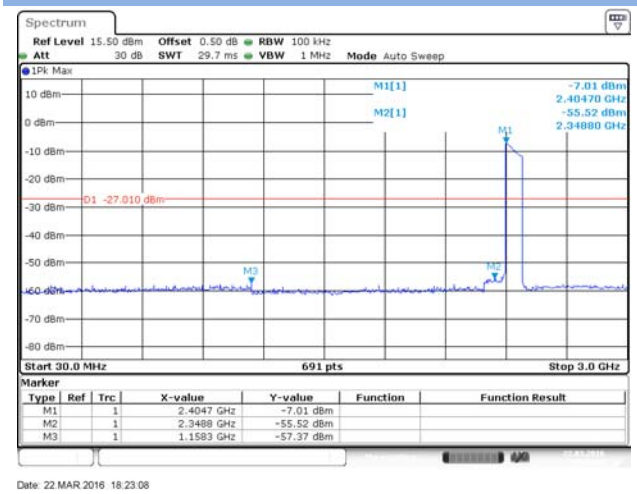
Date: 23.MAR.2016 17:08:40

Π/4-DQPSK Hopping BAND EDGE (HIGH)

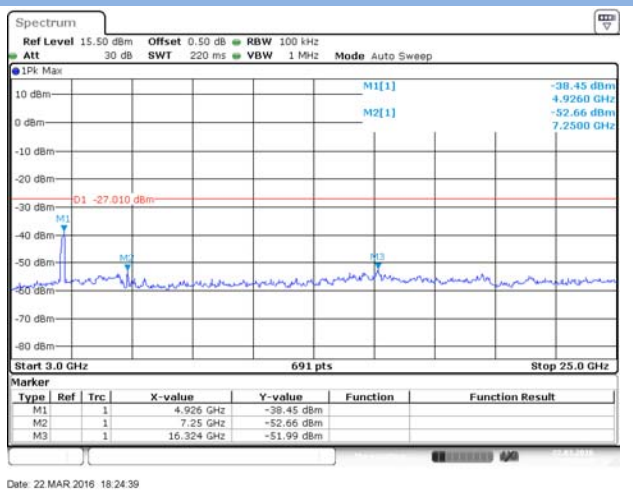


Date: 23.MAR.2016 17:05:25

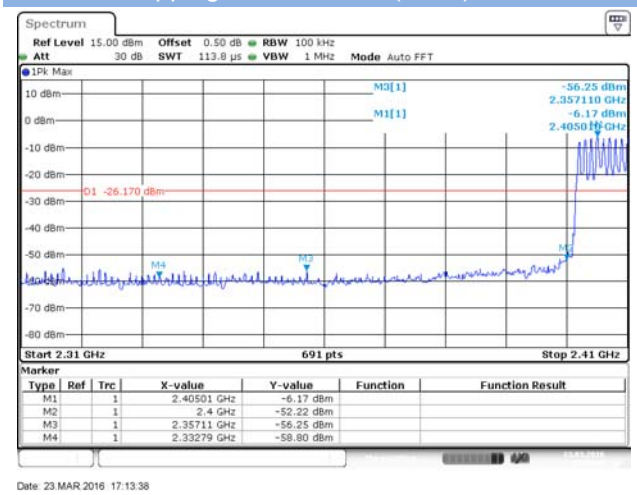
Π/4-DQPSK Hopping Mode, SPURIOUS 30 MHz ~ 3 GHz



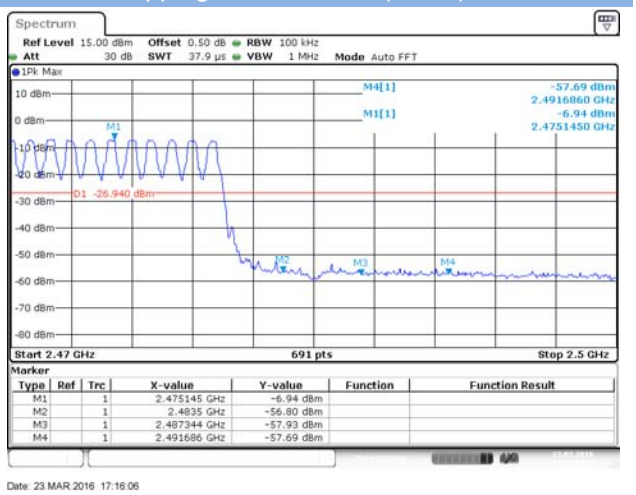
Π/4-DQPSK Hopping Mode, SPURIOUS 30 3GHz ~ 25 GHz



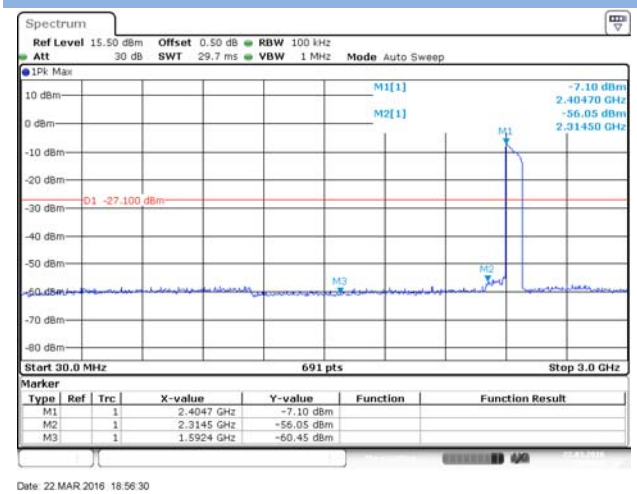
8-DPSK Hopping BAND EDGE (LOW)



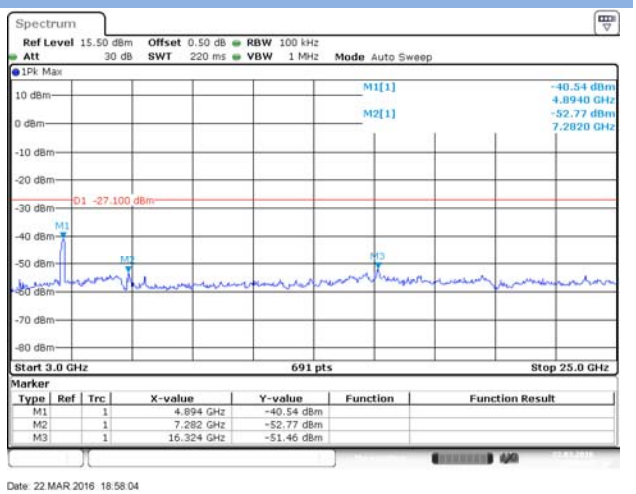
8-DPSK Hopping BAND EDGE (HIGH)



8-DPSK Hopping Mode, SPURIOUS 30 MHz ~ 3 GHz



8-DPSK Hopping Mode, SPURIOUS 30 3GHz ~ 25 GHz

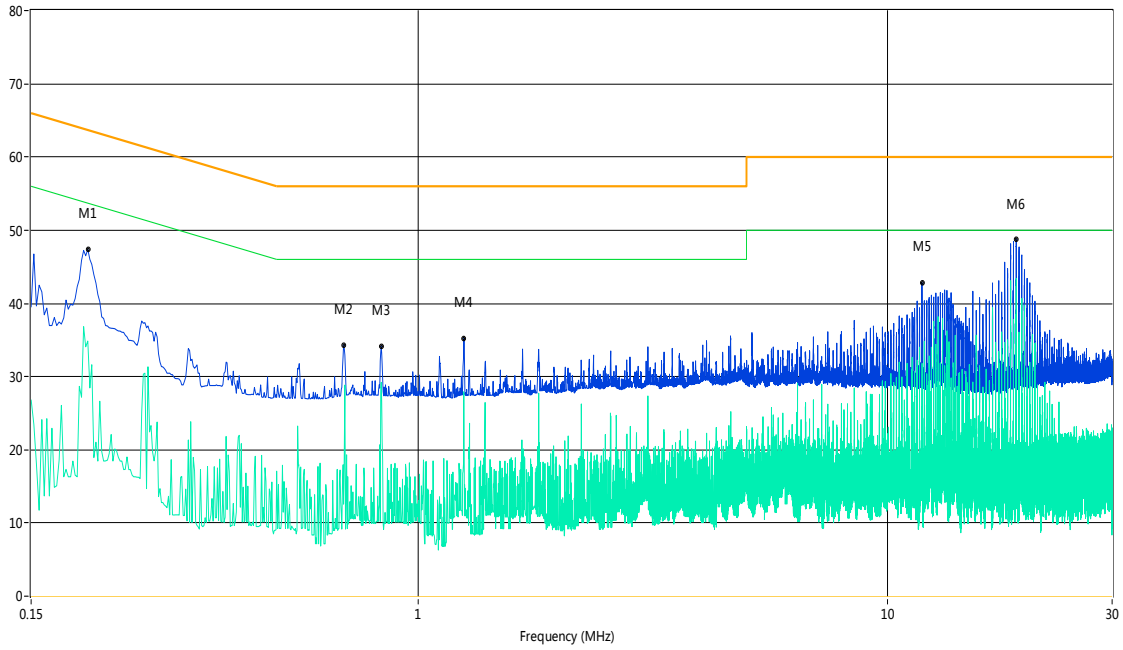


A.7 Conducted Emissions

Note: All configurations have been tested, only the worst configuration (GFSK High Channel) shown here.

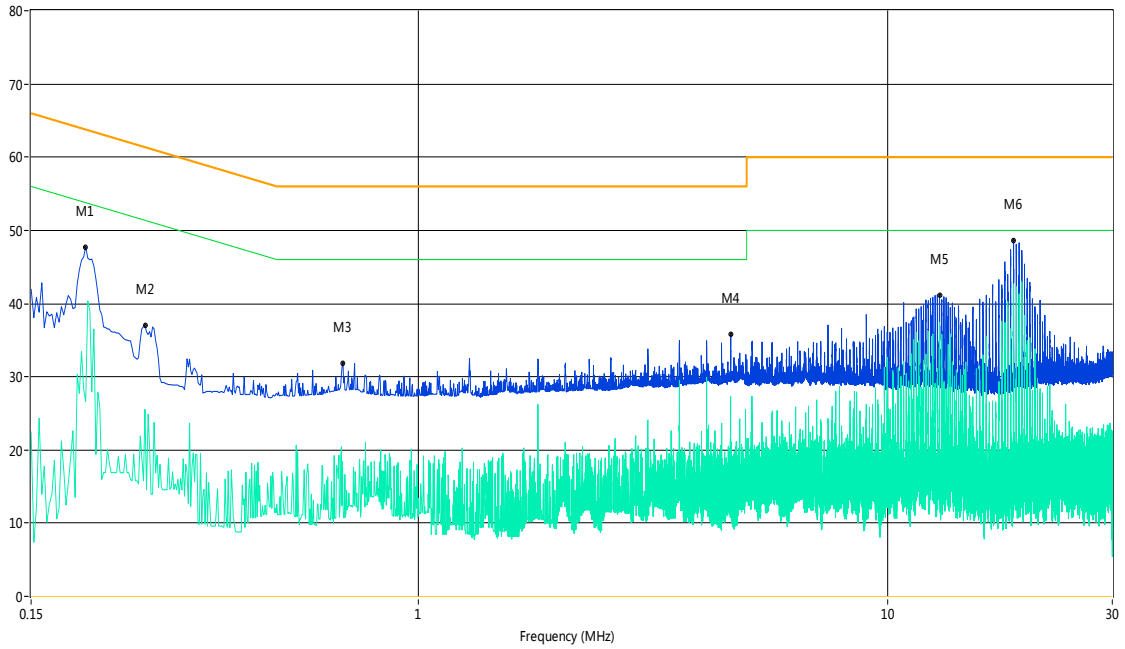
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.20	47.4	13.00	64.6	17.20	Peak	L Line	Pass
1**	0.20	34.9	13.00	54.6	19.70	AV	L Line	Pass
2	0.69	34.3	13.00	56.0	21.70	Peak	L Line	Pass
2**	0.69	12.6	13.00	46.0	33.40	AV	L Line	Pass
3	0.83	34.1	13.00	56.0	21.90	Peak	L Line	Pass
3**	0.83	29.2	13.00	46.0	16.80	AV	L Line	Pass
4	1.25	35.2	13.00	56.0	20.80	Peak	L Line	Pass
4**	1.25	27.6	13.00	46.0	18.40	AV	L Line	Pass
5	11.82	42.9	13.00	60.0	17.10	Peak	L Line	Pass
5**	11.82	28.8	13.00	50.0	21.20	AV	L Line	Pass
6	18.75	48.7	13.00	60.0	11.30	Peak	L Line	Pass
6**	18.75	38.5	13.00	50.0	11.50	AV	L Line	Pass

PHASE N

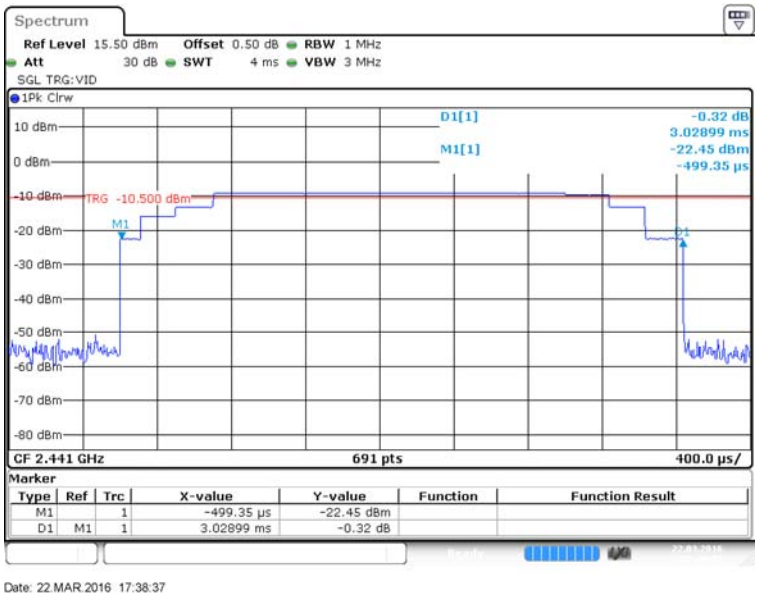


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.20	47.7	13.00	64.7	17.00	Peak	N Line	Pass
1**	0.20	26.6	13.00	54.7	28.10	AV	N Line	Pass
2	0.26	37.1	13.00	62.8	25.70	Peak	N Line	Pass
2**	0.26	25.5	13.00	52.8	27.30	AV	N Line	Pass
3	0.69	31.8	13.00	56.0	24.20	Peak	N Line	Pass
3**	0.69	18.4	13.00	46.0	27.60	AV	N Line	Pass
4	4.63	35.9	13.00	56.0	20.10	Peak	N Line	Pass
4**	4.63	10.8	13.00	46.0	35.20	AV	N Line	Pass
5	12.87	41.2	13.00	60.0	18.80	Peak	N Line	Pass
5**	12.87	34.5	13.00	50.0	15.50	AV	N Line	Pass
6	18.50	48.6	13.00	60.0	11.40	Peak	N Line	Pass
6**	18.50	37.0	13.00	50.0	13.00	AV	N Line	Pass

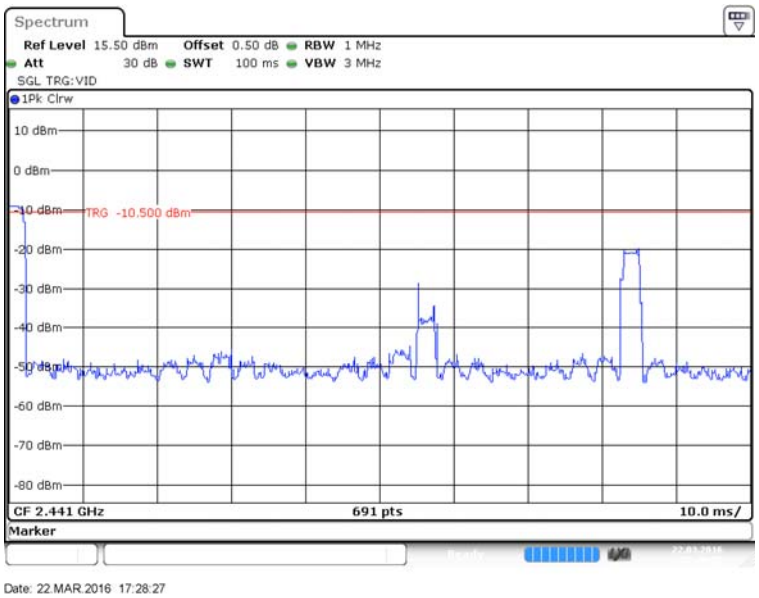
A.8 Radiated Emission

Duty cycle correction factor for average measurement.

DH5 on time/100 ms(Count Pulses) Plot on Channel 39



DH5 on time/100 ms(One Pulse) Plot on Channel 39



Note:

1. Duty cycle = on time/100 milliseconds = 2* 3.03 / 100 =6.06 %
2. Duty cycle correction factor = 20*log (Duty cycle) = -24.35 dB
3. 2DH5 has the highest duty cycle and is reported.

Note 1: The symbol of "--" in the table which means not application.

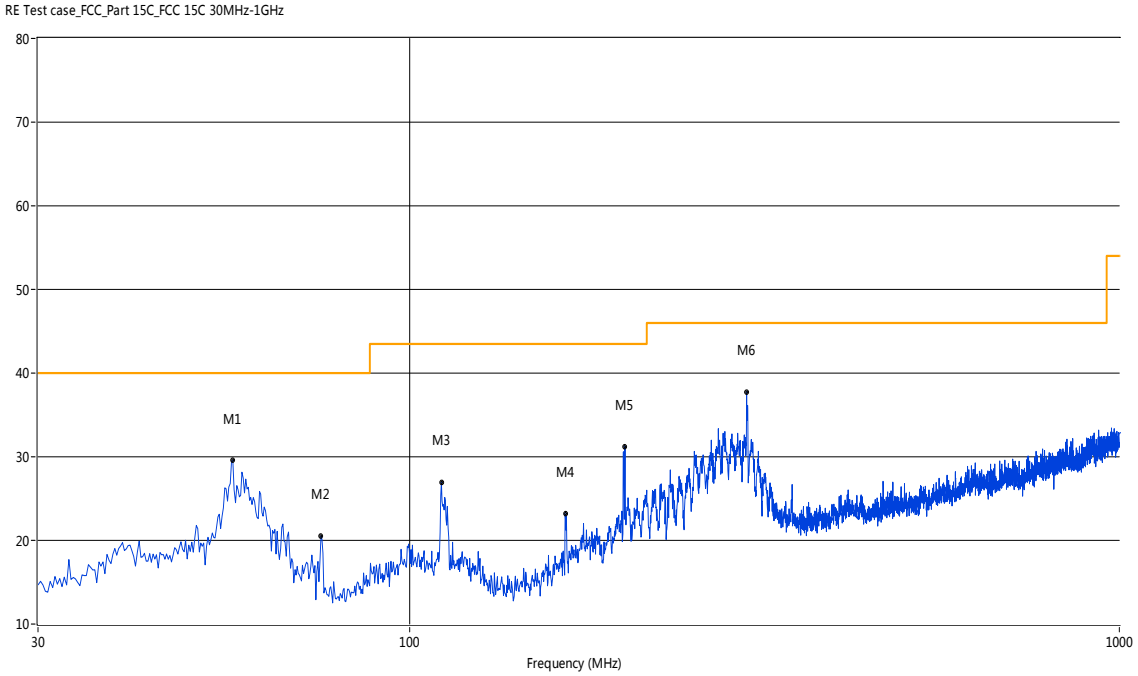
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: All configurations have been tested, only the worst configuration (GFSK High Channel) shown here.

Test Data and Plots

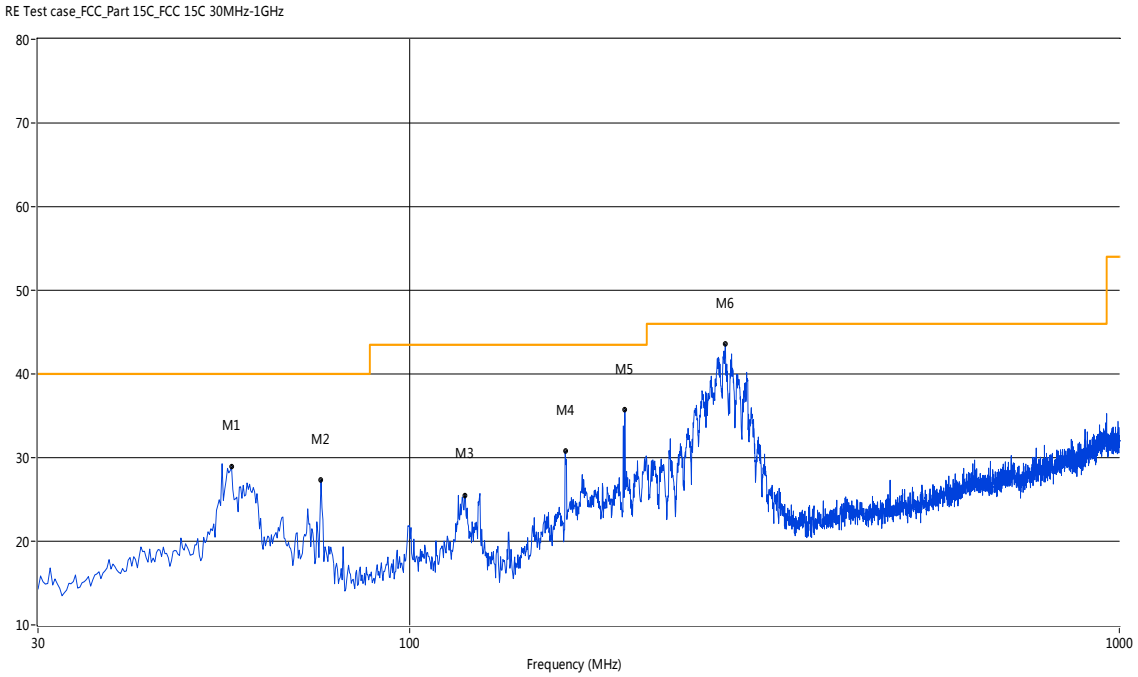
The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

30 MHz to 1 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	56.43	29.58	-19.32	40.0	10.42	Peak	328.62	100	Vertical	N/A
1**	56.43	16.49	-19.32	40.0	23.51	QP	328.62	100	Vertical	Pass
2	75.09	20.55	-24.40	40.0	19.45	Peak	119.27	100	Vertical	N/A
2**	75.09	17.08	-24.40	40.0	22.92	QP	119.27	100	Vertical	Pass
3	110.97	26.98	-20.41	43.5	16.52	Peak	45.55	100	Vertical	N/A
3**	110.97	19.49	-20.41	43.5	24.01	QP	45.55	100	Vertical	Pass
4	165.77	23.2	-22.91	43.5	20.30	Peak	134.70	100	Vertical	N/A
4**	165.77	20.9	-22.91	43.5	22.60	QP	134.70	100	Vertical	Pass
5	201.16	31.25	-20.22	43.5	12.25	Peak	158.88	100	Vertical	N/A
5**	201.16	20.01	-20.22	43.5	23.49	QP	158.88	100	Vertical	Pass
6	298.62	37.79	-17.68	46.0	8.21	Peak	89.09	100	Vertical	N/A
6**	298.62	38.64	-17.68	46.0	7.36	QP	89.09	100	Vertical	Pass

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	56.18	28.91	-19.34	40.0	11.09	Peak	357.26	100	Vertical	N/A
1**	56.18	17.66	-19.34	40.0	22.34	QP	357.26	100	Vertical	Pass
2	75.09	27.33	-24.40	40.0	12.67	Peak	343.65	100	Vertical	N/A
2**	75.09	16.49	-24.40	40.0	23.51	QP	343.65	100	Vertical	Pass
3	119.70	25.52	-21.66	43.5	17.98	Peak	310.65	100	Vertical	N/A
3**	119.70	20.69	-21.66	43.5	22.81	QP	310.65	100	Vertical	Pass
4	165.77	30.74	-22.91	43.5	12.76	Peak	62.78	100	Vertical	N/A
4**	165.77	20.83	-22.91	43.5	22.67	QP	62.78	100	Vertical	Pass
5	201.16	35.72	-20.22	43.5	7.78	Peak	64.10	100	Vertical	N/A
5**	201.16	20.58	-20.22	43.5	22.92	QP	64.10	100	Vertical	Pass
6	278.74	43.58	-18.43	46.0	2.42	Peak	4.27	100	Vertical	N/A
6**	278.74	41.44	-18.43	46.0	4.56	QP	4.27	100	Vertical	Pass

Note: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Test Data and Plots (1 GHz ~ 10th Harmonic)

GFSK LOW CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2402.15	87.75	-0.34	74.0	-13.75	Peak	117.80	100	Vertical	N/A
2	2497.63	54.00	-0.23	74.0	20.00	Peak	136.70	100	Vertical	Pass
2*	2497.63	50.37	-0.23	54.0	3.63	AV	136.70	100	Vertical	Pass
3	3328.42	51.24	8.96	74.0	22.76	Peak	237.60	100	Vertical	Pass
4	4804.05	58.74	13.74	74.0	15.26	Peak	195.70	100	Vertical	Pass
4*	4804.05	35.77	13.74	54.0	18.23	AV	195.70	100	Vertical	Pass
5	12042.43	51.91	20.83	74.0	22.09	Peak	0.30	100	Vertical	Pass
6	19449.25	50.32	12.80	74.0	23.68	Peak	359.80	100	Vertical	Pass

GFSK LOW CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2402.15	91.36	-0.34	74.0	-17.36	Peak	126.70	100	Horizontal	N/A
2	2724.57	51.11	1.69	74.0	22.89	Peak	353.50	100	Horizontal	Pass
3	3328.42	52.89	8.96	74.0	21.11	Peak	202.10	100	Horizontal	Pass
4	4804.05	64.64	13.74	74.0	9.36	Peak	99.70	100	Horizontal	Pass
4*	4804.05	41.67	13.74	54.0	12.33	AV	99.70	100	Horizontal	Pass
5	5994.00	51.98	15.77	74.0	22.02	Peak	276.50	100	Horizontal	Pass
6	12143.51	51.45	20.72	74.0	22.55	Peak	41.50	100	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2441.14	89.69	-0.38	74.0	-15.69	Peak	118.90	100	Vertical	N/A
2	2499.62	54.94	-0.27	74.0	19.06	Peak	137.80	100	Vertical	Pass
2*	2499.62	47.56	-0.27	54.0	6.44	AV	137.80	100	Vertical	Pass
3	3328.42	50.29	8.96	74.0	23.71	Peak	112.20	100	Vertical	Pass
4	4882.03	59.83	13.60	74.0	14.17	Peak	209.70	100	Vertical	Pass
4*	4882.03	36.86	13.60	54.0	17.14	AV	209.70	100	Vertical	Pass
5	5987.25	52.47	15.77	74.0	21.53	Peak	209.70	100	Vertical	Pass
6	12042.43	52.22	20.83	74.0	21.78	Peak	0.30	100	Vertical	Pass

GFSK MIDDLE CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2441.14	91.95	-0.38	74.0	-17.95	Peak	157.90	100	Horizontal	N/A
2	2880.03	51.30	2.26	74.0	22.70	Peak	278.90	100	Horizontal	Pass
3	3328.42	53.37	8.96	74.0	20.63	Peak	205.30	100	Horizontal	Pass
3*	3328.42	49.87	8.96	54.0	4.13	AV	205.30	100	Horizontal	Pass
4	4882.03	63.04	13.60	74.0	10.96	Peak	94.60	100	Horizontal	Pass
4*	4882.03	40.07	13.60	54.0	13.93	AV	94.60	100	Horizontal	Pass
5	12042.43	51.51	20.83	74.0	22.49	Peak	0.30	100	Horizontal	Pass
6	19389.35	50.14	12.97	74.0	23.86	Peak	1.20	100	Horizontal	Pass

GFSK HIGH CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2480.13	90.16	-0.60	74.0	-16.16	Peak	118.80	100	Vertical	N/A
2	2859.53	50.40	2.09	74.0	23.60	Peak	353.10	100	Vertical	Pass
3	3328.42	50.06	8.96	74.0	23.94	Peak	231.80	100	Vertical	Pass
4	4960.01	58.77	14.22	74.0	15.23	Peak	101.50	100	Vertical	Pass
4*	4960.01	35.80	14.22	54.0	18.20	AV	101.50	100	Vertical	Pass
5	12042.43	52.17	20.83	74.0	21.83	Peak	0.30	100	Vertical	Pass
6	19778.70	49.55	13.29	74.0	24.45	Peak	72.20	100	Vertical	Pass

GFSK HIGH CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2212.70	53.86	-0.17	74.0	20.14	Peak	0.00	100	Horizontal	Pass
1*	2212.70	49.13	-0.17	54.0	4.87	AV	0.00	100	Horizontal	Pass
2	2480.13	93.70	-0.60	74.0	-19.70	Peak	52.70	100	Horizontal	N/A
3	3327.67	53.44	8.95	74.0	20.56	Peak	109.30	100	Horizontal	Pass
3*	3327.67	48.34	8.95	54.0	6.66	Peak	109.30	100	Horizontal	Pass
4	4960.01	62.17	14.22	74.0	11.83	Peak	109.30	100	Horizontal	Pass
4*	4960.01	39.20	14.22	54.0	14.80	AV	109.30	100	Horizontal	Pass
5	12289.52	51.55	20.65	74.0	22.45	Peak	281.00	100	Horizontal	Pass
6	19049.92	49.82	13.57	74.0	24.18	Peak	360.00	100	Horizontal	Pass

∏/4-DQPSK LOW CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2401.65	87.63	-0.27	74.0	-13.63	Peak	350.00	100	Vertical	N/A
2	2495.63	52.65	-0.35	74.0	21.35	Peak	159.30	100	Vertical	Pass
3	3328.42	50.46	8.96	74.0	23.54	Peak	236.60	100	Vertical	Pass
4	4804.05	60.16	13.74	74.0	13.84	Peak	106.10	100	Vertical	Pass
4*	4804.05	37.19	13.74	54.0	16.81	AV	106.10	100	Vertical	Pass
5	12109.82	51.18	20.76	74.0	22.82	Peak	211.60	100	Vertical	Pass
6	19009.98	49.79	13.42	74.0	24.21	Peak	189.80	100	Vertical	Pass

∏/4-DQPSK LOW CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2401.65	91.36	-0.27	74.0	-17.36	Peak	127.20	100	Horizontal	N/A
2	2959.51	50.21	2.56	74.0	23.79	Peak	310.70	100	Horizontal	Pass
3	3328.42	53.00	8.96	74.0	21.00	Peak	206.40	100	Horizontal	Pass
3*	3328.42	49.23	8.96	54.0	4.77	AV	206.40	100	Horizontal	Pass
4	4804.80	64.73	13.77	74.0	9.27	Peak	102.00	100	Horizontal	Pass
4*	4804.80	41.76	13.77	54.0	12.24	AV	102.00	100	Horizontal	Pass
5	9942.18	49.28	19.17	74.0	24.72	Peak	286.20	100	Horizontal	Pass
6	19449.25	50.39	12.80	74.0	23.61	Peak	359.80	100	Horizontal	Pass

∏/4-DQPSK MIDDLE CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2441.14	89.66	-0.38	74.0	-15.66	Peak	116.80	100	Vertical	N/A
2	2499.12	54.71	-0.19	74.0	19.29	Peak	148.00	100	Vertical	Pass
2*	2499.12	49.24	-0.19	54.0	4.76	AV	148.00	100	Vertical	Pass
3	3328.42	49.73	8.96	74.0	24.27	Peak	100.90	100	Vertical	Pass
4	4882.03	60.09	13.60	74.0	13.91	Peak	212.40	100	Vertical	Pass
4*	4882.03	37.12	13.60	54.0	16.88	AV	212.40	100	Vertical	Pass
5	11570.72	51.14	20.24	74.0	22.86	Peak	83.70	100	Vertical	Pass
6	19179.70	50.14	14.04	74.0	23.86	Peak	66.70	100	Vertical	Pass

∏/4-DQPSK MIDDLE CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2440.64	91.94	-0.41	74.0	-17.94	Peak	151.90	100	Horizontal	N/A
2	2815.55	51.47	2.18	74.0	22.53	Peak	177.50	100	Horizontal	Pass
3	3328.42	53.37	8.96	74.0	20.63	Peak	209.60	100	Horizontal	Pass
3*	3328.42	49.67	8.96	54.0	4.33	AV	209.60	100	Horizontal	Pass
4	4882.03	63.26	13.60	74.0	10.74	Peak	99.00	100	Horizontal	Pass
4*	4882.03	40.65	13.60	54.0	13.35	AV	99.00	100	Horizontal	Pass
5	12042.43	51.72	20.83	74.0	22.28	Peak	0.30	100	Horizontal	Pass
6	19179.70	50.68	14.04	74.0	23.32	Peak	66.70	100	Horizontal	Pass

∏/4-DQPSK HIGH CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2479.63	89.97	-0.63	74.0	-15.97	Peak	117.10	100	Vertical	N/A
2	2735.07	50.74	1.74	74.0	23.26	Peak	35.90	100	Vertical	Pass
3	3328.42	50.34	8.96	74.0	23.66	Peak	236.90	100	Vertical	Pass
4	4960.01	59.18	14.22	74.0	14.82	Peak	106.10	100	Vertical	Pass
4*	4960.01	36.21	14.22	54.0	17.79	AV	106.10	100	Vertical	Pass
5	12042.43	51.91	20.83	74.0	22.09	Peak	0.30	100	Vertical	Pass
6	19179.70	50.56	14.04	74.0	23.44	Peak	66.70	100	Vertical	Pass

∏/4-DQPSK HIGH CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1196.95	48.17	-5.35	74.0	25.83	Peak	1.60	100	Horizontal	Pass
2	2480.13	93.77	-0.60	74.0	-19.77	Peak	48.00	100	Horizontal	N/A
3	3328.42	53.26	8.96	74.0	20.74	Peak	209.10	100	Horizontal	Pass
3*	3328.42	50.02	8.96	54.0	3.98	AV	209.10	100	Horizontal	Pass
4	4960.76	63.25	14.26	74.0	10.75	Peak	126.10	100	Horizontal	Pass
4*	4960.76	40.28	14.26	54.0	13.72	AV	126.10	100	Horizontal	Pass
5	12289.52	51.51	20.65	74.0	22.49	Peak	281.00	100	Horizontal	Pass
6	19409.32	49.82	12.89	74.0	24.18	Peak	360.00	100	Horizontal	Pass

8-DPSK LOW CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2401.65	87.68	-0.27	74.0	-13.68	Peak	123.90	100	Vertical	N/A
2	2488.63	54.52	-0.47	74.0	19.48	Peak	142.90	100	Vertical	Pass
2*	2488.63	48.69	-0.47	54.0	5.31	AV	142.90	100	Vertical	Pass
3	3328.42	50.12	8.96	74.0	23.88	Peak	232.30	100	Vertical	Pass
4	4803.30	58.42	13.74	74.0	15.58	Peak	107.10	100	Vertical	Pass
4*	4803.30	35.45	13.74	54.0	18.55	AV	107.10	100	Vertical	Pass
5	5856.79	51.67	15.60	74.0	22.33	Peak	356.50	100	Vertical	Pass
6	12042.43	51.72	20.83	74.0	22.28	Peak	0.30	100	Vertical	Pass

8-DPSK LOW CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2401.65	91.29	-0.27	74.0	-17.29	Peak	125.70	100	Horizontal	N/A
2	2818.55	51.06	2.14	74.0	22.94	Peak	184.60	100	Horizontal	Pass
3	3328.42	53.05	8.96	74.0	20.95	Peak	285.60	100	Horizontal	Pass
3*	3328.42	49.25	8.96	54.0	4.75	AV	285.60	100	Horizontal	Pass
4	4804.80	64.83	13.77	74.0	9.17	Peak	99.70	100	Horizontal	Pass
4*	4804.80	41.86	13.77	54.0	12.14	AV	99.70	100	Horizontal	Pass
5	5949.76	52.16	15.90	74.0	21.84	Peak	285.60	100	Horizontal	Pass
6	12042.43	52.03	20.83	74.0	21.97	Peak	0.30	100	Horizontal	Pass

8-DPSK MIDDLE CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2441.14	89.72	-0.38	74.0	-15.72	Peak	119.10	100	Vertical	N/A
2	2491.13	53.61	-0.41	74.0	20.39	Peak	138.40	100	Vertical	Pass
2*	2491.13	49.12	-0.41	54.0	4.88	AV	138.40	100	Vertical	Pass
3	3328.42	50.67	8.96	74.0	23.33	Peak	101.40	100	Vertical	Pass
4	4882.03	59.68	13.60	74.0	14.32	Peak	213.60	100	Vertical	Pass
4*	4882.03	36.71	13.60	54.0	17.29	AV	213.60	100	Vertical	Pass
5	5961.76	51.61	15.71	74.0	22.39	Peak	357.90	100	Vertical	Pass
6	12042.43	51.79	20.83	74.0	22.21	Peak	0.30	100	Vertical	Pass

8-DPSK MIDDLE CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2208.70	49.27	-0.34	74.0	24.73	Peak	126.90	100	Horizontal	Pass
2	2441.14	91.81	-0.38	74.0	-17.81	Peak	49.90	100	Horizontal	N/A
3	3328.42	53.56	8.96	74.0	20.44	Peak	212.00	100	Horizontal	Pass
3*	3328.42	49.61	8.96	54.0	4.39	AV	212.00	100	Horizontal	Pass
4	4882.03	62.83	13.60	74.0	11.17	Peak	100.50	100	Horizontal	Pass
4*	4882.03	39.86	13.60	54.0	14.14	AV	100.50	100	Horizontal	Pass
5	12042.43	51.97	20.83	74.0	22.03	Peak	0.30	100	Horizontal	Pass
6	18989.60	49.83	13.30	74.0	24.17	Peak	53.80	100	Horizontal	Pass

8-DPSK HIGH CHANNEL 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2480.13	90.02	-0.60	74.0	-16.02	Peak	116.40	100	Vertical	N/A
2	2847.54	50.94	1.96	74.0	23.06	Peak	281.00	100	Vertical	Pass
3	3328.42	50.30	8.96	74.0	23.70	Peak	237.20	100	Vertical	Pass
4	4960.76	59.24	14.26	74.0	14.76	Peak	106.70	100	Vertical	Pass
4*	4960.76	36.27	14.26	54.0	17.73	AV	106.70	100	Vertical	Pass
5	5994.00	52.51	15.77	74.0	21.49	Peak	344.10	100	Vertical	Pass
6	12042.43	52.07	20.83	74.0	21.93	Peak	0.30	100	Vertical	Pass

8-DPSK HIGH CHANNEL 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2441.14	89.72	-0.38	74.0	-15.72	Peak	119.10	100	Vertical	N/A
2	2491.13	53.61	-0.41	74.0	20.39	Peak	138.40	100	Vertical	Pass
2*	2491.13	49.12	-0.41	54.0	4.88	AV	138.40	100	Vertical	Pass
3	3328.42	50.67	8.96	74.0	23.33	Peak	101.40	100	Vertical	Pass
4	4882.03	59.68	13.60	74.0	14.32	Peak	213.60	100	Vertical	Pass
4*	4882.03	36.71	13.60	54.0	17.29	AV	213.60	100	Vertical	Pass
5	5961.76	51.61	15.71	74.0	22.39	Peak	357.90	100	Vertical	Pass

Hopping Mode:

GFSK MODE 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2402.15	87.31	-0.34	74.0	-13.31	Peak	351.20	100	Vertical	N/A
2	2475.13	89.67	-0.50	74.0	-15.67	Peak	124.40	100	Vertical	N/A
3	3328.42	49.82	8.96	74.0	24.18	Peak	231.50	100	Vertical	Pass
4	4934.52	59.69	14.07	74.0	14.31	Peak	207.70	100	Vertical	Pass
4*	4934.52	36.72	14.07	54.0	17.28	AV	207.70	100	Vertical	Pass
5	12042.43	52.00	20.83	74.0	22.00	Peak	0.30	100	Vertical	Pass
6	19449.25	50.39	12.80	74.0	23.61	Peak	359.80	100	Vertical	Pass

GFSK MODE 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2408.15	91.71	-0.15	74.0	-17.71	Peak	154.30	100	Horizontal	N/A
2	2474.13	93.77	-0.49	74.0	-19.77	Peak	39.30	100	Horizontal	N/A
3	3328.42	52.94	8.96	74.0	21.06	Peak	207.30	100	Horizontal	Pass
4	4804.05	63.65	13.74	74.0	10.35	Peak	95.30	100	Horizontal	Pass
4*	4804.05	40.68	13.74	54.0	13.32	AV	95.30	100	Horizontal	Pass
5	5964.76	51.99	15.65	74.0	22.01	Peak	358.80	100	Horizontal	Pass
6	12042.43	51.31	20.83	74.0	22.69	Peak	0.30	100	Horizontal	Pass

∏/4-DQPSK MODE 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2403.15	87.84	-0.20	74.0	-13.84	Peak	117.80	100	Vertical	N/A
2	2477.13	89.62	-0.64	74.0	-15.62	Peak	117.80	100	Vertical	N/A
3	3328.42	50.06	8.96	74.0	23.94	Peak	115.60	100	Vertical	Pass
4	4906.02	59.76	13.75	74.0	14.24	Peak	209.30	100	Vertical	Pass
4*	4906.02	36.82	13.75	54.0	17.18	AV	209.30	100	Vertical	Pass
5	5940.77	52.20	15.72	74.0	21.80	Peak	358.80	100	Vertical	Pass
6	12042.43	51.42	20.83	74.0	22.58	Peak	0.30	100	Vertical	Pass

∏/4-DQPSK MODE 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2409.65	91.28	-0.15	74.0	-17.28	Peak	128.70	100	Horizontal	N/A
2	2477.63	93.09	-0.53	74.0	-19.09	Peak	154.20	100	Horizontal	N/A
3	3328.42	53.24	8.96	74.0	20.76	Peak	104.70	100	Horizontal	Pass
3*	3328.42	50.12	8.96	54.0	3.88	AV	104.70	100	Horizontal	Pass
4	4818.30	64.48	13.90	74.0	9.52	Peak	99.90	100	Horizontal	Pass
4*	4818.30	41.51	13.90	54.0	12.49	AV	99.90	100	Horizontal	Pass
5	12042.43	51.81	20.83	74.0	22.19	Peak	0.30	100	Horizontal	Pass
6	19449.25	50.23	12.80	74.0	23.77	Peak	359.80	100	Horizontal	Pass

8-DPSK MODE 1 GHz to 25 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2401.65	85.44	-0.27	74.0	-11.44	Peak	209.80	100	Vertical	N/A
2	2476.13	88.95	-0.55	74.0	-14.95	Peak	115.00	100	Vertical	N/A
3	3328.42	50.63	8.96	74.0	23.37	Peak	234.50	100	Vertical	Pass
4	4924.02	60.10	13.86	74.0	13.90	Peak	211.20	100	Vertical	Pass
4*	4924.02	37.13	13.86	54.0	16.87	AV	211.20	100	Vertical	Pass
5	5958.01	52.06	15.80	74.0	21.94	Peak	11.80	100	Vertical	Pass
6	12098.59	51.24	20.77	74.0	22.76	Peak	20.30	100	Vertical	Pass

8-DPSK MODE 1 GHz to 25 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2403.15	89.68	-0.20	74.0	-15.68	Peak	279.10	100	Horizontal	N/A
2	2475.13	93.79	-0.50	74.0	-19.79	Peak	45.00	100	Horizontal	N/A
3	3327.67	52.60	8.95	74.0	21.40	Peak	206.70	100	Horizontal	Pass
4	4818.30	64.53	13.90	74.0	9.47	Peak	99.30	100	Horizontal	Pass
4*	4818.30	41.56	13.90	54.0	12.44	AV	99.30	100	Horizontal	Pass
5	5981.26	53.10	15.81	74.0	20.90	Peak	271.80	100	Horizontal	Pass
5*	5981.26	49.59	15.81	54.0	4.41	AV	271.80	100	Horizontal	Pass
6	12289.52	51.66	20.65	74.0	22.34	Peak	281.00	100	Horizontal	Pass

A.9 Band Edge

Test Data

Note 1: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

Note 2: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

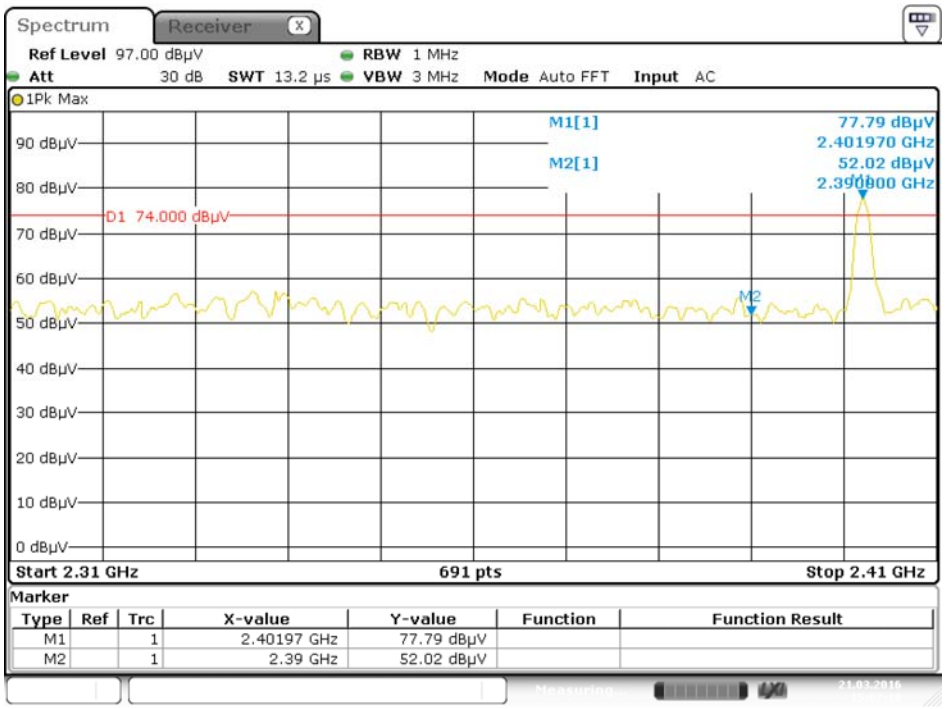
Note 3: The average levels were calculated from the peak level corrected with duty cycle correction factor (-24.35 dB) derived from 20log (dwell time/100 ms).

For example: Average level = 52.02 dBuV/m - 24.35 (dB) = 27.67 dBuV/m.

Test Mode	Test Channel	Frequency (MHz)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Remark	Verdict
GFSK	Low	2390.00	52.02	74	21.98	PEAK	Pass
		2390.00	27.67	54	26.33	AVERAGE	Pass
GFSK	HIGH	2483.50	56.21	74	17.79	PEAK	Pass
		2483.50	31.86	54	22.14	AVERAGE	Pass
∏/4DQPSK	Low	2390.00	56.43	74	17.57	PEAK	Pass
		2390.00	32.08	54	21.92	AVERAGE	Pass
∏/4DQPSK	HIGH	2483.50	56.94	74	17.06	PEAK	Pass
		2483.50	32.59	54	21.41	AVERAGE	Pass
8-DPSK	Low	2390.00	56.64	74	17.36	PEAK	Pass
		2390.00	32.29	54	21.71	AVERAGE	Pass
8-DPSK	HIGH	2483.50	53.72	74	20.28	PEAK	Pass
		2483.50	29.37	54	24.63	AVERAGE	Pass
GFSK(Hopping)	Low	2390.00	53.11	74	20.89	PEAK	Pass
		2390.00	28.76	54	25.24	AVERAGE	Pass
GFSK(Hopping	HIGH	2483.50	56.70	74	17.30	PEAK	Pass
		2483.50	32.35	54	21.65	AVERAGE	Pass
∏/4DQPSK (Hopping)	Low	2390.00	57.21	74	16.79	PEAK	Pass
		2390.00	32.86	54	21.14	AVERAGE	Pass
∏/4DQPSK (Hopping)	HIGH	2483.50	53.62	74	20.38	PEAK	Pass
		2483.50	29.27	54	24.73	AVERAGE	Pass
8-DPSK (Hopping)	Low	2390.00	52.20	74	21.80	PEAK	Pass
		2390.00	27.85	54	26.15	AVERAGE	Pass
8-DPSK (Hopping)	HIGH	2483.50	56.52	74	17.48	PEAK	Pass
		2483.50	32.17	54	21.83	AVERAGE	Pass

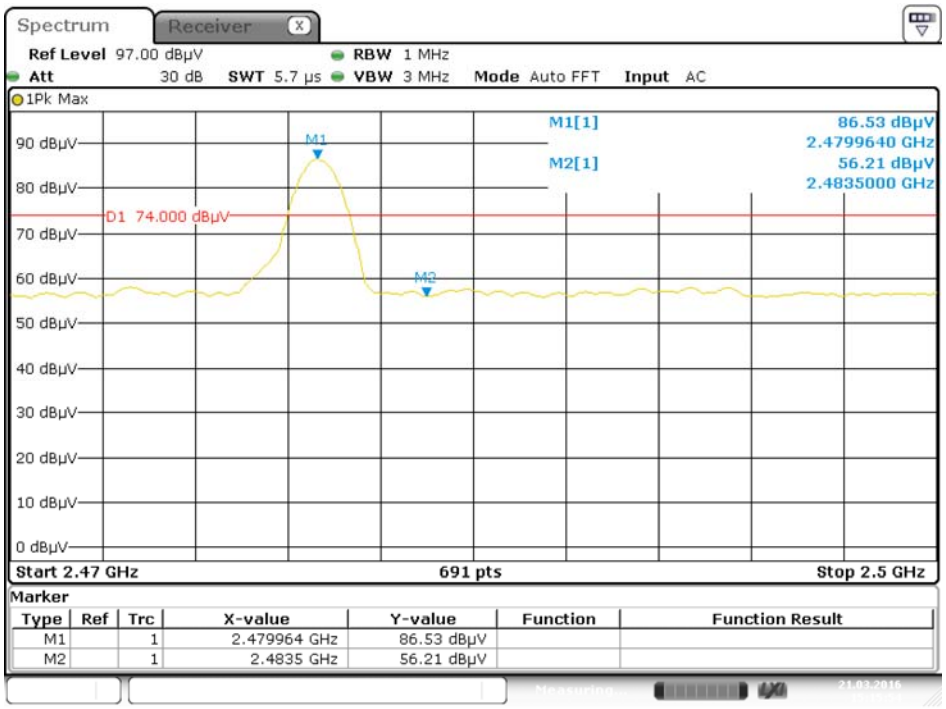
Test Plots

GFSK LOW CHANNEL , PEAK



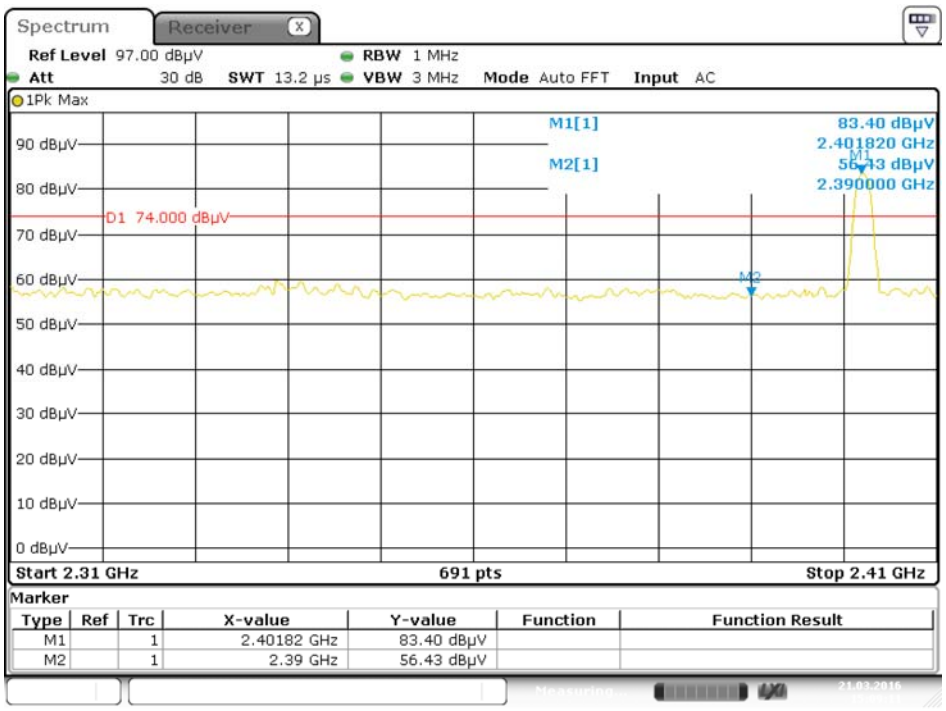
Date: 21.MAR.2016 15:07:10

GFSK HIGH CHANNEL , PEAK



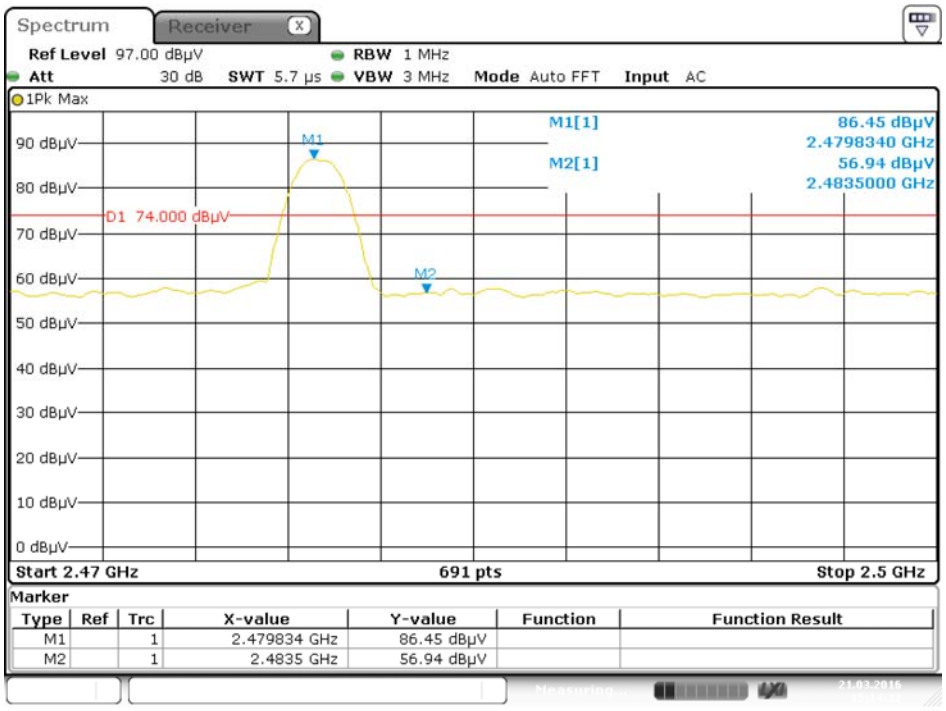
Date: 21.MAR.2016 15:15:54

∏/4-DQPSK LOW CHANNEL , PEAK



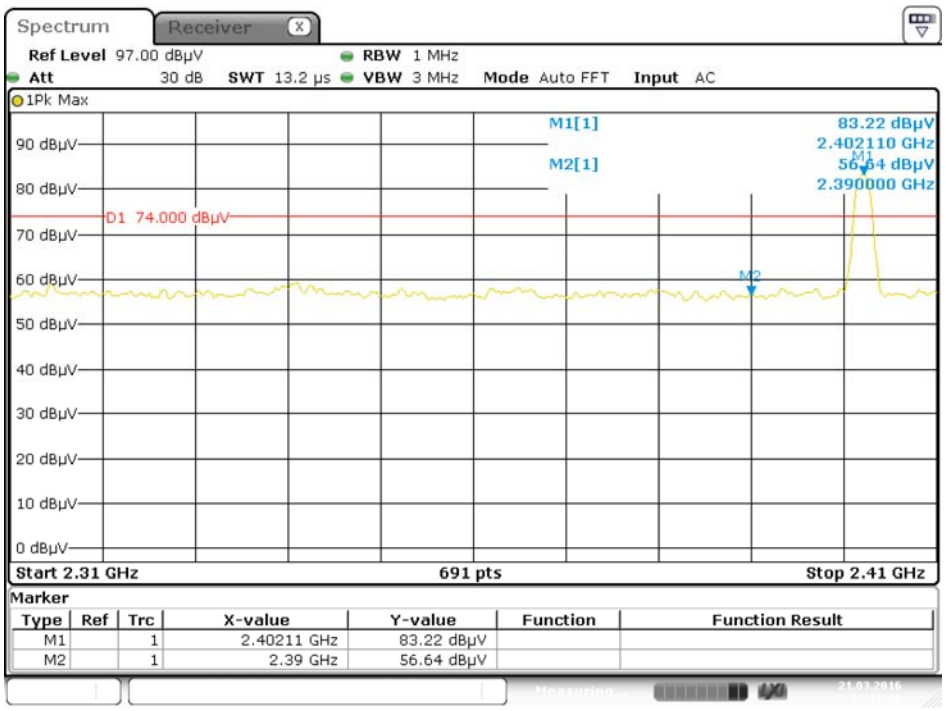
Date: 21.MAR.2016 15:09:11

∏/4-DQPSK HIGH CHANNEL , PEAK



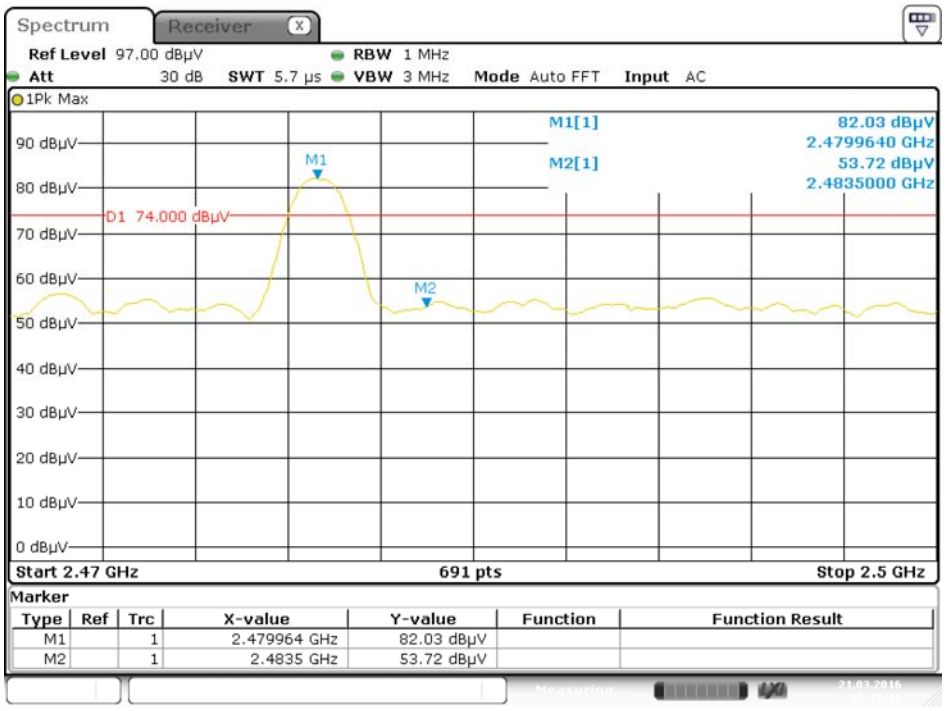
Date: 21.MAR.2016 15:14:13

8-DPSK LOW CHANNEL , PEAK



Date: 21.MAR.2016 15:10:40

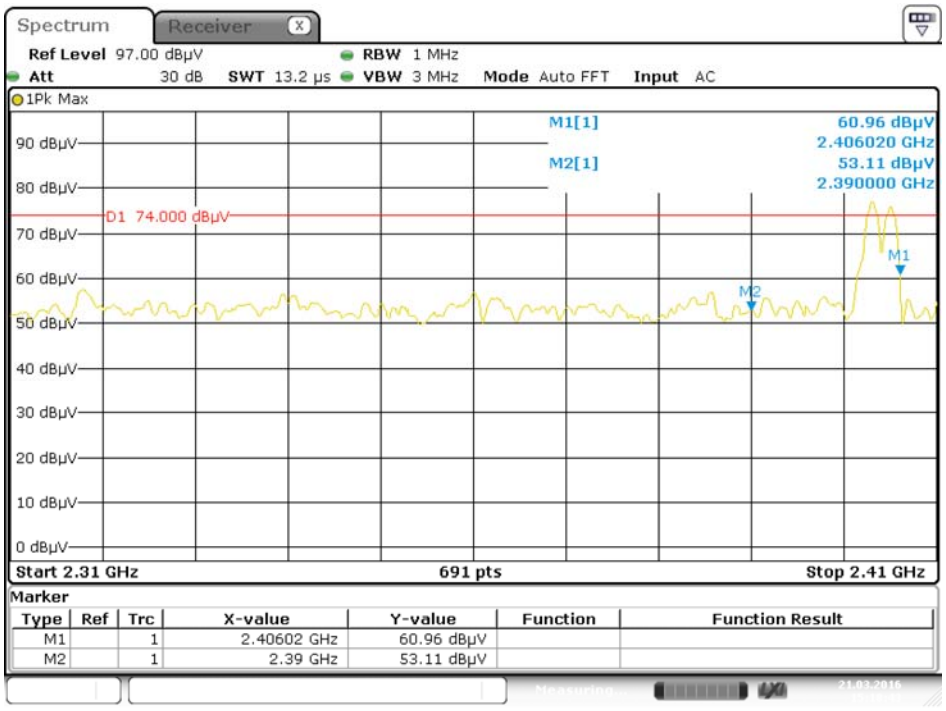
8-DPSK HIGH CHANNEL , PEAK



Date: 21.MAR.2016 15:12:41

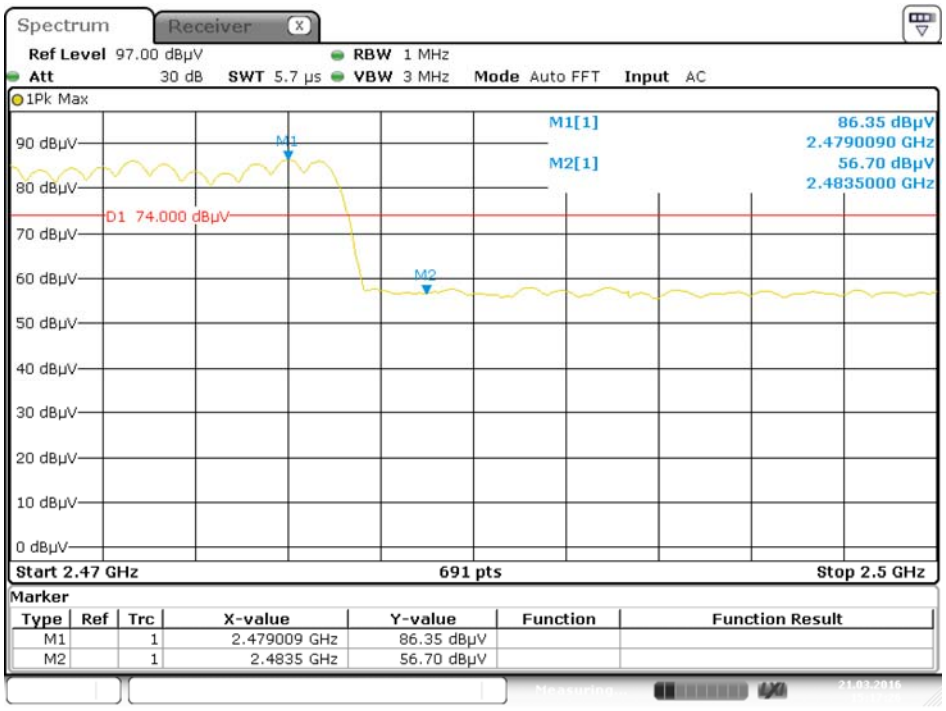
Hopping Mode:

GFSK LOW FREQUENCY BAND, PEAK



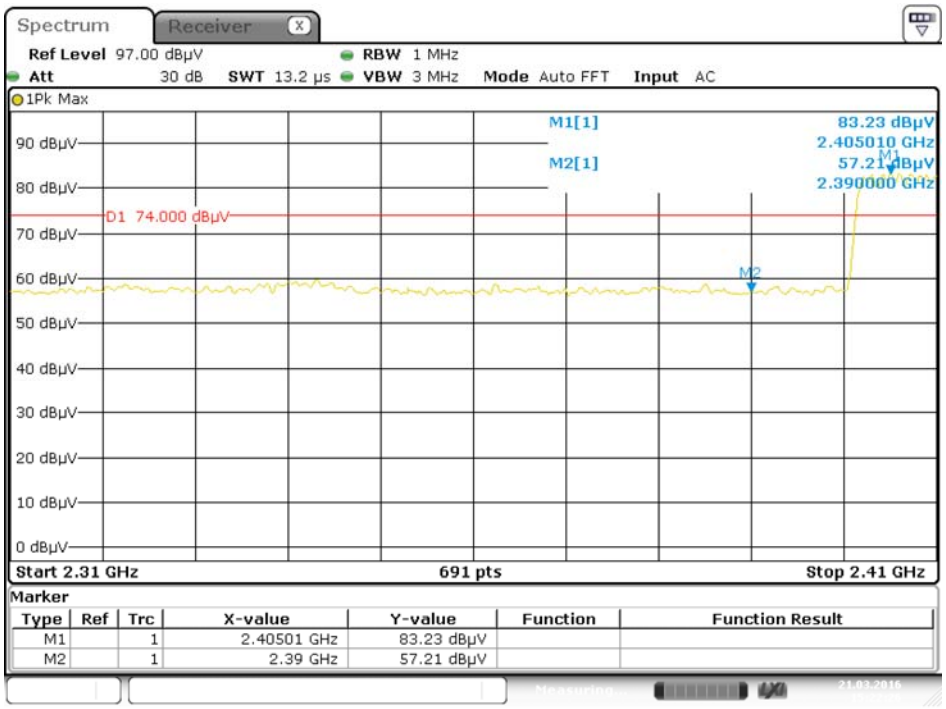
Date: 21.MAR.2016 15:18:44

GFSK HIGH FREQUENCY BAND, PEAK



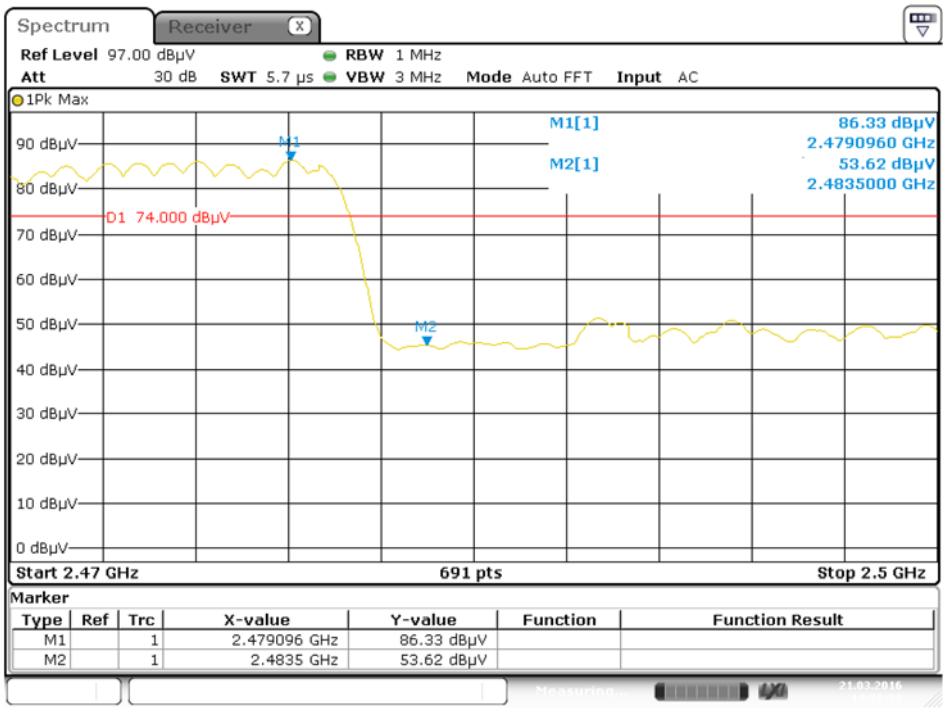
Date: 21.MAR.2016 15:17:27

∏/4-DQPSK LOW FREQUENCY BAND, PEAK



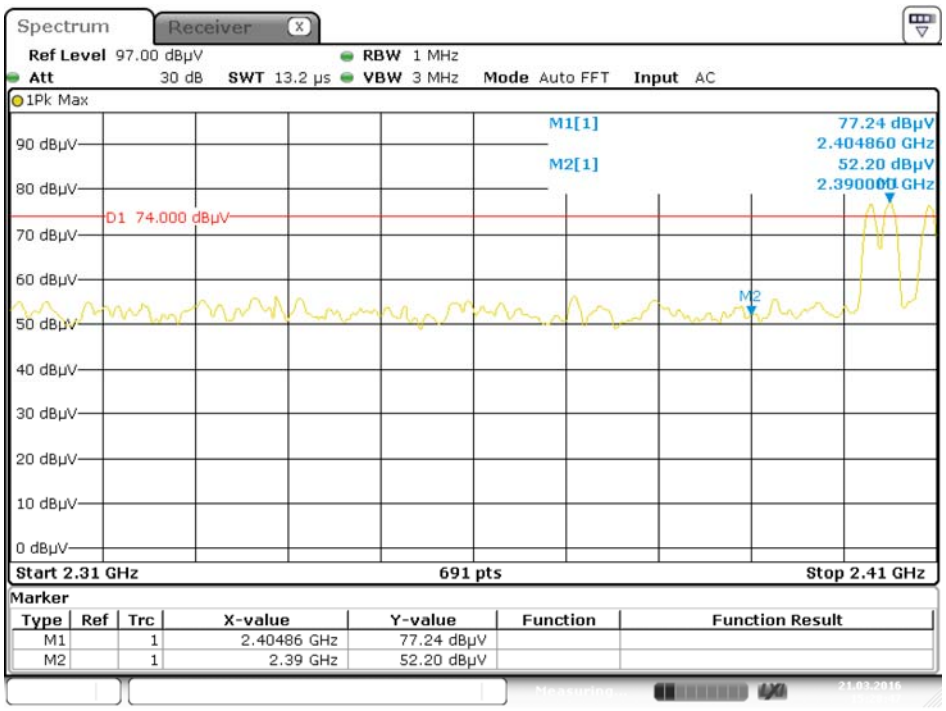
Date: 21.MAR.2016 15:22:27

∏/4-DQPSK HIGH FREQUENCY BAND, PEAK



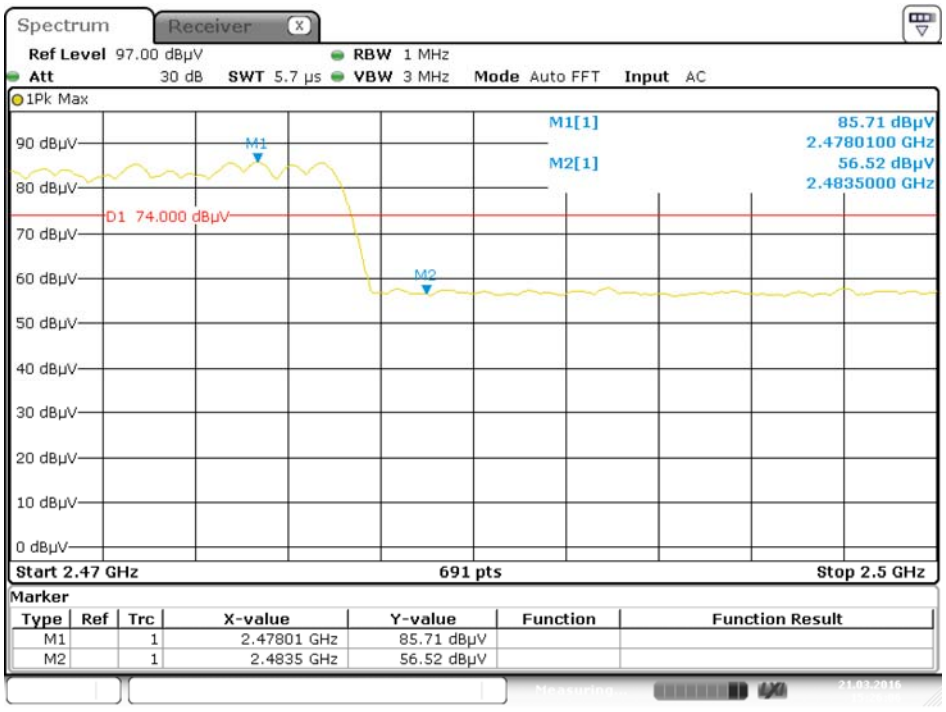
Date: 21.MAR.2016 14:58:54

8-DPSK LOW FREQUENCY BAND, PEAK



Date: 21.MAR.2016 15:28:48

8-DPSK HIGH FREQUENCY BAND, PEAK



Date: 21.MAR.2016 15:26:06

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ15C0275-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ15C0275-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ15C0275-AI.PDF”.

--END OF REPORT--