

Appendix A

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

Product Name: 480P home theater projector

Trade Mark: RCA

Test Model: RPJ143-WHITE

Environmental Conditions

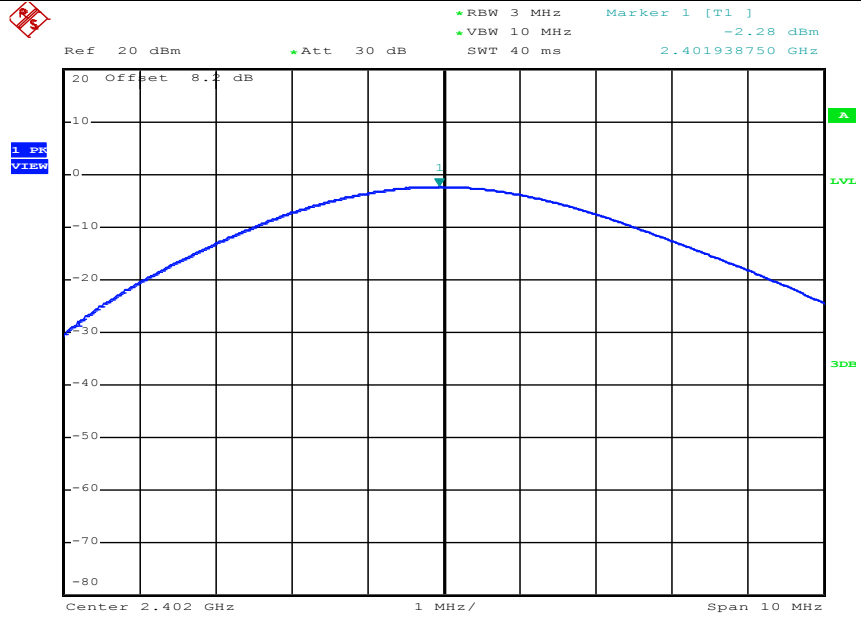
Temperature:	24.6 ° C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	JK ZHOU
Supervised by:	Wang.Chuang

A.1 Maxmum Conducted Peak Output Power

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-2.280	21	PASS
	MCH	-3.350	21	PASS
	HCH	-2.400	21	PASS
$\pi/4$ DQPSK	LCH	-2.980	21	PASS
	MCH	-3.100	21	PASS
	HCH	-3.230	21	PASS
8DPSK	LCH	-2.980	21	PASS
	MCH	-3.100	21	PASS
	HCH	-3.160	21	PASS

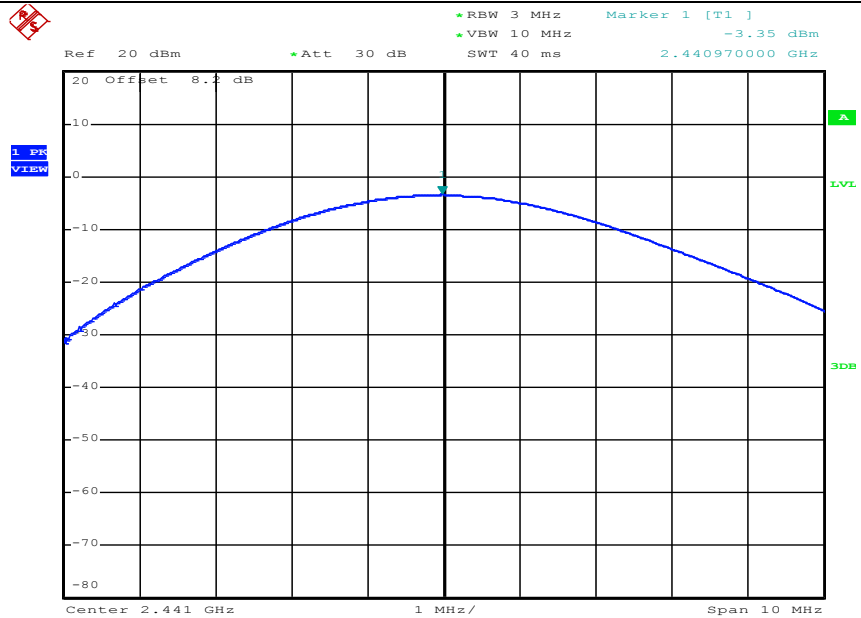
Test Graphs

GFSK/LCH



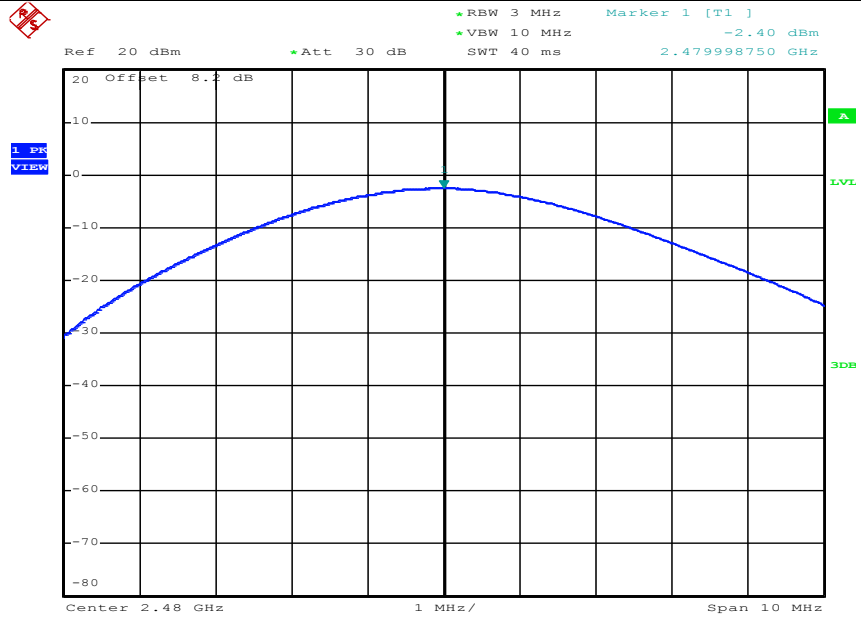
Date: 10.AUG.2019 19:58:35

GFSK/MCH



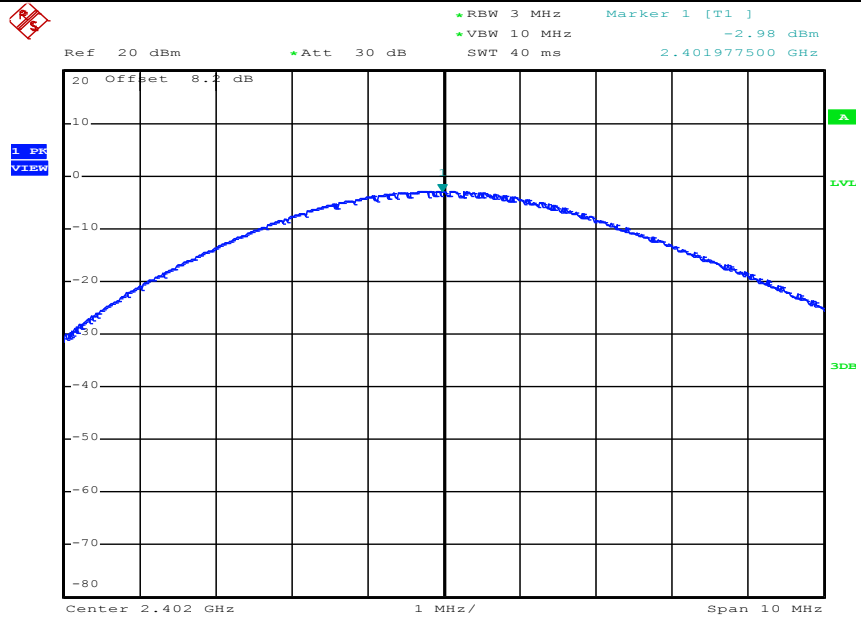
Date: 10.AUG.2019 20:01:09

GFSK/HCH



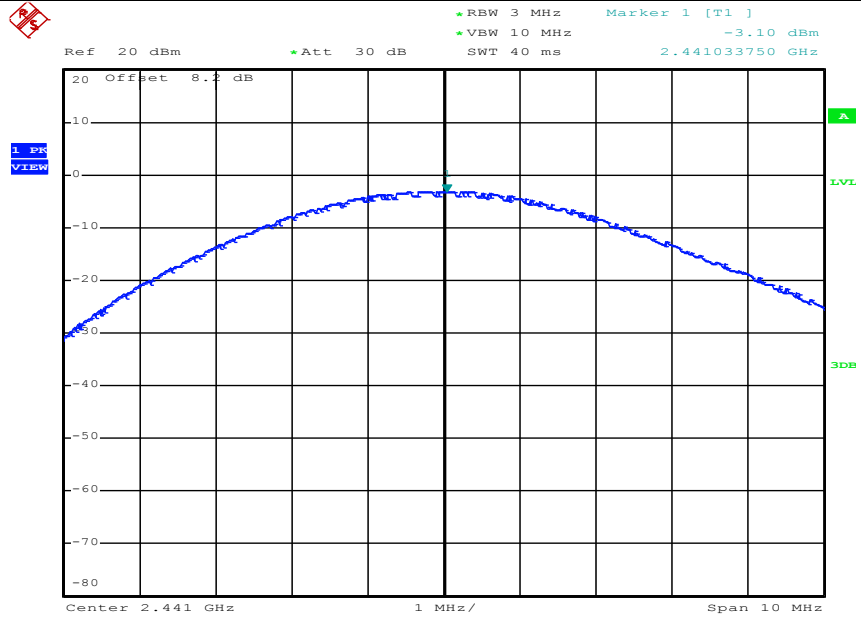
Date: 10.AUG.2019 20:02:56

$\pi/4$ DQPSK/LCH



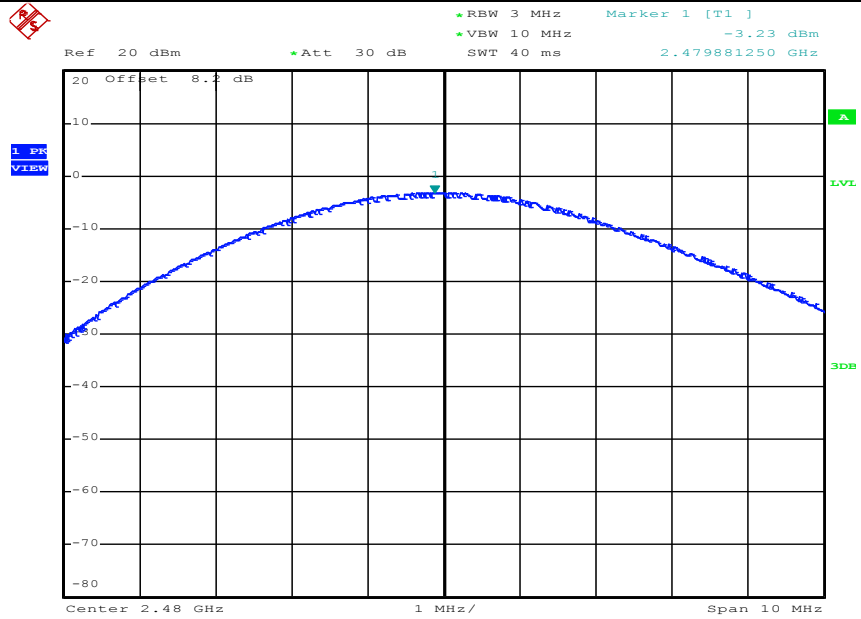
Date: 10.AUG.2019 20:07:10

$\pi/4$ DQPSK/MCH



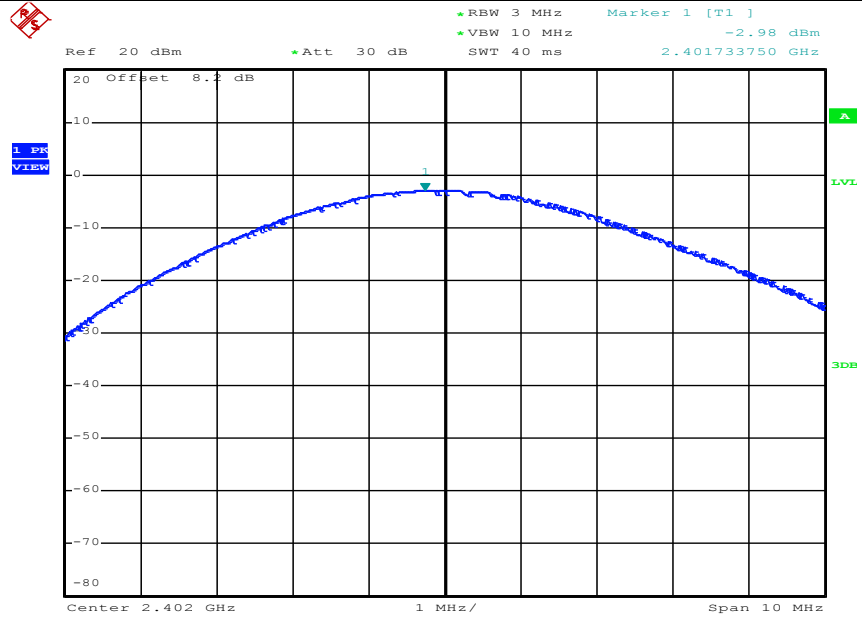
Date: 10.AUG.2019 20:09:40

$\pi/4$ DQPSK/HCH



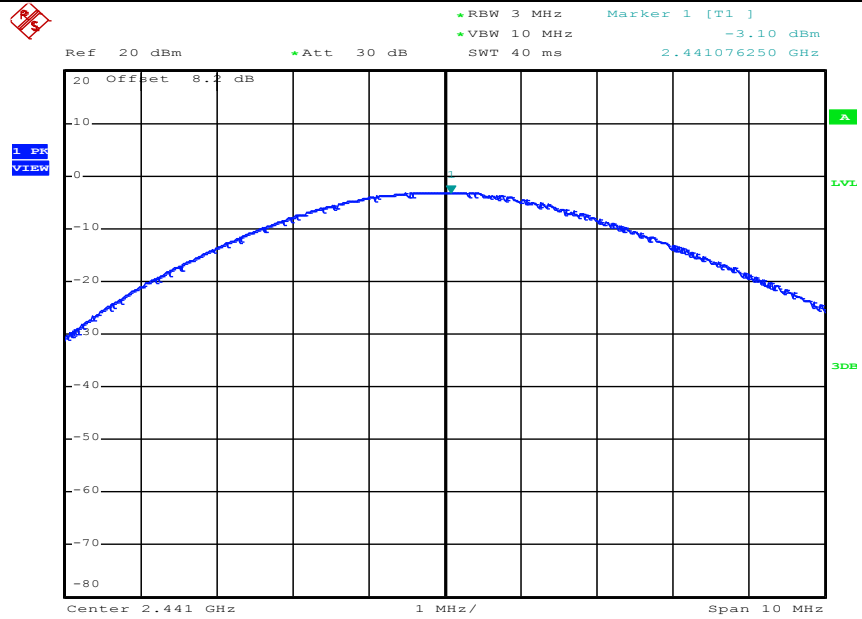
Date: 10.AUG.2019 20:11:35

8DPSK/LCH



Date: 10.AUG.2019 20:14:20

8DPSK/MCH

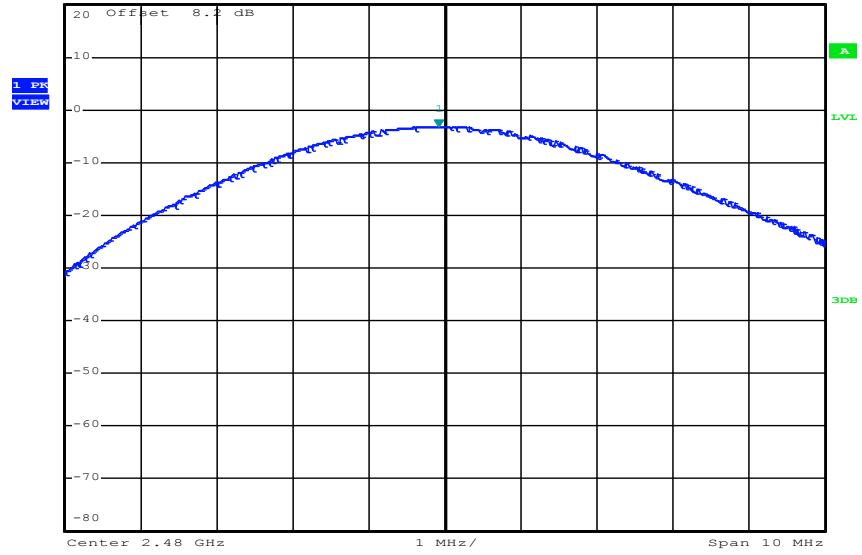


Date: 10.AUG.2019 20:16:50

8DPSK/HCH



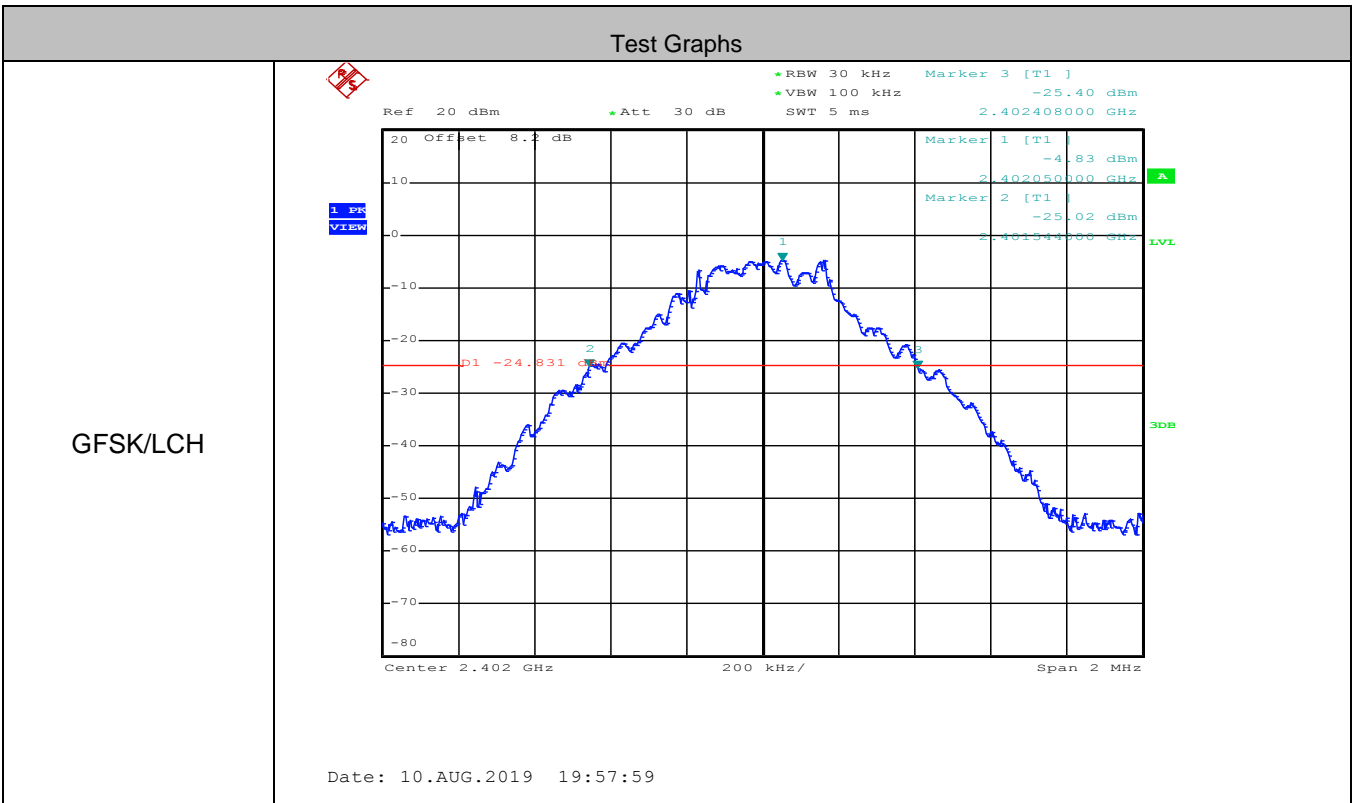
Ref 20 dBm *Att 30 dB *RBW 3 MHz Marker 1 [T1] -3.16 dBm
*VBW 10 MHz SWT 40 ms 2.479920000 GHz



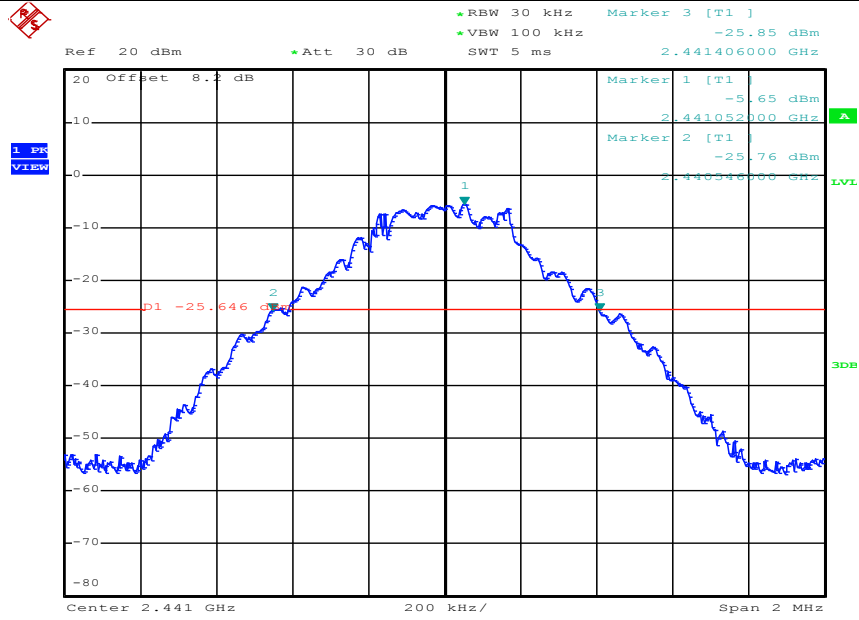
Date: 10.AUG.2019 20:18:39

A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.864	Not Specified	PASS
	MCH	0.860	Not Specified	PASS
	HCH	0.864	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.270	Not Specified	PASS
	MCH	1.260	Not Specified	PASS
	HCH	1.260	Not Specified	PASS
8DPSK	LCH	1.256	Not Specified	PASS
	MCH	1.250	Not Specified	PASS
	HCH	1.256	Not Specified	PASS

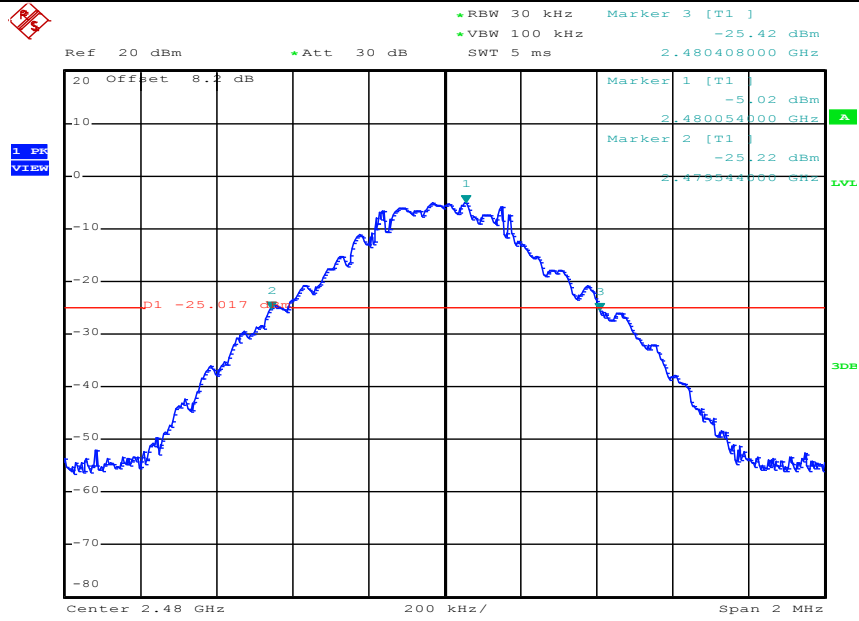


GFSK/MCH



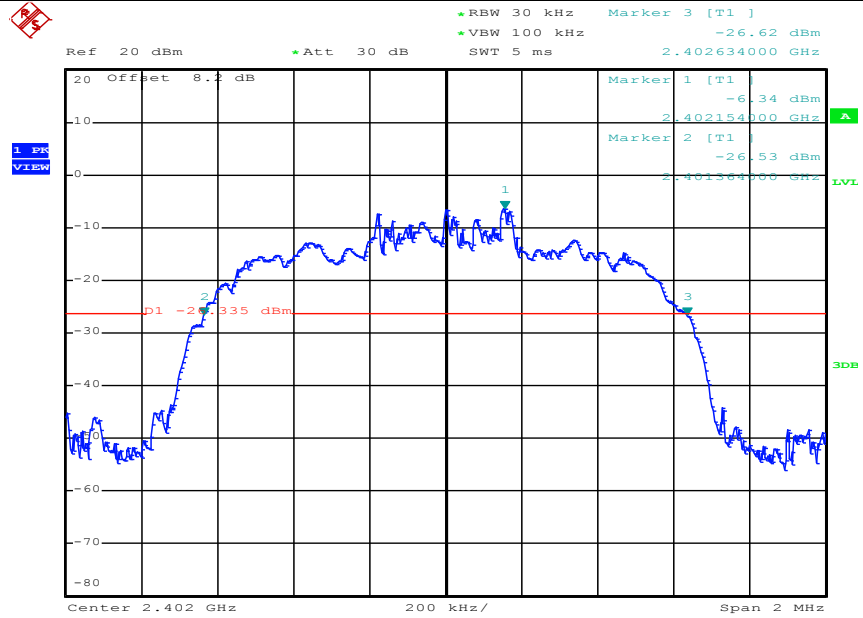
Date: 10.AUG.2019 20:00:32

GFSK/HCH



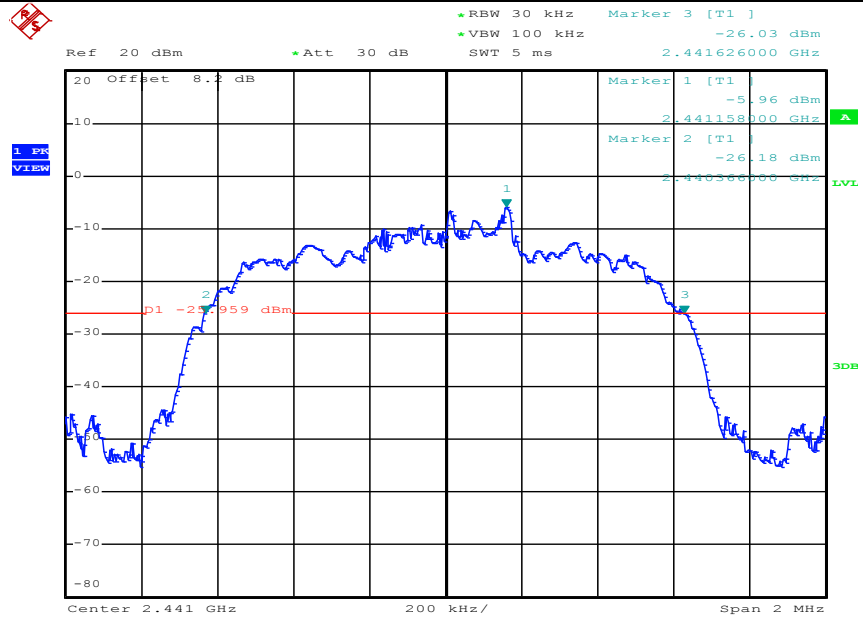
Date: 10.AUG.2019 20:02:19

$\pi/4$ DQPSK/LCH



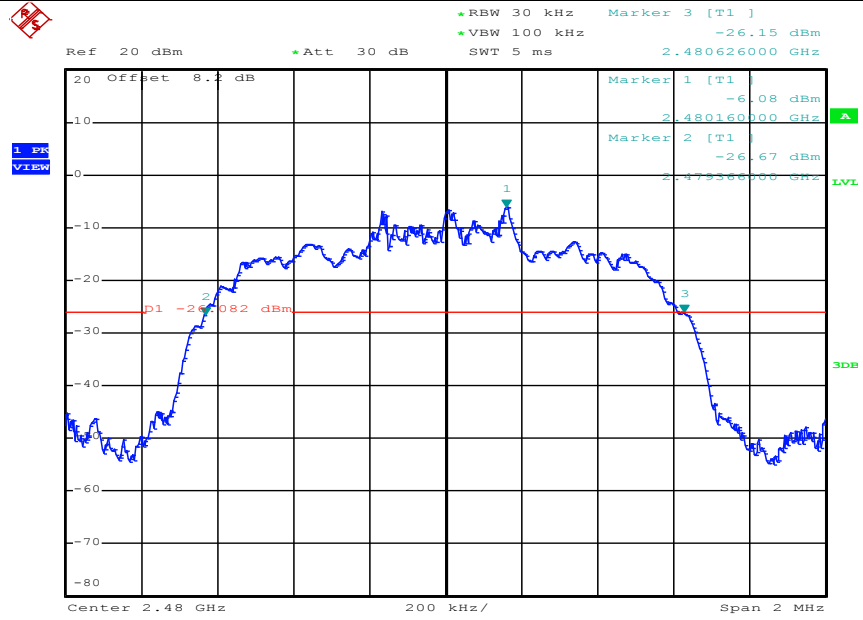
Date: 10.AUG.2019 20:06:33

$\pi/4$ DQPSK/MCH



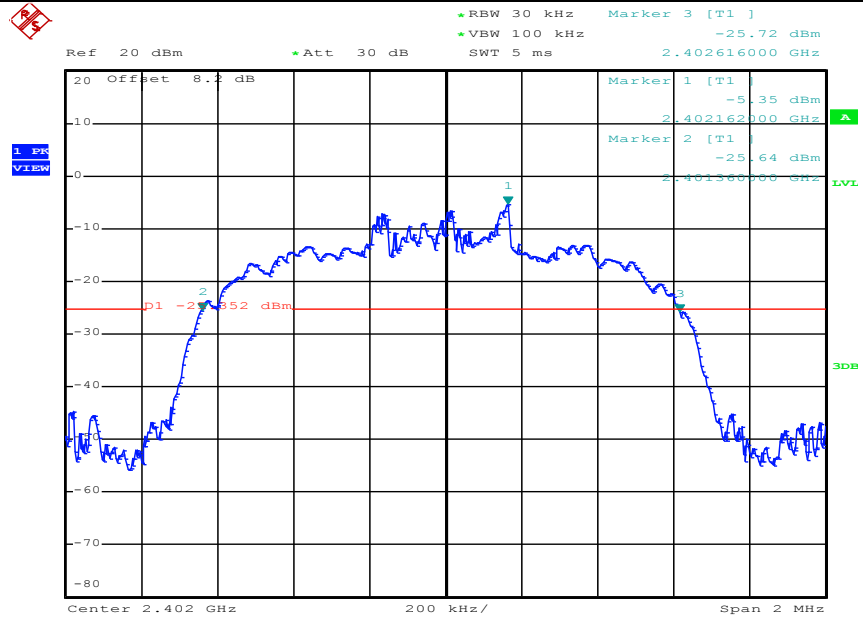
Date: 10.AUG.2019 20:09:03

$\pi/4$ DQPSK/HCH



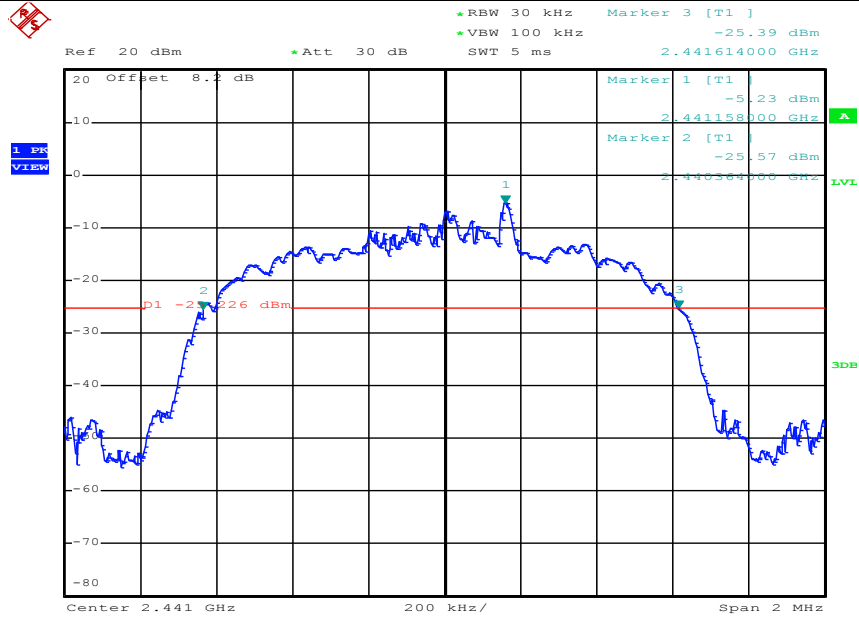
Date: 10.AUG.2019 20:10:58

8DPSK/LCH



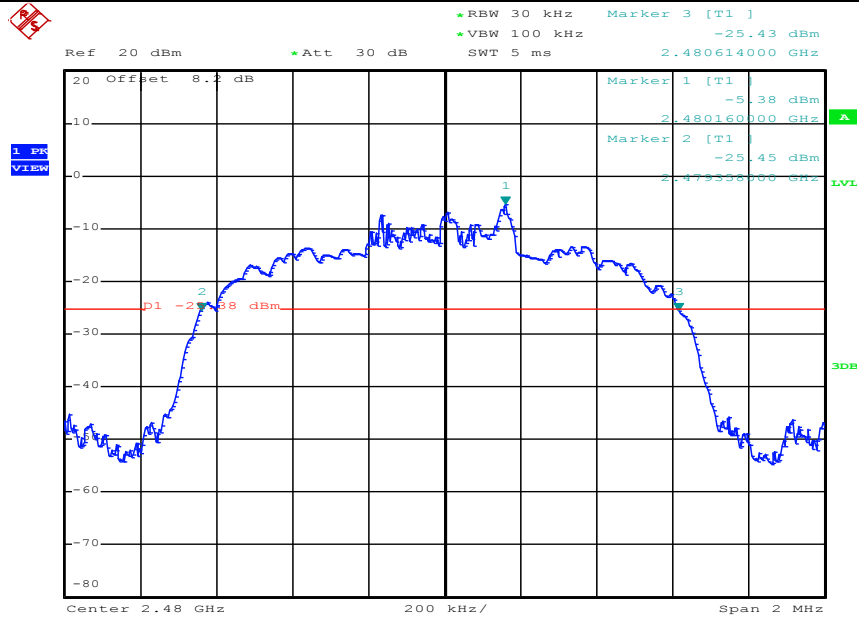
Date: 10.AUG.2019 20:13:43

8DPSK/MCH



Date: 10.AUG.2019 20:16:13

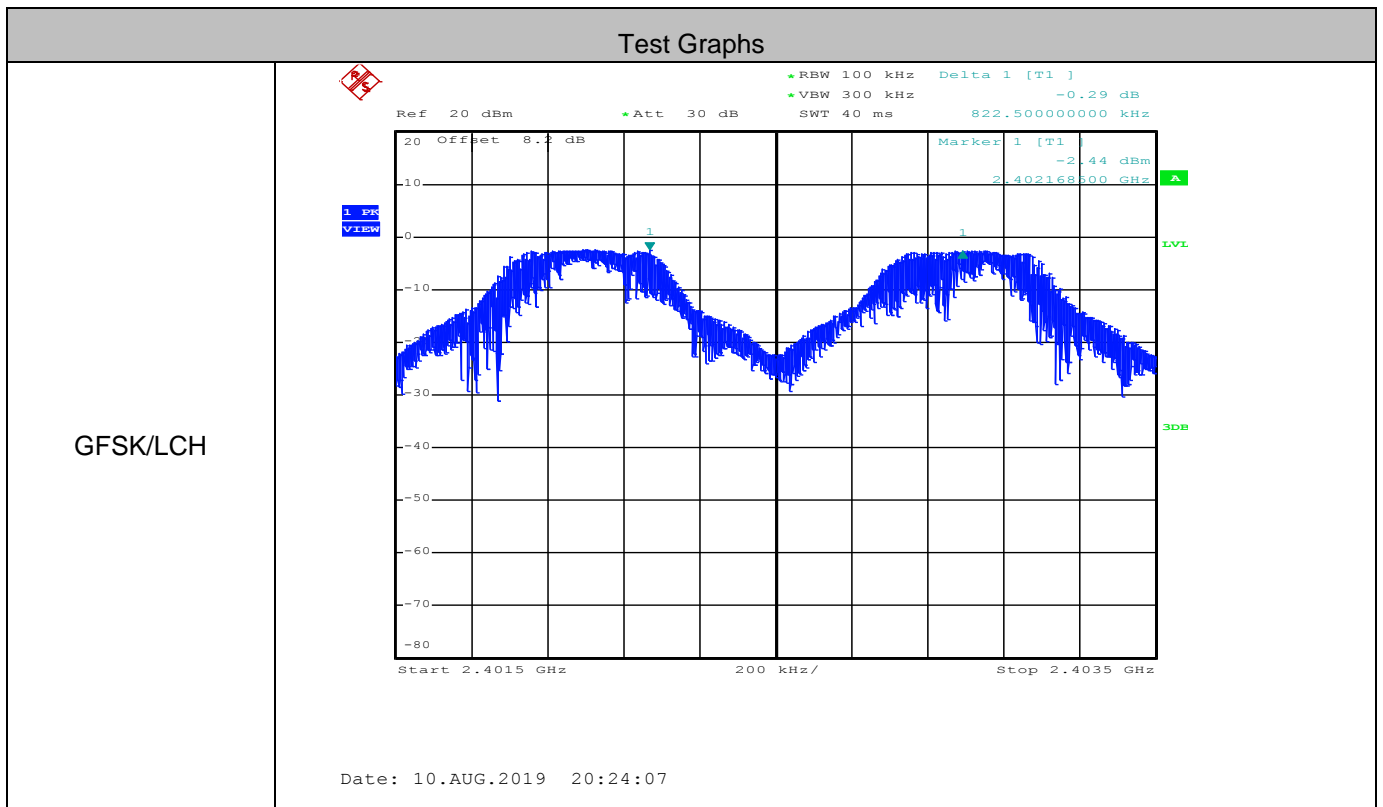
8DPSK/HCH



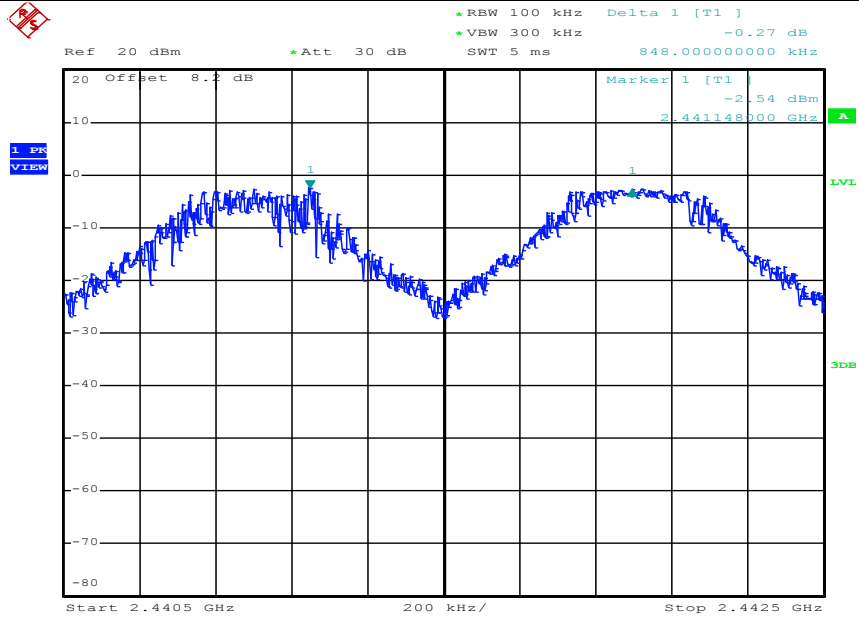
Date: 10.AUG.2019 20:18:05

A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.822	0.576	PASS
	MCH	0.848	0.576	PASS
	HCH	1.030	0.576	PASS
π/4DQPSK	LCH	1.004	0.847	PASS
	MCH	0.982	0.847	PASS
	HCH	1.132	0.847	PASS
8DPSK	LCH	1.050	0.837	PASS
	MCH	0.838	0.837	PASS
	HCH	0.976	0.837	PASS

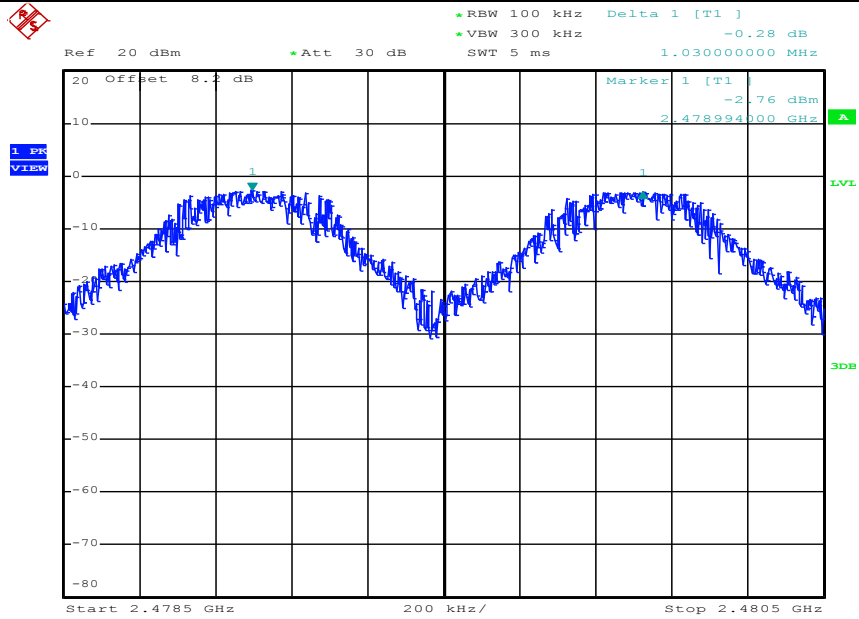


GFSK/MCH



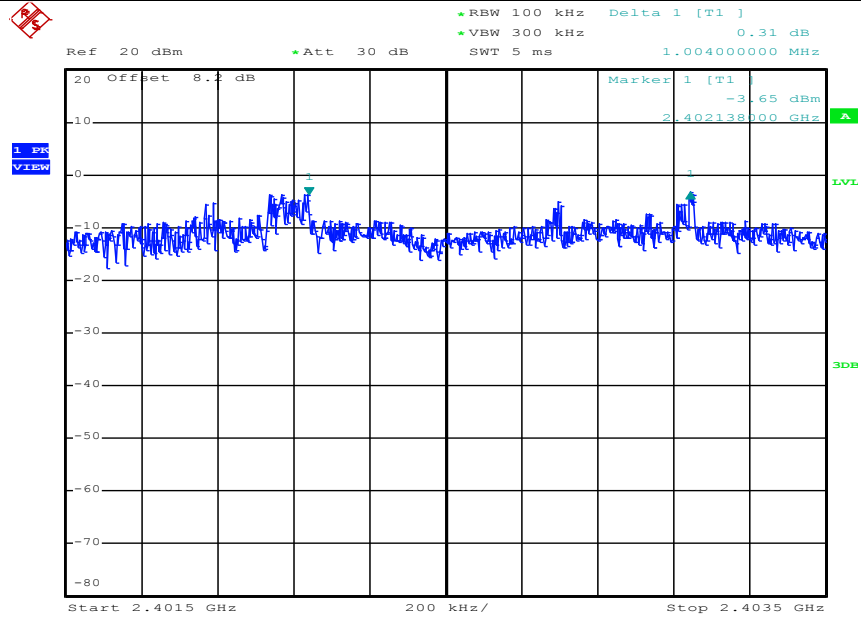
Date: 10.AUG.2019 20:26:38

GFSK/HCH



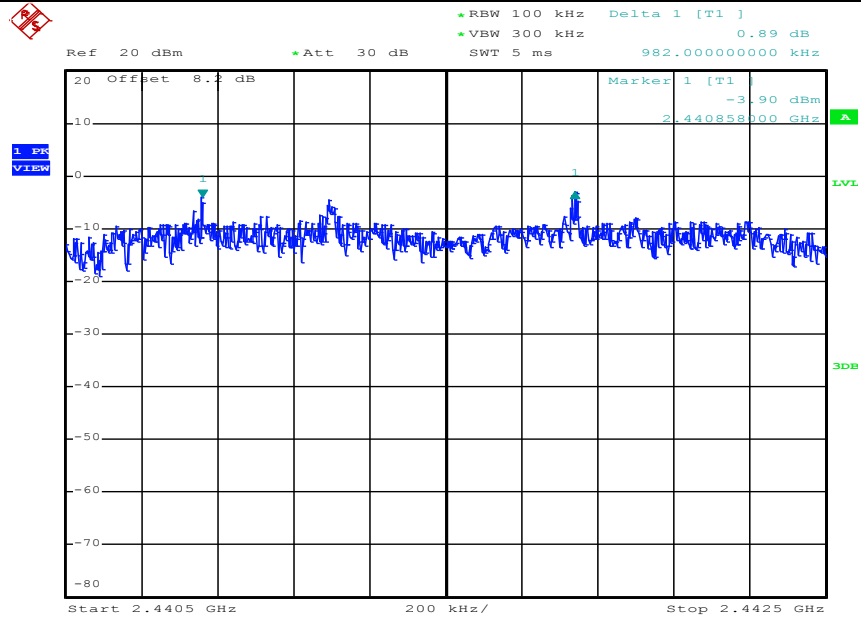
Date: 10.AUG.2019 20:26:58

$\pi/4$ DQPSK/LCH



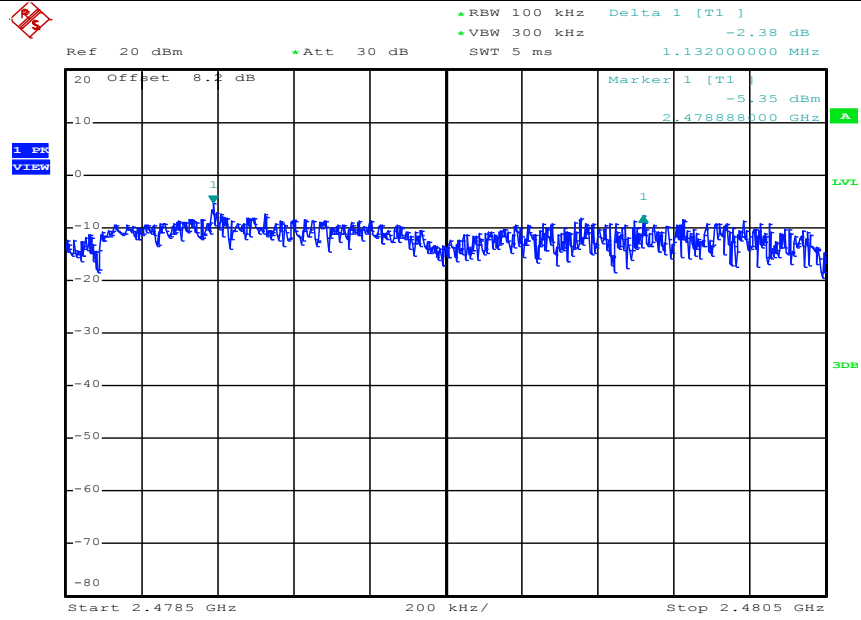
Date: 10.AUG.2019 20:31:45

$\pi/4$ DQPSK/MCH



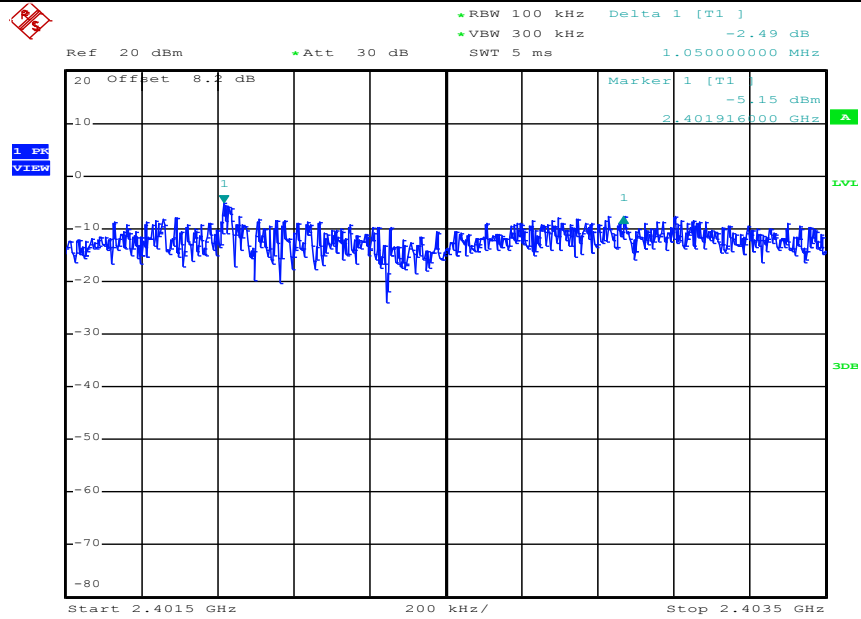
Date: 10.AUG.2019 20:33:33

π /4DQPSK/HCH



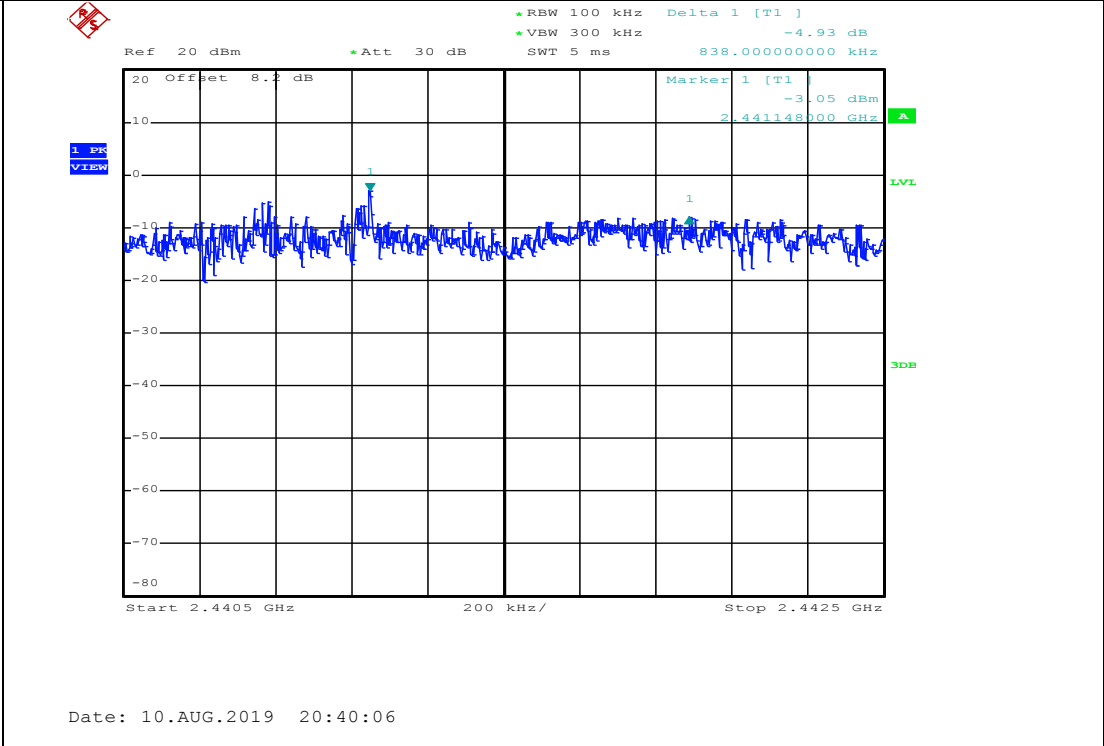
Date: 10.AUG.2019 20:33:58

8DPSK/LCH

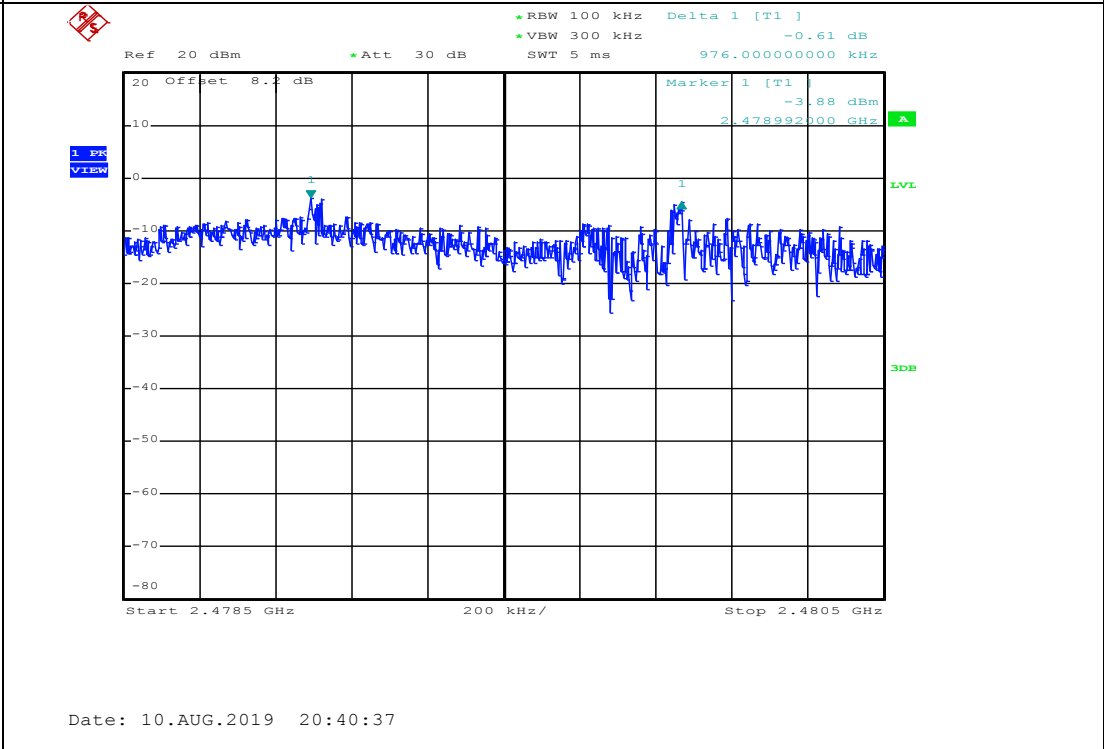


Date: 10.AUG.2019 20:38:13

8DPSK/MCH



8DPSK/HCH

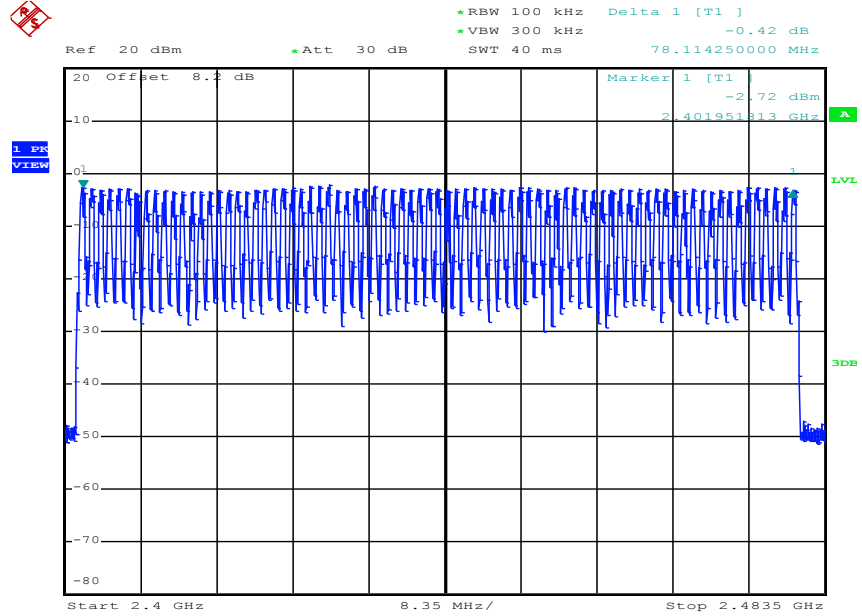


A.4 Hopping Channel Number

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

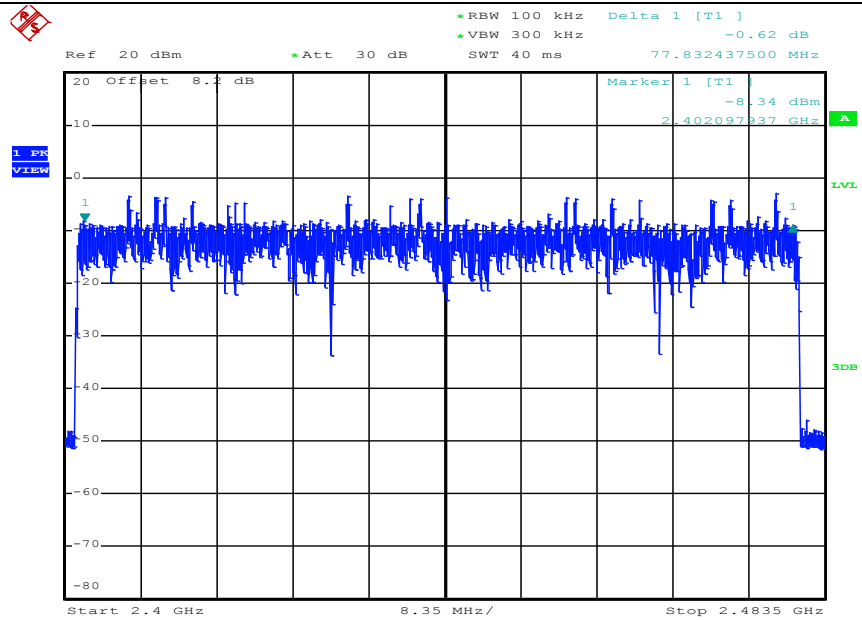
Test Graphs

GFSK/Hop



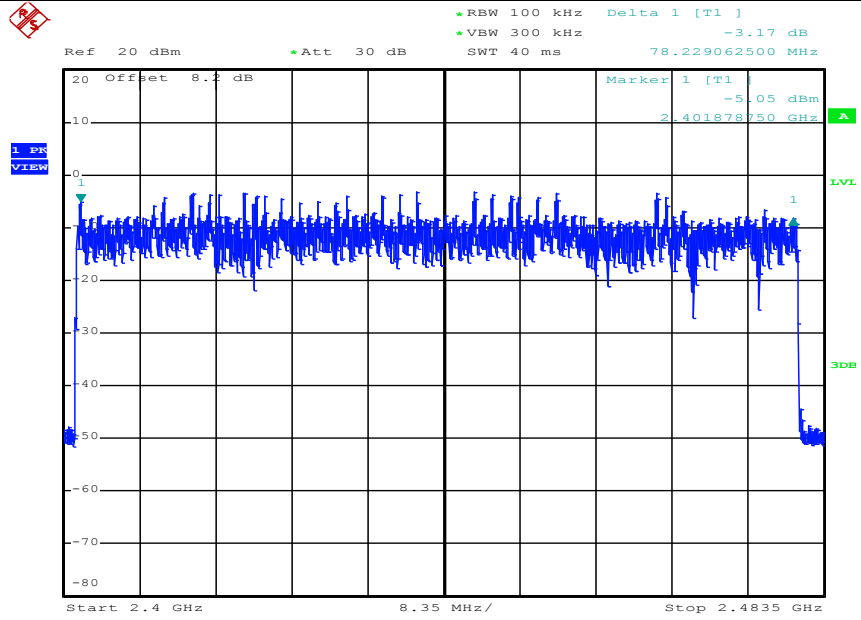
Date: 10.AUG.2019 20:30:05

$\pi/4$ DQPSK/Hop



Date: 10.AUG.2019 20:36:53

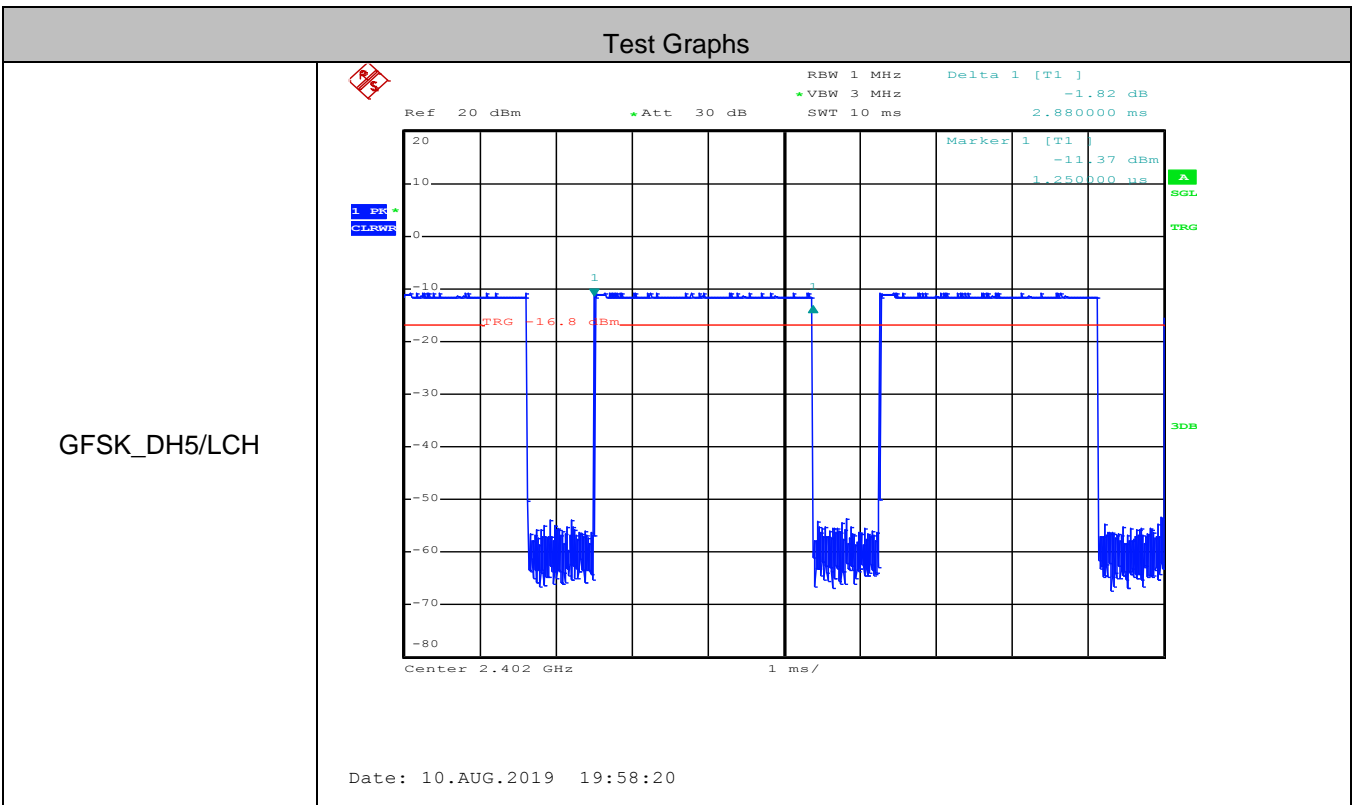
8DPSK/Hop



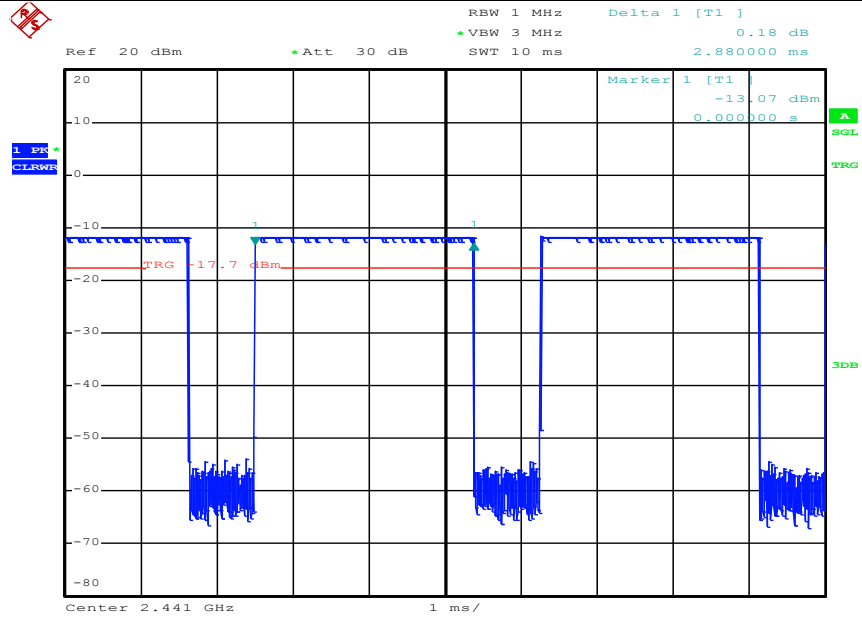
Date: 10.AUG.2019 20:43:35

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	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.88	106.7	0.308	0.4	PASS
	3DH5	MCH	2.88	106.7	0.308	0.4	PASS
	3DH5	HCH	2.88	106.7	0.308	0.4	PASS

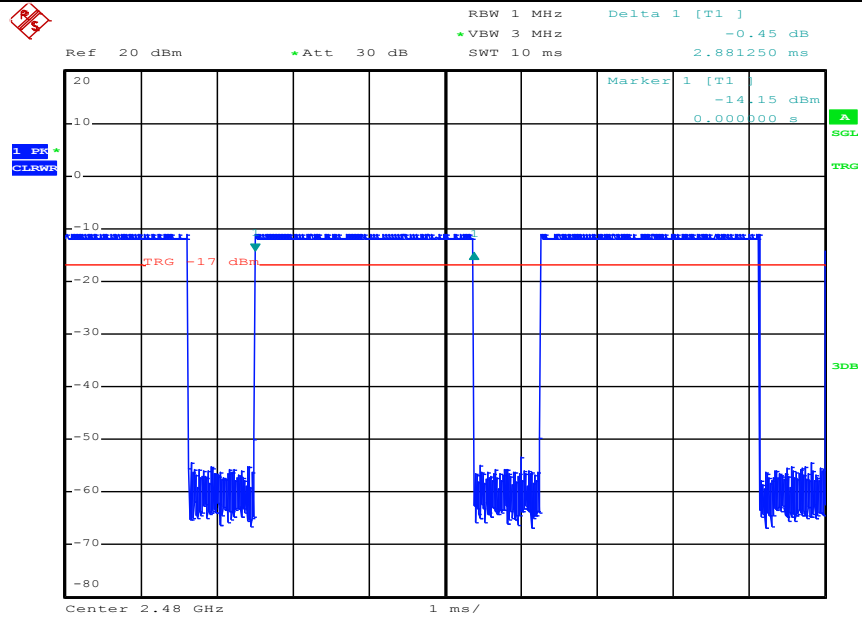


GFSK_DH5/MCH



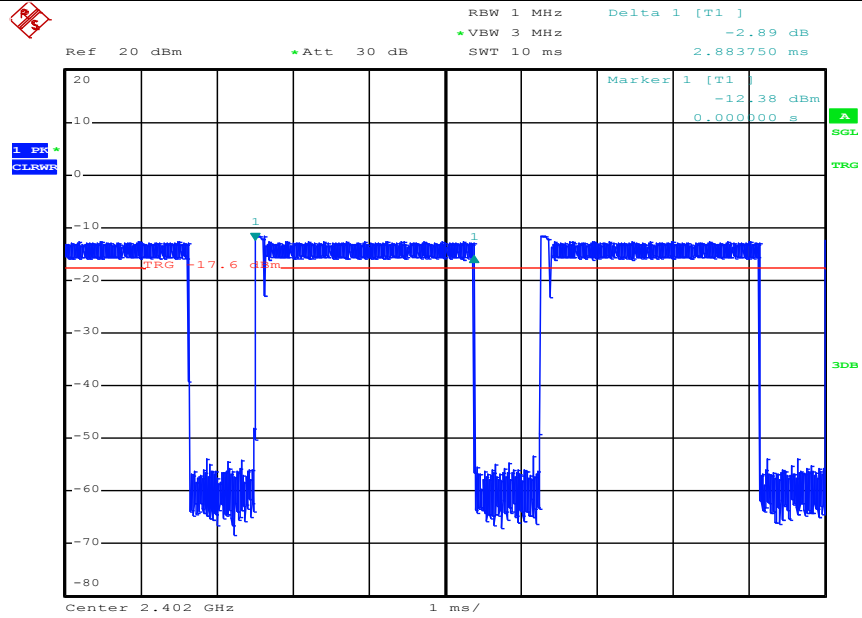
Date: 10.AUG.2019 20:00:54

GFSK_DH5/HCH



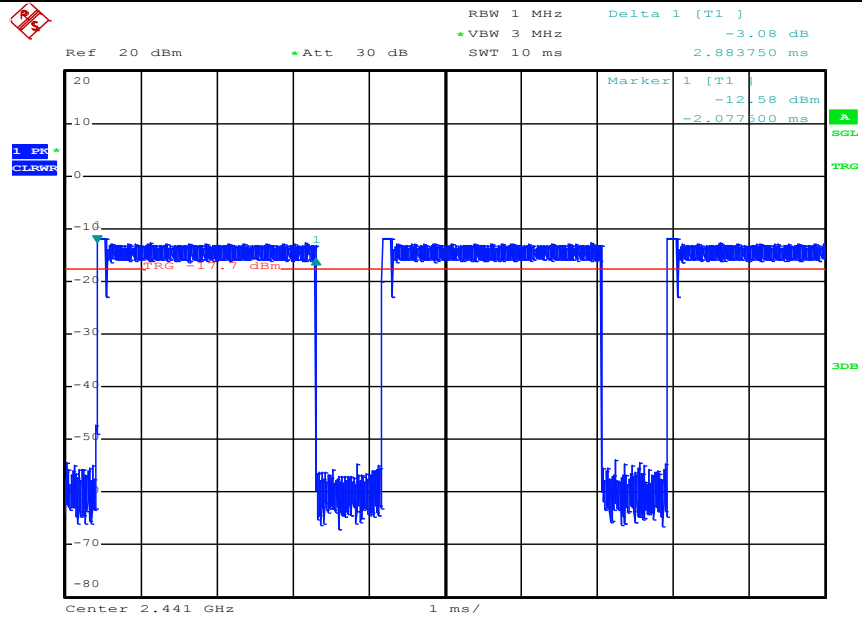
Date: 10.AUG.2019 20:02:41

$\pi/4$ DQPSK
_2DH5/LCH



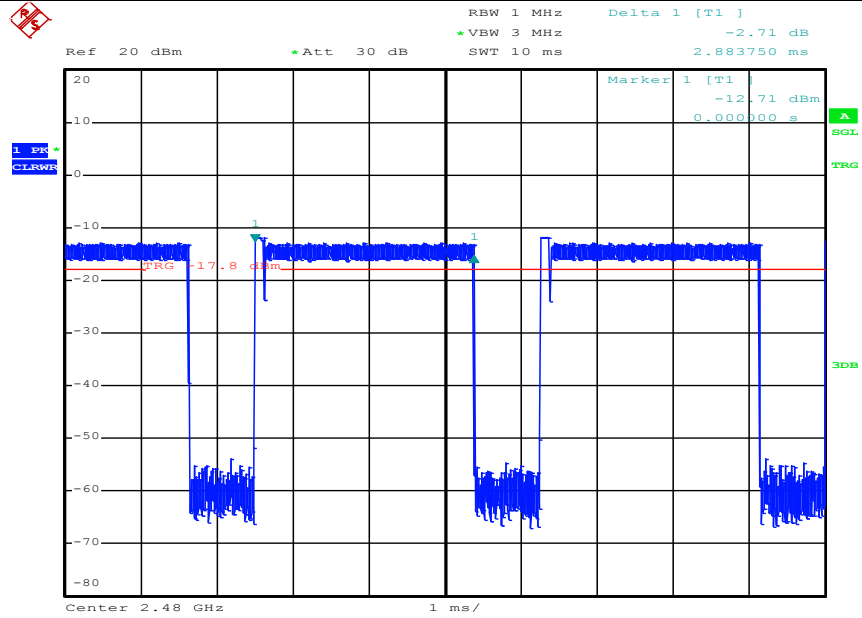
Date: 10.AUG.2019 20:06:54

$\pi/4$ DQPSK
_2DH5/MCH



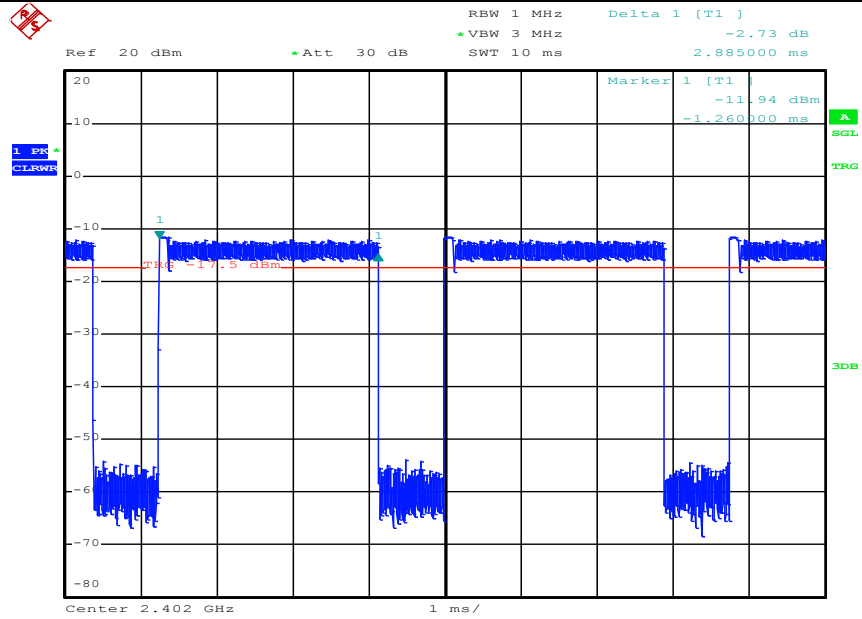
Date: 10.AUG.2019 20:09:25

$\pi/4$ DQPSK
_2DH5/HCH



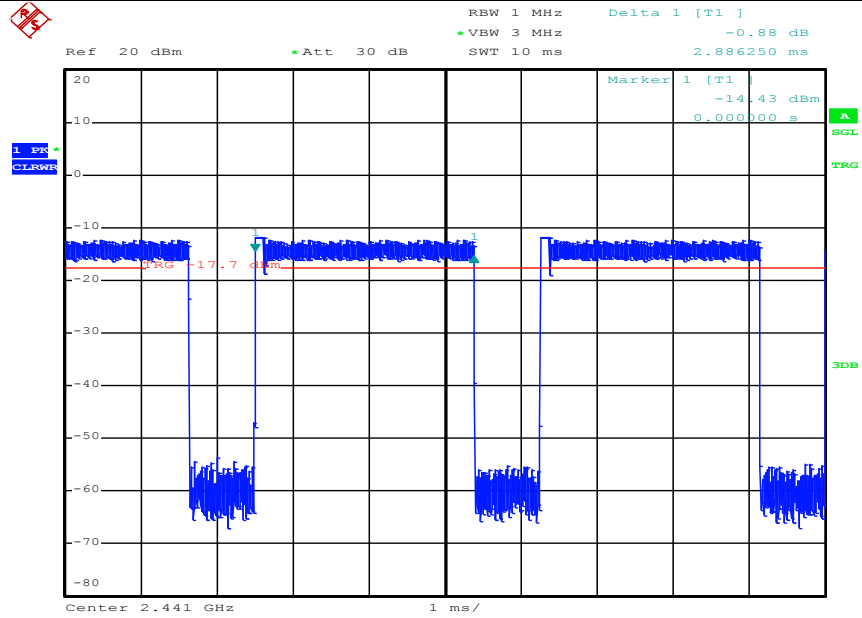
Date: 10.AUG.2019 20:11:20

8DPSK_3DH5/LCH



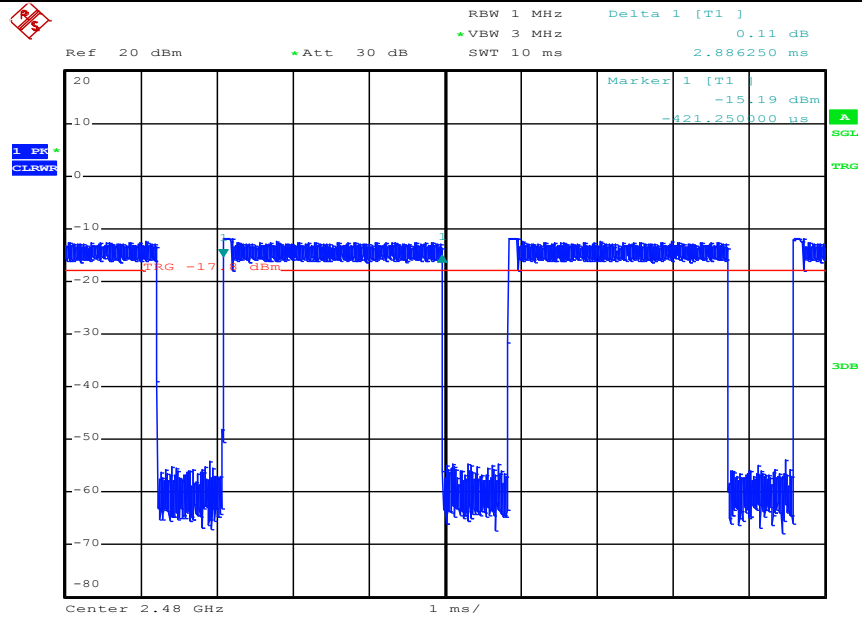
Date: 10.AUG.2019 20:14:04

8DPSK_3DH5/MCH



Date: 10.AUG.2019 20:16:34

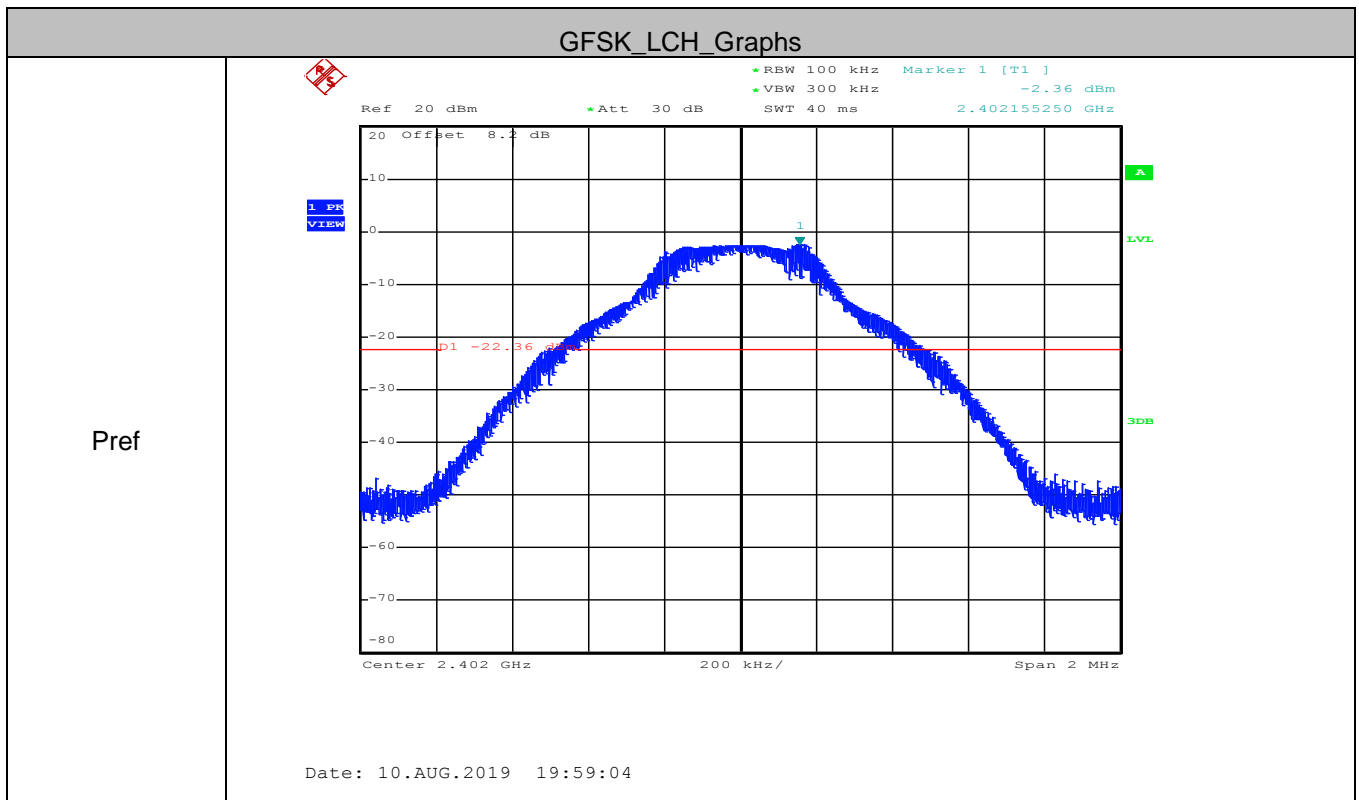
8DPSK_3DH5/HCH



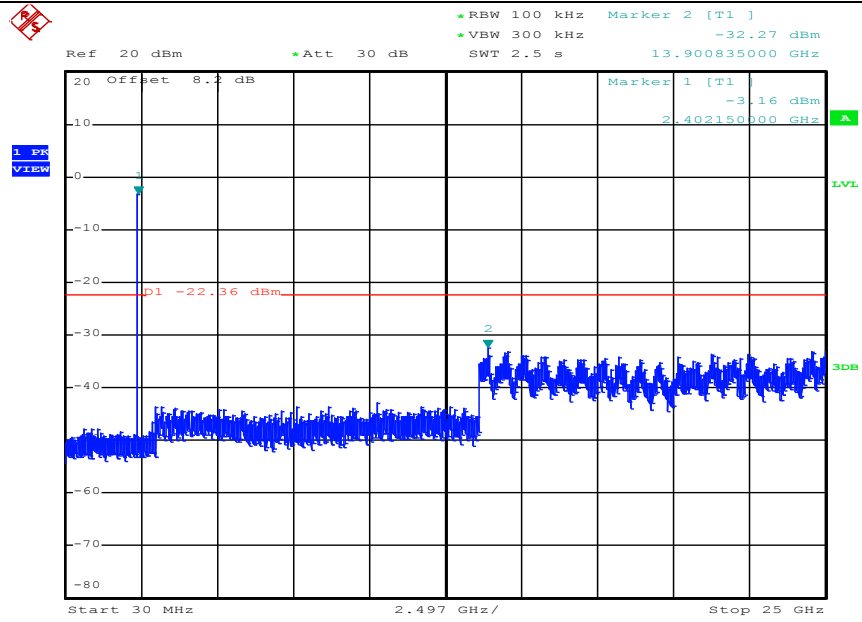
Date: 10.AUG.2019 20:18:25

A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-2.36	-32.270	-22.360	PASS
	MCH	-3.48	-31.120	-23.480	PASS
	HCH	-2.62	-32.010	-22.620	PASS
$\pi/4$ DQPSK	LCH	-2.83	-32.620	-22.830	PASS
	MCH	-3.12	-32.150	-23.120	PASS
	HCH	-3.07	-31.940	-23.070	PASS
8DPSK	LCH	-2.95	-32.080	-22.950	PASS
	MCH	-2.97	-31.580	-22.970	PASS
	HCH	-3.1	-32.890	-23.100	PASS



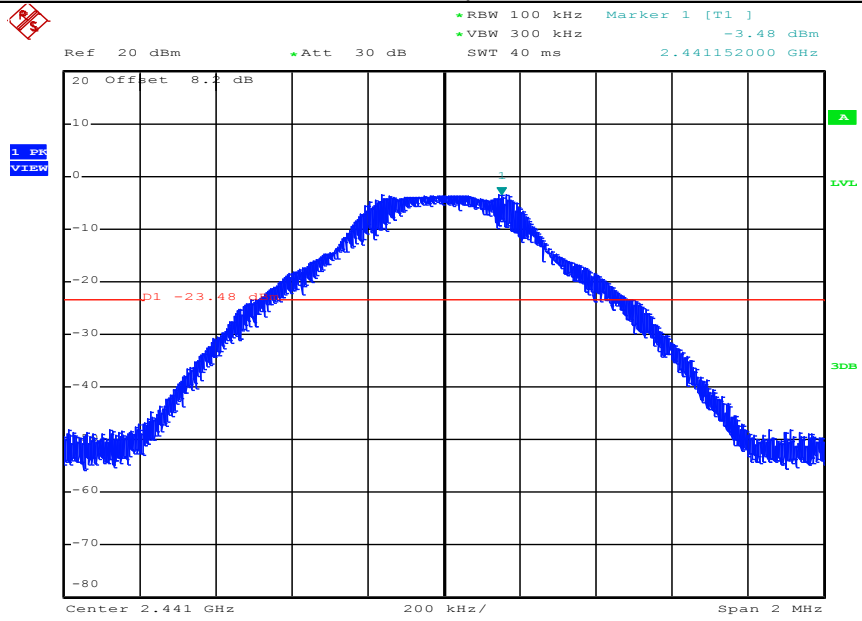
P_{uw}



Date: 10.AUG.2019 19:59:19

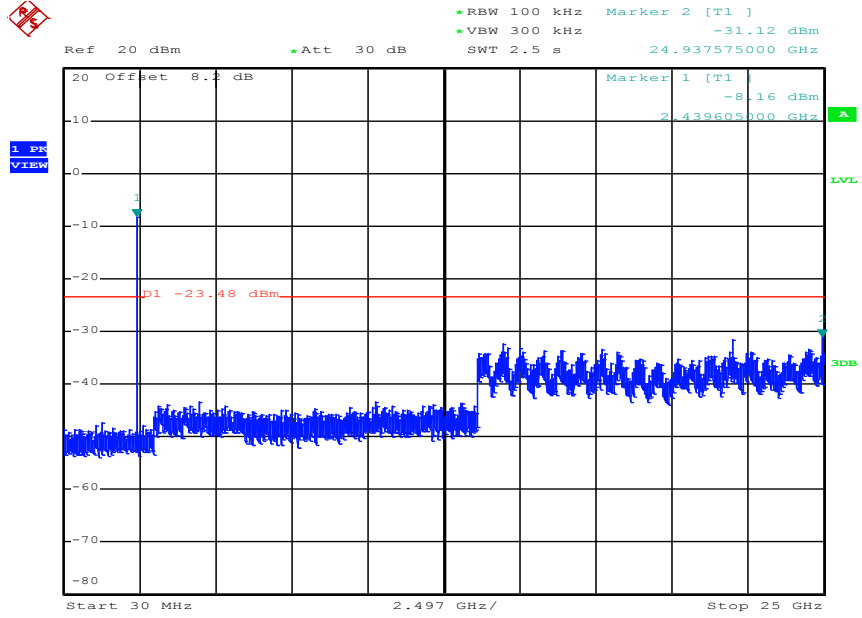
GFSK_MCH_Graphs

Pref



Date: 10.AUG.2019 20:01:21

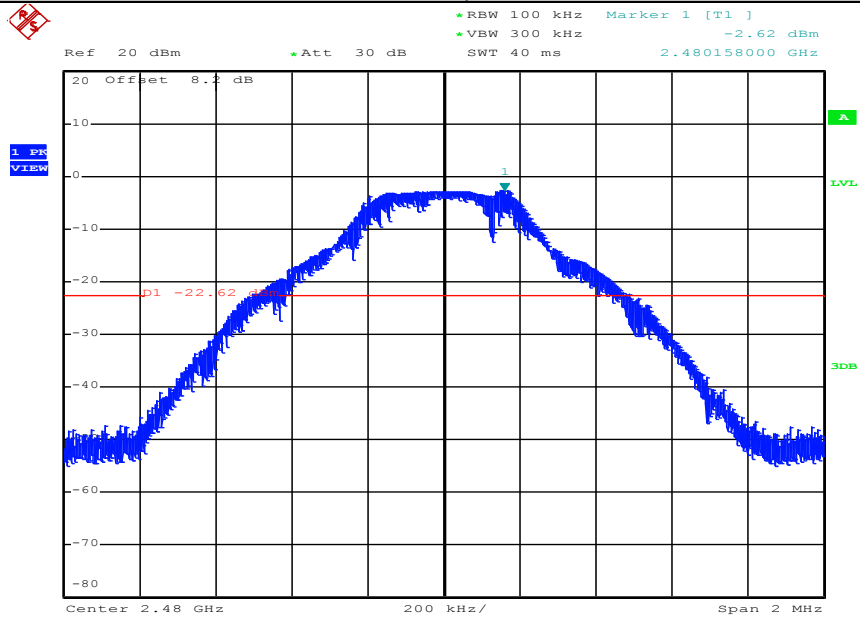
Puw



Date: 10.AUG.2019 20:01:36

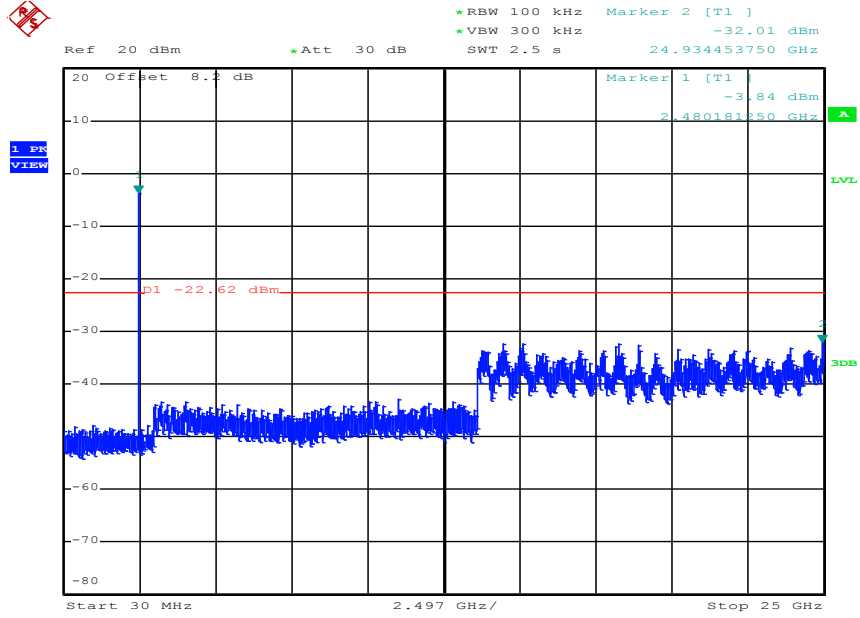
GFSK_HCH_Graphs

Pref



Date: 10.AUG.2019 20:03:25

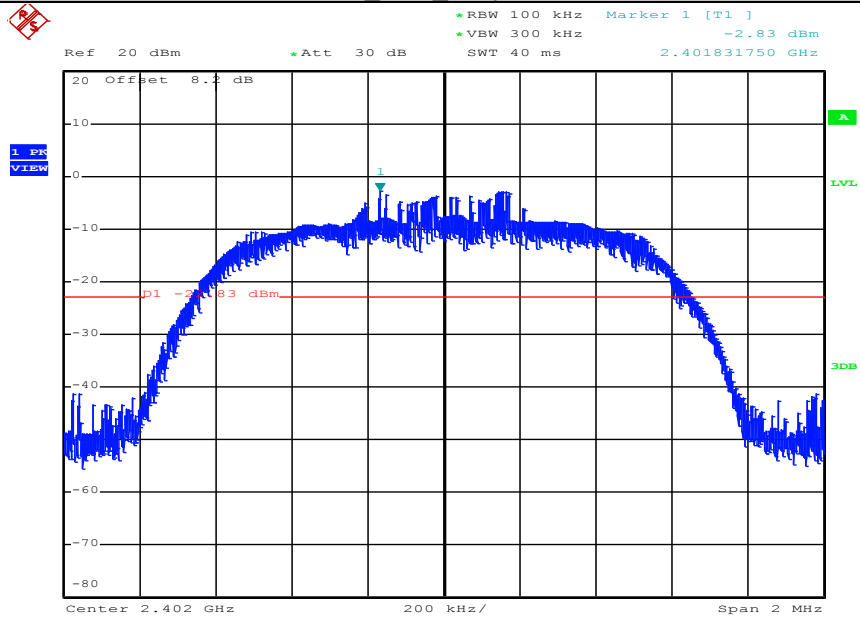
Puw



Date: 10.AUG.2019 20:03:40

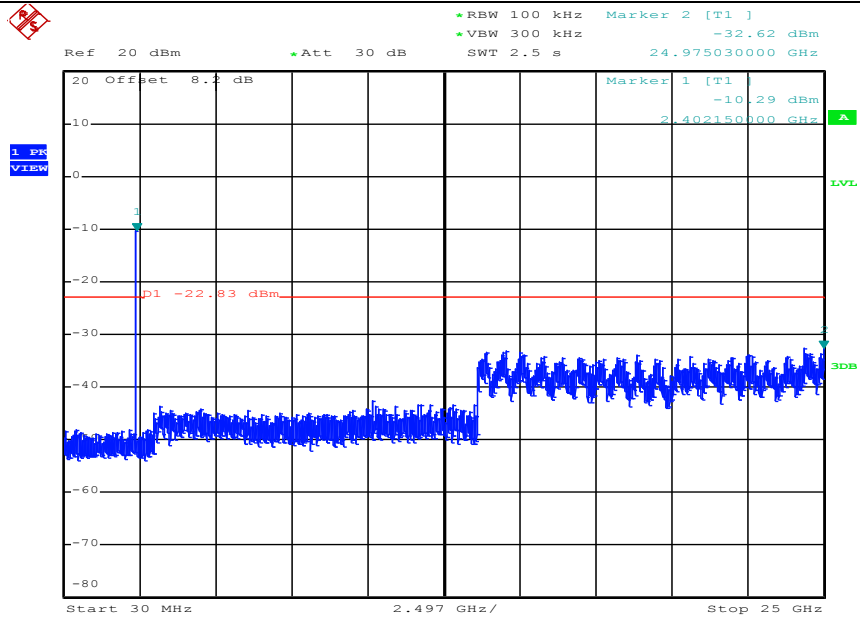
$\pi/4$ DQPSK_LCH_Graphs

Pref



Date: 10.AUG.2019 20:07:40

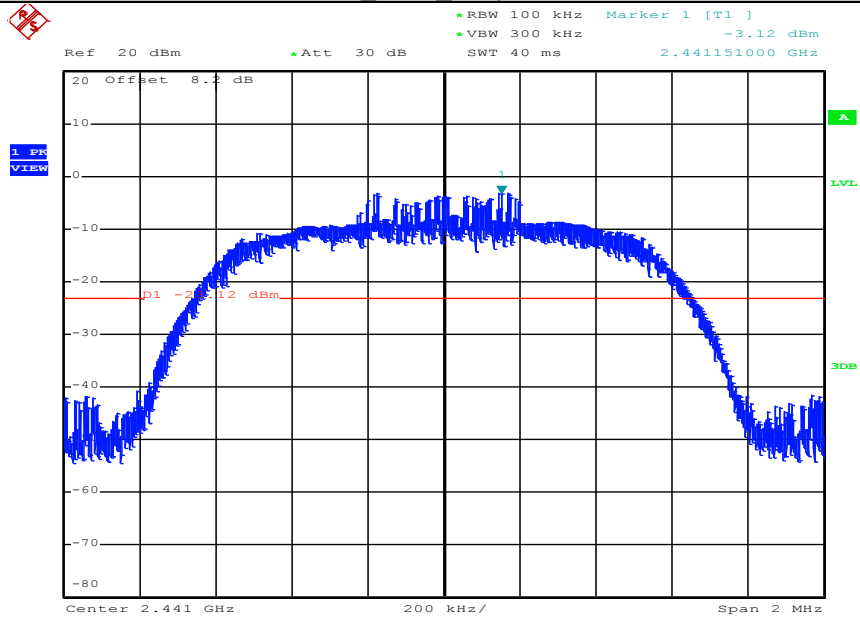
Puw



Date: 10.AUG.2019 20:07:54

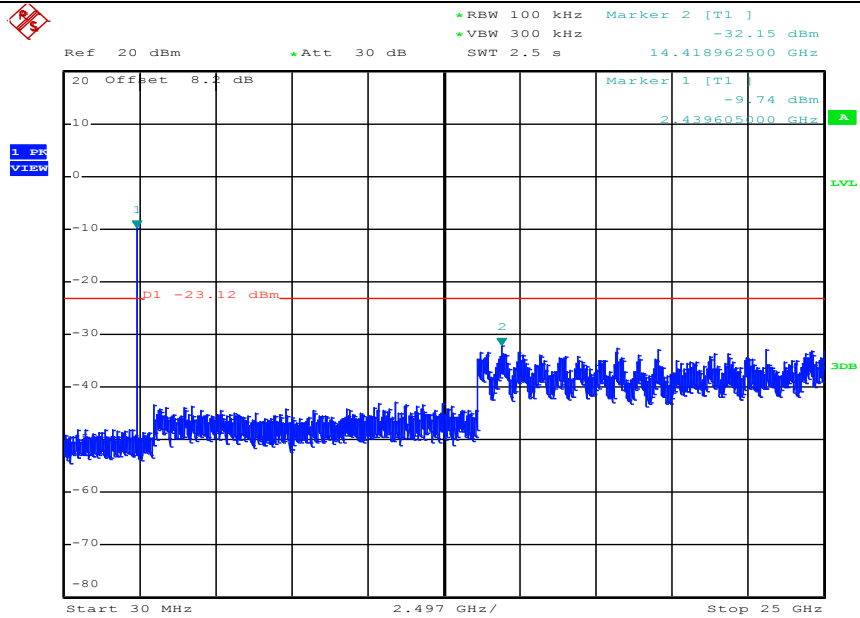
$\pi/4$ DQPSK_MCH_Graphs

Pref



Date: 10.AUG.2019 20:09:52

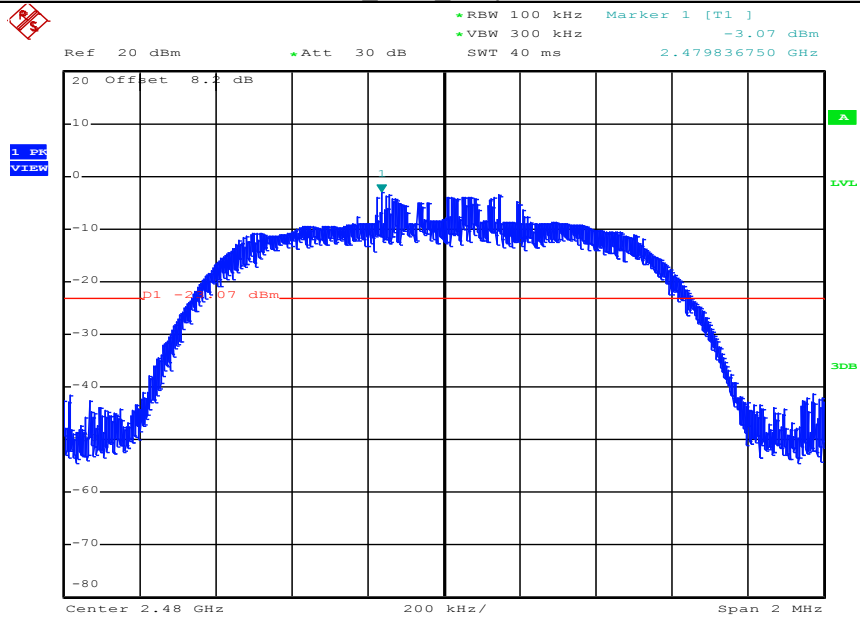
Puw



Date: 10.AUG.2019 20:10:07

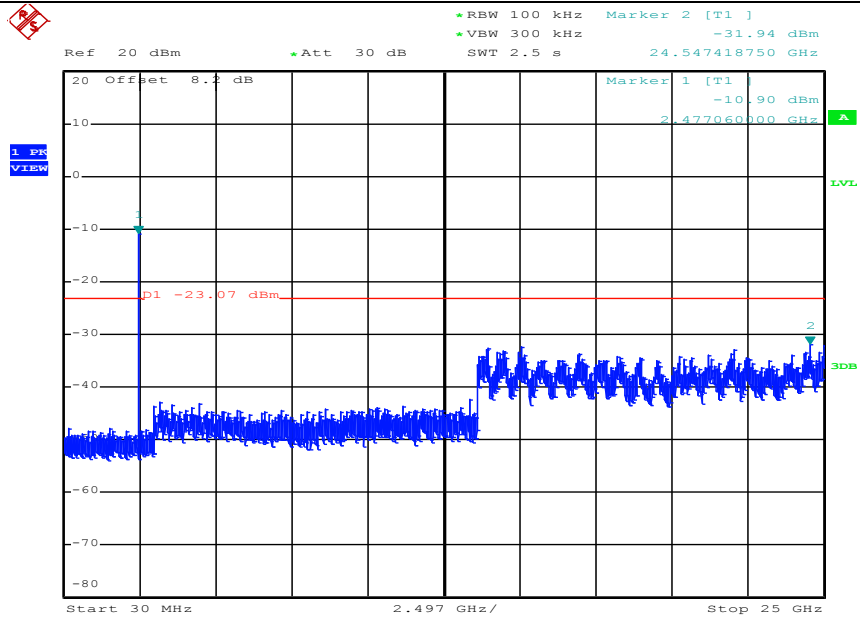
$\pi/4$ DQPSK_HCH_Graphs

Pref



Date: 10.AUG.2019 20:12:04

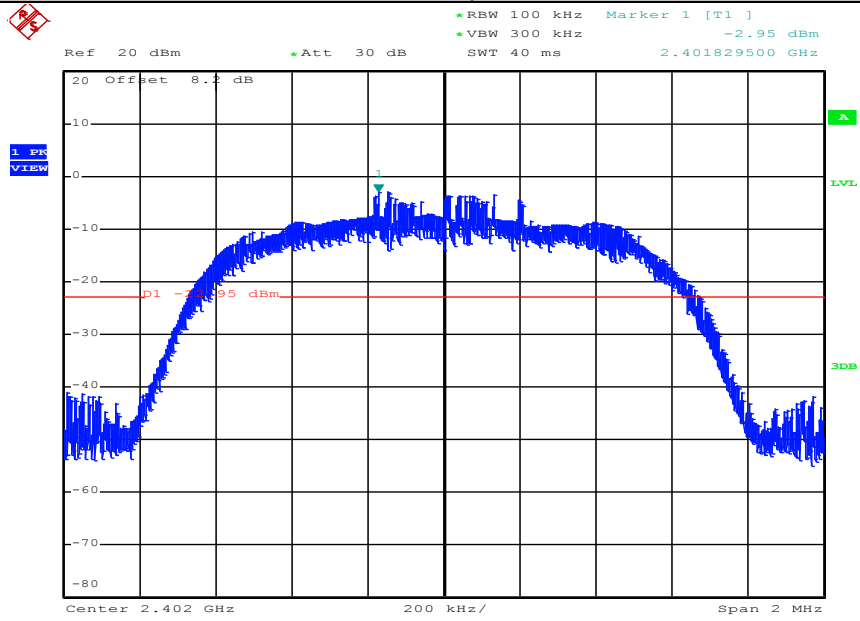
Puw



Date: 10.AUG.2019 20:12:19

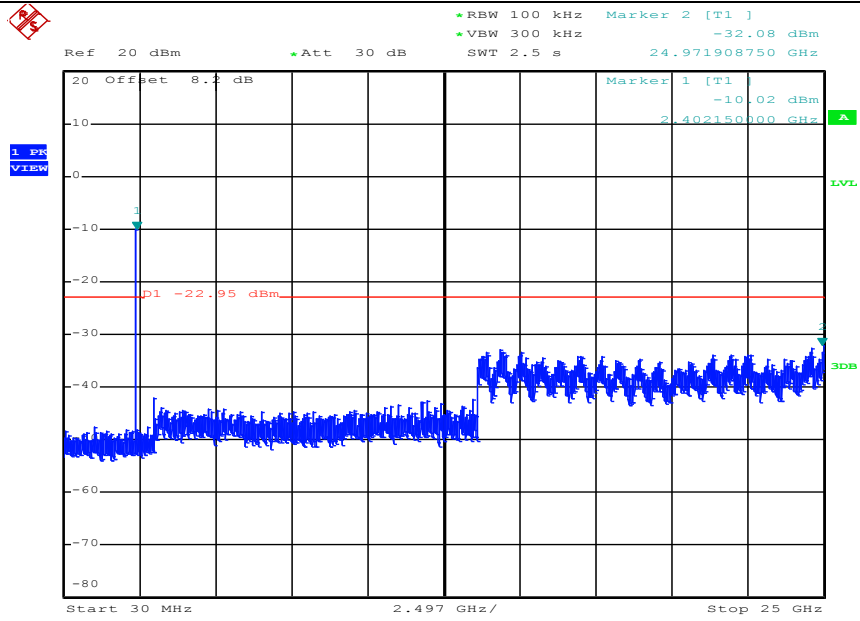
8DPSK_LCH_Graphs

Pref



Date: 10.AUG.2019 20:14:49

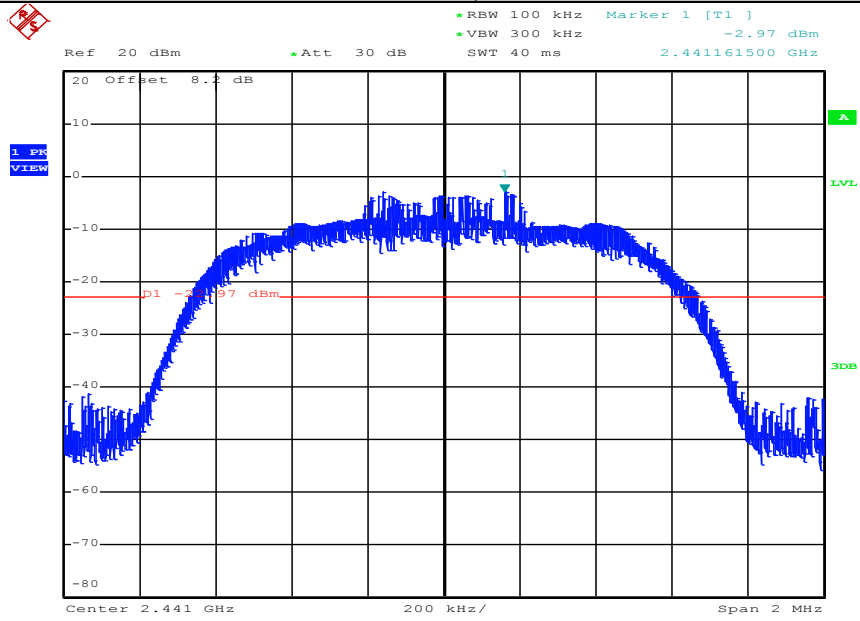
Puw



Date: 10.AUG.2019 20:15:04

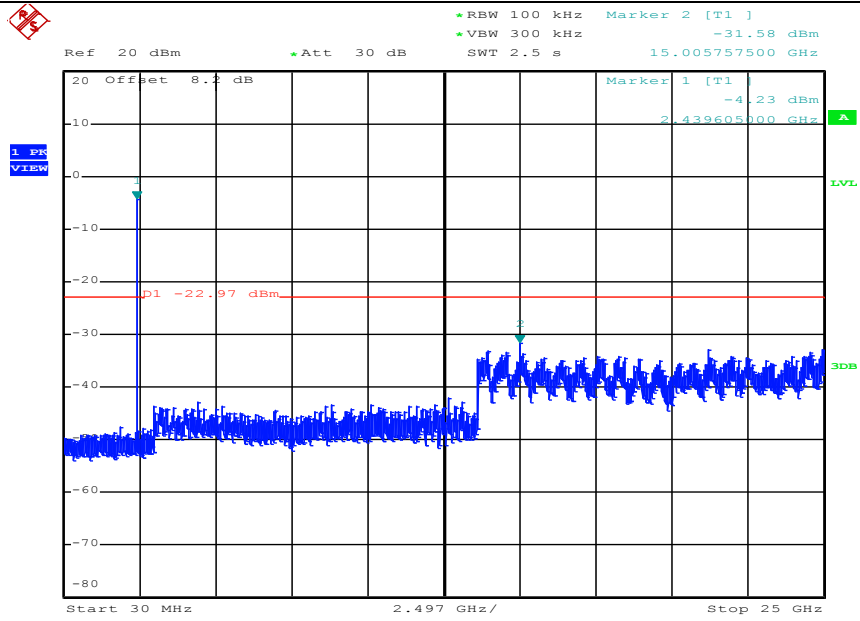
8DPSK_MCH_Graphs

Pref



Date: 10.AUG.2019 20:17:02

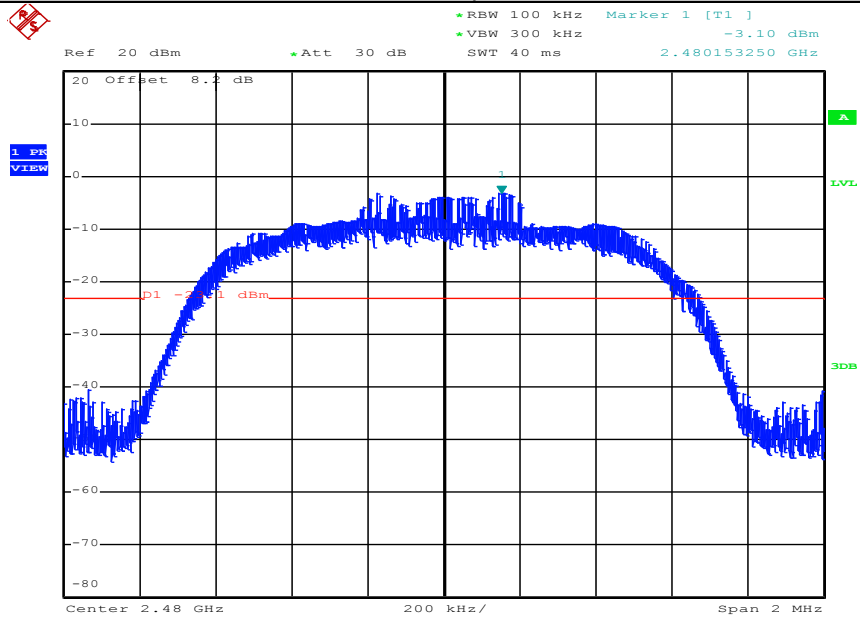
Puw



Date: 10.AUG.2019 20:17:17

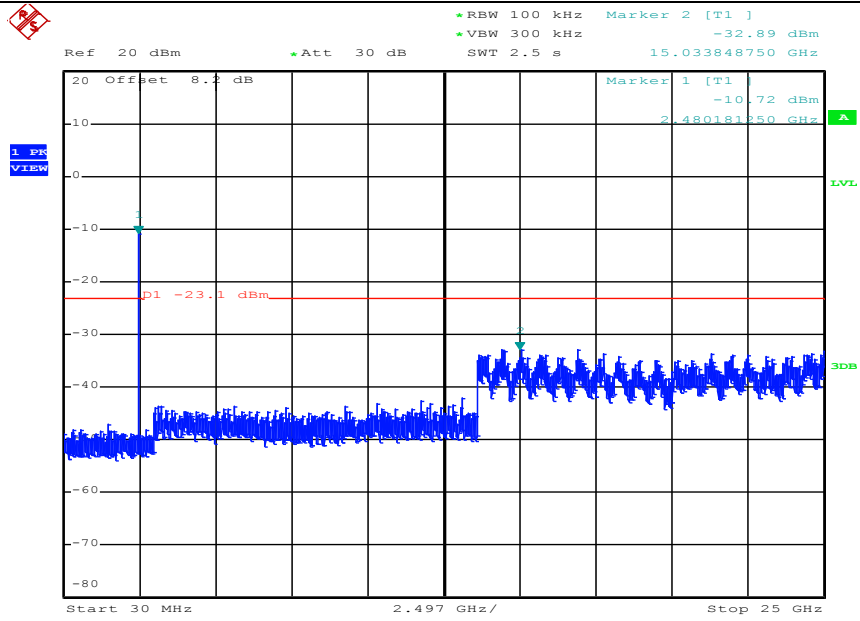
8DPSK_HCH_Graphs

Pref



Date: 10.AUG.2019 20:19:08

Puw



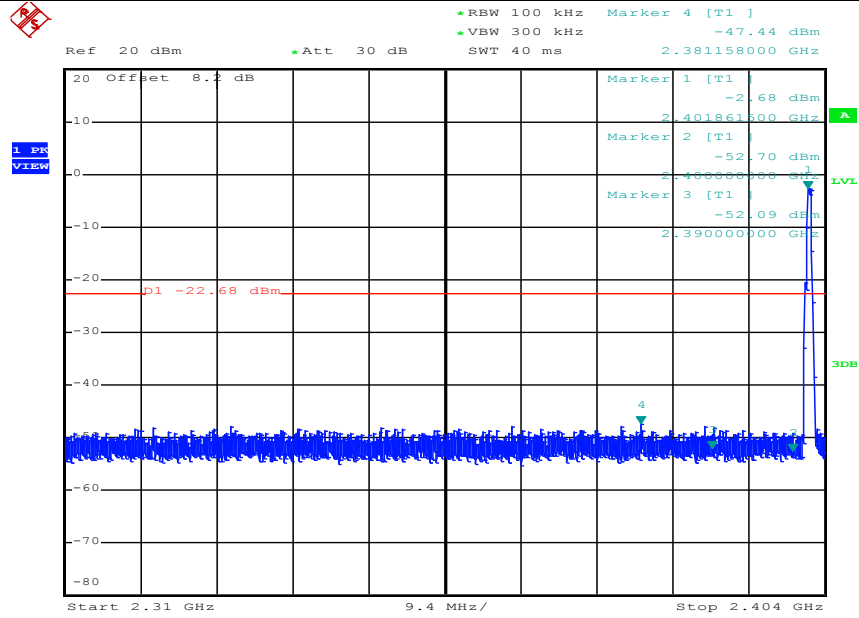
Date: 10.AUG.2019 20:19:21

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	-2.680	Off	-47.442	-22.68	PASS
			-2.420	On	-46.796	-22.42	PASS
	HCH	2480	-2.850	Off	-47.026	-22.85	PASS
			-2.550	On	-47.902	-22.55	PASS
$\pi/4$ DQPSK	LCH	2402	-5.170	Off	-46.756	-25.17	PASS
			-3.150	On	-47.126	-23.15	PASS
	HCH	2480	-3.060	Off	-46.988	-23.06	PASS
			-2.960	On	-47.046	-22.96	PASS
8DPSK	LCH	2402	-2.850	Off	-47.671	-22.85	PASS
			-3.060	On	-46.833	-23.06	PASS
	HCH	2480	-3.680	Off	-46.784	-23.68	PASS
			-3.040	On	-47.227	-23.04	PASS

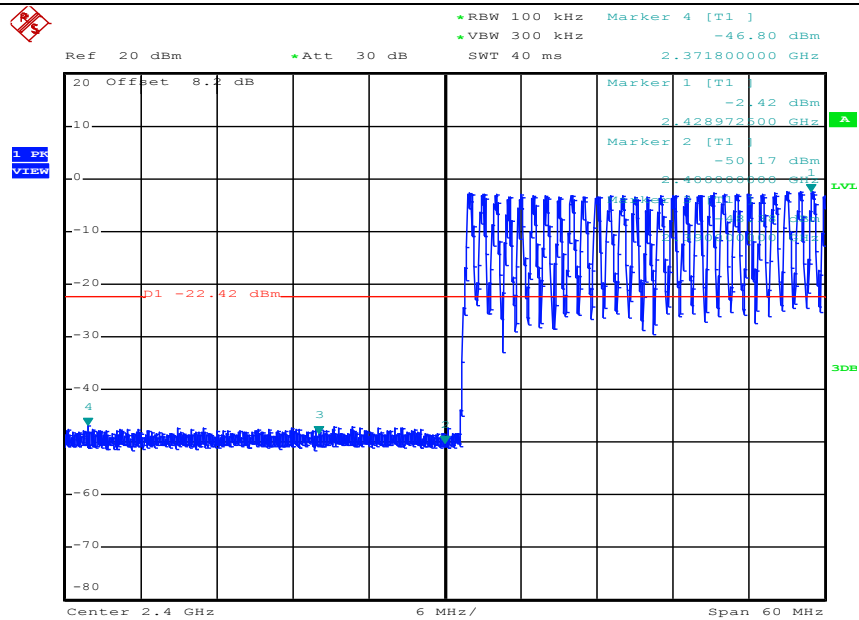
Test Graphs

GFSK/LCH/No Hop



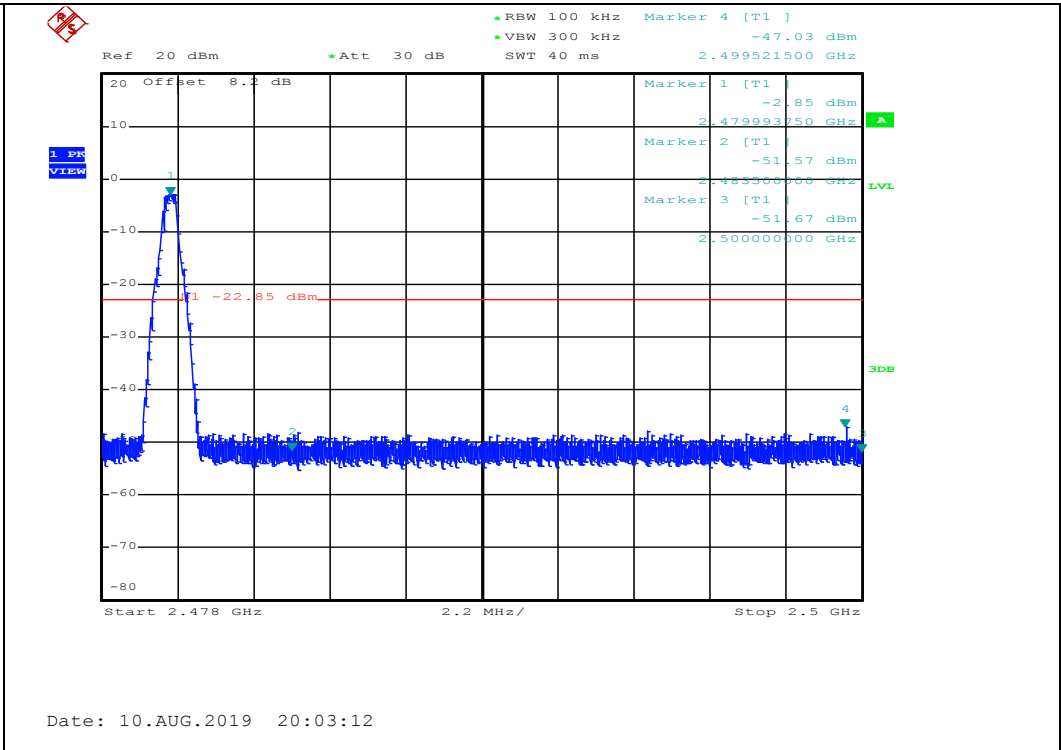
Date: 10.AUG.2019 19:58:51

GFSK/LCH/Hop

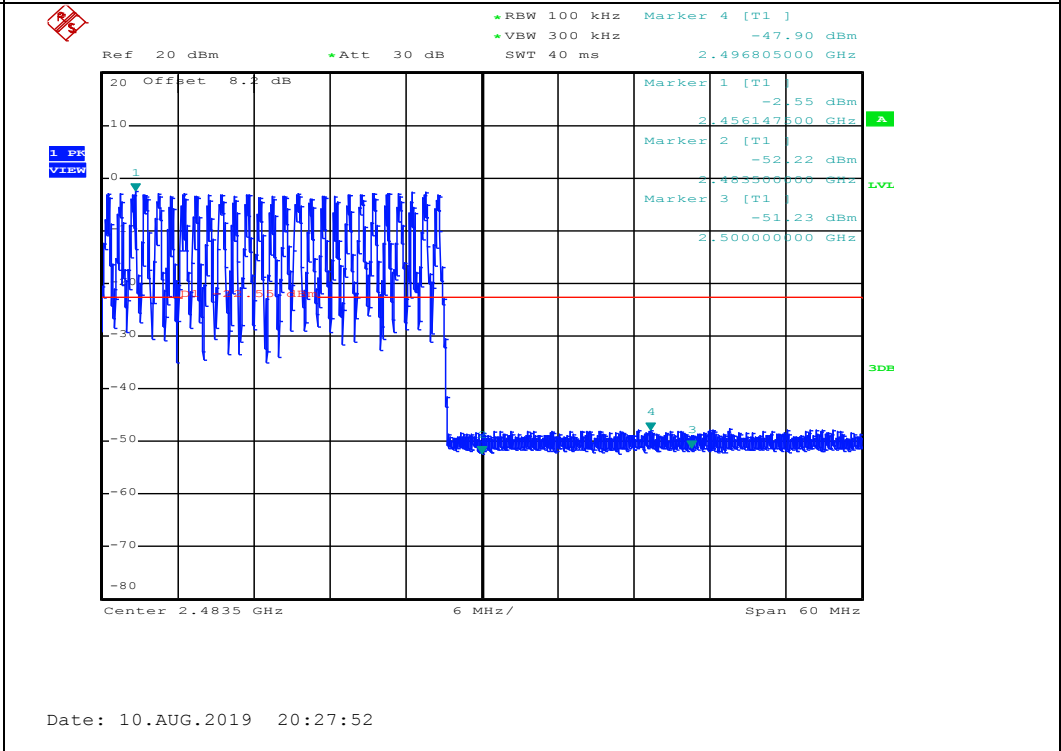


Date: 10.AUG.2019 20:26:13

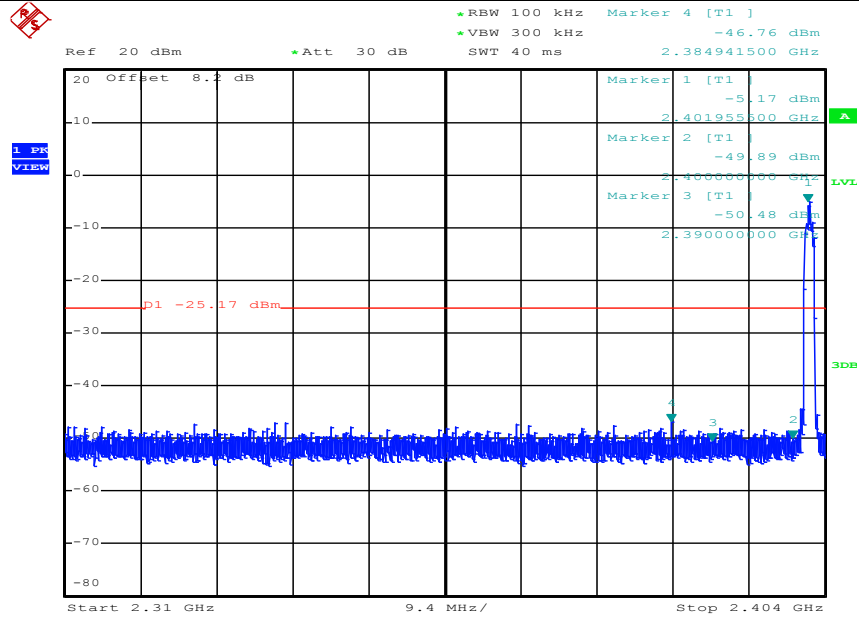
GFSK/HCH/No Hop



GFSK/HCH/Hop

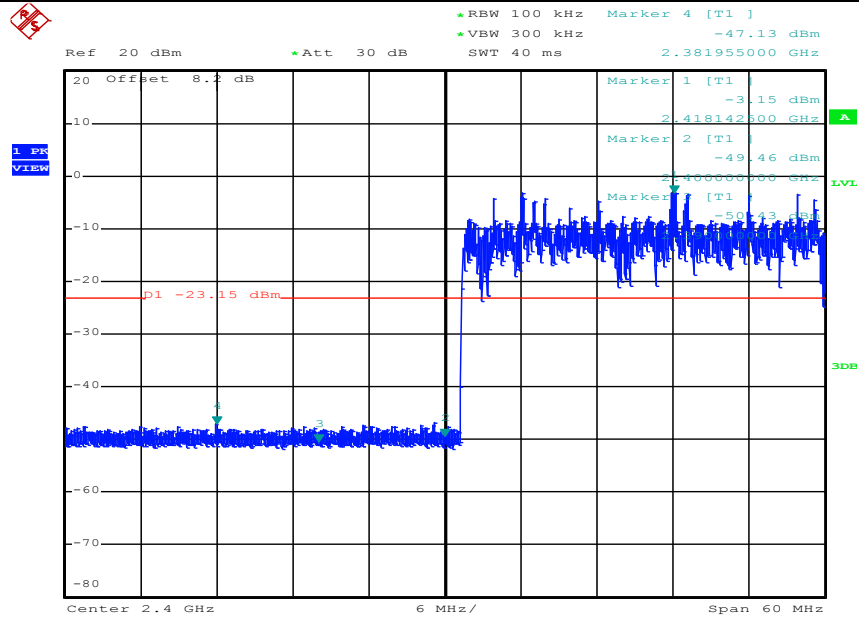


$\pi/4$ DQPSK/LCH/No
Hop



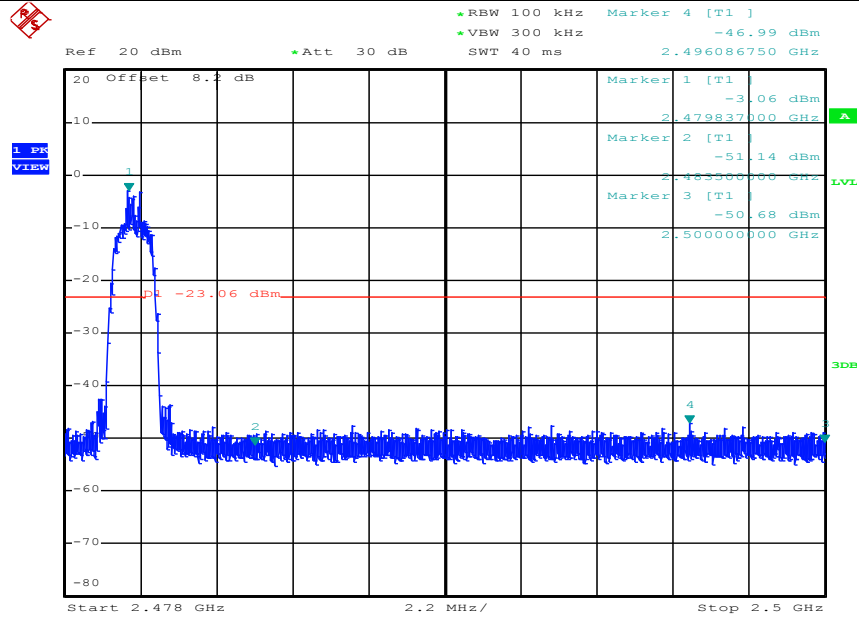
Date: 10.AUG.2019 20:07:26

$\pi/4$ DQPSK/LCH/Hop



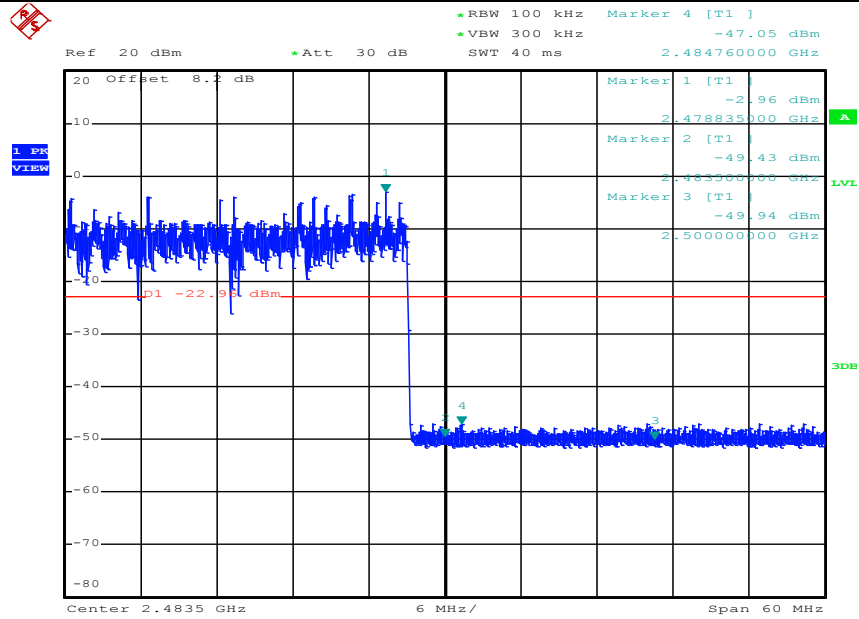
Date: 10.AUG.2019 20:33:07

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



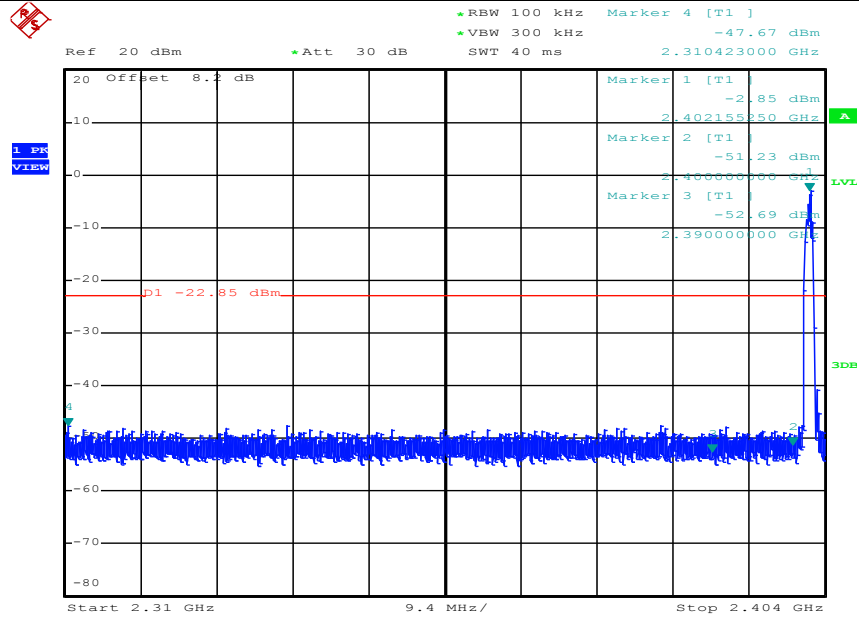
Date: 10.AUG.2019 20:11:52

$\pi/4$ DQPSK/HCH/Hop



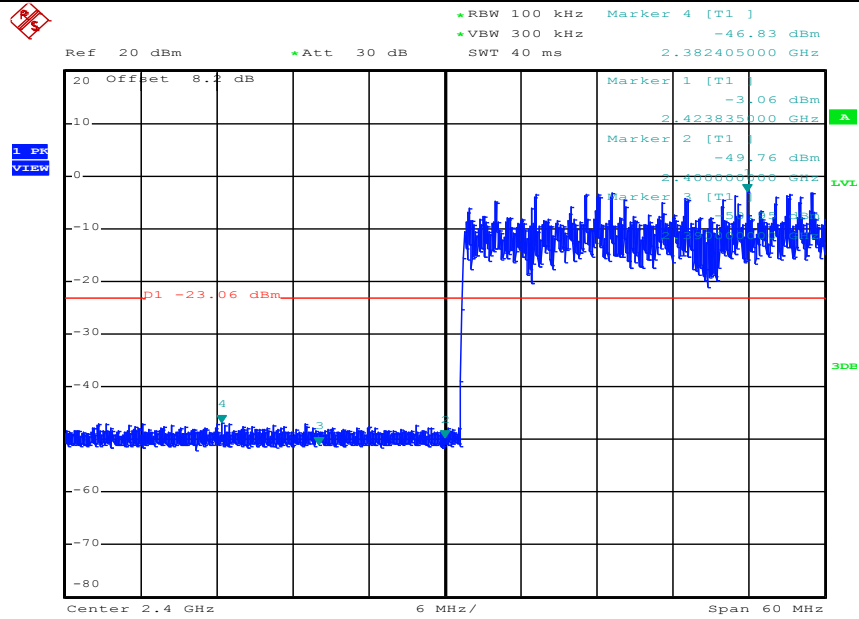
Date: 10.AUG.2019 20:35:31

8DPSK/LCH/No Hop



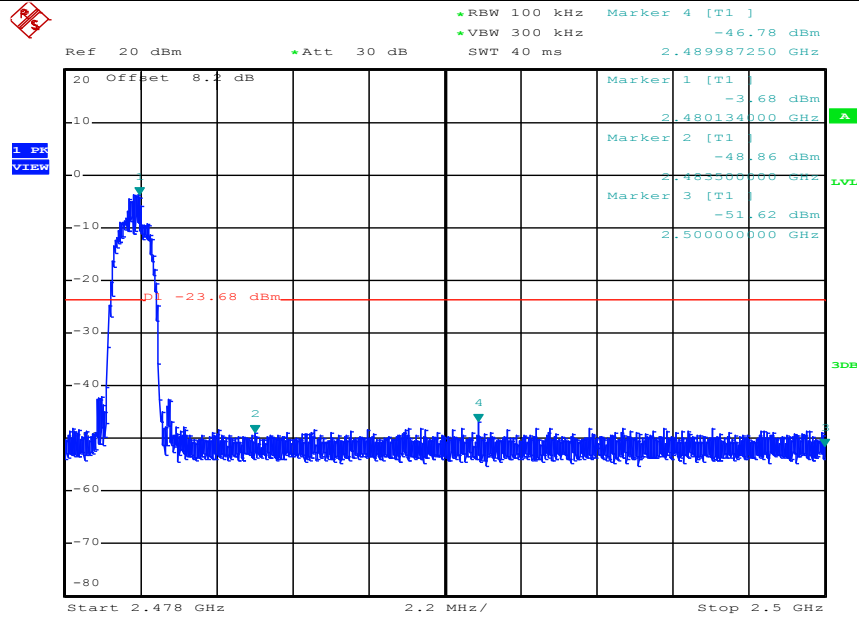
Date: 10.AUG.2019 20:14:36

8DPSK/LCH/Hop



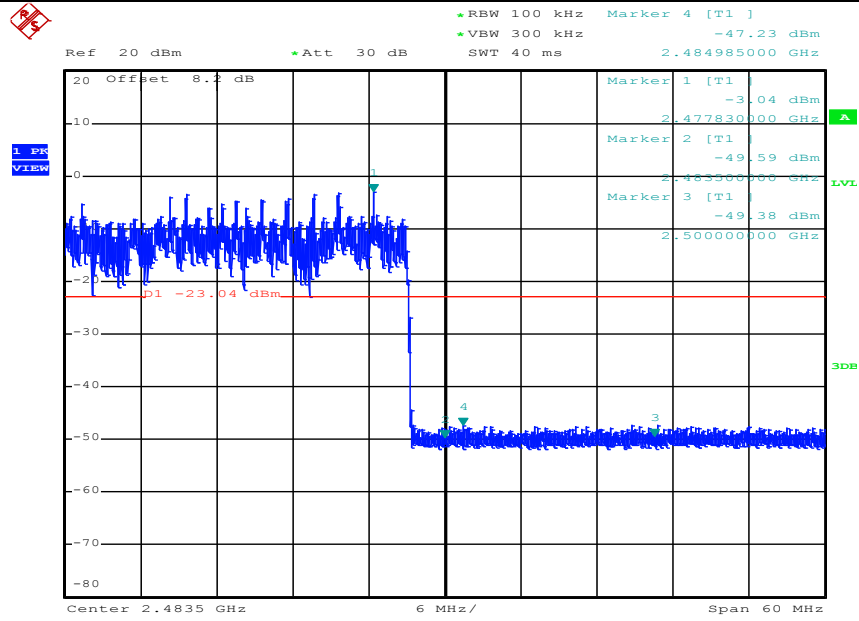
Date: 10.AUG.2019 20:39:41

8DPSK/HCH/No Hop



Date: 10.AUG.2019 20:18:55

8DPSK/HCH/Hop

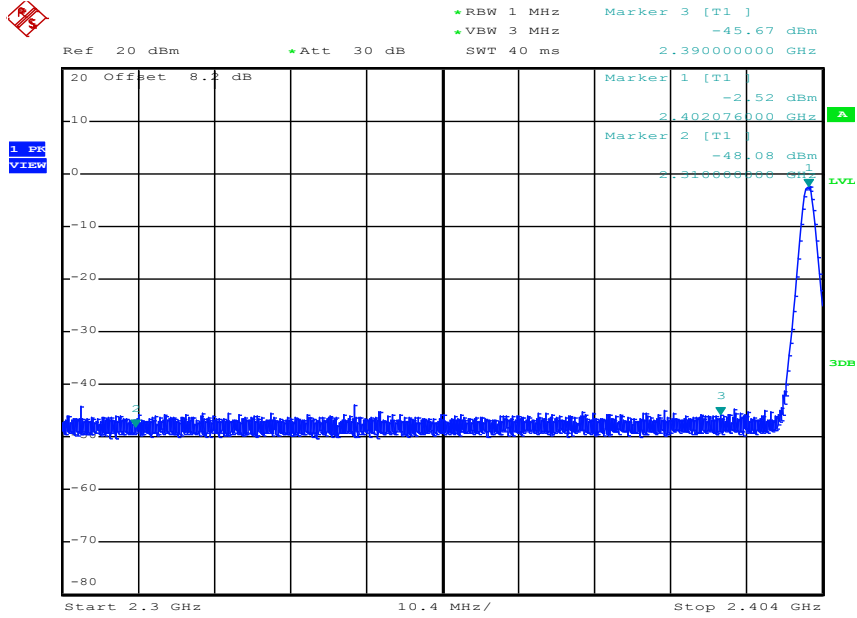


Date: 10.AUG.2019 20:41:52

A.8 Restrict-band band-edge measurements

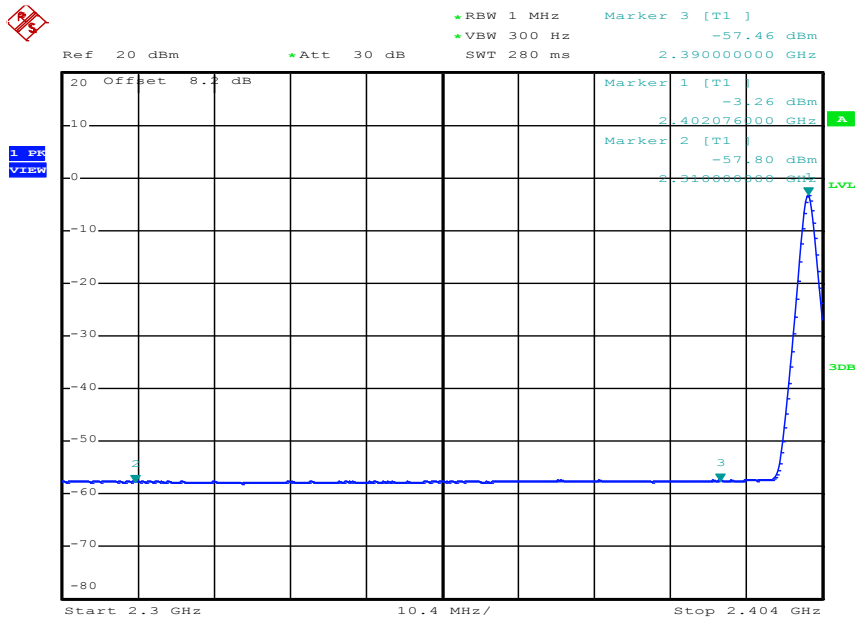
Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-48.08	2.0	0	47.18	PEAK	74	PASS
	Off	2310.0	-57.80	2.0	0	37.46	AV	54	PASS
	Off	2390.0	-45.67	2.0	0	49.59	PEAK	74	PASS
	Off	2390.0	-57.46	2.0	0	37.80	AV	54	PASS
	Off	2483.5	-41.28	2.0	0	53.98	PEAK	74	PASS
	Off	2483.5	-45.80	2.0	0	49.46	AV	54	PASS
	Off	2500.0	-47.99	2.0	0	47.27	PEAK	74	PASS
	Off	2500.0	-58.15	2.0	0	37.11	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-48.93	2.0	0	46.33	PEAK	74	PASS
	Off	2310.0	-57.67	2.0	0	37.59	AV	54	PASS
	Off	2390.0	-47.37	2.0	0	47.89	PEAK	74	PASS
	Off	2390.0	-57.48	2.0	0	37.78	AV	54	PASS
	Off	2483.5	-42.69	2.0	0	52.57	PEAK	74	PASS
	Off	2483.5	-48.73	2.0	0	46.53	AV	54	PASS
	Off	2500.0	-48.45	2.0	0	46.81	PEAK	74	PASS
	Off	2500.0	-58.11	2.0	0	37.15	AV	54	PASS
8DPSK	Off	2310.0	-49.03	2.0	0	46.23	PEAK	74	PASS
	Off	2310.0	-57.72	2.0	0	37.54	AV	54	PASS
	Off	2390.0	-47.96	2.0	0	47.30	PEAK	74	PASS
	Off	2390.0	-57.57	2.0	0	37.69	AV	54	PASS
	Off	2483.5	-42.75	2.0	0	52.51	PEAK	74	PASS
	Off	2483.5	-48.68	2.0	0	46.58	AV	54	PASS
	Off	2500.0	-46.57	2.0	0	48.69	PEAK	74	PASS
	Off	2500.0	-58.08	2.0	0	37.18	AV	54	PASS

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



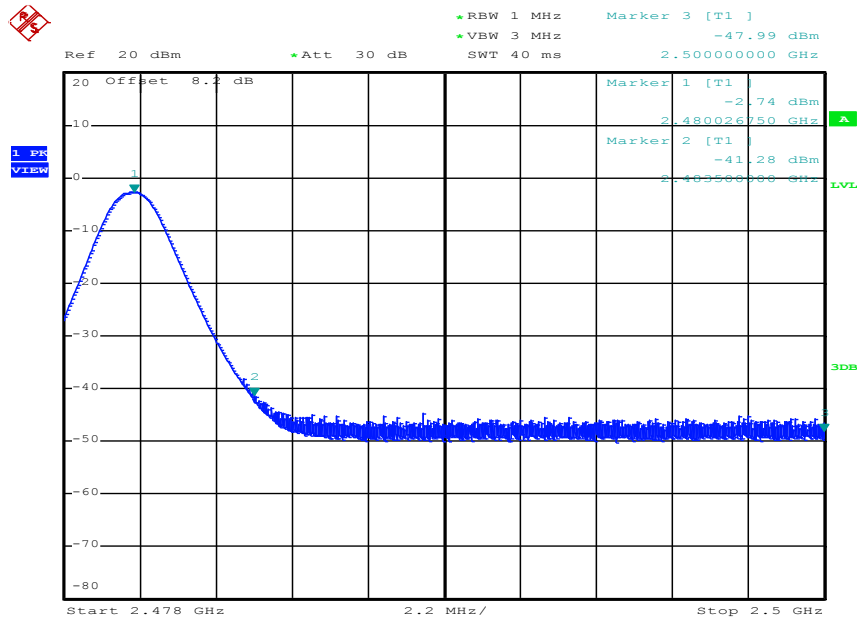
Date: 10.AUG.2019 19:59:38

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



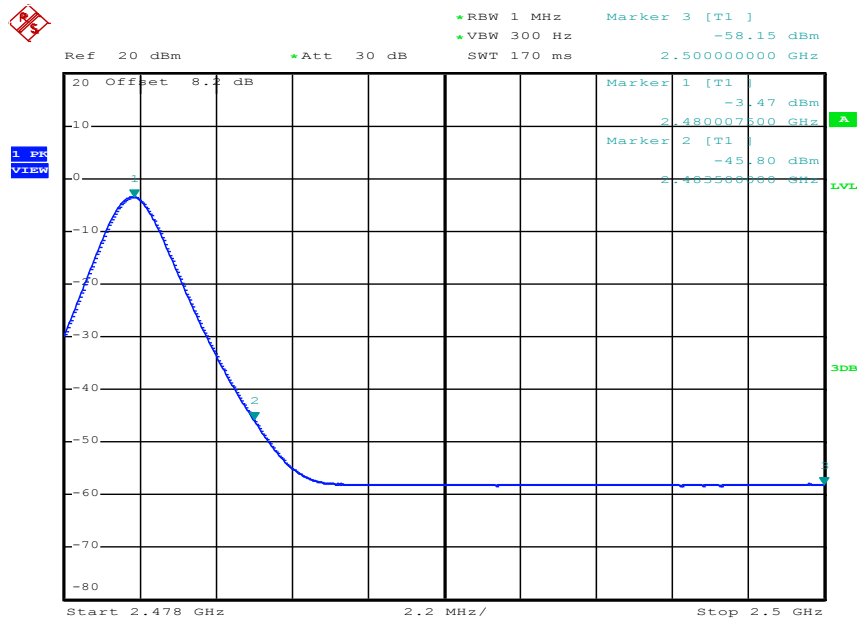
Date: 10.AUG.2019 19:59:51

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



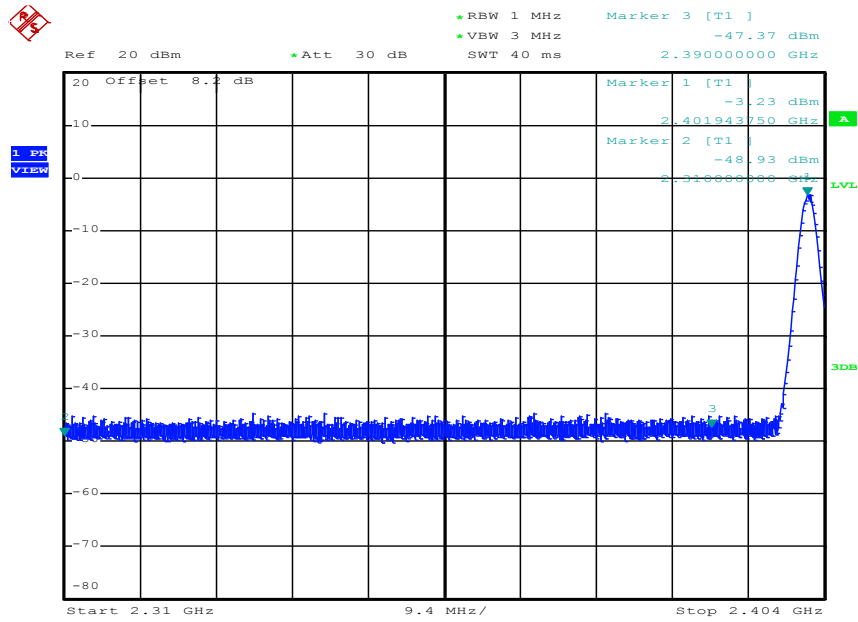
Date: 10.AUG.2019 20:03:59

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



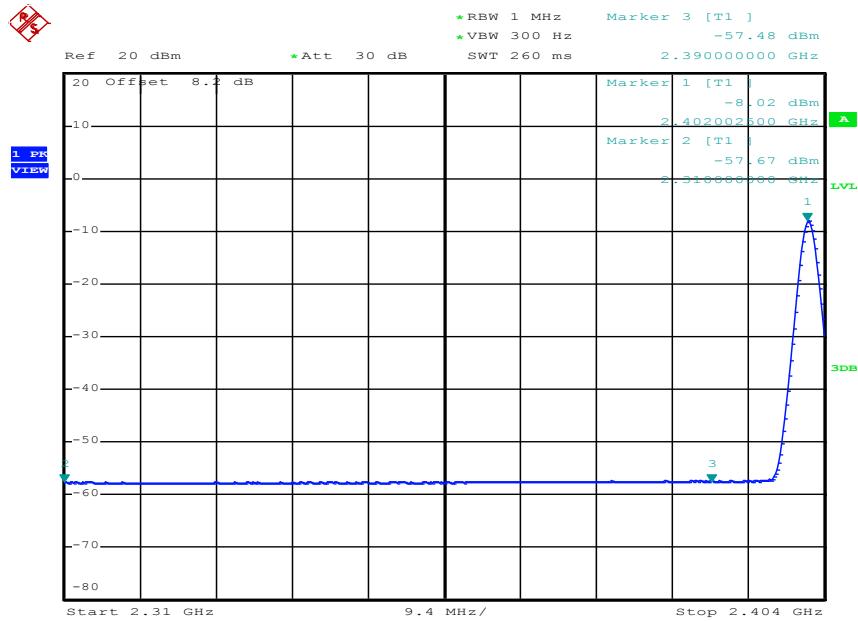
Date: 10.AUG.2019 20:04:12

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



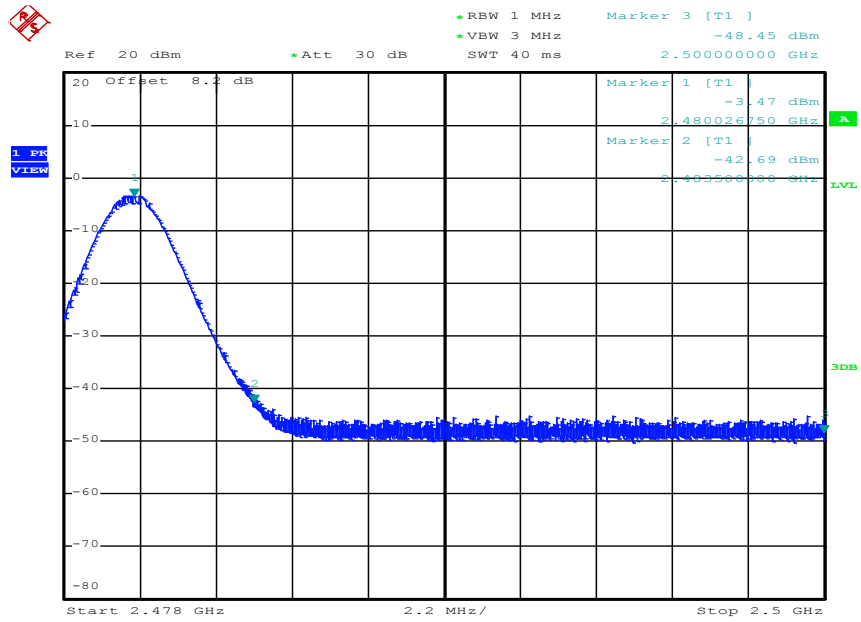
Date: 10.AUG.2019 20:08:13

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



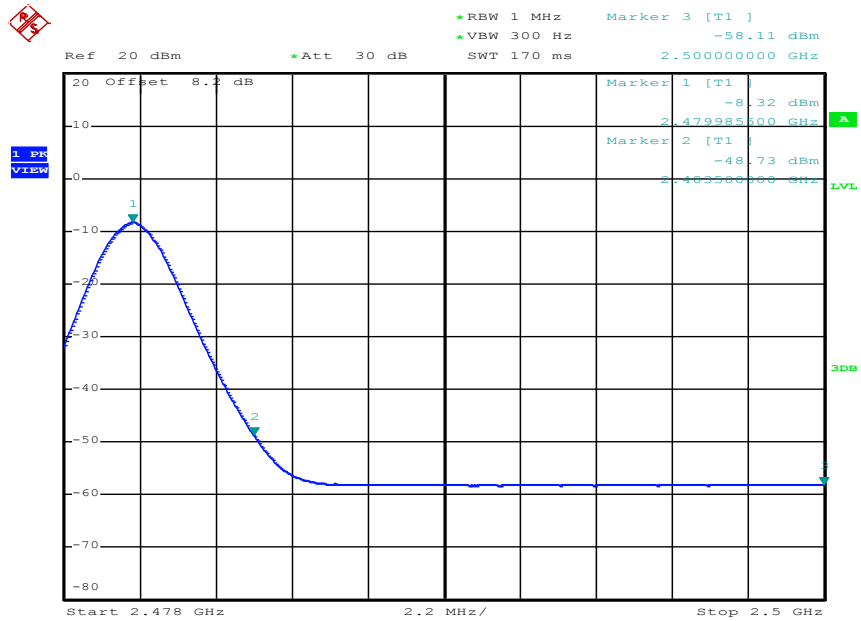
Date: 10.AUG.2019 20:08:26

Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



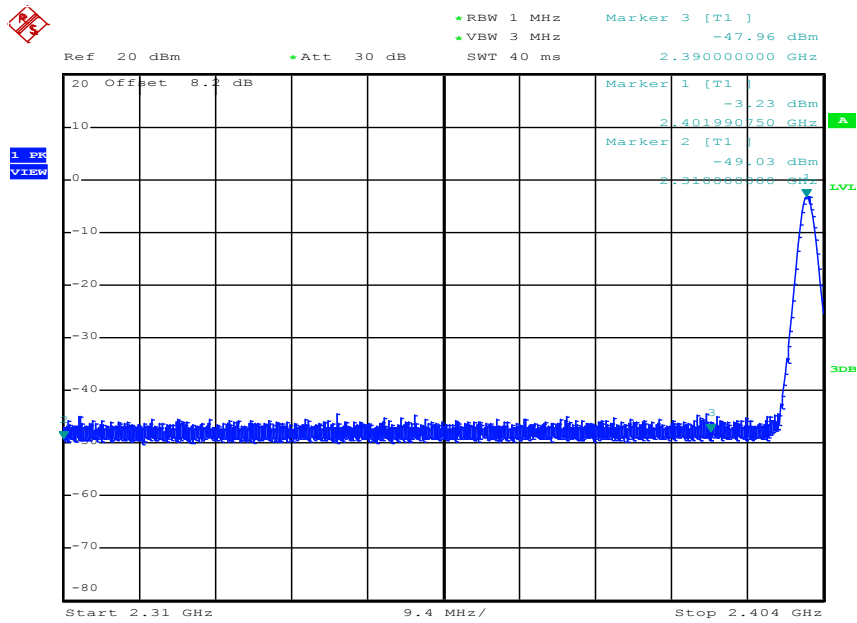
Date: 10.AUG.2019 20:12:38

Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



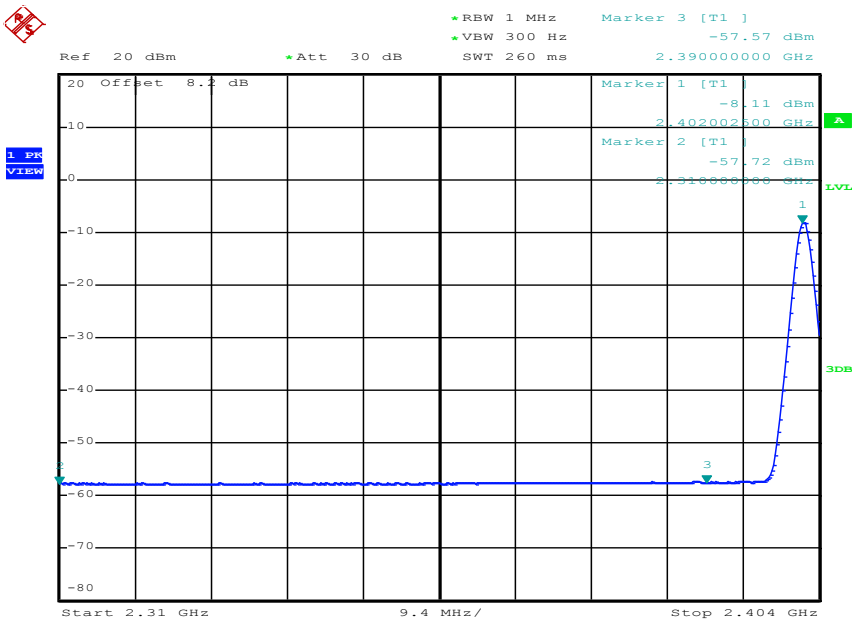
Date: 10.AUG.2019 20:12:51

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



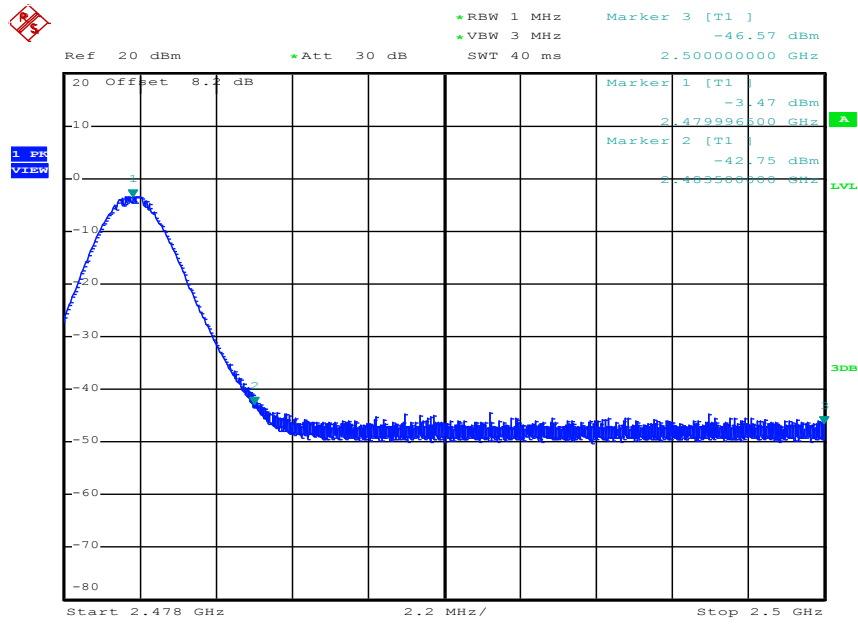
Date: 10.AUG.2019 20:15:23

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



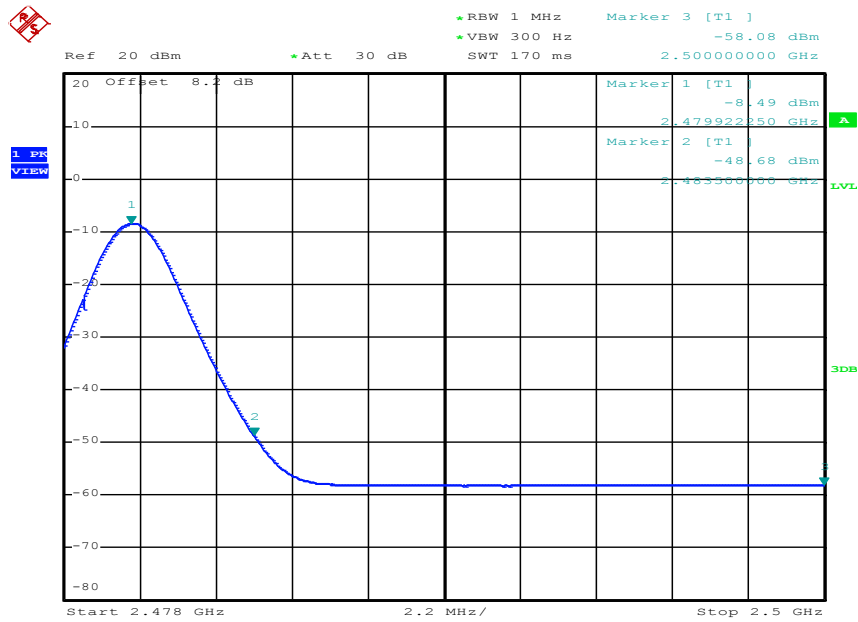
Date: 10.AUG.2019 20:15:36

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



Date: 10.AUG.2019 20:19:39

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



Date: 10.AUG.2019 20:19:52