



Appendix H: Test Data for E-UTRA Band 13

Product Name: Personal Safety Watch

Trade Mark: N/A

Test Model: EV-05

Environmental Conditions

Temperature:	21.5° C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan



H.1 Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#12	25.10	PASS
Band13	5MHz	QPSK	23205	1RB#24	25.53	PASS
Band13	5MHz	QPSK	23205	1RB#0	25.08	PASS
Band13	5MHz	QPSK	23205	12RB#0	24.19	PASS
Band13	5MHz	QPSK	23205	12RB#6	24.22	PASS
Band13	5MHz	QPSK	23205	12RB#13	24.13	PASS
Band13	5MHz	QPSK	23205	25RB#0	24.12	PASS
Band13	5MHz	QPSK	23230	1RB#0	25.07	PASS
Band13	5MHz	QPSK	23230	1RB#12	25.30	PASS
Band13	5MHz	QPSK	23230	1RB#24	25.13	PASS
Band13	5MHz	QPSK	23230	12RB#0	24.17	PASS
Band13	5MHz	QPSK	23230	12RB#6	24.18	PASS
Band13	5MHz	QPSK	23230	12RB#13	24.34	PASS
Band13	5MHz	QPSK	23230	25RB#0	24.06	PASS
Band13	5MHz	QPSK	23255	1RB#24	25.30	PASS
Band13	5MHz	QPSK	23255	1RB#0	25.38	PASS
Band13	5MHz	QPSK	23255	1RB#12	25.34	PASS
Band13	5MHz	QPSK	23255	12RB#6	24.19	PASS
Band13	5MHz	QPSK	23255	12RB#0	24.21	PASS
Band13	5MHz	QPSK	23255	12RB#13	24.23	PASS
Band13	5MHz	QPSK	23255	25RB#0	24.11	PASS
Band13	5MHz	16QAM	23205	1RB#12	24.05	PASS
Band13	5MHz	16QAM	23205	1RB#0	24.06	PASS
Band13	5MHz	16QAM	23205	1RB#24	23.91	PASS
Band13	5MHz	16QAM	23205	12RB#13	22.92	PASS
Band13	5MHz	16QAM	23205	12RB#6	23.22	PASS
Band13	5MHz	16QAM	23205	12RB#0	23.19	PASS
Band13	5MHz	16QAM	23205	25RB#0	23.33	PASS
Band13	5MHz	16QAM	23230	1RB#0	23.65	PASS
Band13	5MHz	16QAM	23230	1RB#12	23.95	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.83	PASS
Band13	5MHz	16QAM	23230	12RB#0	23.18	PASS
Band13	5MHz	16QAM	23230	12RB#6	23.19	PASS



Band13	5MHz	16QAM	23230	12RB#13	23.17	PASS
Band13	5MHz	16QAM	23230	25RB#0	23.31	PASS
Band13	5MHz	16QAM	23255	1RB#0	24.15	PASS
Band13	5MHz	16QAM	23255	1RB#12	24.29	PASS
Band13	5MHz	16QAM	23255	1RB#24	23.98	PASS
Band13	5MHz	16QAM	23255	12RB#13	23.14	PASS
Band13	5MHz	16QAM	23255	12RB#0	23.28	PASS
Band13	5MHz	16QAM	23255	12RB#6	23.35	PASS
Band13	5MHz	16QAM	23255	25RB#0	23.21	PASS
Band13	10MHz	QPSK	23230	1RB#49	25.53	PASS
Band13	10MHz	QPSK	23230	1RB#24	25.64	PASS
Band13	10MHz	QPSK	23230	1RB#0	25.03	PASS
Band13	10MHz	QPSK	23230	25RB#0	24.30	PASS
Band13	10MHz	QPSK	23230	25RB#12	24.40	PASS
Band13	10MHz	QPSK	23230	25RB#25	24.44	PASS
Band13	10MHz	QPSK	23230	50RB#0	24.46	PASS
Band13	10MHz	16QAM	23230	1RB#49	24.01	PASS
Band13	10MHz	16QAM	23230	1RB#0	24.28	PASS
Band13	10MHz	16QAM	23230	1RB#24	24.61	PASS
Band13	10MHz	16QAM	23230	25RB#0	23.26	PASS
Band13	10MHz	16QAM	23230	25RB#12	23.45	PASS
Band13	10MHz	16QAM	23230	25RB#25	23.37	PASS
Band13	10MHz	16QAM	23230	50RB#0	23.38	PASS



H.2 Peak-to-Average Ratio(CCDF)

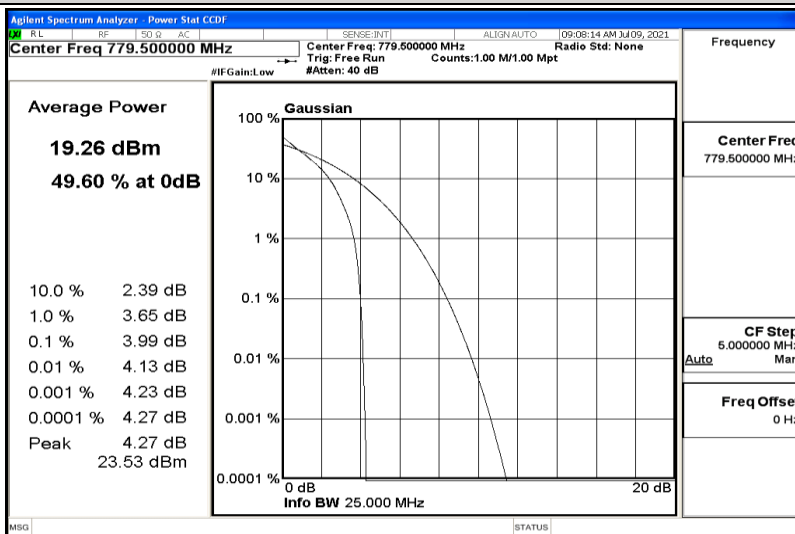
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	3.99	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.27	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.27	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.84	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.20	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	5.19	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	4.18	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.17	13	PASS

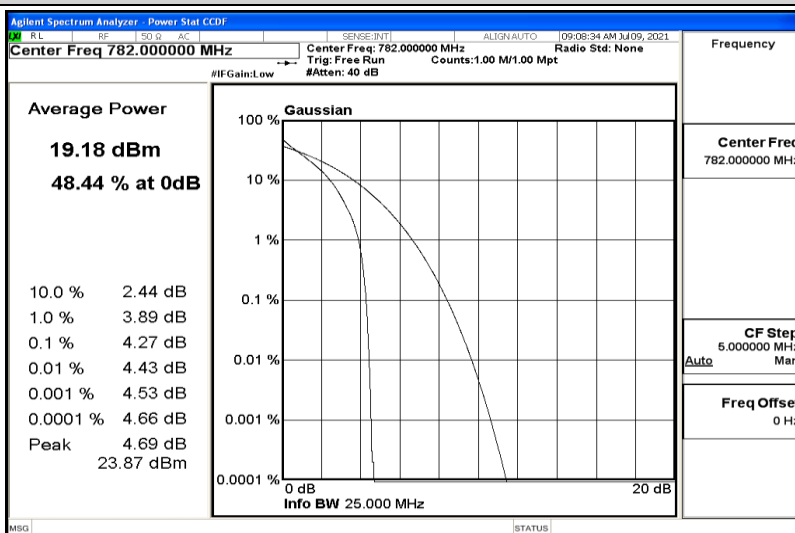


Test Graphs

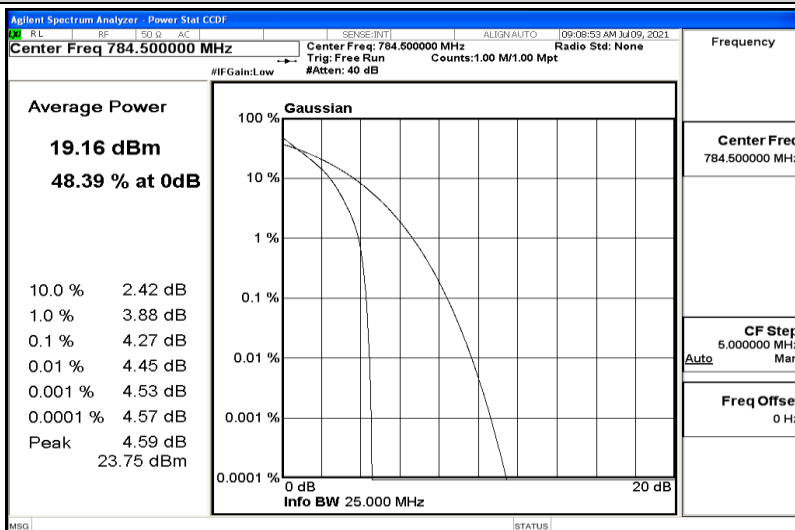
Band13-5MHz-QPSK-23205-25RB#0



Band13-5MHz-QPSK-23230-25RB#0

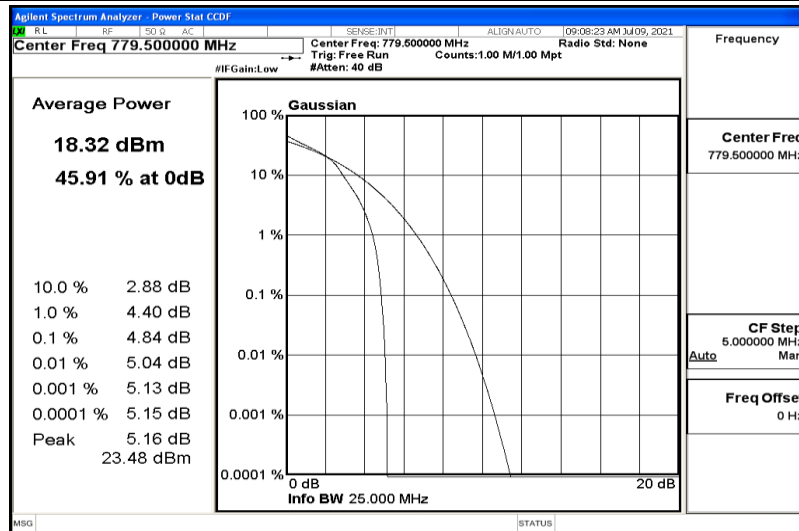


Band13-5MHz-QPSK-23255-25RB#0

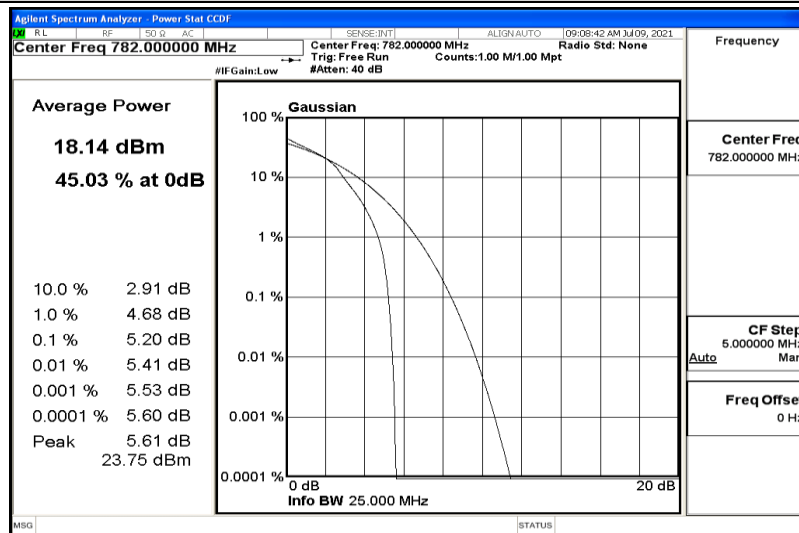




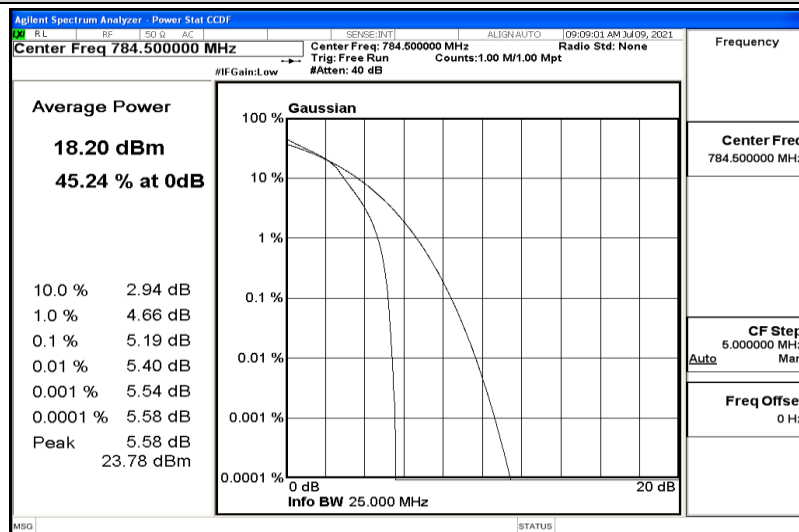
Band13-5MHz-16QAM-23205-25RB#0



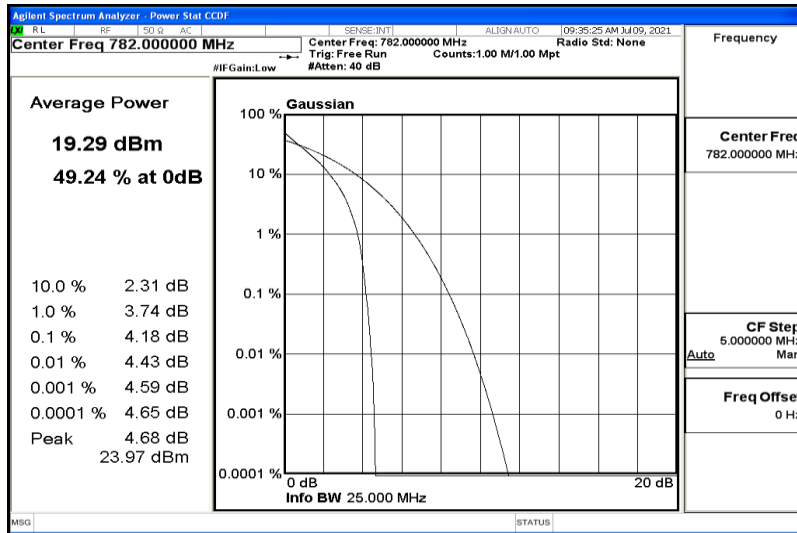
Band13-5MHz-16QAM-23230-25RB#0



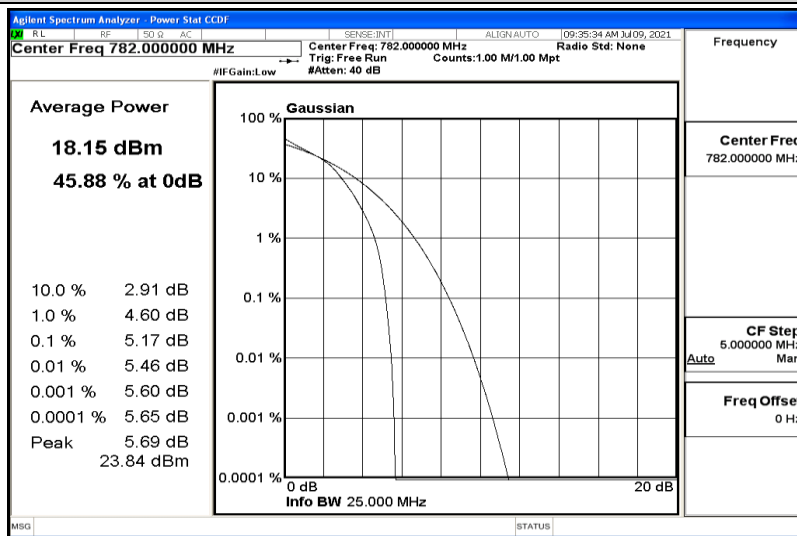
Band13-5MHz-16QAM-23255-25RB#0



Band13-10MHz-QPSK-23230-50RB#0



Band13-10MHz-16QAM-23230-50RB#0



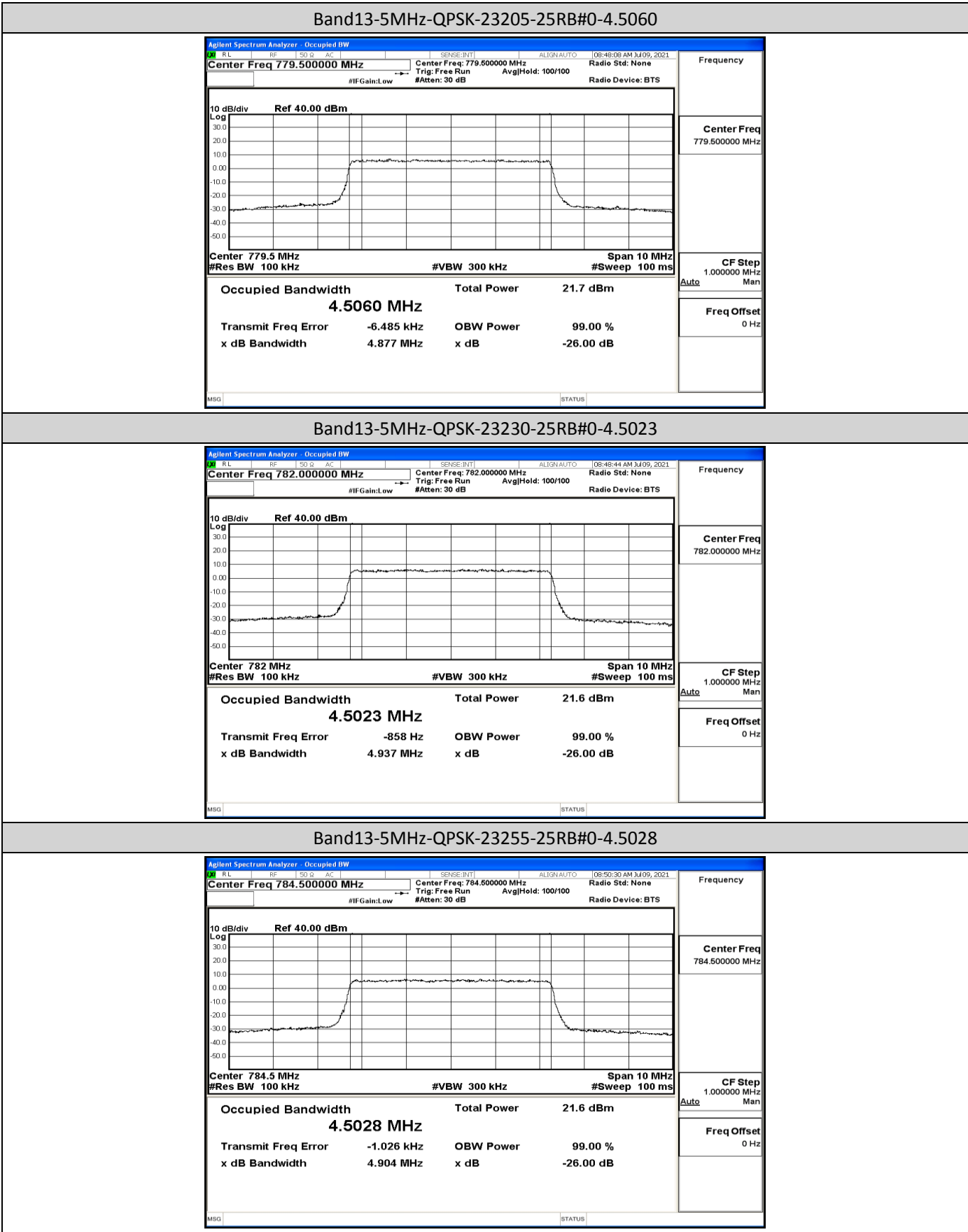


H.3 26dB Bandwidth and Occupied Bandwidth

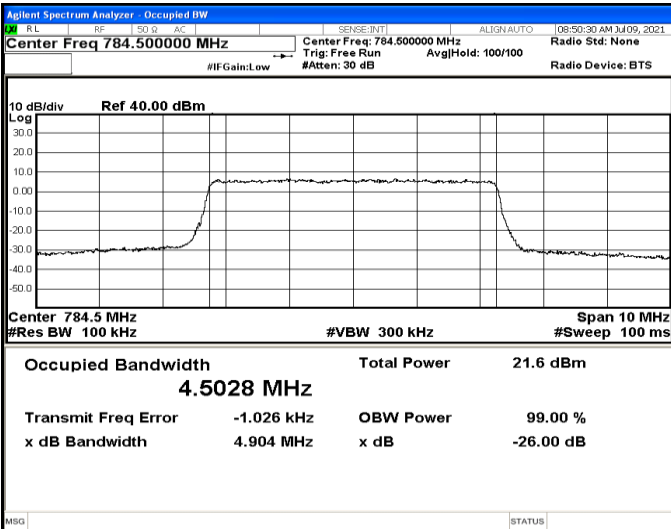
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5060	4.877	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5023	4.937	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5028	4.904	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5010	4.878	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5006	10.00	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5007	10.00	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9703	9.553	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9661	9.525	PASS

Test Graphs



Band13-5MHz-QPSK-23255-25RB#0-4.5028



Frequency

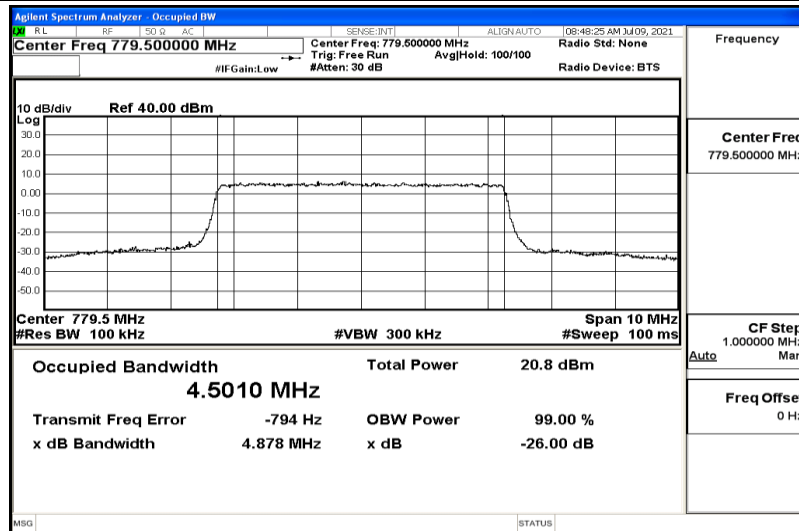
Center Freq
784.500000 MHz

CF Step
1.000000 MHz
Auto Man

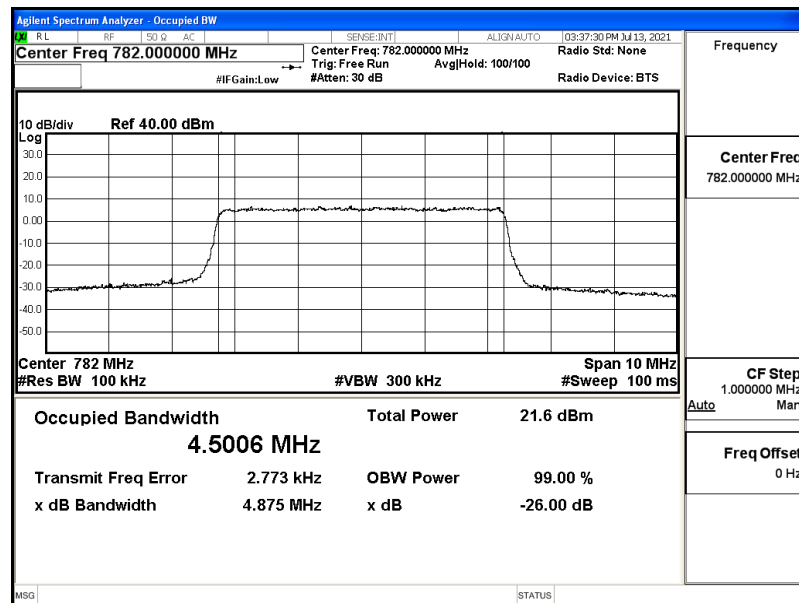
Freq Offset
0 Hz



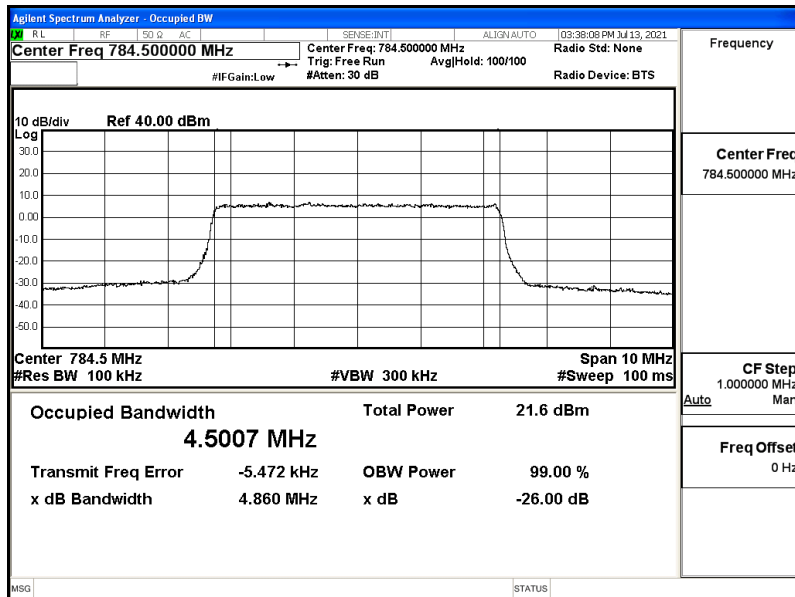
Band13-5MHz-16QAM-23205-25RB#0-4.5010



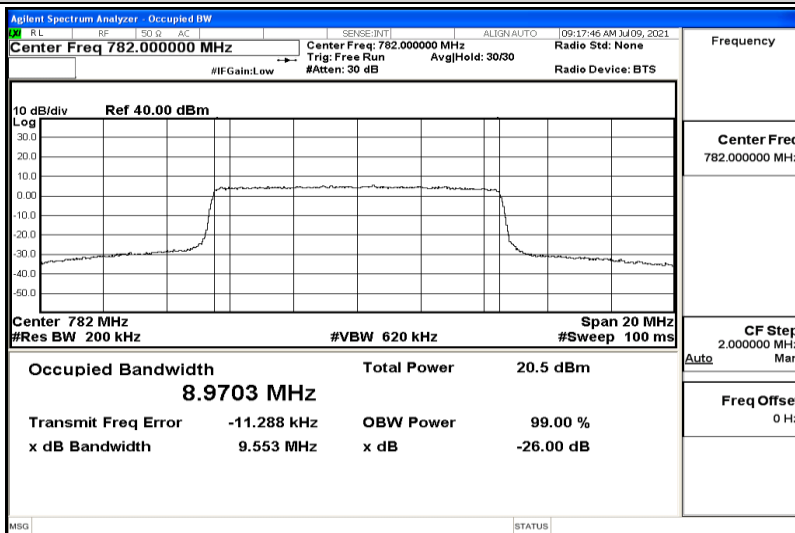
Band13-5MHz-16QAM-23230-25RB#0-9.9159



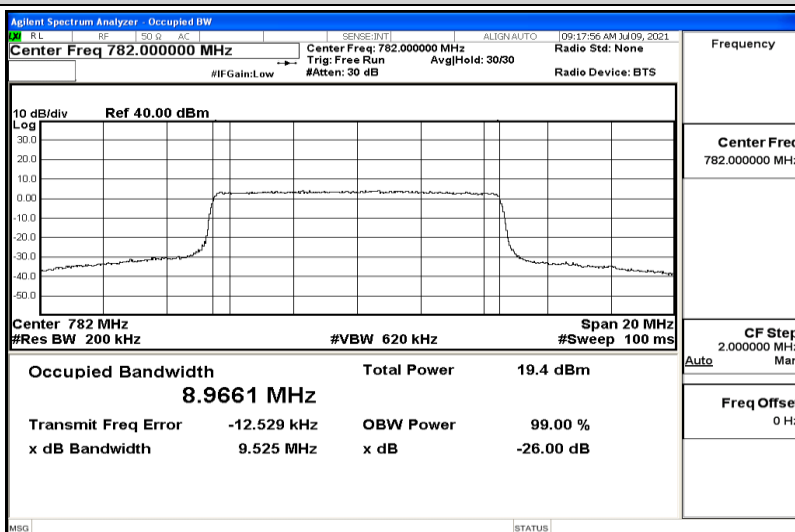
Band13-5MHz-16QAM-23255-25RB#0-9.9062



Band13-10MHz-QPSK-23230-50RB#0-8.9703



Band13-10MHz-16QAM-23230-50RB#0-8.9661

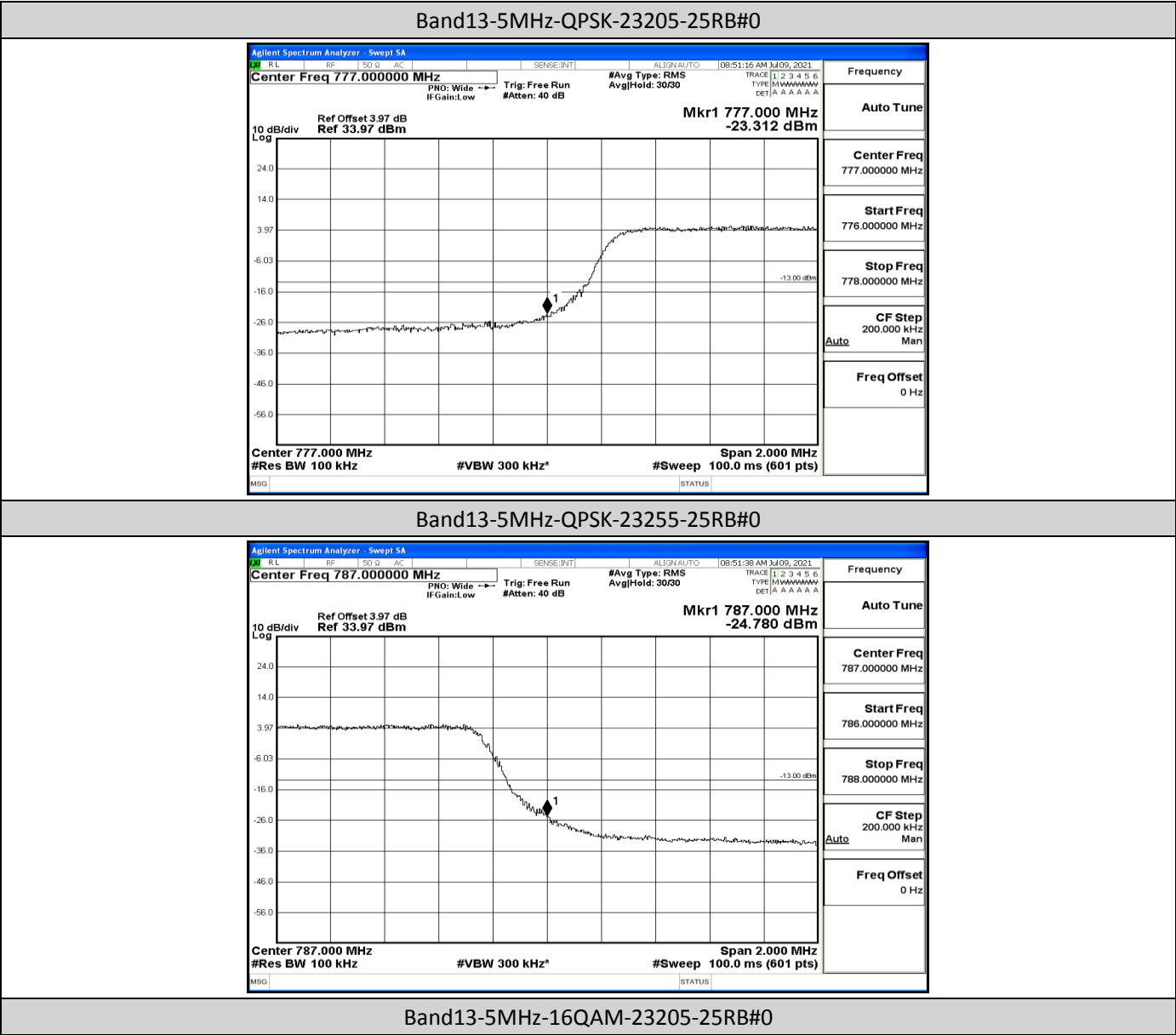


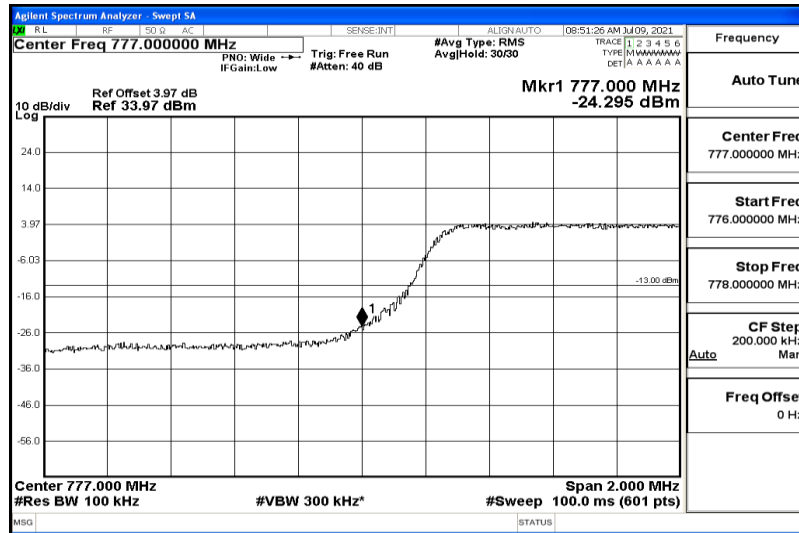
H.4 Band Edge

Test Result

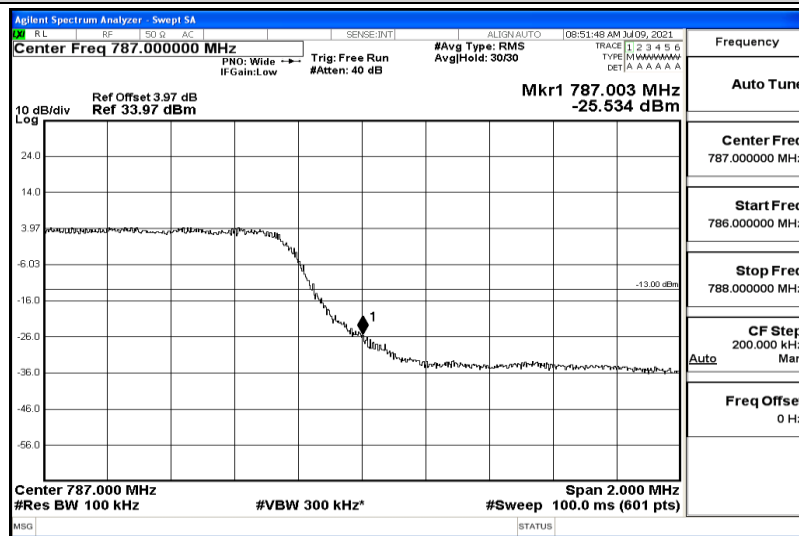
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	-23.31	PASS
Band13	5MHz	QPSK	23255	25RB#0	-24.78	PASS
Band13	5MHz	16QAM	23205	25RB#0	-24.30	PASS
Band13	5MHz	16QAM	23255	25RB#0	-25.53	PASS

Test Graphs





Band13-5MHz-16QAM-23255-25RB#0





(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0

Agilent Spectrum Analyzer - Sweep SA

RL RF 50 Q AC SENSE:INT ALIGN: AUTO 09:48:54 PM 3/10/2021

Center Freq 799.000000 MHz

PNO: Wide Trig: Free Run Avg Type: RMS
IF Gain: Low #Atten: 10 dB Avg Hold: 7/100

TRACE 1 2 3 4 5 6
TYPE [M] W A A A A A A A
DET [A] A A A A A A

Frequency

Auto Tune

Center Freq
799.000000 MHz

Start Freq
793.000000 MHz

Stop Freq
805.000000 MHz

CF Step
1.200000 MHz
Auto Man

Freq Offset
0 Hz

10 dB/div
Log

Ref Offset 3.97 dB
Ref 10.00 dBm

Mkr1 793.264 MHz
-77.058 dBm

-35.00 dBm

Start 793.000 MHz
#Res BW 6.8 kHz

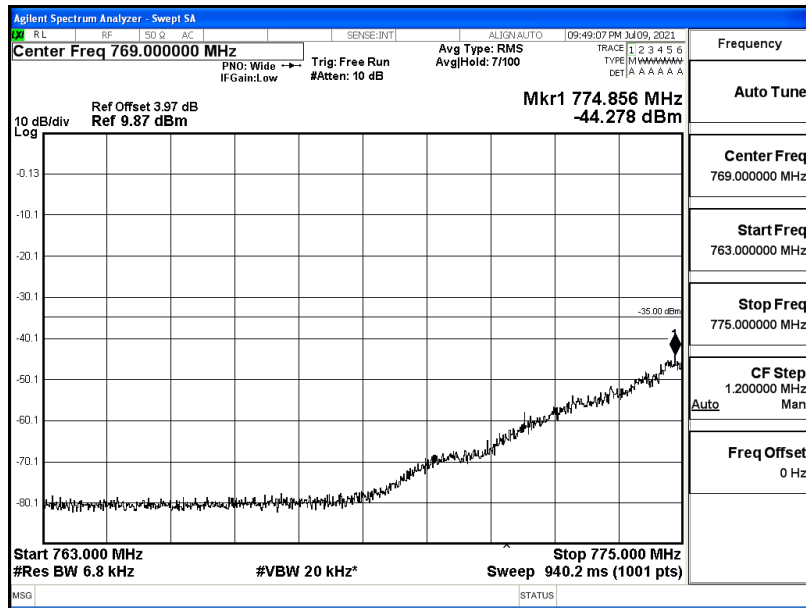
#VBW 20 kHz*

Stop 805.000 MHz
Sweep 940.2 ms (1001 pts)

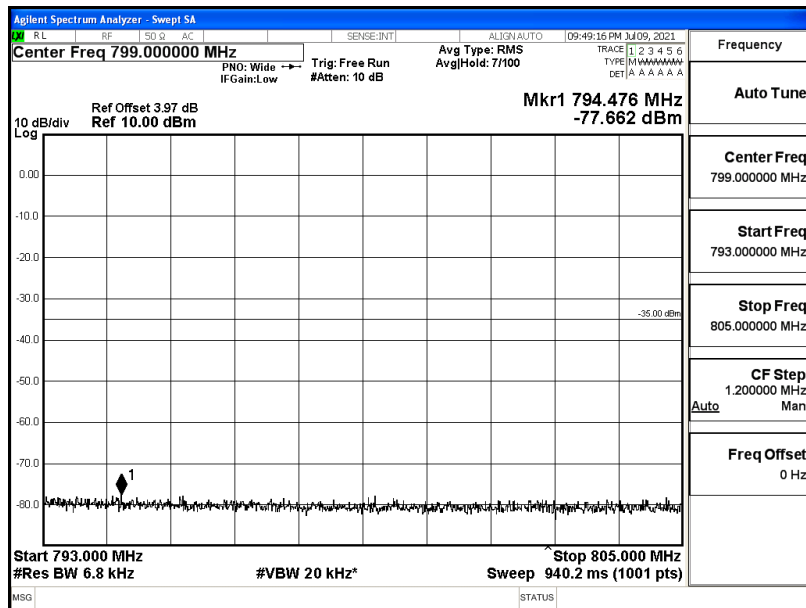
MSG STATUS

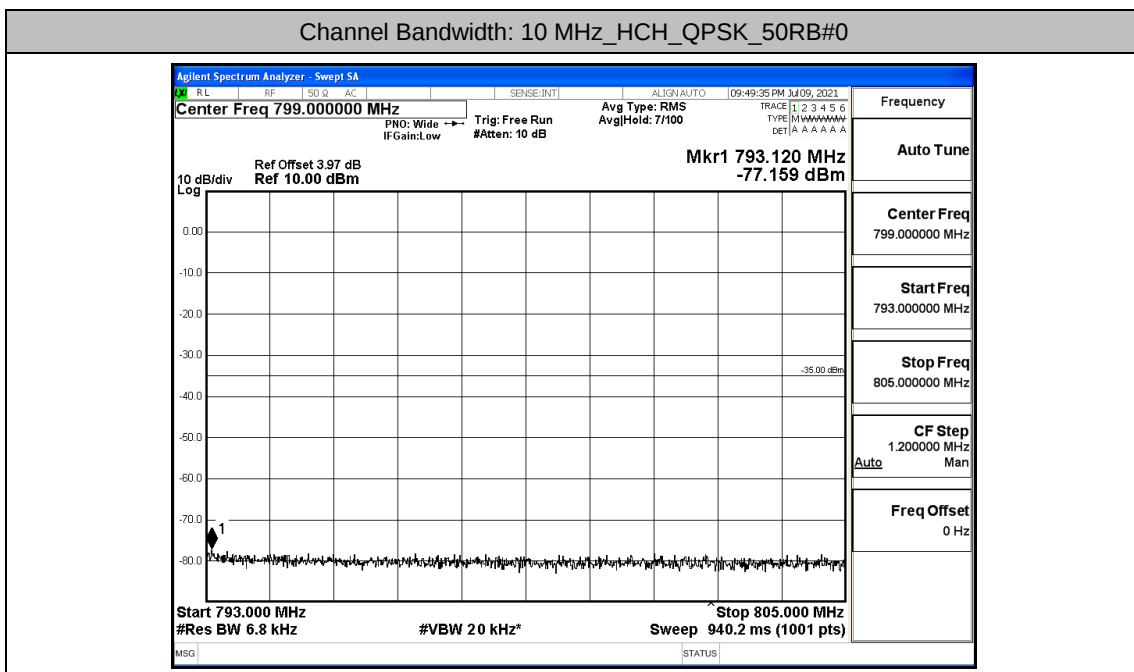
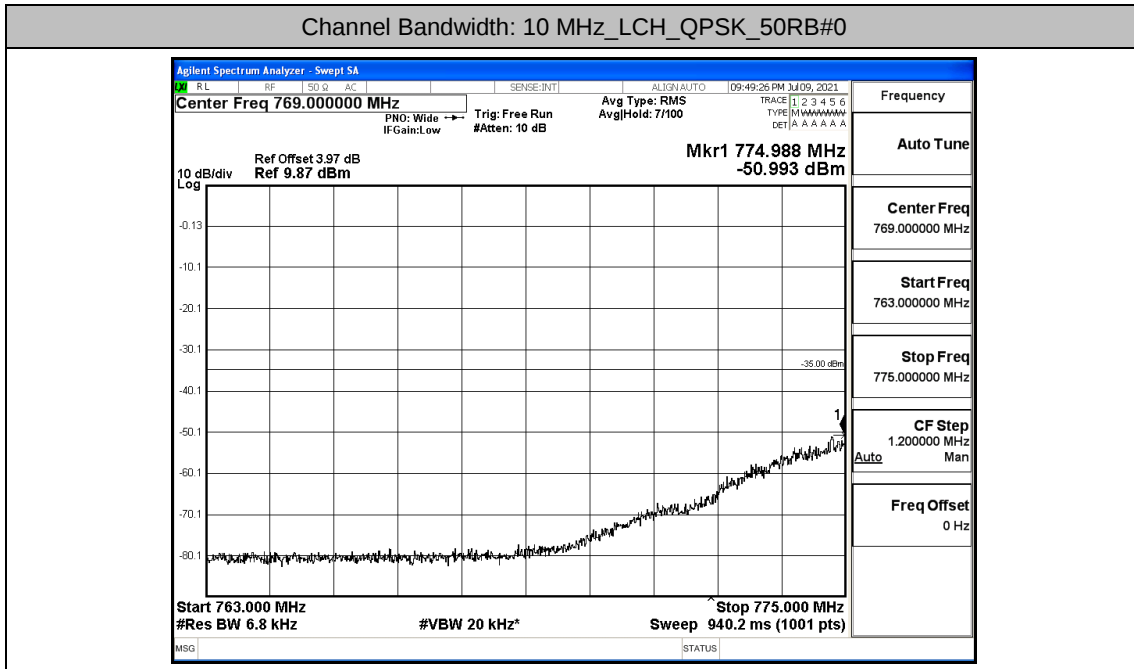


(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



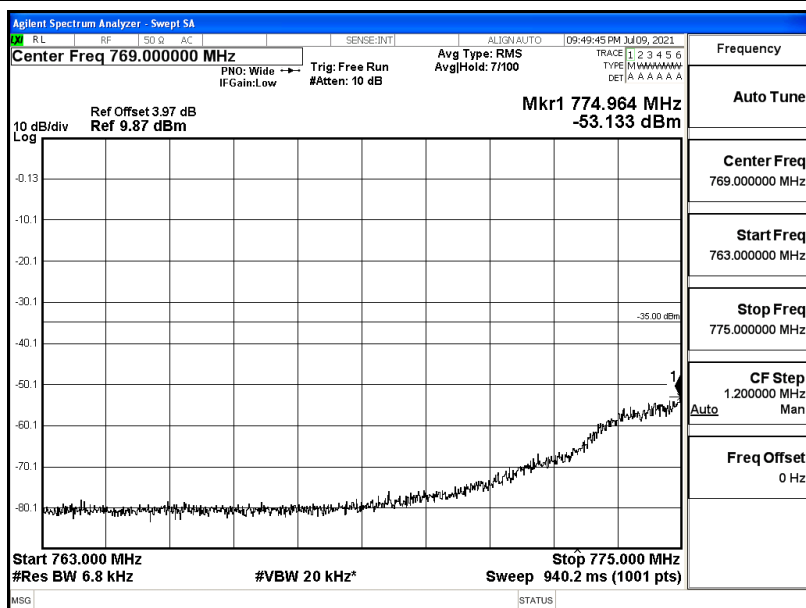
(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



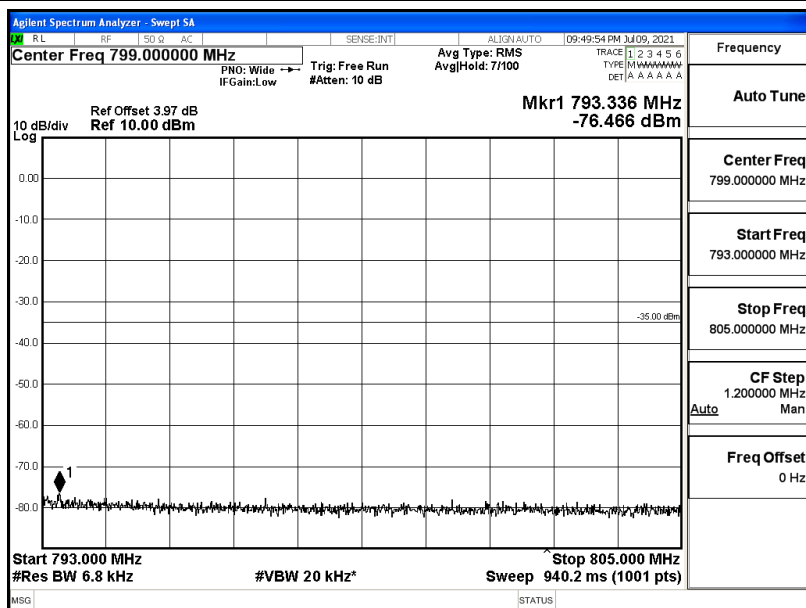
**Channel Bandwidth: 10 MHz**



Channel Bandwidth: 10 MHz_LCH_16QAM_50RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_50RB#0





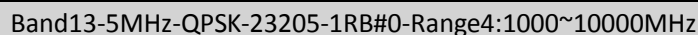
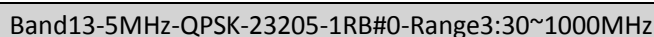
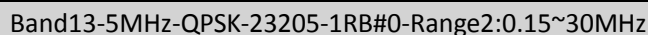
H.5 Conducted Spurious Emission

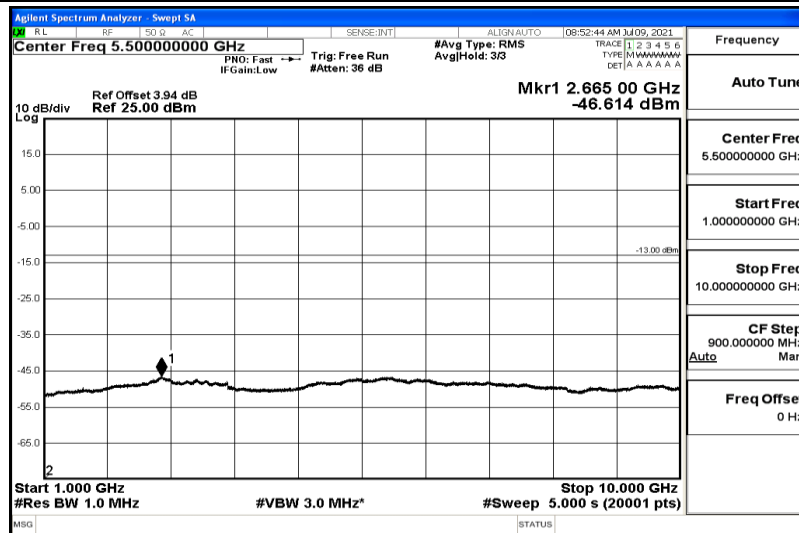
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	Range1:0.009~0.15MHz	-72.68	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:0.15~30MHz	-69.96	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:30~1000MHz	-43.39	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range4:1000~10000MHz	-46.61	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-71.97	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-67.94	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-44.1	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range4:1000~10000MHz	-46.46	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:0.009~0.15MHz	-70.86	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:0.15~30MHz	-67.46	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:30~1000MHz	-43.56	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range4:1000~10000MHz	-46.39	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:0.009~0.15MHz	-72.08	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:0.15~30MHz	-68.27	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:30~1000MHz	-43.05	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range4:1000~10000MHz	-46.44	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-69.19	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-68.44	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-43.78	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range4:1000~10000MHz	-46.43	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:0.009~0.15MHz	-71.82	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:0.15~30MHz	-69.37	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:30~1000MHz	-41.94	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range4:1000~10000MHz	-46.52	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-71.69	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-68.04	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-43.3	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range4:1000~10000MHz	-46.65	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-72.4	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-67.17	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-43.93	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range4:1000~10000MHz	-46.61	PASS

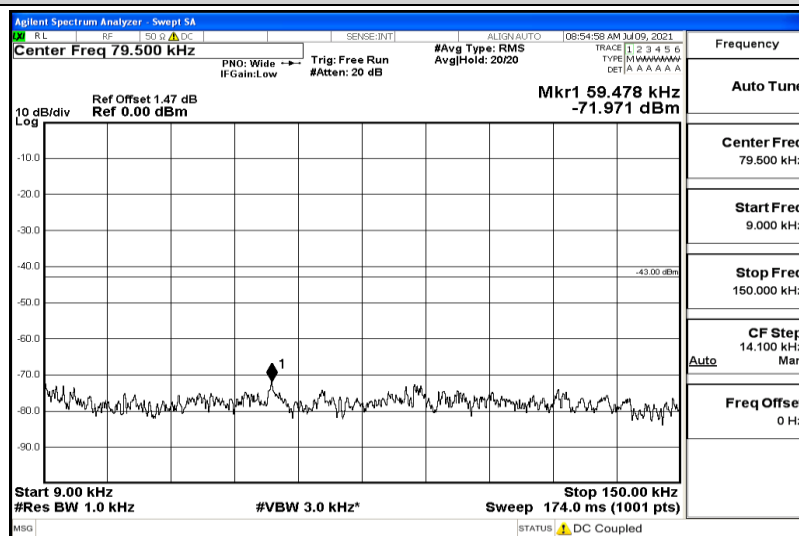


Band13-5MHz-QPSK-23205-1RB#0-Range1:0.009~0.15MHz

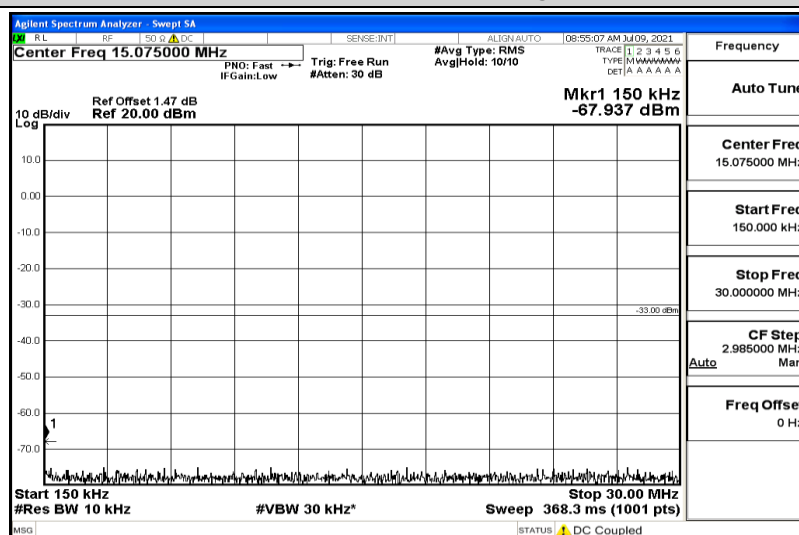




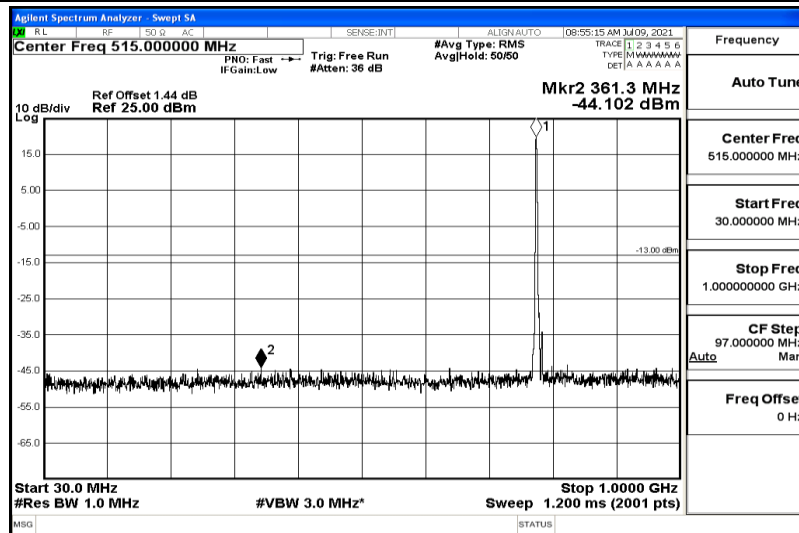
Band13-5MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



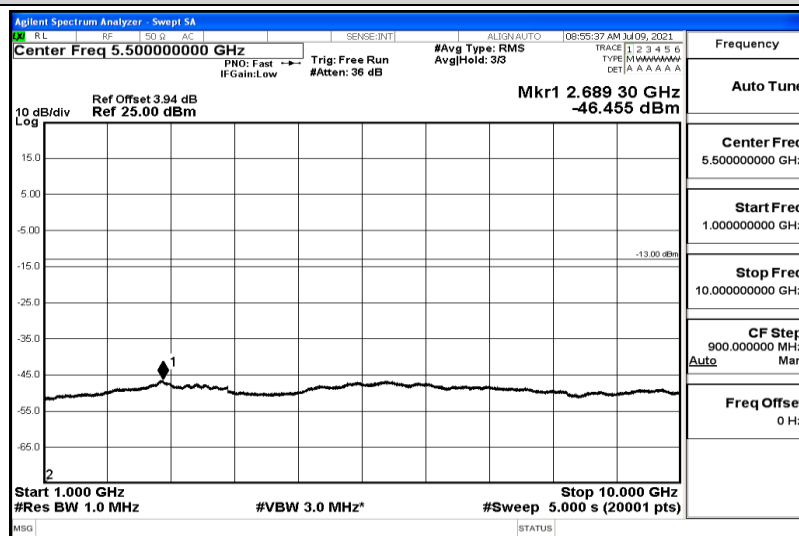
Band13-5MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



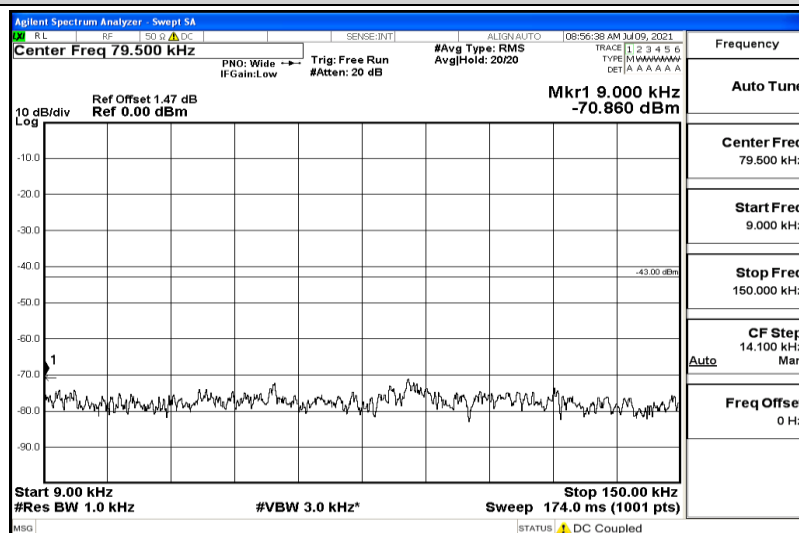
Band13-5MHz-QPSK-23230-1RB#0-Range3:30~1000MHz



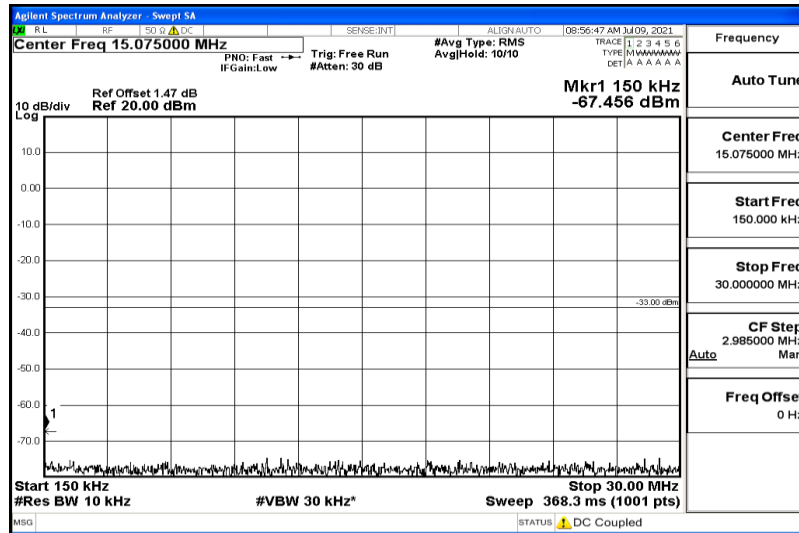
Band13-5MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz



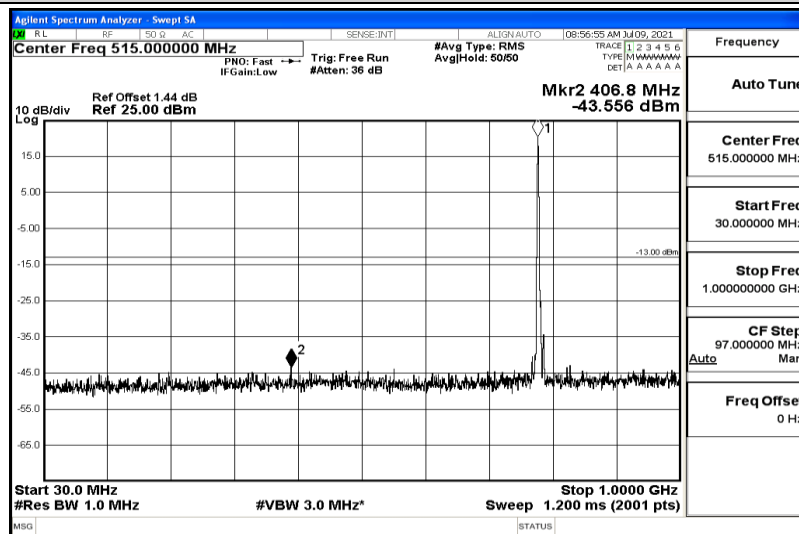
Band13-5MHz-QPSK-23255-1RB#0-Range1:0.009~0.15MHz



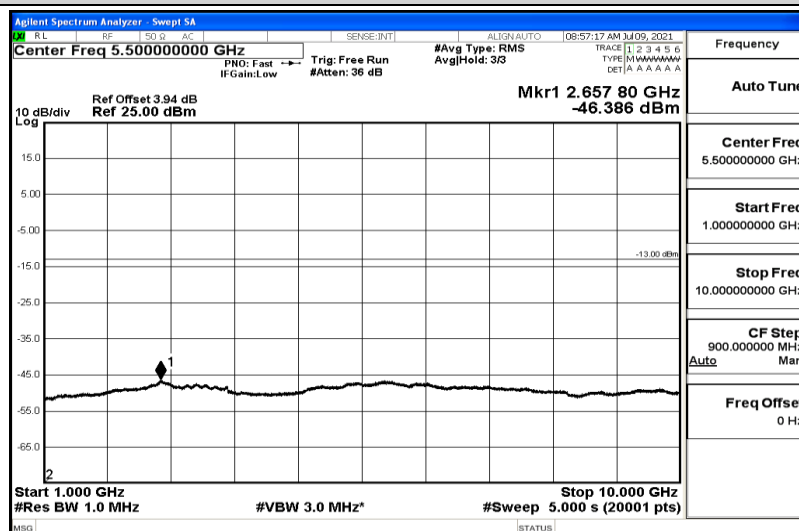
Band13-5MHz-QPSK-23255-1RB#0-Range2:0.15~30MHz



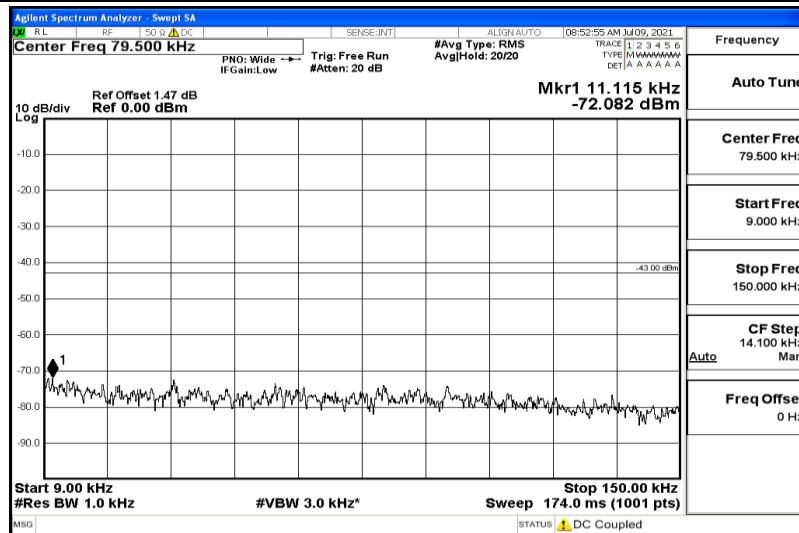
Band13-5MHz-QPSK-23255-1RB#0-Range3:30~1000MHz



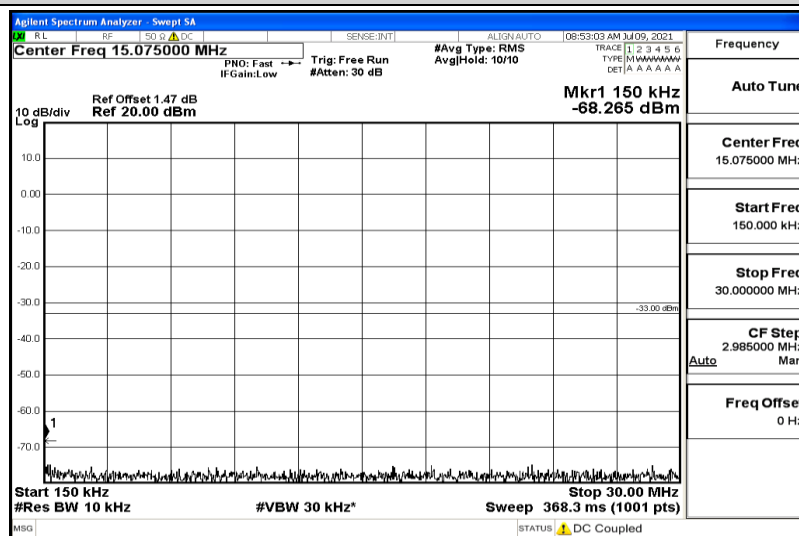
Band13-5MHz-QPSK-23255-1RB#0-Range4:1000~10000MHz



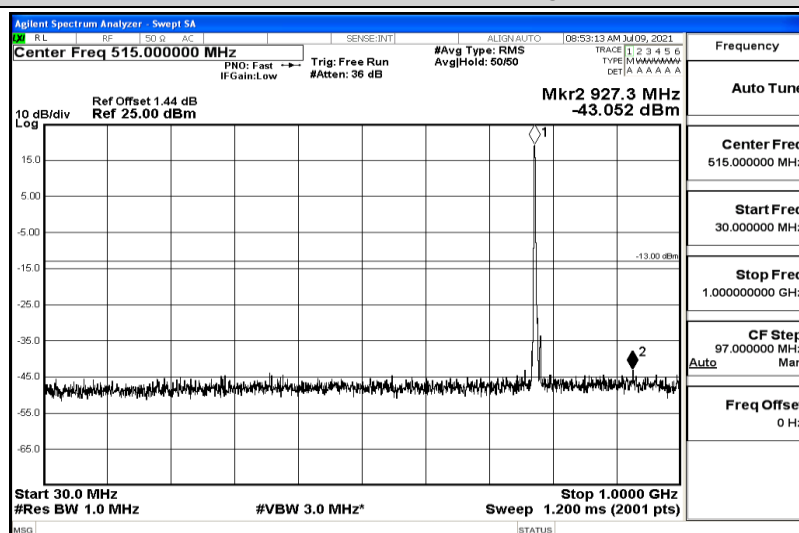
Band13-5MHz-16QAM-23205-1RB#0-Range1:0.009~0.15MHz



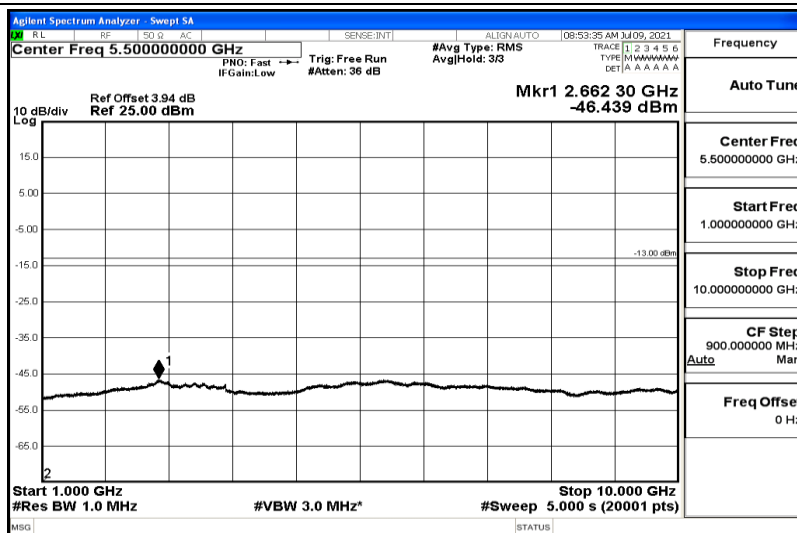
Band13-5MHz-16QAM-23205-1RB#0-Range2:0.15~30MHz



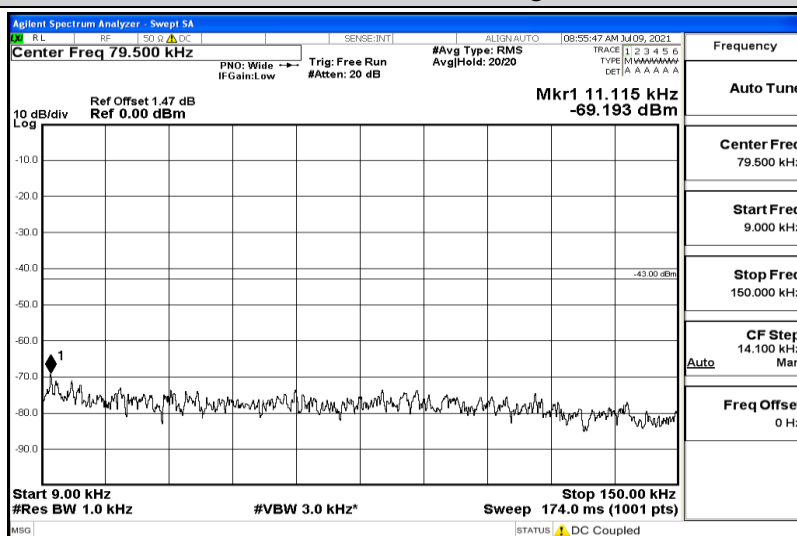
Band13-5MHz-16QAM-23205-1RB#0-Range3:30~1000MHz



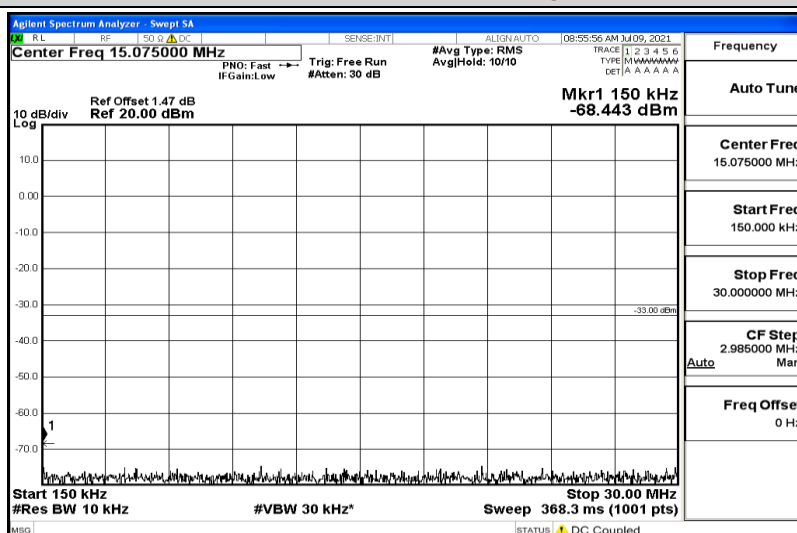
Band13-5MHz-16QAM-23205-1RB#0-Range4:1000~10000MHz



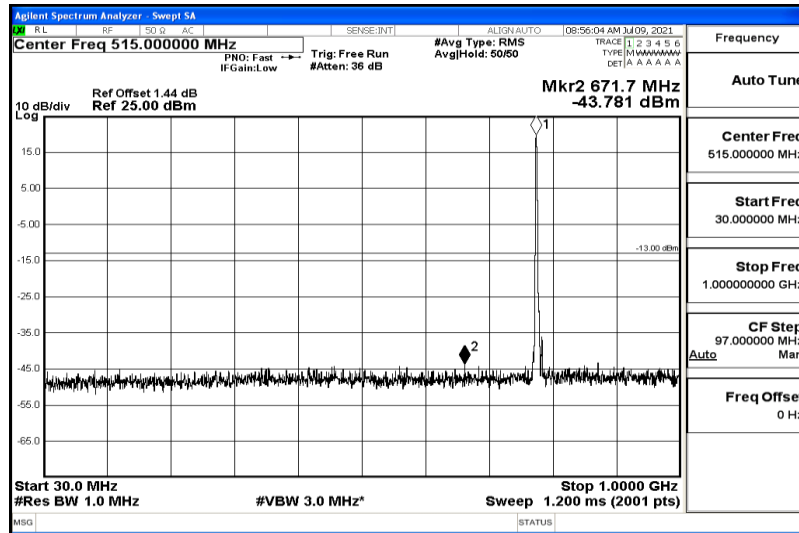
Band13-5MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



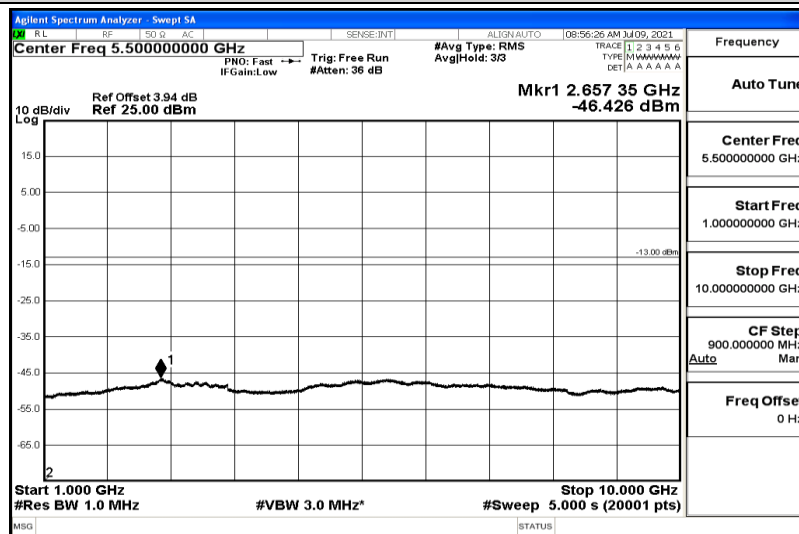
Band13-5MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



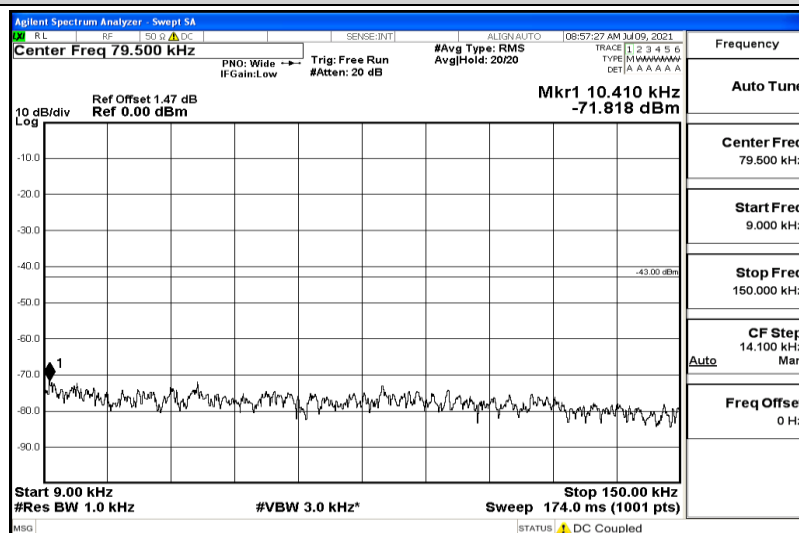
Band13-5MHz-16QAM-23230-1RB#0-Range3:30~1000MHz



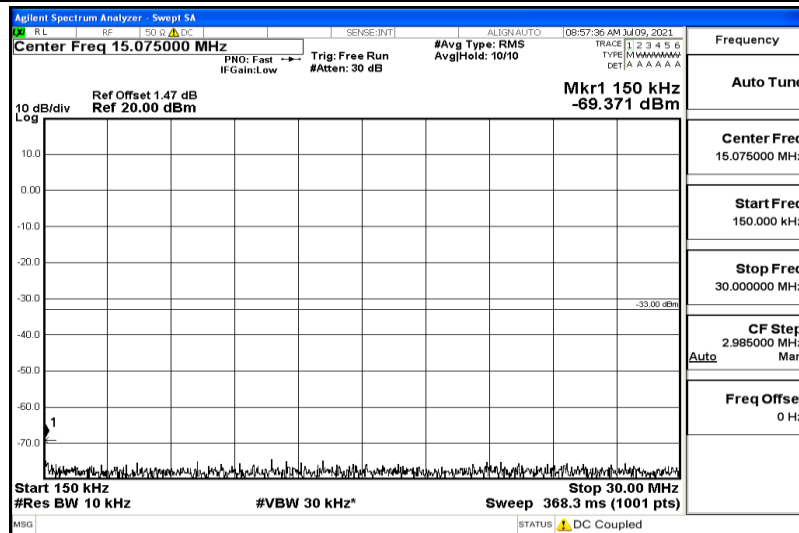
Band13-5MHz-16QAM-23230-1RB#0-Range4:1000~10000MHz



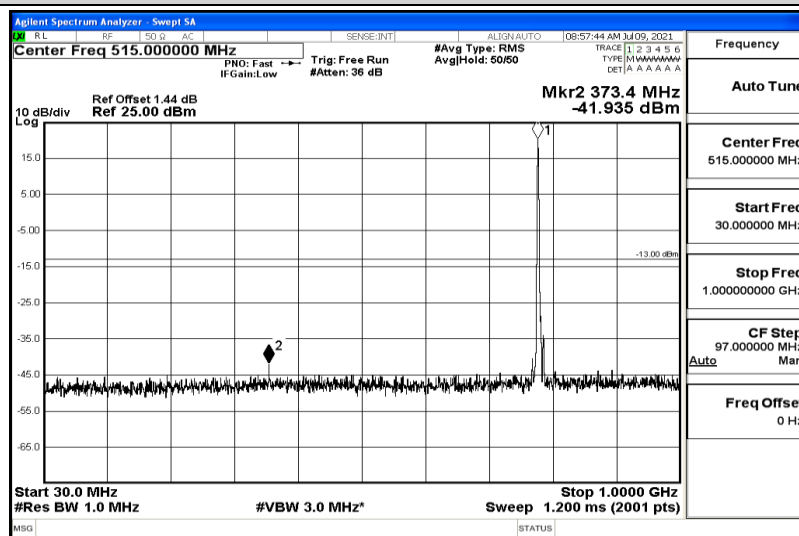
Band13-5MHz-16QAM-23255-1RB#0-Range1:0.009~0.15MHz



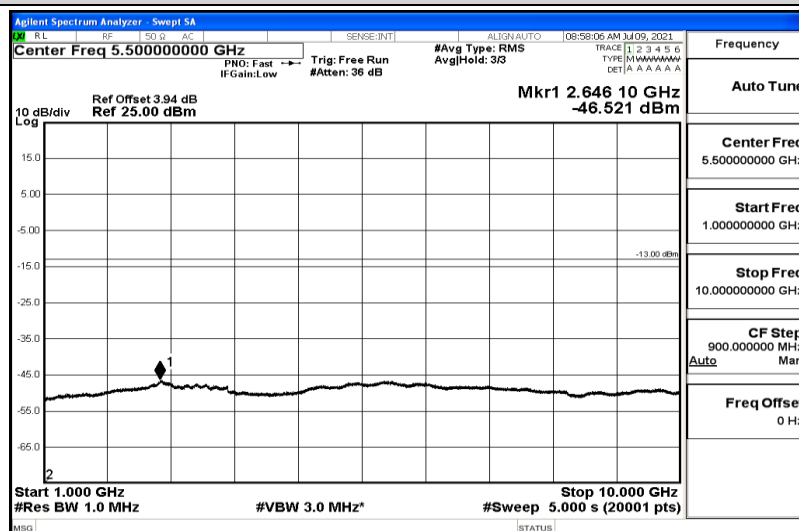
Band13-5MHz-16QAM-23255-1RB#0-Range2:0.15~30MHz



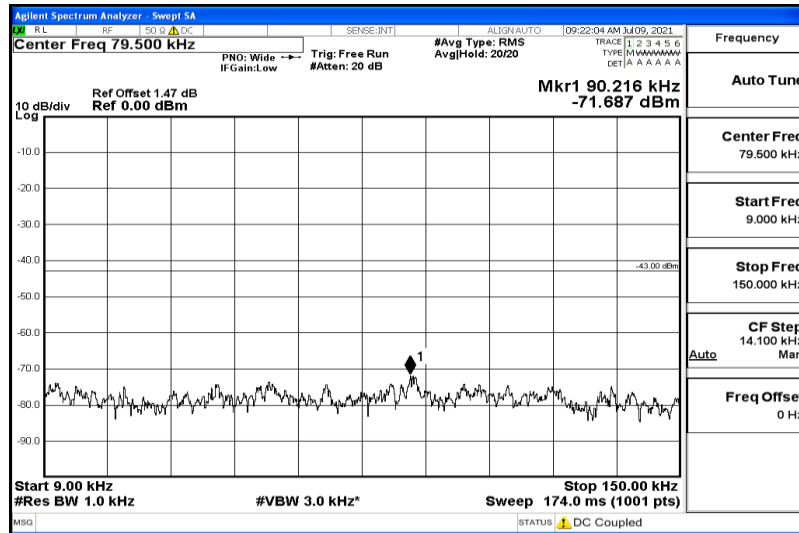
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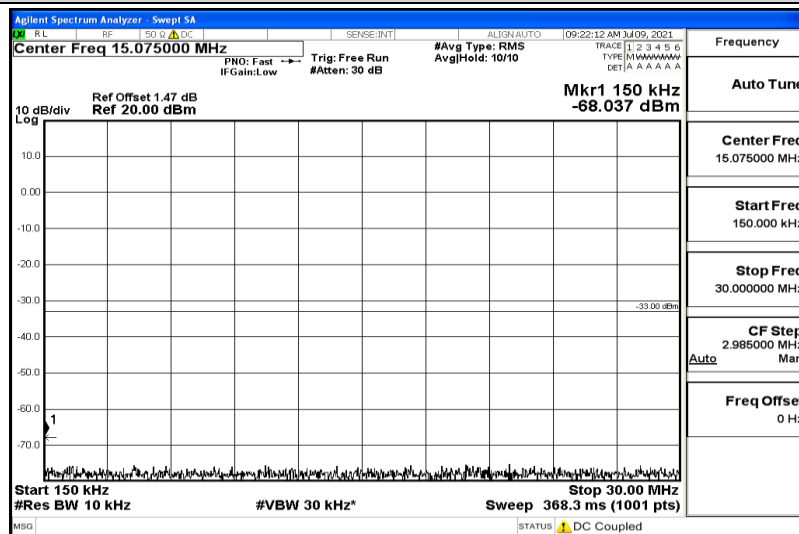
Band13-5MHz-16QAM-23255-1RB#0-Range4:1000~10000MHz



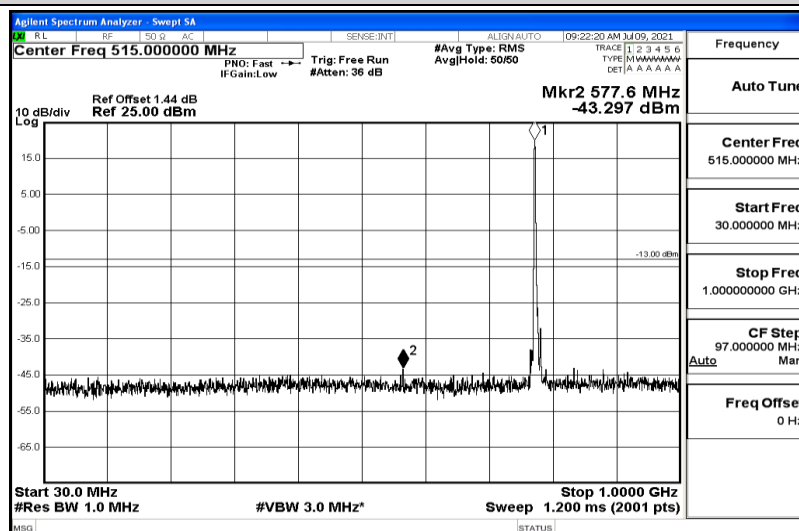
Band13-10MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



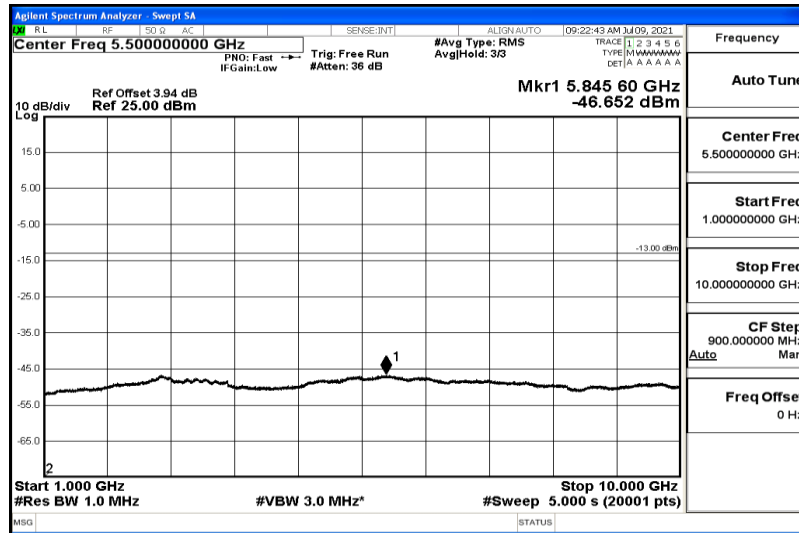
Band13-10MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



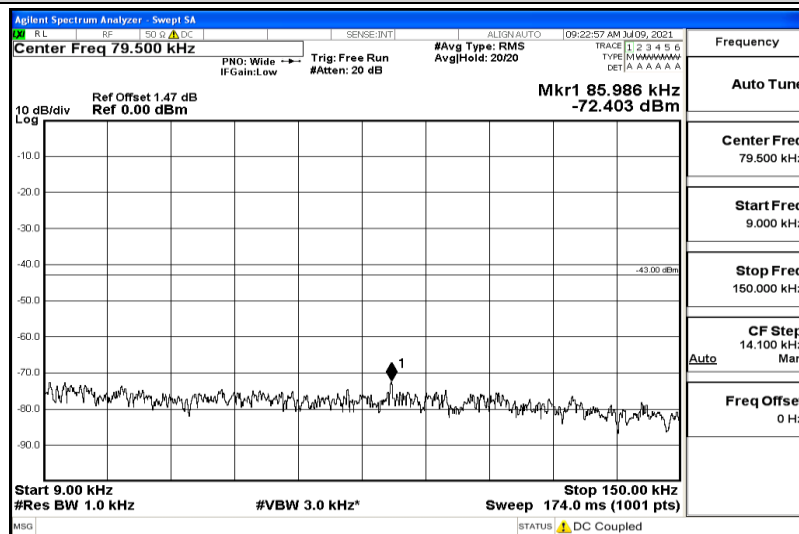
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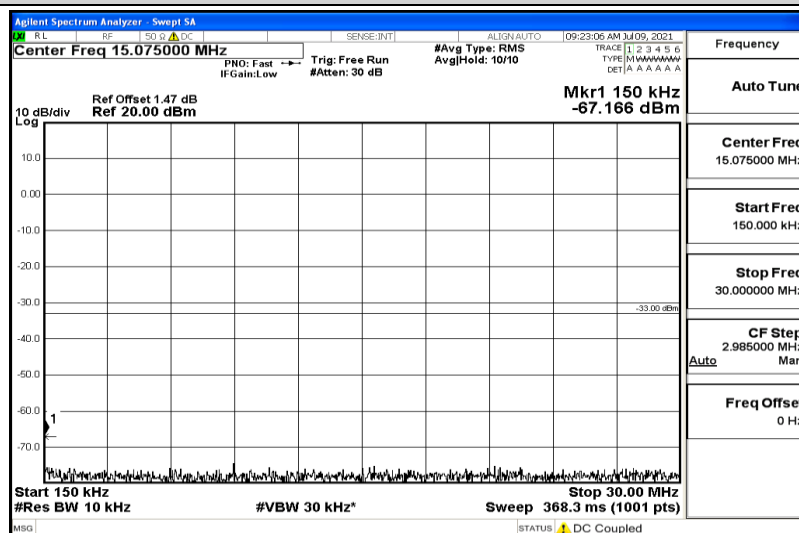
Band13-10MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz



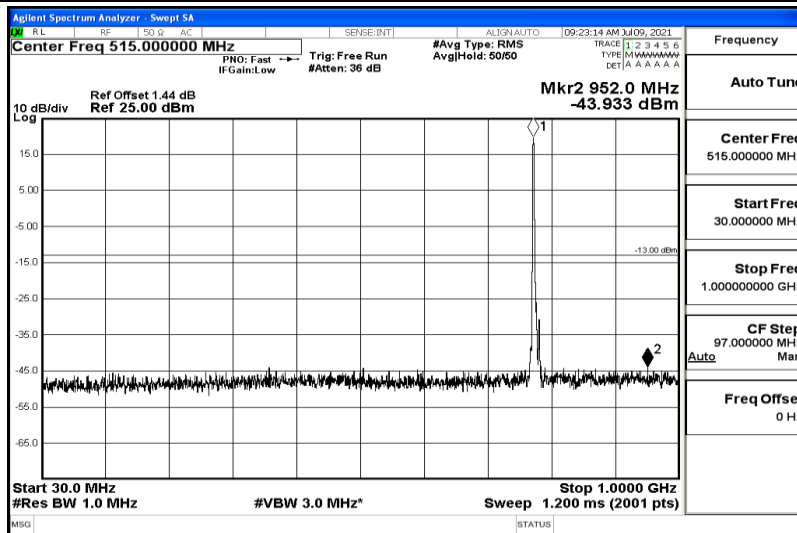
Band13-10MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



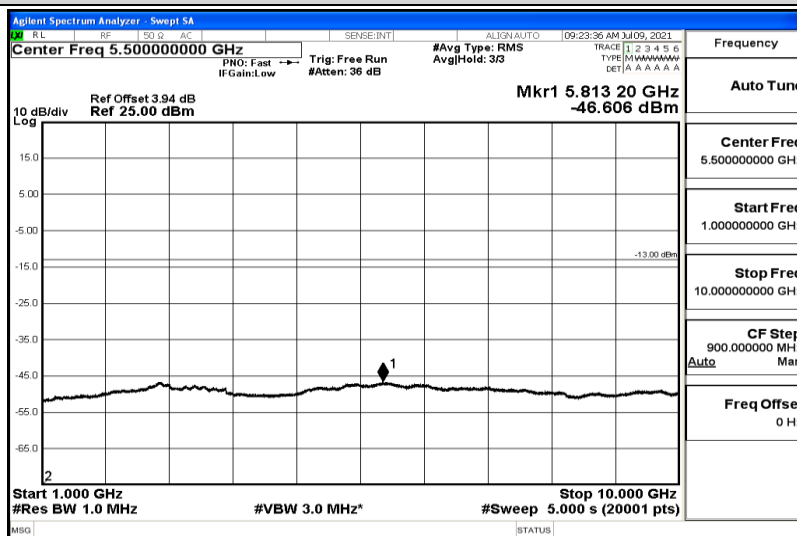
Band13-10MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



Band13-10MHz-16QAM-23230-1RB#0-Range3:30~1000MHz

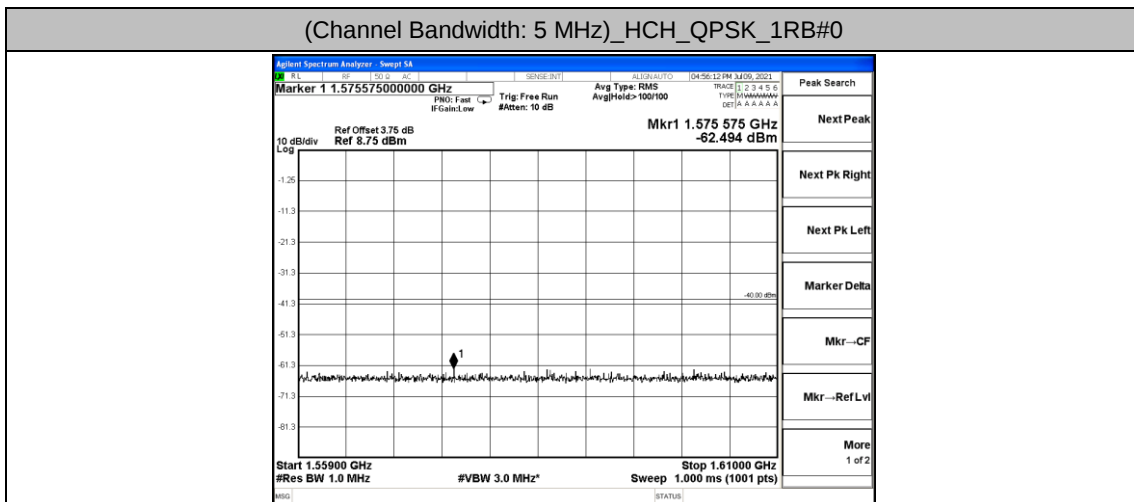
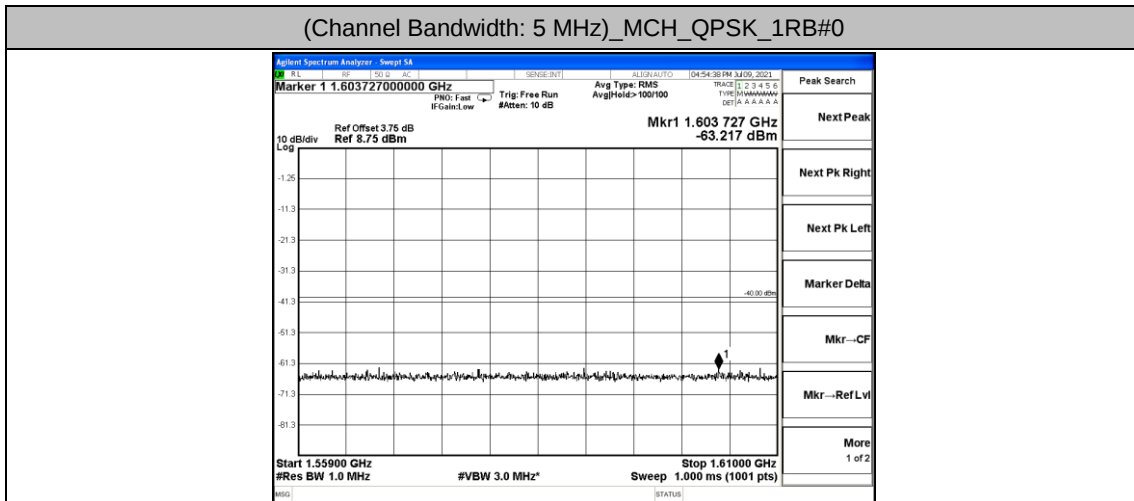
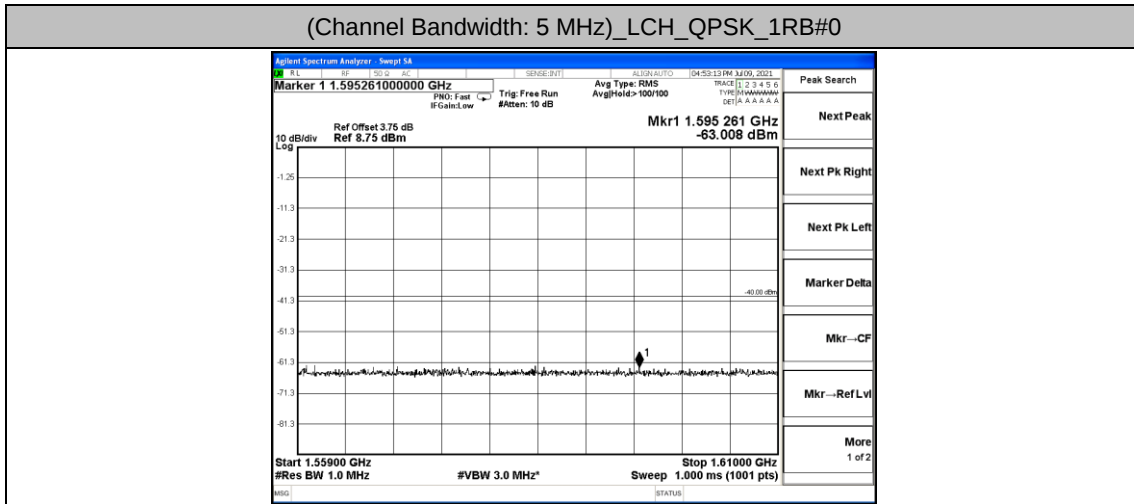


Band13-10MHz-16QAM-23230-1RB#0-Range4:1000~10000MHz



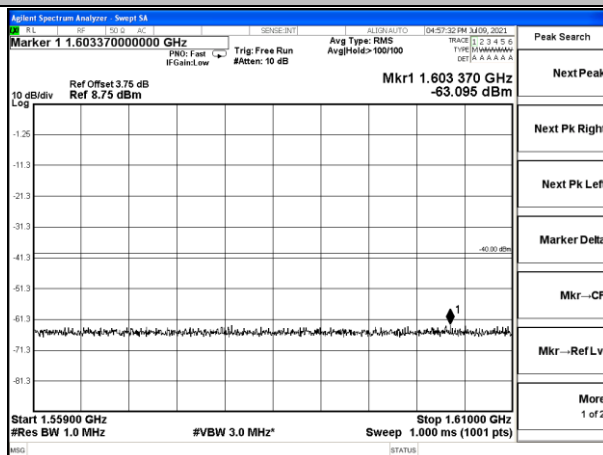


Spurious Emission from 1559MHz to 1610MHz

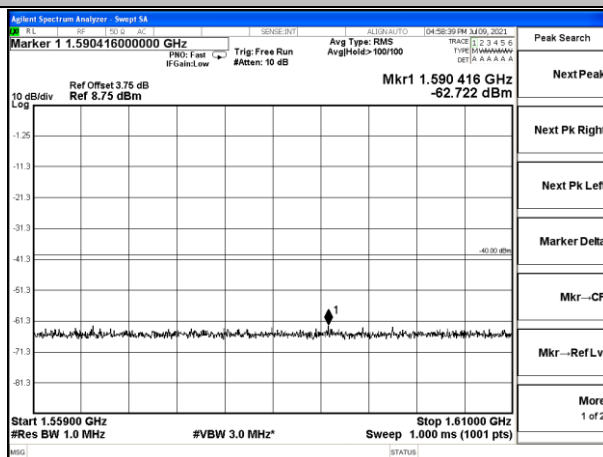




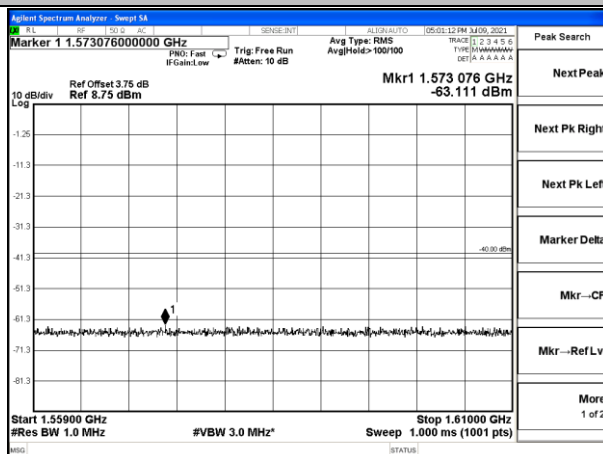
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

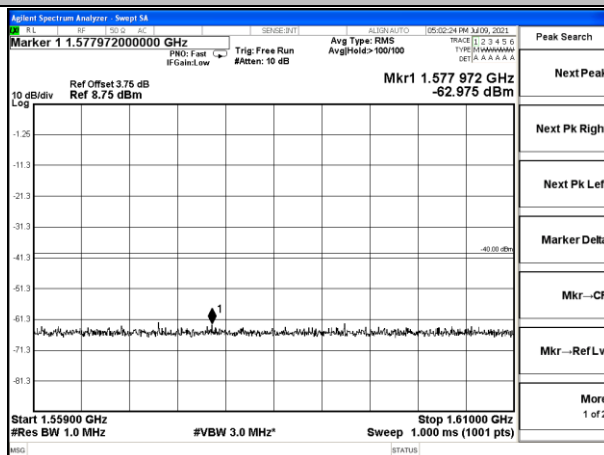


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

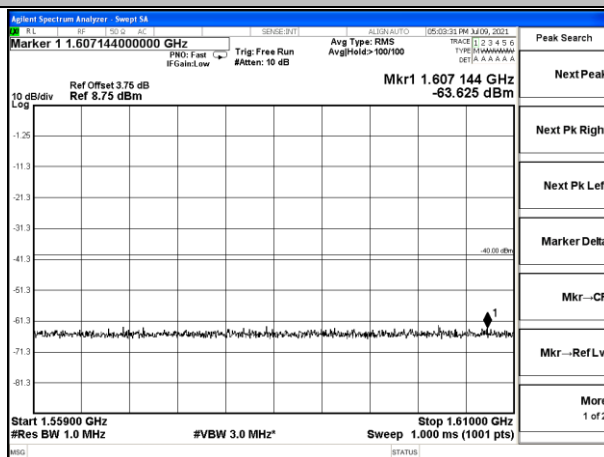




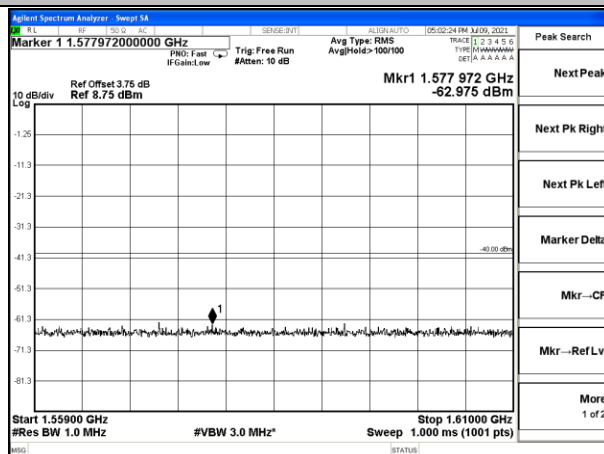
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

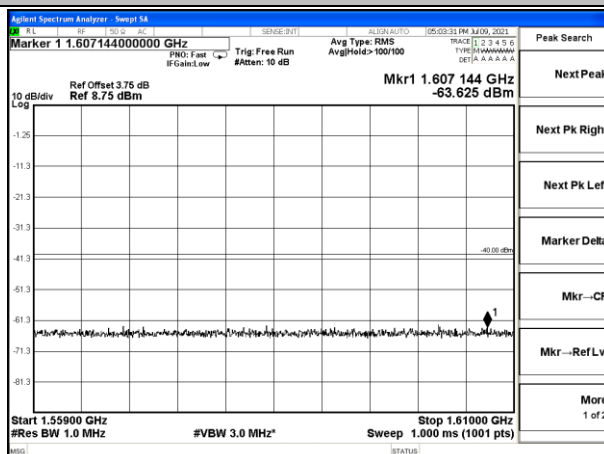


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

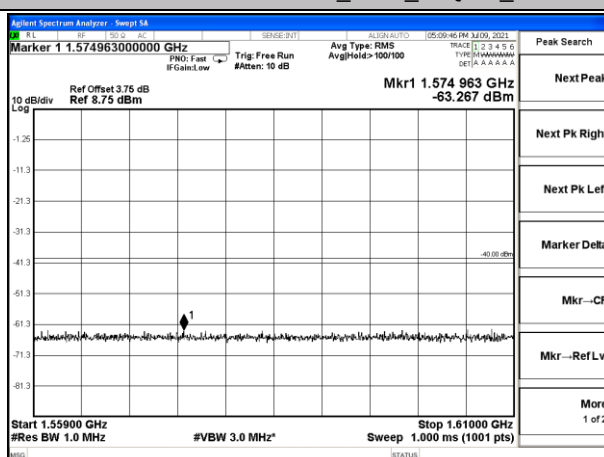




Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

