# **Appendix B**

# RF Test Data for BT V4.2(DSS/DTS) (Conducted Measurement)

**Product Name: DP50-1** 

Trade Mark: OBDSTAR OBDPROG

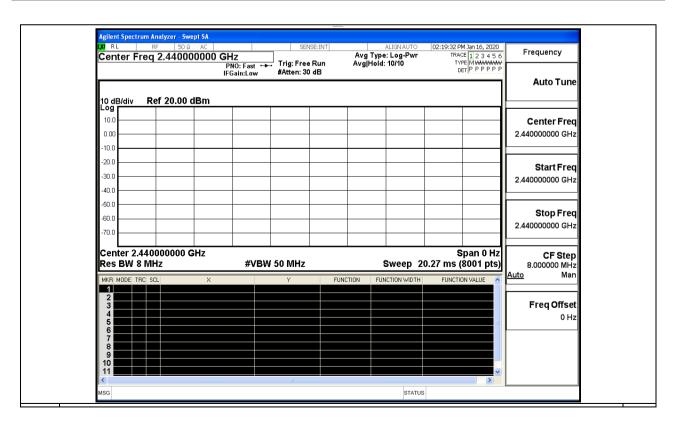
Test Model: DP50-1

### **Environmental Conditions**

Temperature:	22.8°C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Li Huan
Supervised by:	Tom.Liu

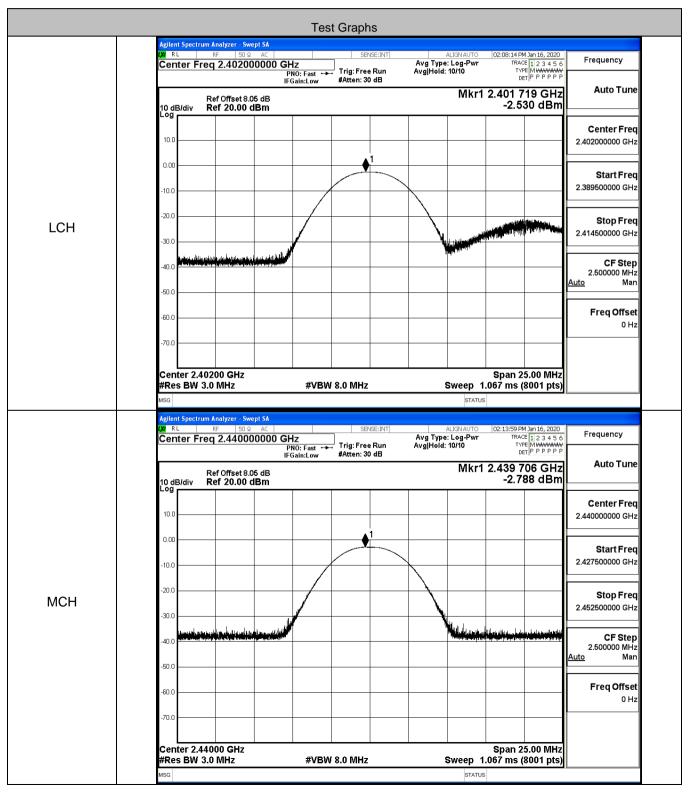
## **B.1 Duty Cycle**

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

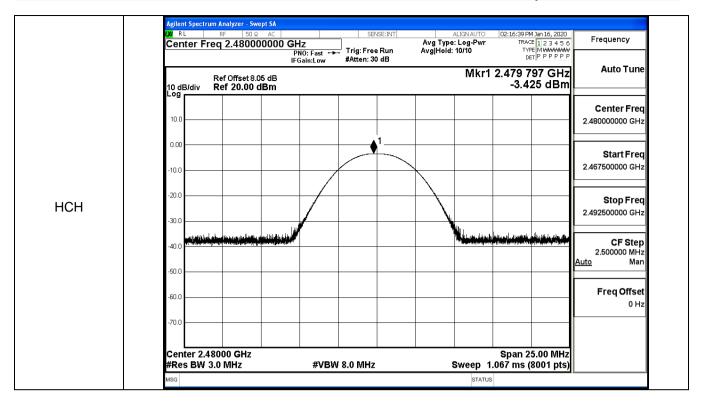


# **B.2 Maximum Conducted Peak Output Power**

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.530	30	PASS
BT LE	MCH	-2.788	30	PASS
BT LE	HCH	-3.425	30	PASS

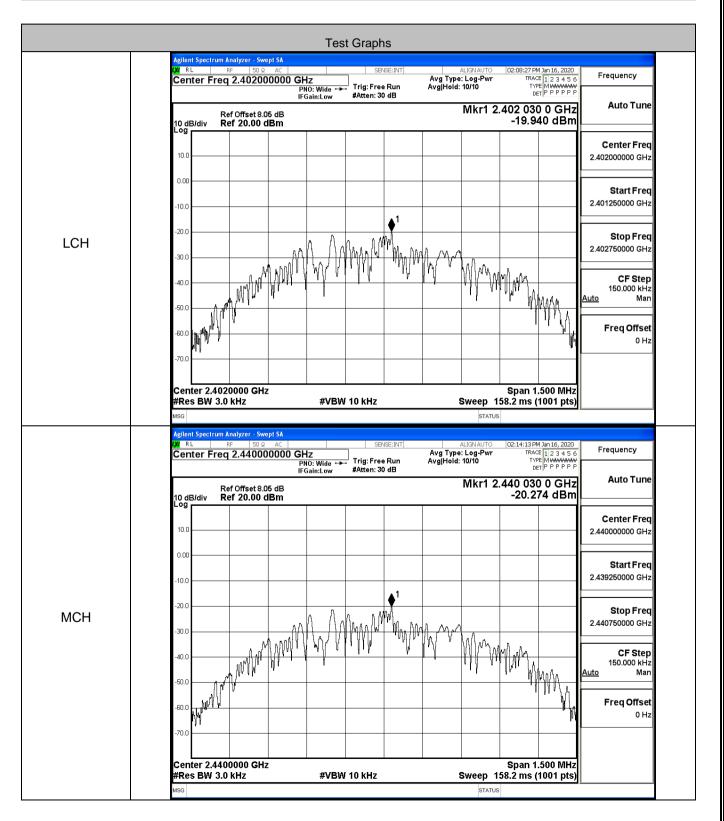


#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AJ2D-DOCTORM500 Report No.: LCS200109023AEB

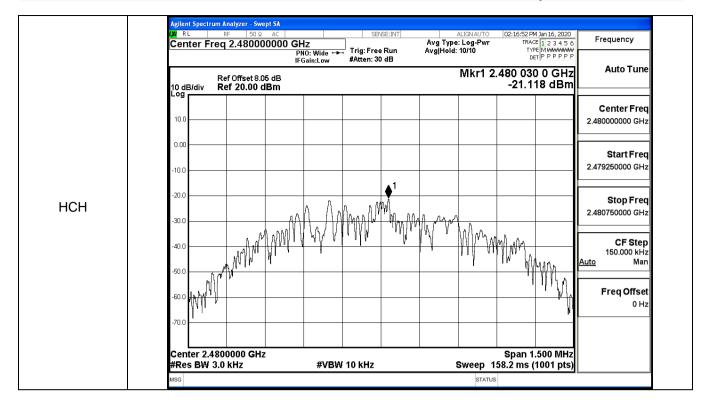


# **B.3 Maximum Power Spectral Density**

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-19.940	8	PASS
BT LE	MCH	-20.274	8	PASS
BT LE	НСН	-21.118	8	PASS

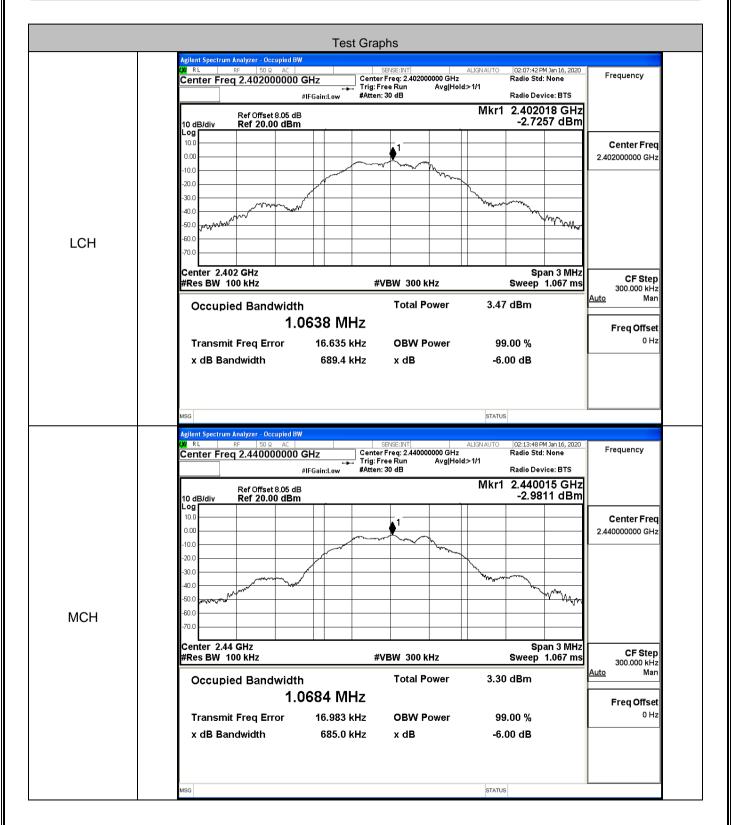


#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AJ2D-DOCTORM500 Report No.: LCS200109023AEB

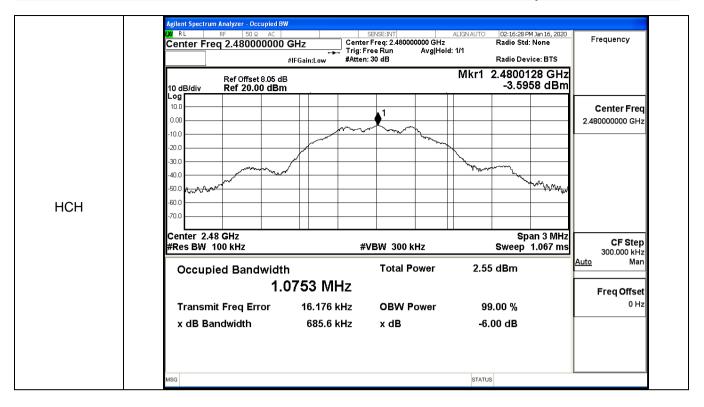


### **B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6894	≥0.5	PASS
BT LE	MCH	0.6850	≥0.5	PASS
BT LE	HCH	0.6856	≥0.5	PASS

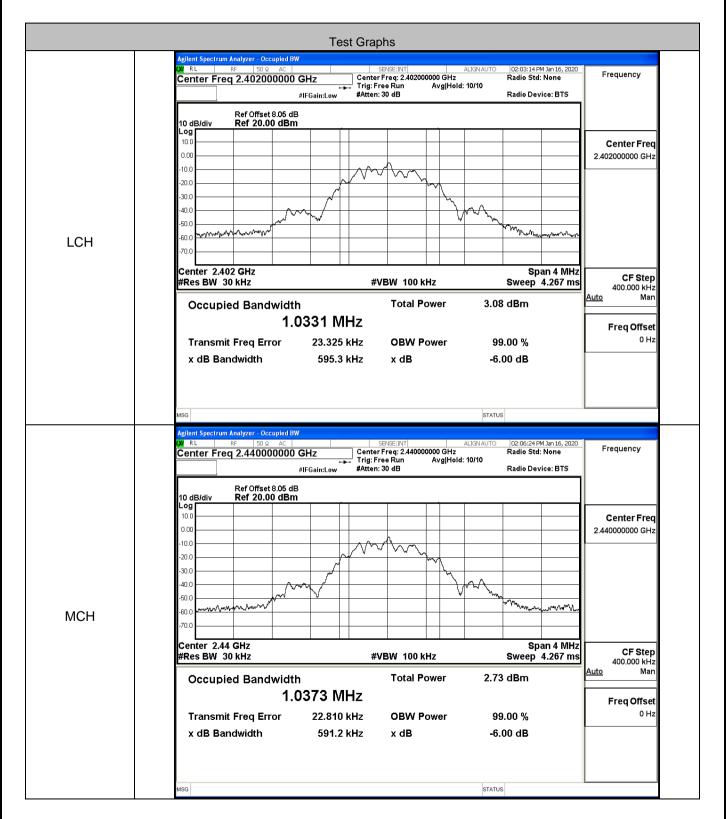


#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AJ2D-DOCTORM500 Report No.: LCS200109023AEB



## **B.5 Occupied Bandwidth**

Mode	Channel	Occupied Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	1.0331	≥0.5	PASS
BT LE	MCH	1.0373	≥0.5	PASS
BT LE	HCH	1.0407	≥0.5	PASS



#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AJ2D-DOCTORM500 Report No.: LCS200109023AEB SENSE:INT ALIGNAUTO Center Freq: 2.480000000 GHz Trig: Free Run Avg|Hold: 10/10 #Atten: 30 dB 02:07:02 PM Jan 16, 2020 Radio Std: None Frequency Center Freq 2.480000000 GHz Radio Device: BTS #IFGain:Low Ref Offset 8.05 dB Ref 20.00 dBm 10 dB/div 10.0 Center Freq 0.00 2.480000000 GHz 10 O 20.0 30.0 40.0 man rather and make -60.0 **HCH** Center 2.48 GHz #Res BW 30 kHz Span 4 MHz Sweep 4.267 ms CF Step 400.000 kHz **#VBW 100 kHz** Man **Total Power** 2.33 dBm Occupied Bandwidth 1.0407 MHz Freq Offset 22.090 kHz **Transmit Freq Error OBW Power** 99.00 %

600.7 kHz

x dB

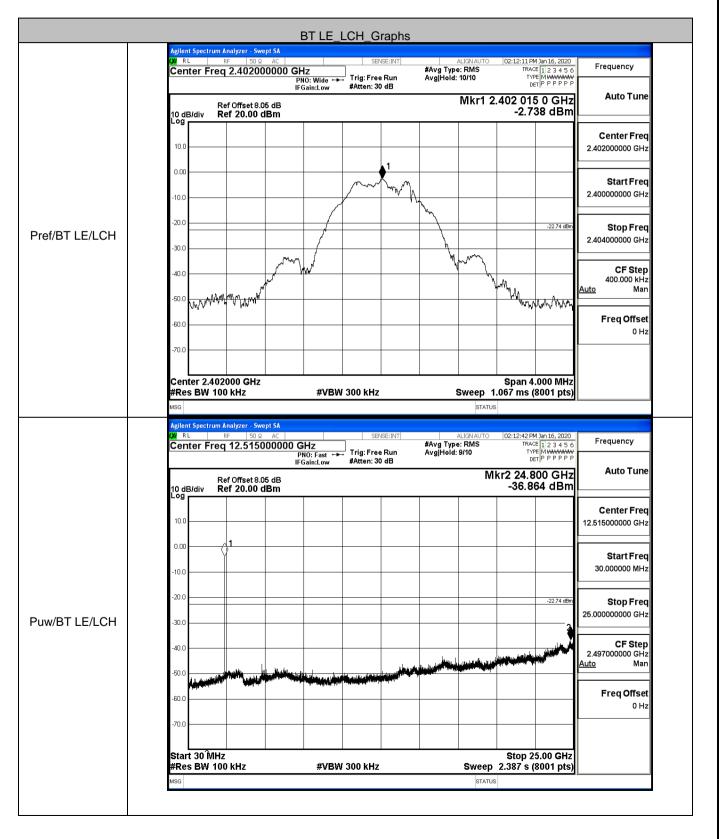
-6.00 dB

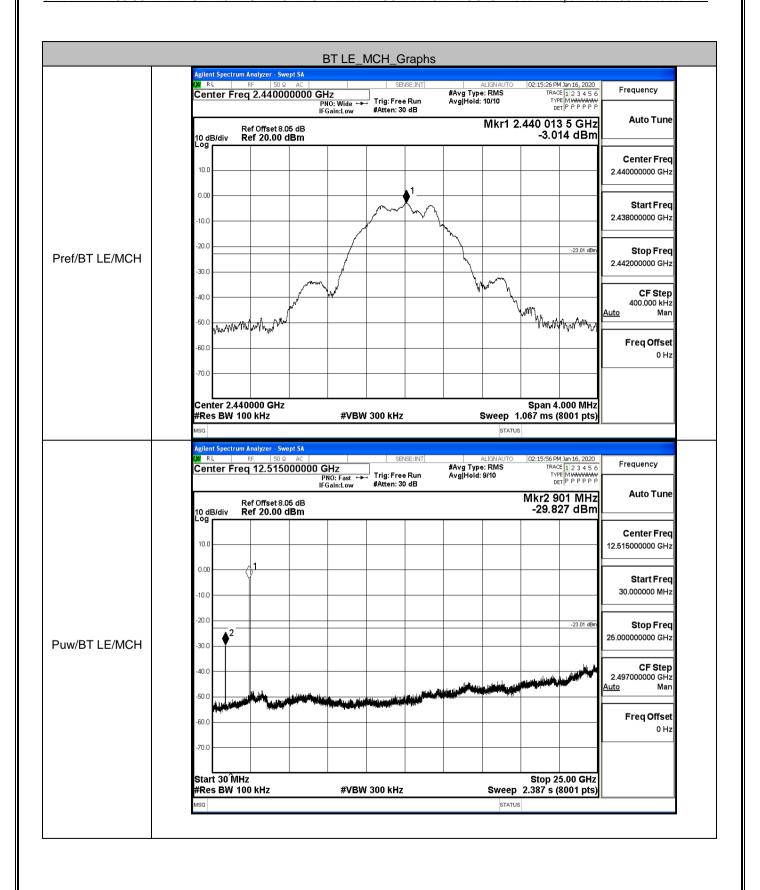
STATUS

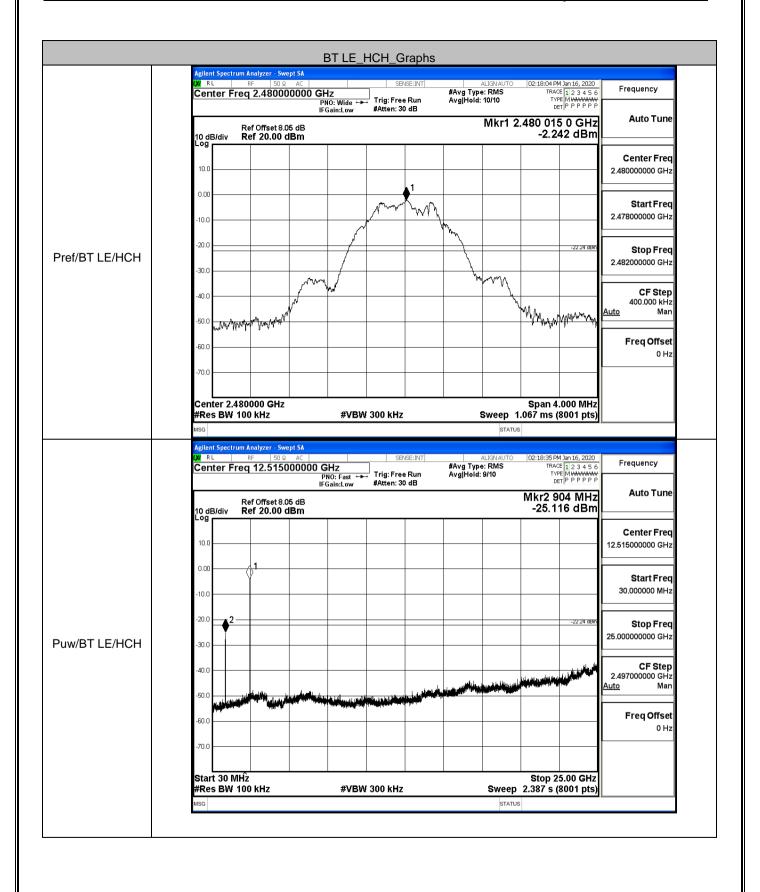
x dB Bandwidth

## **B.6 RF Conducted Spurious Emissions**

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.738	-36.864	-22.738	PASS
BT LE	MCH	-3.014	-29.827	-23.014	PASS
BT LE	НСН	-2.242	-25.116	-22.242	PASS

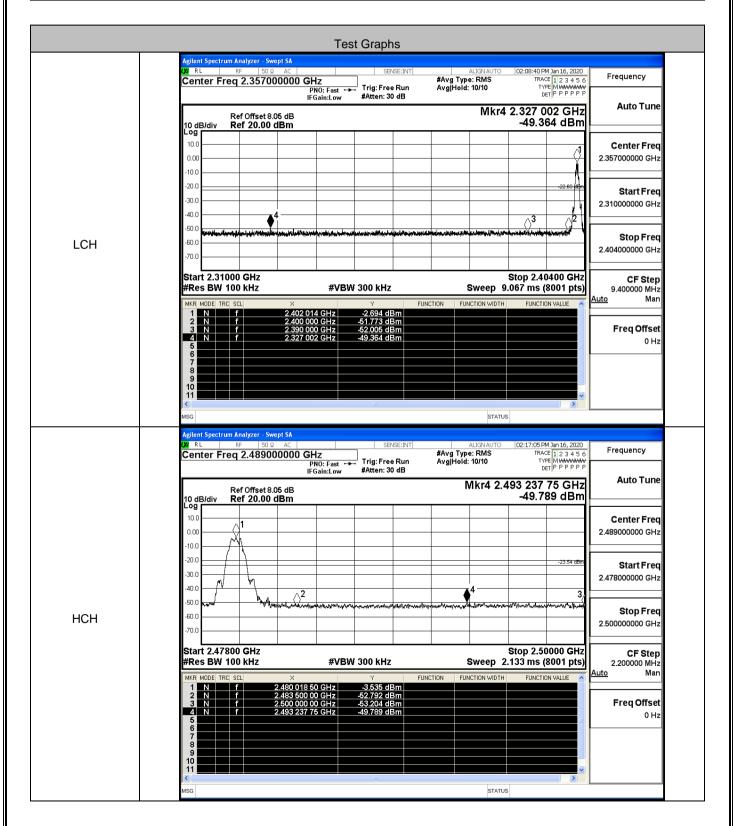






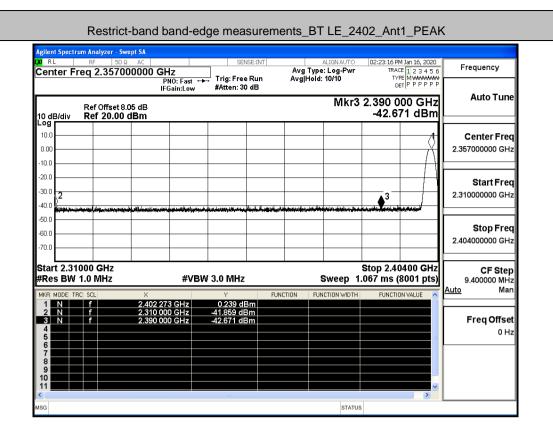
## **B.7 Band-edge for RF Conducted Emissions**

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.694	-49.364	-22.69	PASS
BT LE	HCH	-3.535	-49.789	-23.54	PASS

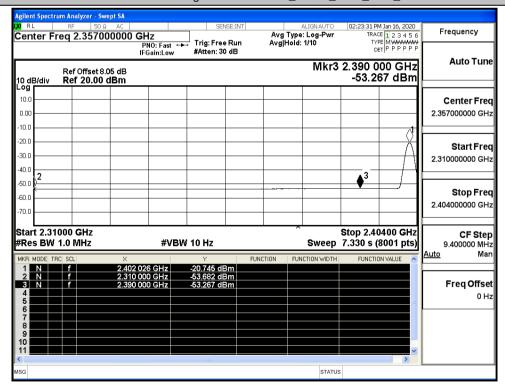


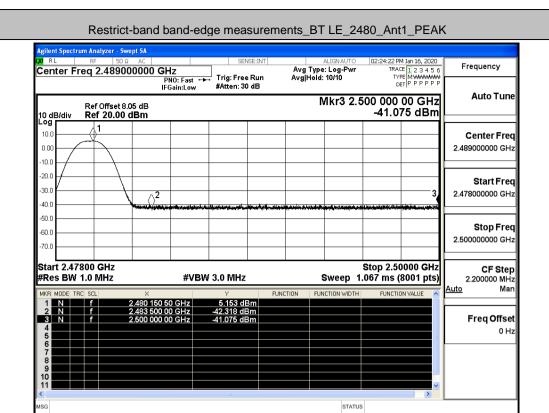
# **B.8 Restrict-band band-edge measurements**

Test Mode	Test Chann el	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/ m]	Verdi
		Ant1	2310.0	-41.86	3.0	0	56.37	PEAK	74	PASS
BT LE	2402	Ant1	2310.0	-53.68	3.0	0	44.55	AV	54	PASS
		Ant1	2390.0	-42.67	3.0	0	55.56	PEAK	74	PASS
		Ant1	2390.0	-53.27	3.0	0	44.96	AV	54	PASS
	2480	Ant1	2483.5	-42.32	3.0	0	55.91	PEAK	74	PASS
		Ant1	2483.5	-52.70	3.0	0	45.53	AV	54	PASS
		Ant1	2500.0	-41.08	3.0	0	57.15	PEAK	74	PASS
		Ant1	2500.0	-52.69	3.0	0	45.54	AV	54	PASS



#### Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_AV





#### Restrict-band band-edge measurements\_BT LE\_2480\_Ant1\_AV

