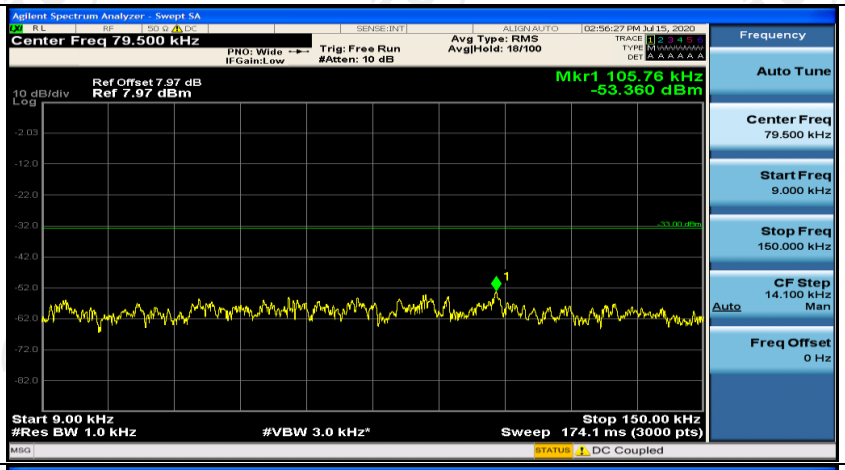
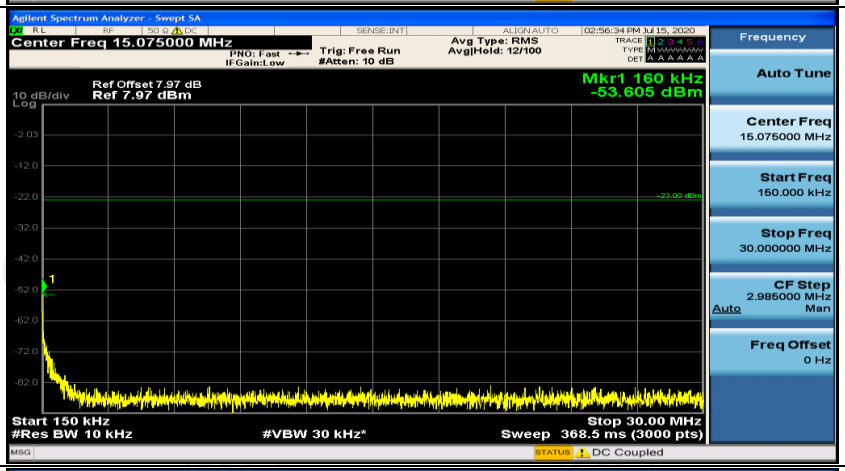
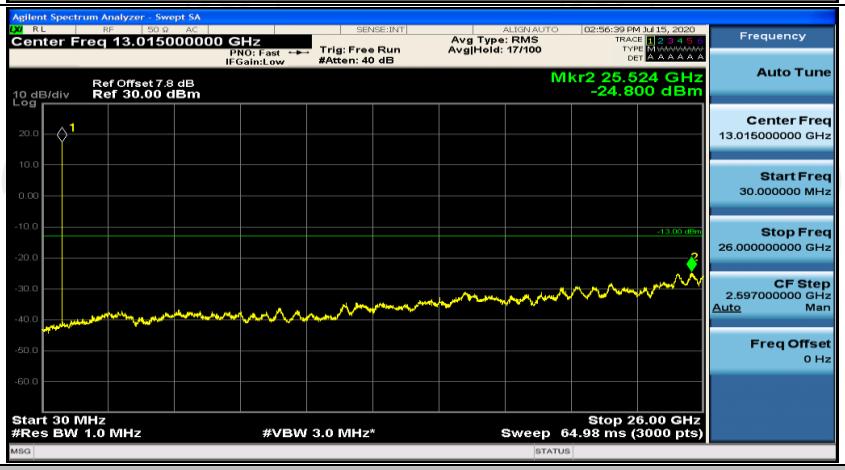
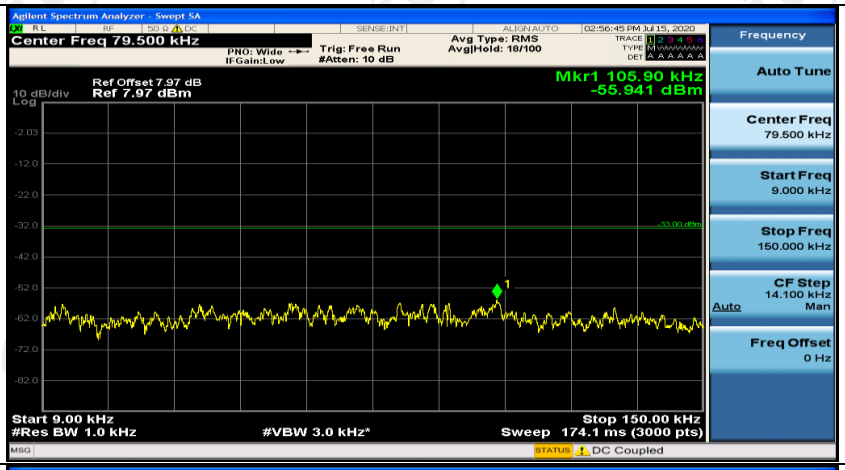
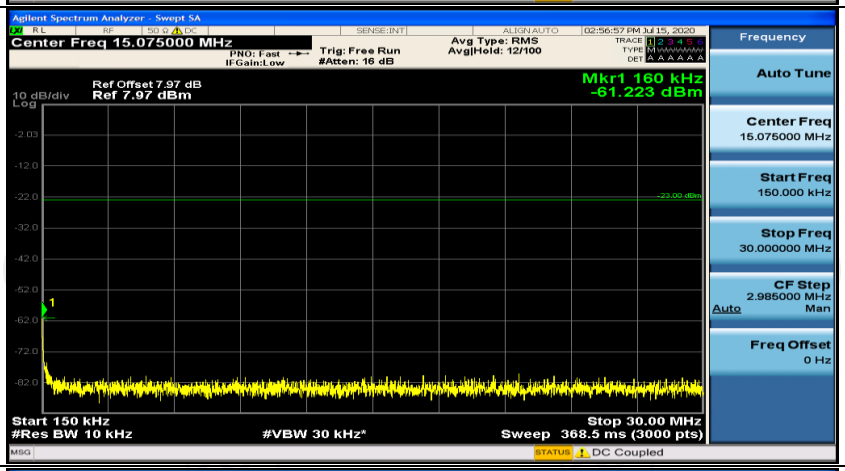


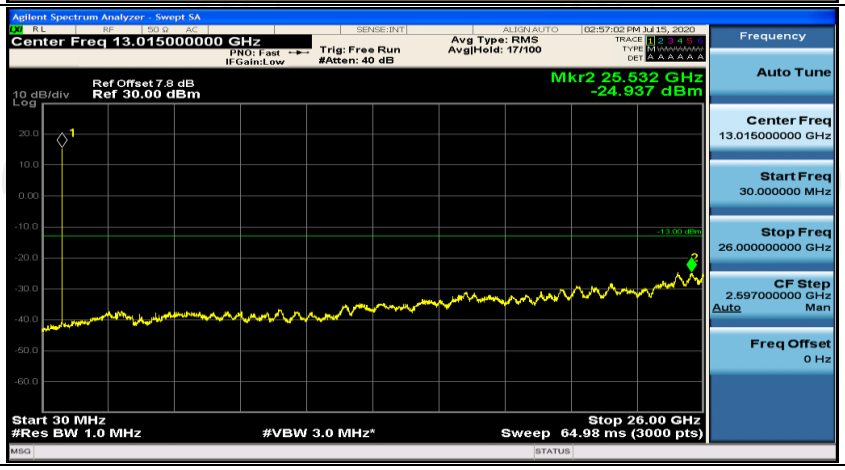




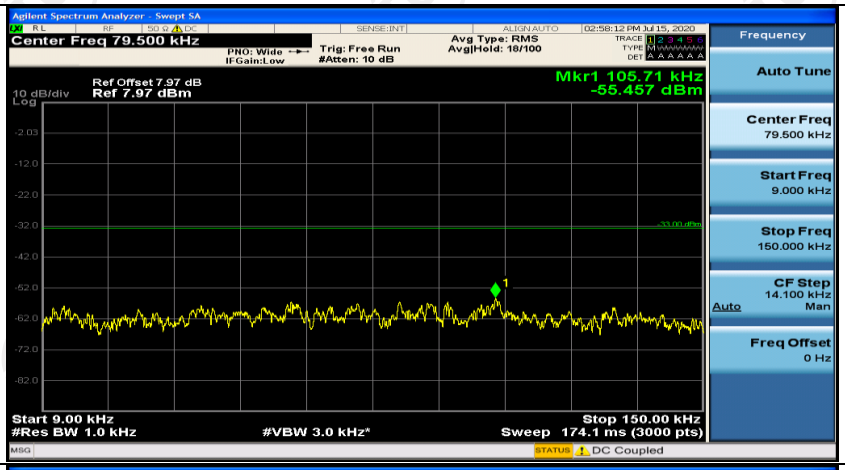
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

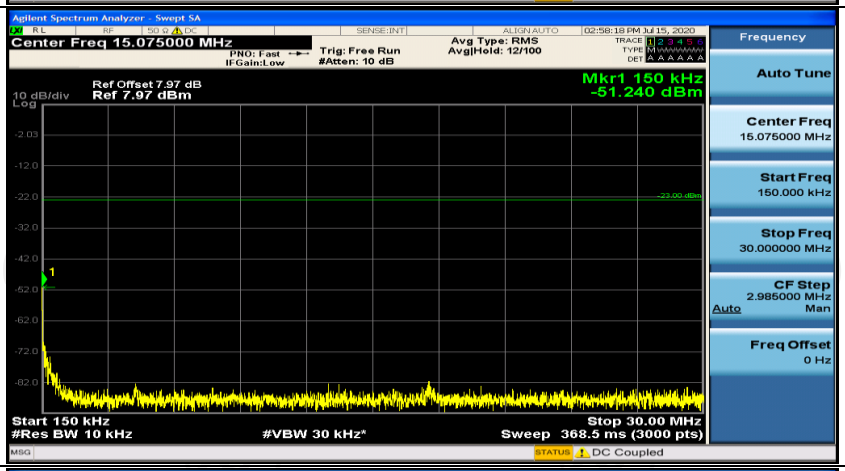


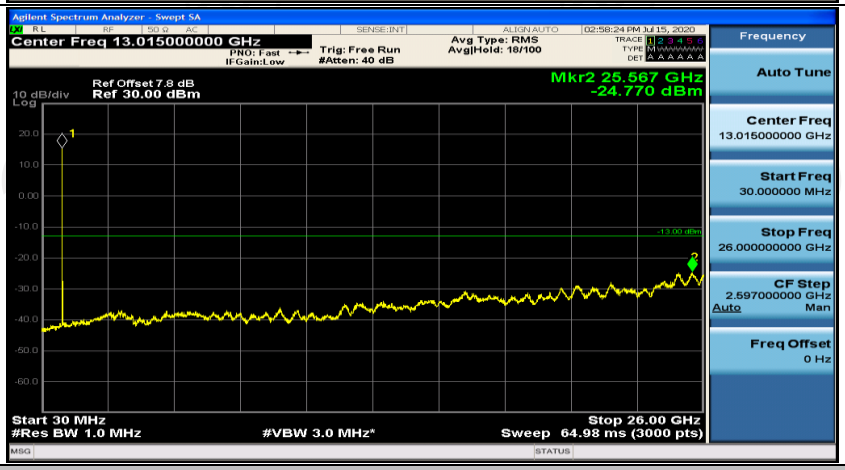




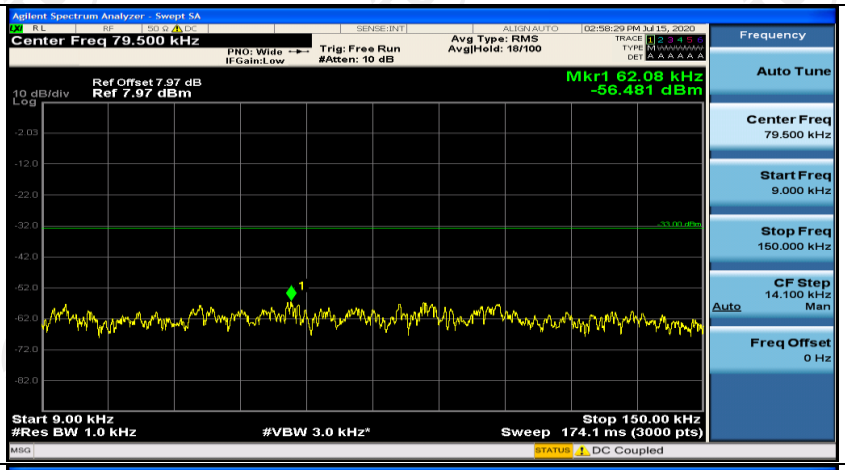
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

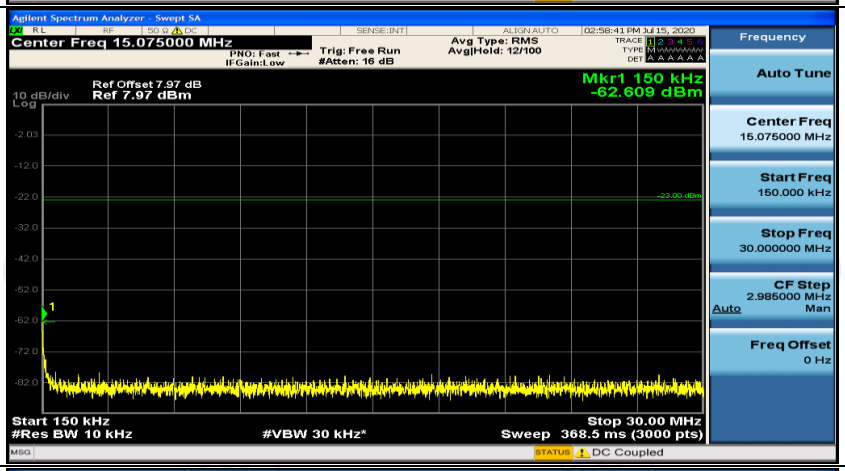


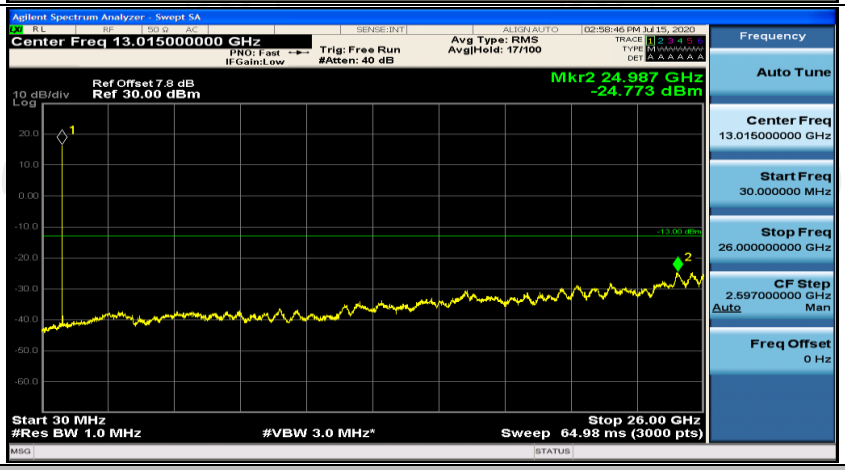




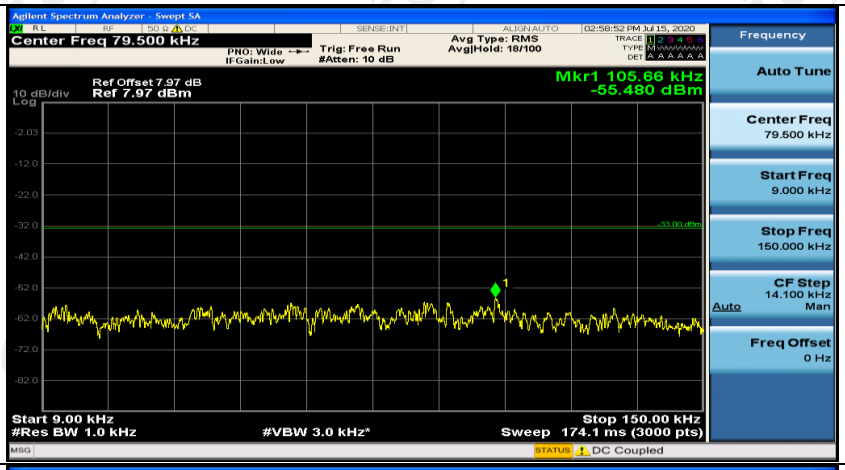
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

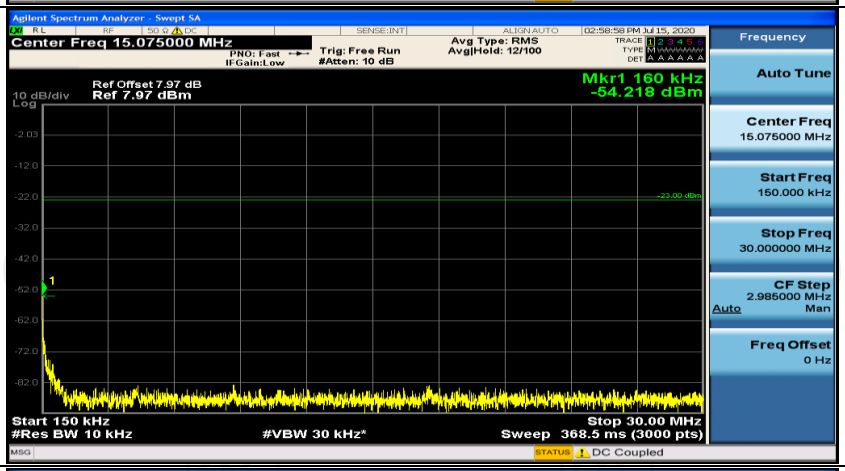


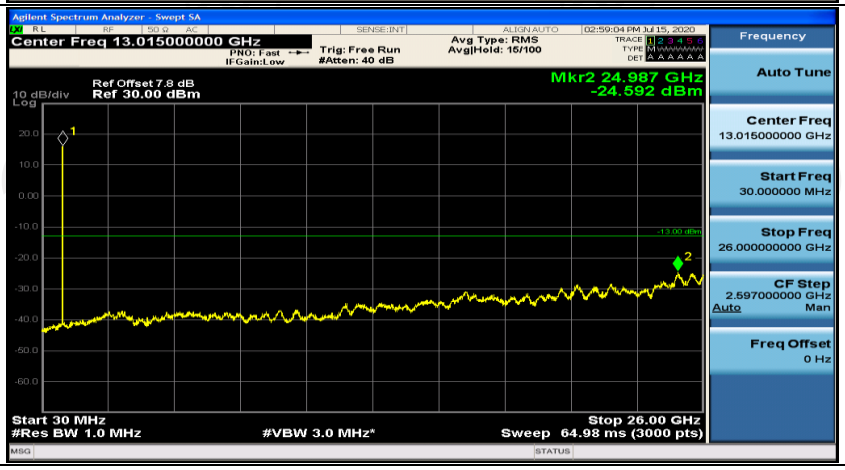




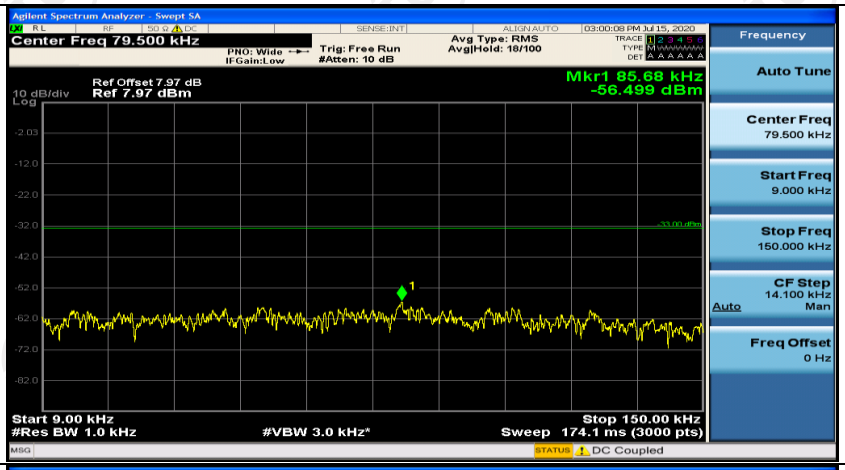
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

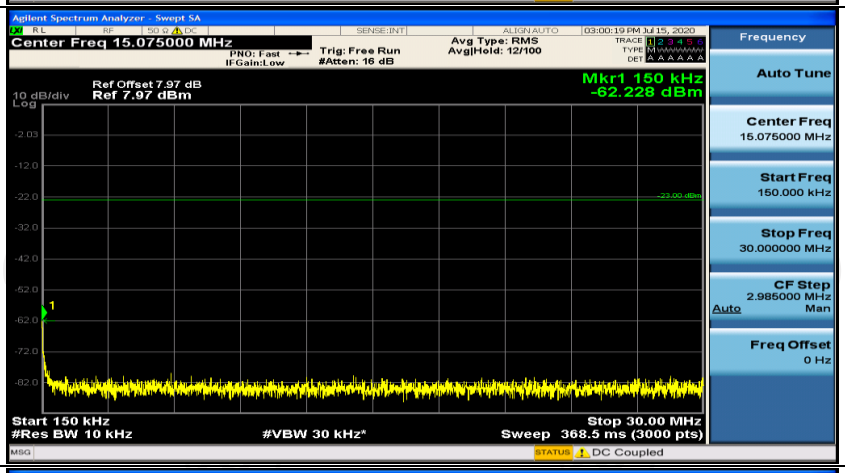


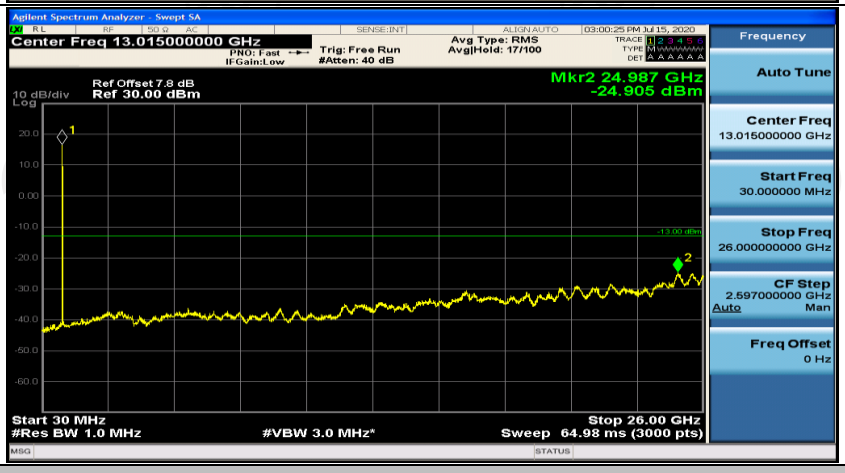




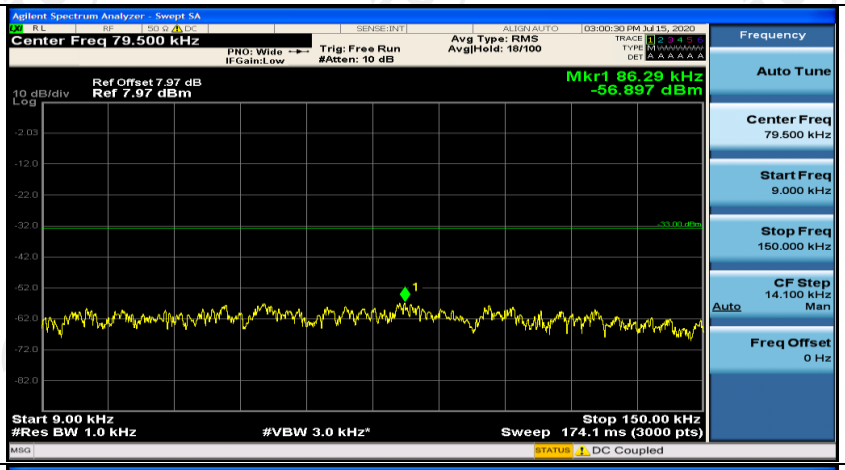
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

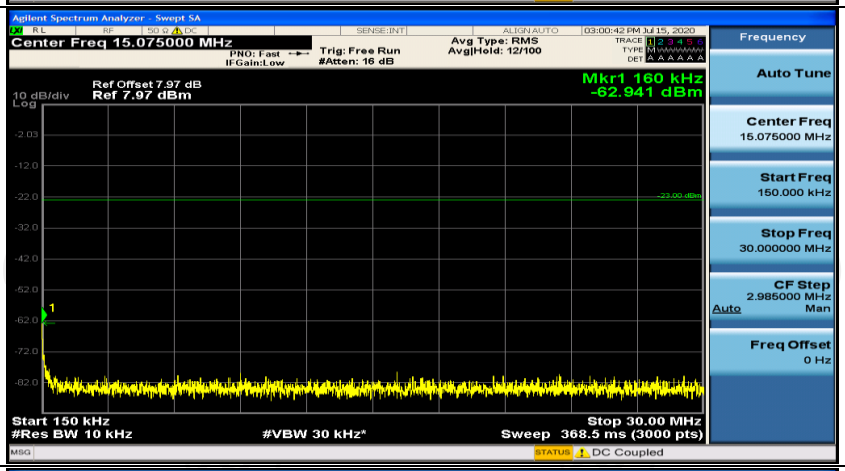


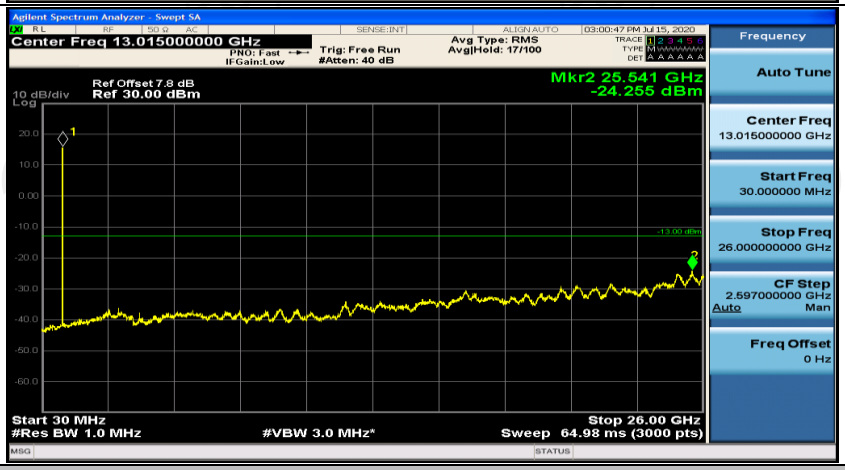




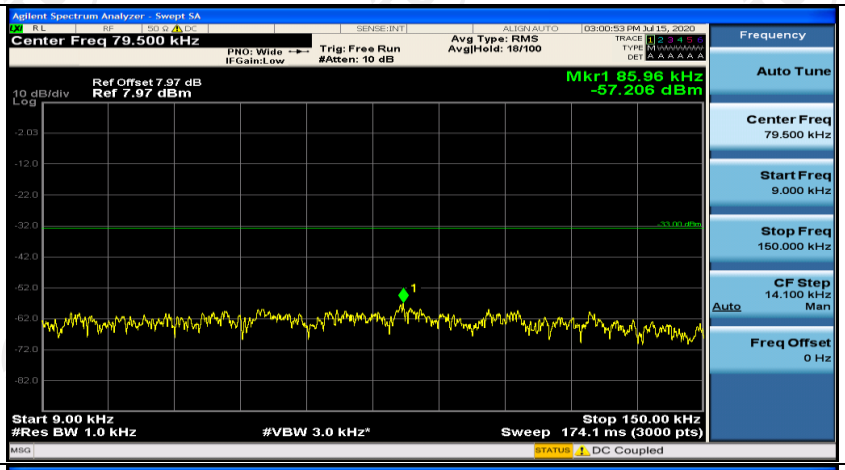
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

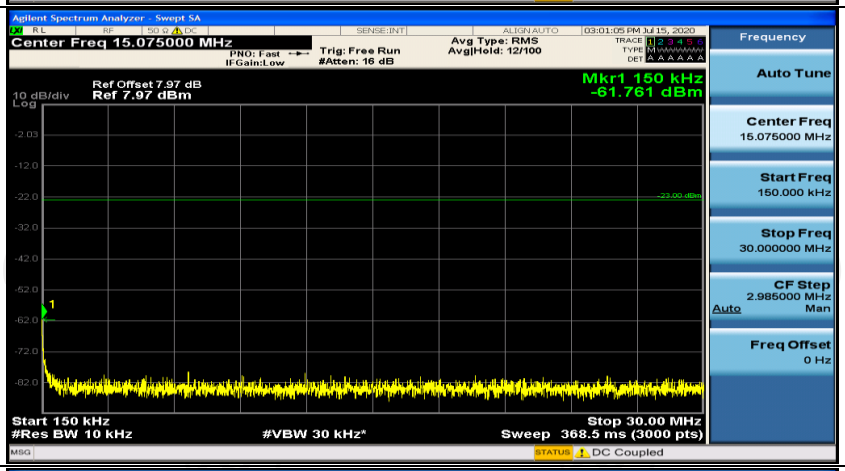


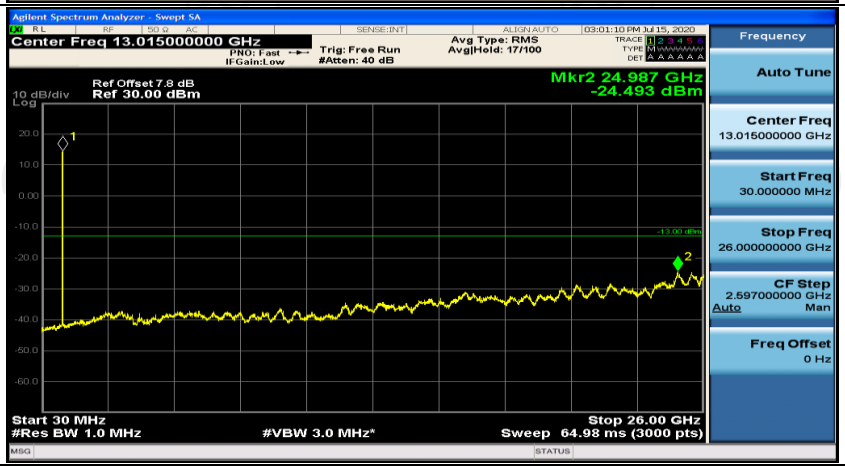




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 18/100
03:00:53 PM Jul 15, 2020
Ref Offset 7.97 dB
10 dB/div
Log
Ref 7.97 dBm
Mkr1 85.96 kHz
-57.206 dBm
-33.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
03:01:05 PM Jul 15, 2020
Ref Offset 7.97 dB
10 dB/div
Log
Ref 7.97 dBm
Mkr1 150 kHz
-61.761 dBm
-23.00 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 17/100
03:01:10 PM Jul 15, 2020
Ref Offset 7.8 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 24.987 GHz
-24.493 dBm
-13.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.001565	± 2.5	PASS
		VN	TN	-0.002742	± 2.5	PASS
		VH	TN	-0.003644	± 2.5	PASS
	MCH	VL	TN	-0.001372	± 2.5	PASS
		VN	TN	-0.001693	± 2.5	PASS
		VH	TN	-0.002364	± 2.5	PASS
	HCH	VL	TN	-0.004423	± 2.5	PASS
		VN	TN	-0.002465	± 2.5	PASS
		VH	TN	-0.003145	± 2.5	PASS
16QAM	LCH	VL	TN	-0.003251	± 2.5	PASS
		VN	TN	-0.003366	± 2.5	PASS
		VH	TN	-0.002695	± 2.5	PASS
	MCH	VL	TN	-0.003174	± 2.5	PASS
		VN	TN	-0.003586	± 2.5	PASS
		VH	TN	-0.004538	± 2.5	PASS
	HCH	VL	TN	-0.006025	± 2.5	PASS
		VN	TN	-0.005227	± 2.5	PASS
		VH	TN	-0.003845	± 2.5	PASS
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.004757	± 2.5	PASS
		VN	-20	-0.001629	± 2.5	PASS
		VN	-10	-0.001956	± 2.5	PASS
		VN	0	-0.003059	± 2.5	PASS
		VN	10	-0.001245	± 2.5	PASS
		VN	20	-0.005411	± 2.5	PASS
		VN	30	0.004547	± 2.5	PASS
		VN	40	-0.004223	± 2.5	PASS
		VN	50	-0.006182	± 2.5	PASS
	MCH	VN	-30	-0.001664	± 2.5	PASS
		VN	-20	-0.004471	± 2.5	PASS
		VN	-10	-0.001143	± 2.5	PASS
		VN	0	-0.001127	± 2.5	PASS
		VN	10	-0.001472	± 2.5	PASS
		VN	20	-0.005372	± 2.5	PASS
		VN	30	-0.007381	± 2.5	PASS
		VN	40	0.000145	± 2.5	PASS

		VN	50	-0.003675	± 2.5	PASS
	HCH	VN	-30	-0.002463	± 2.5	PASS
		VN	-20	-0.000479	± 2.5	PASS
		VN	-10	-0.002574	± 2.5	PASS
		VN	0	-0.001367	± 2.5	PASS
		VN	10	-0.000778	± 2.5	PASS
		VN	20	-0.004510	± 2.5	PASS
		VN	30	-0.001828	± 2.5	PASS
		VN	40	-0.002443	± 2.5	PASS
		VN	50	-0.001424	± 2.5	PASS
16QAM	LCH	VN	-30	-0.004145	± 2.5	PASS
		VN	-20	-0.005037	± 2.5	PASS
		VN	-10	-0.001575	± 2.5	PASS
		VN	0	-0.002421	± 2.5	PASS
		VN	10	-0.002045	± 2.5	PASS
		VN	20	-0.001708	± 2.5	PASS
		VN	30	-0.004058	± 2.5	PASS
		VN	40	-0.002705	± 2.5	PASS
		VN	50	-0.004893	± 2.5	PASS
	MCH	VN	-30	-0.005752	± 2.5	PASS
		VN	-20	-0.003919	± 2.5	PASS
		VN	-10	-0.001735	± 2.5	PASS
		VN	0	-0.002755	± 2.5	PASS
		VN	10	-0.001424	± 2.5	PASS
		VN	20	-0.004427	± 2.5	PASS
		VN	30	-0.005714	± 2.5	PASS
		VN	40	-0.007035	± 2.5	PASS
		VN	50	-0.003310	± 2.5	PASS
	HCH	VN	-30	-0.001174	± 2.5	PASS
		VN	-20	-0.004613	± 2.5	PASS
		VN	-10	-0.003577	± 2.5	PASS
		VN	0	-0.004675	± 2.5	PASS
		VN	10	-0.001752	± 2.5	PASS
		VN	20	-0.004473	± 2.5	PASS
		VN	30	-0.003375	± 2.5	PASS
		VN	40	-0.001677	± 2.5	PASS
		VN	50	-0.003384	± 2.5	PASS

Appendix G :Field Strength of Spurious Radiation Measurement

Test Result

Bandwidth:	1.4M				Test channel:	Lowest
Modulation:	QPSK				Temperature :	23~24°C
RB #:	1RB #0				Relative Humidity:	46~48%
Note:	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.					
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading Level (dBm)	Substitution factor	Measurement Level (dBm)		
1649.4	Vertical	-31.69	1.32	-30.37	-13.00	PASS
2474.1	V	-37.68	5.25	-32.43		
-	V	-	-	-		
1649.4	Horizontal	-32.03	-0.42	-32.45		
2474.1	H	-38.8	4.29	-34.51		
-	H	-	-	-		
Bandwidth:	1.4M				Test channel:	Middle
Modulation:	QPSK				Temperature :	23~24°C
RB #:	1RB #0				Relative Humidity:	46~48%
Note:	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.					
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading Level (dBm)	Substitution factor	Measurement Level (dBm)		
1673.0	Vertical	-31.66	1.33	-30.33	-13.00	PASS
2509.5	V	-38.57	5.49	-33.08		
-	V	-	-	-		
1673.0	Horizontal	-32.21	-0.38	-32.59		
2509.5	H	-39.31	4.53	-34.78		
-	H	-	-	-		
Bandwidth:	1.4M				Test channel:	Highest
Modulation:	QPSK				Temperature :	23~24°C
RB #:	1RB #0				Relative Humidity:	46~48%
Note:	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.					
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading Level (dBm)	Substitution factor	Measurement Level (dBm)		
1696.6	Vertical	-32.68	1.34	-31.34	-13.00	PASS
2544.9	V	-38.67	5.51	-33.16		
-	V	-	-	-		
1696.6	Horizontal	-32.06	-0.35	-32.41		
2544.9	H	-40.13	4.55	-35.58		
-	H	-	-			

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Bandwidth:	1.4M				Test channel:	Lowest
Modulation:	16QAM				Temperature :	23~24°C
RB #:	1RB #0				Relative Humidity:	46~48%
Note:	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.					
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading Level (dBm)	Substitution factor	Measurement Level (dBm)		
1649.4	Vertical	-32.03	1.32	-30.71	-13.00	PASS
2474.1	V	-37.59	5.25	-32.34		
-	V	-	-	-		
1649.4	Horizontal	-32.19	-0.42	-32.61		
2474.1	H	-39.04	4.29	-34.75		
-	H	-	-	-		
Bandwidth:	1.4M				Test channel:	Middle
Modulation:	16QAM				Temperature :	23~24°C
RB #:	1RB #0				Relative Humidity:	46~48%
Note:	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.					
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading Level (dBm)	Substitution factor	Measurement Level (dBm)		
1673.0	Vertical	-31.91	1.33	-30.58	-13.00	PASS
2509.5	V	-38.18	5.49	-32.69		
-	V	-	-	-		
1673.0	Horizontal	-32.5	-0.38	-32.88		
2509.5	H	-40.56	4.53	-36.03		
-	H	-	-	-		
Bandwidth:	1.4M				Test channel:	Highest
Modulation:	16QAM				Temperature :	23~24°C
RB #:	1RB #0				Relative Humidity:	46~48%
Note:	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.					
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading Level (dBm)	Substitution factor	Measurement Level (dBm)		
1696.6	Vertical	-32.65	1.34	-31.31	-13.00	PASS
2544.9	V	-38.85	5.51	-33.34		
-	V	-	-	-		
1696.6	Horizontal	-32.47	-0.35	-32.82		
2544.9	H	-41.02	4.55	-36.47		
-	H	-	-	-		

Note: All bandwidth and modulation are tested, only the worst result is reported.