

Appendix A

RF Test Data for BT V5.0(BDR/EDR) (Conducted Measurement)

Product Name: Urbanista Brsibane

Trade Mark: Urbanista

Test Model: Urbanista Brsibane

Environmental Conditions

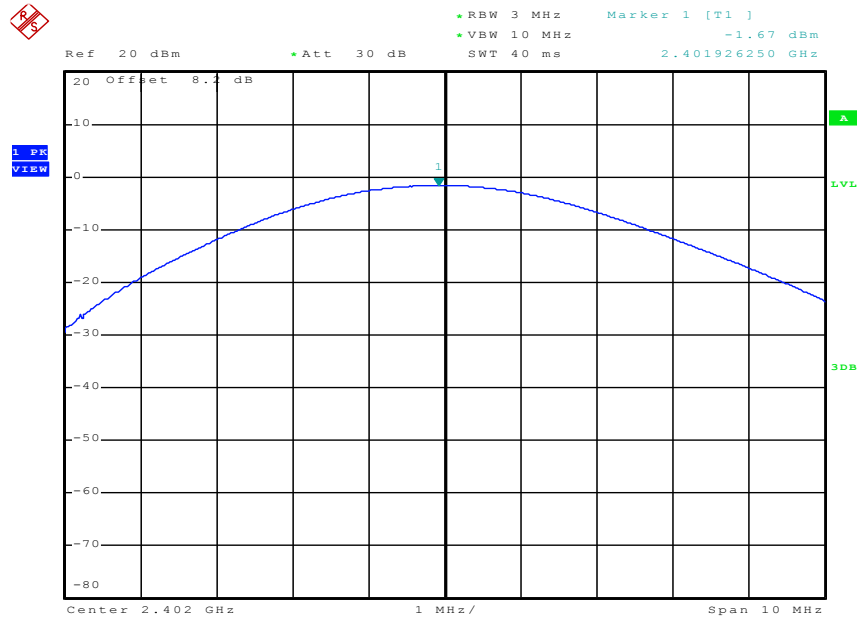
Temperature:	24.3 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	JERRY.ZENG
Supervised by:	Wang.Chuang

A.1 Maxmum Conducted Peak Output Power

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.670	30	PASS
	MCH	-2.620	30	PASS
	HCH	-4.080	30	PASS
π/4DQPSK	LCH	0.410	21	PASS
	MCH	-0.630	21	PASS
	HCH	-2.100	21	PASS
8DPSK	LCH	0.860	21	PASS
	MCH	-0.080	21	PASS
	HCH	-1.550	21	PASS

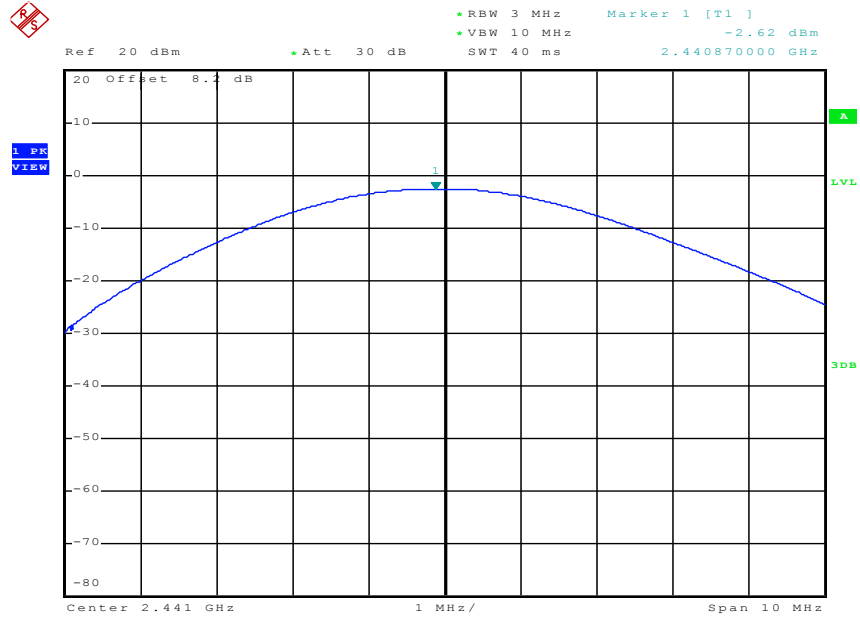
Test Graphs

GFSK/LCH



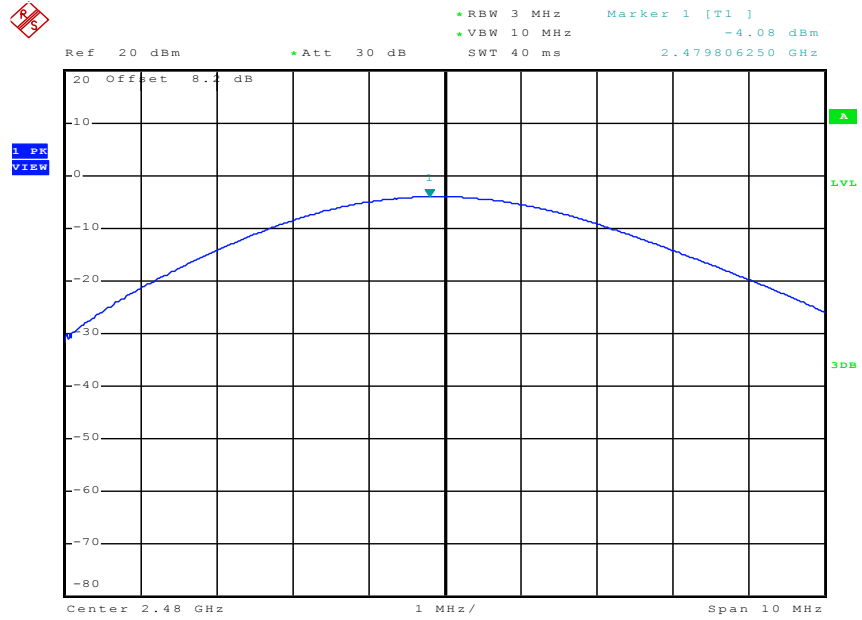
Date: 10 AUG 2019 12:32:23

GFSK/MCH



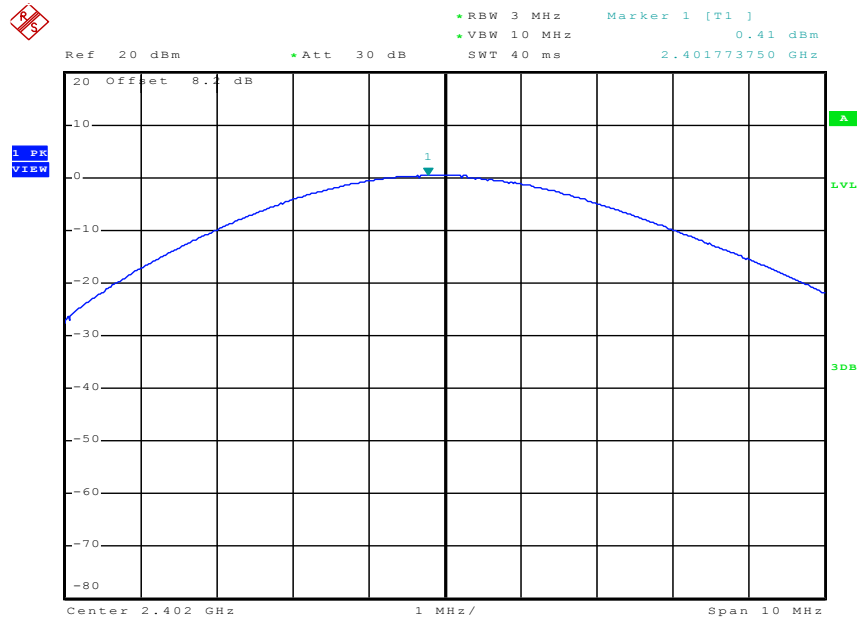
Date: 10 AUG 2019 12:35:06

GFSK/HCH



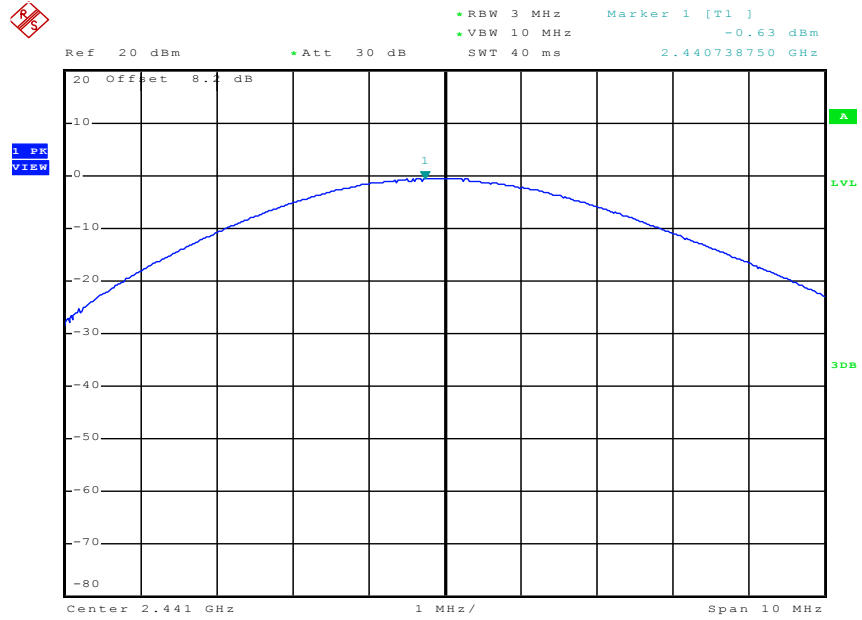
Date: 10 AUG 2019 12:36:58

$\pi/4$ DQPSK/LCH



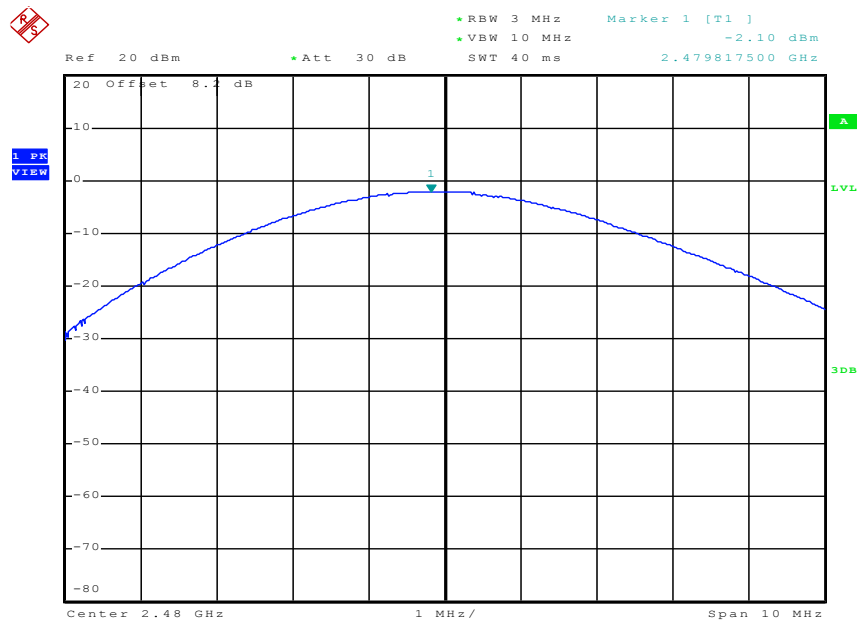
Date: 10 AUG 2019 12:39:41

$\pi/4$ DQPSK/MCH



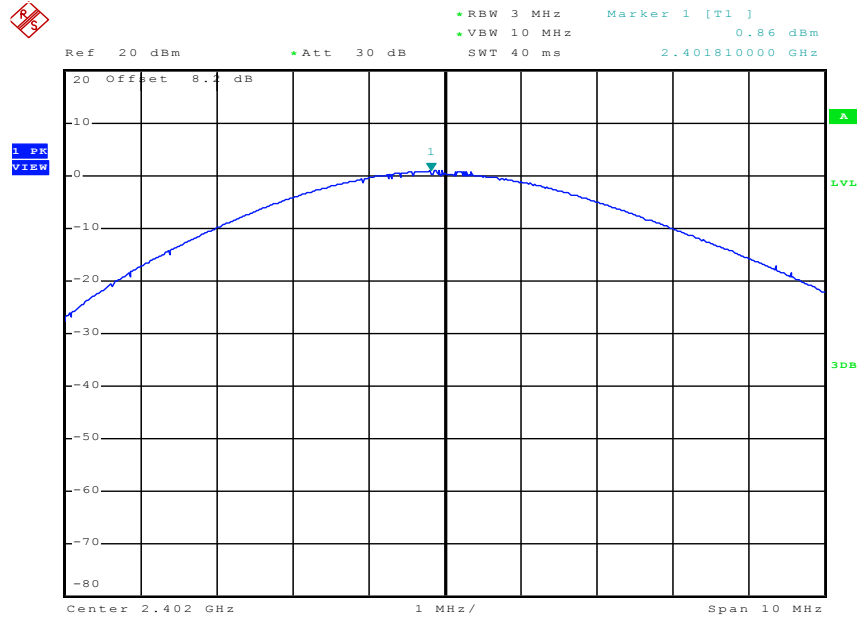
Date: 10 AUG 2019 12:43:16

$\pi/4$ DQPSK/HCH



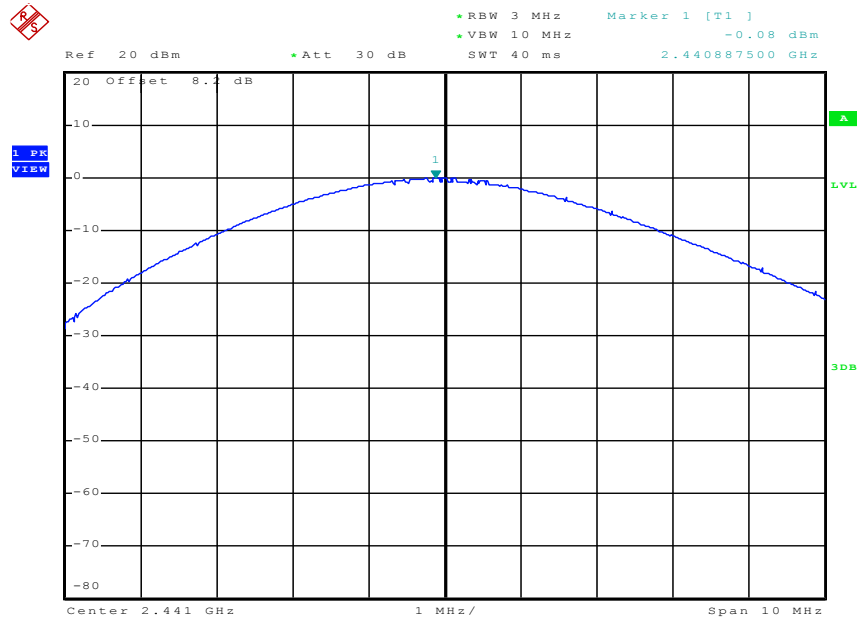
Date: 10 AUG 2019 12:45:14

8DPSK/LCH



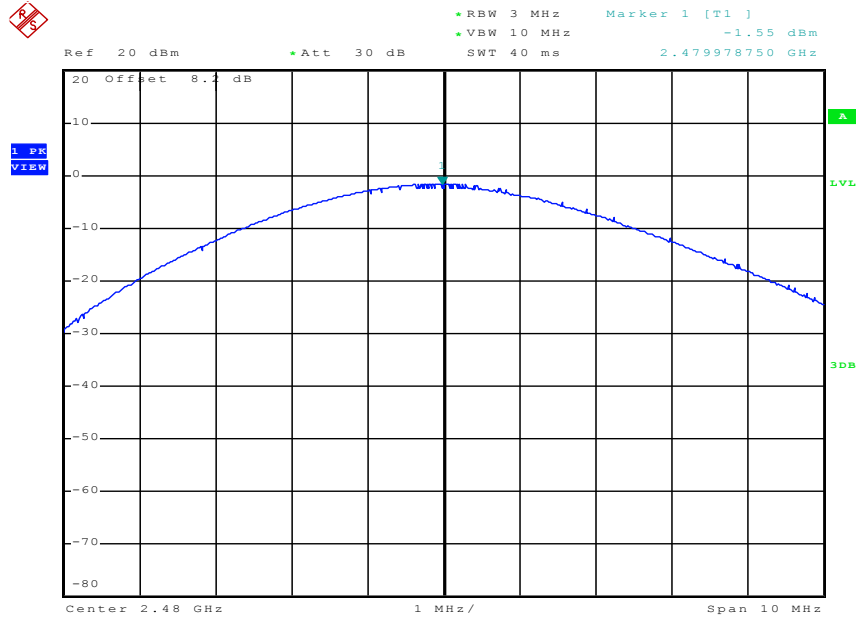
Date: 10 AUG 2019 12:48:19

8DPSK/MCH



Date: 10 AUG 2019 12:51:10

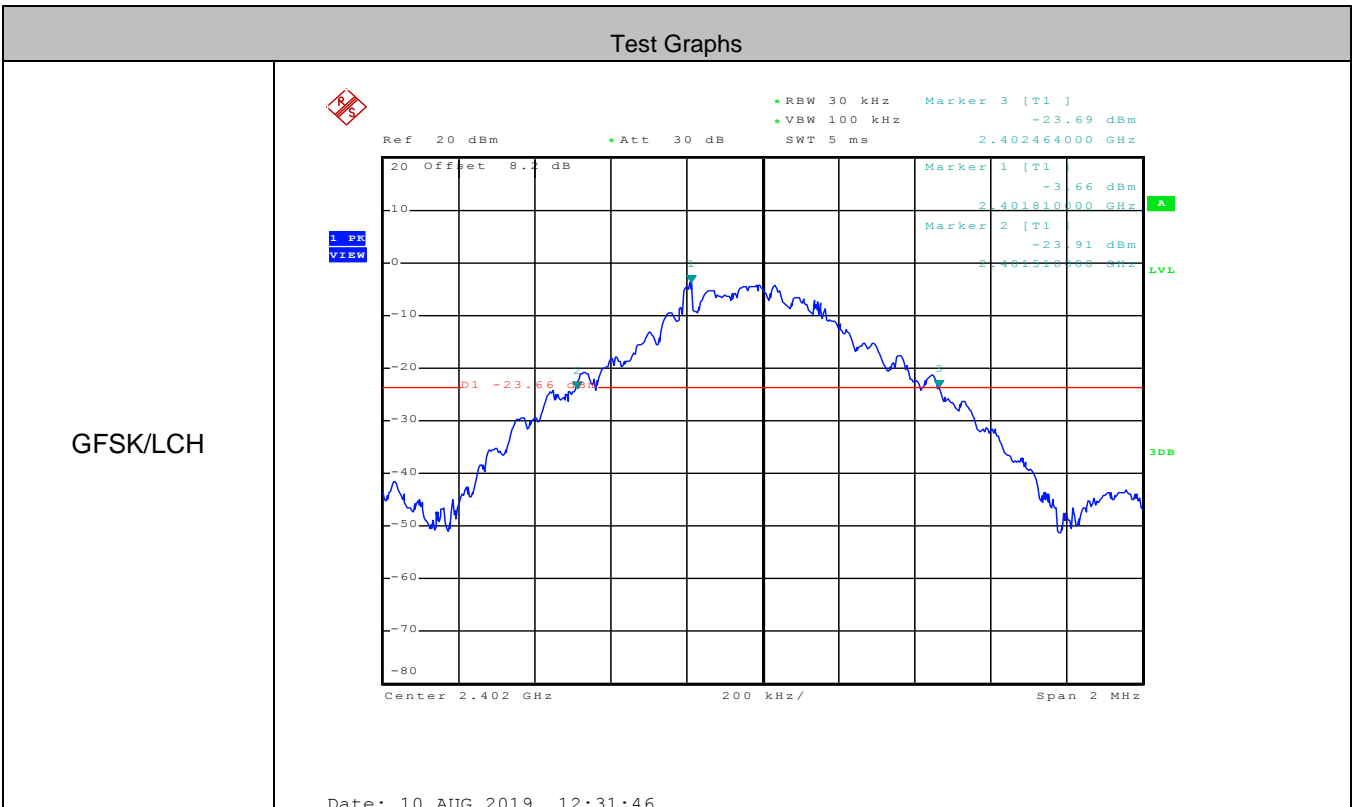
8DPSK/HCH



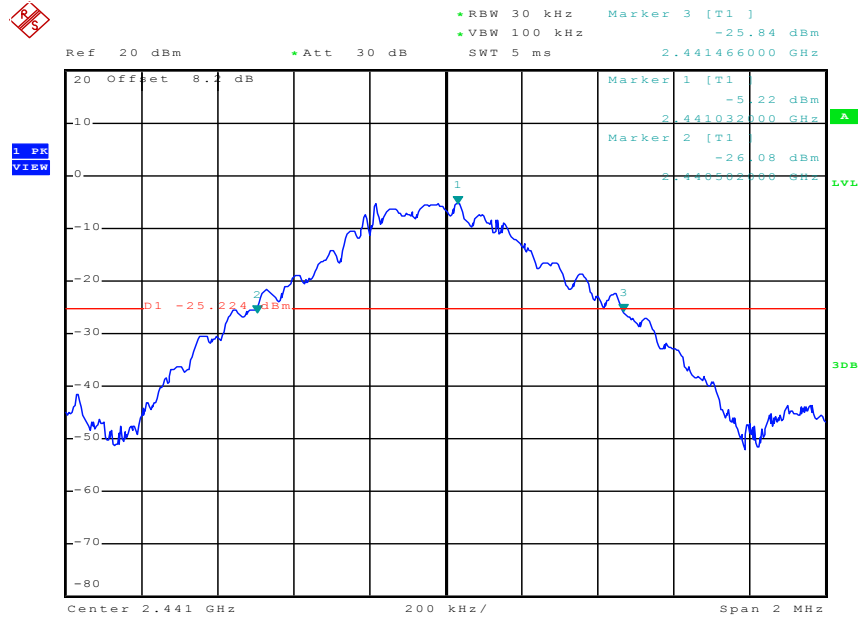
Date: 10 AUG 2019 12:54:01

A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.954	Not Specified	PASS
	MCH	0.964	Not Specified	PASS
	HCH	0.964	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.280	Not Specified	PASS
	MCH	1.284	Not Specified	PASS
	HCH	1.282	Not Specified	PASS
8DPSK	LCH	1.298	Not Specified	PASS
	MCH	1.298	Not Specified	PASS
	HCH	1.298	Not Specified	PASS

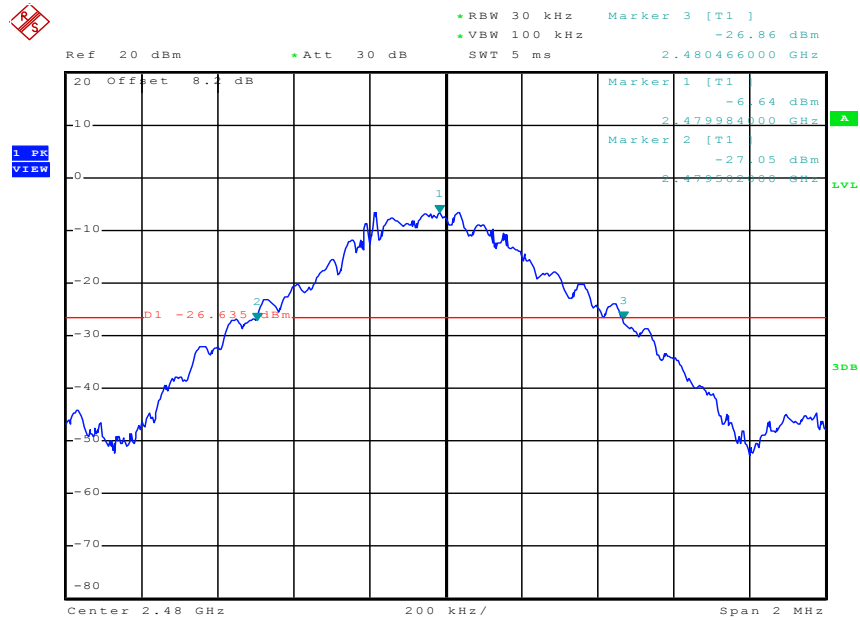


GFSK/MCH



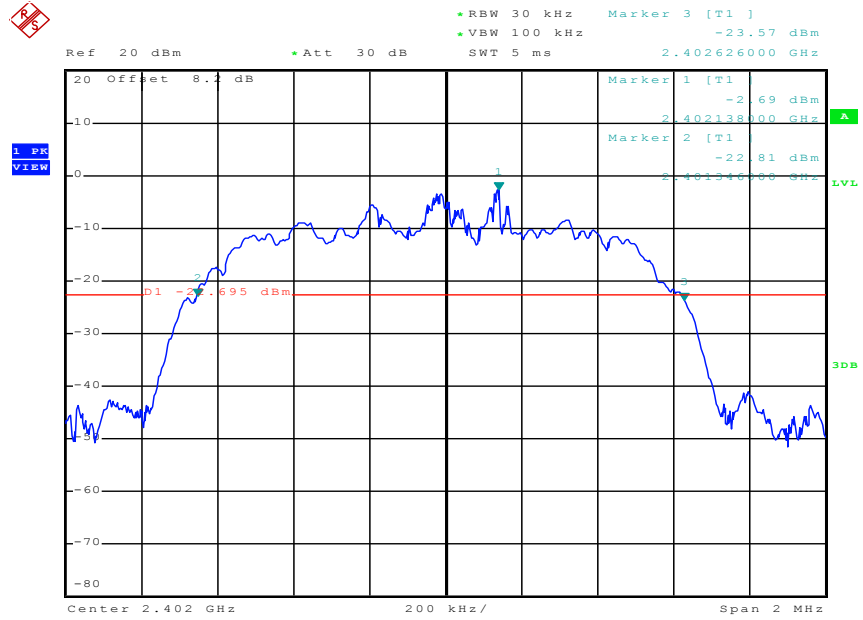
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GFSK/HCH

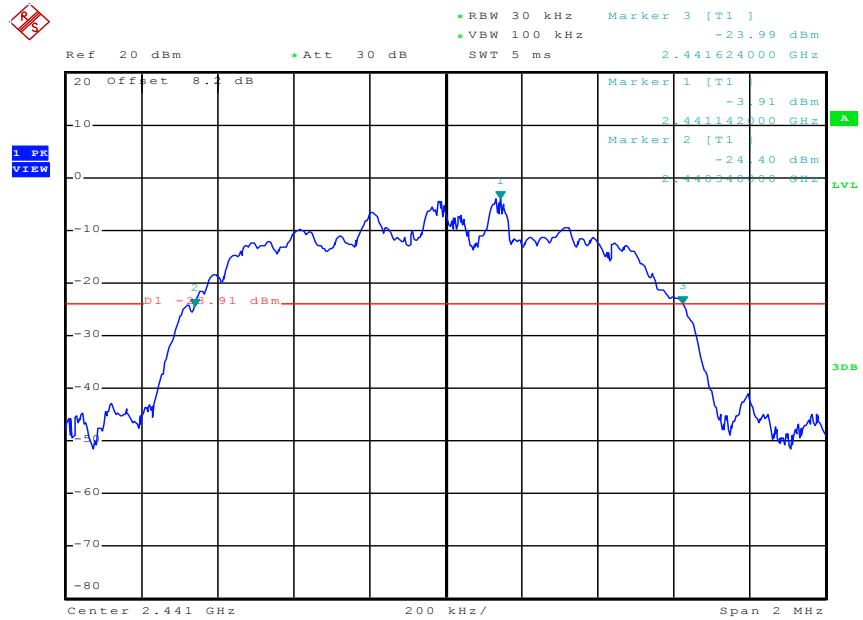


Date: 10 AUG 2019 12:36:21

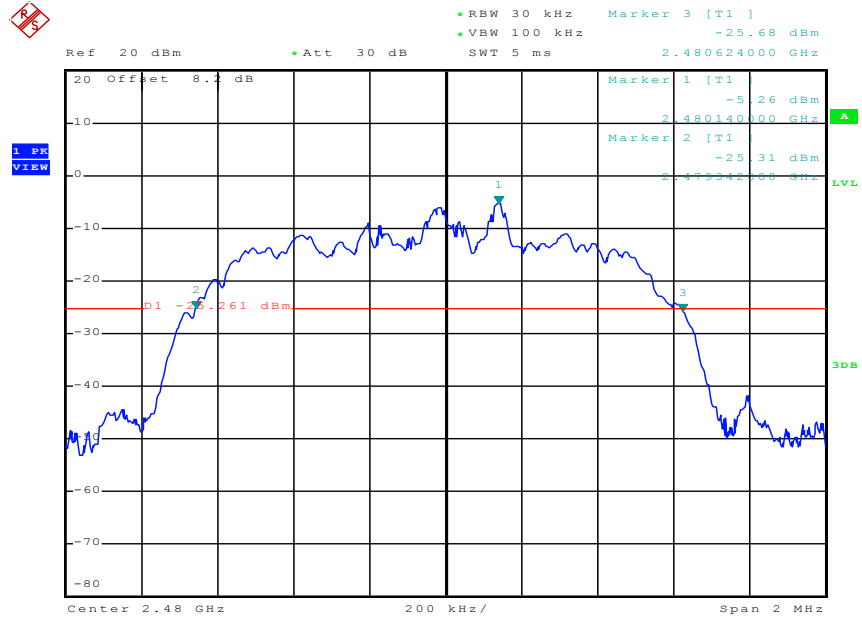
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH

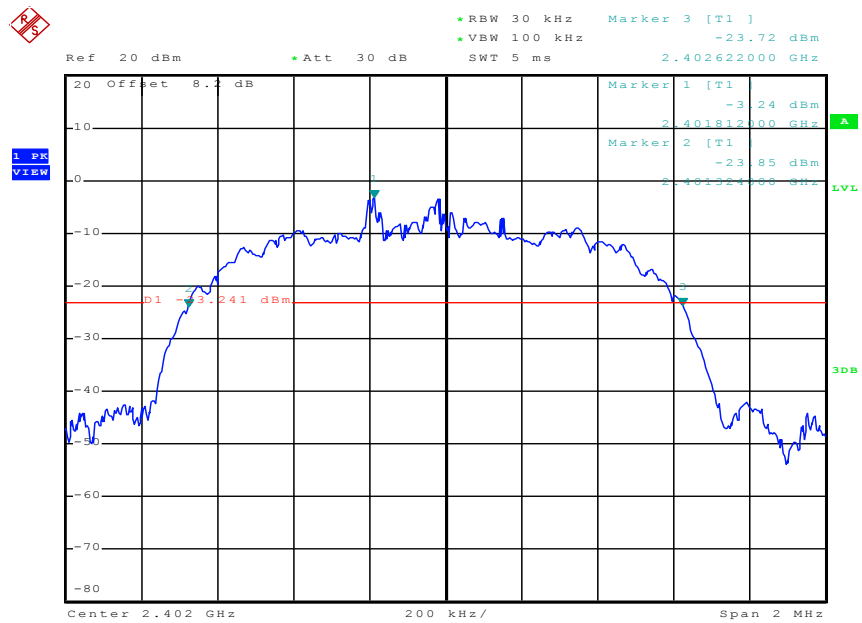


$\pi/4$ DQPSK/HCH



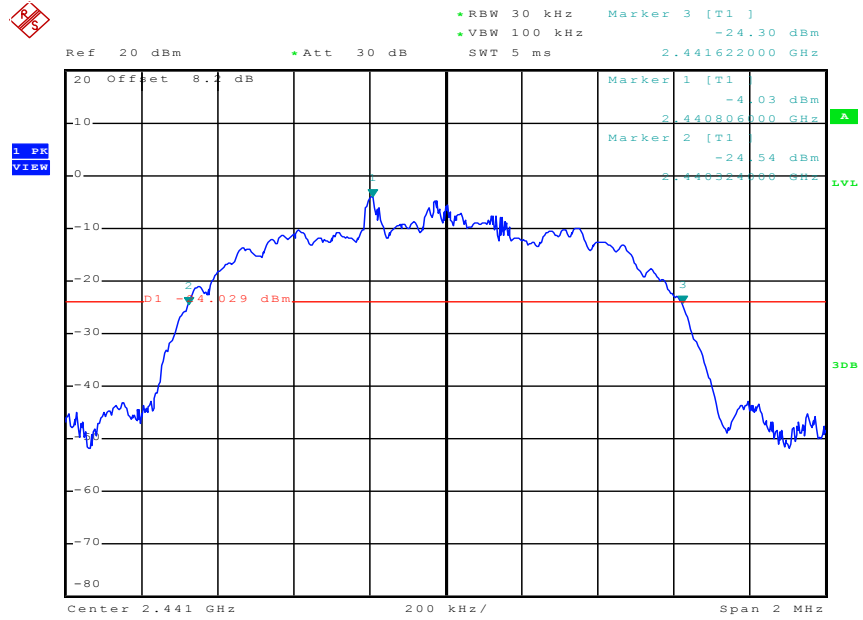
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8DPSK/LCH

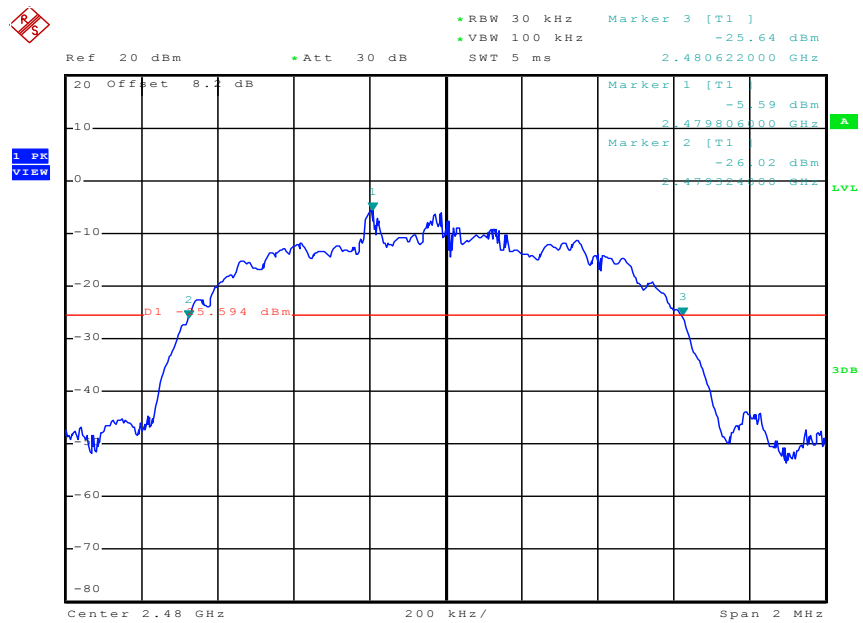


Date: 10 AUG 2019 12:47:43

8DPSK/MCH

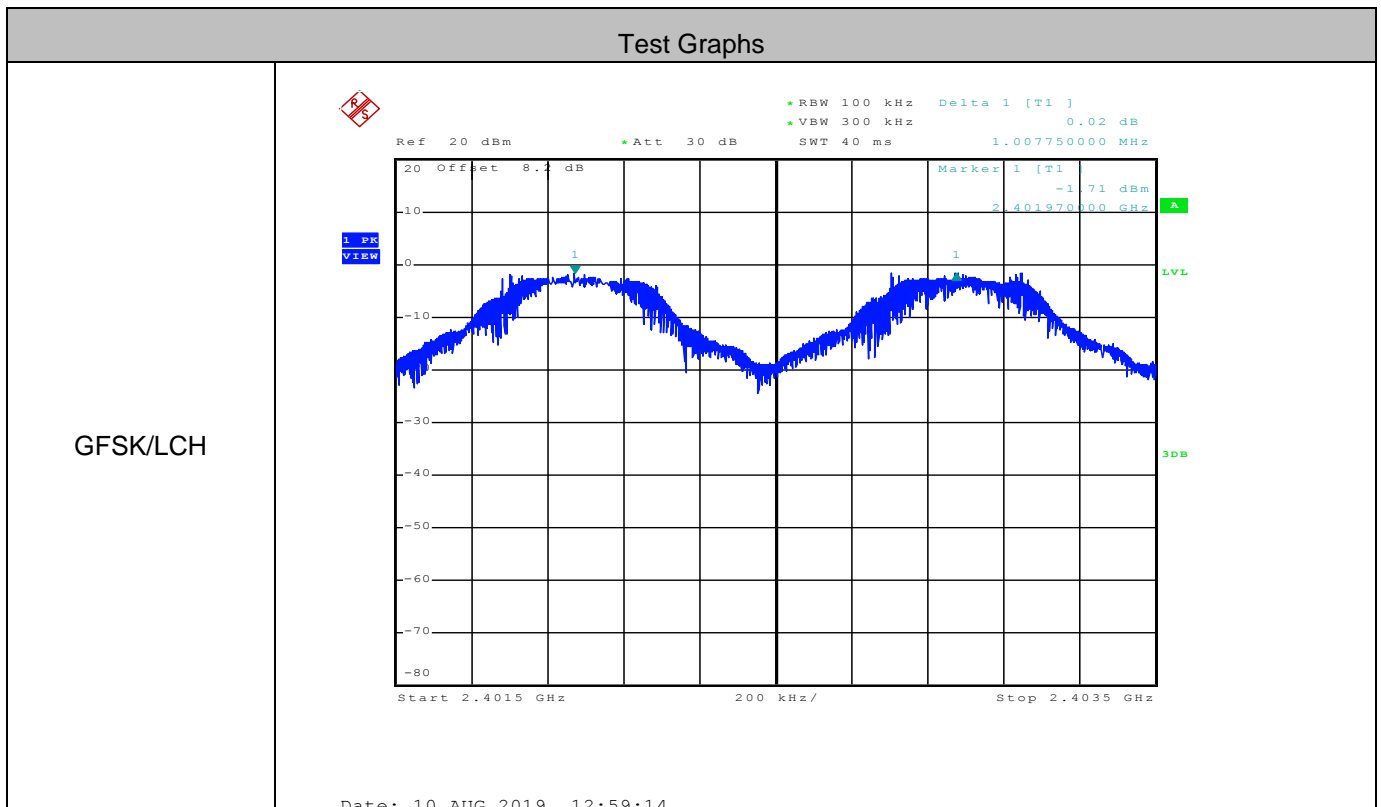


8DPSK/HCH

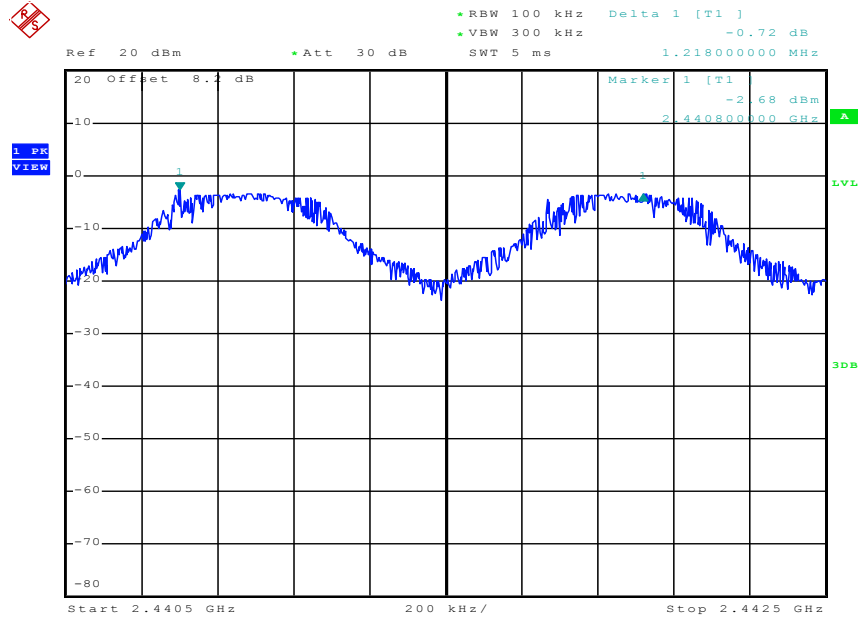


A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.008	0.643	PASS
	MCH	1.218	0.643	PASS
	HCH	0.994	0.643	PASS
π/4DQPSK	LCH	1.016	0.856	PASS
	MCH	0.988	0.856	PASS
	HCH	1.198	0.856	PASS
8DPSK	LCH	1.158	0.865	PASS
	MCH	1.150	0.865	PASS
	HCH	1.202	0.865	PASS

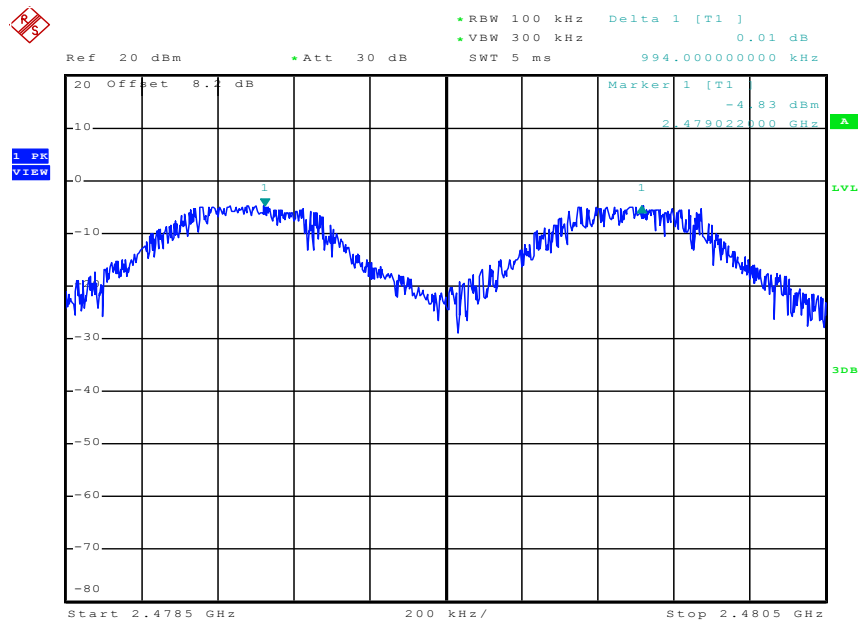


GFSK/MCH



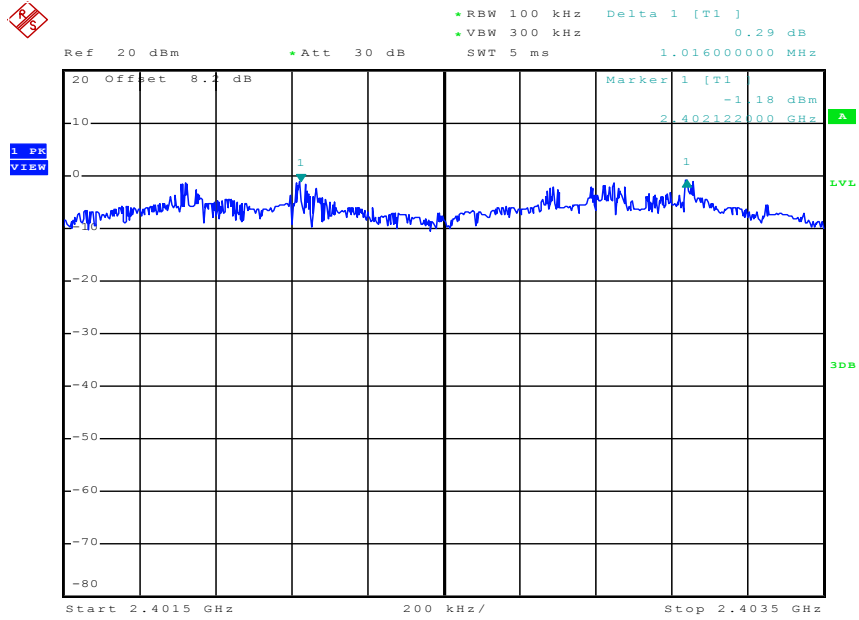
Date: 10 AUG 2019 13:02:07

GFSK/HCH



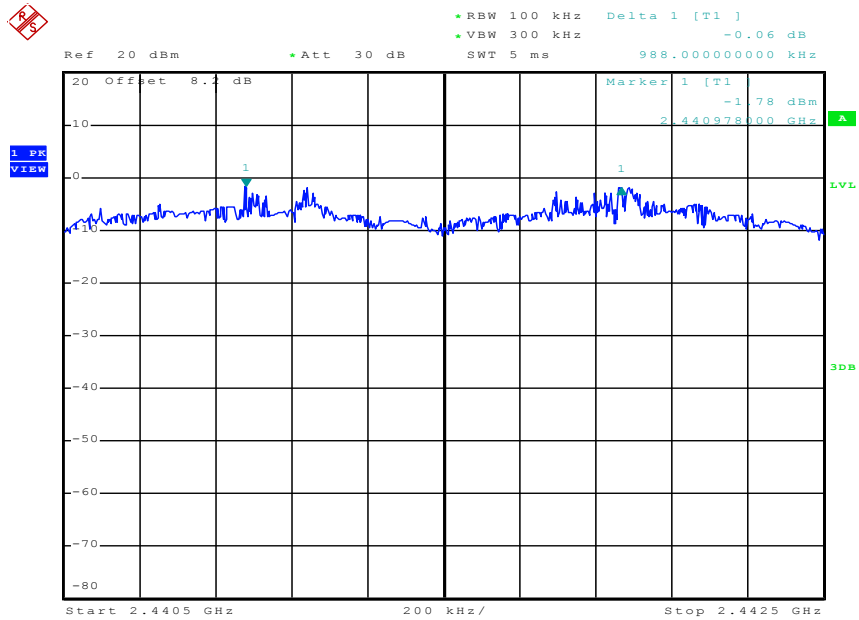
Date: 10 AUG 2019 13:02:27

$\pi/4$ DQPSK/LCH



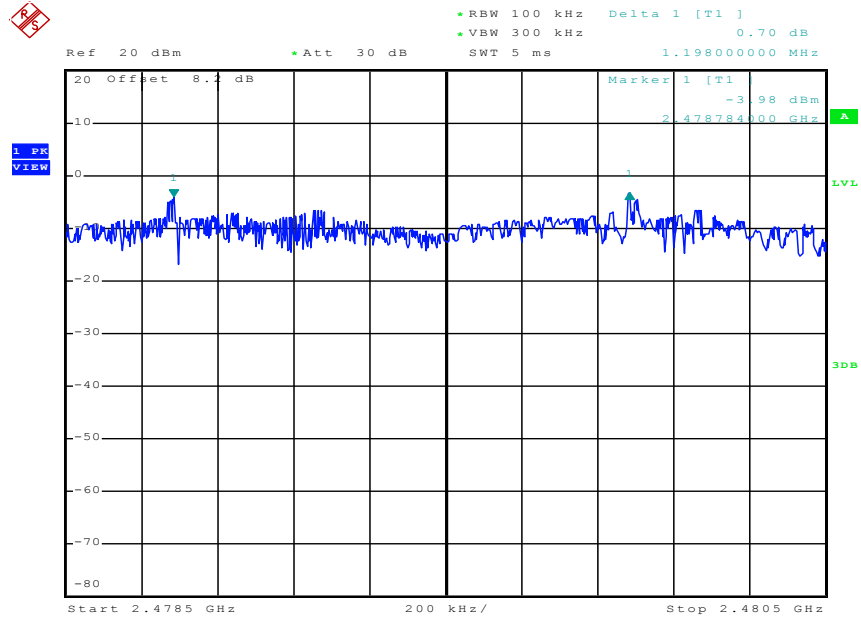
Date: 10 AUG 2019 13:07:38

$\pi/4$ DQPSK/MCH



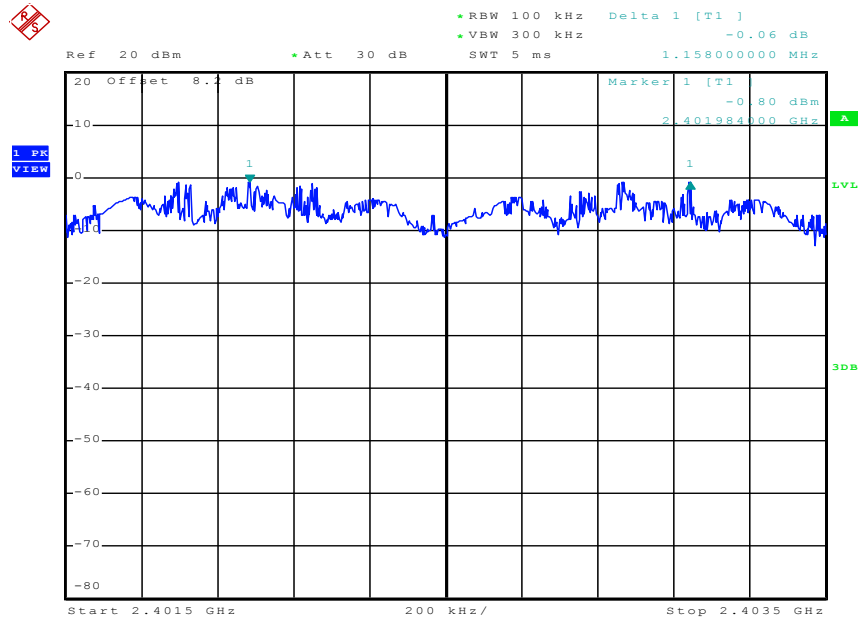
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$\pi/4$ DQPSK/HCH



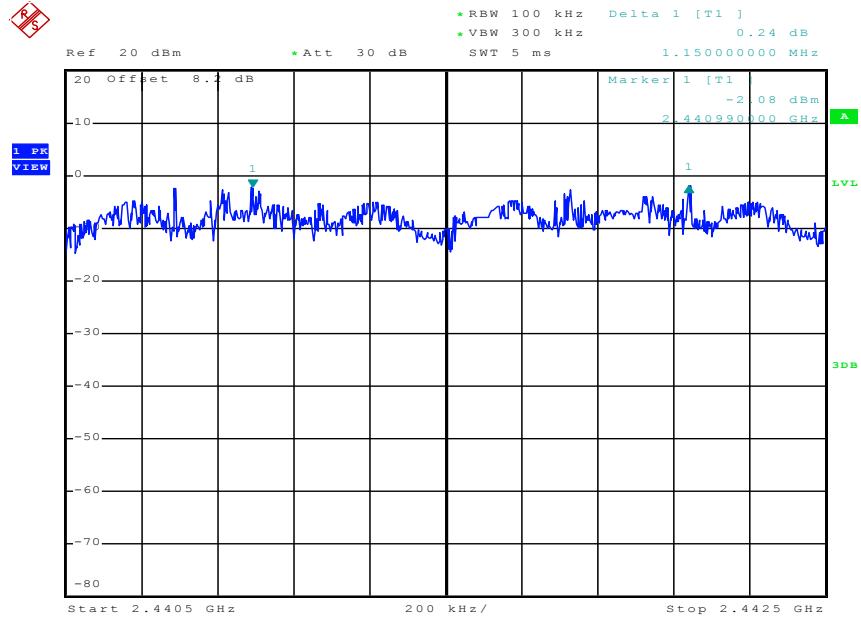
Date: 10 AUG 2019 13:11:26

8DPSK/LCH



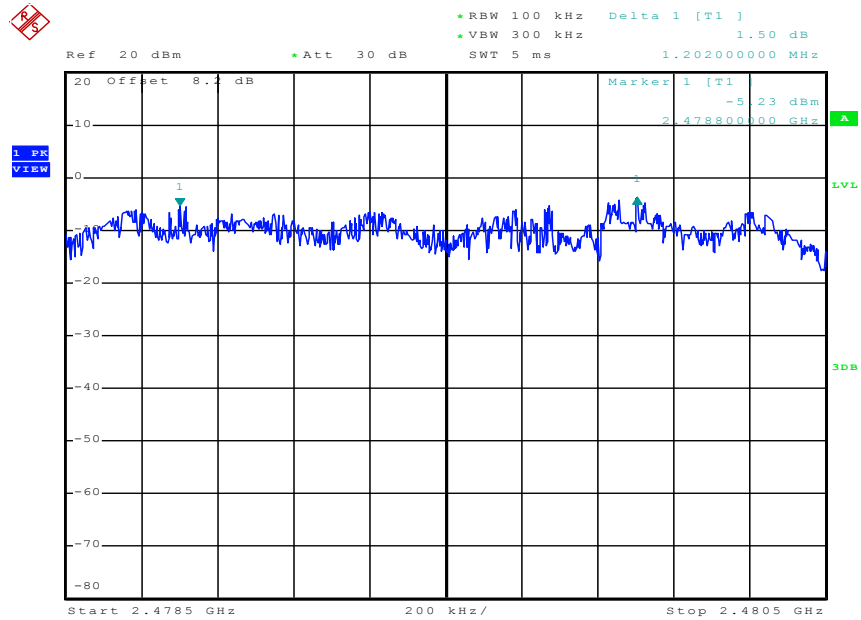
Date: 10 AUG 2019 13:26:21

8DPSK/MCH



Date: 10 AUG 2019 13:18:36

8DPSK/HCH

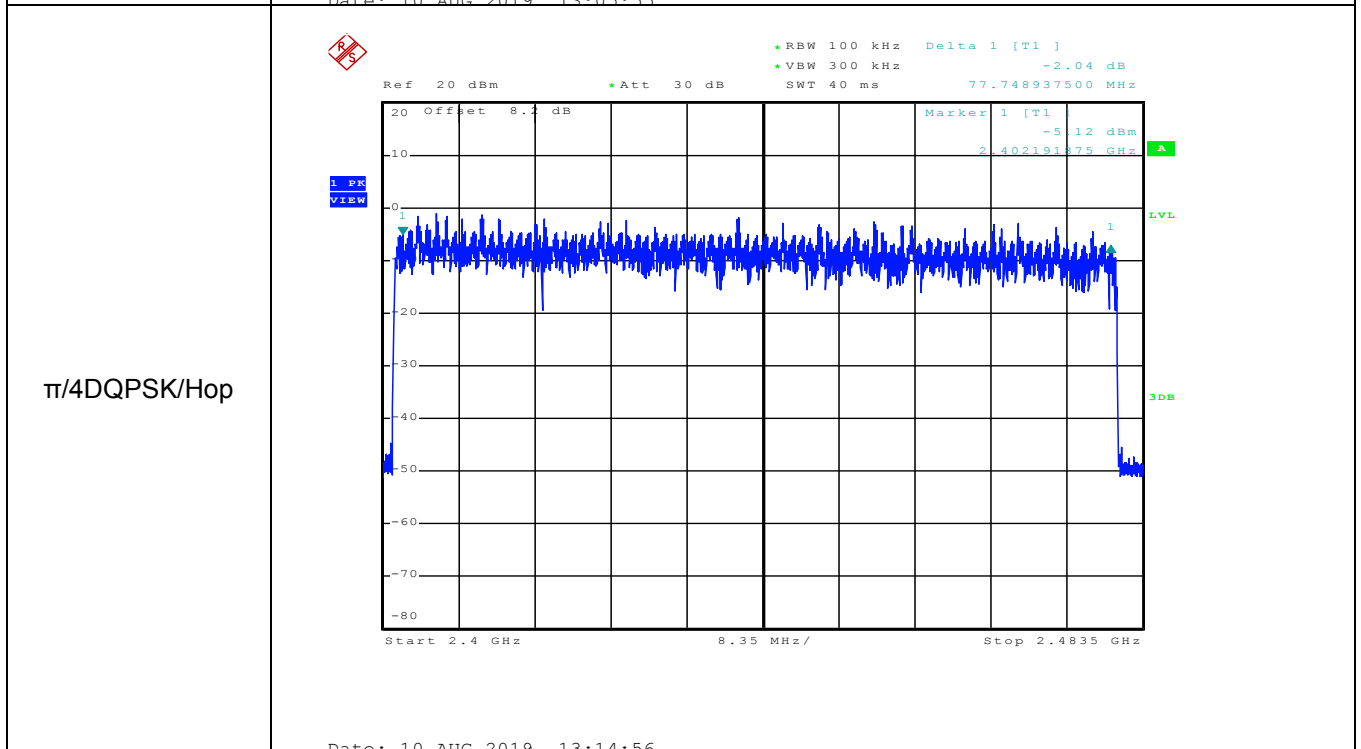
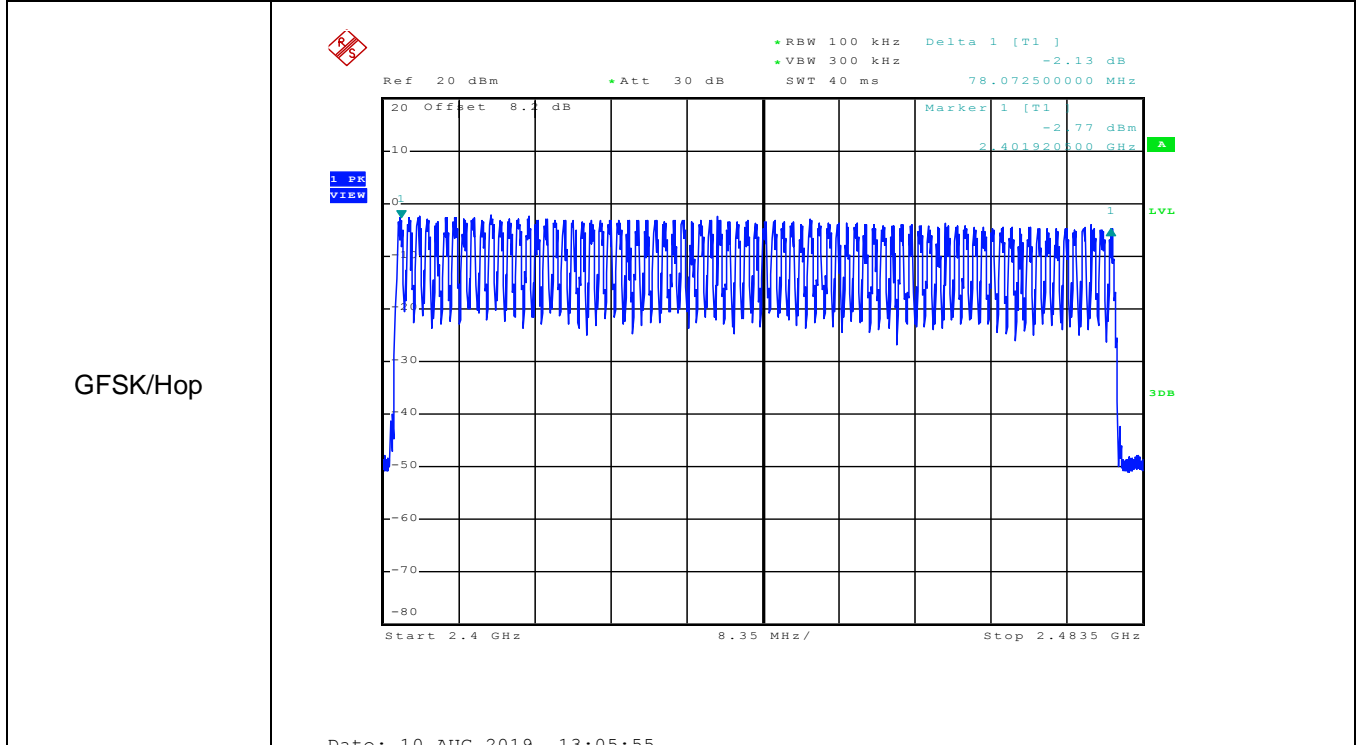


Date: 10 AUG 2019 13:19:01

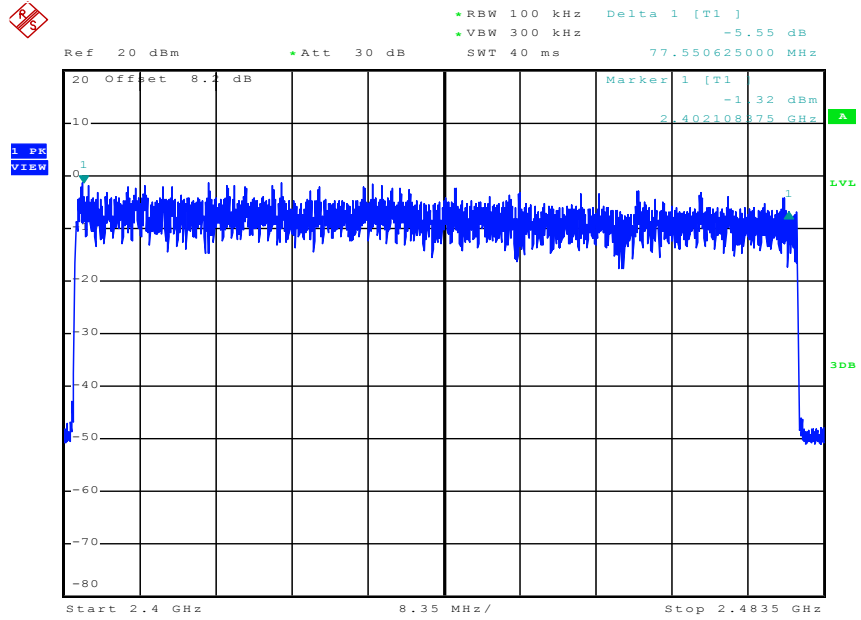
A.4 Hopping Channel Number

Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs



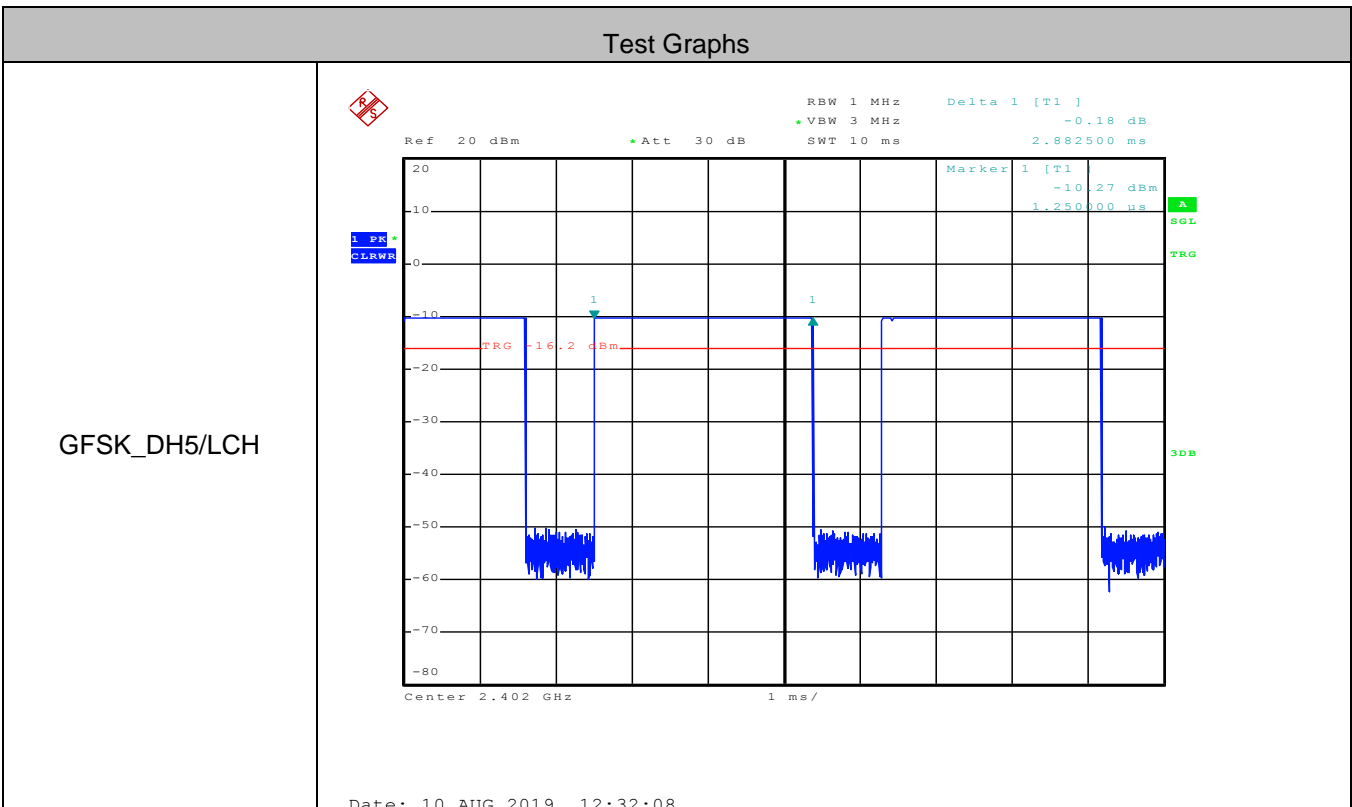
8DPSK/Hop



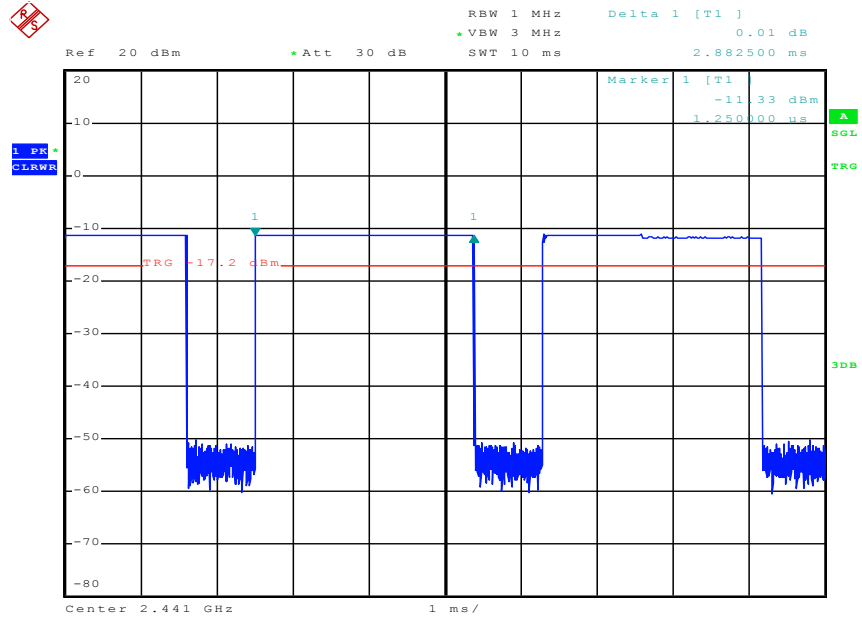
Date: 10 AUG 2019 13:23:05

A.5 Dwell Time

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.308	0.4	PASS
	2DH5	MCH	2.88	106.7	0.308	0.4	PASS
	2DH5	HCH	2.88	106.7	0.308	0.4	PASS
8DPSK	3DH5	LCH	2.88	106.7	0.308	0.4	PASS
	3DH5	MCH	2.88	106.7	0.015	0.4	PASS
	3DH5	HCH	2.88	106.7	0.308	0.4	PASS

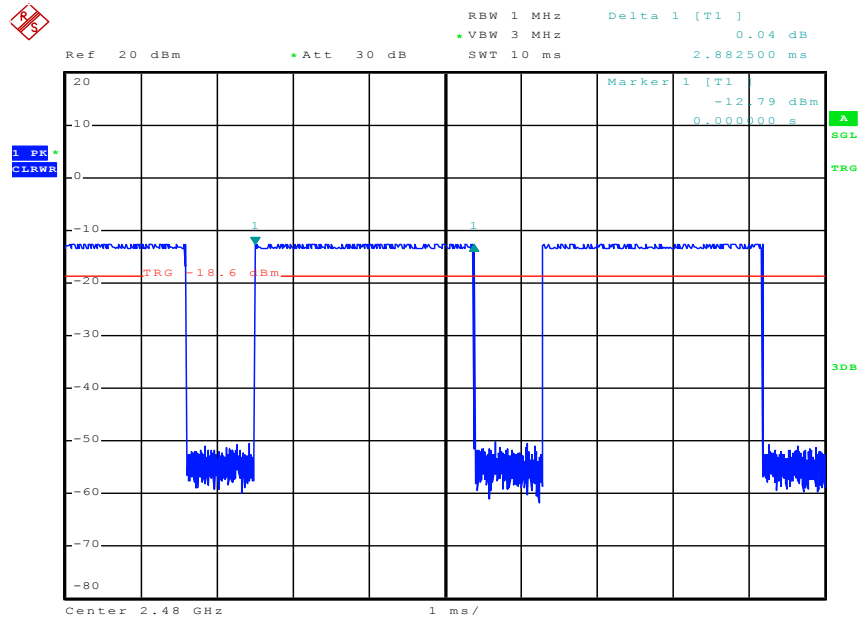


GFSK_DH5/MCH



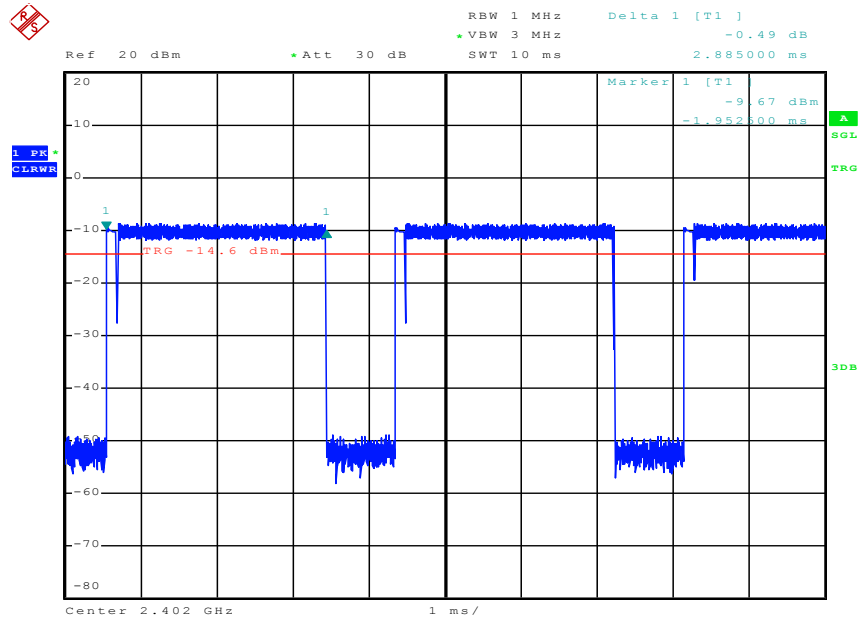
Date: 10 AUG 2019 12:34:51

GFSK_DH5/HCH



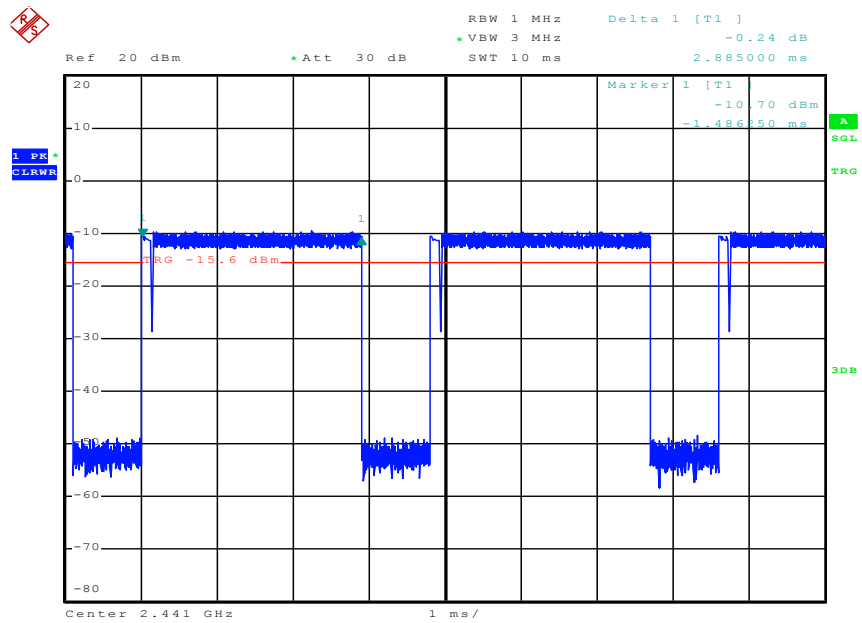
Date: 10 AUG 2019 12:36:43

$\pi/4$ DQPSK
_2DH5/LCH



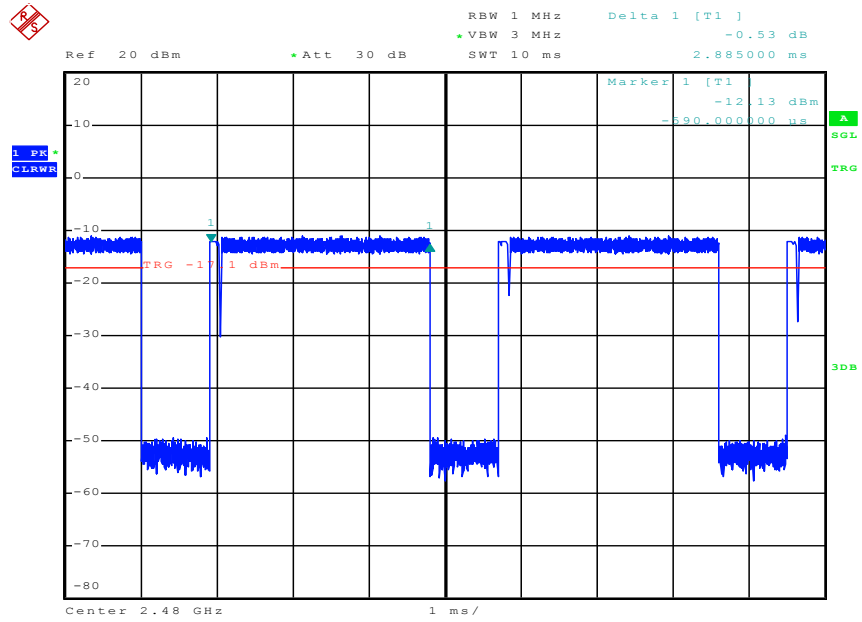
Date: 10 AUG 2019 12:39:26

$\pi/4$ DQPSK
_2DH5/MCH



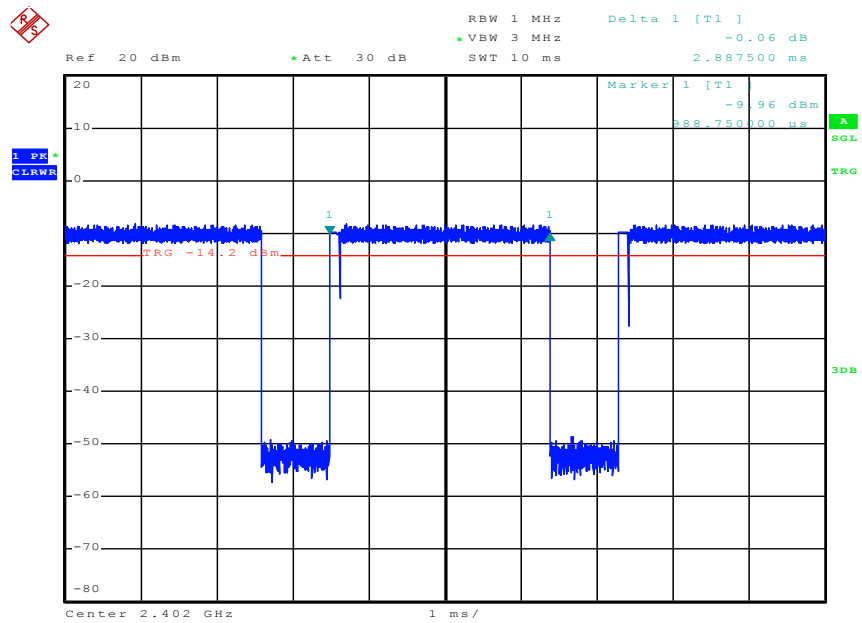
Date: 10 AUG 2019 12:43:01

$\pi/4$ DQPSK
_2DH5/HCH



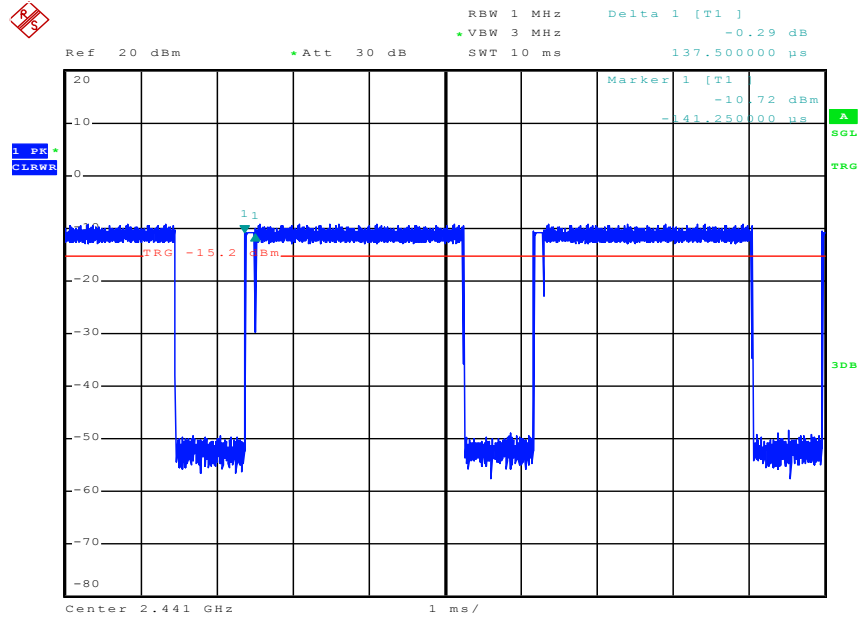
Date: 10 AUG 2019 12:44:59

8DPSK _3DH5/LCH



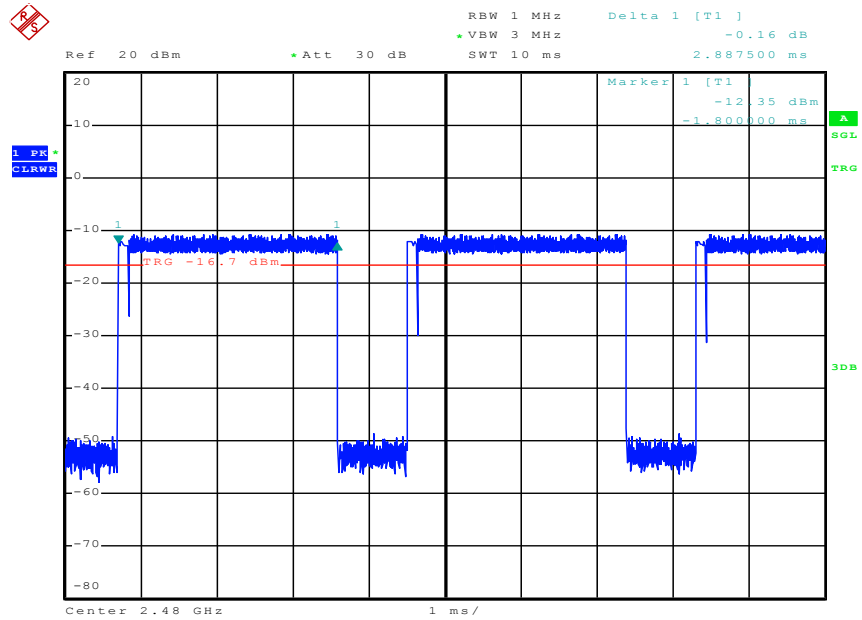
Date: 10 AUG 2019 12:48:04

8DPSK_3DH5/MCH



Date: 10 AUG 2019 12:50:55

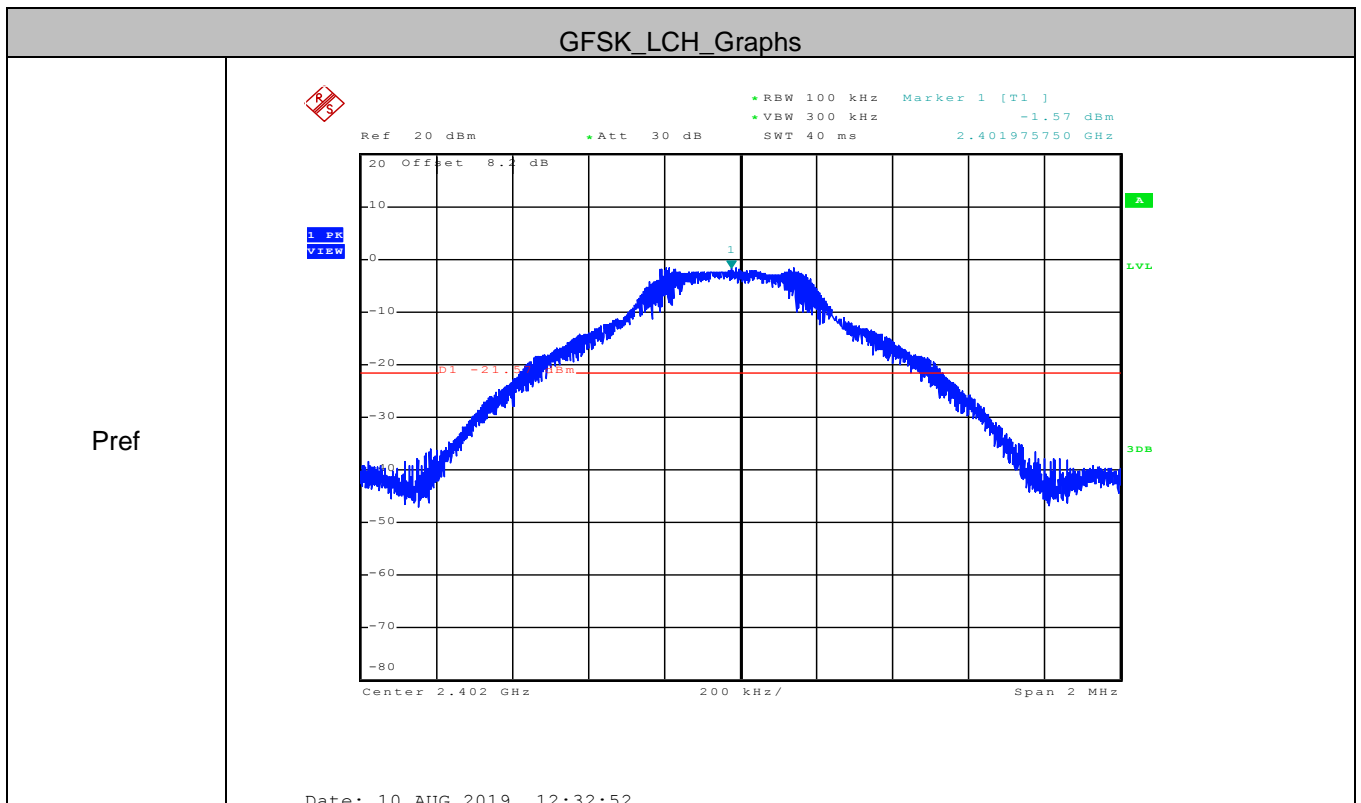
8DPSK_3DH5/HCH



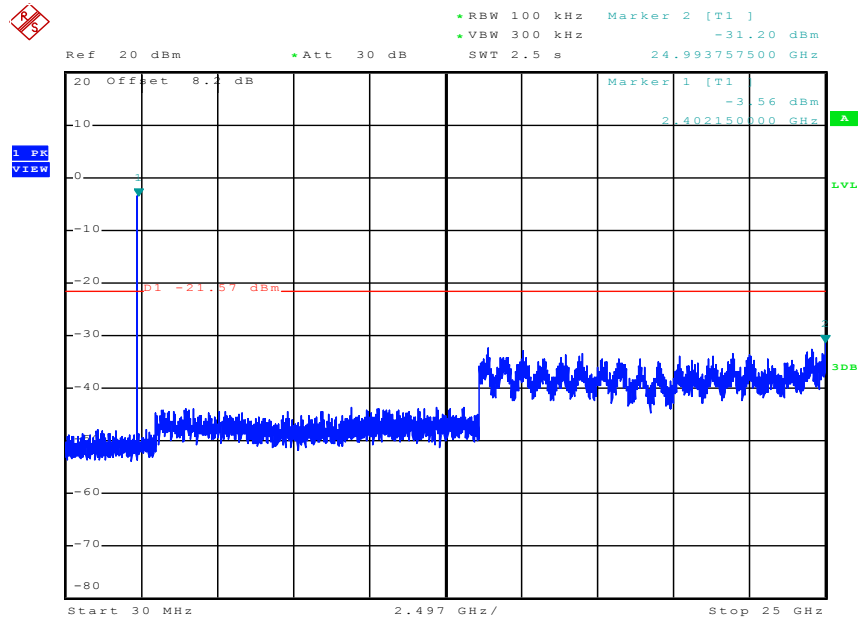
Date: 10 AUG 2019 12:53:46

A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.57	-31.200	-21.570	PASS
	MCH	-2.51	-31.650	-22.510	PASS
	HCH	-3.98	-30.950	-23.980	PASS
$\pi/4$ DQPSK	LCH	-0.85	-32.340	-20.850	PASS
	MCH	-1.83	-32.850	-21.830	PASS
	HCH	-3.37	-32.540	-23.370	PASS
8DPSK	LCH	-0.89	-32.340	-20.890	PASS
	MCH	-1.8	-32.330	-21.800	PASS
	HCH	-3.34	-32.120	-23.340	PASS



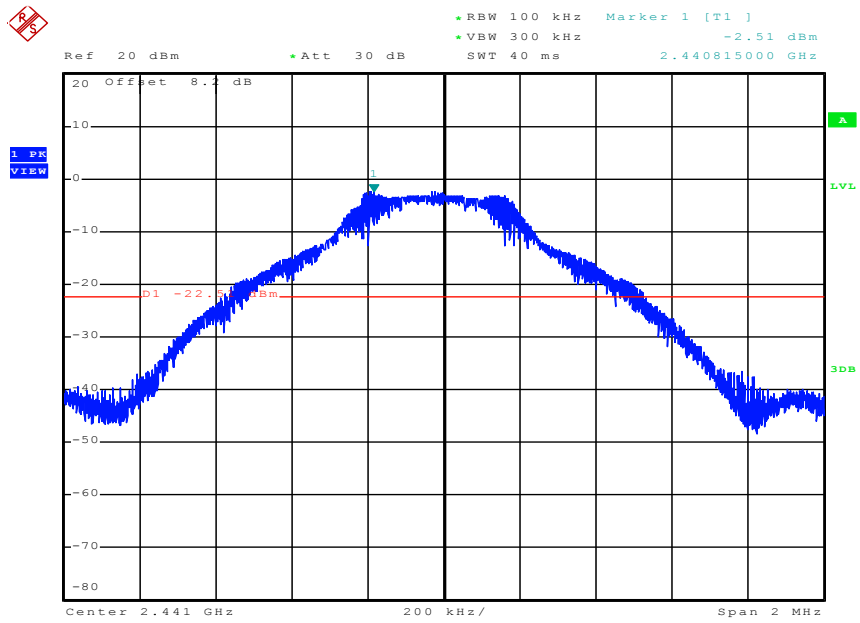
P_{uw}



Date: 10 AUG 2019 12:33:07

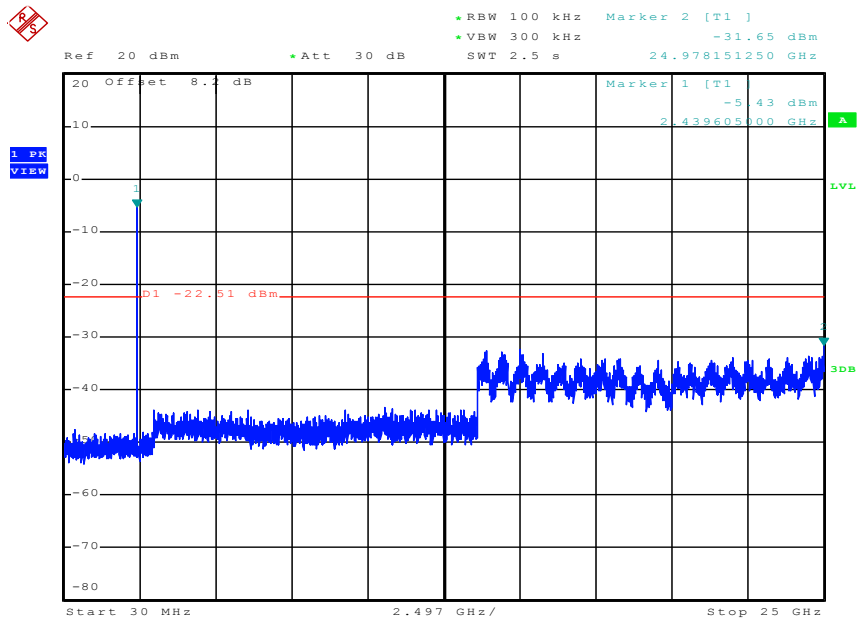
GFSK_MCH_Graphs

Pref



Date: 10 AUG 2019 12:35:19

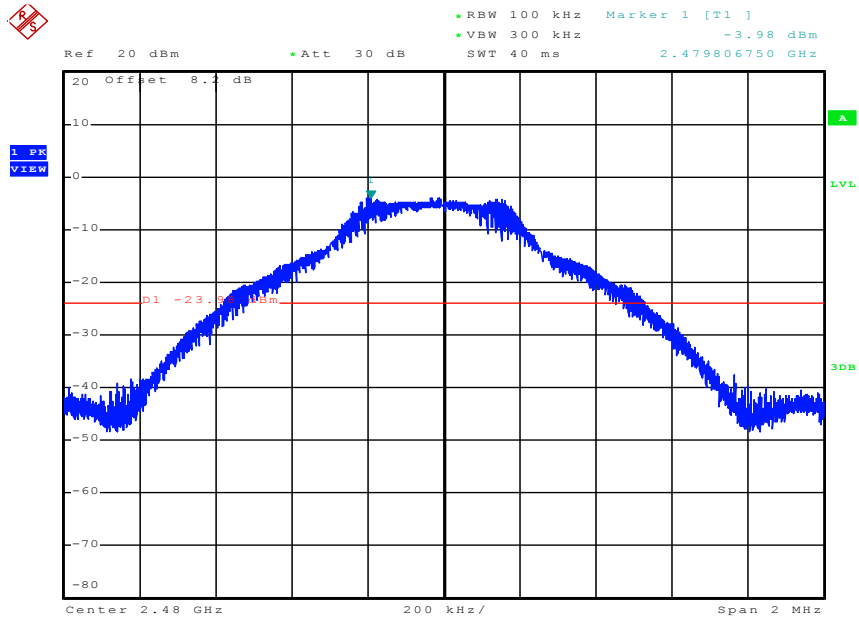
Puw



Date: 10 AUG 2019 12:35:34

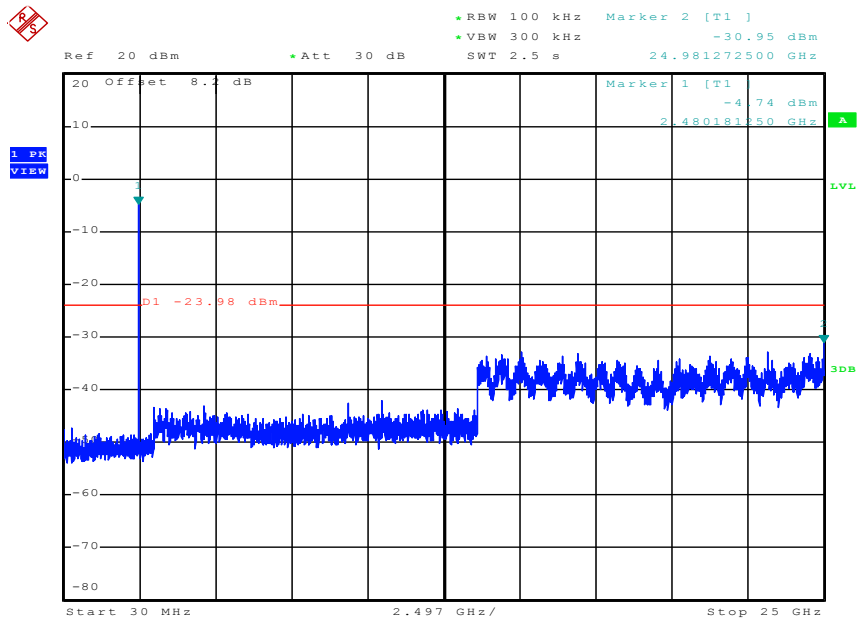
GFSK_HCH_Graphs

Pref



Date: 10 AUG 2019 12:37:27

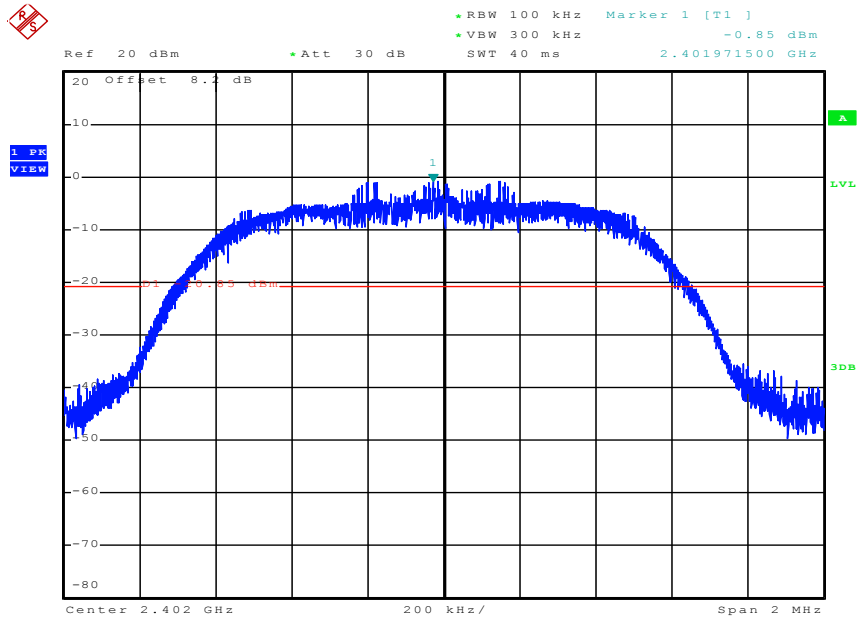
Puw



Date: 10 AUG 2019 12:37:42

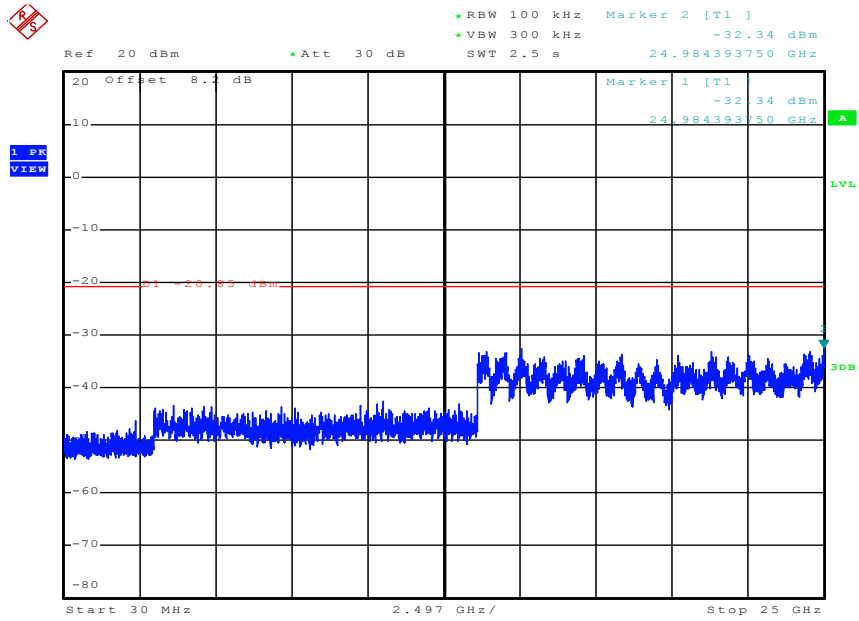
$\pi/4$ DQPSK_LCH_Graphs

Pref



Date: 10 AUG 2019 12:40:11

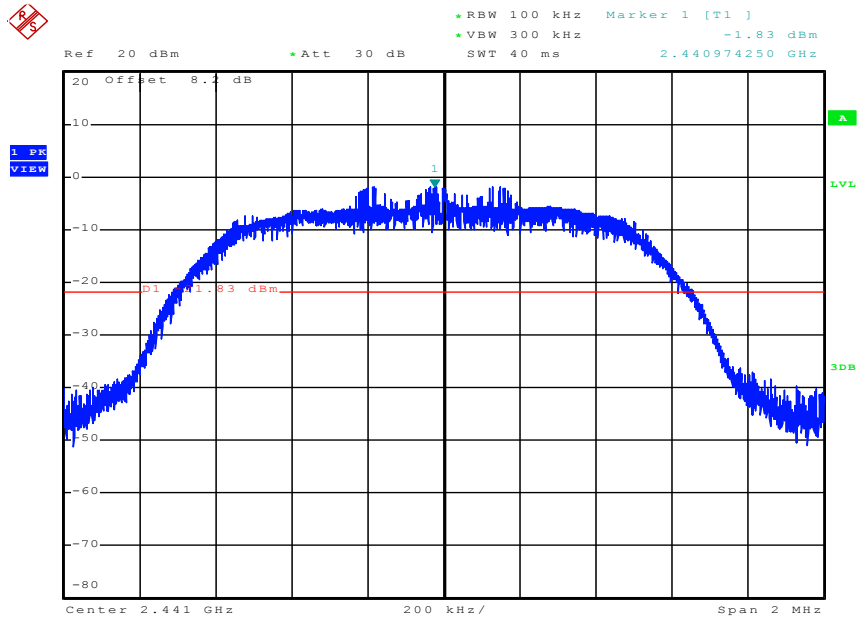
Puw



Date: 10 AUG 2019 12:40:26

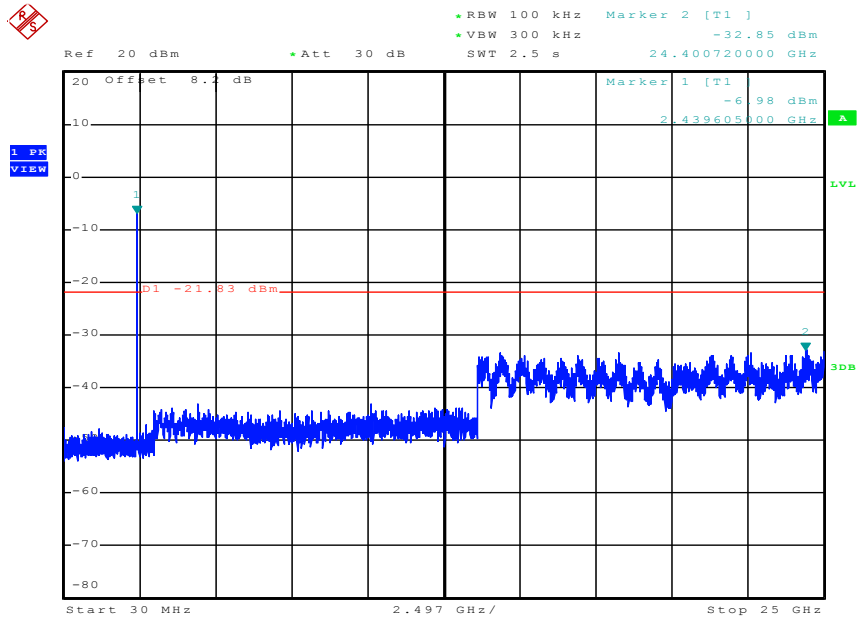
$\pi/4$ DQPSK_MCH_Graphs

Pref



Date: 10 AUG 2019 12:43:28

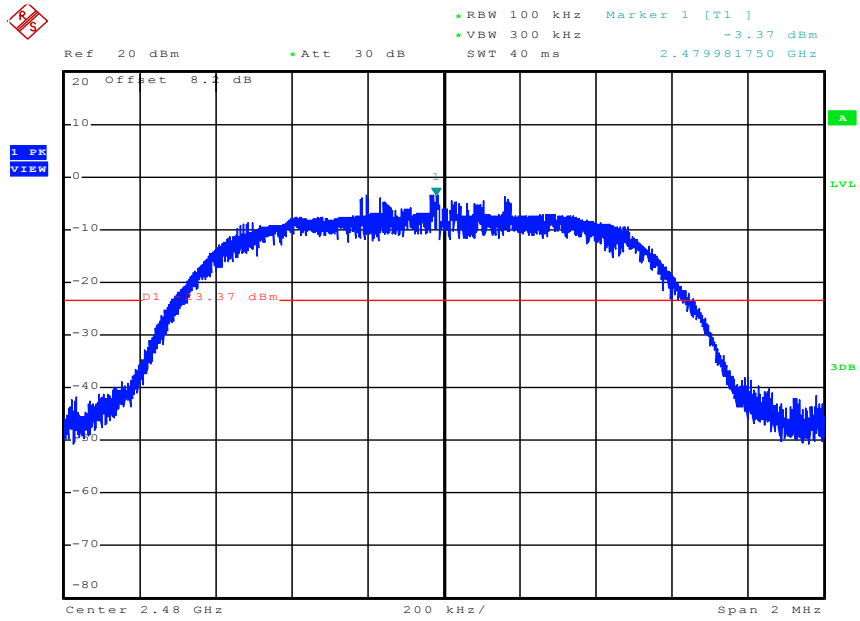
Puw



Date: 10 AUG 2019 12:43:43

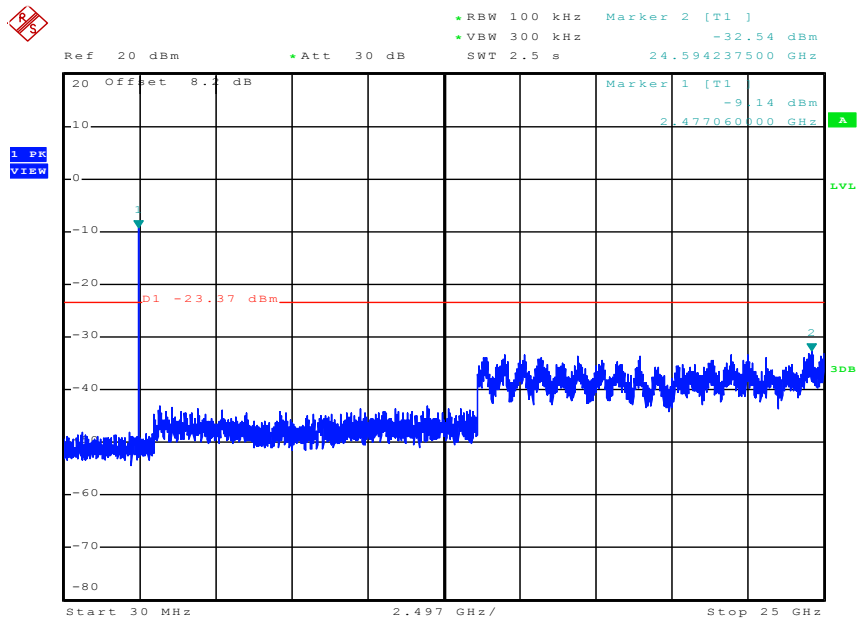
$\pi/4$ DQPSK_HCH_Graphs

Pref



Date: 10 AUG 2019 12:45:43

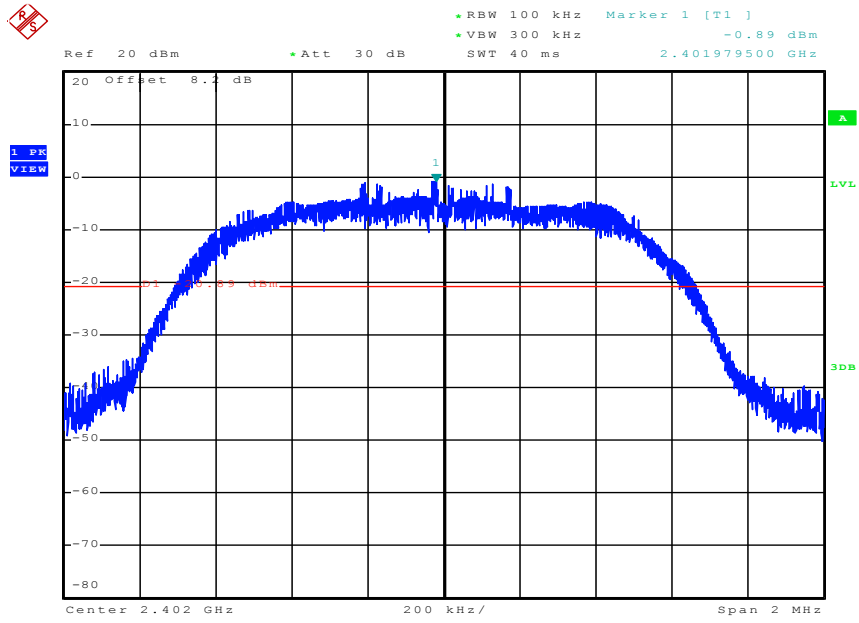
Puw



Date: 10 AUG 2019 12:45:58

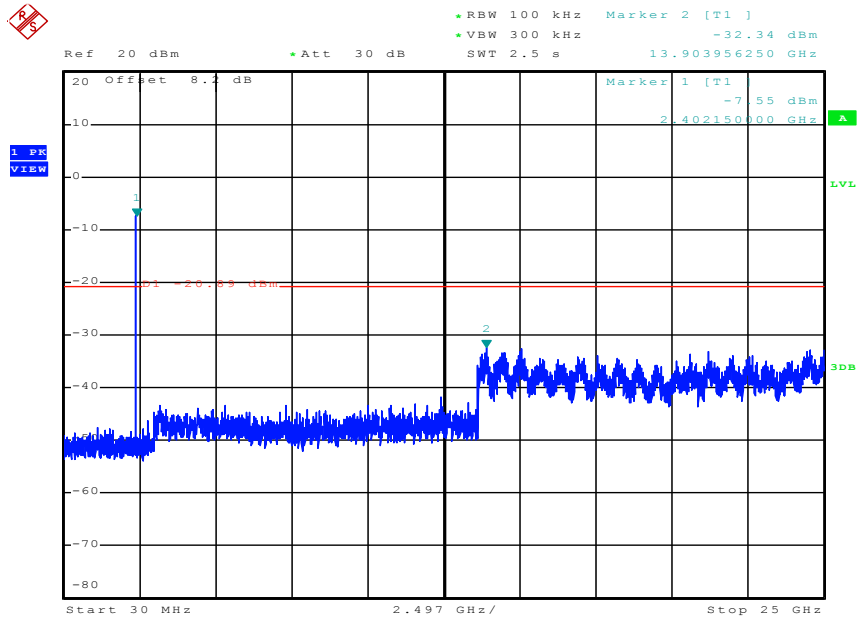
8DPSK_LCH_Graphs

Pref



Date: 10 AUG 2019 12:48:49

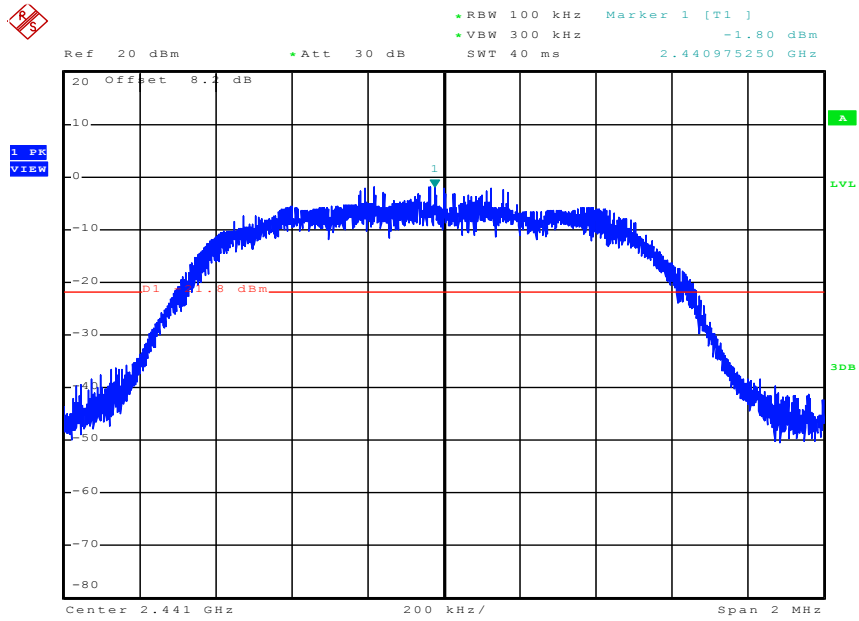
Puw



Date: 10 AUG 2019 12:49:04

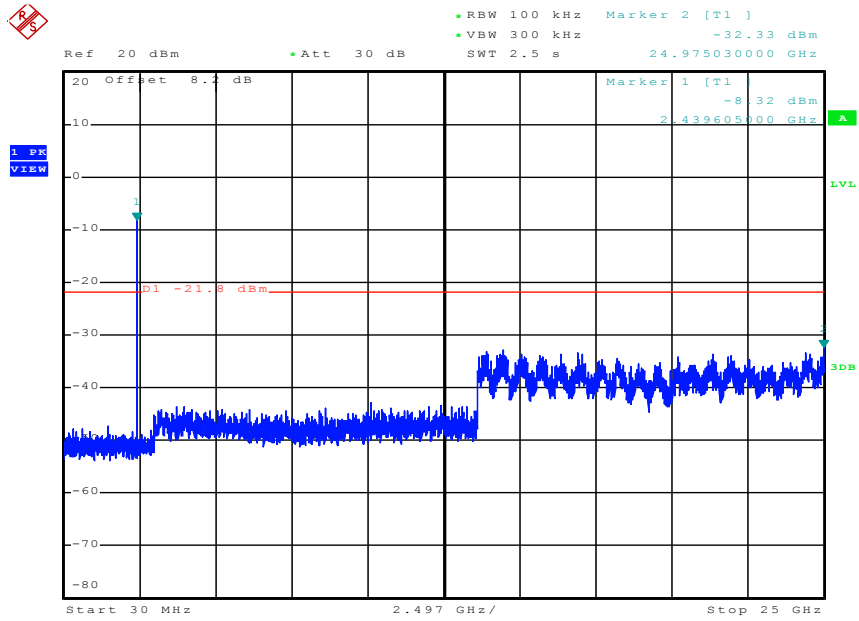
8DPSK_MCH_Graphs

Pref



Date: 10 AUG 2019 12:51:23

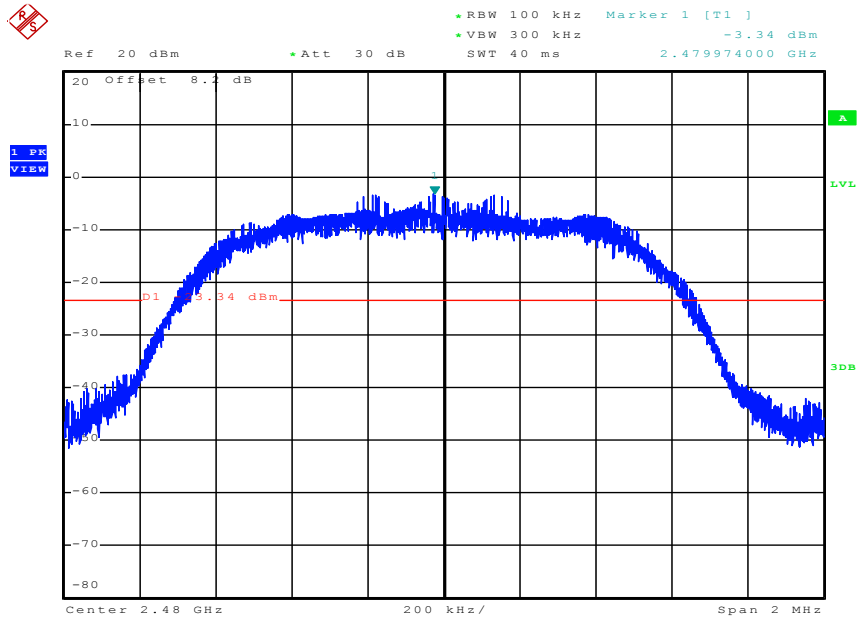
Puw



Date: 10 AUG 2019 12:51:38

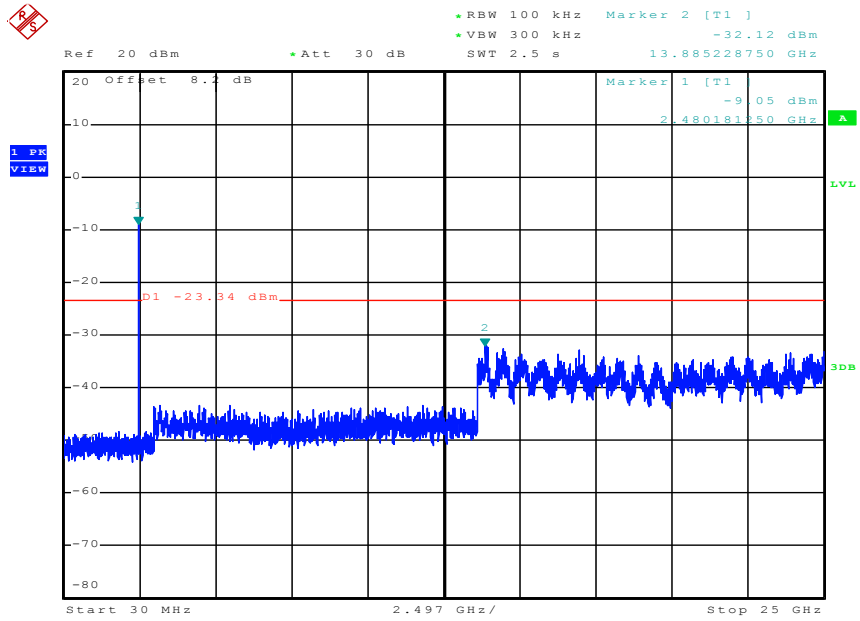
8DPSK_HCH_Graphs

Pref



Date: 10 AUG 2019 12:54:31

Puw



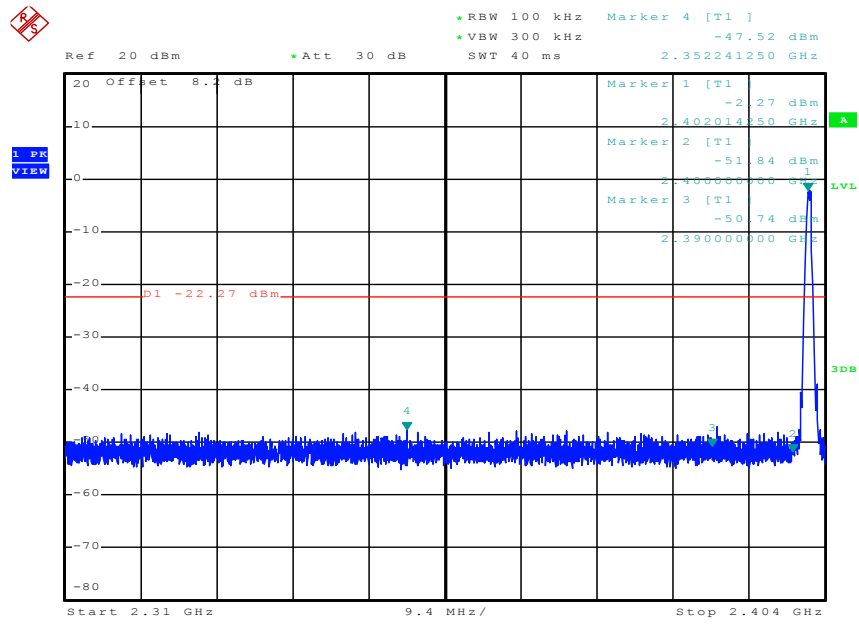
Date: 10 AUG 2019 12:54:45

A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-2.270	Off	-47.525	-22.27	PASS
			-1.810	On	-46.656	-21.81	PASS
	HCH	2480	-4.040	Off	-47.609	-24.04	PASS
			-3.760	On	-47.394	-23.76	PASS
π/4DQPSK	LCH	2402	-0.890	Off	-47.503	-20.89	PASS
			-1.480	On	-46.792	-21.48	PASS
	HCH	2480	-3.440	Off	-47.600	-23.44	PASS
			-2.700	On	-45.508	-22.7	PASS
8DPSK	LCH	2402	-1.980	Off	-46.976	-21.98	PASS
			-1.190	On	-46.510	-21.19	PASS
	HCH	2480	-3.620	Off	-47.797	-23.62	PASS
			-2.950	On	-47.030	-22.95	PASS

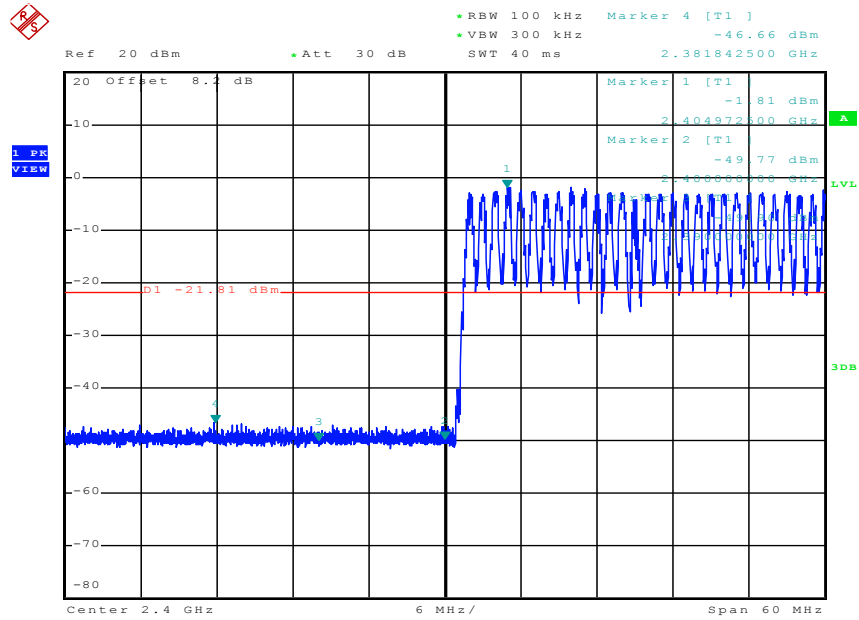
Test Graphs

GFSK/LCH/No Hop



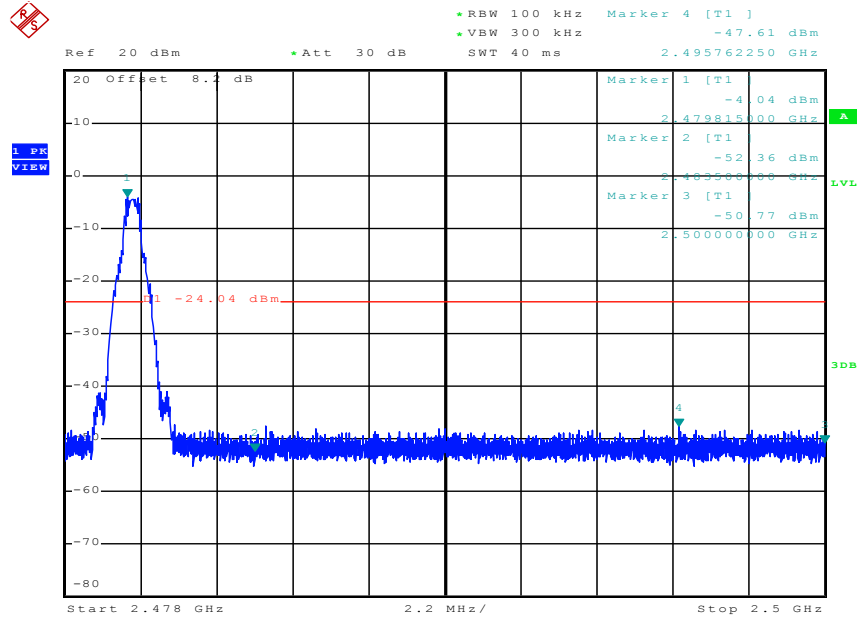
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GFSK/LCH/Hop



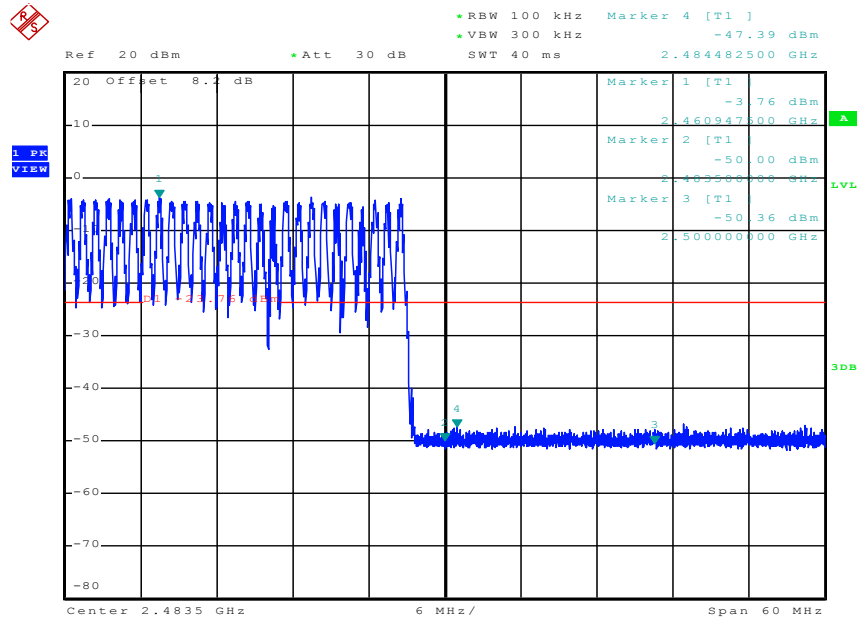
Date: 10 AUG 2019 13:01:26

GFSK/HCH/No Hop



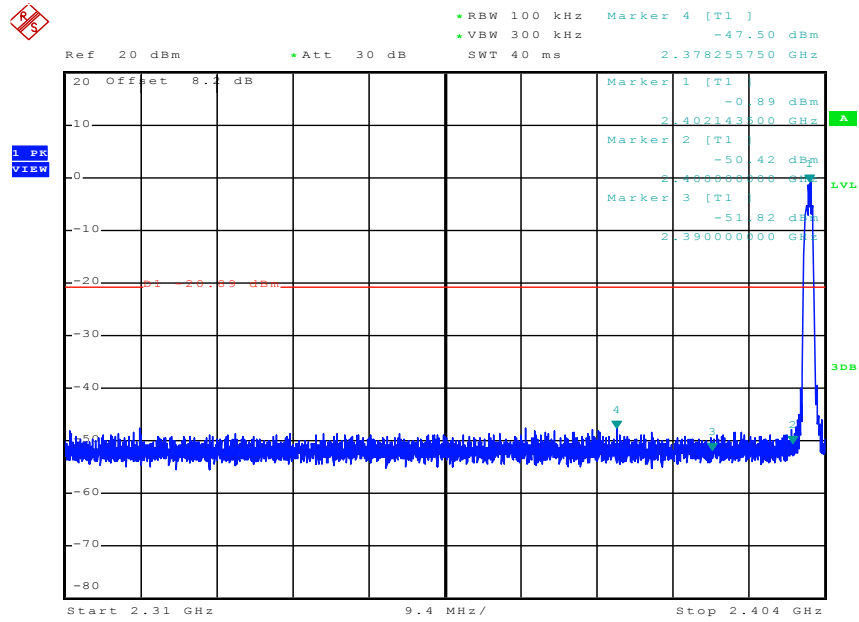
Date: 10 AUG 2019 12:37:14

GFSK/HCH/Hop



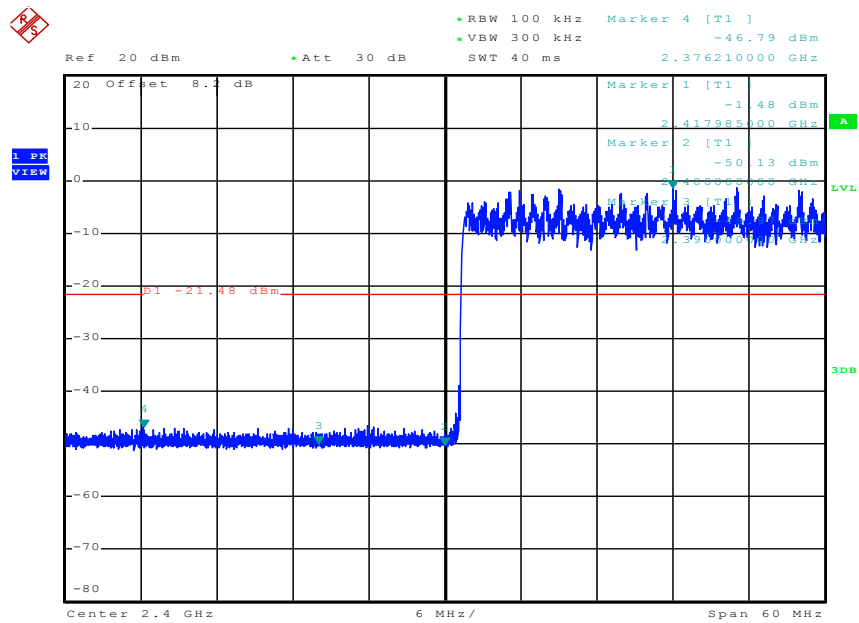
Date: 10 AUG 2019 13:03:53

$\pi/4$ DQPSK/LCH/No
Hop



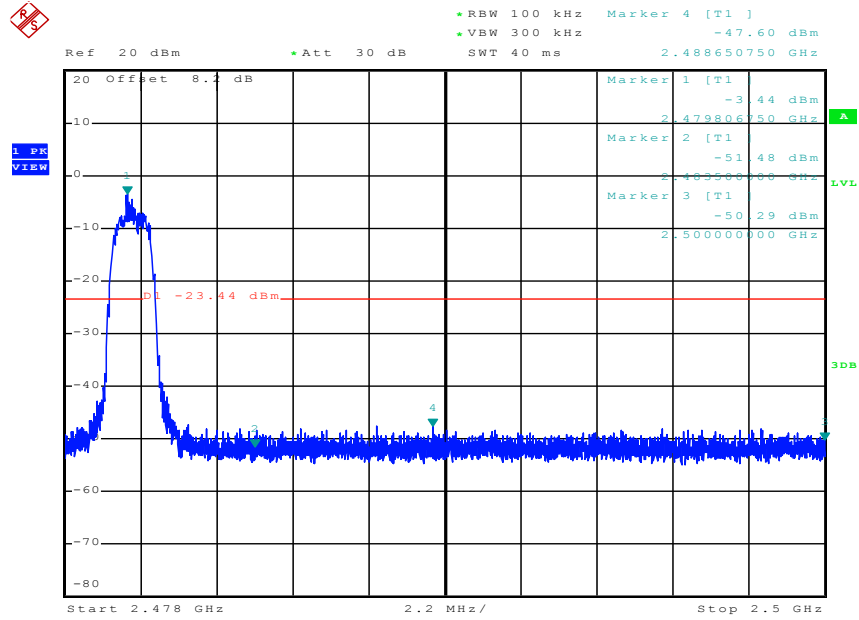
Date: 10 AUG 2019 12:39:58

$\pi/4$ DQPSK/LCH/Hop



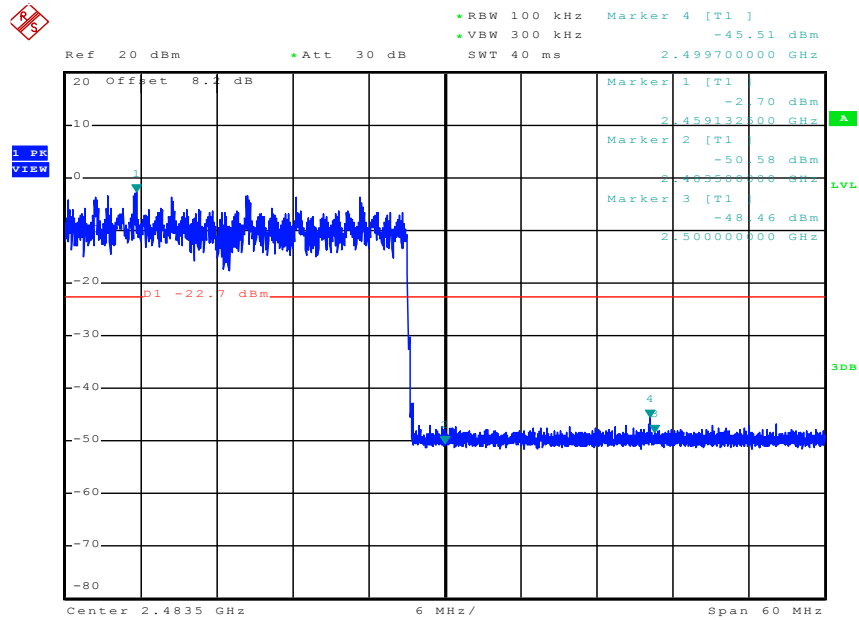
Date: 10 AUG 2019 13:10:25

π /4DQPSK/HCH/No
Hop



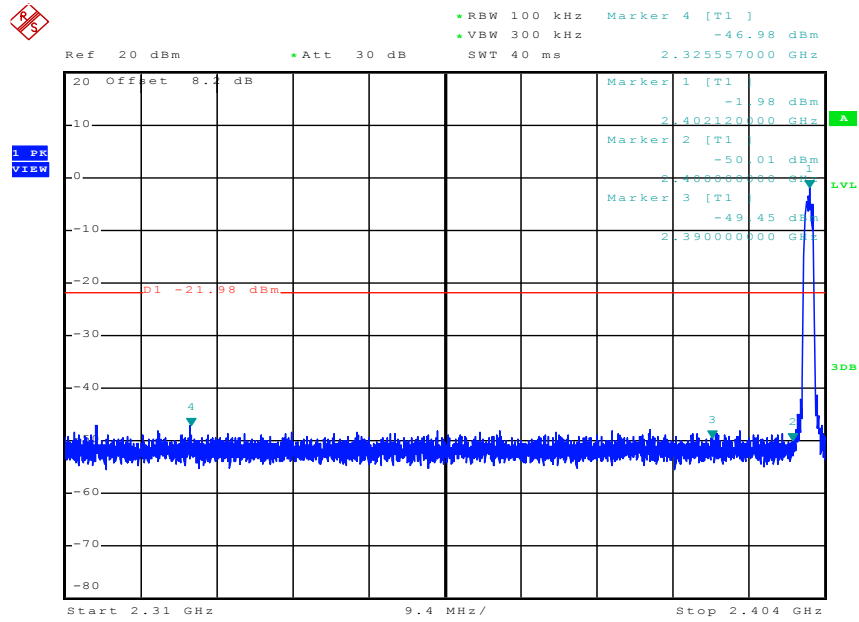
Date: 10 AUG 2019 12:45:30

π /4DQPSK/HCH/Hop



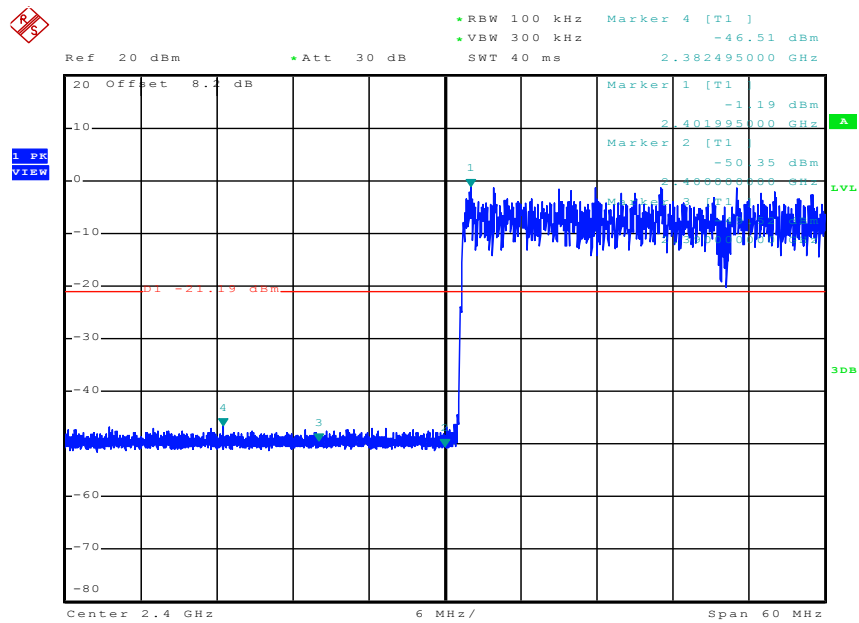
Date: 10 AUG 2019 13:13:11

8DPSK/LCH/No Hop



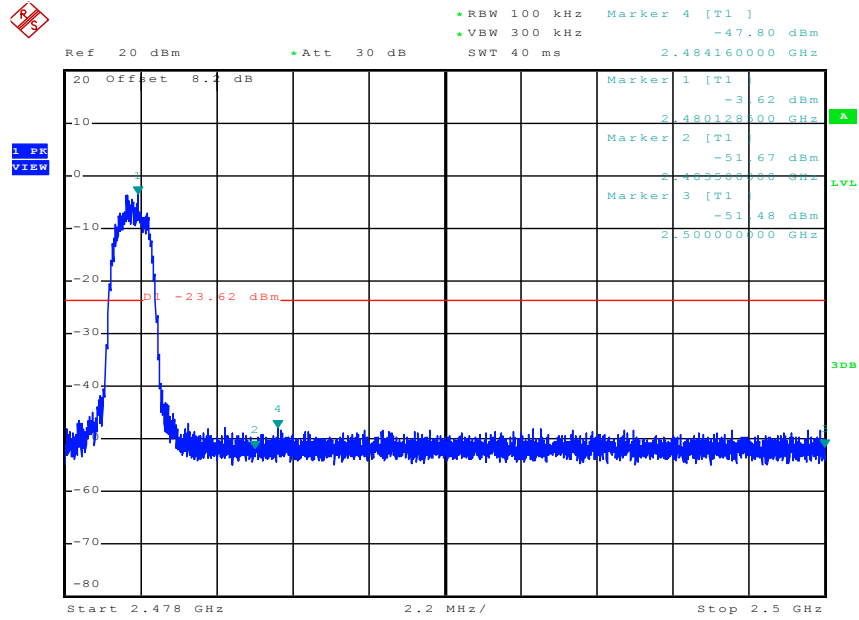
Date: 10 AUG 2019 12:48:36

8DPSK/LCH/Hop



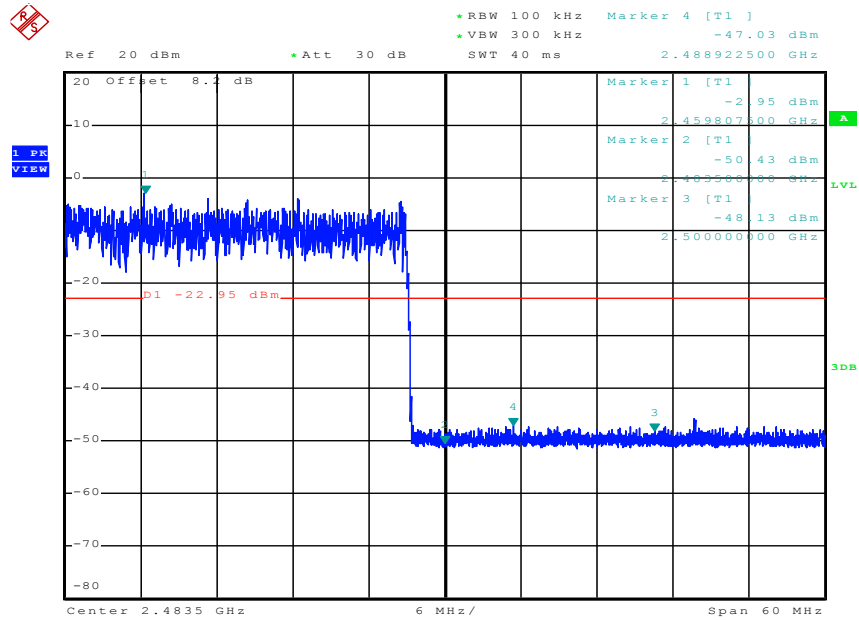
Date: 10 AUG 2019 13:18:06

8DPSK/HCH/No Hop



Date: 10 AUG 2019 12:54:18

8DPSK/HCH/Hop

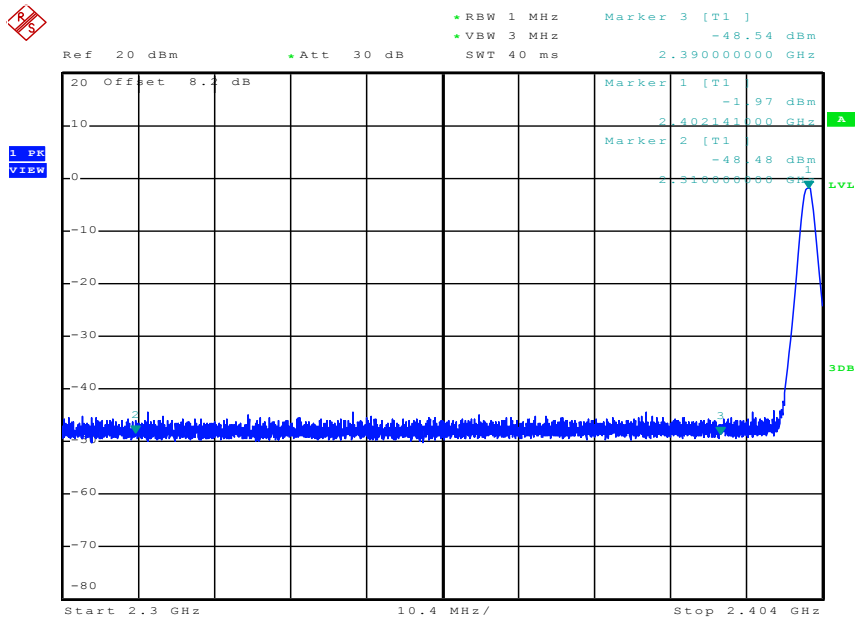


Date: 10 AUG 2019 13:20:46

A.8 Restrict-band band-edge measurements

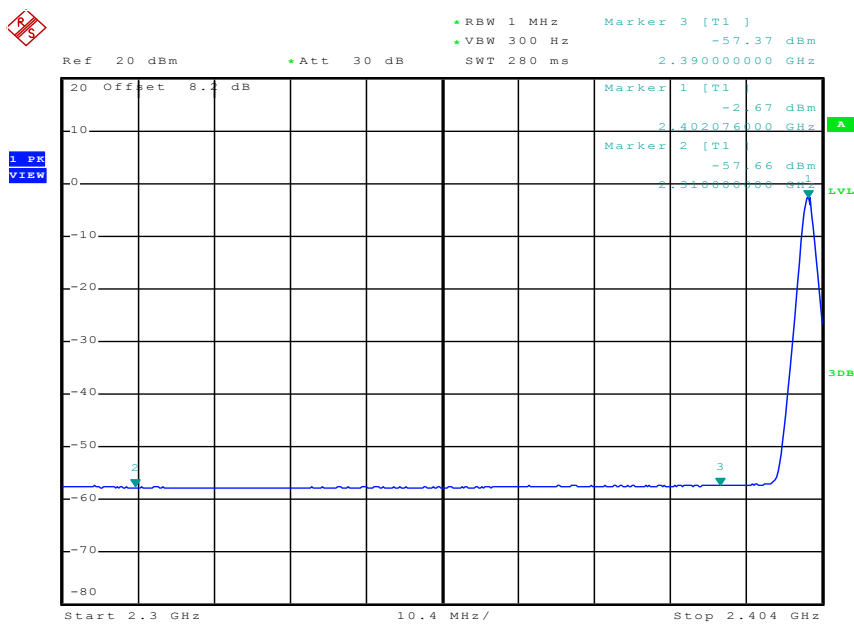
Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-48.48	2.0	0	48.78	PEAK	74	PASS
	Off	2310.0	-57.66	2.0	0	39.60	AV	54	PASS
	Off	2390.0	-48.54	2.0	0	48.72	PEAK	74	PASS
	Off	2390.0	-57.37	2.0	0	39.89	AV	54	PASS
	Off	2483.5	-42.81	2.0	0	54.45	PEAK	74	PASS
	Off	2483.5	-47.35	2.0	0	49.91	AV	54	PASS
	Off	2500.0	-48.49	2.0	0	48.77	PEAK	74	PASS
	Off	2500.0	-58.06	2.0	0	39.20	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-48.88	2.0	0	48.38	PEAK	74	PASS
	Off	2310.0	-57.71	2.0	0	39.55	AV	54	PASS
	Off	2390.0	-46.96	2.0	0	50.30	PEAK	74	PASS
	Off	2390.0	-57.36	2.0	0	39.90	AV	54	PASS
	Off	2483.5	-41.56	2.0	0	55.70	PEAK	74	PASS
	Off	2483.5	-47.34	2.0	0	49.92	AV	54	PASS
	Off	2500.0	-47.50	2.0	0	49.76	PEAK	74	PASS
	Off	2500.0	-58.01	2.0	0	39.25	AV	54	PASS
8DPSK	Off	2310.0	-48.86	2.0	0	48.40	PEAK	74	PASS
	Off	2310.0	-57.80	2.0	0	39.46	AV	54	PASS
	Off	2390.0	-46.64	2.0	0	50.62	PEAK	74	PASS
	Off	2390.0	-57.39	2.0	0	39.87	AV	54	PASS
	Off	2483.5	-41.22	2.0	0	56.04	PEAK	74	PASS
	Off	2483.5	-47.35	2.0	0	49.91	AV	54	PASS
	Off	2500.0	-47.67	2.0	0	49.59	PEAK	74	PASS
	Off	2500.0	-58.13	2.0	0	39.13	AV	54	PASS

Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



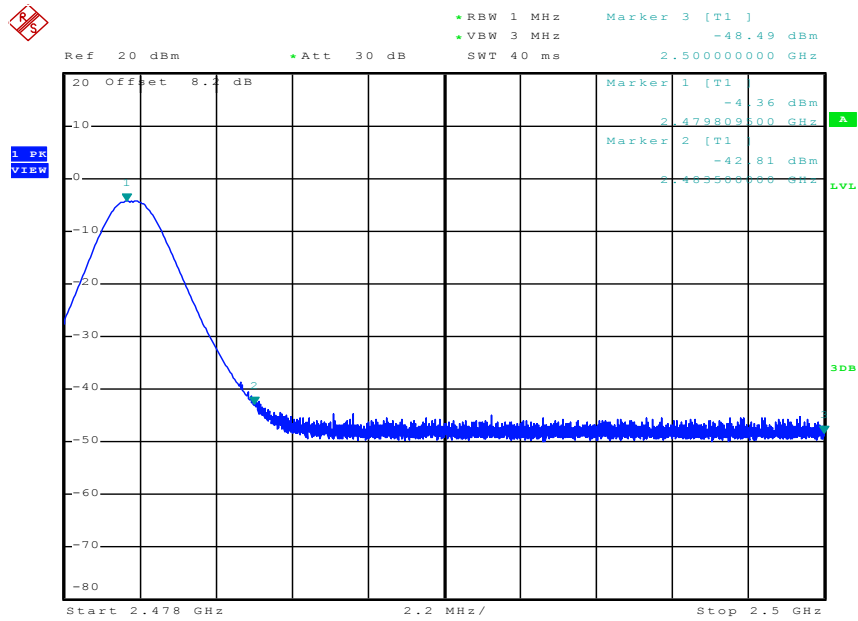
Date: 10.AUG.2019 12:33:26

Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



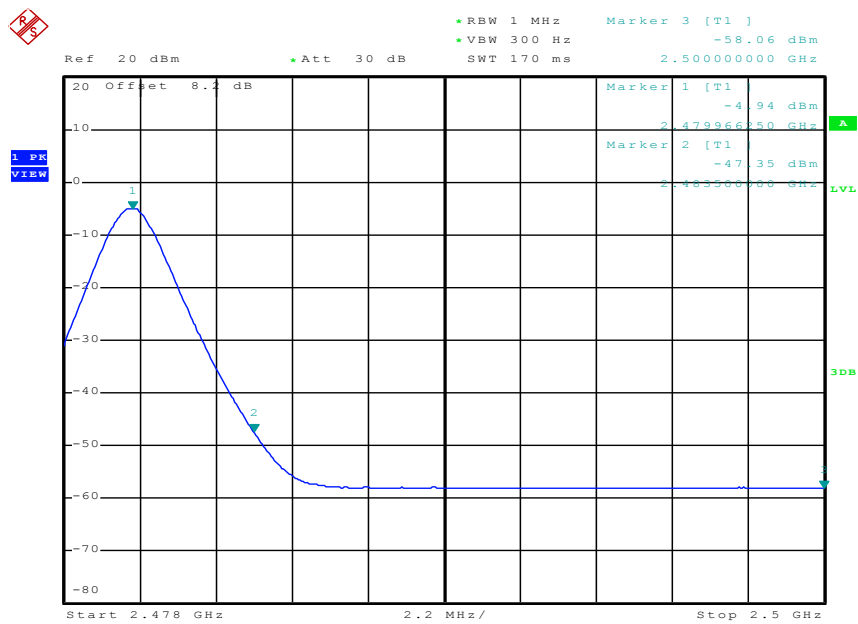
Date: 10.AUG.2019 12:33:39

Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



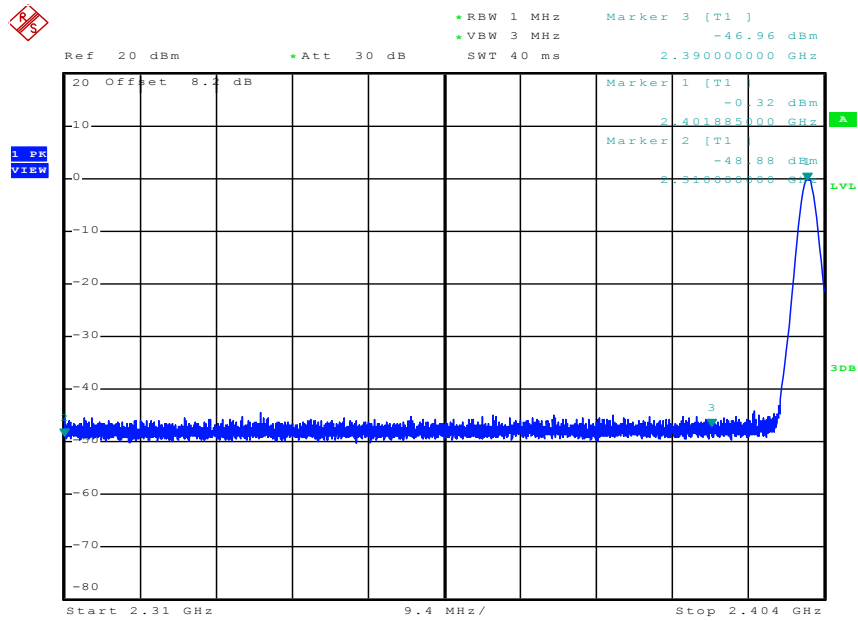
Date: 10.AUG.2019 12:38:01

Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



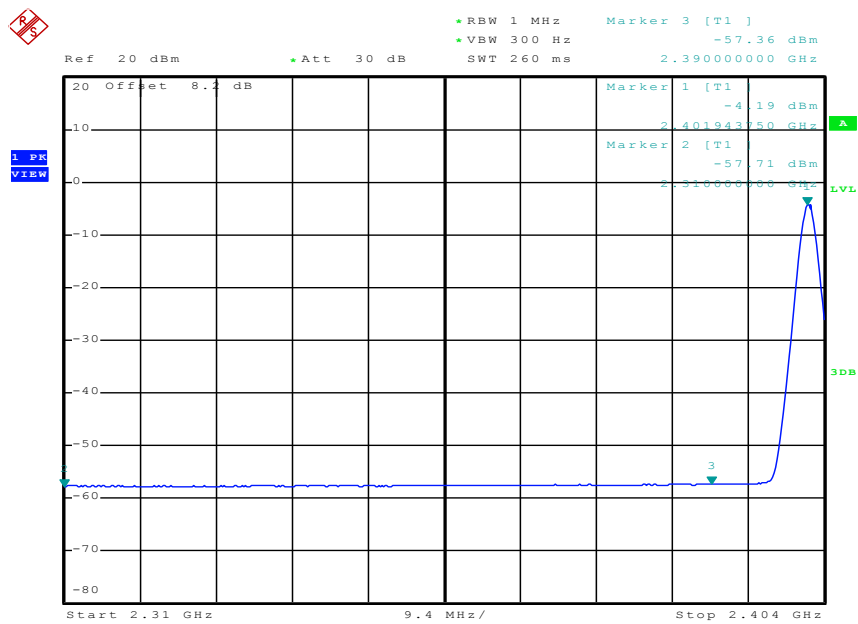
Date: 10.AUG.2019 12:38:14

Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)



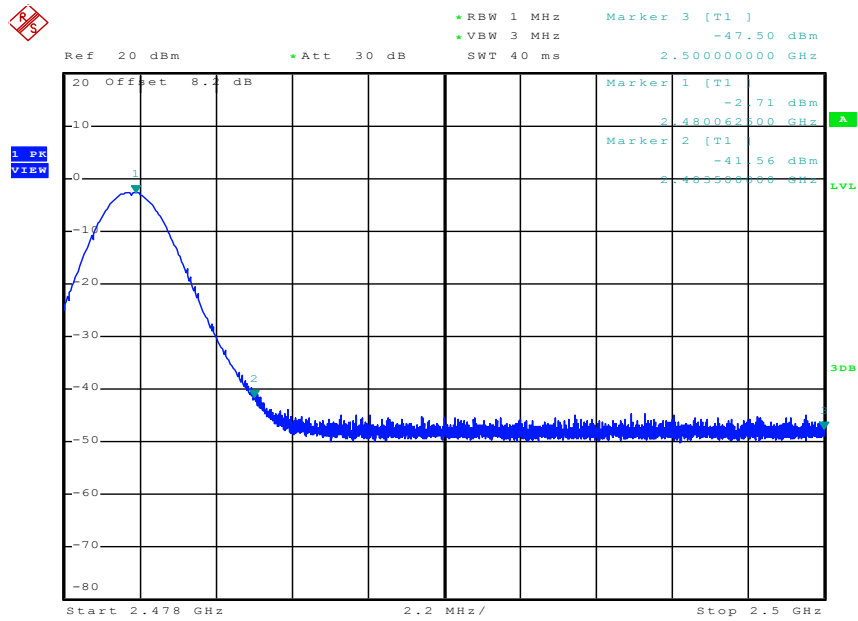
Date: 10.AUG.2019 12:40:45

Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)



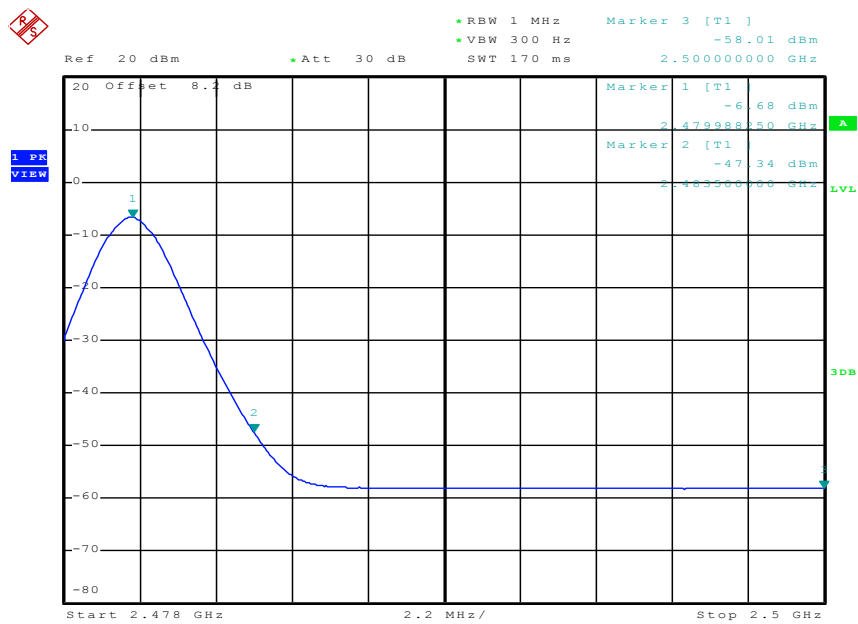
Date: 10.AUG.2019 12:40:58

Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (High Channel)



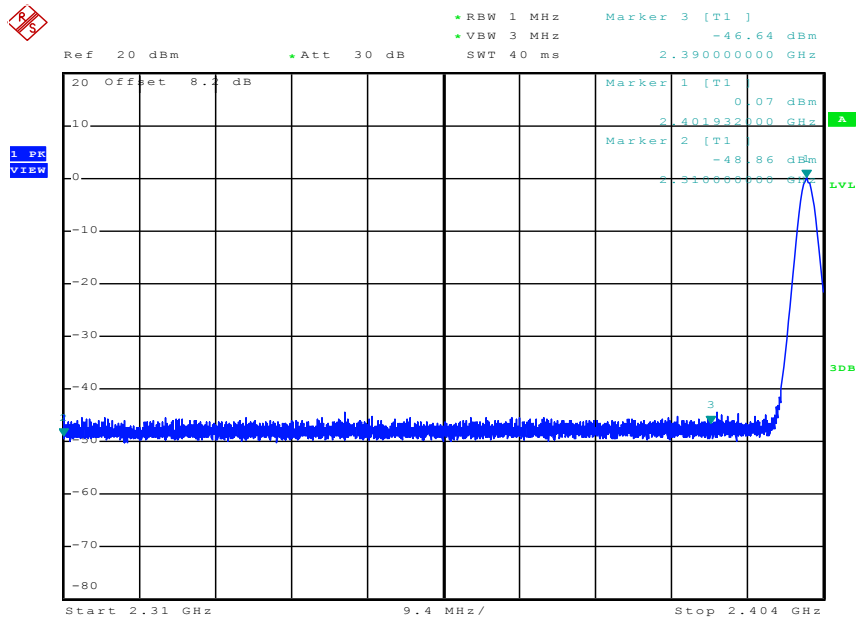
Date: 10.AUG.2019 12:46:17

Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (High Channel)



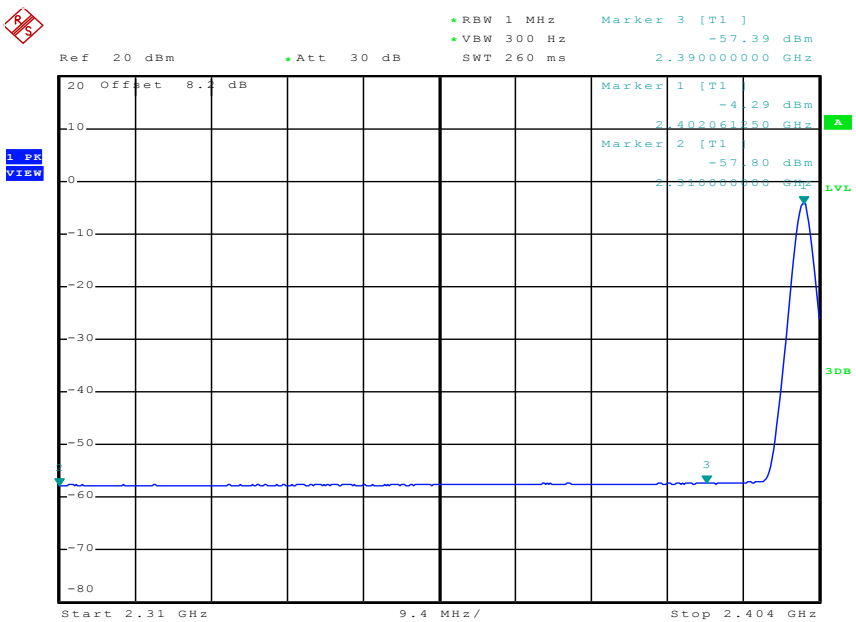
Date: 10.AUG.2019 12:46:30

Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



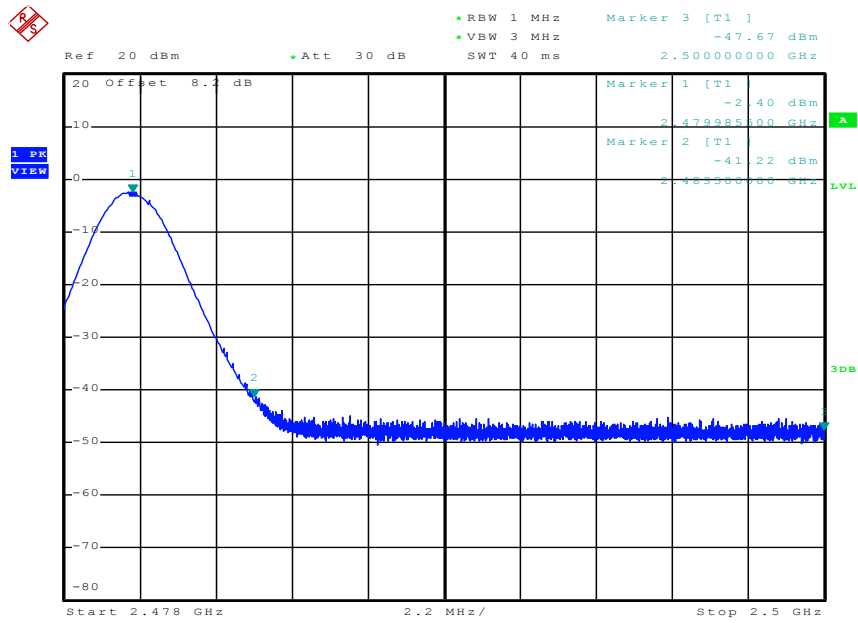
Date: 10.AUG.2019 12:49:23

Restrict-band band-edge measurements_Hopping Off_8DPSK_Average (Low Channel)



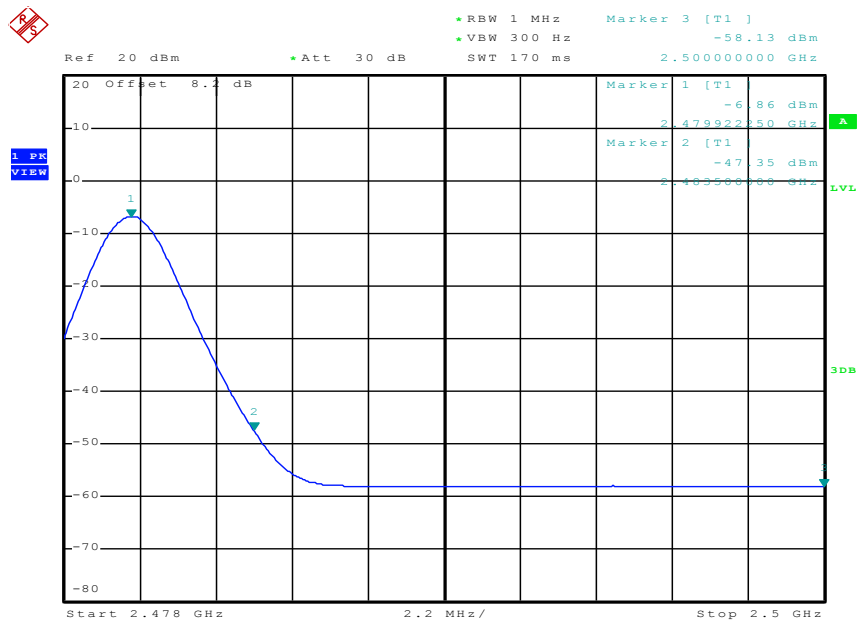
Date: 10.AUG.2019 12:49:36

Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (High Channel)



Date: 10.AUG.2019 12:55:04

Restrict-band band-edge measurements_Hopping Off_8DPSK_Average (High Channel)



Date: 10.AUG.2019 12:55:18