

Appendix B

RF Test Data for BT V4.2(BLE) (Conducted Measurement)

Product Name: Portable Data Collector

Trade Mark: Newland

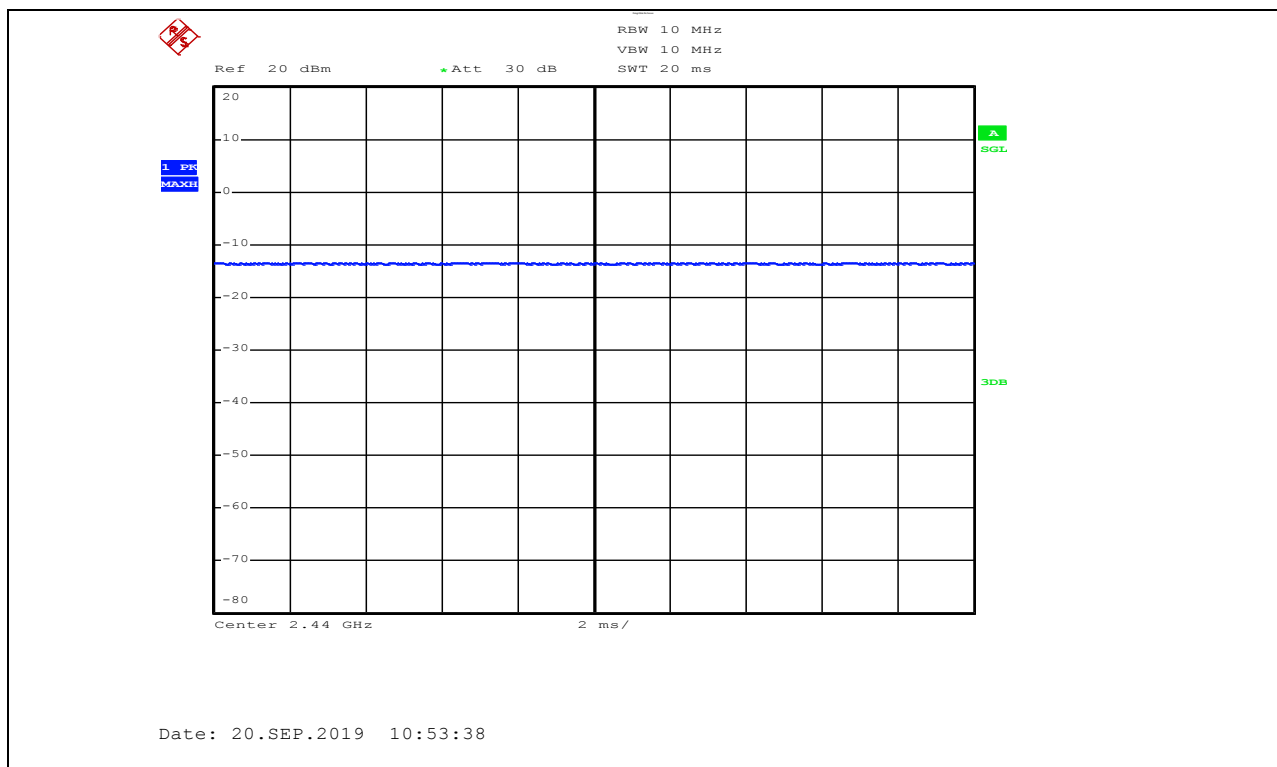
Test Model: NLS-N7

Environmental Conditions

Temperature:	24.7 ° C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	JK ZHOU
Supervised by:	Wang.Chuang

B.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS

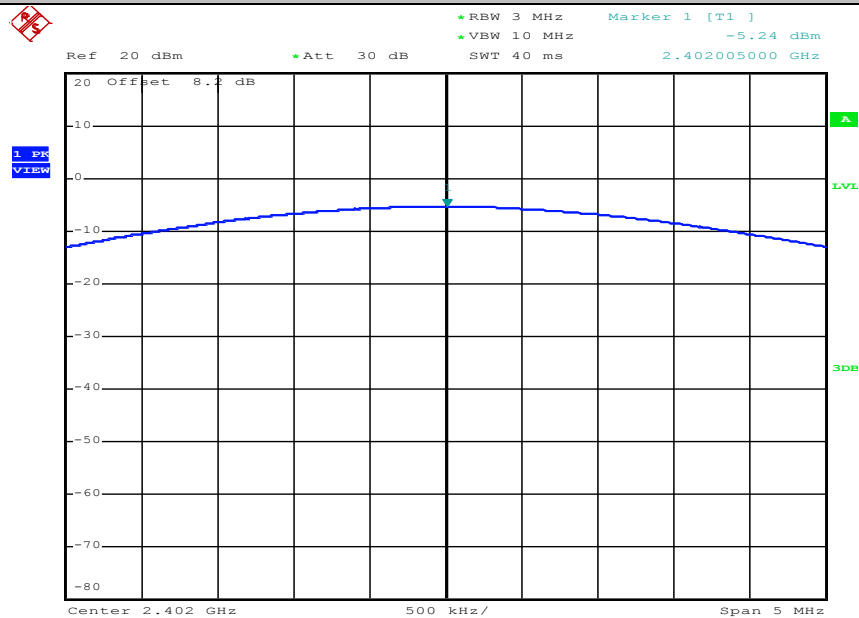


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-5.24	30	PASS
BT LE	MCH	-5.12	30	PASS
BT LE	HCH	-6.06	30	PASS

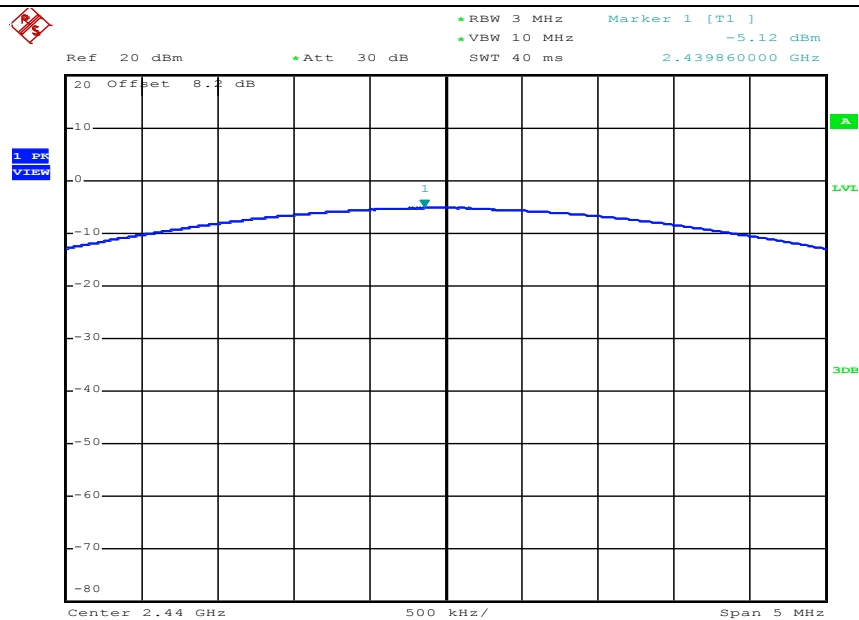
Test Graphs

LCH



Date: 20.SEP.2019 10:46:42

MCH

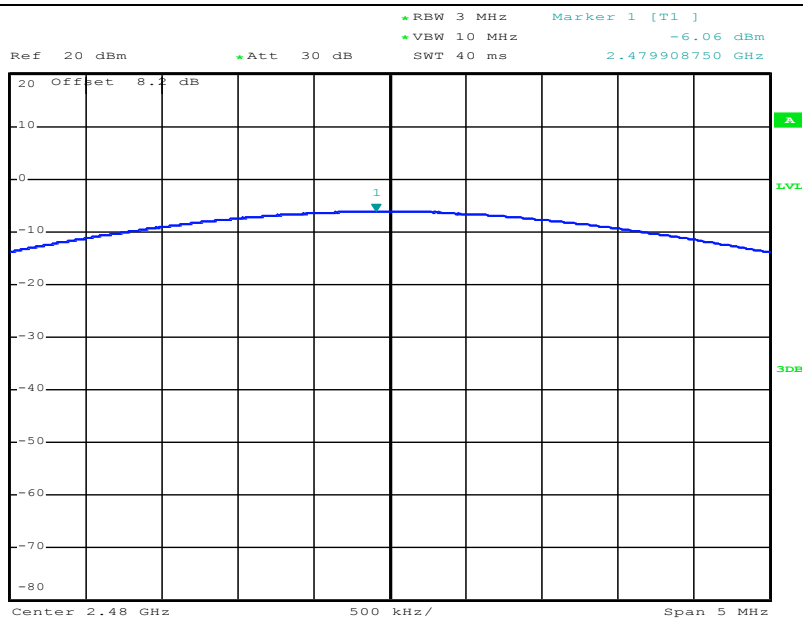


Date: 20.SEP.2019 10:49:25

HCH



1 PR
VIEW



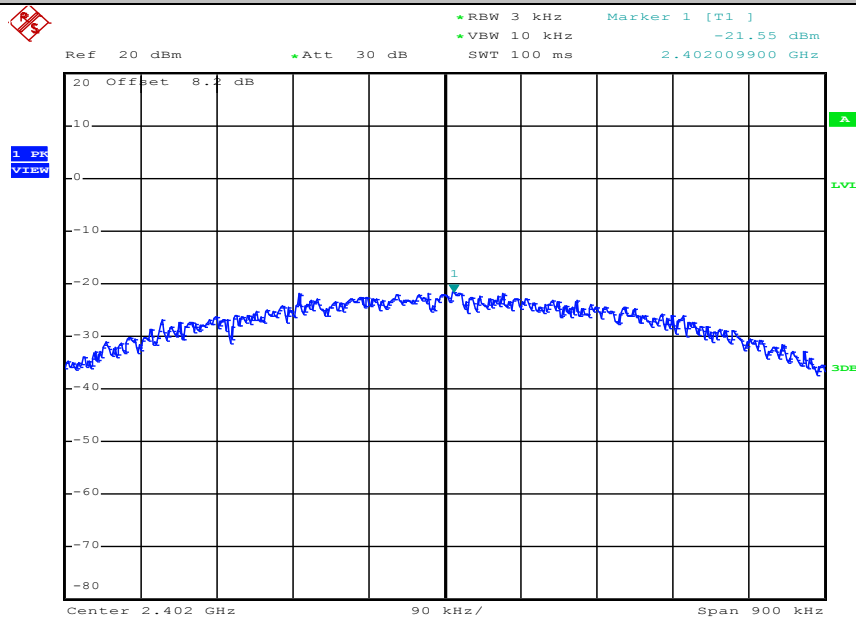
Date: 20.SEP.2019 10:51:20

B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-21.55	8	PASS
BT LE	MCH	-21.16	8	PASS
BT LE	HCH	-22.17	8	PASS

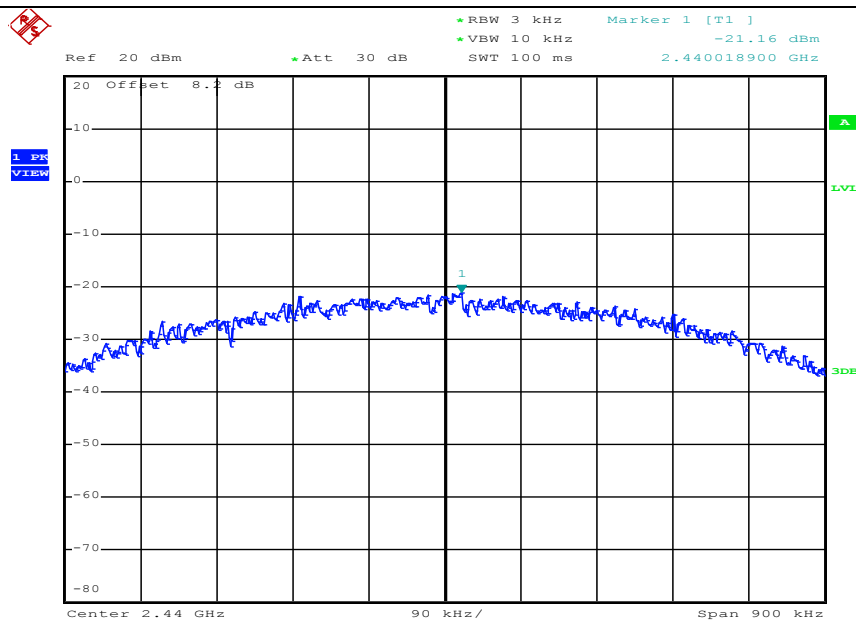
Test Graphs

LCH



Date: 20.SEP.2019 10:46:59

MCH

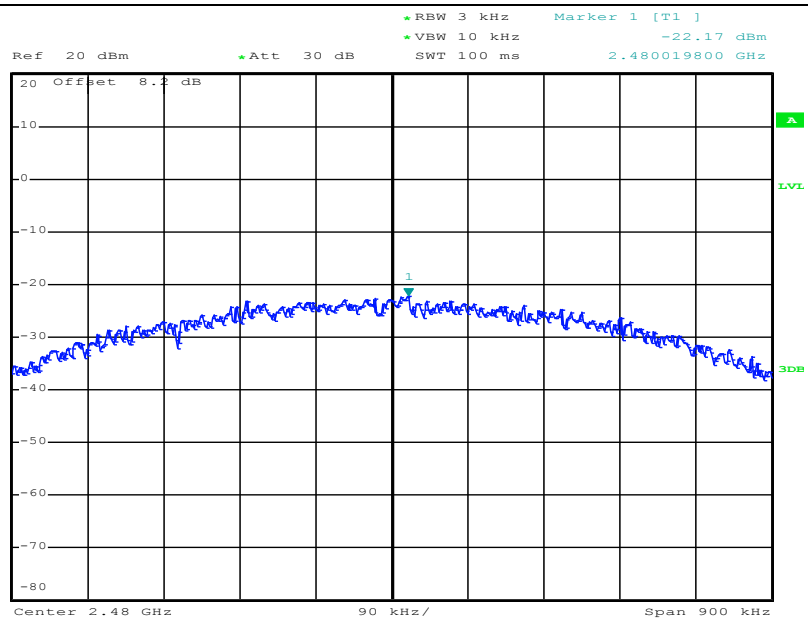


Date: 20.SEP.2019 10:49:41

HCH



1 PR
VIEW



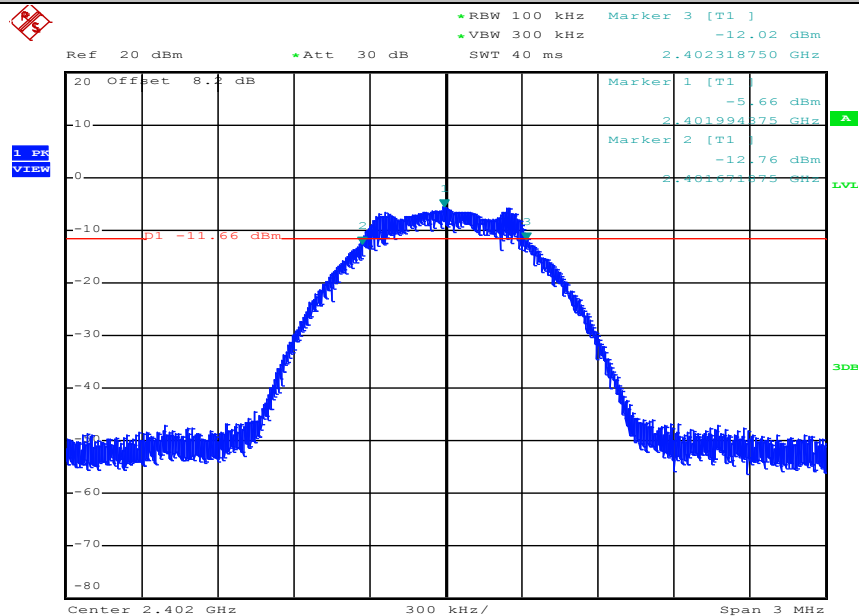
Date: 20.SEP.2019 10:51:36

B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.647	≥ 0.5	PASS
BT LE	MCH	0.648	≥ 0.5	PASS
BT LE	HCH	0.647	≥ 0.5	PASS

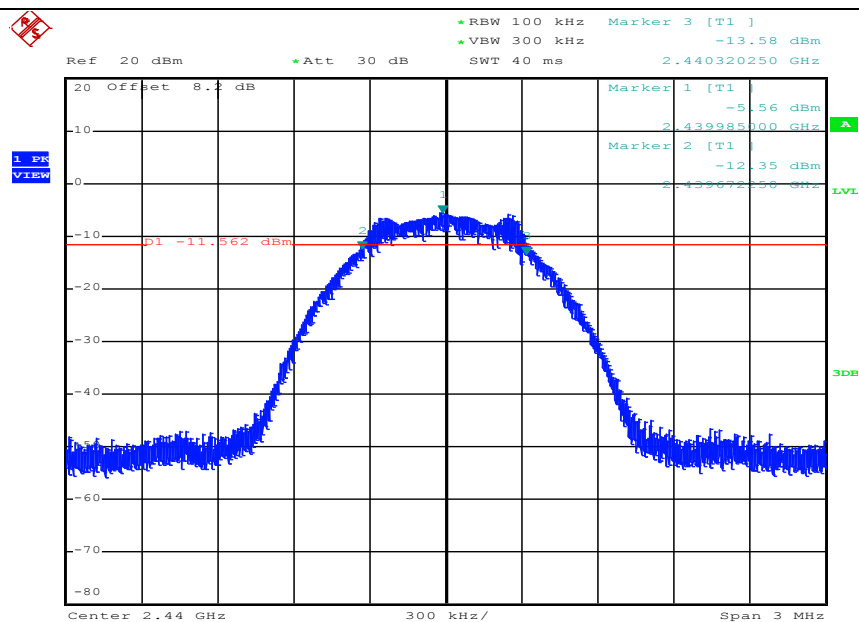
Test Graphs

LCH



Date: 20.SEP.2019 10:46:29

MCH

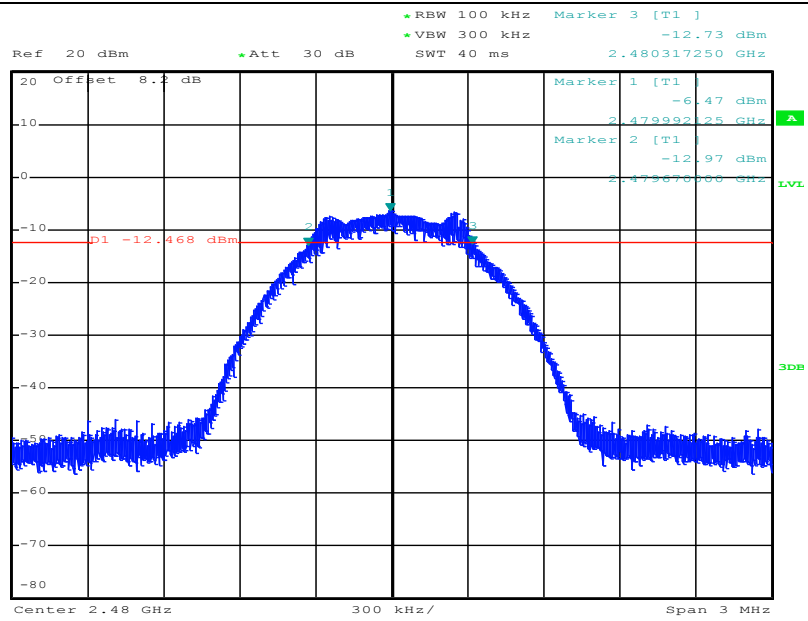


Date: 20.SEP.2019 10:49:12

HCH



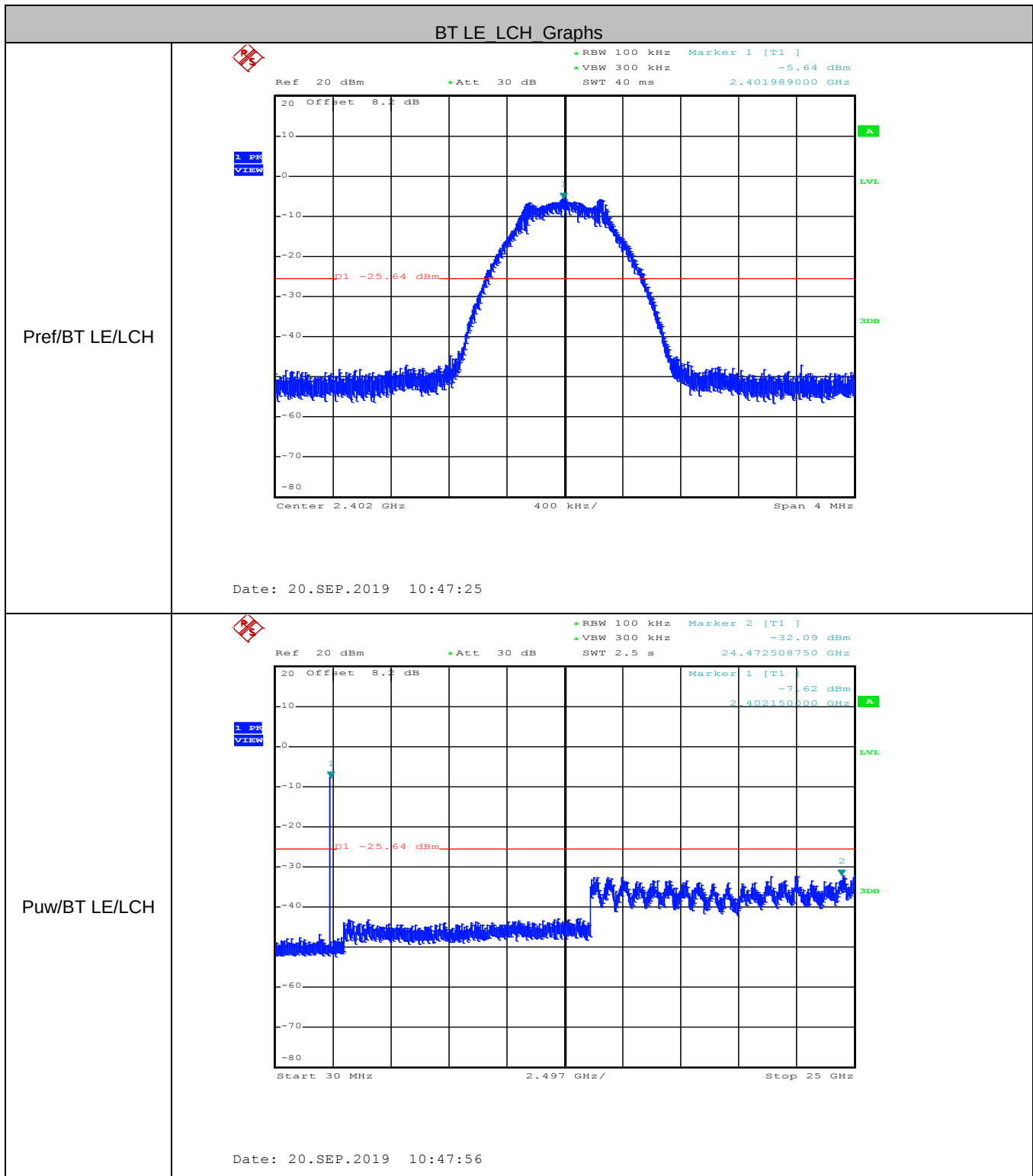
1 PR
VIEW



Date: 20.SEP.2019 10:51:07

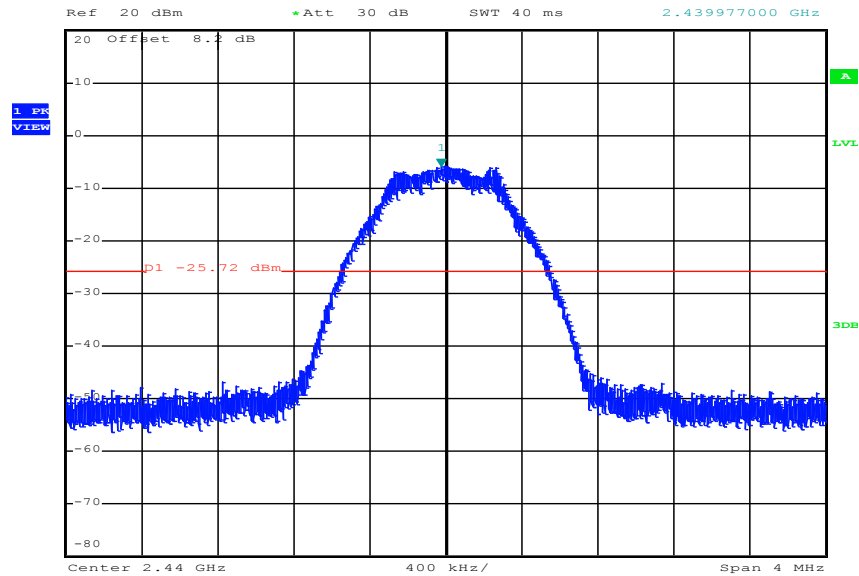
B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-5.64	-32.090	-25.640	PASS
BT LE	MCH	-5.72	-29.760	-25.720	PASS
BT LE	HCH	-6.49	-32.010	-26.490	PASS



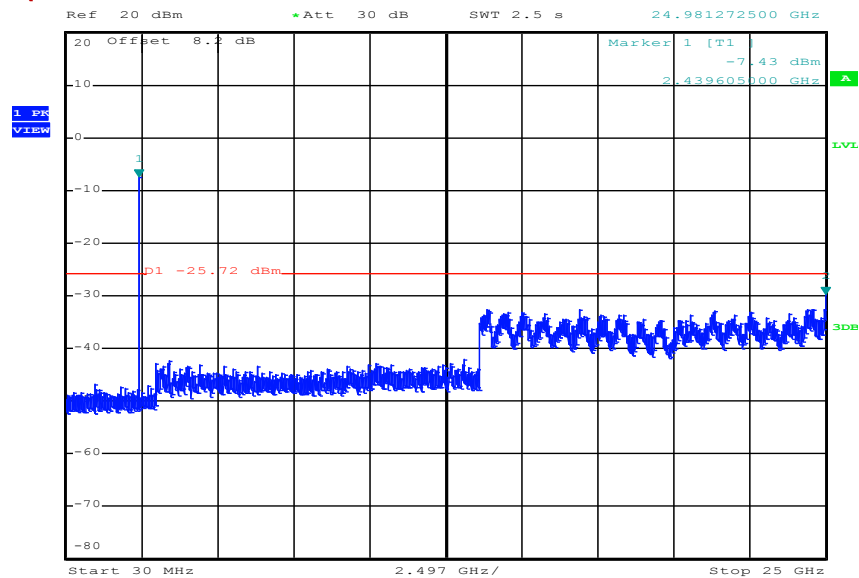
BT LE_MCH_Graphs

Pref/BT LE/MCH



Date: 20.SEP.2019 10:49:54

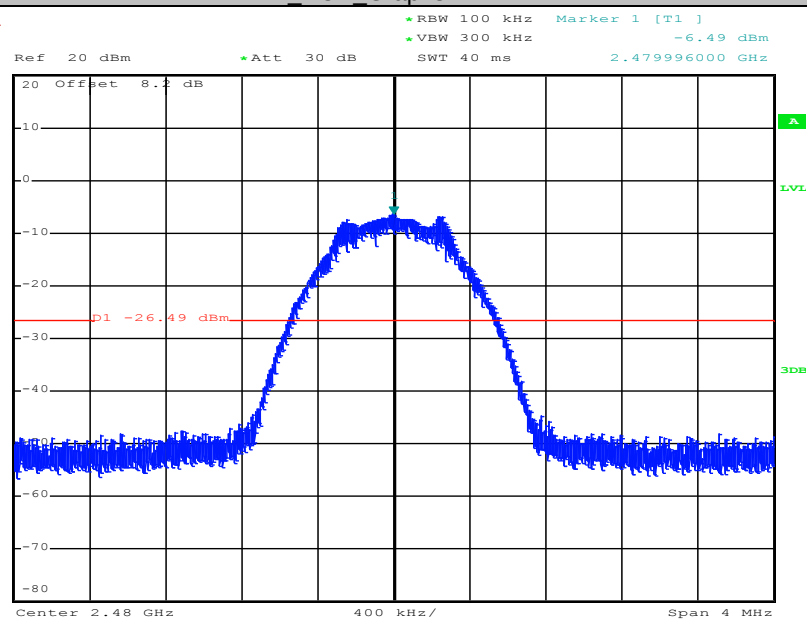
Puw/BT LE/MCH



Date: 20.SEP.2019 10:50:24

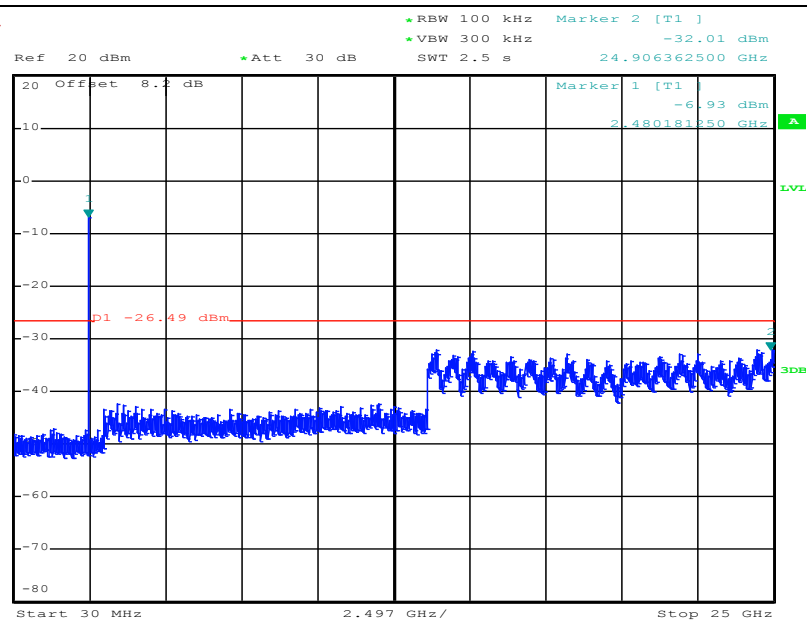
BT LE_HCH_Graphs

Pref/BT LE/HCH

1 PK
VIEW

Date: 20.SEP.2019 10:52:03

Puw/BT LE/HCH

1 PK
VIEW

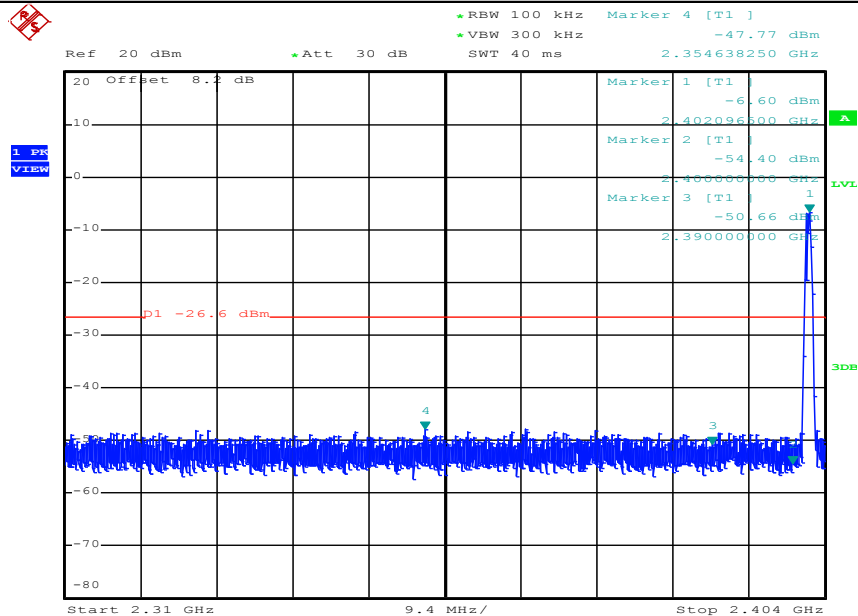
Date: 20.SEP.2019 10:52:33

B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-6.600	-47.765	-26.6	PASS
BT LE	HCH	-6.950	-47.472	-26.95	PASS

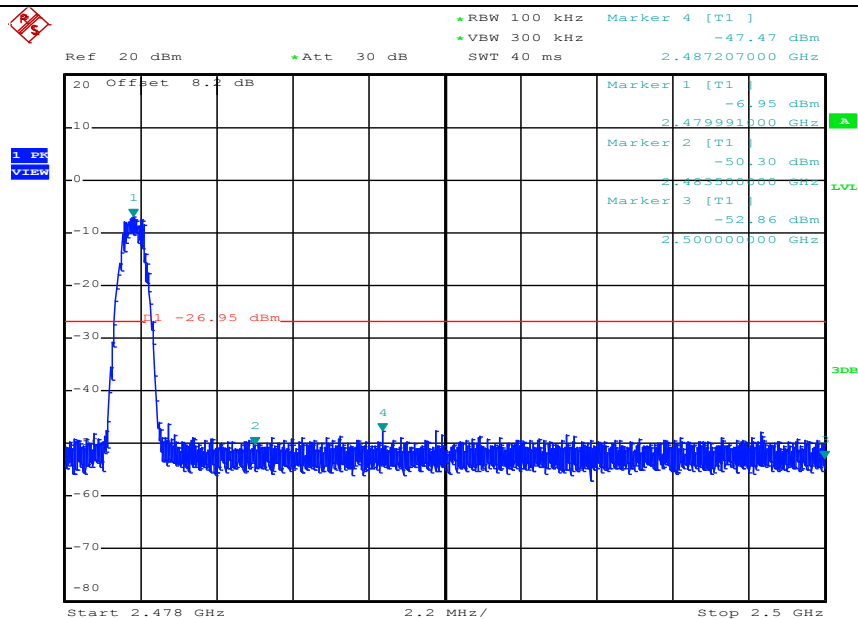
Test Graphs

LCH



Date: 20.SEP.2019 10:47:12

HCH

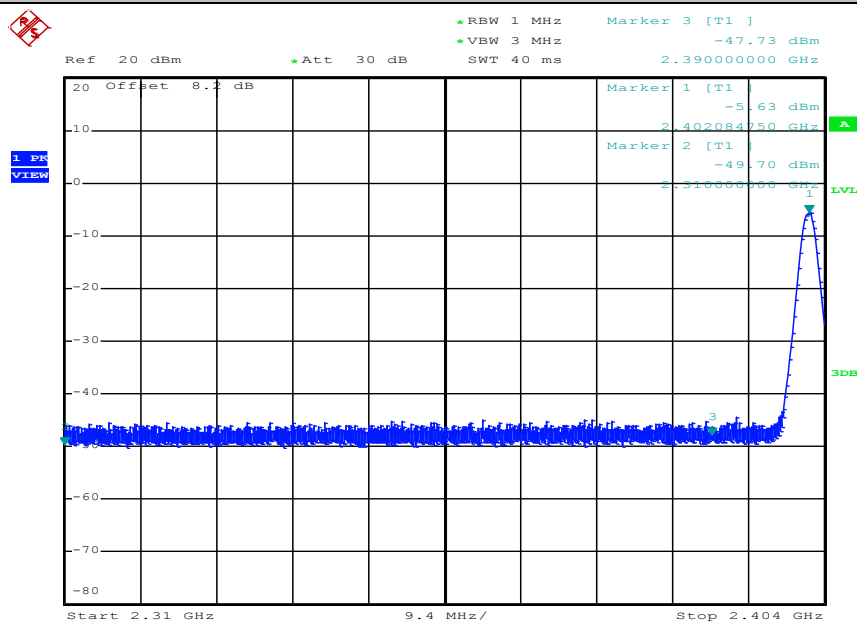


Date: 20.SEP.2019 10:51:50

B.7 Restrict-band band-edge measurements

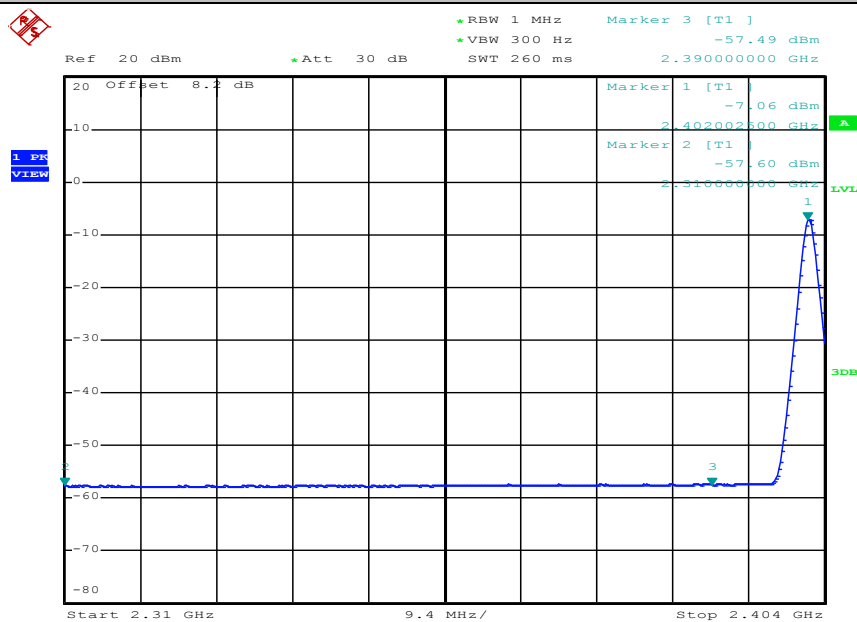
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-49.70	2.0	0	45.56	PEAK	74	PASS
		Ant1	2310.0	-57.60	2.0	0	37.66	AV	54	PASS
		Ant1	2390.0	-47.73	2.0	0	47.53	PEAK	74	PASS
		Ant1	2390.0	-57.49	2.0	0	37.77	AV	54	PASS
	2480	Ant1	2483.5	-43.52	2.0	0	51.74	PEAK	74	PASS
		Ant1	2483.5	-49.52	2.0	0	45.74	AV	54	PASS
		Ant1	2500.0	-46.81	2.0	0	48.45	PEAK	74	PASS
		Ant1	2500.0	-58.05	2.0	0	37.21	AV	54	PASS

Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



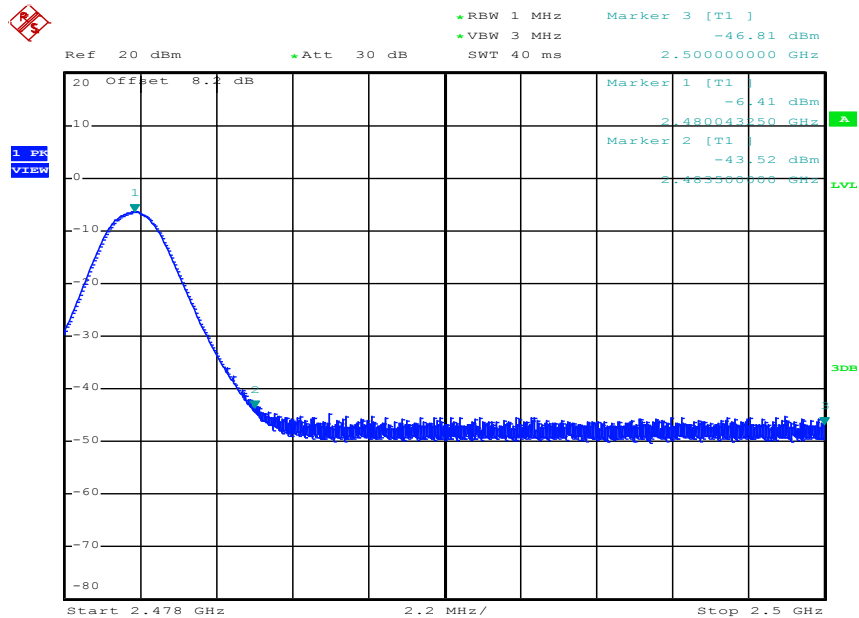
Date: 20.SEP.2019 10:48:15

Restrict-band band-edge measurements_BT LE_2402_Ant1_AV



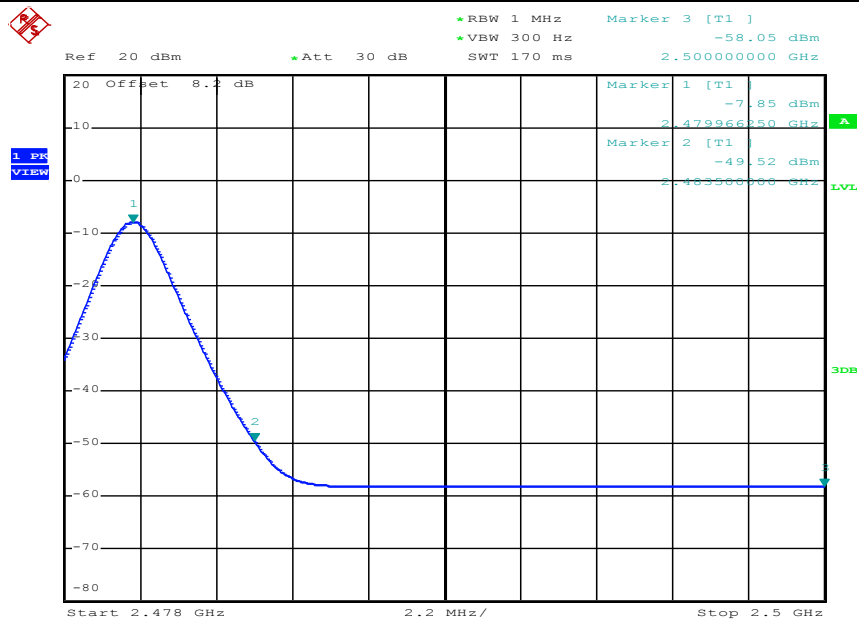
Date: 20.SEP.2019 10:48:30

Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK



Date: 20.SEP.2019 10:52:52

Restrict-band band-edge measurements_BT LE_2480_Ant1_AV



Date: 20.SEP.2019 10:53:07