

Appendix A

RF Test Data for 2.4G (Conducted Measurement)

Product Name: Q Compact 2.4G Trigger

Trade Mark: NEEWER

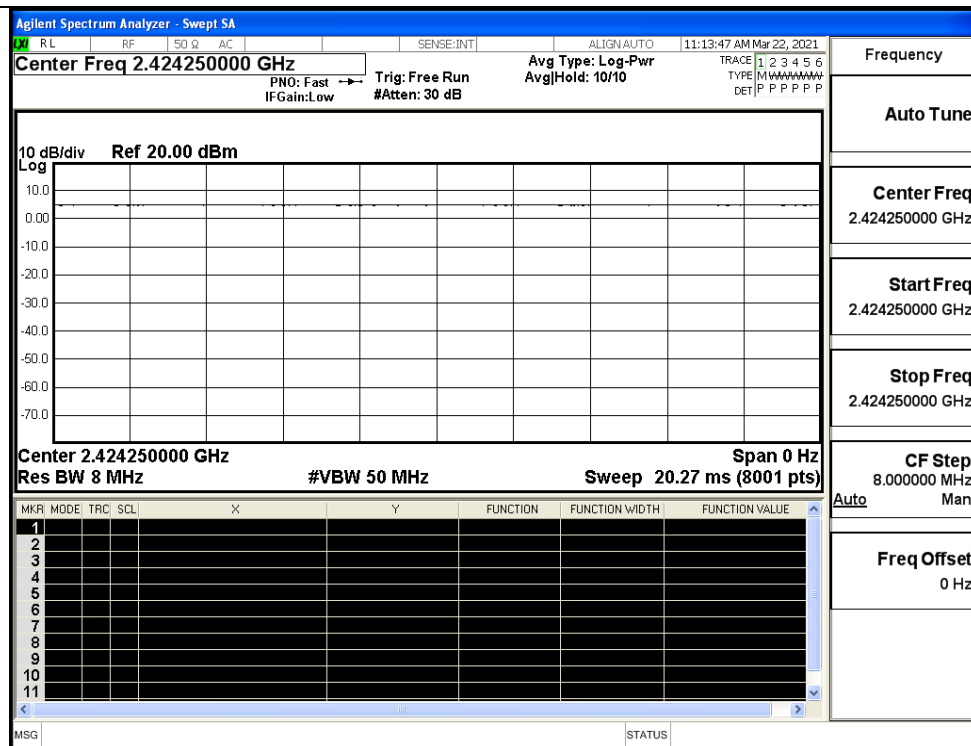
Test Model: Q Compact

Environmental Conditions

Temperature:	24.6 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

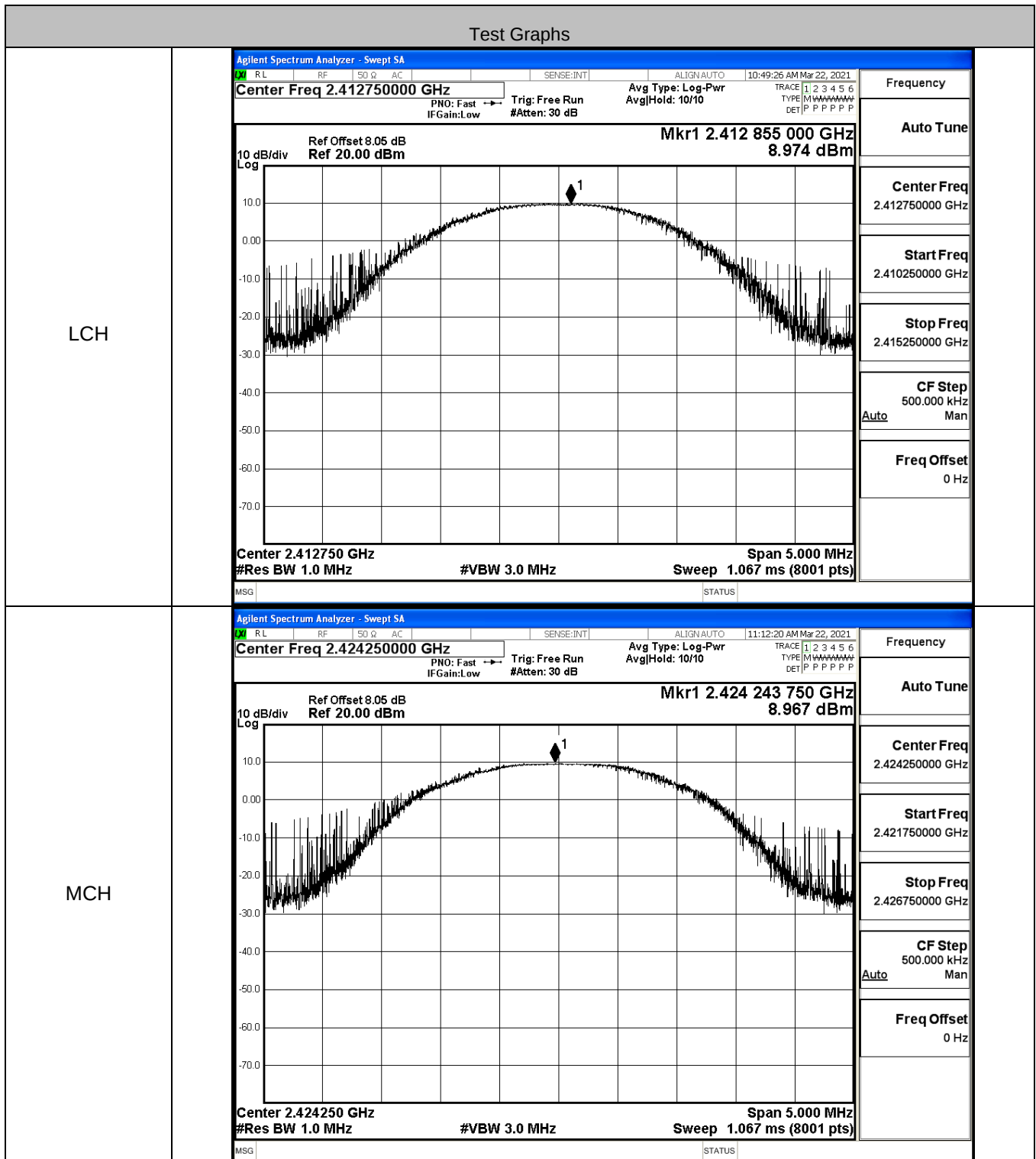
A.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
GFSK	2424.25	Ant1	100	PASS

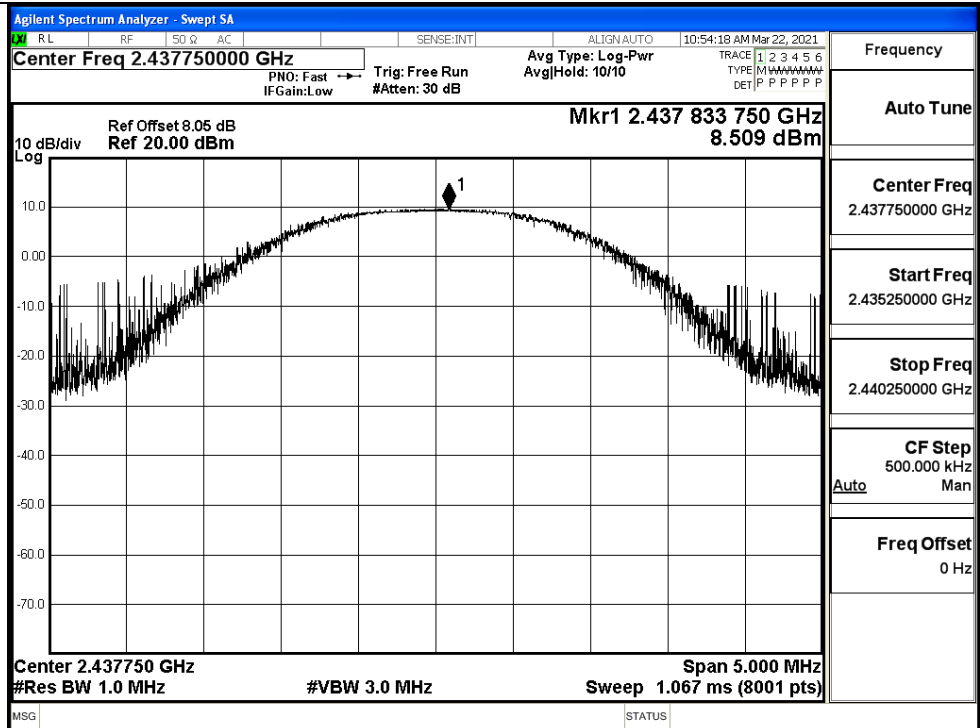


A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
GFSK	LCH	8.974	30	PASS
GFSK	MCH	8.967	30	PASS
GFSK	HCH	8.509	30	PASS

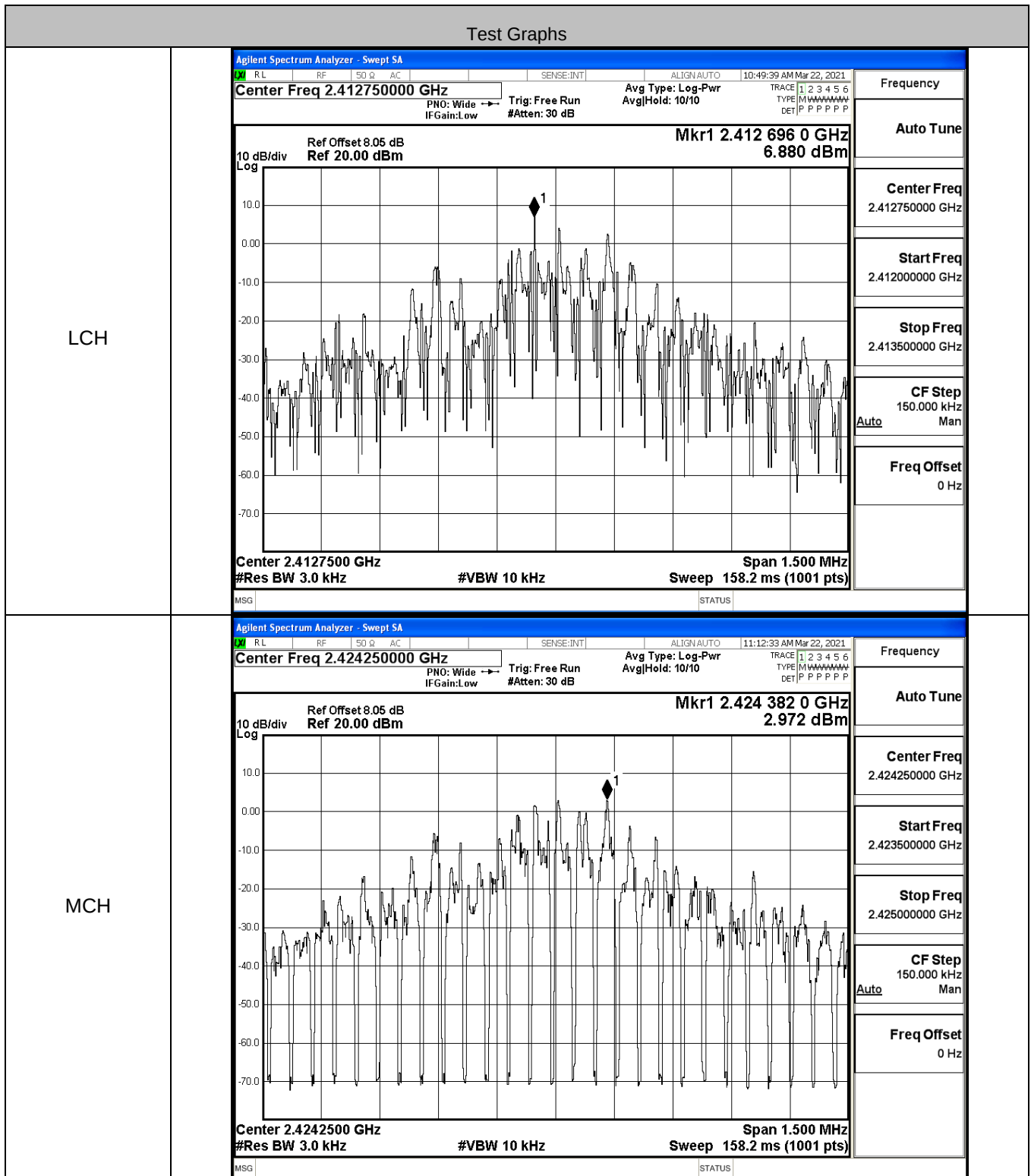


HCH

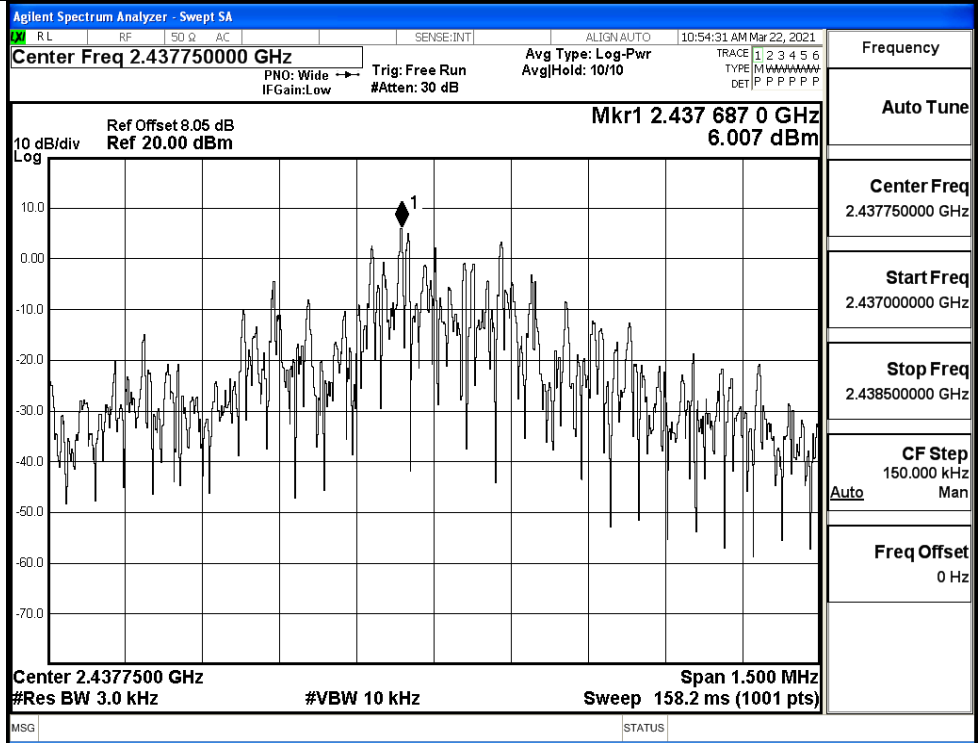


A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
GFSK	LCH	6.880	8	PASS
GFSK	MCH	2.972	8	PASS
GFSK	HCH	6.007	8	PASS

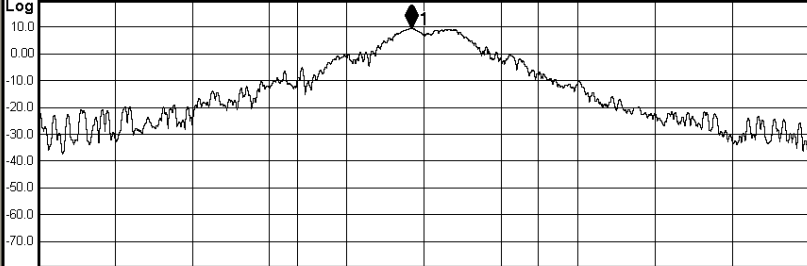
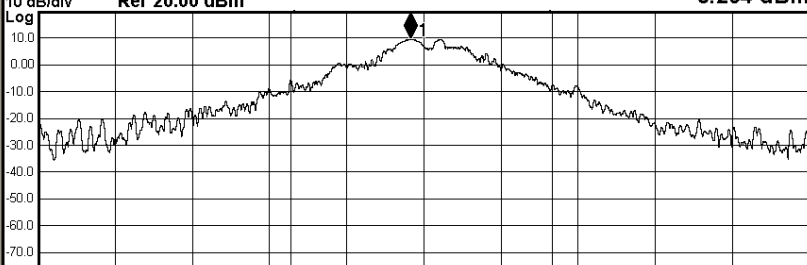


HCH

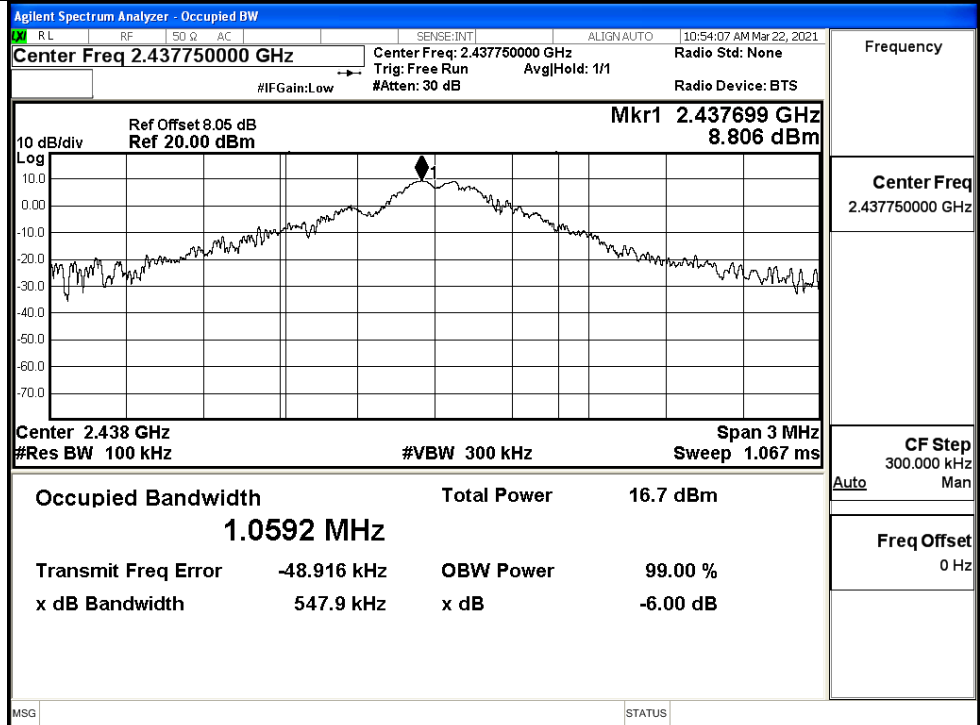


A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.5460	≥ 0.5	PASS
GFSK	MCH	0.5419	≥ 0.5	PASS
GFSK	HCH	0.5479	≥ 0.5	PASS

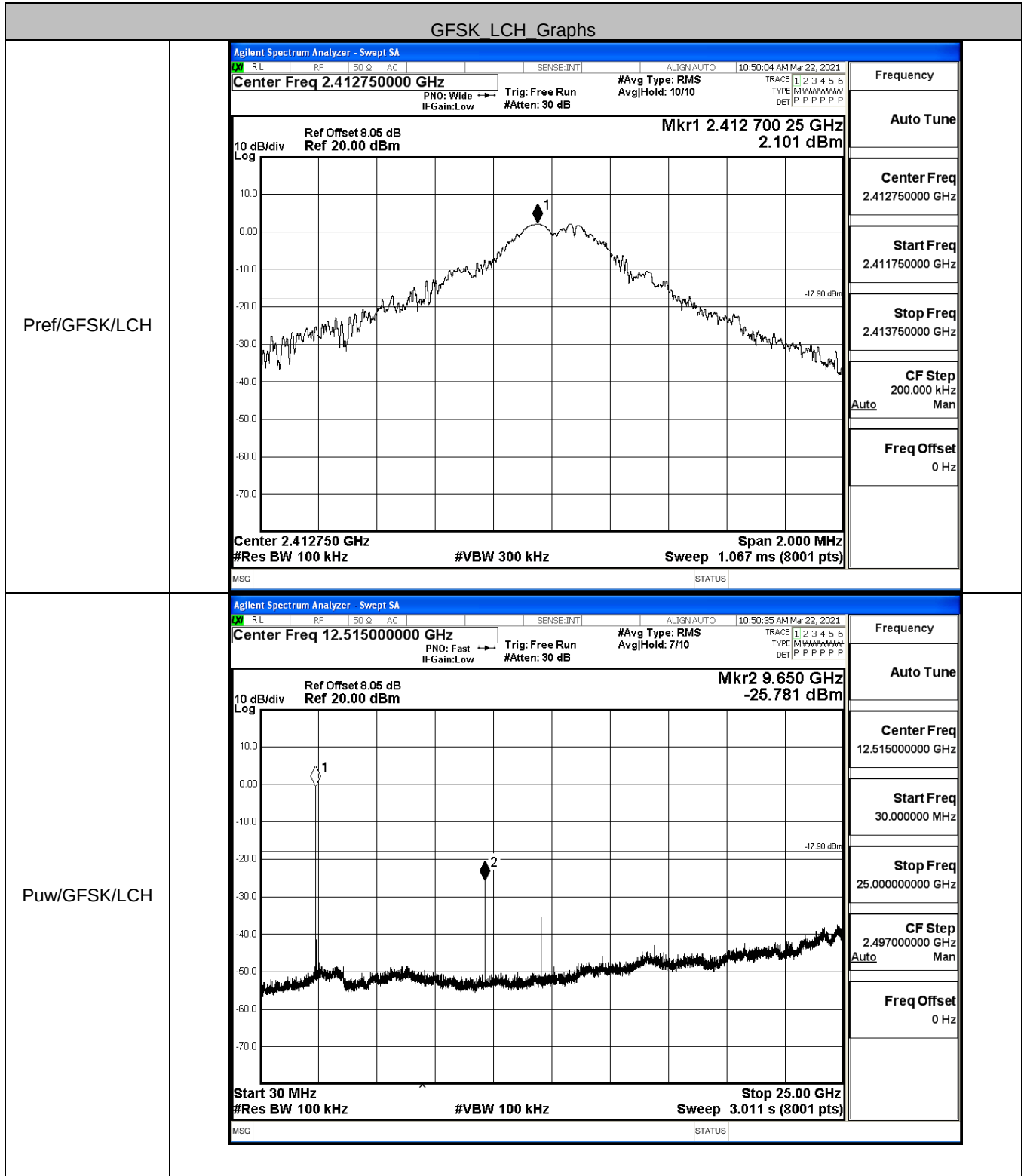
Test Graphs				
LCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 10:49:15 AM Mar 22, 2021 Center Freq 2.412750000 GHz Center Freq: 2.412750000 GHz Radio Std: None #IFGain:Low Trig: Free Run Avg/Hold: 1/1 Radio Device: BTS Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.4127013 GHz 8.167 dBm 10 dB/div Log  Center 2.413 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1.067 ms Occupied Bandwidth Total Power 16.1 dBm 925.16 kHz Transmit Freq Error -20.501 kHz OBW Power 99.00 % x dB Bandwidth 546.0 kHz x dB -6.00 dB MSG STATUS			Frequency Center Freq 2.412750000 GHz CF Step 300.000 kHz Man Auto Freq Offset 0 Hz
MCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 11:12:09 AM Mar 22, 2021 Center Freq 2.424250000 GHz Center Freq: 2.424250000 GHz Radio Std: None #IFGain:Low Trig: Free Run Avg/Hold: 1/1 Radio Device: BTS Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.4242001 GHz 8.264 dBm 10 dB/div Log  Center 2.424 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1.067 ms Occupied Bandwidth Total Power 15.9 dBm 1.0177 MHz Transmit Freq Error -8.868 kHz OBW Power 99.00 % x dB Bandwidth 541.9 kHz x dB -6.00 dB MSG STATUS			Frequency Center Freq 2.424250000 GHz CF Step 300.000 kHz Man Auto Freq Offset 0 Hz

HCH



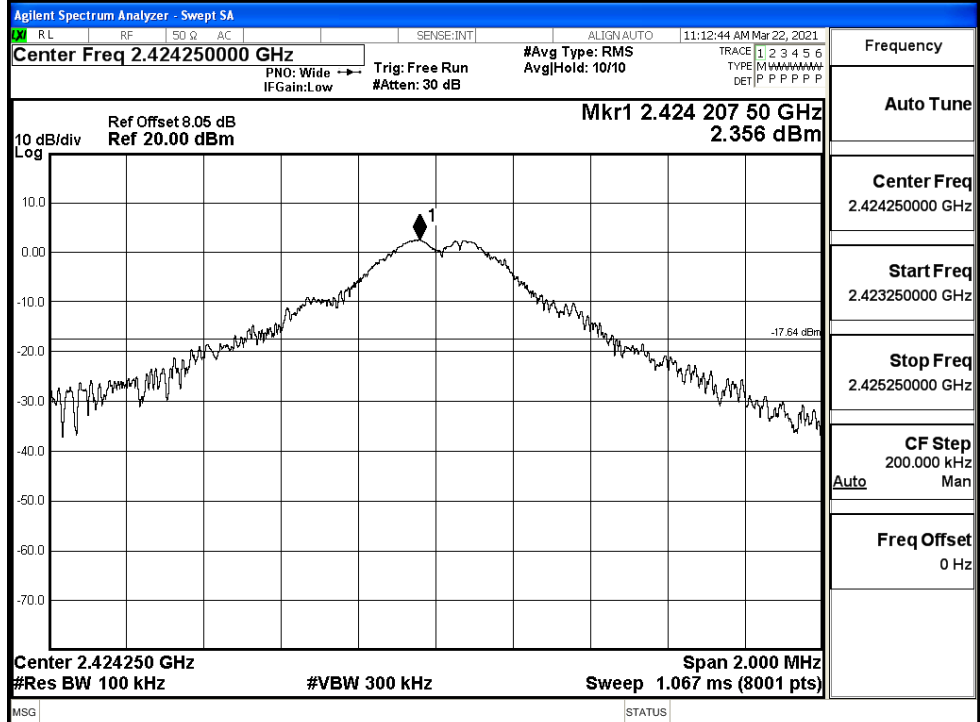
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.101	-25.781	-17.899	PASS
GFSK	MCH	2.356	-32.521	-17.644	PASS
GFSK	HCH	2.74	-31.794	-17.260	PASS

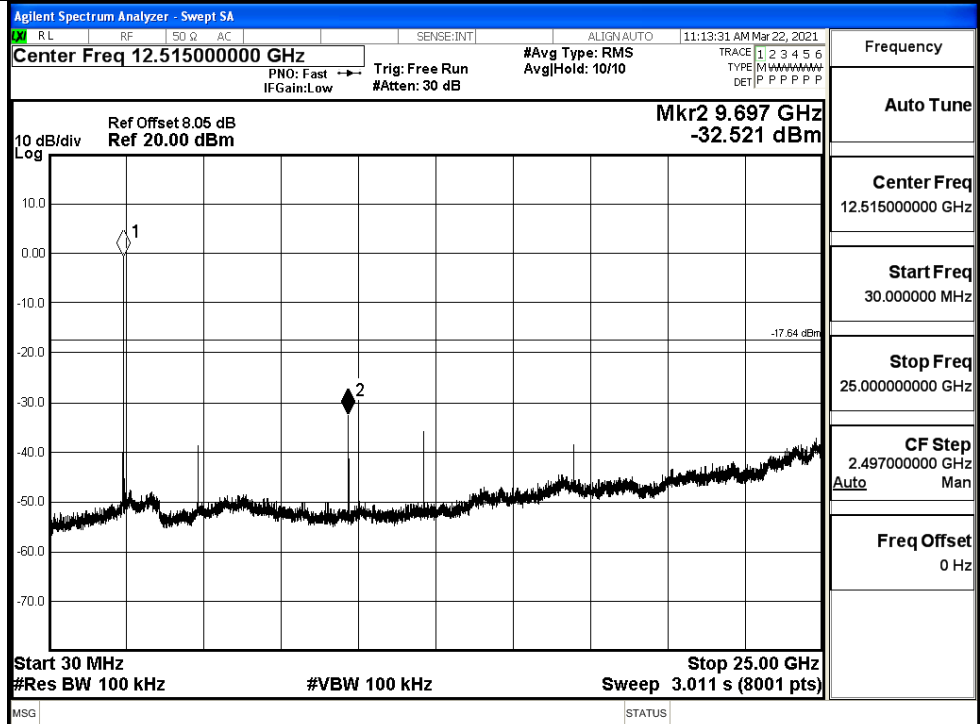


GFSK MCH Graphs

Pref/GFSK/MCH

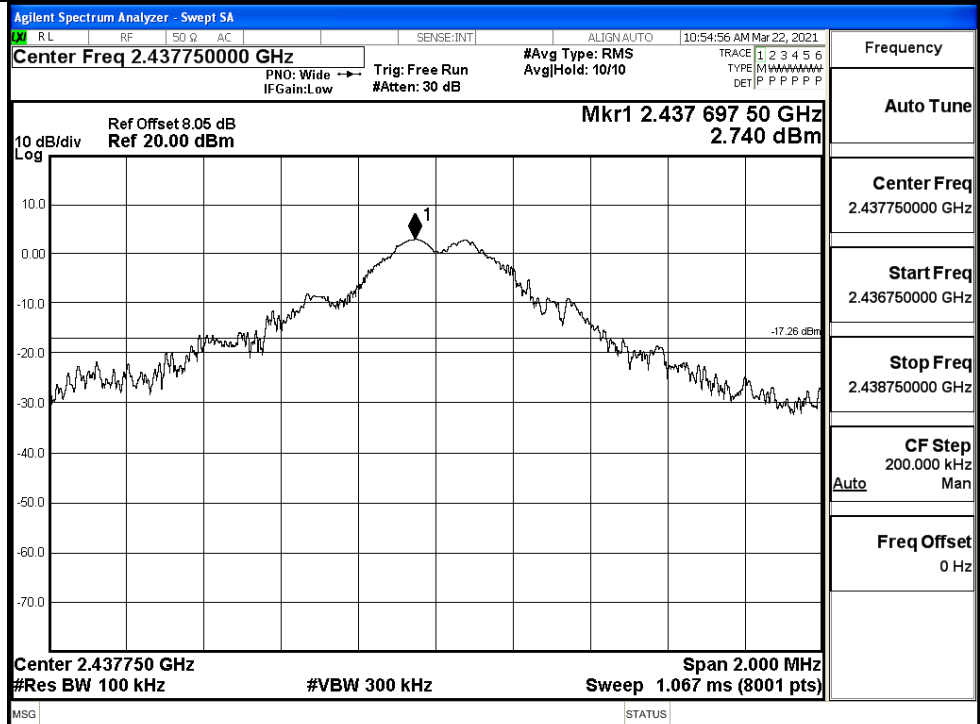


Puw/GFSK/MCH

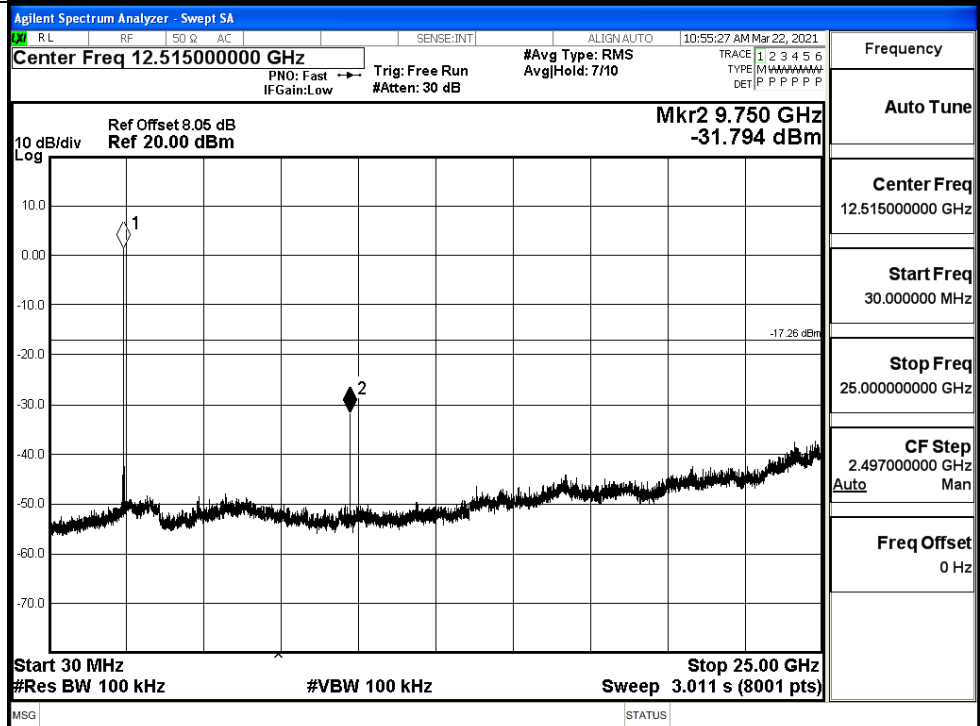


GFSK HCH Graphs

Pref/GFSK/HCH

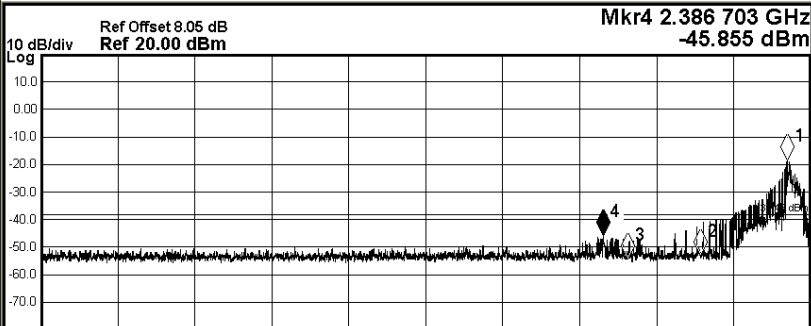
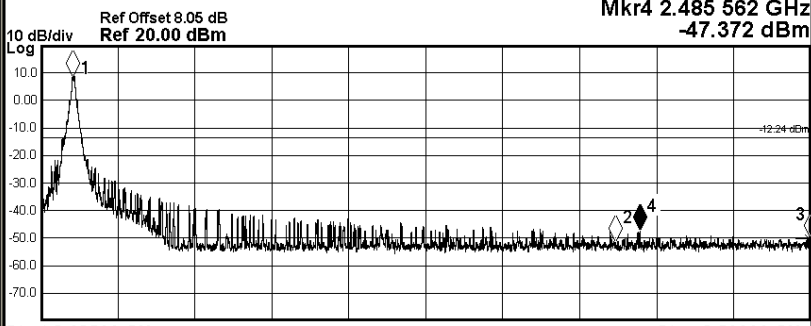


Puw/GFSK/HCH



A.6 Band-edge for RF Conducted Emissions

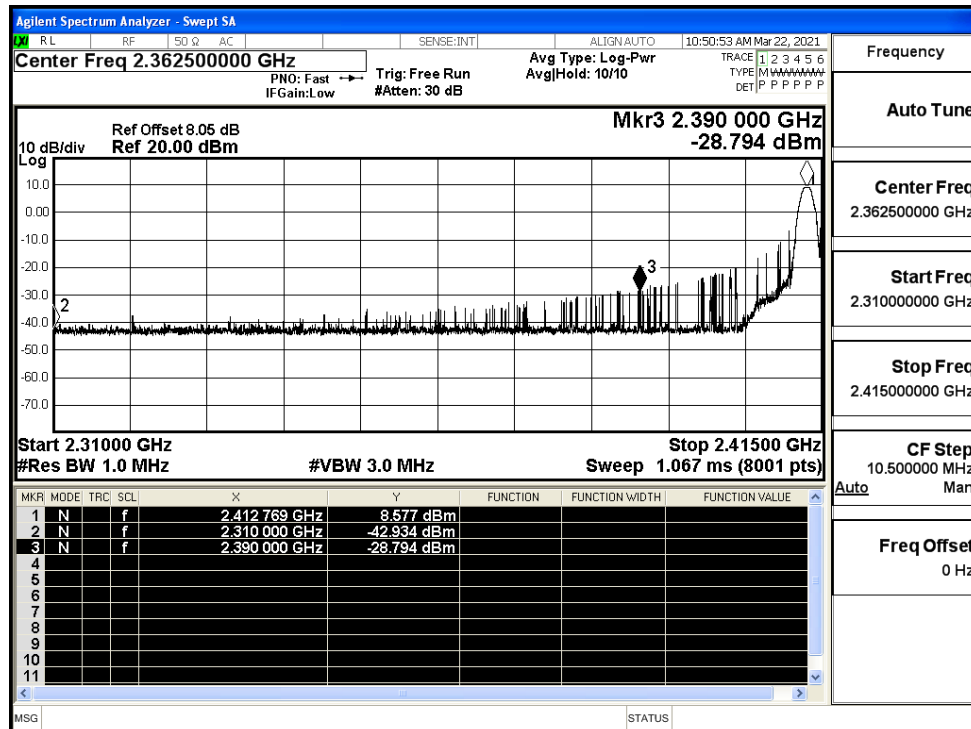
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-18.447	-45.855	-38.45	PASS
GFSK	HCH	12.761	-47.372	-7.24	PASS

Test Graphs																																																																																																																
LCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Q AC SENSE:INT ALIGN:AUTO 10:49:53 AM Mar 22, 2021 Center Freq 2.362500000 GHz PNO: Fast Trig: Free Run #Avg Type: RMS Avg/Hold: 10/10 TRACE 1 2 3 4 5 6 TYPE: M W M M M M M M M M DET: P P P P P P P P Ref Offset 8.05 dB Ref 20.00 dBm Mkr4 2.386 703 GHz -45.855 dBm 10 dB/div Log  Start 2.31000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.41500 GHz Sweep 10.13 ms (8001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td></td><td>f</td><td>2.411 784 GHz</td><td>-18.447 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td></td><td>f</td><td>2.400 000 GHz</td><td>-53.065 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td></td><td>f</td><td>2.390 000 GHz</td><td>-54.438 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td></td><td>f</td><td>2.386 703 GHz</td><td>-45.855 dBm</td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> MSG STATUS			MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N		f	2.411 784 GHz	-18.447 dBm				2	N		f	2.400 000 GHz	-53.065 dBm				3	N		f	2.390 000 GHz	-54.438 dBm				4	N		f	2.386 703 GHz	-45.855 dBm				5									6									7									8									9									10									11									Frequency Auto Tune Center Freq 2.362500000 GHz Start Freq 2.310000000 GHz Stop Freq 2.415000000 GHz CF Step 10.500000 MHz Freq Offset 0 Hz
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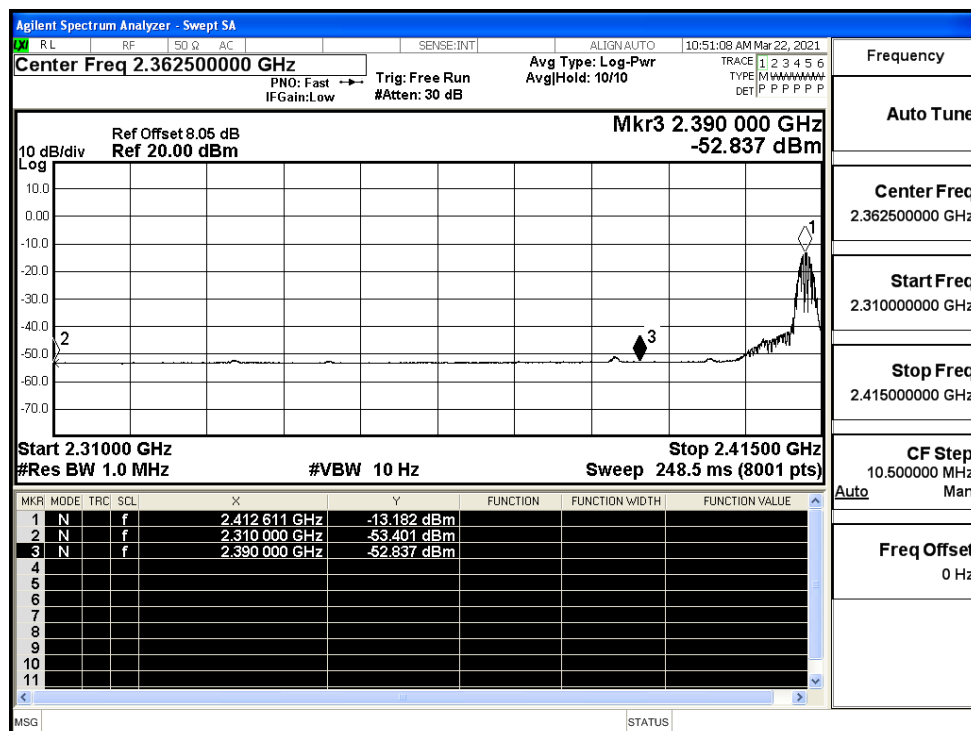
A.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
GFSK	2412.7 5	Ant1	2310.0	-42.93	2.0	0	52.32	PEAK	74	PASS
		Ant1	2310.0	-53.40	2.0	0	41.86	AV	54	PASS
		Ant1	2390.0	-28.79	2.0	0	66.46	PEAK	74	PASS
		Ant1	2390.0	-52.84	2.0	0	42.42	AV	54	PASS
	2437.2 5	Ant1	2483.5	-30.97	2.0	0	64.29	PEAK	74	PASS
		Ant1	2483.5	-52.63	2.0	0	42.62	AV	54	PASS
		Ant1	2500.0	-42.72	2.0	0	52.53	PEAK	74	PASS
		Ant1	2500.0	-52.37	2.0	0	42.89	AV	54	PASS

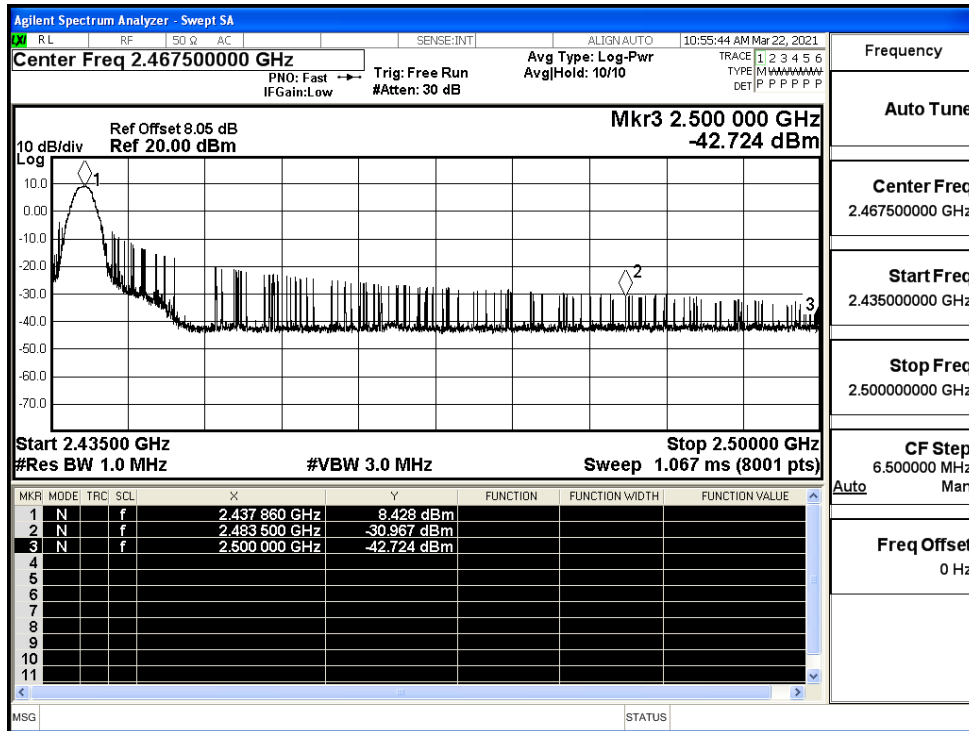
Restrict-band band-edge measurements_GFSK_2412.75_Ant1_PEAK



Restrict-band band-edge measurements_GFSK_2412.75_Ant1_AV



Restrict-band band-edge measurements_GFSK_2437.25_Ant1_PEAK



Restrict-band band-edge measurements_GFSK_2437.25_Ant1_AV

