

Appendix A

RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

Product Name: Rugged Tablet

Test Model: LT800

Environmental Conditions

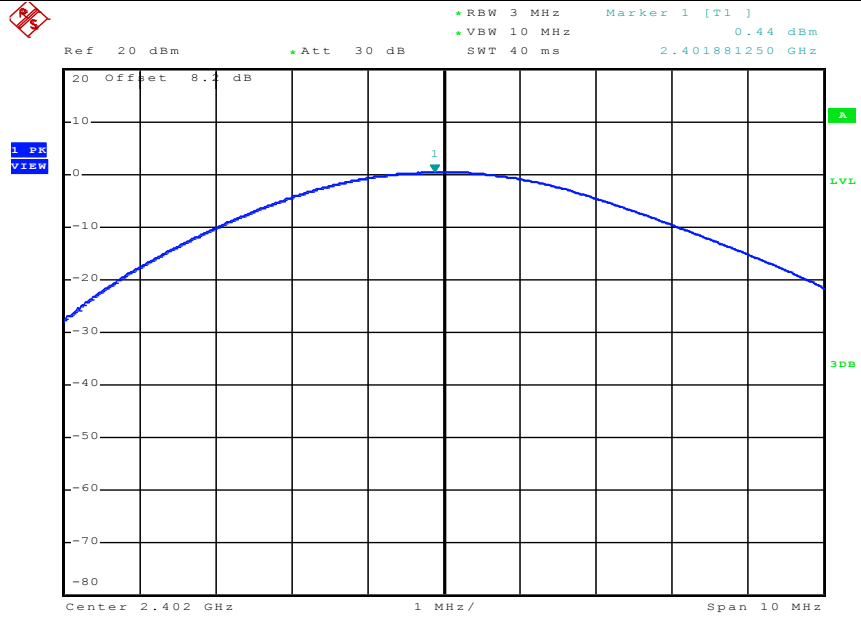
Temperature:	24.8 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Wang Chuang

A.1 Maxmum Conducted Peak Output Power

Mode	Channel.	Maximum Peak Output Power [dBm]	Maximum Average Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.440	0.262	21	PASS
	MCH	1.350	1.204	21	PASS
	HCH	-0.110	-0.242	21	PASS
$\pi/4$ DQPSK	LCH	-0.230	-0.370	21	PASS
	MCH	0.710	0.496	21	PASS
	HCH	-0.720	-0.907	21	PASS
8DPSK	LCH	-0.170	-0.382	21	PASS
	MCH	0.830	0.641	21	PASS
	HCH	-0.690	-0.867	21	PASS

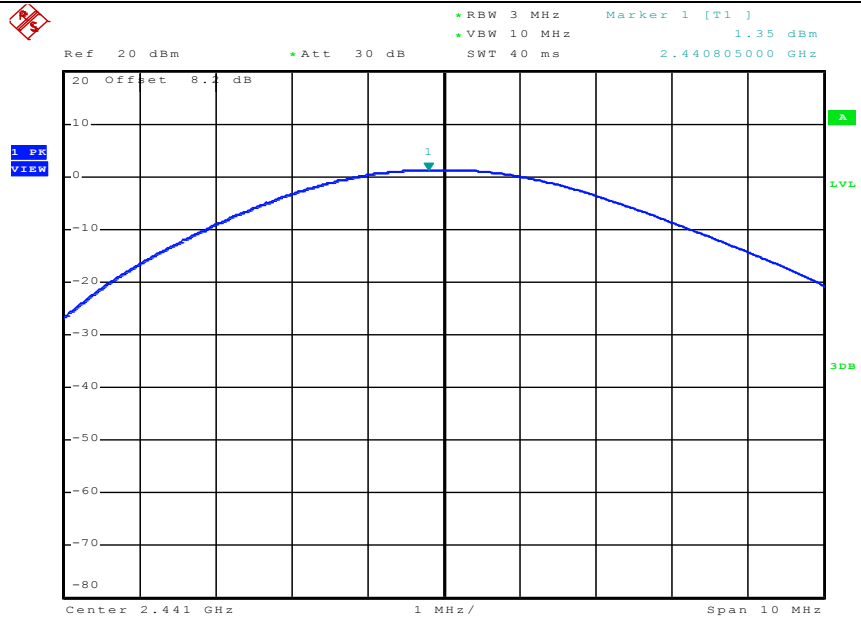
Test Graphs

GFSK/LCH



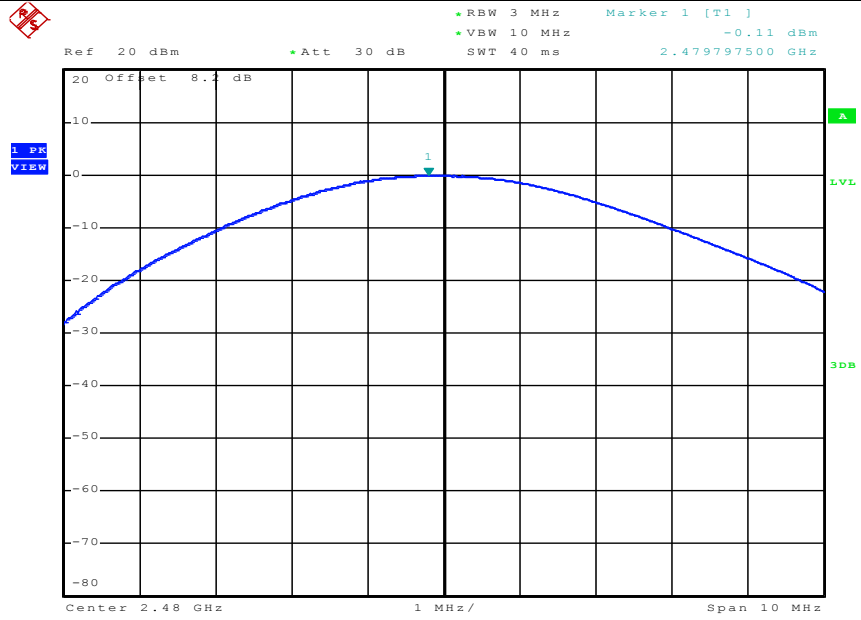
Date: 21.AUG.2019 17:25:31

GFSK/MCH



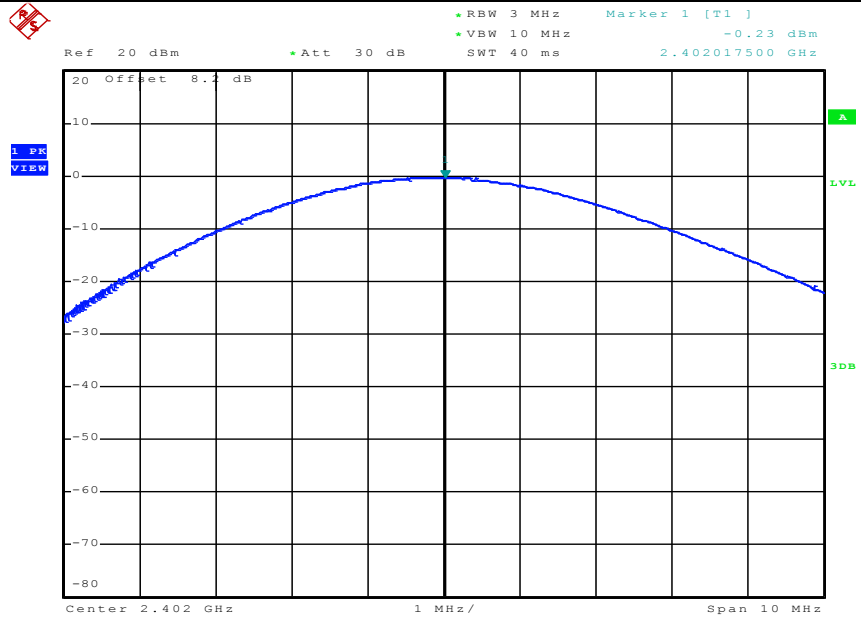
Date: 21.AUG.2019 17:27:57

GFSK/HCH



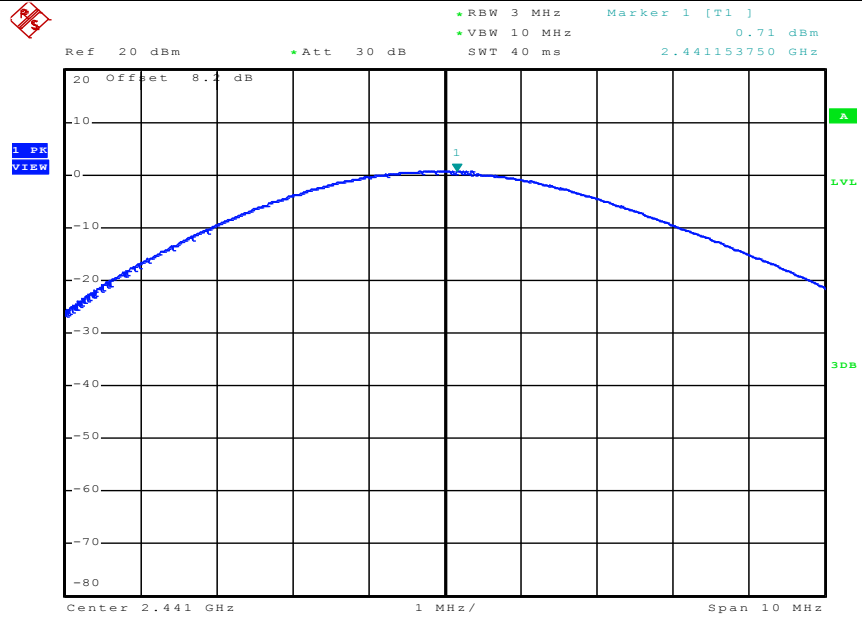
Date: 21.AUG.2019 17:30:25

$\pi/4$ DQPSK/LCH



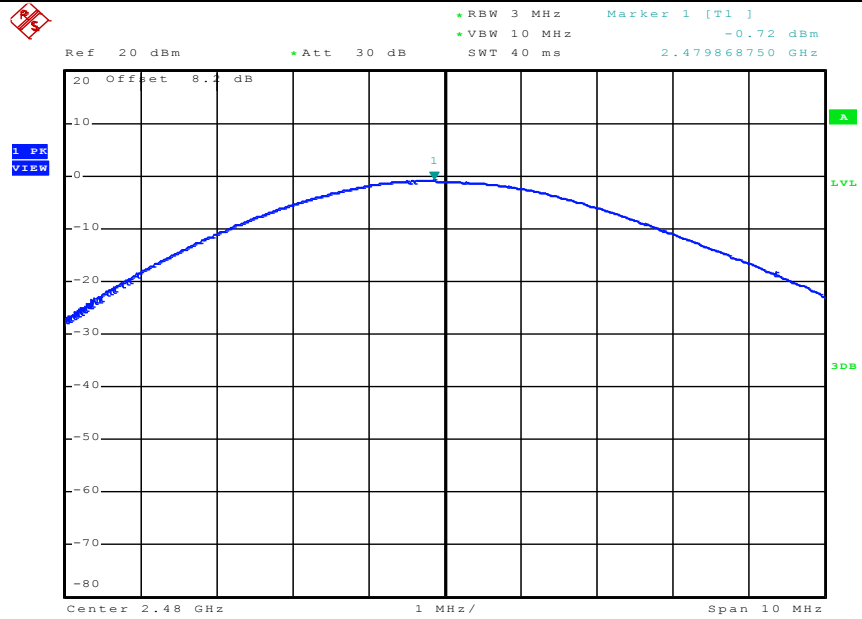
Date: 21.AUG.2019 17:33:04

π /4DQPSK/MCH



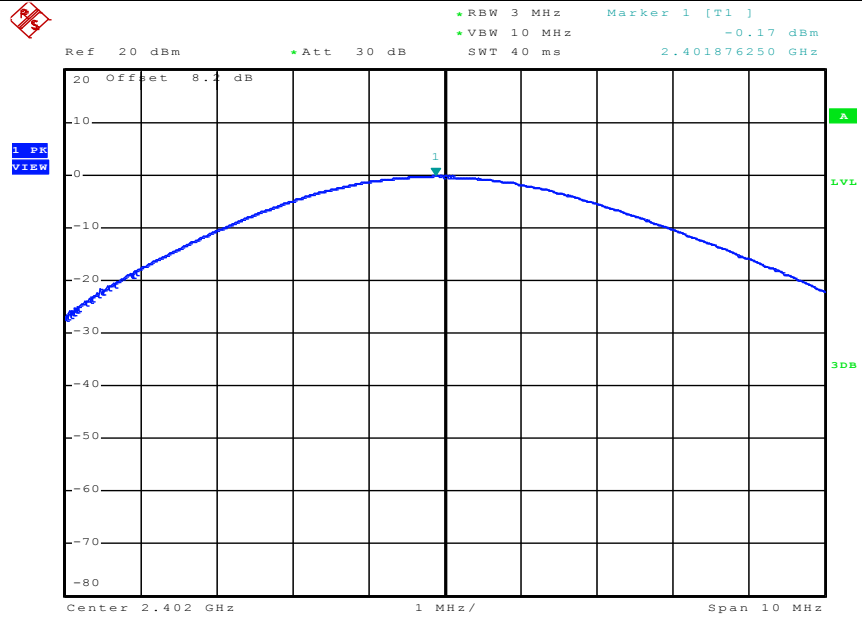
Date: 21.AUG.2019 17:35:37

π /4DQPSK/HCH



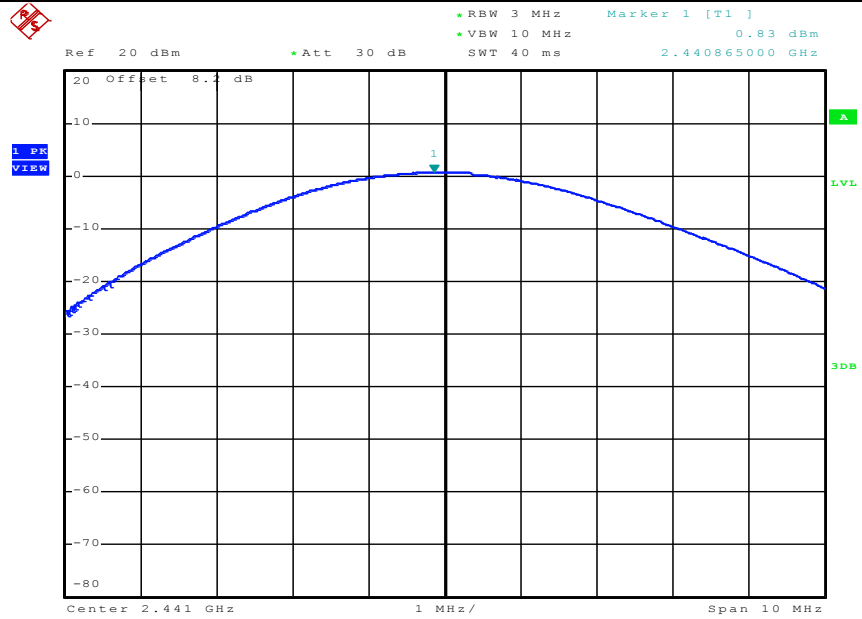
Date: 21.AUG.2019 17:37:22

8DPSK/LCH



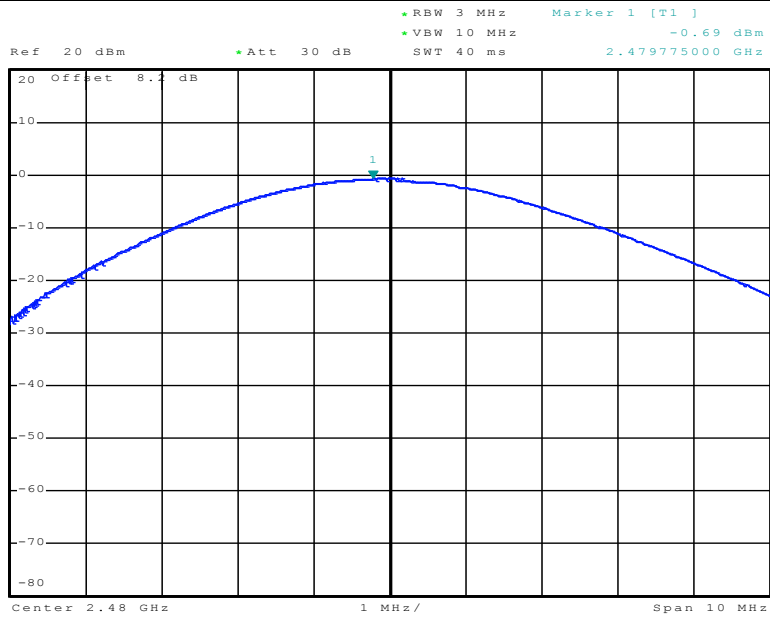
Date: 21.AUG.2019 17:40:03

8DPSK/MCH



Date: 21.AUG.2019 17:42:51

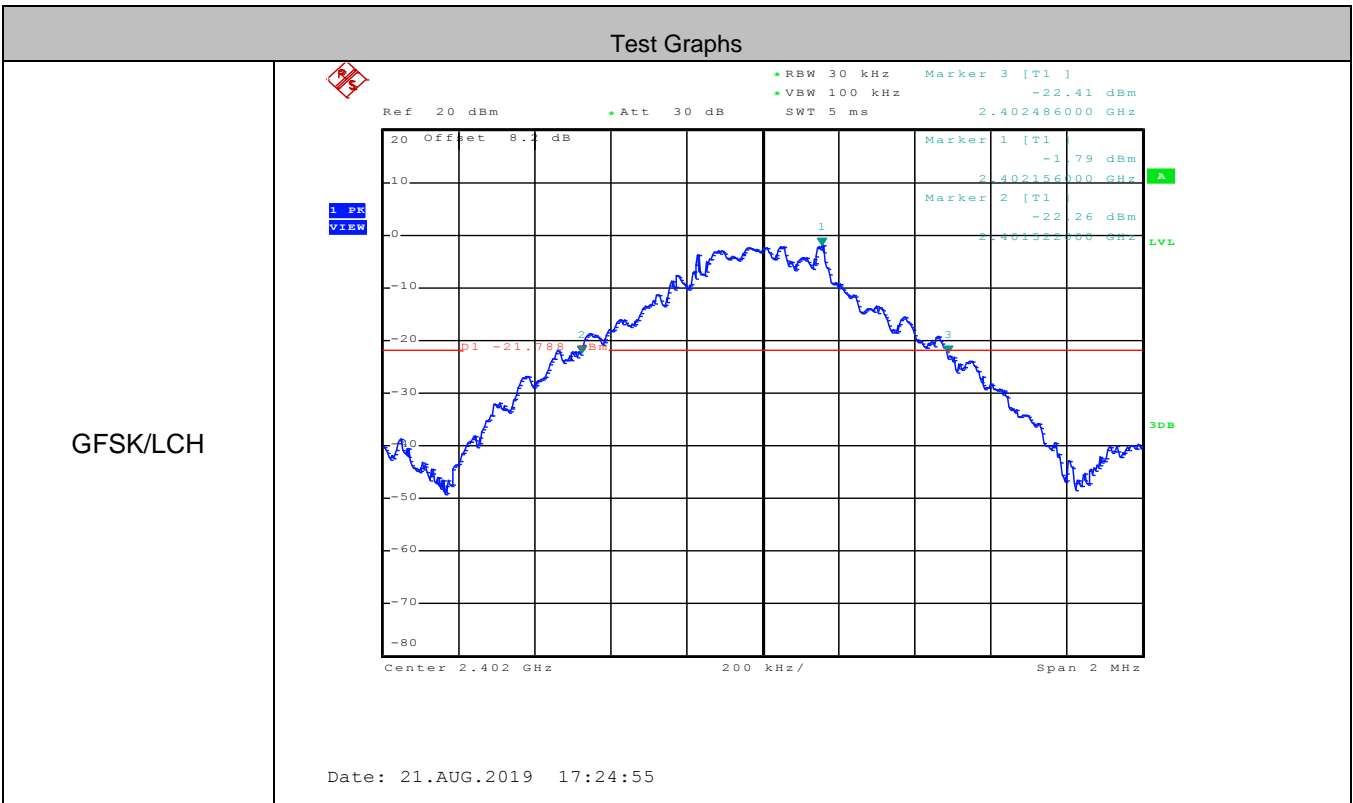
8DPSK/HCH



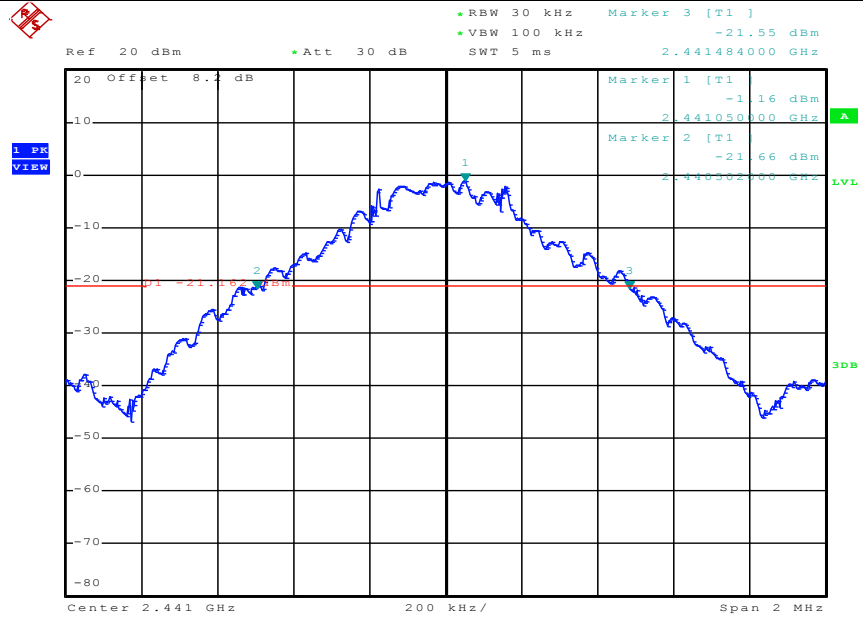
Date: 21.AUG.2019 17:44:40

A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.964	Not Specified	PASS
	MCH	0.982	Not Specified	PASS
	HCH	1.030	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.288	Not Specified	PASS
	MCH	1.314	Not Specified	PASS
	HCH	1.296	Not Specified	PASS
8DPSK	LCH	1.294	Not Specified	PASS
	MCH	1.290	Not Specified	PASS
	HCH	1.310	Not Specified	PASS

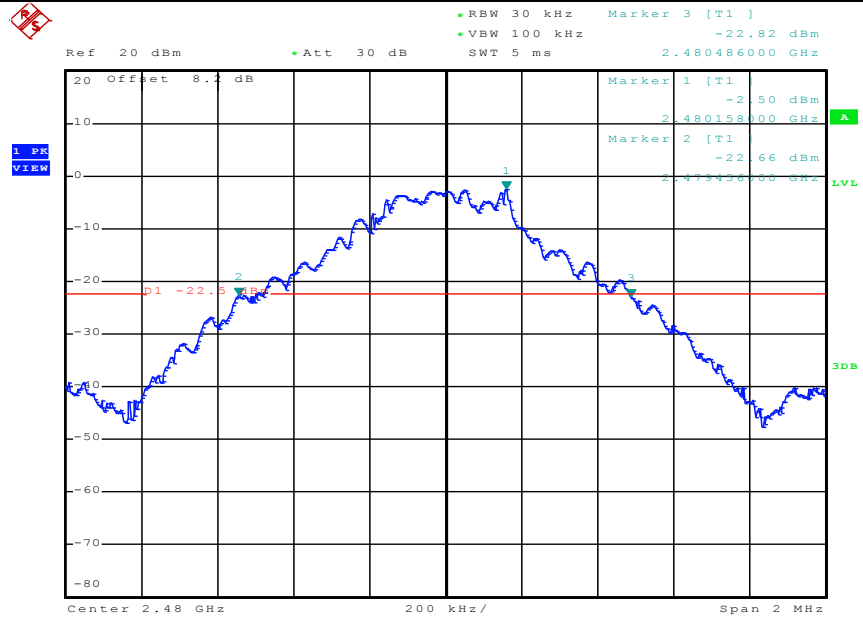


GFSK/MCH



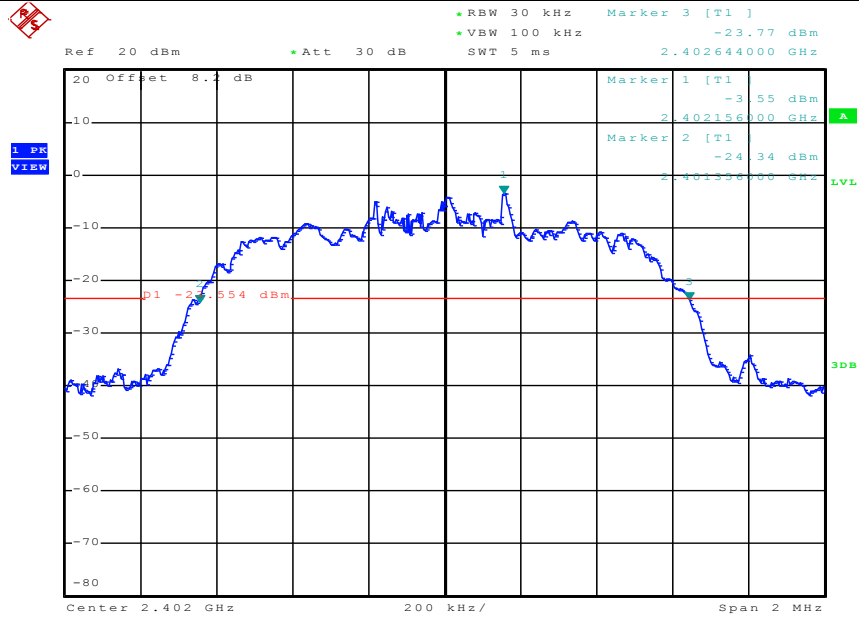
Date: 21.AUG.2019 17:27:21

GFSK/HCH



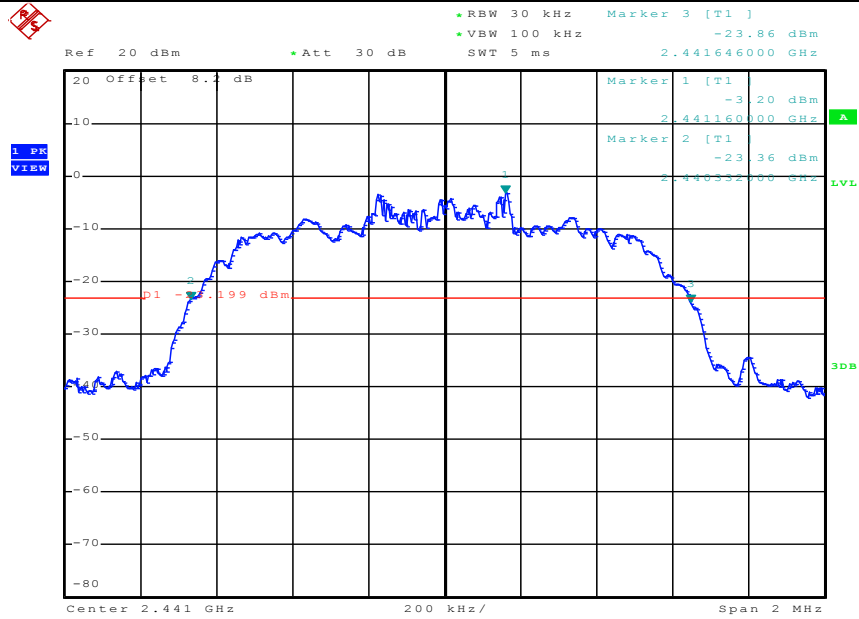
Date: 21.AUG.2019 17:29:48

$\pi/4$ DQPSK/LCH



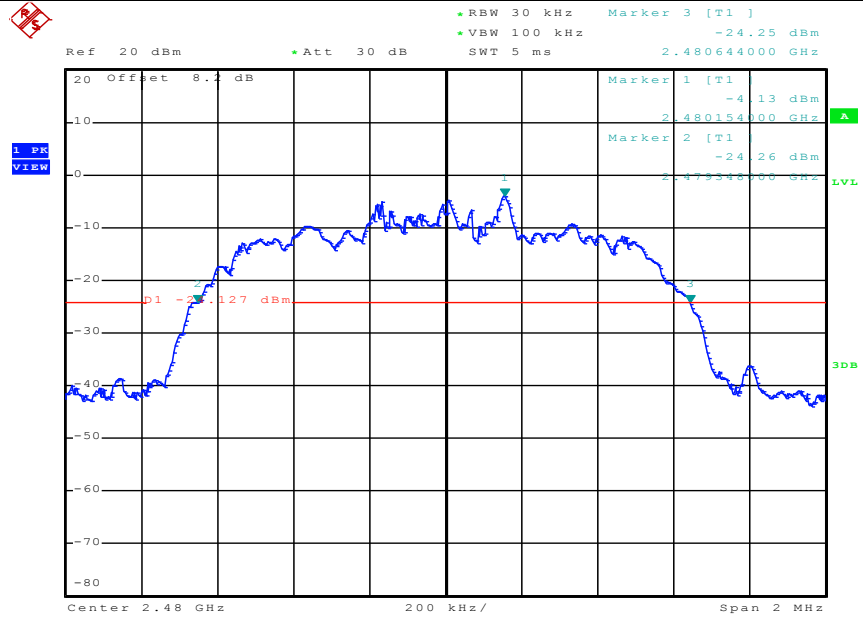
Date: 21.AUG.2019 17:32:27

$\pi/4$ DQPSK/MCH



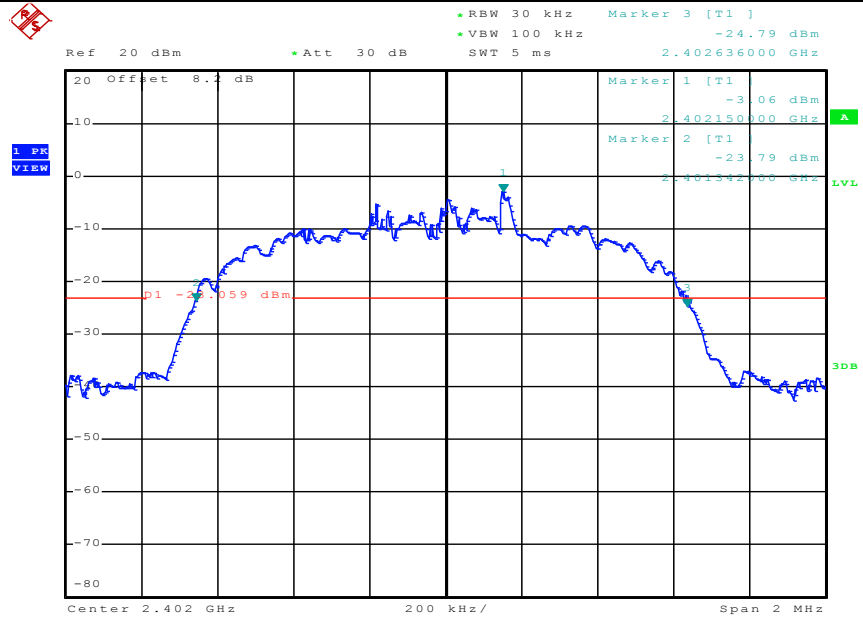
Date: 21.AUG.2019 17:35:00

$\pi/4$ DQPSK/HCH



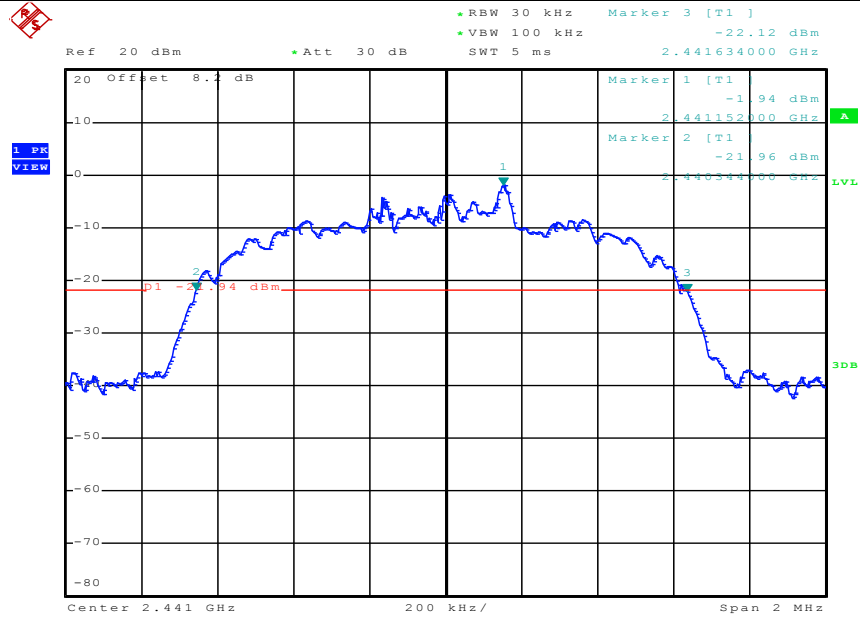
Date: 21.AUG.2019 17:36:45

8DPSK/LCH



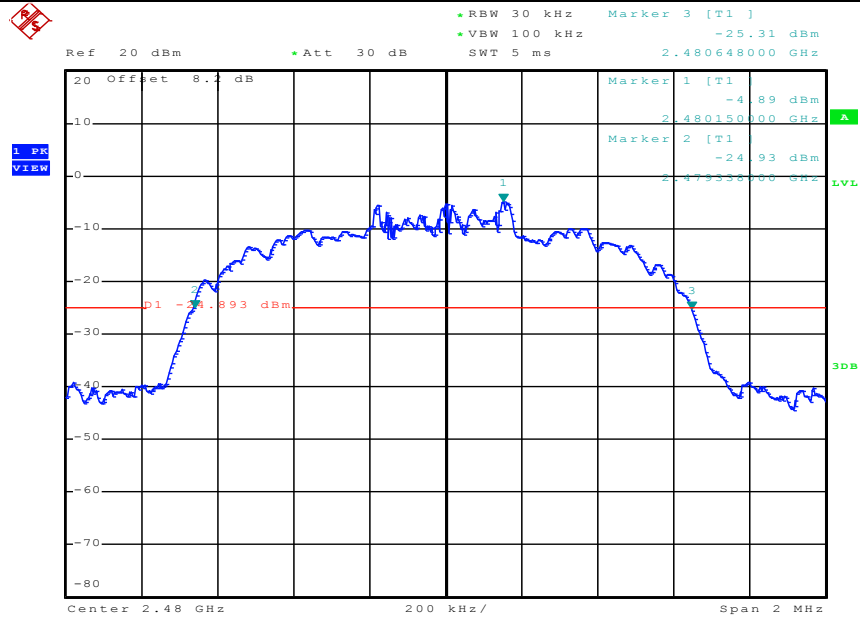
Date: 21.AUG.2019 17:39:27

8DPSK/MCH



Date: 21.AUG.2019 17:42:15

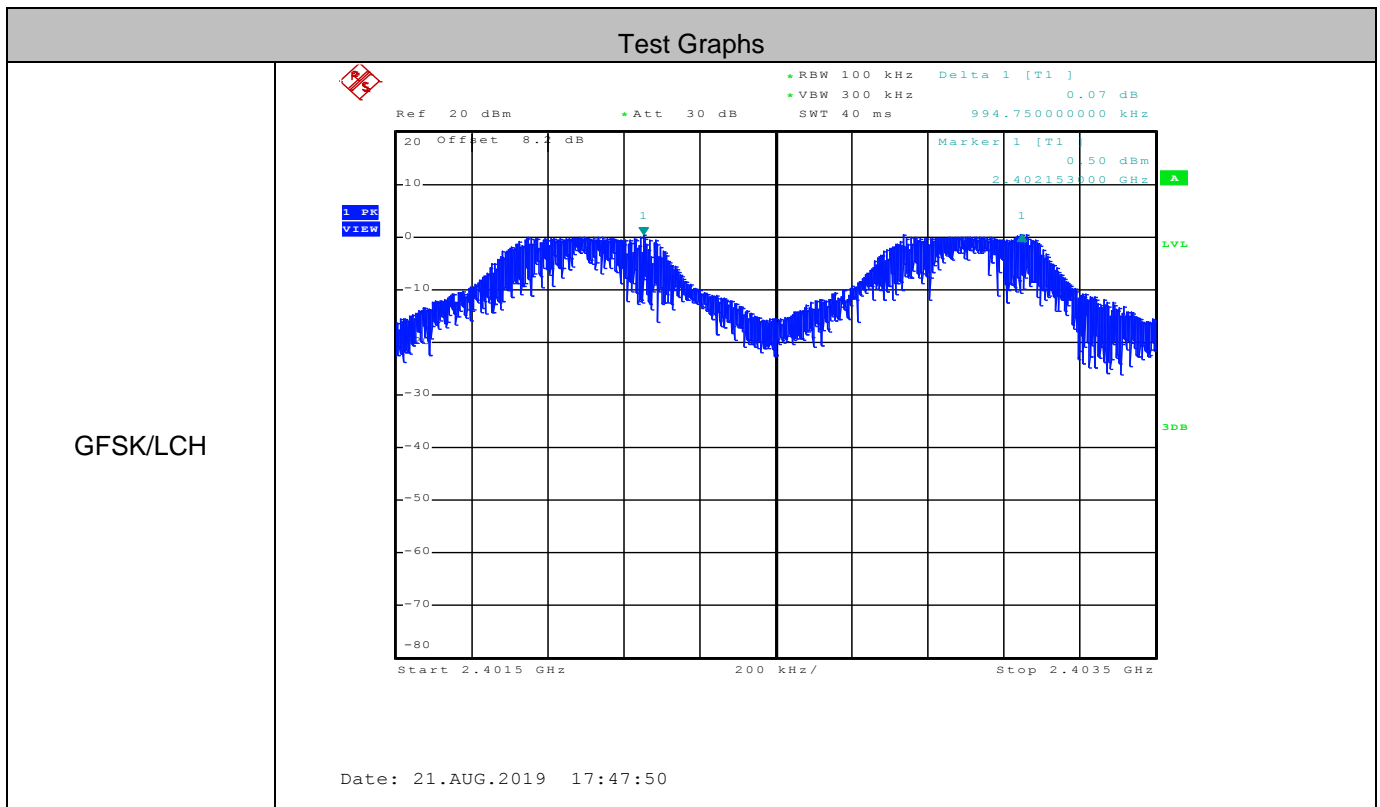
8DPSK/HCH



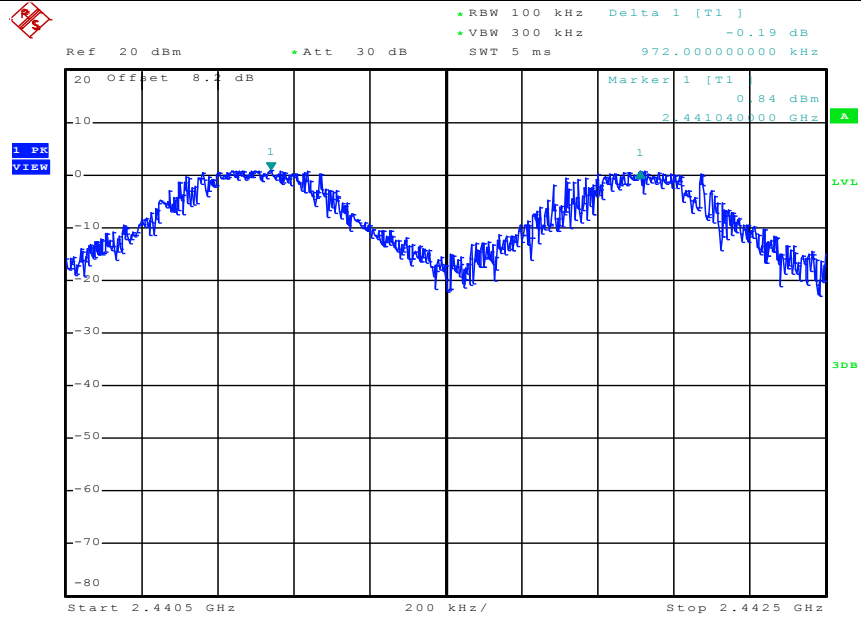
Date: 21.AUG.2019 17:44:04

A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.995	0.687	PASS
	MCH	0.972	0.687	PASS
	HCH	1.058	0.687	PASS
π/4DQPSK	LCH	1.004	0.876	PASS
	MCH	1.274	0.876	PASS
	HCH	0.936	0.876	PASS
8DPSK	LCH	1.174	0.873	PASS
	MCH	0.984	0.873	PASS
	HCH	1.216	0.873	PASS

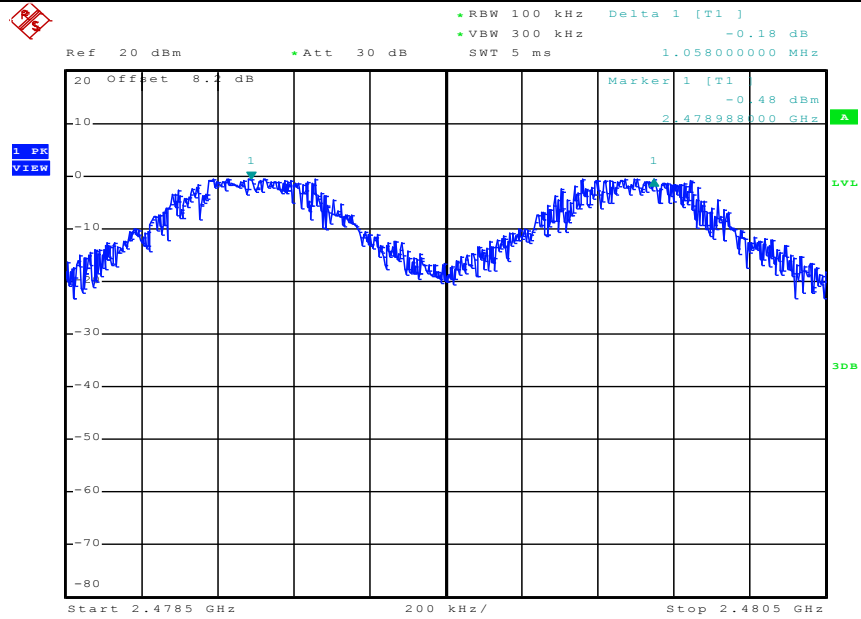


GFSK/MCH



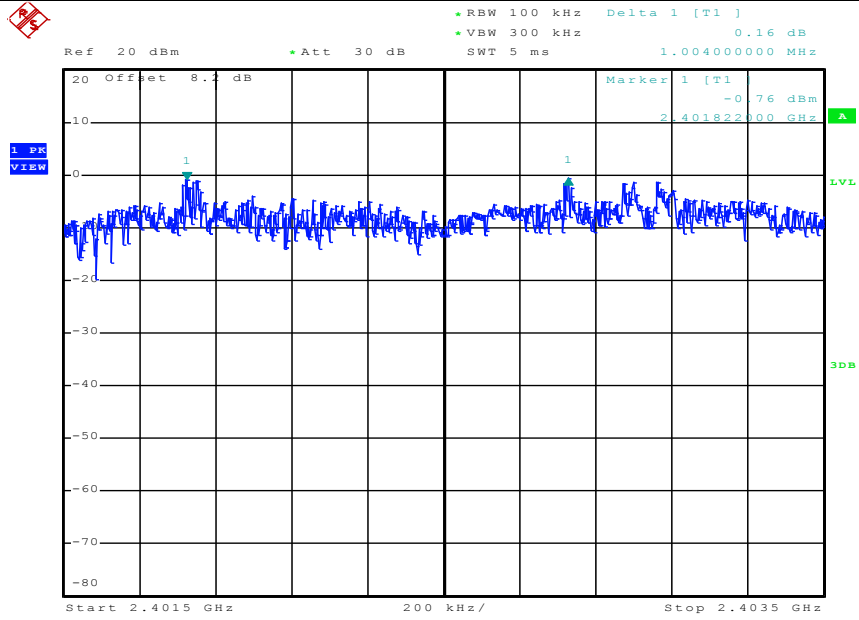
Date: 21.AUG.2019 17:49:03

GFSK/HCH

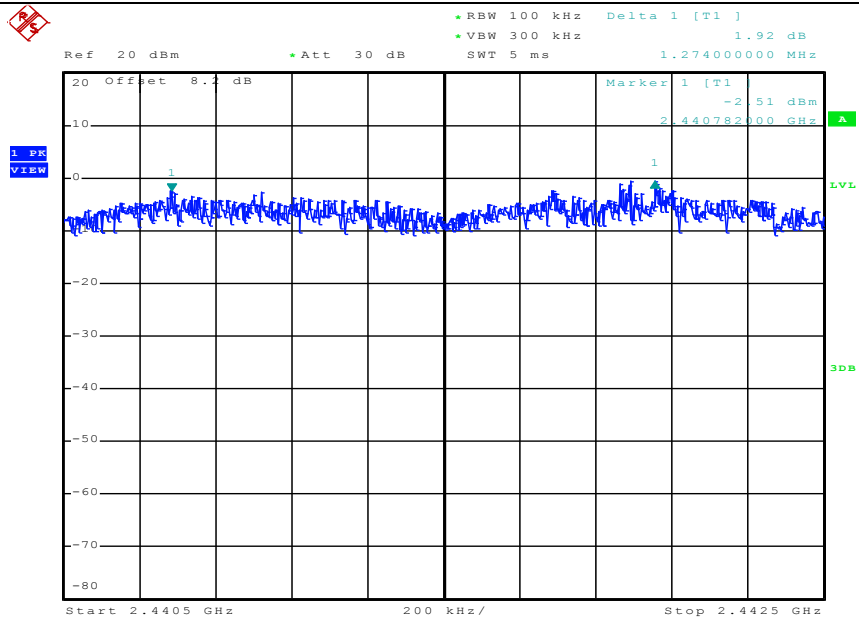


Date: 21.AUG.2019 17:49:23

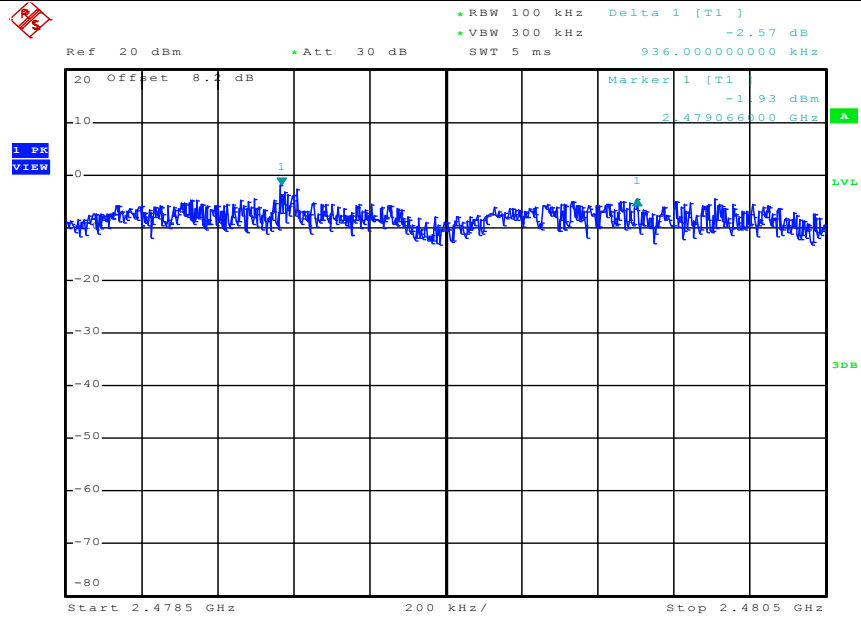
π /4DQPSK/LCH



π /4DQPSK/MCH

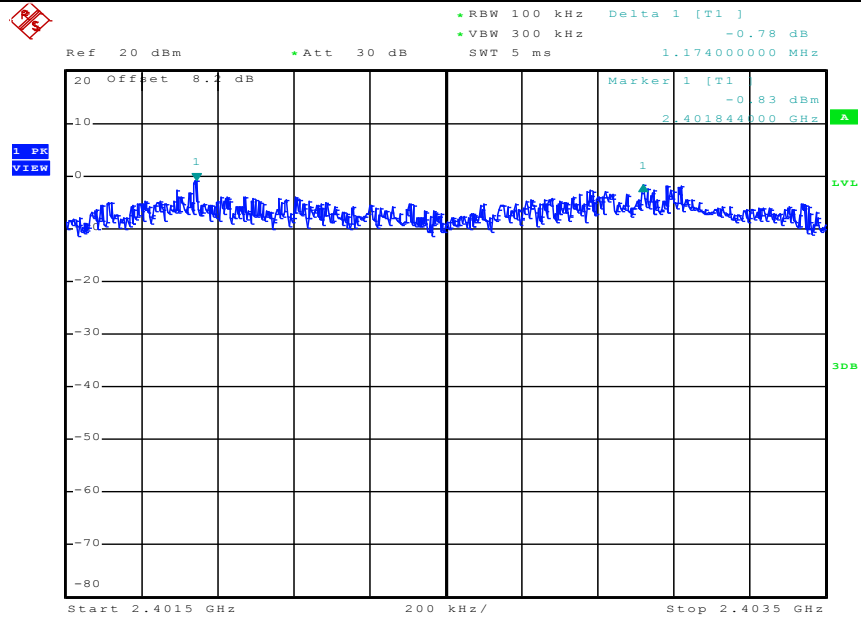


π /4DQPSK/HCH



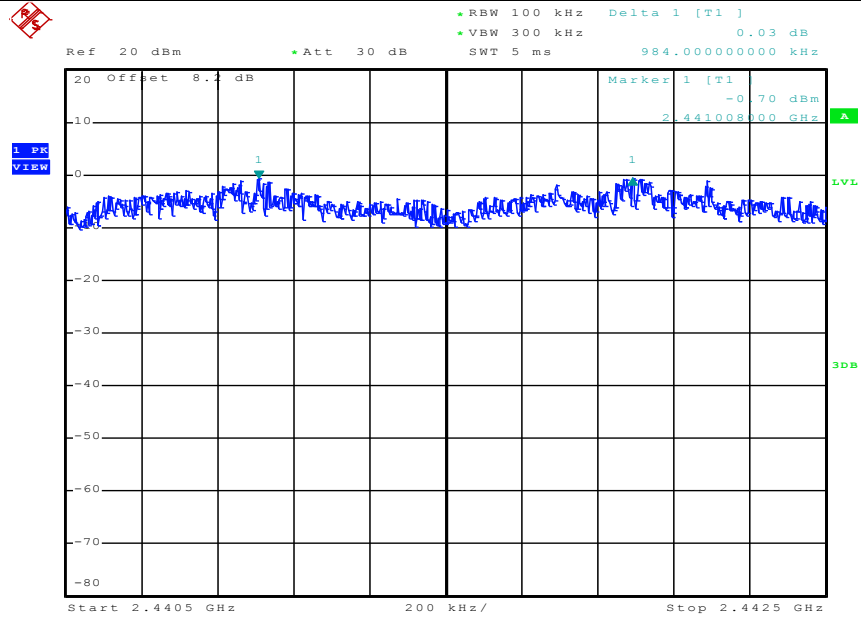
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8DPSK/LCH



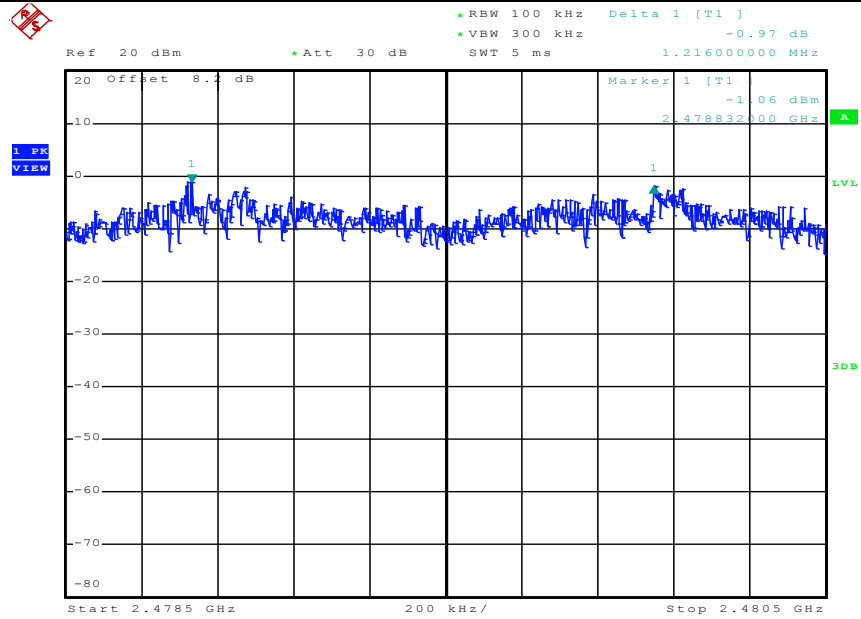
Date: 21.AUG.2019 18:01:42

8DPSK/MCH



Date: 21.AUG.2019 18:04:42

8DPSK/HCH



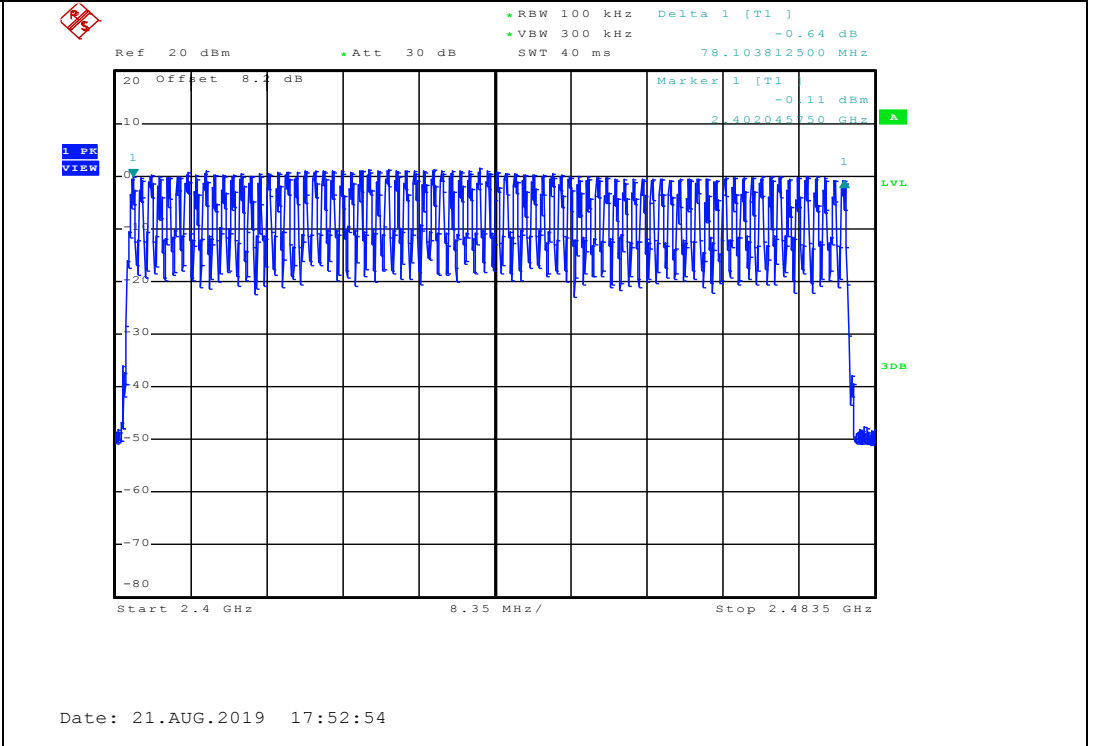
Date: 21.AUG.2019 18:05:07

A.4 Hopping Channel Number

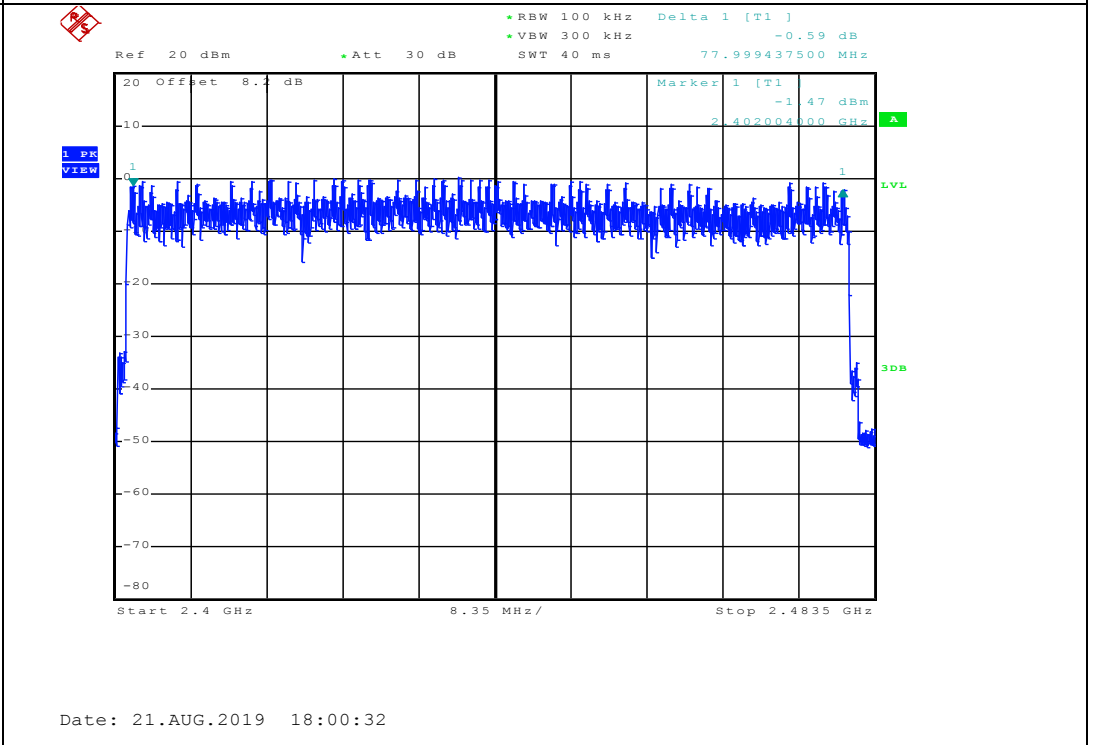
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

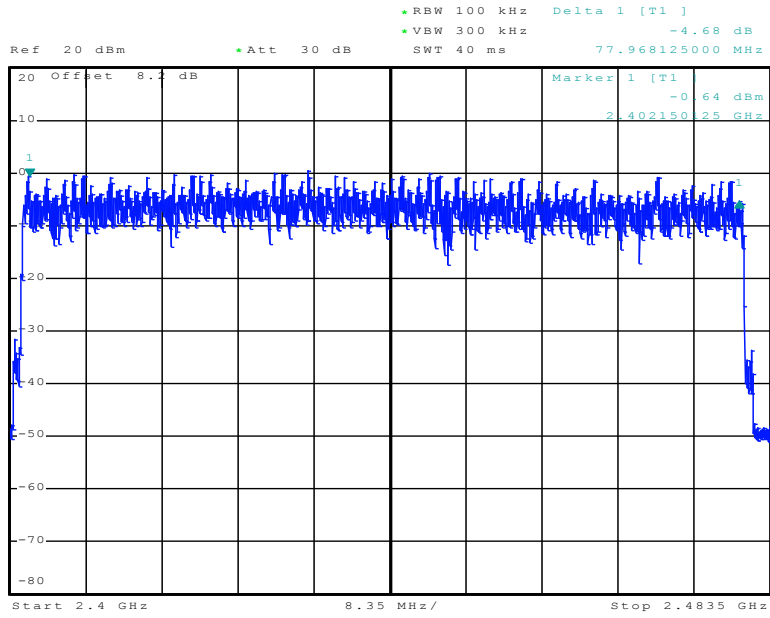
GFSK/Hop



$\pi/4$ DQPSK/Hop



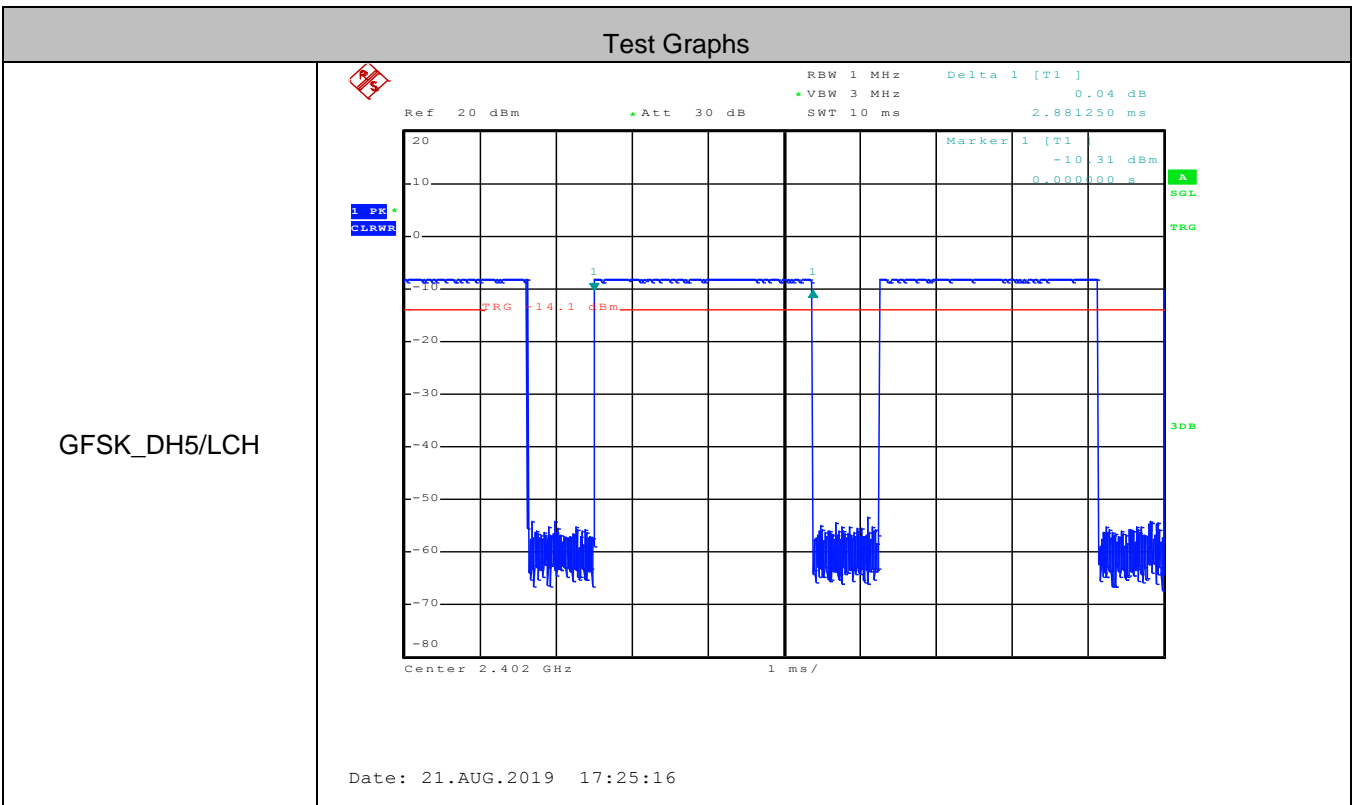
8DPSK/Hop



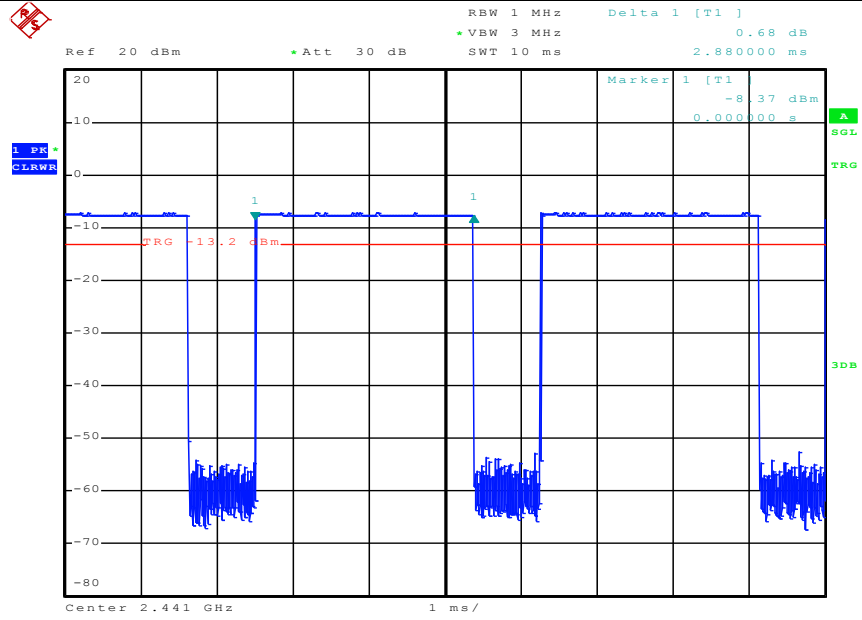
Date: 21.AUG.2019 18:09:42

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
π/4DQPSK	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	2.89	106.7	0.308	0.4	PASS
	3DH5	MCH	2.89	106.7	0.308	0.4	PASS
	3DH5	HCH	2.89	106.7	0.308	0.4	PASS

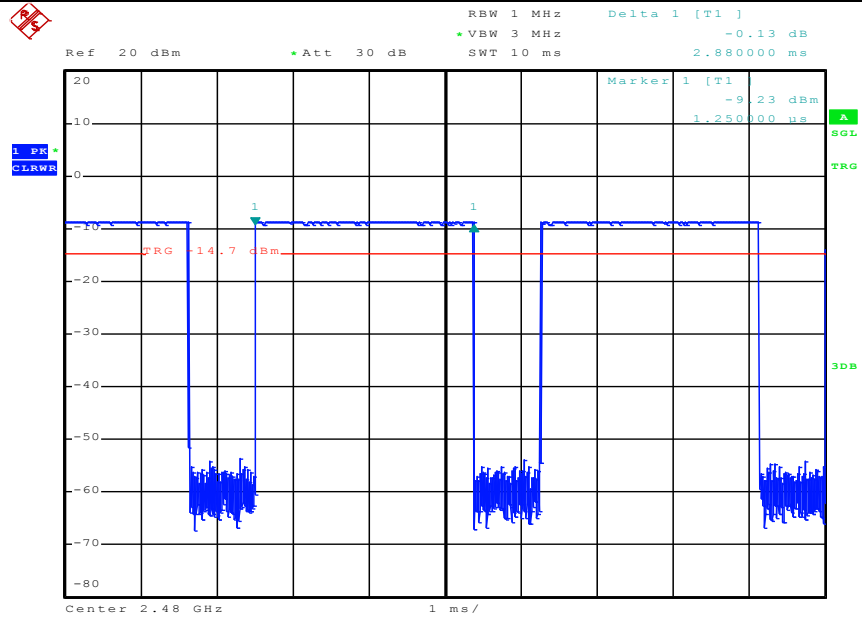


GFSK_DH5/MCH



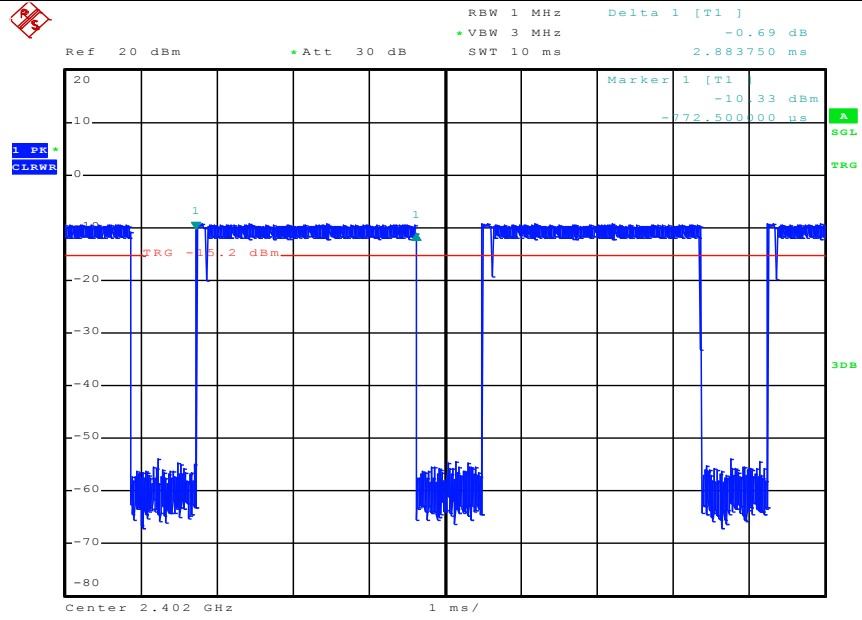
Date: 21.AUG.2019 17:27:43

GFSK_DH5/HCH



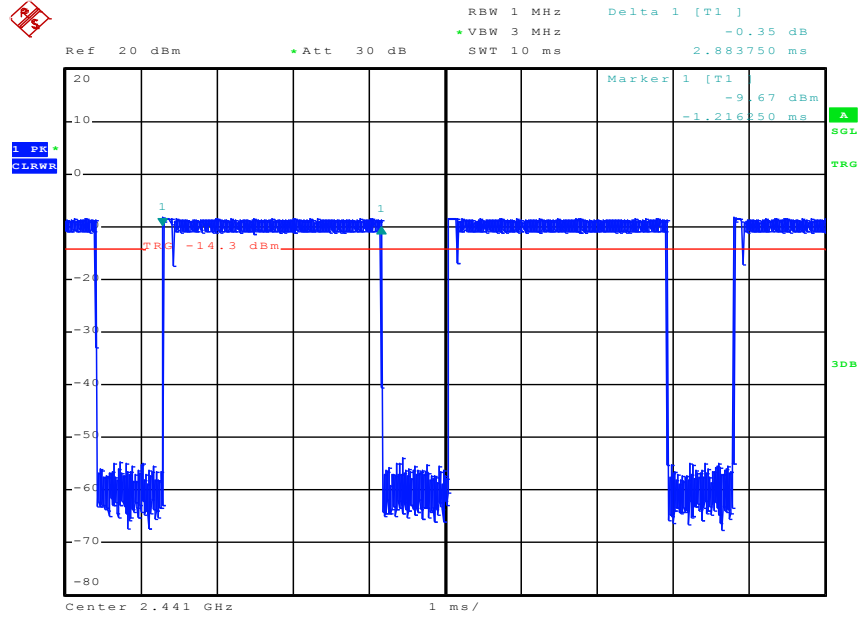
Date: 21.AUG.2019 17:30:10

$\pi/4$ DQPSK
_2DH5/LCH



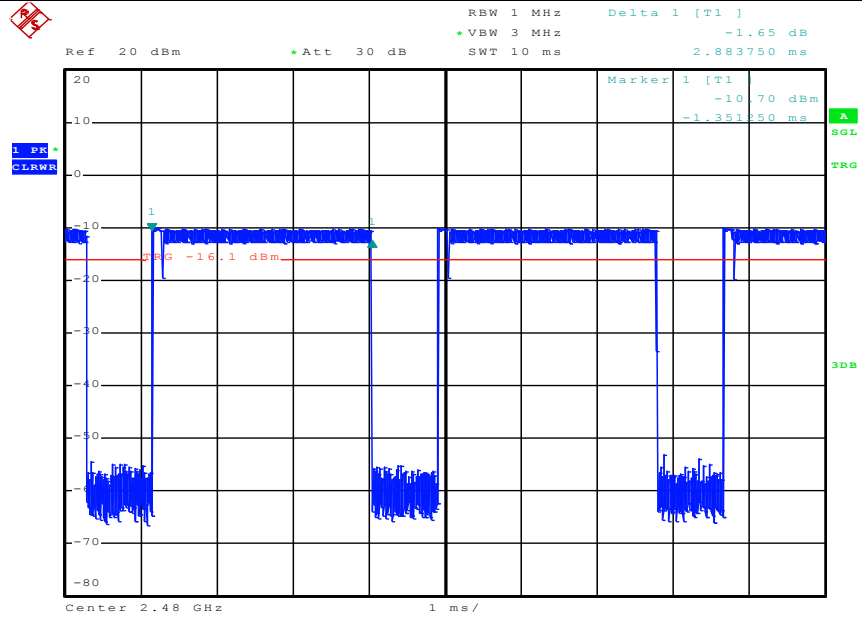
Date: 21.AUG.2019 17:32:49

$\pi/4$ DQPSK
_2DH5/MCH



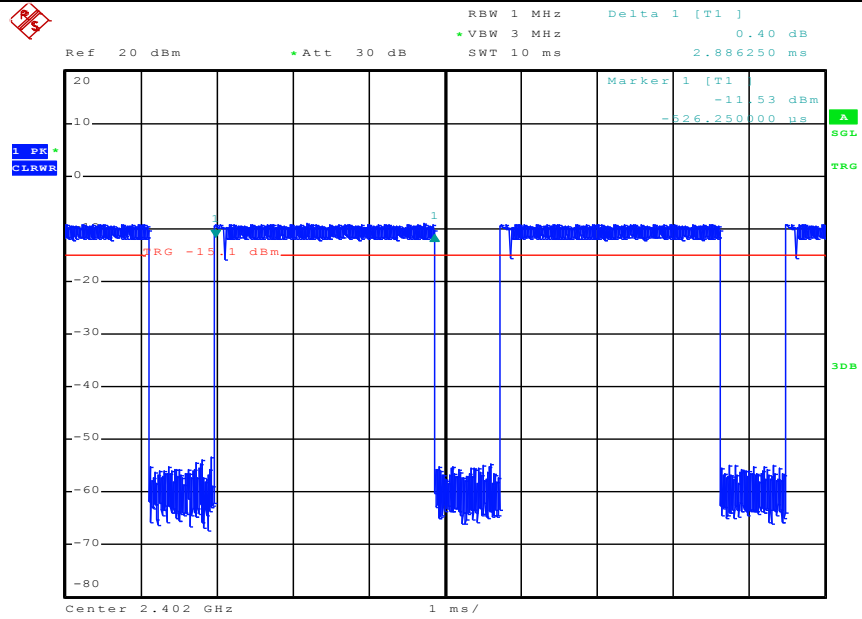
Date: 21.AUG.2019 17:35:21

$\pi/4$ DQPSK
_2DH5/HCH



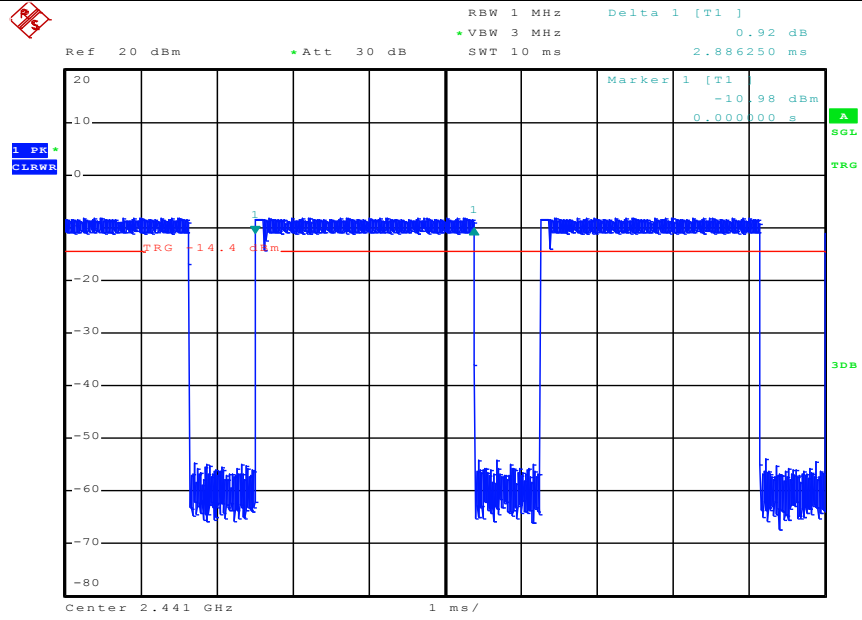
Date: 21.AUG.2019 17:37:07

8DPSK _3DH5/LCH



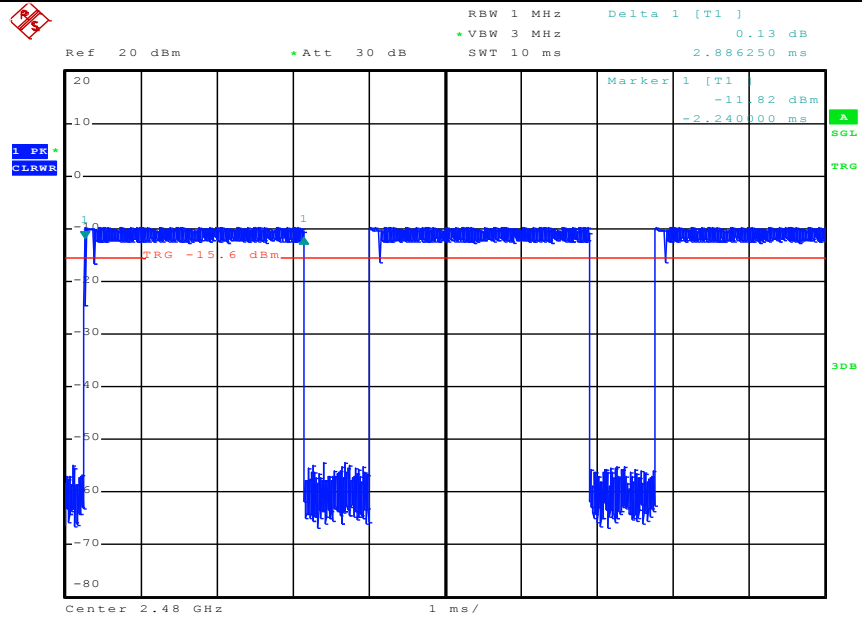
Date: 21.AUG.2019 17:39:48

8DPSK_3DH5/MCH



Date: 21.AUG.2019 17:42:36

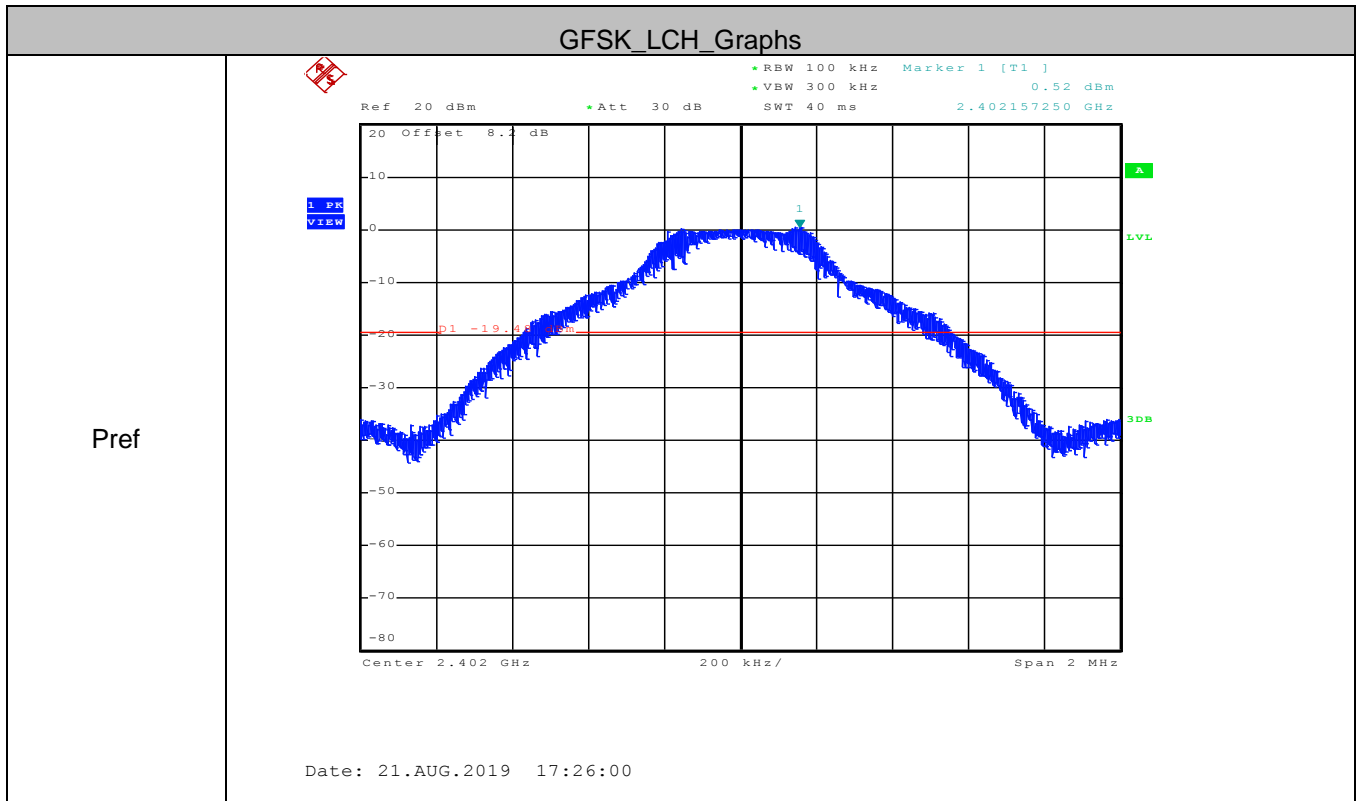
8DPSK_3DH5/HCH

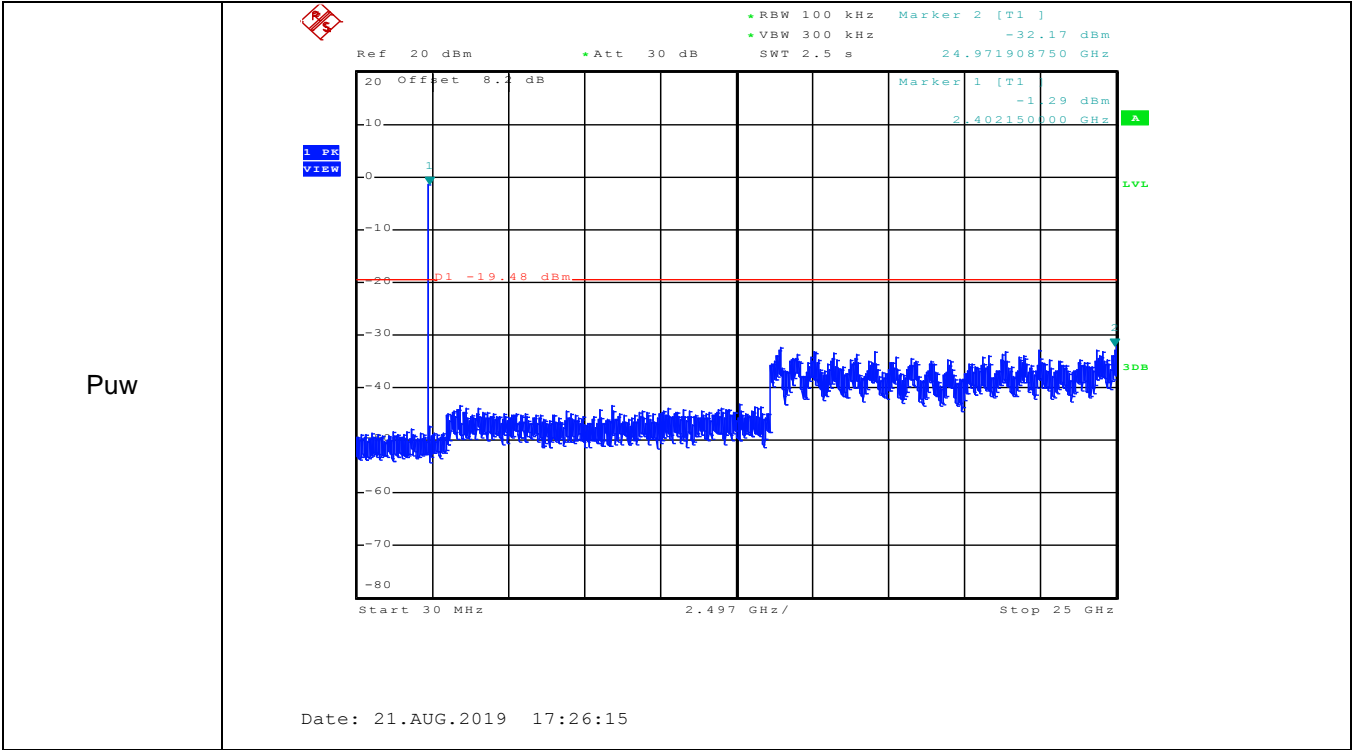


Date: 21.AUG.2019 17:44:25

A.6 RF Conducted Spurious Emissions

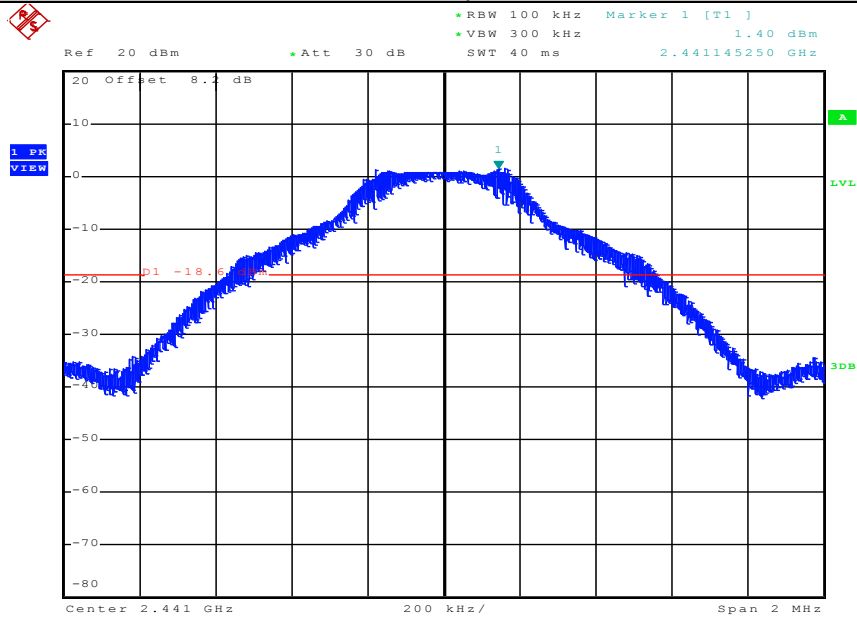
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.52	-32.170	-19.480	PASS
	MCH	1.4	-31.450	-18.600	PASS
	HCH	-0.04	-32.000	-20.040	PASS
$\pi/4$ DQPSK	LCH	-0.76	-32.470	-20.760	PASS
	MCH	0.3	-33.160	-19.700	PASS
	HCH	-1.31	-32.340	-21.310	PASS
8DPSK	LCH	-0.6	-31.500	-20.600	PASS
	MCH	0	-31.660	-20.000	PASS
	HCH	-1.16	-31.730	-21.160	PASS





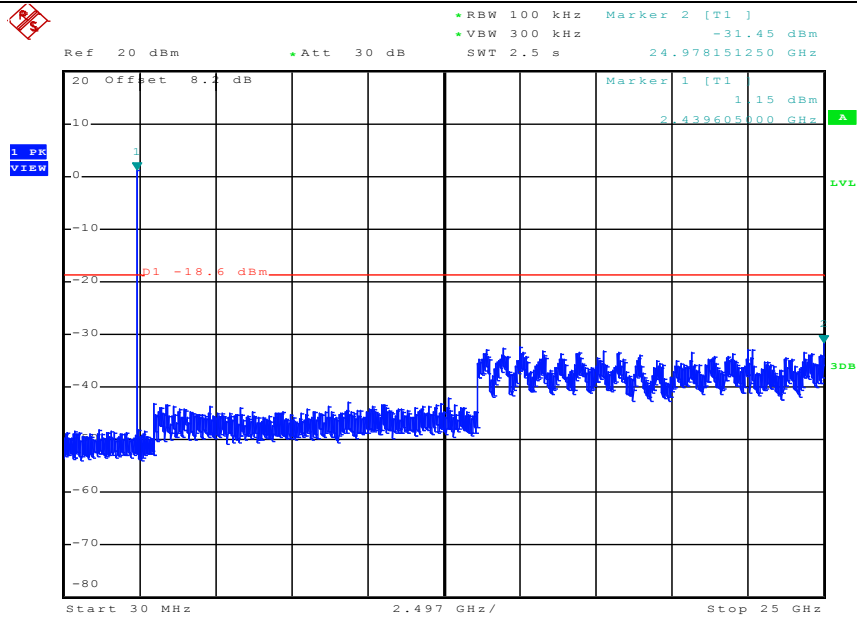
GFSK_MCH_Graphs

Pref



Date: 21.AUG.2019 17:28:54

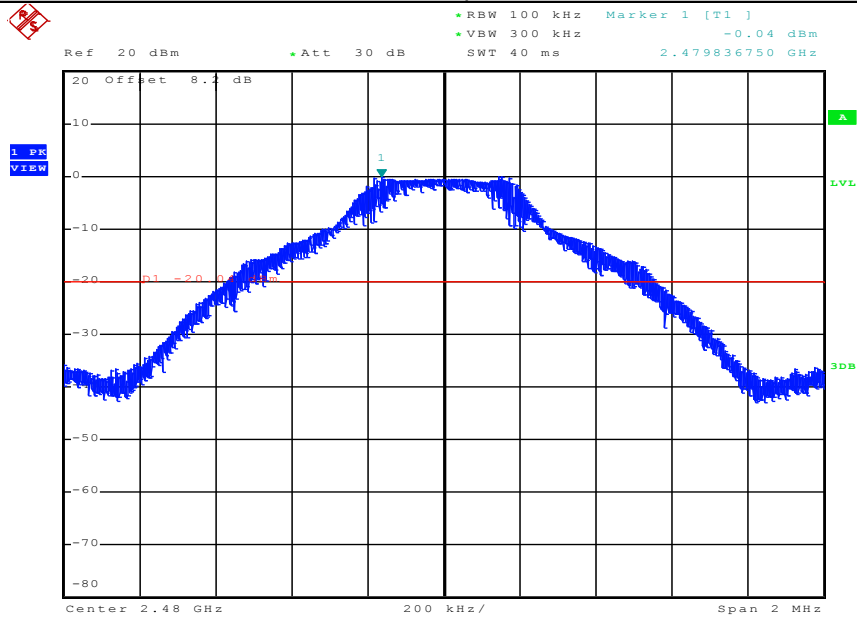
Puw



Date: 21.AUG.2019 17:29:11

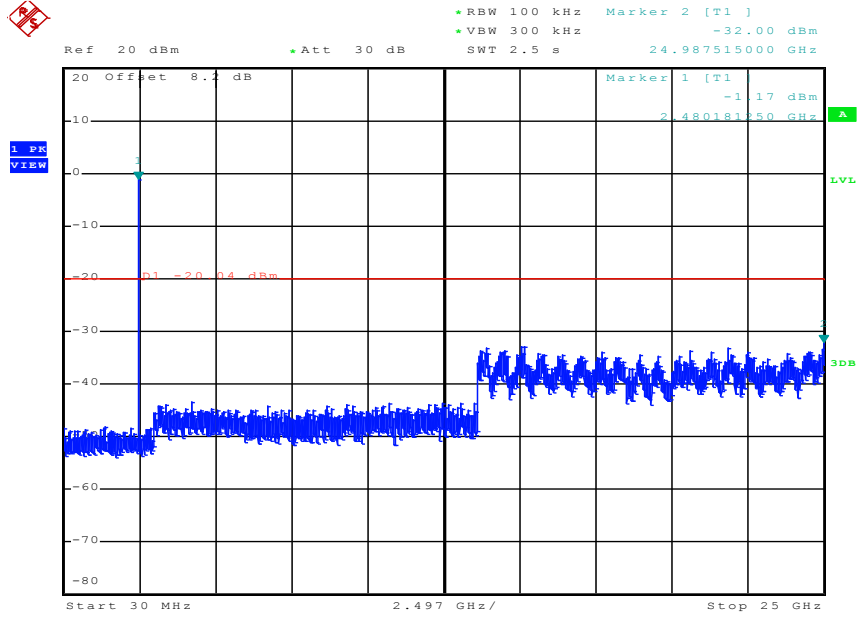
GFSK_HCH_Graphs

Pref



Date: 21.AUG.2019 17:30:54

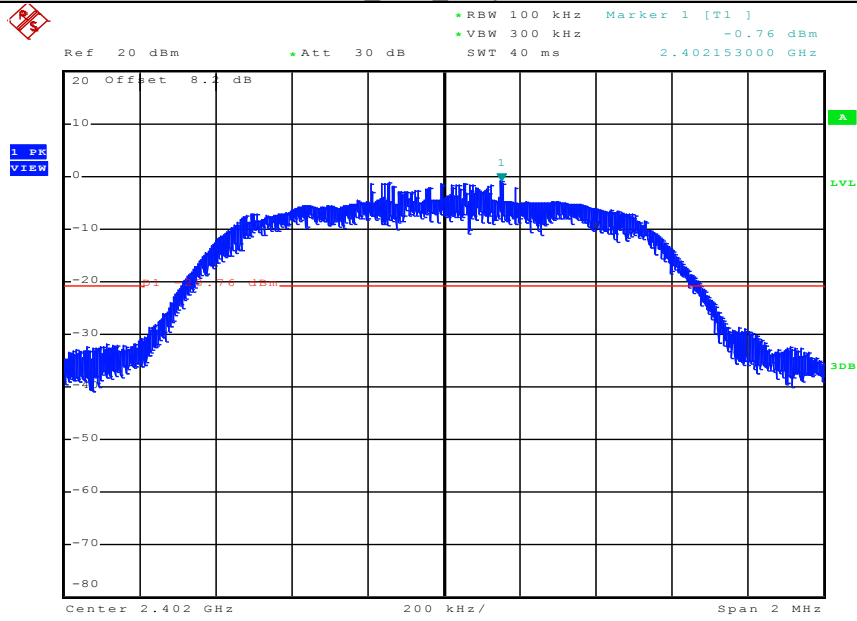
Puw



Date: 21.AUG.2019 17:31:09

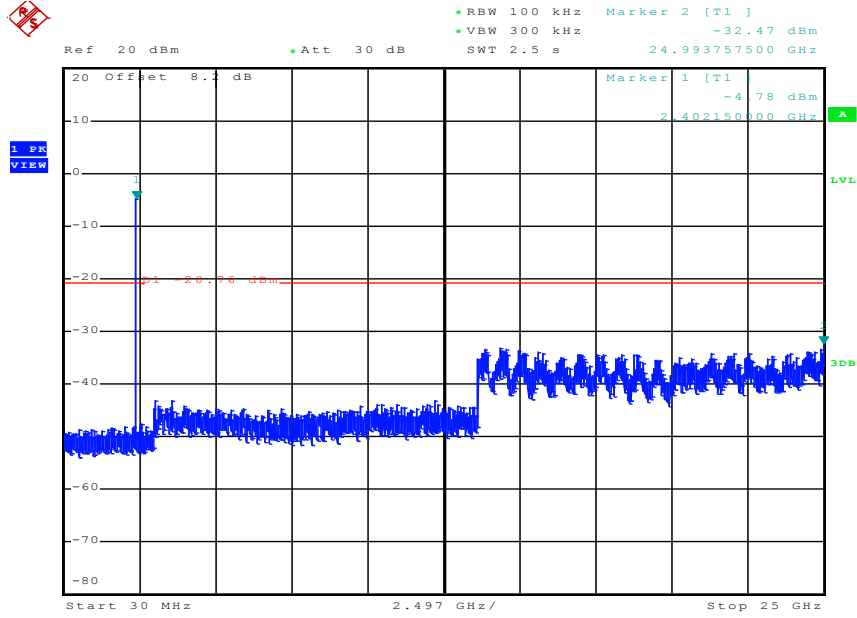
$\pi/4$ DQPSK_LCH_Graphs

Pref



Date: 21.AUG.2019 17:33:33

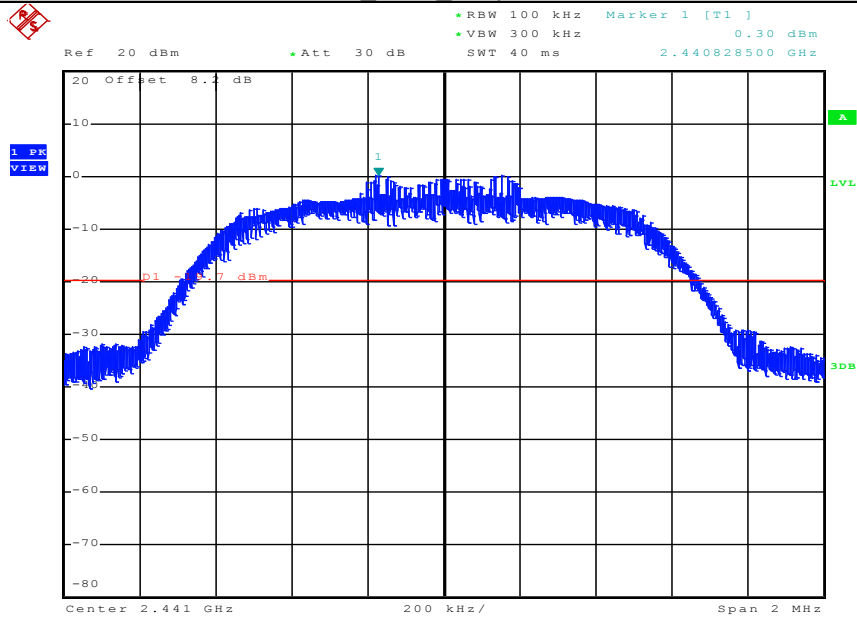
Puw



Date: 21.AUG.2019 17:33:54

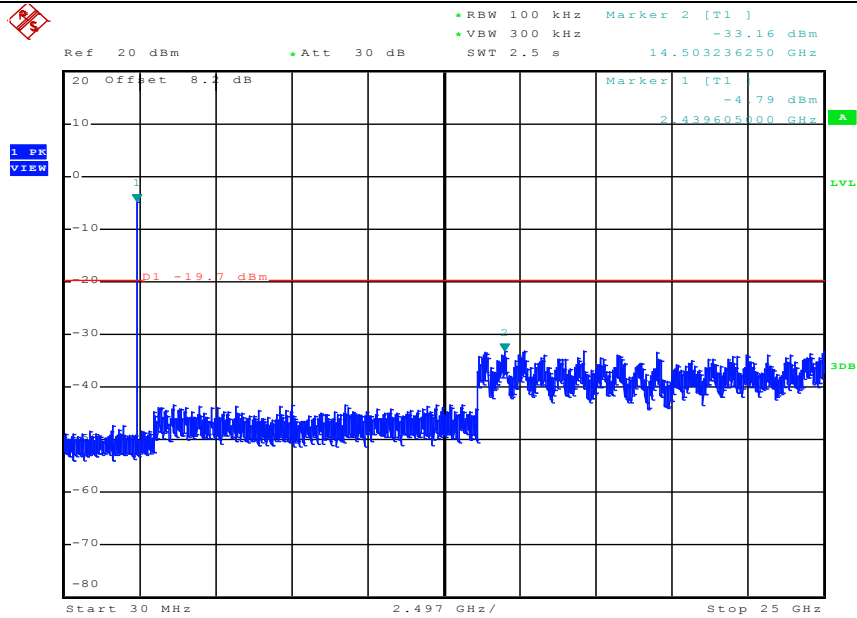
$\pi/4$ DQPSK_MCH_Graphs

Pref



Date: 21.AUG.2019 17:35:49

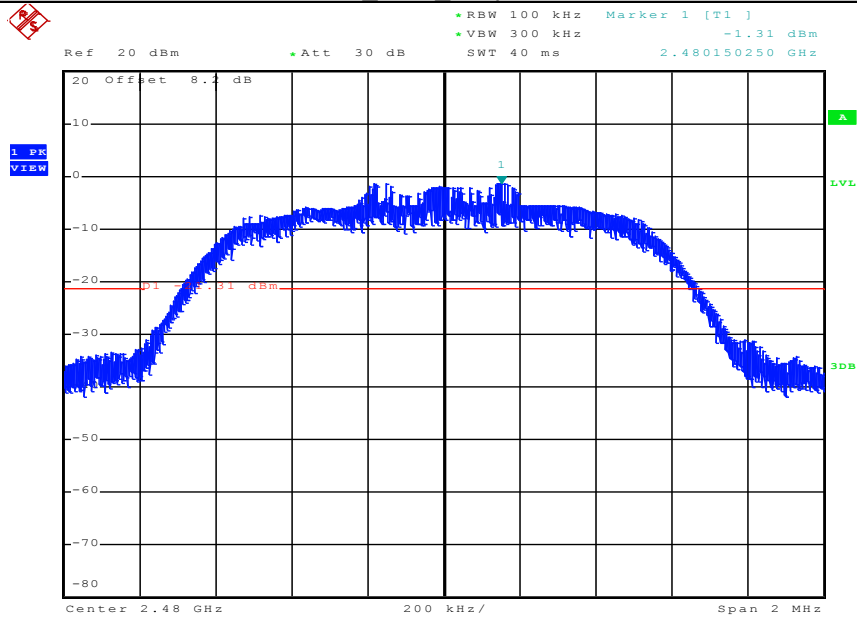
Puw



Date: 21.AUG.2019 17:36:04

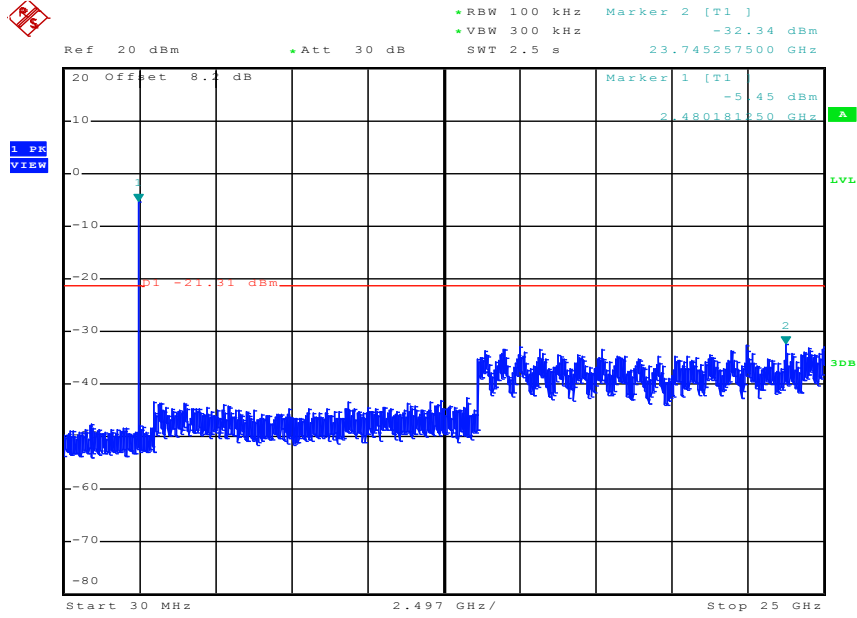
$\pi/4$ DQPSK_HCH_Graphs

Pref



Date: 21.AUG.2019 17:37:51

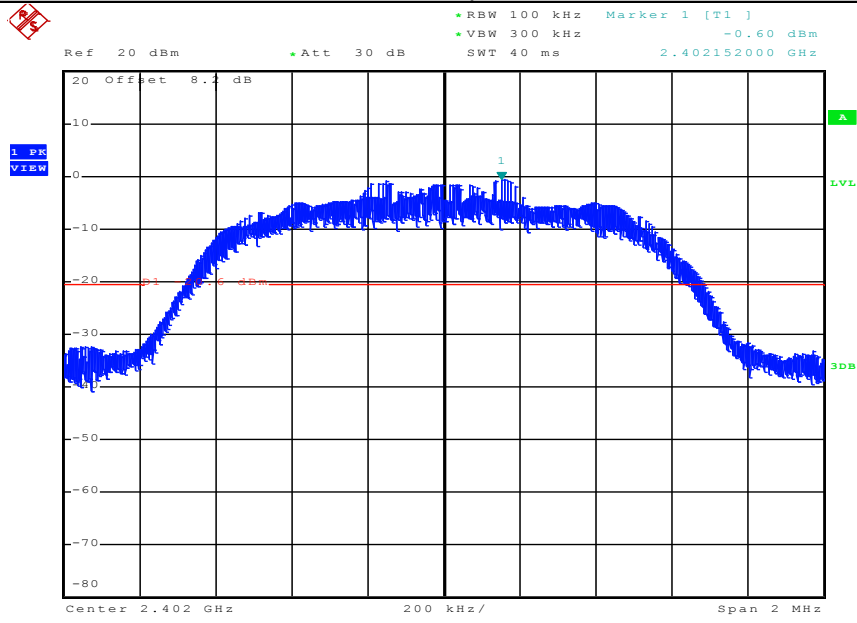
Puw



Date: 21.AUG.2019 17:38:06

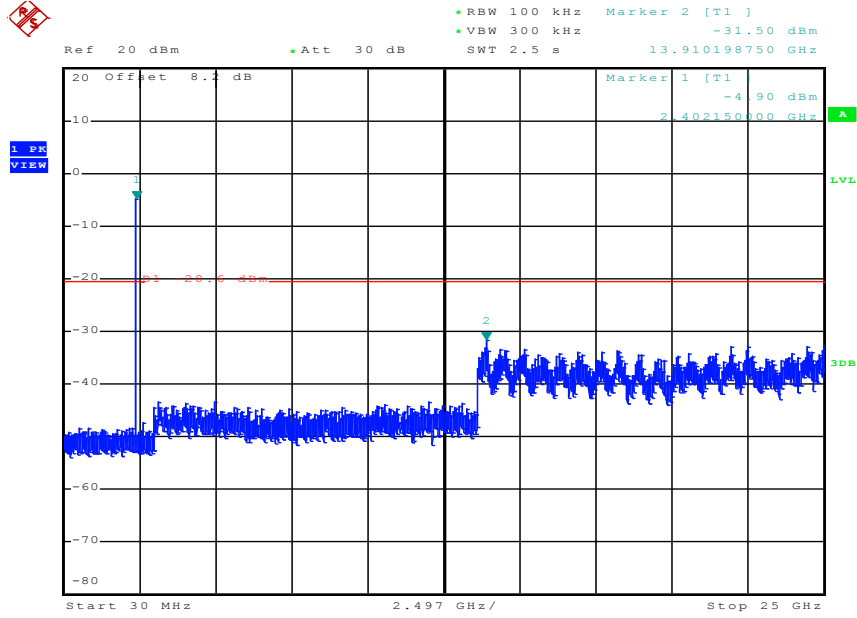
8DPSK_LCH_Graphs

Pref



Date: 21.AUG.2019 17:40:33

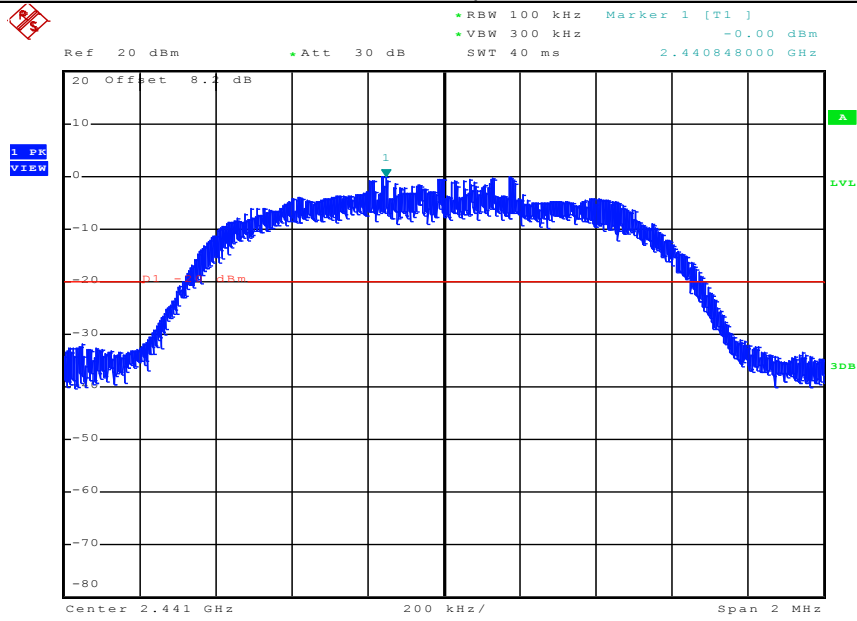
Puw



Date: 21.AUG.2019 17:40:48

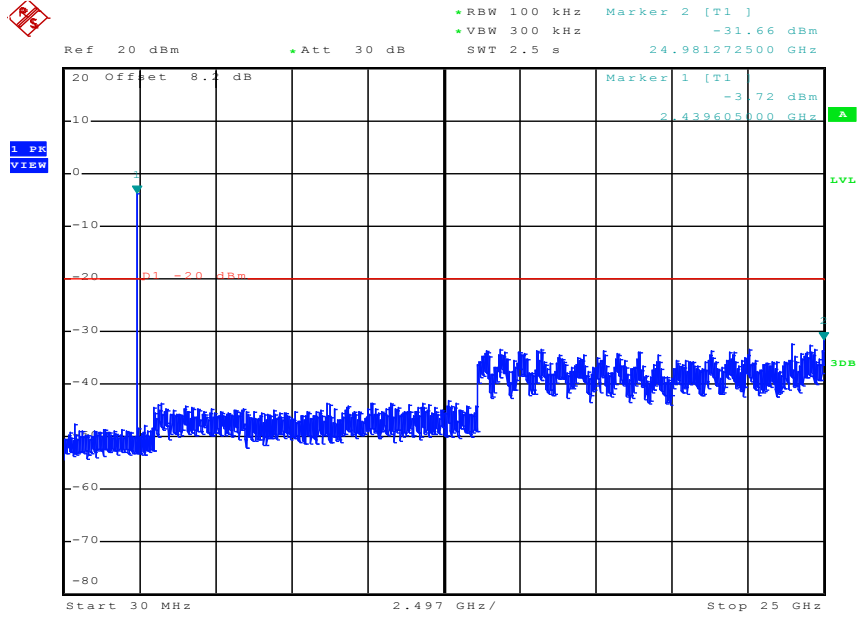
8DPSK_MCH_Graphs

Pref



Date: 21.AUG.2019 17:43:04

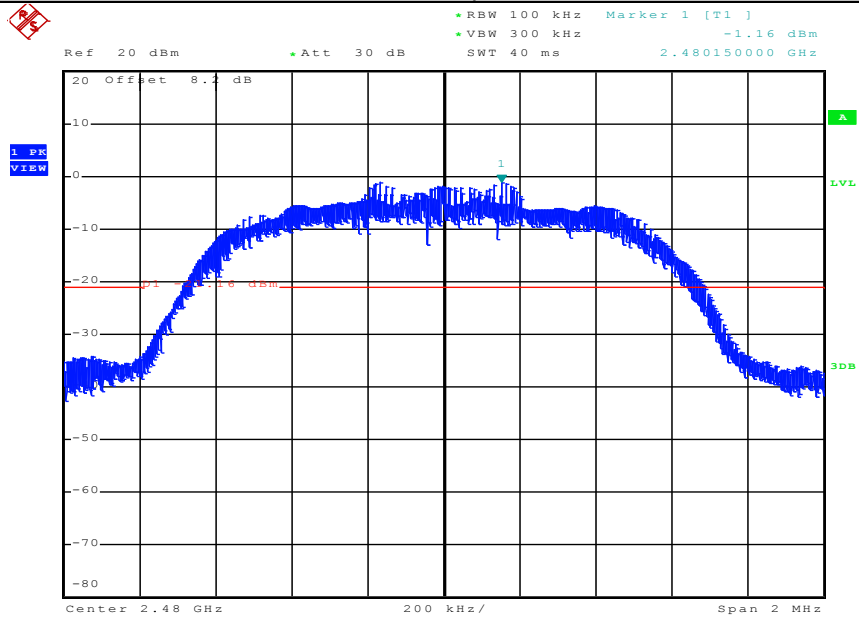
Puw



Date: 21.AUG.2019 17:43:19

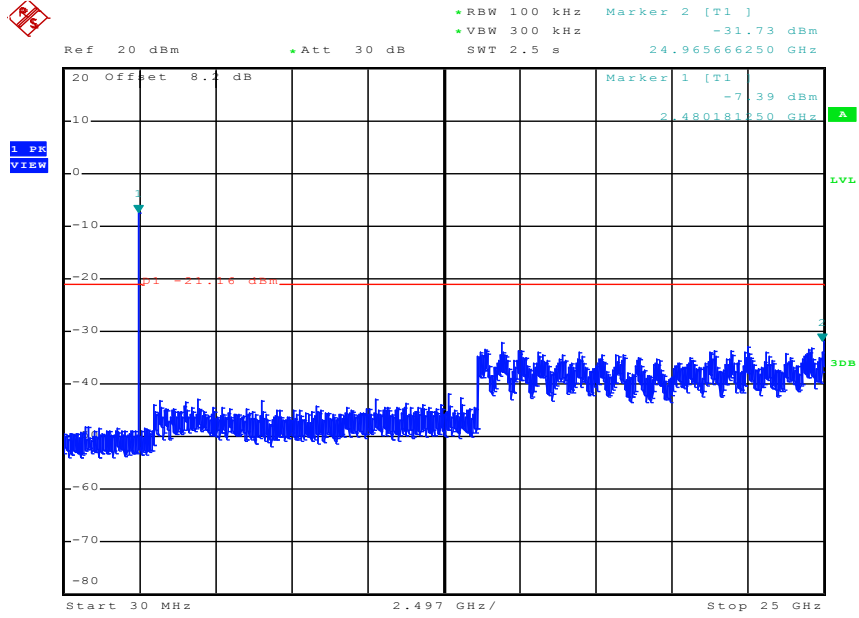
8DPSK_HCH_Graphs

Pref



Date: 21.AUG.2019 17:45:09

Puw



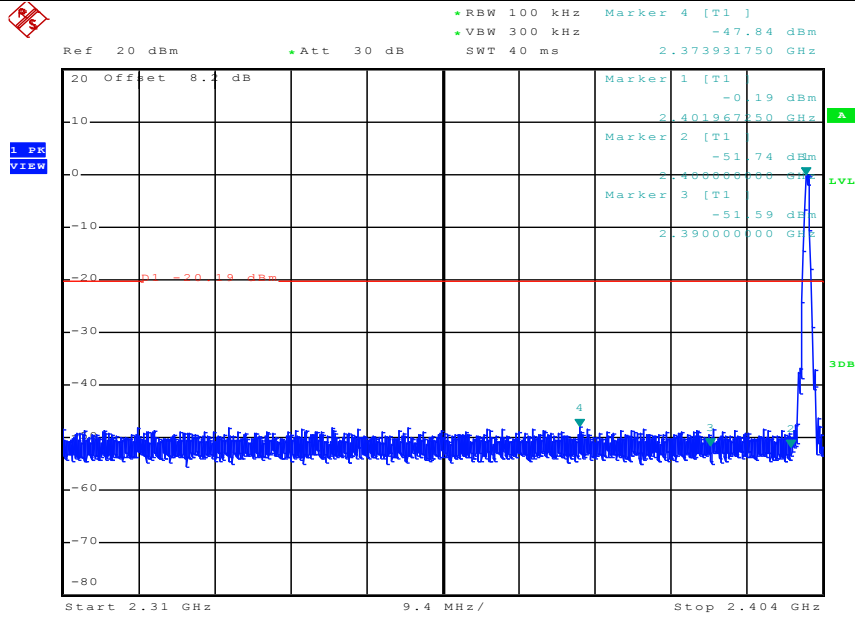
Date: 21.AUG.2019 17:45:24

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	-0.190	Off	-47.842	-20.19	PASS
			1.240	On	-47.042	-18.76	PASS
	HCH	2480	-0.530	Off	-47.626	-20.53	PASS
			0.080	On	-45.976	-19.92	PASS
$\pi/4$ DQPSK	LCH	2402	-1.310	Off	-46.955	-21.31	PASS
			0.070	On	-46.522	-19.93	PASS
	HCH	2480	-2.070	Off	-47.490	-22.07	PASS
			-1.190	On	-47.312	-21.19	PASS
8DPSK	LCH	2402	-3.190	Off	-47.582	-23.19	PASS
			0.060	On	-45.726	-19.94	PASS
	HCH	2480	-1.630	Off	-46.939	-21.63	PASS
			-1.090	On	-46.764	-21.09	PASS

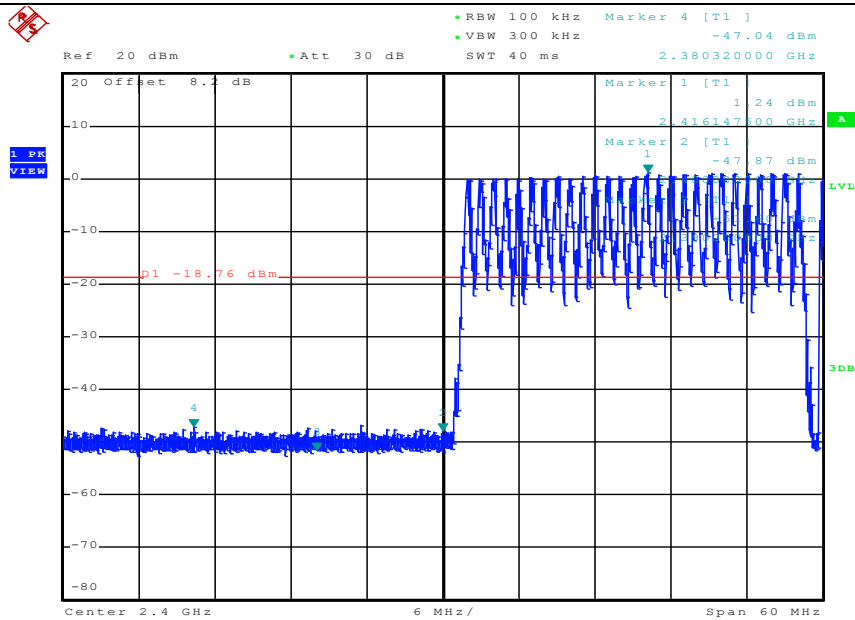
Test Graphs

GFSK/LCH/No Hop



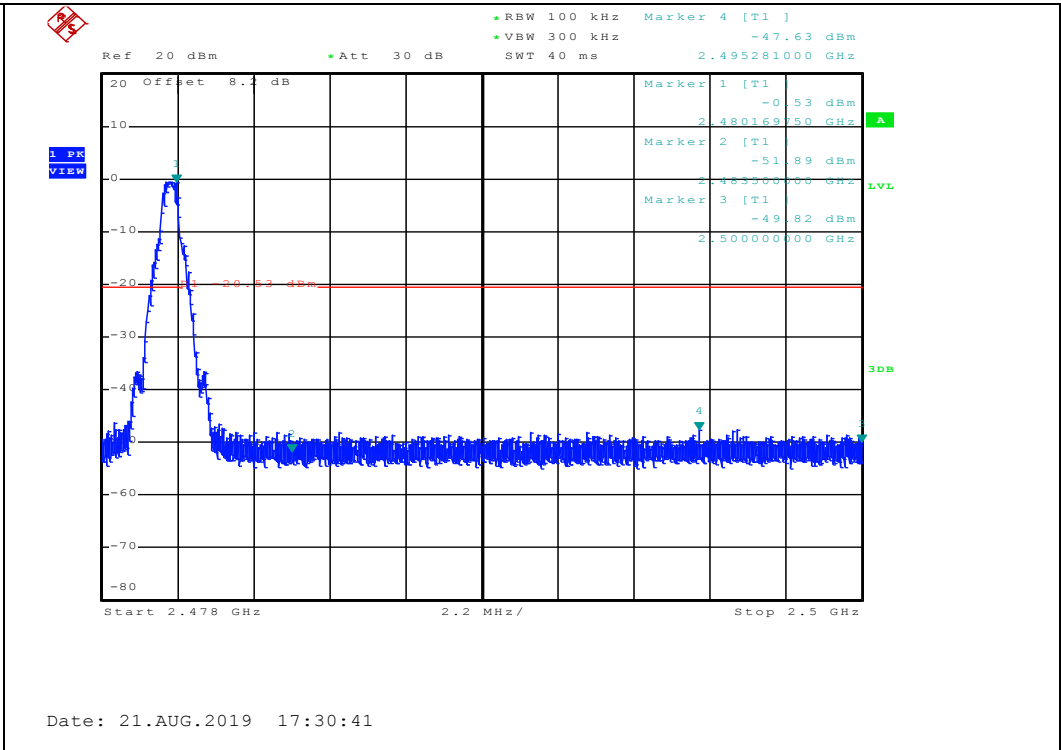
Date: 21.AUG.2019 17:25:47

GFSK/LCH/Hop

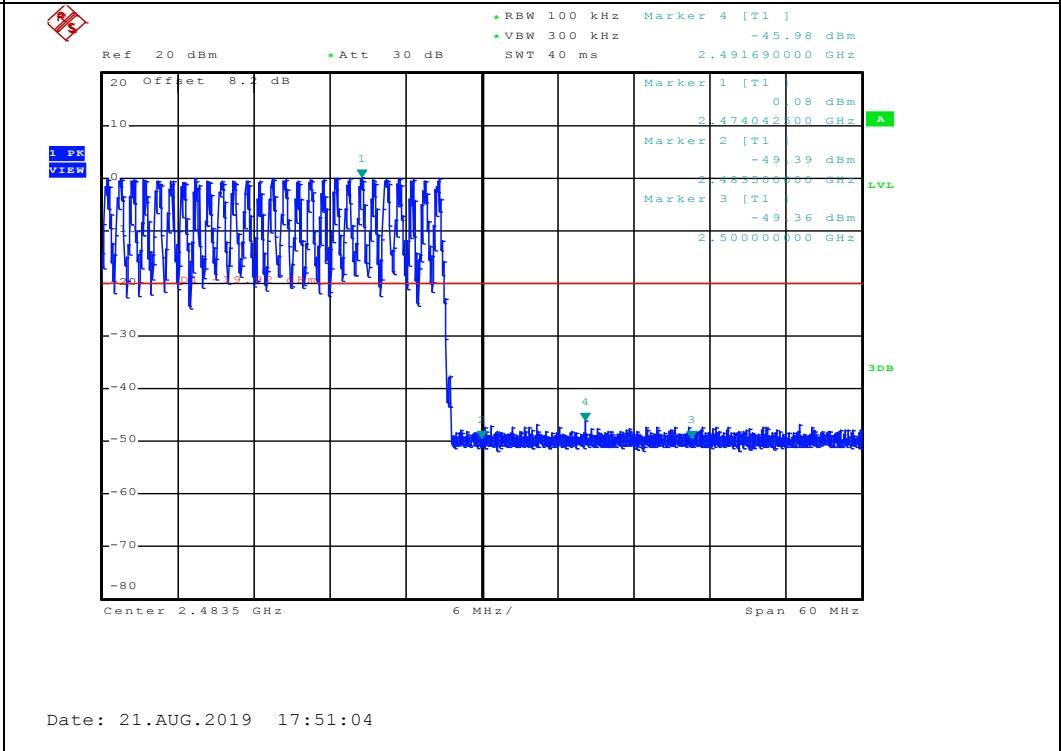


Date: 21.AUG.2019 17:48:42

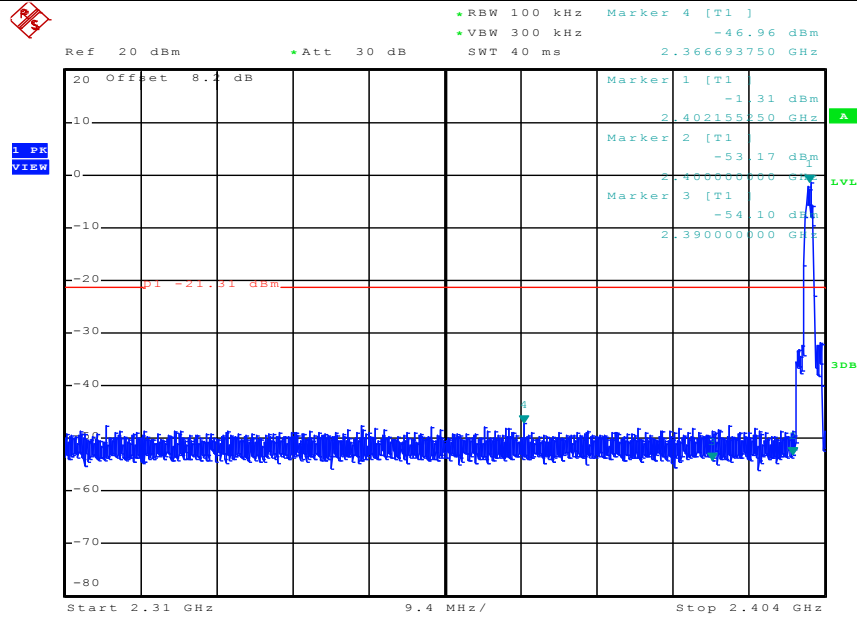
GFSK/HCH/No Hop



GFSK/HCH/Hop

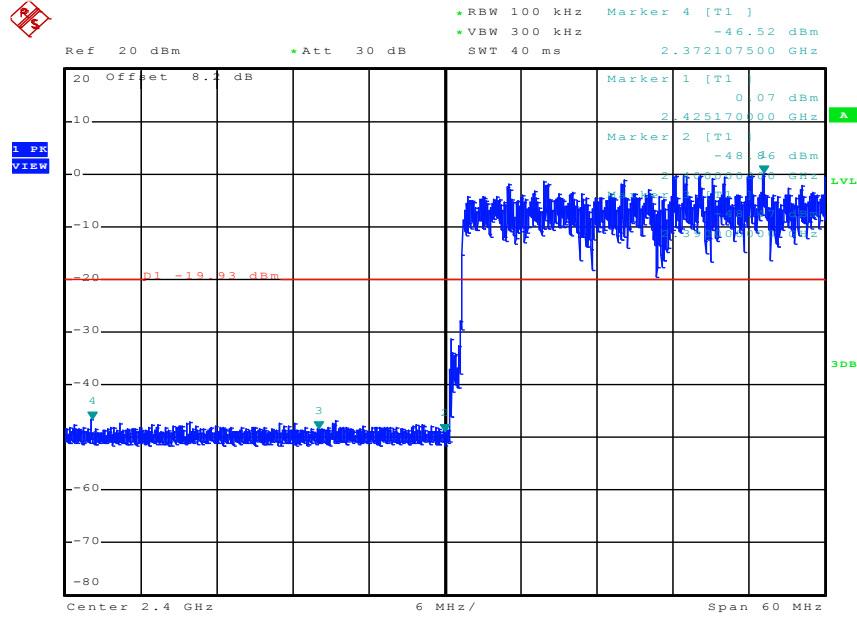


π /4DQPSK/LCH/No
Hop



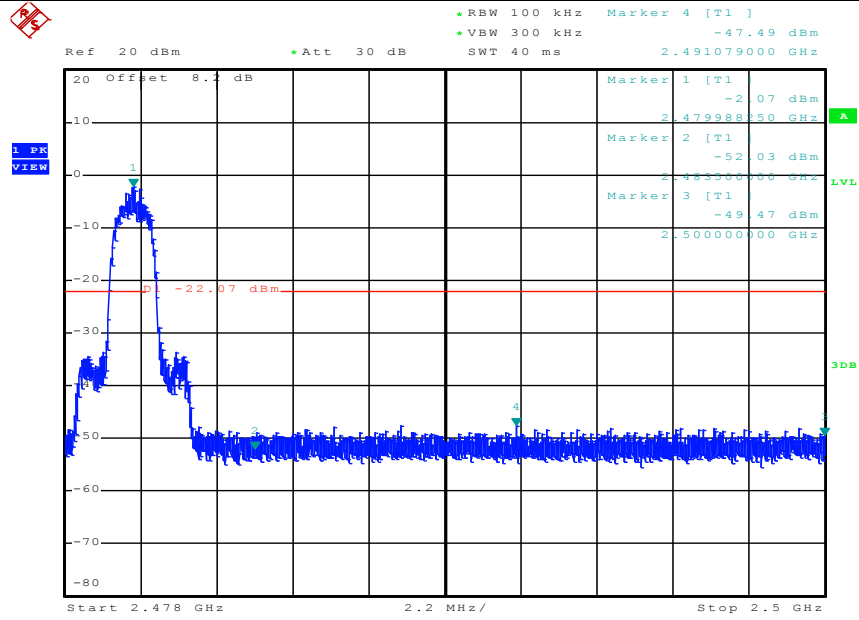
Date: 21.AUG.2019 17:33:20

π /4DQPSK/LCH/Hop



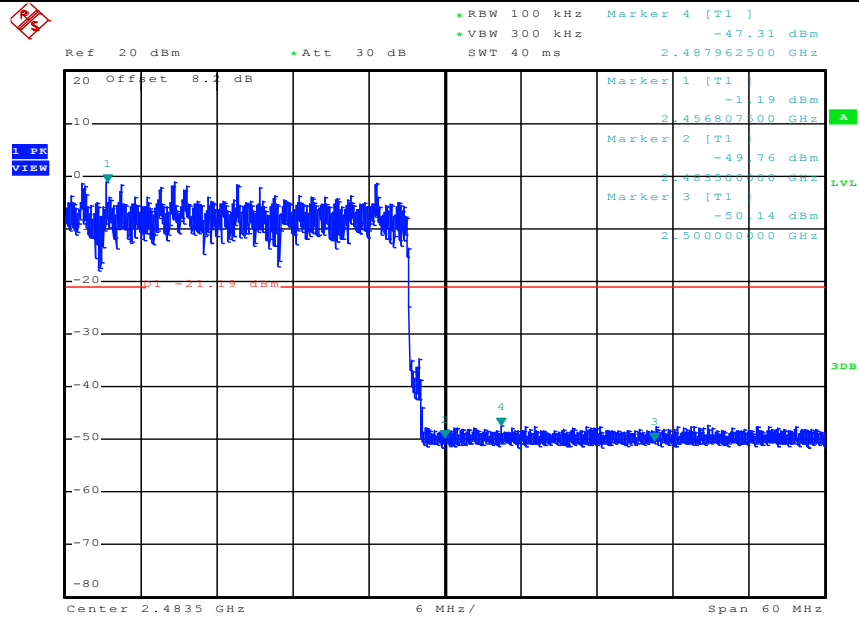
Date: 21.AUG.2019 17:55:06

π /4DQPSK/HCH/No
Hop



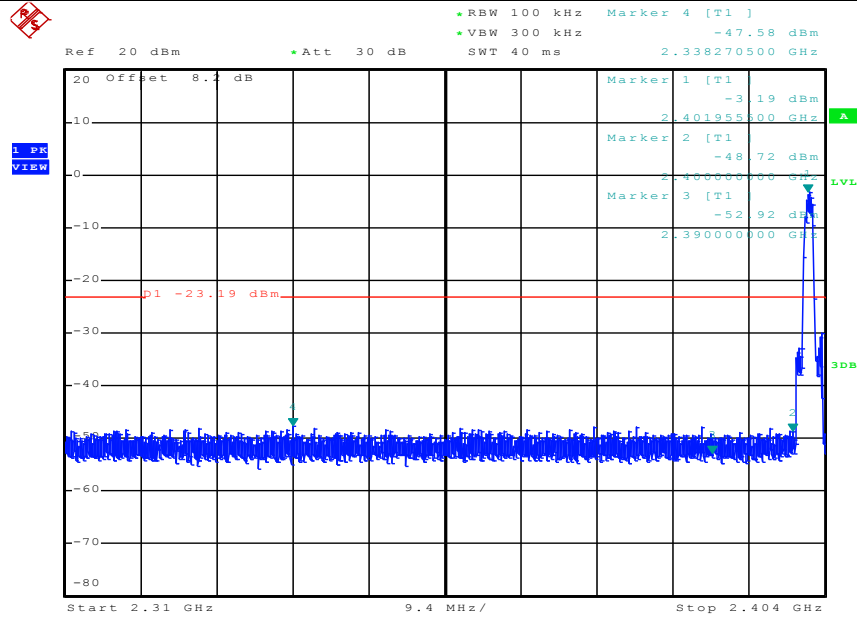
Date: 21.AUG.2019 17:37:38

π /4DQPSK/HCH/Hop



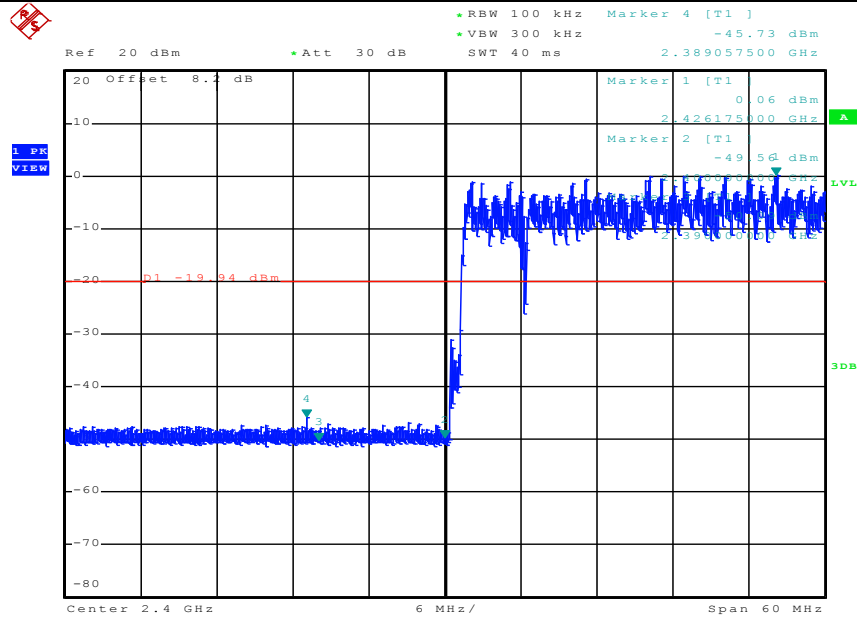
Date: 21.AUG.2019 17:57:48

8DPSK/LCH/No Hop



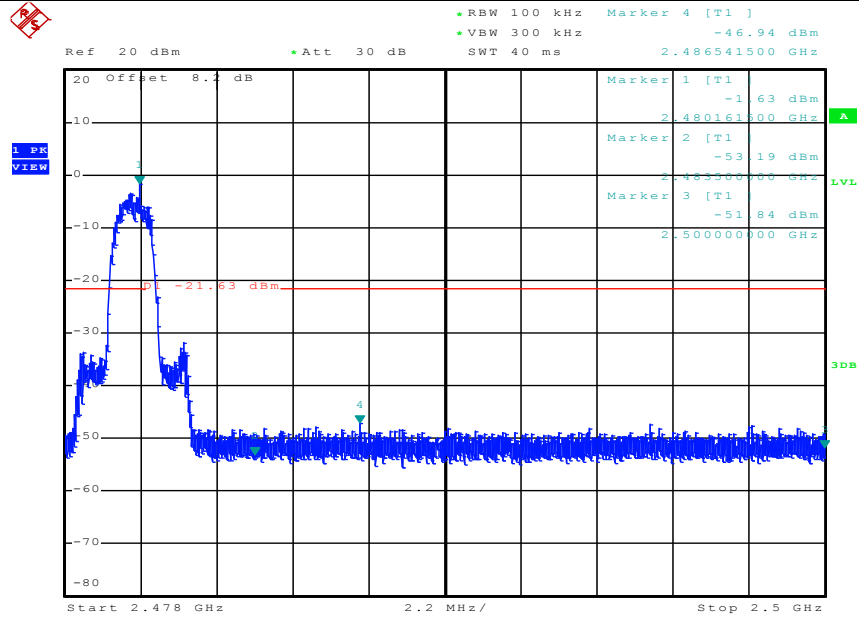
Date: 21.AUG.2019 17:40:20

8DPSK/LCH/Hop



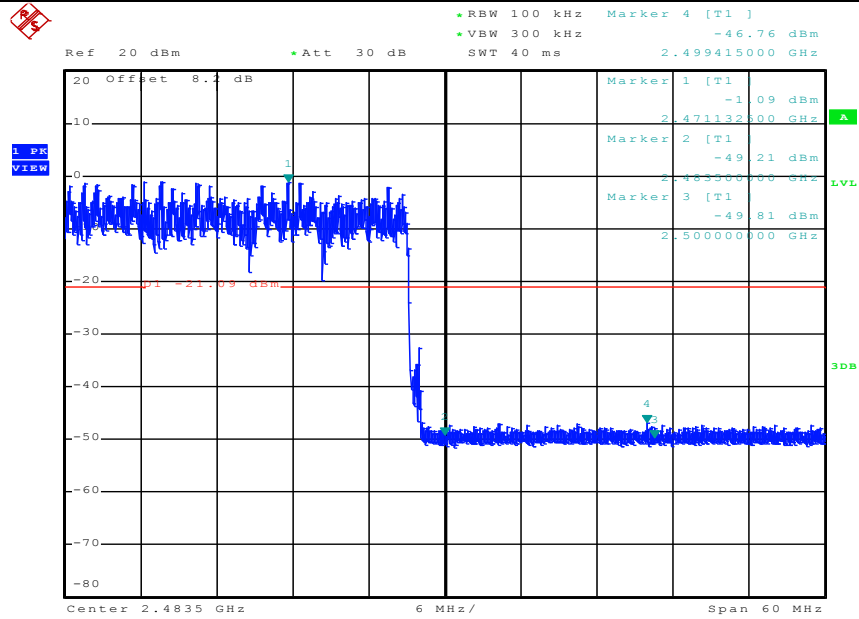
Date: 21.AUG.2019 18:03:55

8DPSK/HCH/No Hop



Date: 21.AUG.2019 17:44:57

8DPSK/HCH/Hop

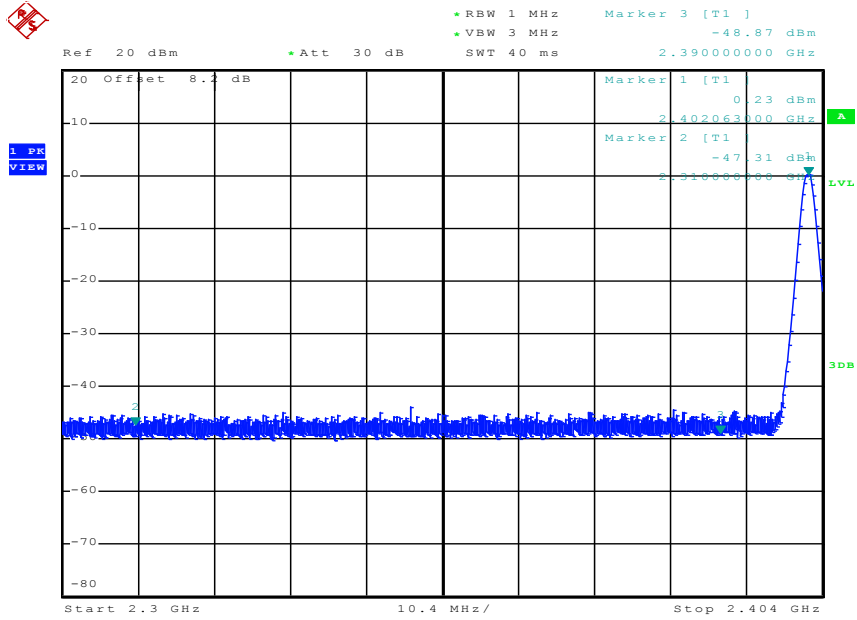


Date: 21.AUG.2019 18:07:22

A.8 Restrict-band band-edge measurements

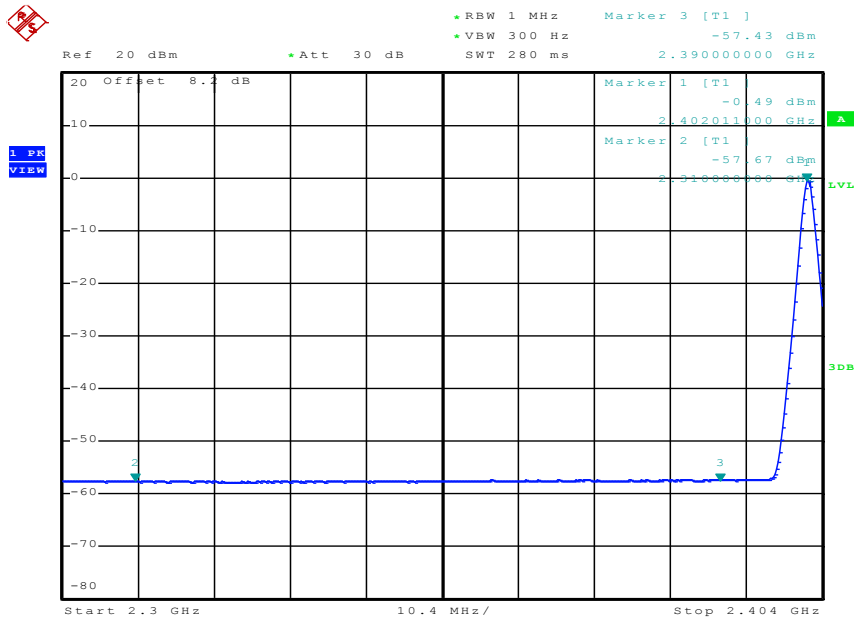
Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-47.31	2.0	0	49.95	PEAK	74	PASS
	Off	2310.0	-57.67	2.0	0	39.59	AV	54	PASS
	Off	2390.0	-48.87	2.0	0	48.39	PEAK	74	PASS
	Off	2390.0	-57.43	2.0	0	39.83	AV	54	PASS
	Off	2483.5	-39.51	2.0	0	57.75	PEAK	74	PASS
	Off	2483.5	-43.18	2.0	0	54.08	AV	54	PASS
	Off	2500.0	-48.81	2.0	0	48.45	PEAK	74	PASS
	Off	2500.0	-58.00	2.0	0	39.26	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-47.49	2.0	0	49.77	PEAK	74	PASS
	Off	2310.0	-57.59	2.0	0	39.67	AV	54	PASS
	Off	2390.0	-47.67	2.0	0	49.59	PEAK	74	PASS
	Off	2390.0	-57.35	2.0	0	39.91	AV	54	PASS
	Off	2483.5	-39.63	2.0	0	57.63	PEAK	74	PASS
	Off	2483.5	-45.24	2.0	0	52.02	AV	54	PASS
	Off	2500.0	-47.72	2.0	0	49.54	PEAK	74	PASS
	Off	2500.0	-57.97	2.0	0	39.29	AV	54	PASS
8DPSK	Off	2310.0	-47.35	2.0	0	49.91	PEAK	74	PASS
	Off	2310.0	-57.72	2.0	0	39.54	AV	54	PASS
	Off	2390.0	-48.31	2.0	0	48.95	PEAK	74	PASS
	Off	2390.0	-57.38	2.0	0	39.88	AV	54	PASS
	Off	2483.5	-39.89	2.0	0	57.37	PEAK	74	PASS
	Off	2483.5	-45.25	2.0	0	52.01	AV	54	PASS
	Off	2500.0	-47.51	2.0	0	49.75	PEAK	74	PASS
	Off	2500.0	-57.97	2.0	0	39.29	AV	54	PASS

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



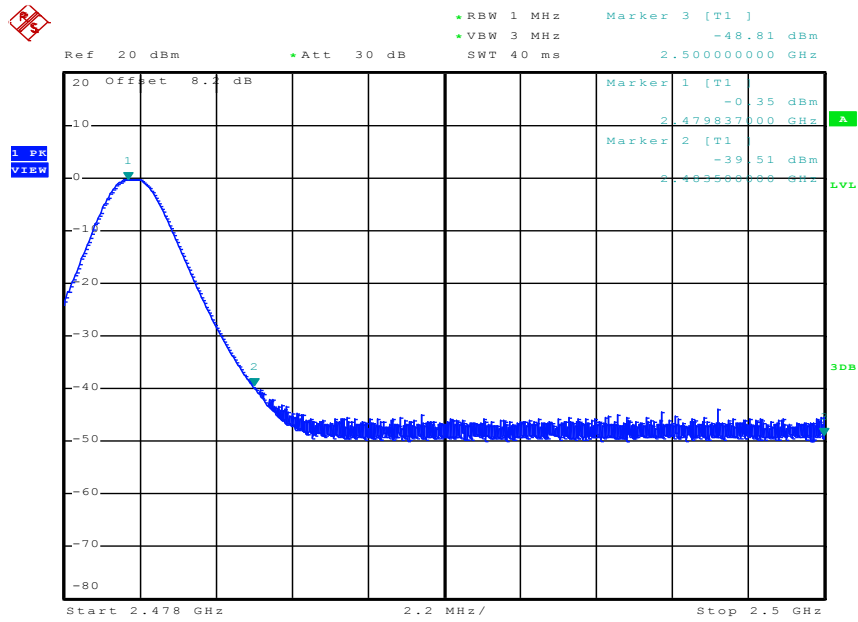
Date: 21.AUG.2019 17:26:33

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



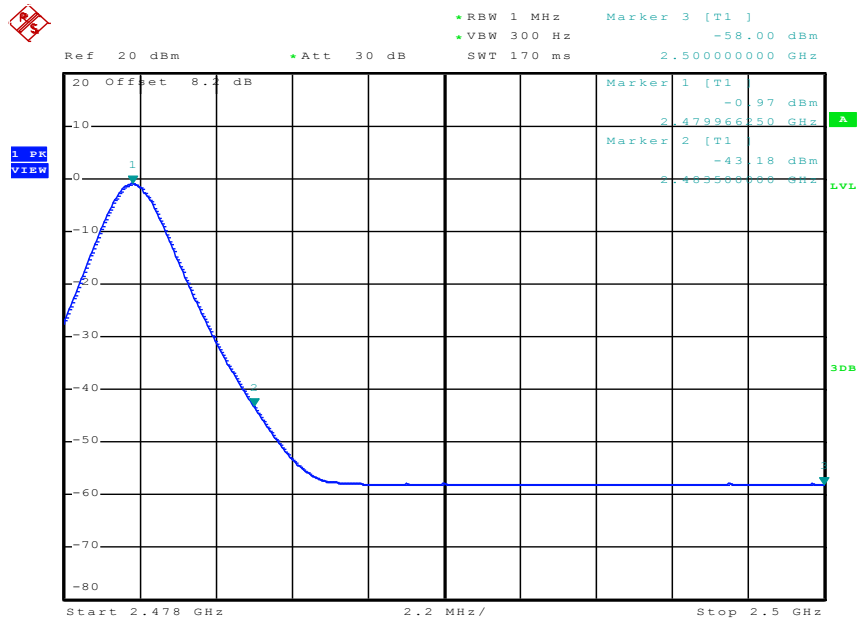
Date: 21.AUG.2019 17:26:46

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



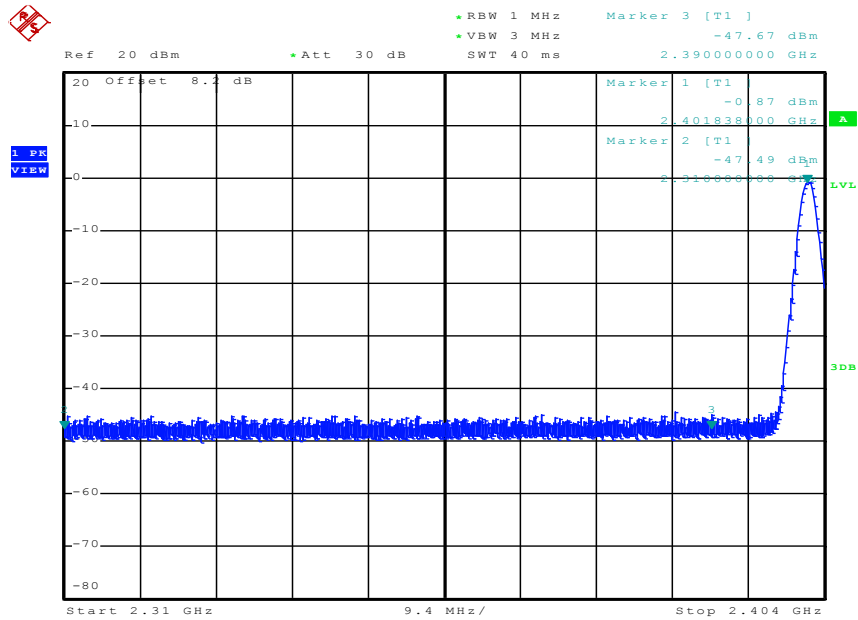
Date: 21.AUG.2019 17:31:28

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



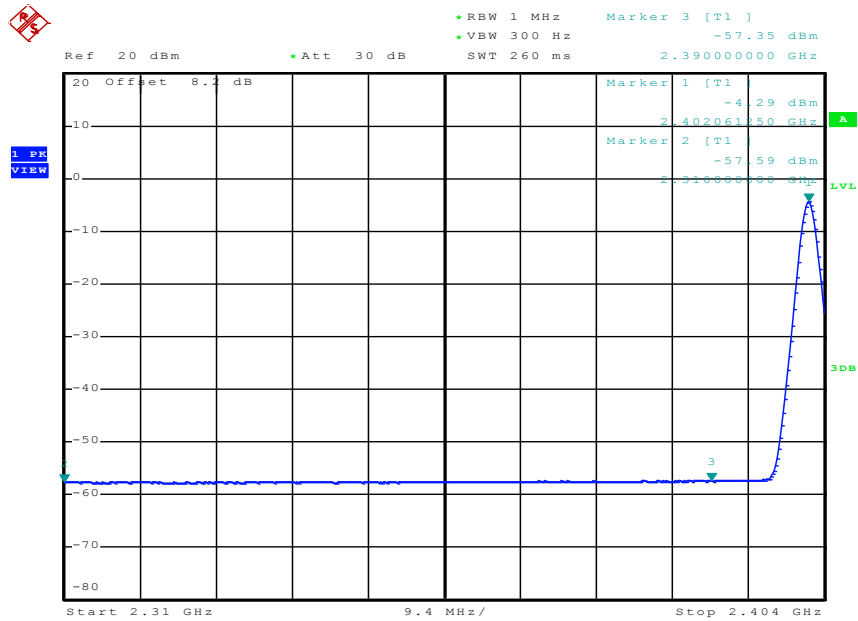
Date: 21.AUG.2019 17:31:41

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



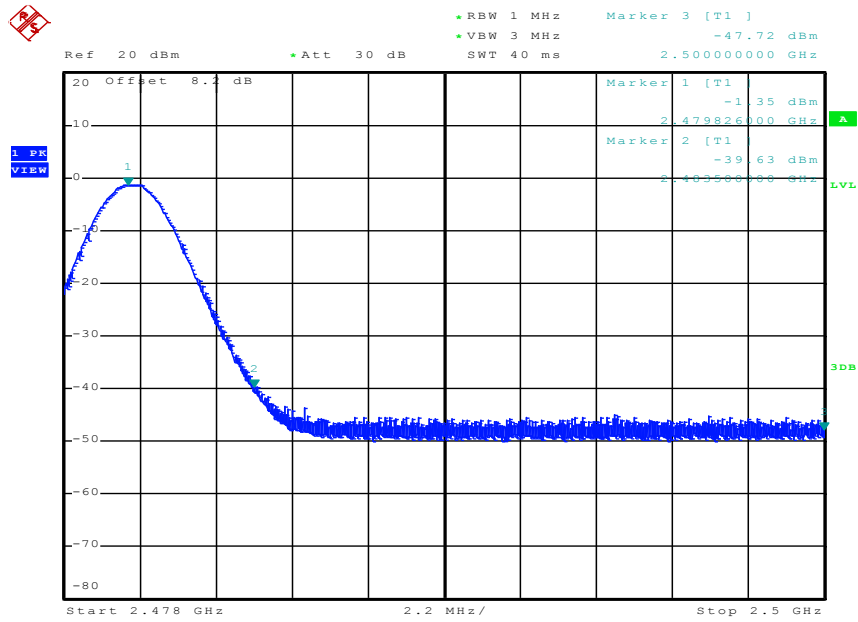
Date: 21.AUG.2019 17:34:13

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



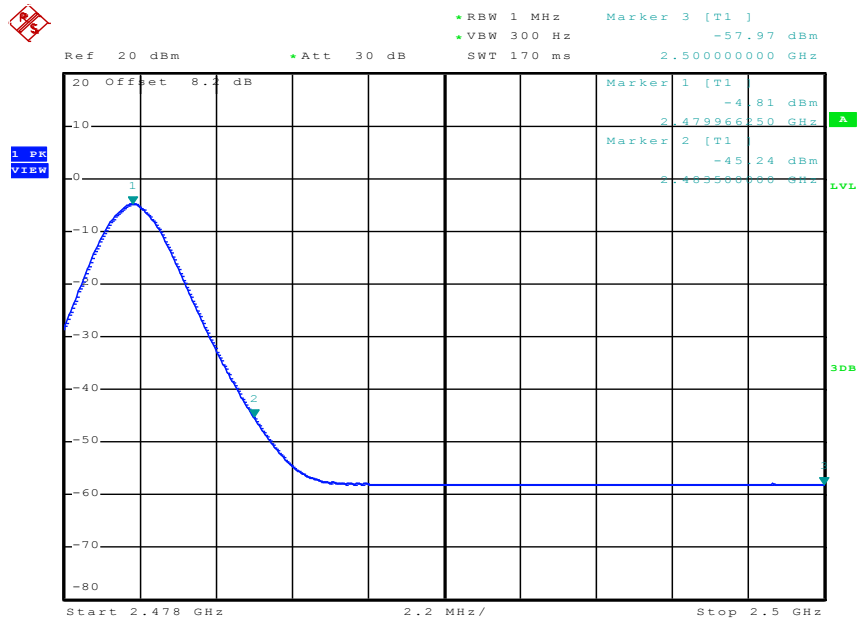
Date: 21.AUG.2019 17:34:27

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



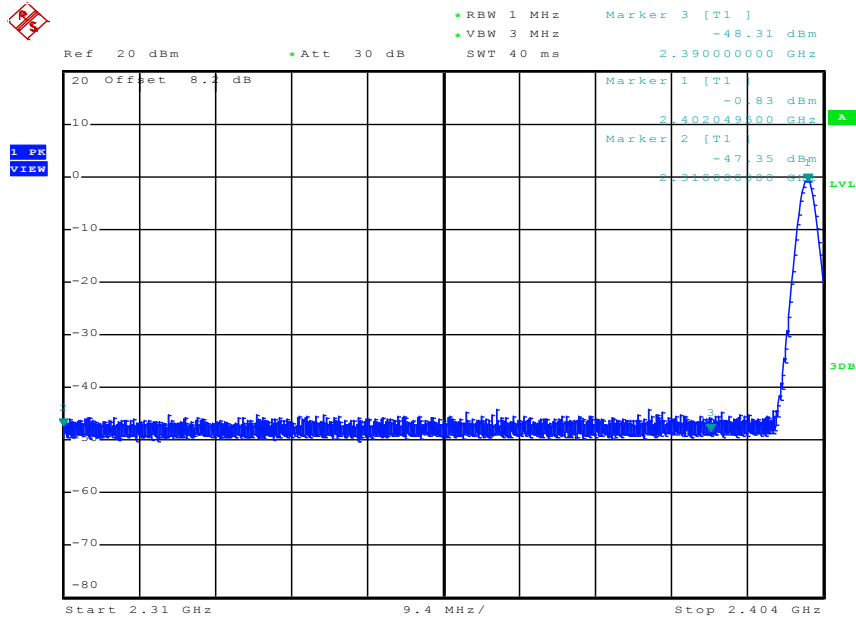
Date: 21.AUG.2019 17:38:25

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



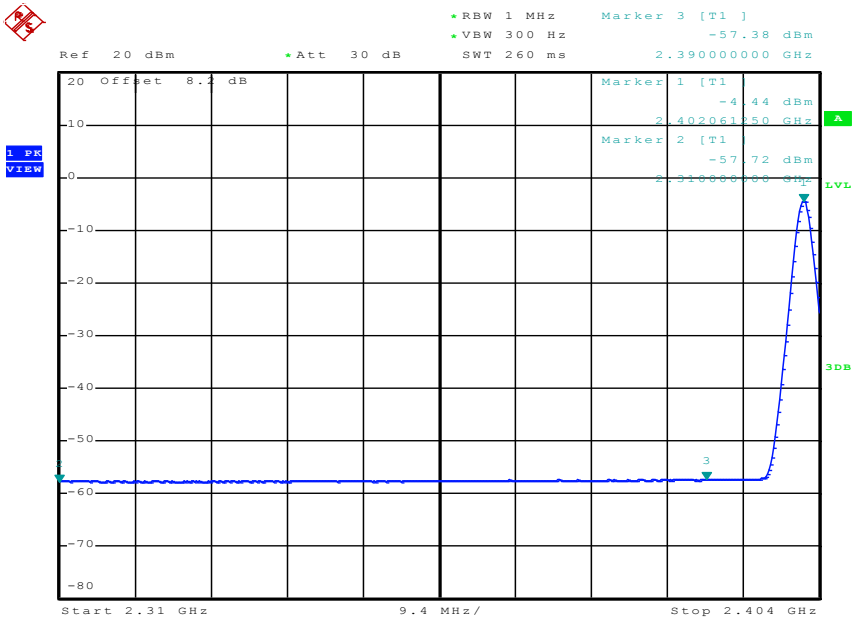
Date: 21.AUG.2019 17:38:38

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



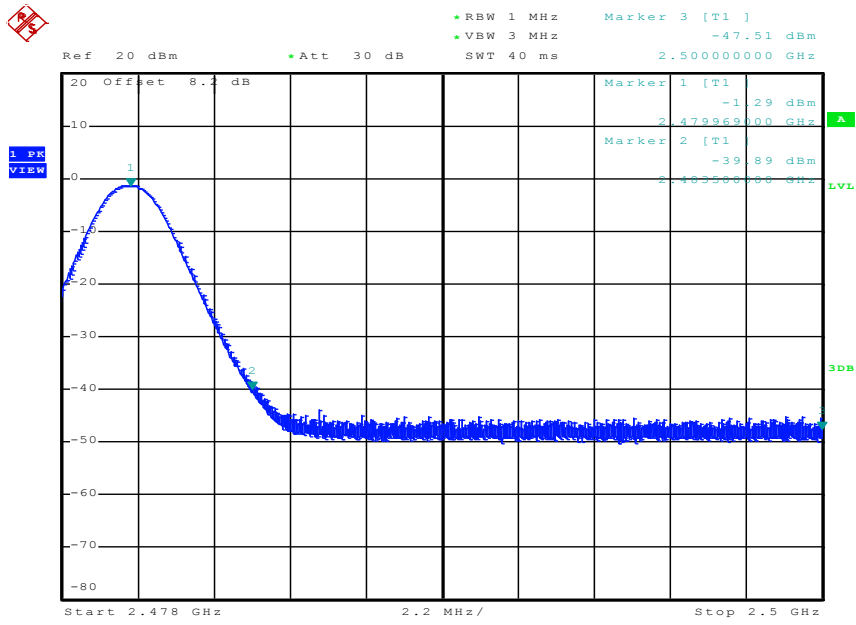
Date: 21.AUG.2019 17:41:07

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



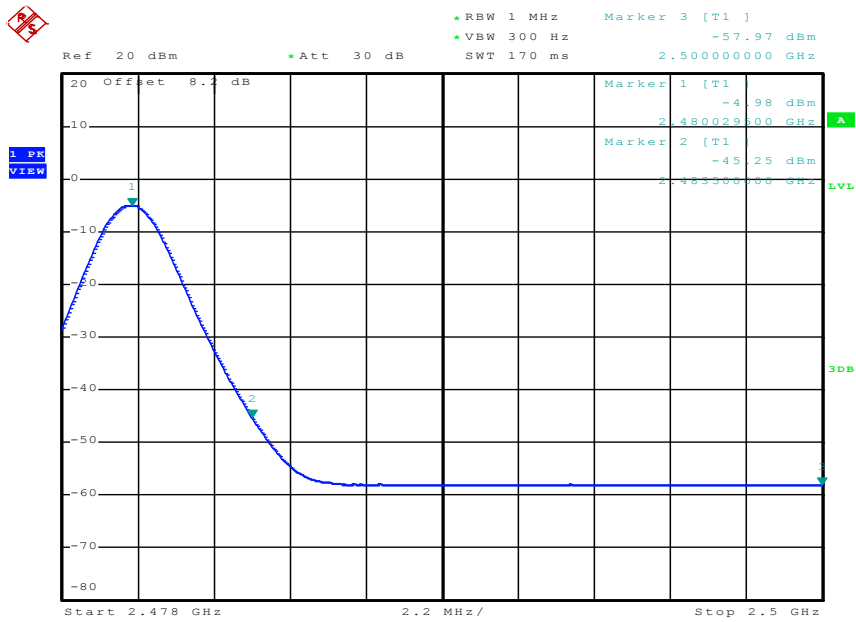
Date: 21.AUG.2019 17:41:20

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



Date: 21.AUG.2019 17:45:43

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



Date: 21.AUG.2019 17:45:57