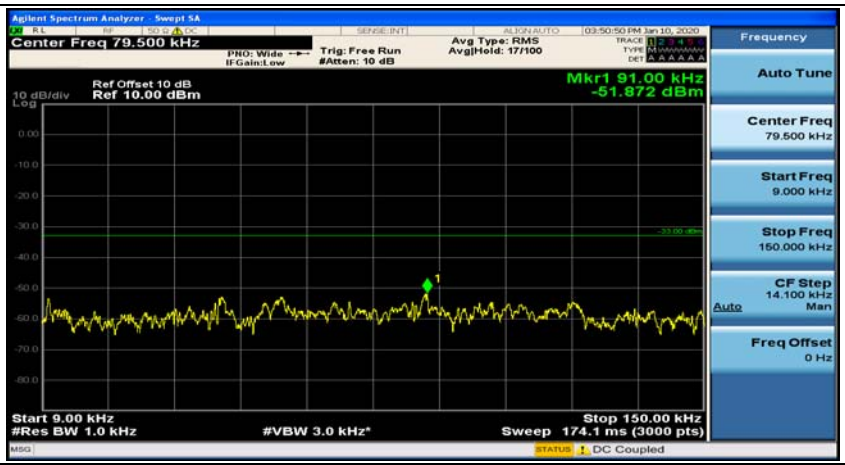
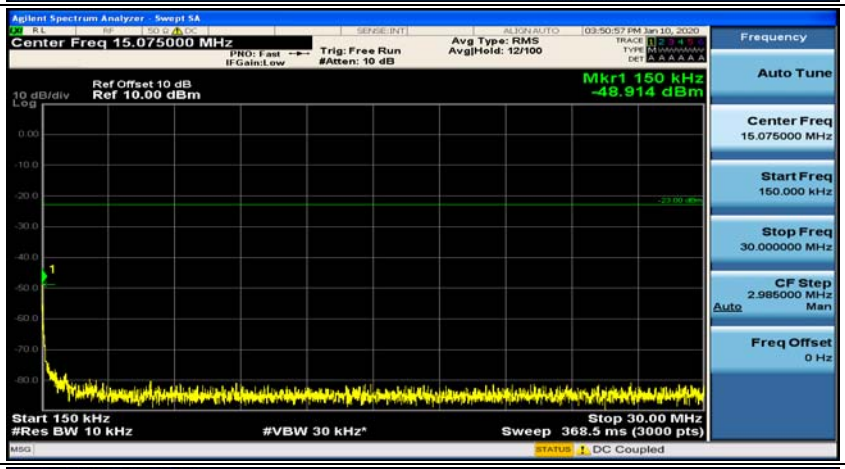
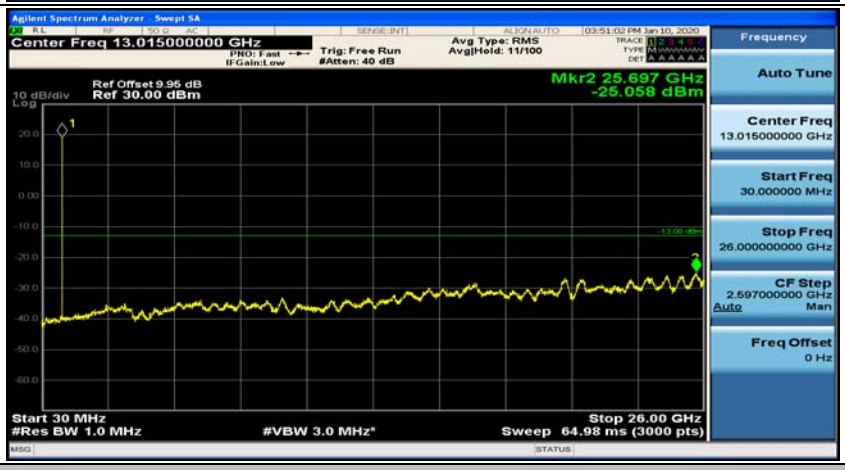
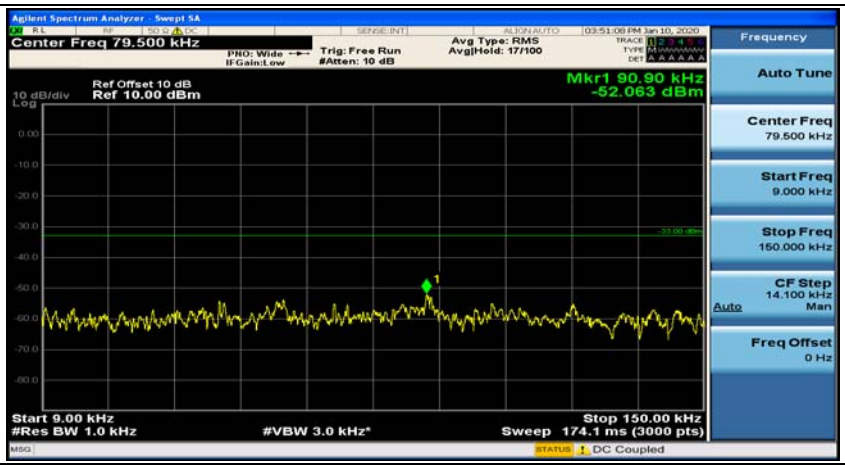
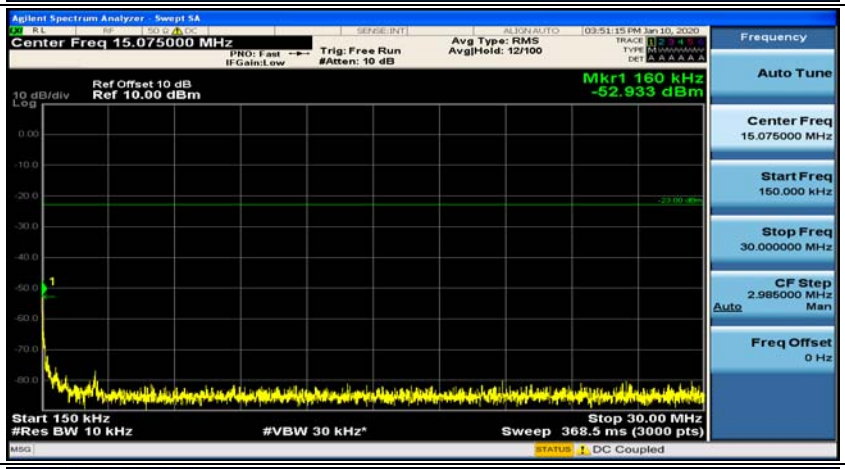


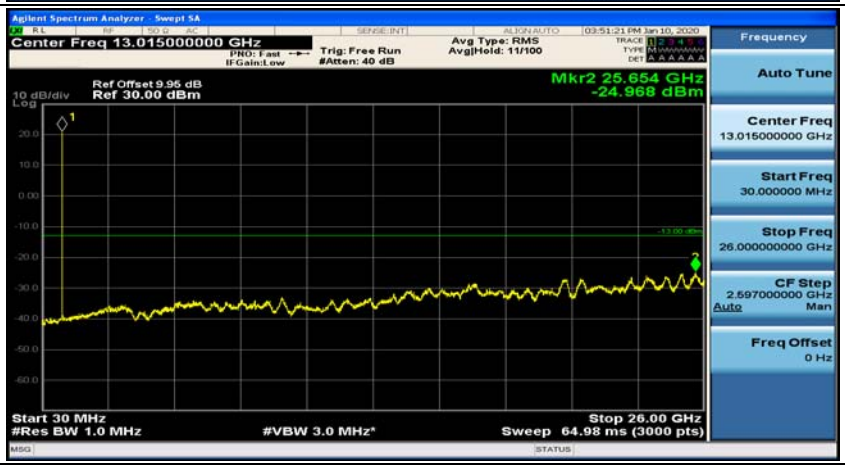


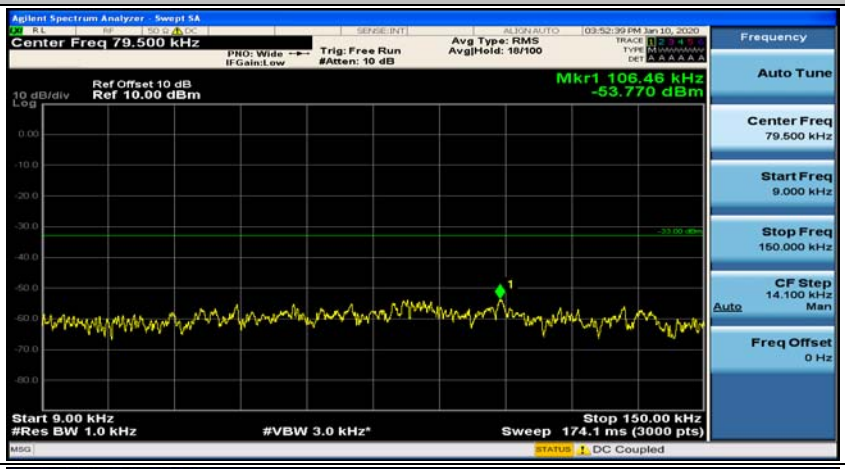
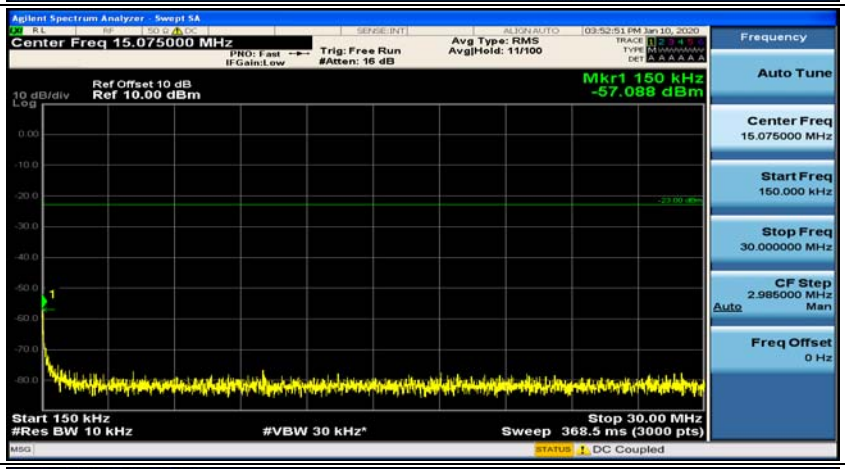
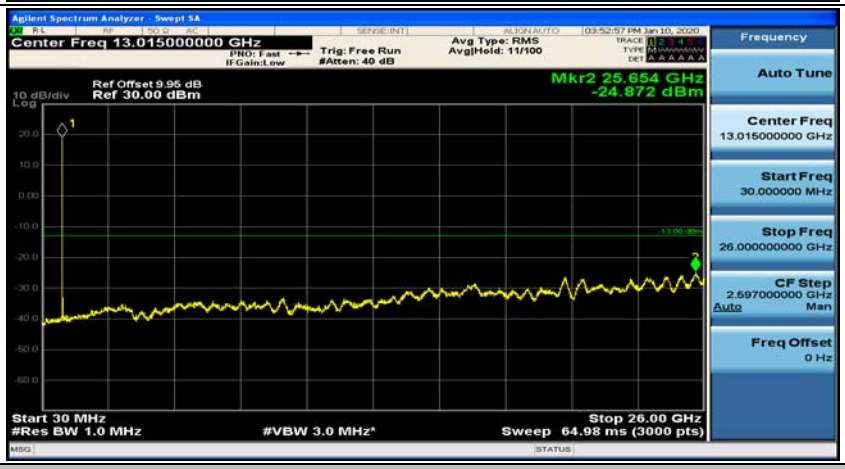


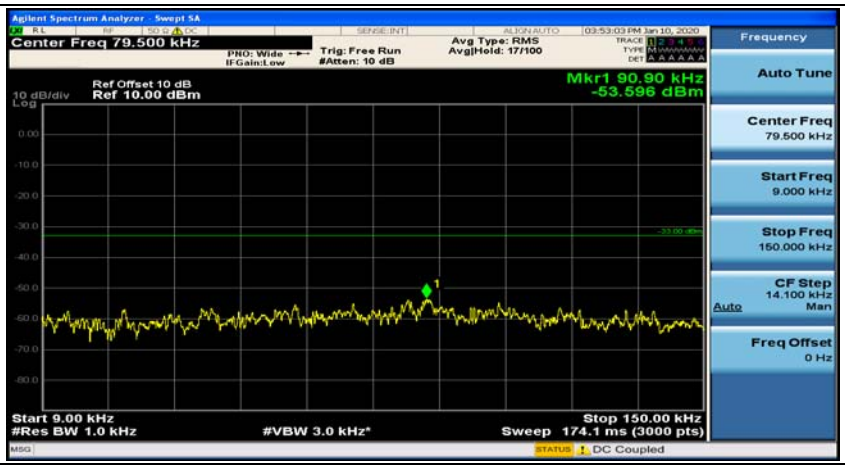
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

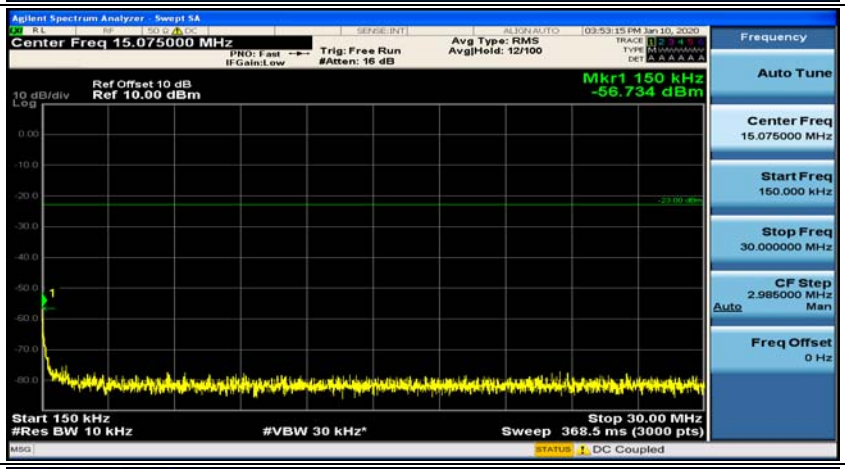

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:51:08 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 90.90 kHz
-52.063 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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

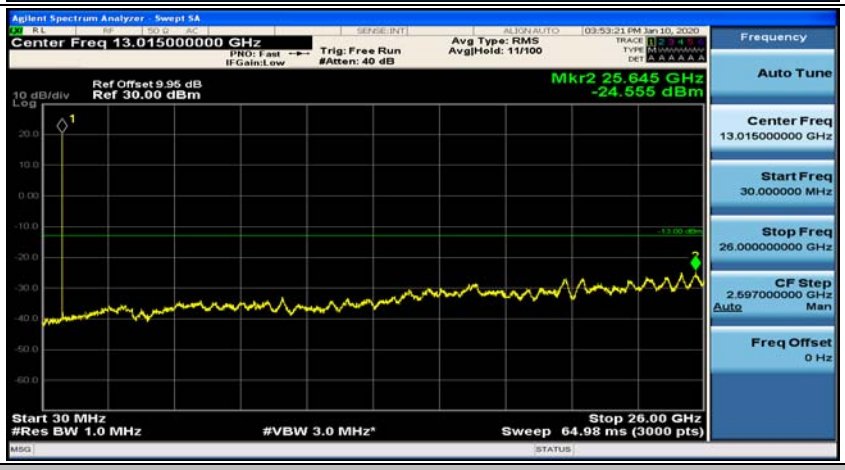

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
03:51:15 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 160 kHz
-52.933 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 11/100
03:51:21 PM Jan 10, 2020
Frequency
Ref Offset 9.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.654 GHz
-24.968 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

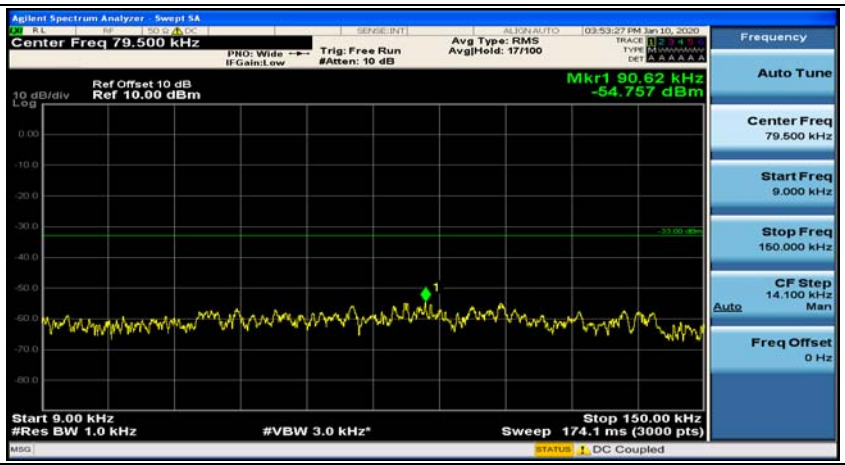
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

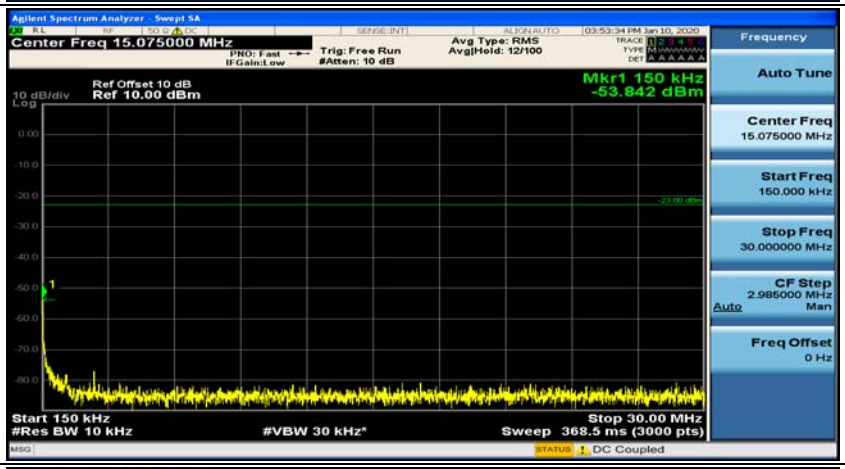


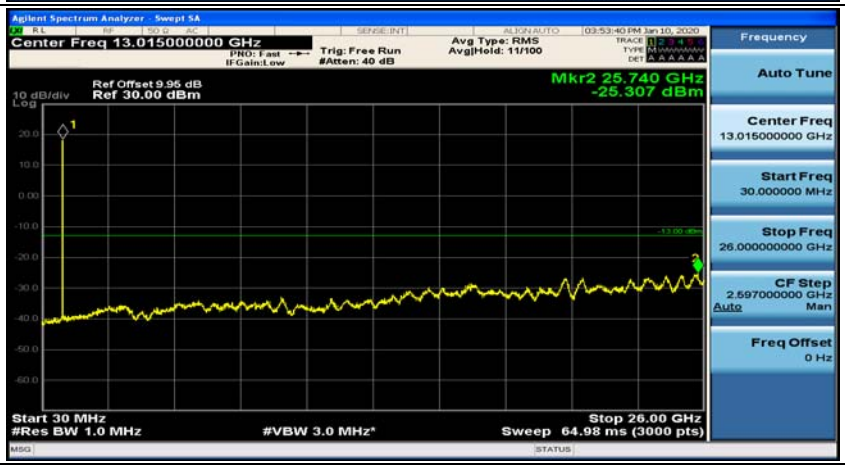


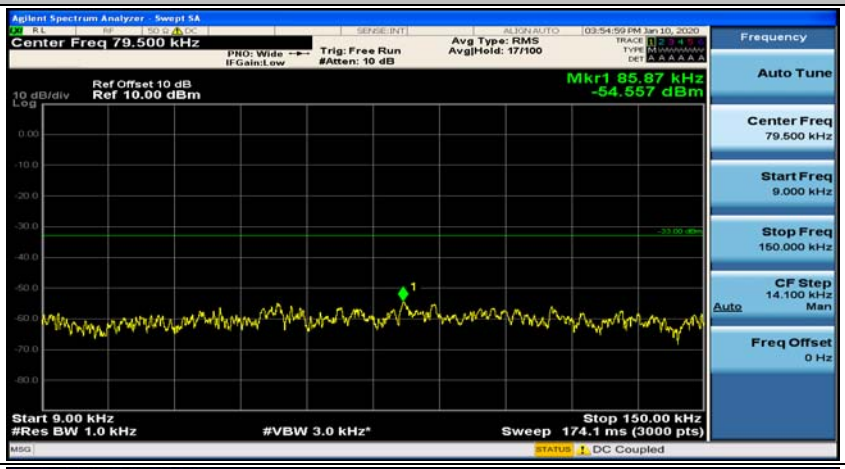
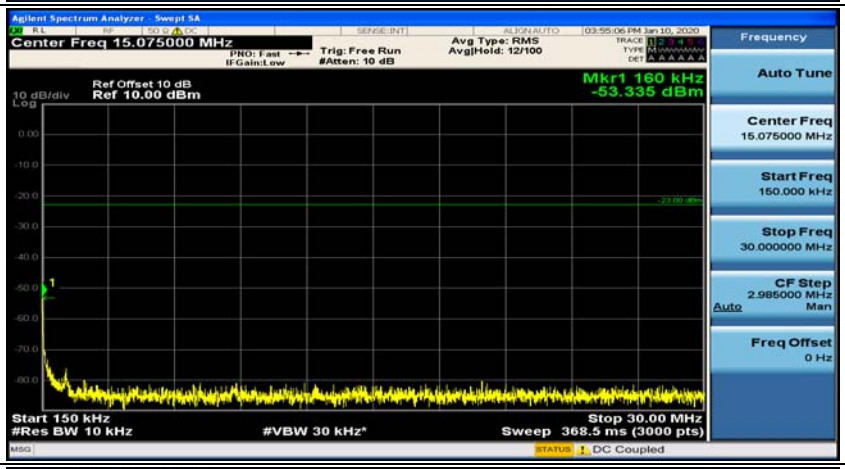
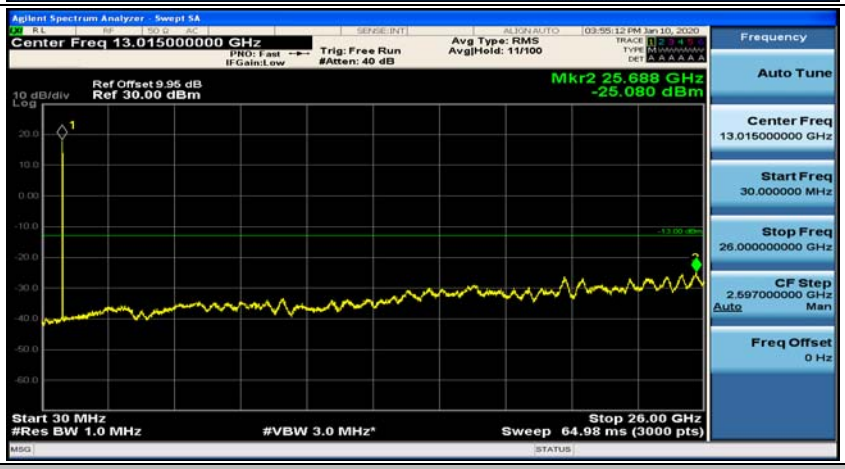


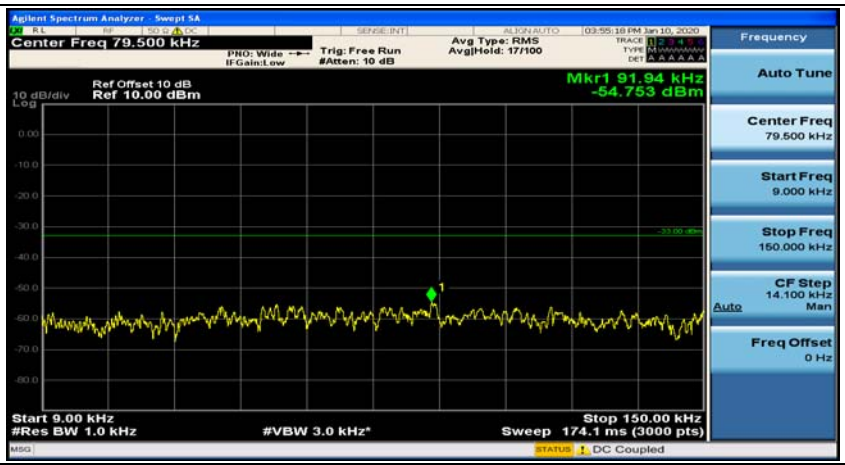
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

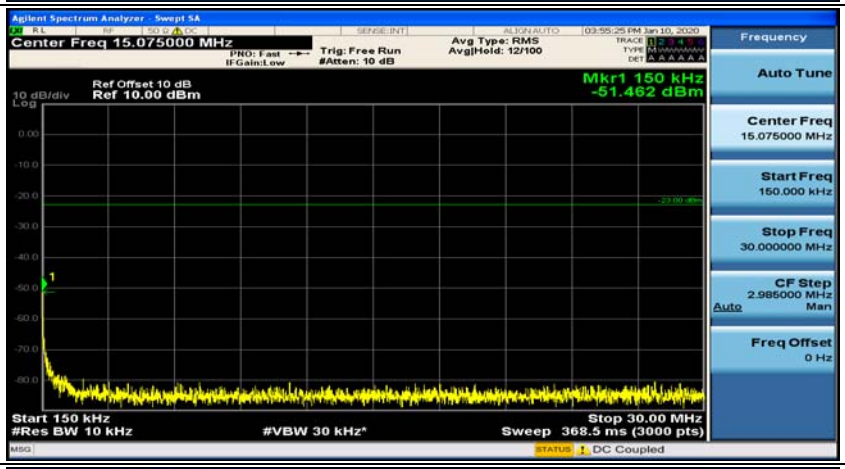

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:53:27 PM Jan 10, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 90.62 kHz
-54.757 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

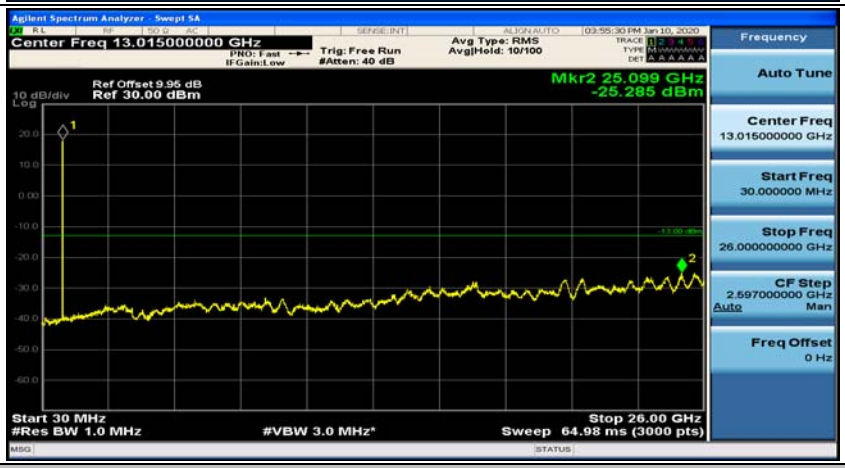

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
03:53:34 PM Jan 10, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 150 kHz
-53.842 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 11/100
03:53:40 PM Jan 10, 2020
Ref Offset 9.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.740 GHz
-25.307 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

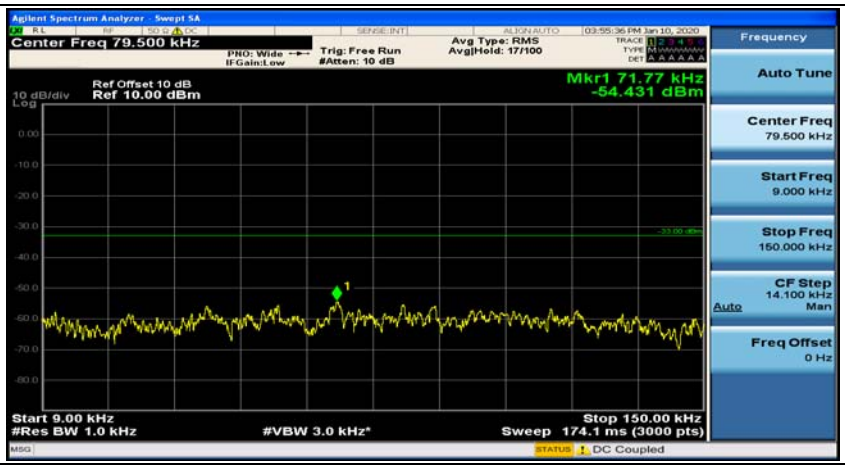
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

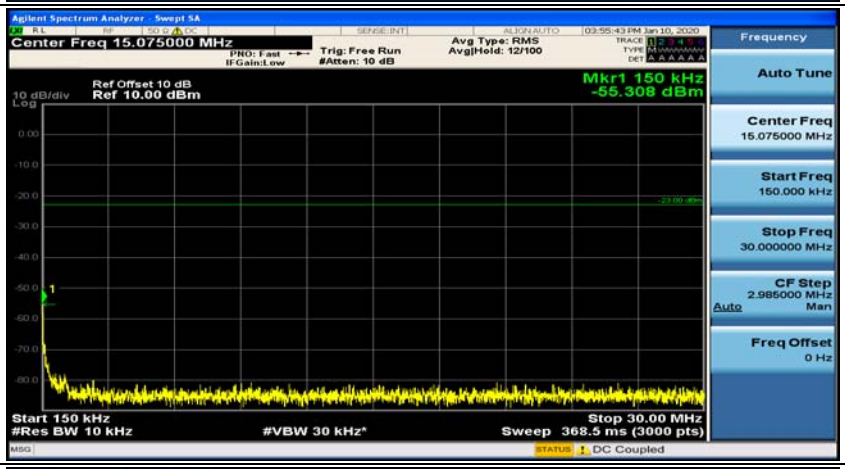


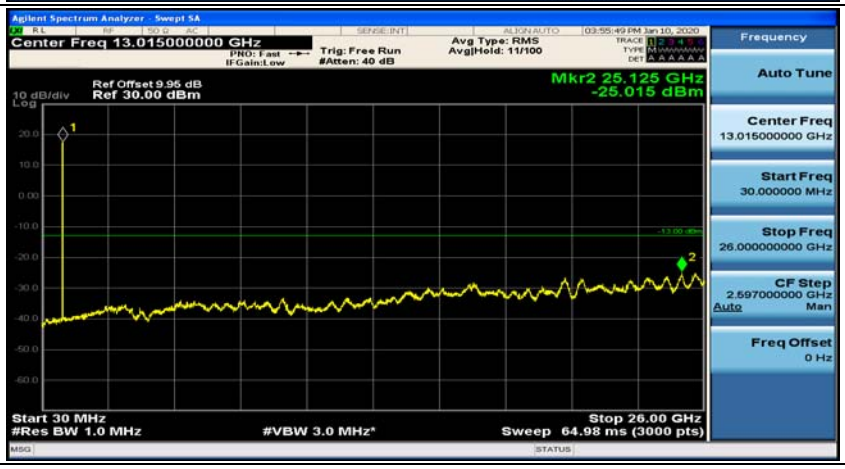


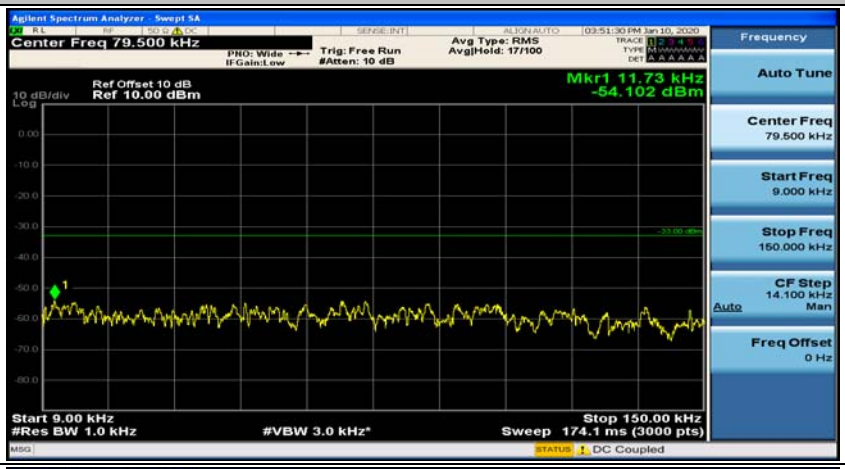
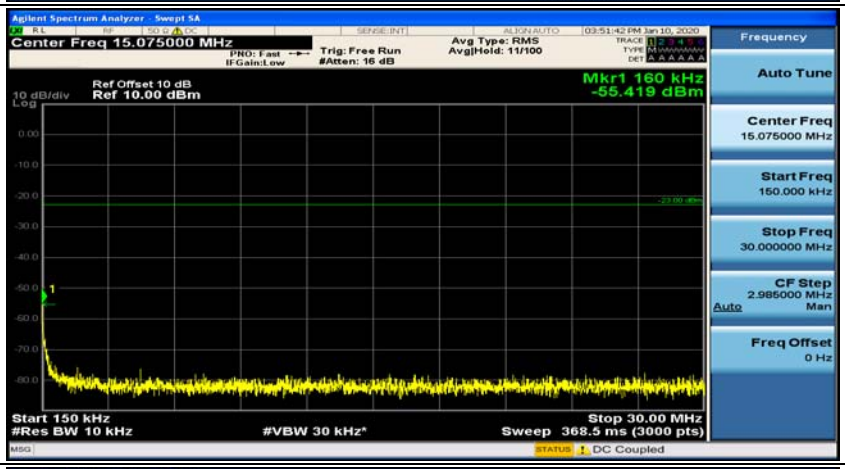
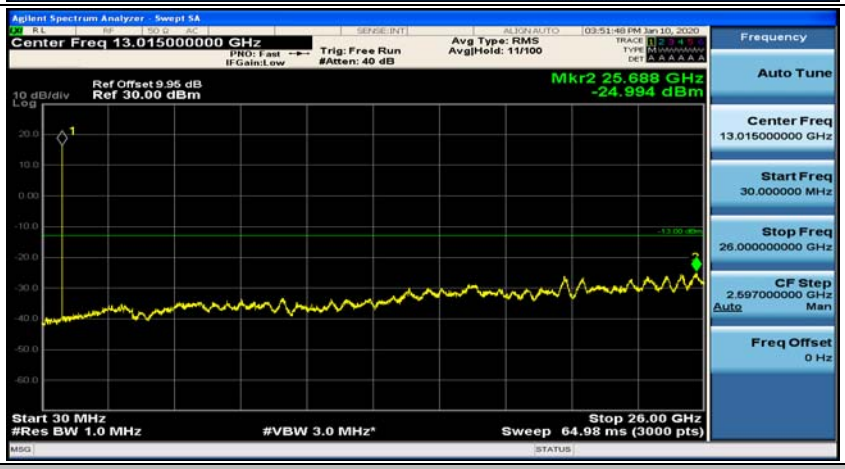


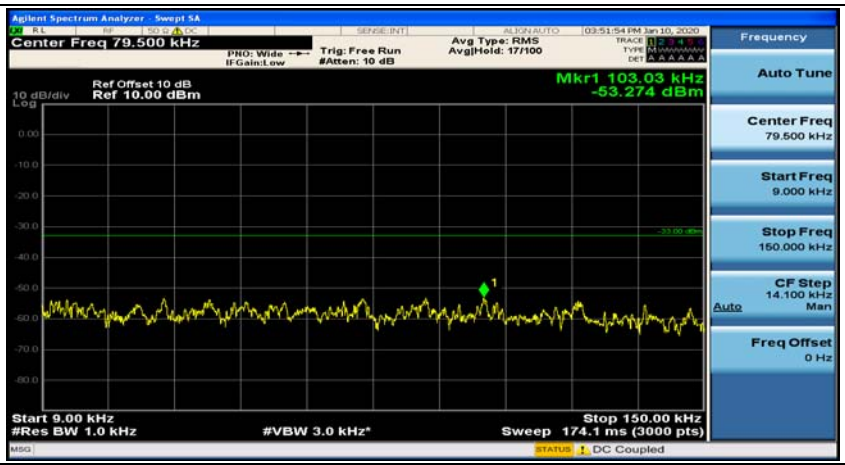
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

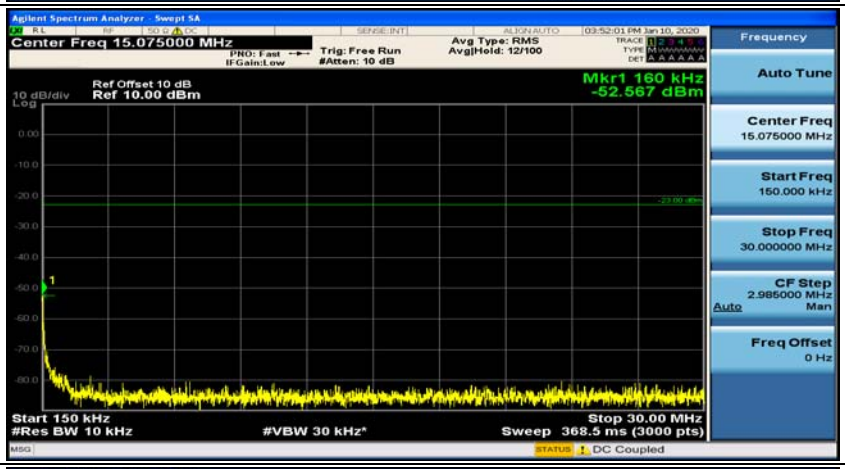

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:55:36 PM Jan 10, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 71.77 kHz
-54.431 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

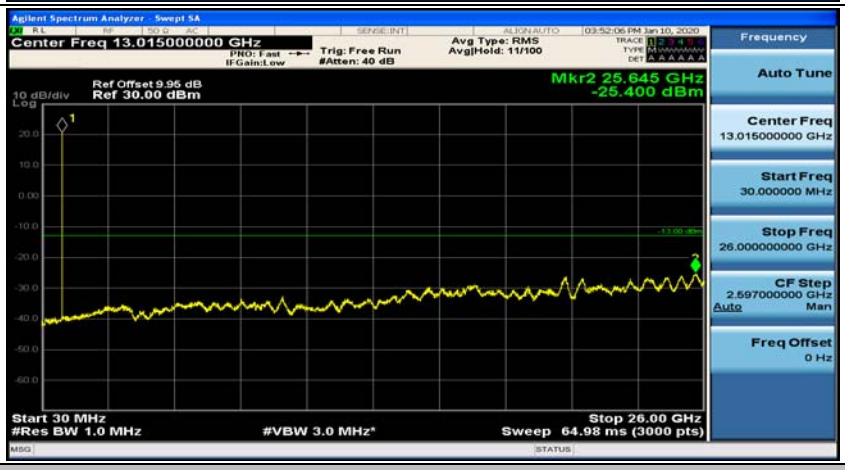

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
03:55:43 PM Jan 10, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 150 kHz
-55.308 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 11/100
03:55:49 PM Jan 10, 2020
Ref Offset 9.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.125 GHz
-25.015 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

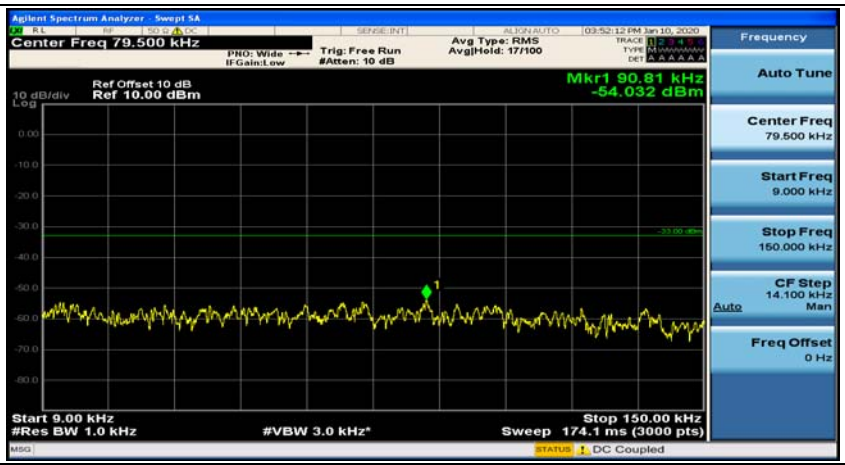
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

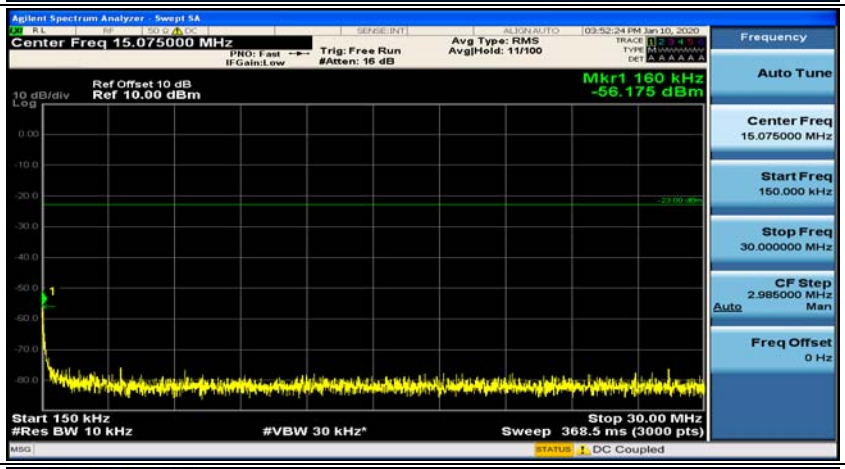


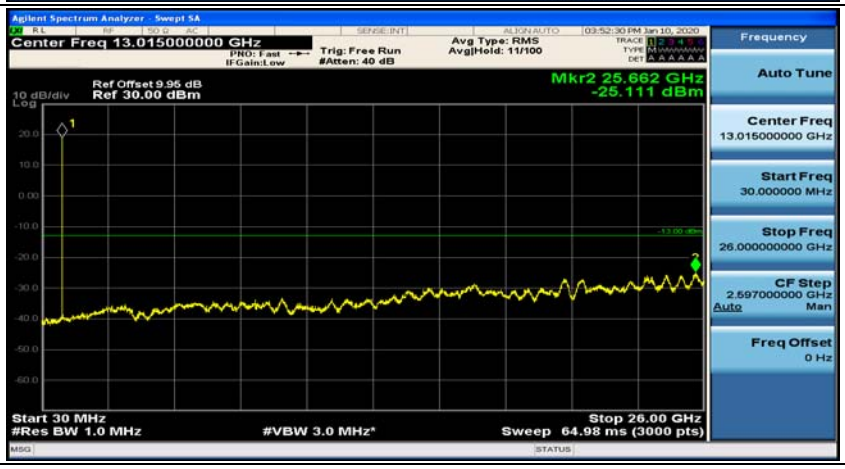


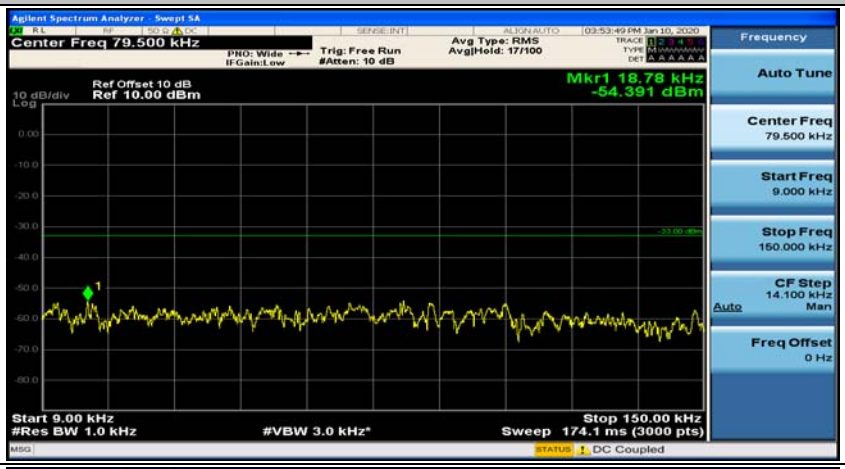
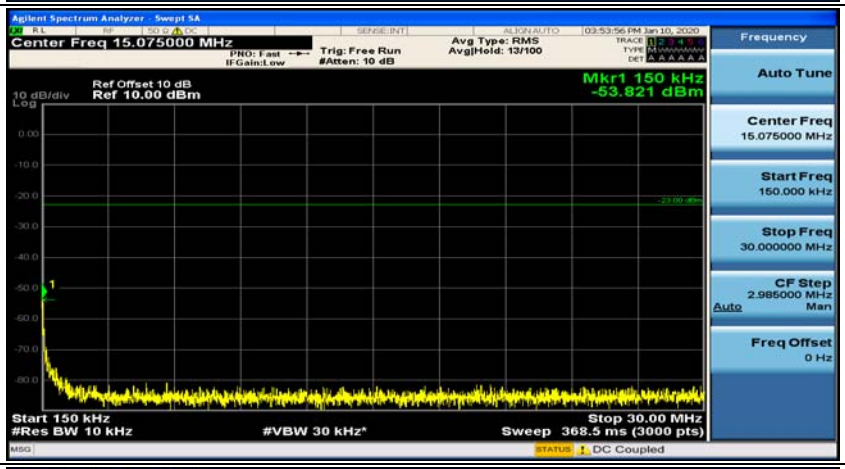
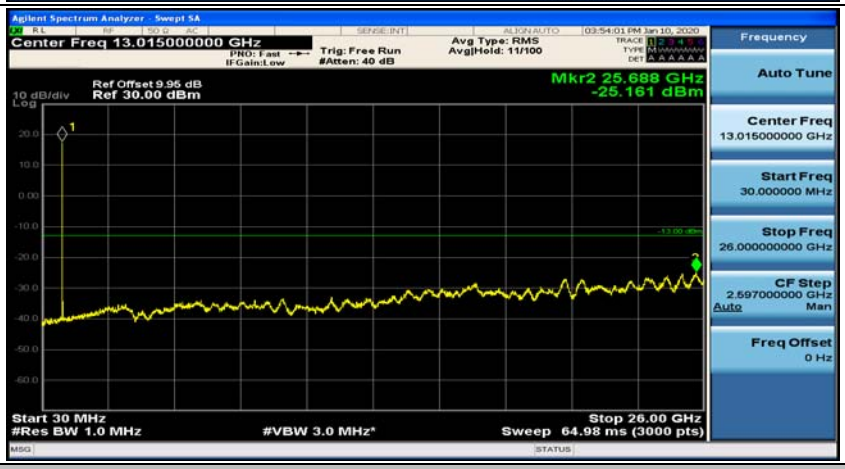


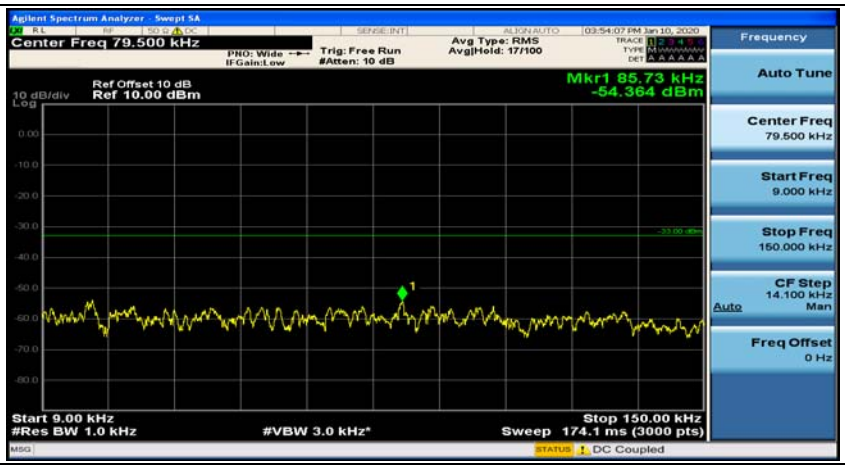
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

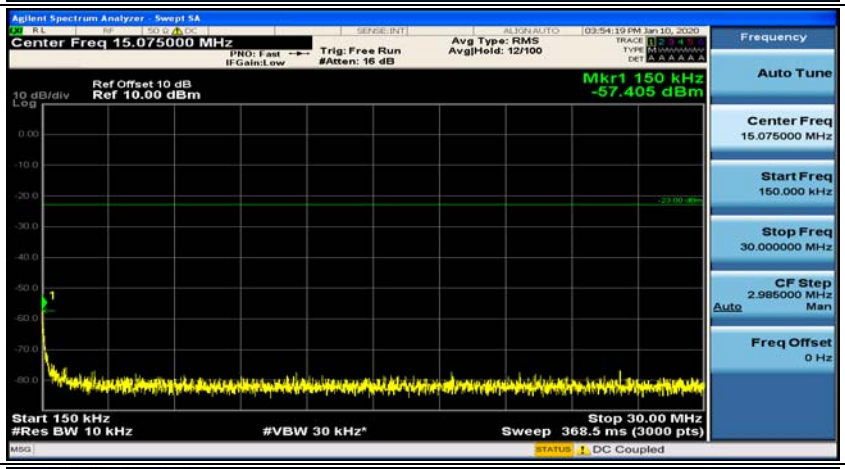

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:52:12 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 90.81 kHz
-54.032 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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

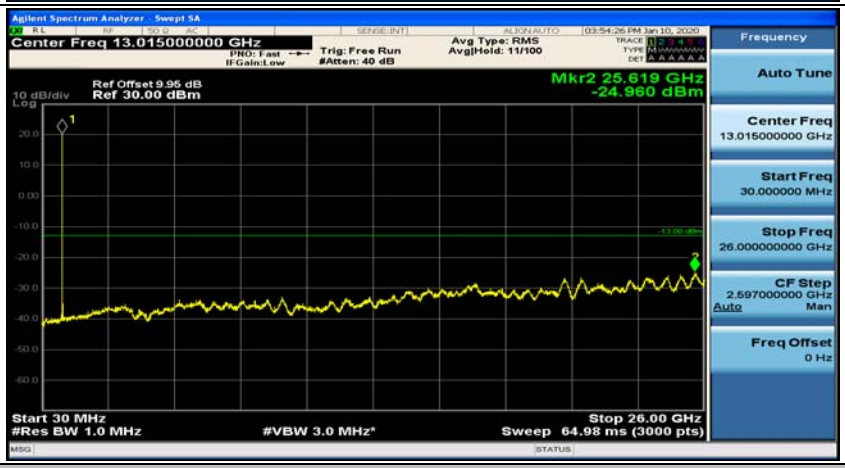

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
03:52:24 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 160 kHz
-56.175 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 11/100
03:52:30 PM Jan 10, 2020
Frequency
Ref Offset 9.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.662 GHz
-25.111 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

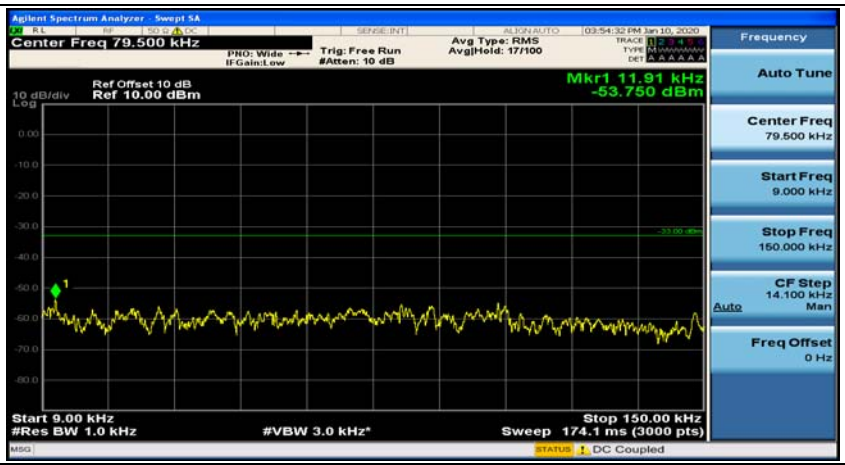
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

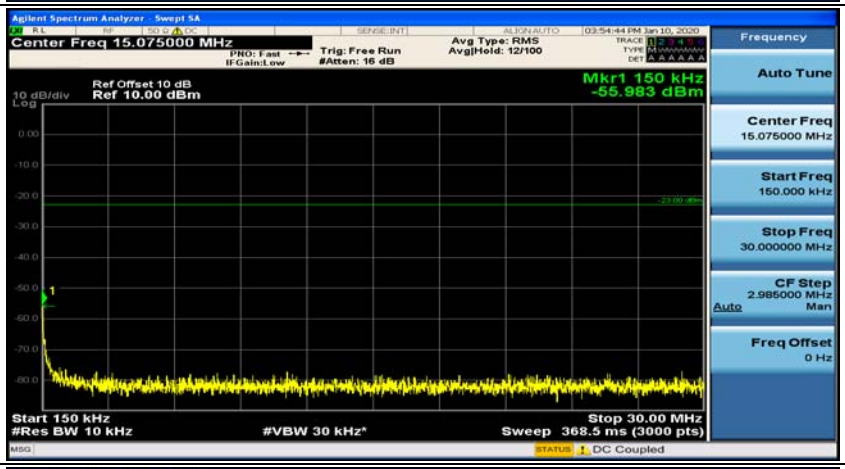


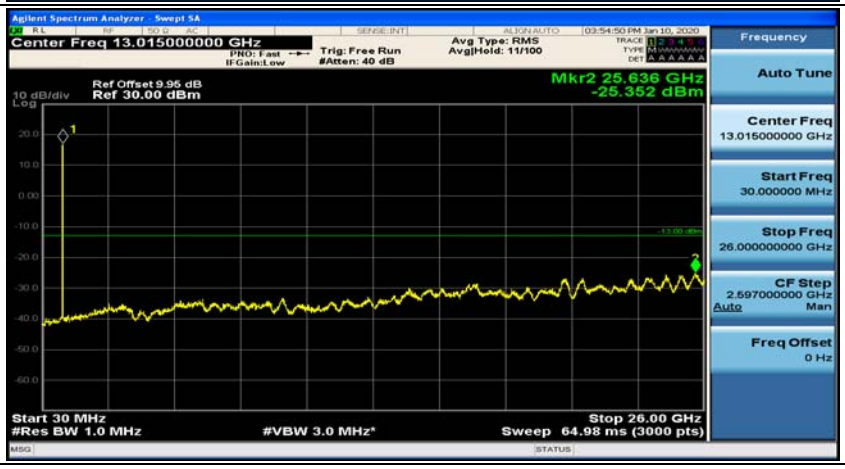


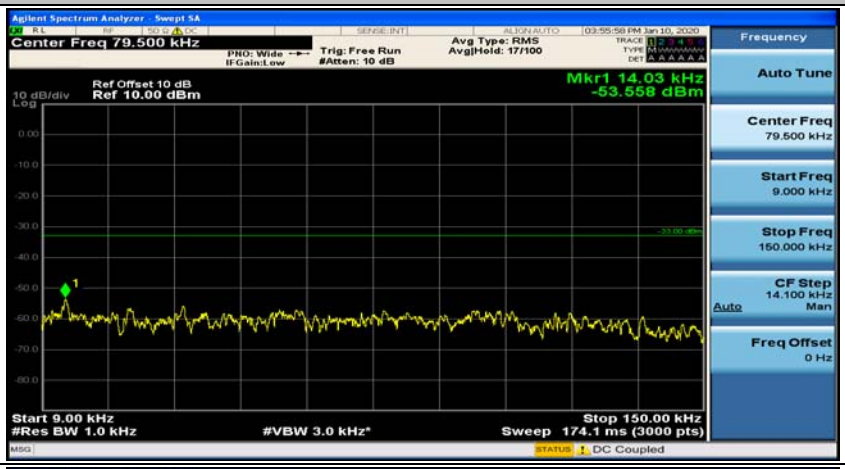
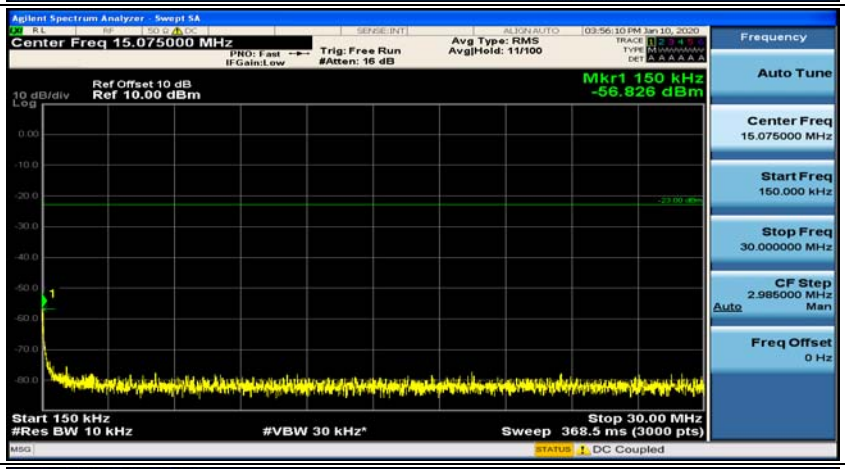
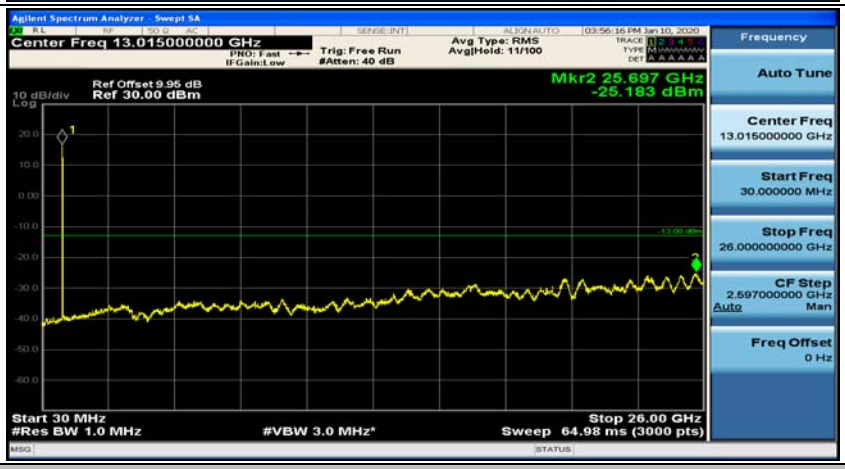


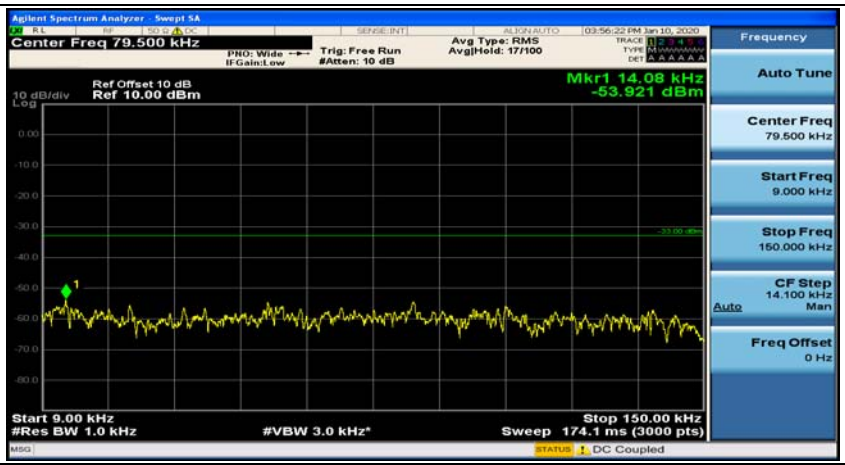
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

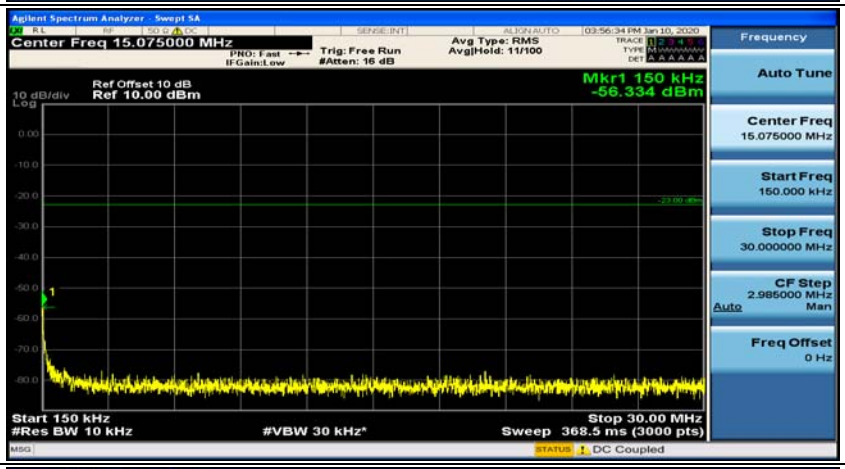

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:54:32 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 11.91 kHz
-53.750 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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

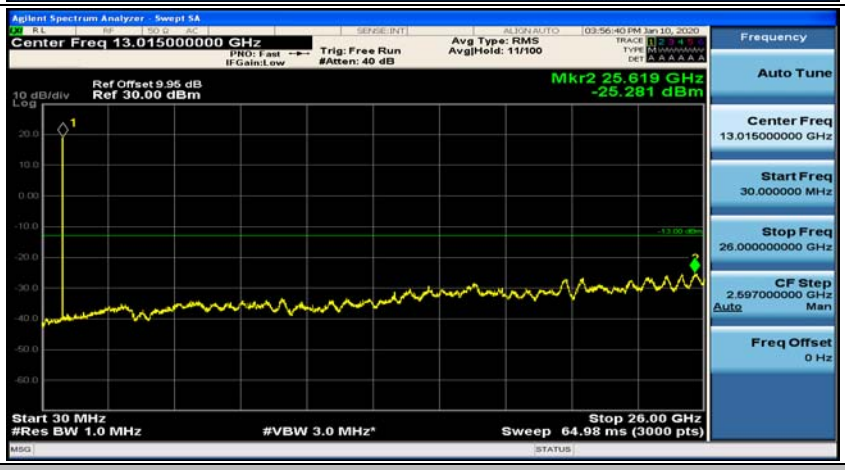

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
03:54:44 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 150 kHz
-55.983 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 11/100
03:54:50 PM Jan 10, 2020
Frequency
Ref Offset 9.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.636 GHz
-25.352 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

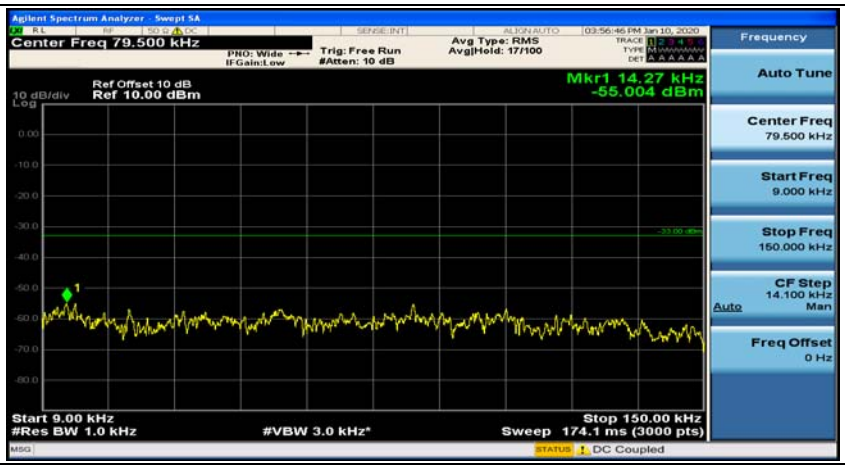
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

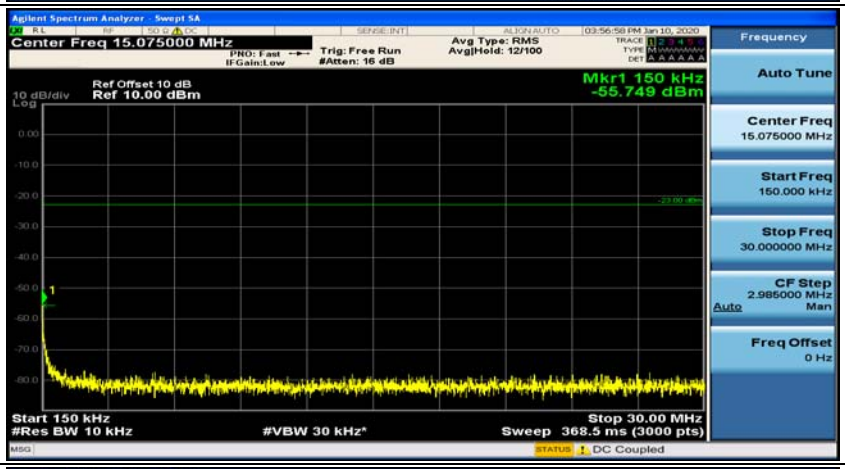


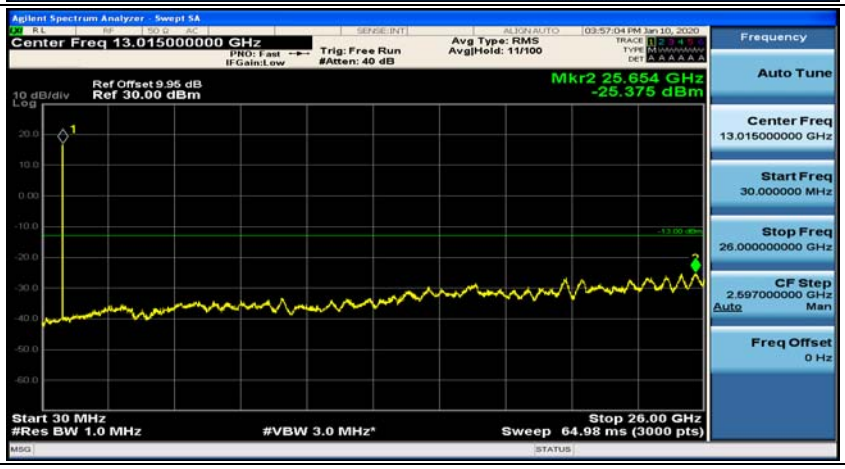




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

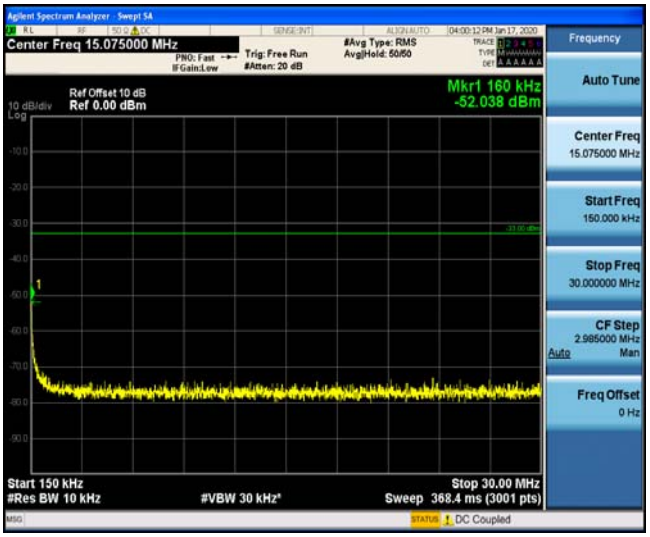

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:56:46 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 14.27 kHz
-55.004 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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

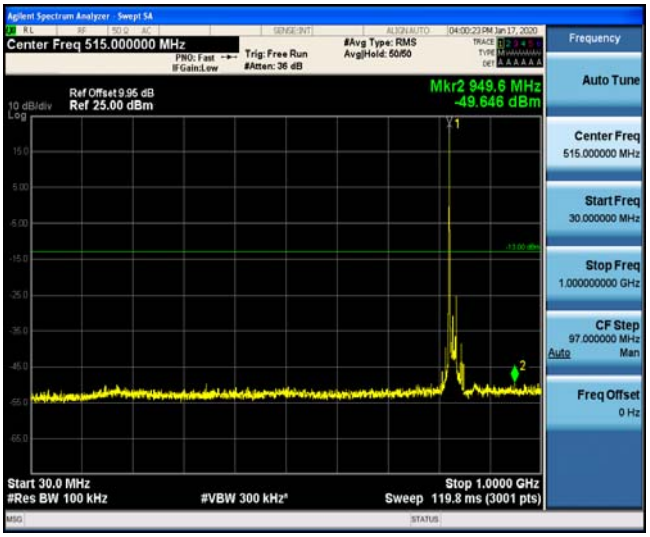

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
03:56:58 PM Jan 10, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 150 kHz
-55.749 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 11/100
03:57:04 PM Jan 10, 2020
Frequency
Ref Offset 9.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.654 GHz
-25.375 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

Channel Bandwidth: 15 MHz

Band26_15MHz_QPSK_26865_1RB#0

Band26_15MHz_QPSK_26865_1RB#0

Band26_15MHz_QPSK_26865_1RB#0



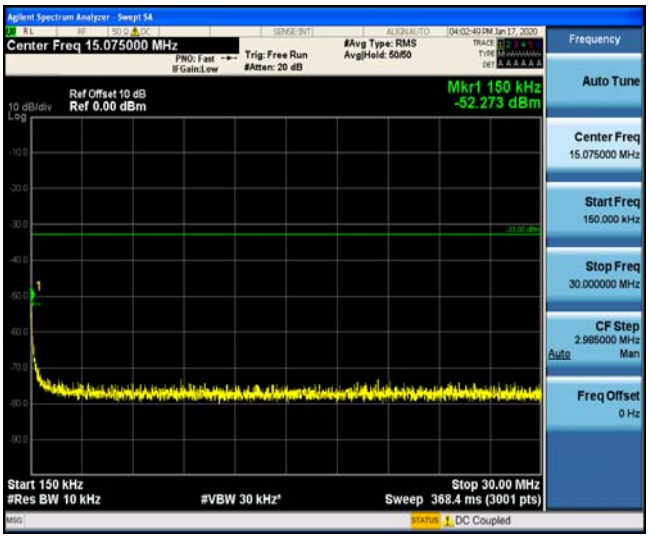
Band26_15MHz_QPSK_26865_1RB#0

Band26_15MHz_QPSK_26865_1RB#0

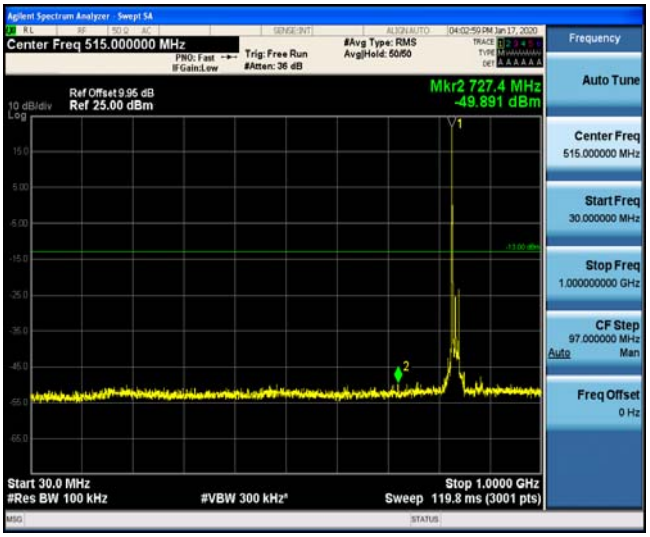
Band26_15MHz_QPSK_26865_1RB#0

Band26_15MHz_QPSK_26915_1RB#0

Band26_15MHz_QPSK_26915_1RB#0



Band26_15MHz_QPSK_26915_1RB#0



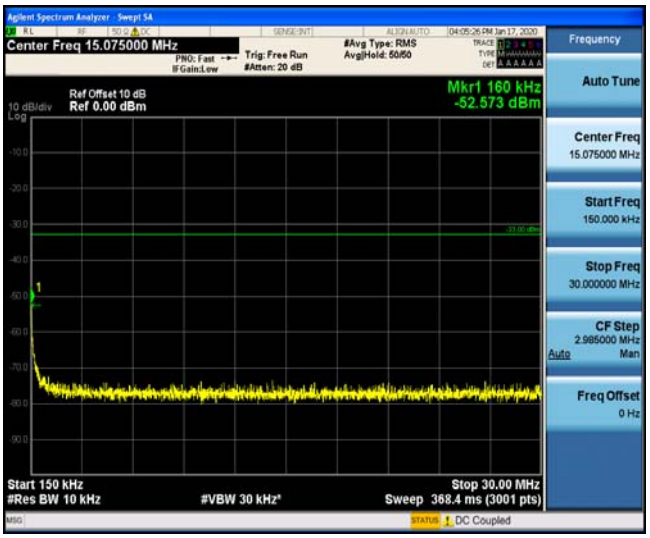
Band26_15MHz_QPSK_26915_1RB#0

Band26_15MHz_QPSK_26915_1RB#0

Band26_15MHz_QPSK_26915_1RB#0

Band26_15MHz_QPSK_26965_1RB#0

Band26_15MHz_QPSK_26965_1RB#0



Band26_15MHz_QPSK_26965_1RB#0

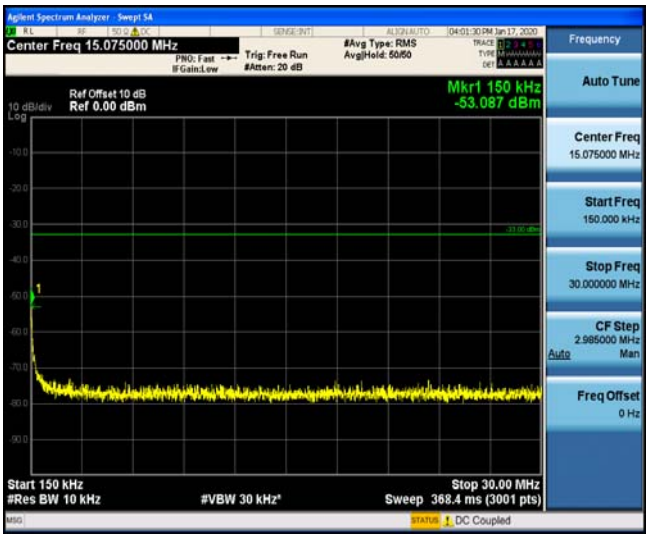
Band26_15MHz_QPSK_26965_1RB#0

Band26_15MHz_QPSK_26965_1RB#0

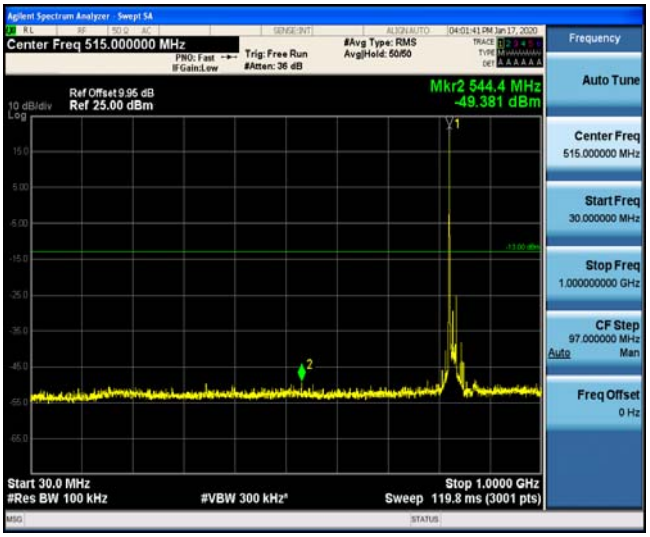
Band26_15MHz_QPSK_26965_1RB#0

Band26_15MHz_16QAM_26865_1RB#0

Band26_15MHz_16QAM_26865_1RB#0



Band26_15MHz_16QAM_26865_1RB#0

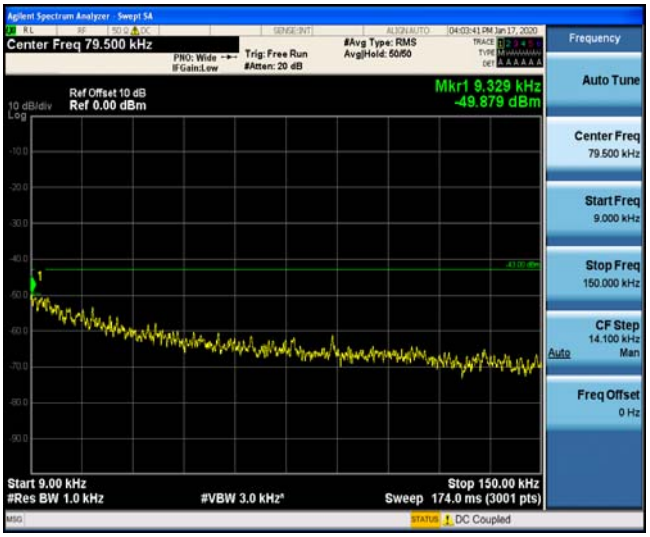


Band26_15MHz_16QAM_26865_1RB#0

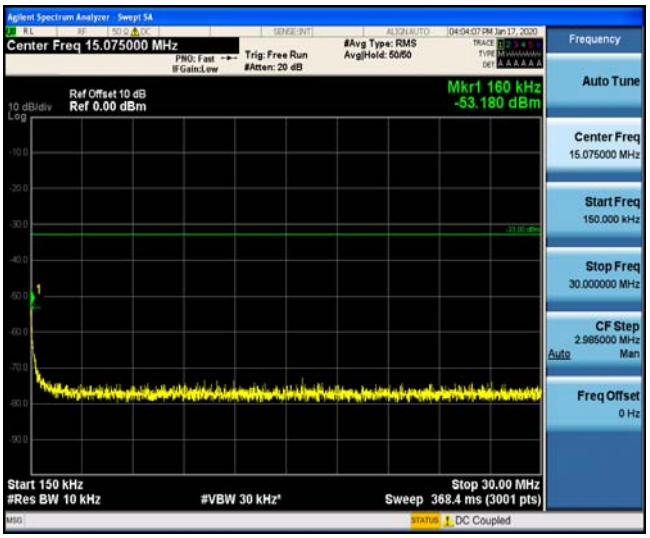
Band26_15MHz_16QAM_26865_1RB#0

Band26_15MHz_16QAM_26865_1RB#0

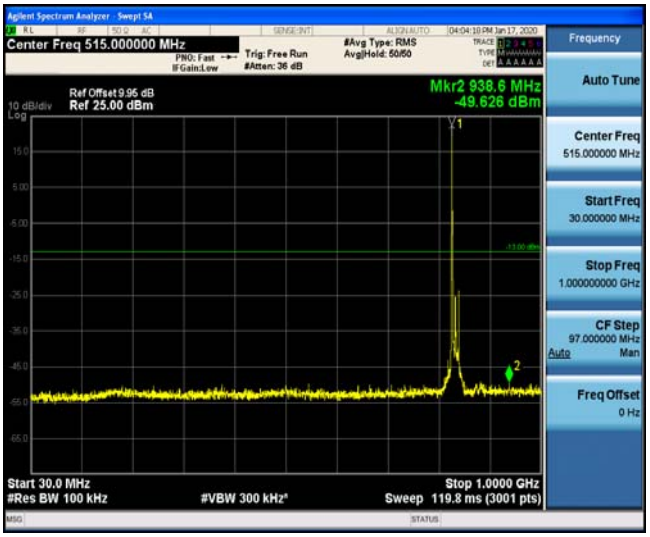
Band26_15MHz_16QAM_26915_1RB#0



Band26_15MHz_16QAM_26915_1RB#0



Band26_15MHz_16QAM_26915_1RB#0



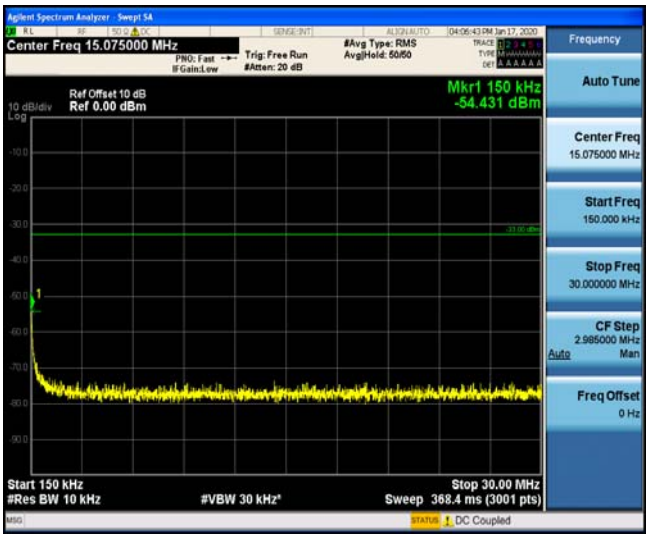
Band26_15MHz_16QAM_26915_1RB#0

Band26_15MHz_16QAM_26915_1RB#0

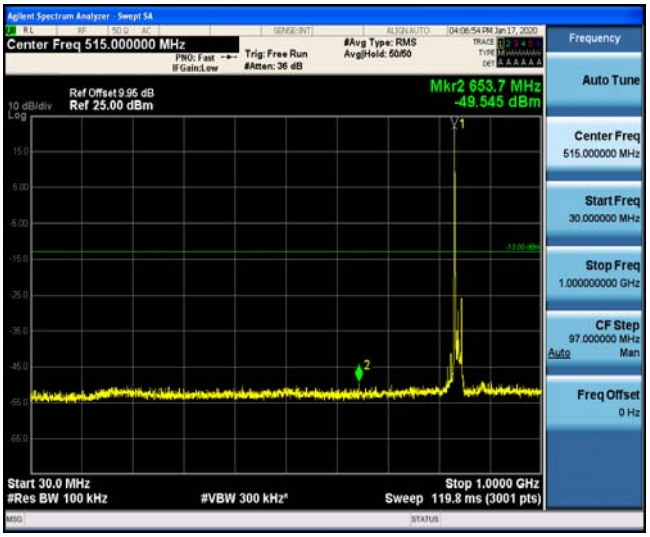
Band26_15MHz_16QAM_26915_1RB#0

Band26_15MHz_16QAM_26965_1RB#0

Band26_15MHz_16QAM_26965_1RB#0



Band26_15MHz_16QAM_26965_1RB#0



Band26_15MHz_16QAM_26965_1RB#0

Band26_15MHz_16QAM_26965_1RB#0

Band26_15MHz_16QAM_26965_1RB#0


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 3/3
Frequency
Auto Tune
Ref Offset 19.76 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 17.060 3 GHz
-39.687 dBm
Center Freq
15.000000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
18.000000000 GHz
CF Step
600.000000 MHz
Auto
Man
Freq Offset
0 Hz
Start 12.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 18.000 GHz
#Sweep 1.001 s (15000 pts)

Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.15	0.000182	± 2.5	PASS
		VN	TN	3.83	0.004644	± 2.5	PASS
		VH	TN	4.19	0.005081	± 2.5	PASS
	MCH	VL	TN	1.15	0.001375	± 2.5	PASS
		VN	TN	4.34	0.005188	± 2.5	PASS
		VH	TN	-0.95	-0.001136	± 2.5	PASS
	HCH	VL	TN	3.95	0.004656	± 2.5	PASS
		VN	TN	3.89	0.004586	± 2.5	PASS
		VH	TN	0.72	0.000849	± 2.5	PASS
16QAM	LCH	VL	TN	-1.49	-0.001807	± 2.5	PASS
		VN	TN	1.42	0.001722	± 2.5	PASS
		VH	TN	-0.37	-0.000449	± 2.5	PASS
	MCH	VL	TN	3.44	0.004112	± 2.5	PASS
		VN	TN	0.52	0.000622	± 2.5	PASS
		VH	TN	-1.02	-0.001219	± 2.5	PASS
	HCH	VL	TN	2.28	0.002688	± 2.5	PASS
		VN	TN	4.49	0.005293	± 2.5	PASS
		VH	TN	-0.21	-0.000248	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.98	-0.002401	± 2.5	PASS
		VN	-20	4.1	0.004972	± 2.5	PASS
		VN	-10	4.45	0.005396	± 2.5	PASS
		VN	0	1.99	0.002413	± 2.5	PASS
		VN	10	2.62	0.003177	± 2.5	PASS
		VN	20	1.2	0.001455	± 2.5	PASS
		VN	30	3.61	0.004377	± 2.5	PASS
		VN	40	1.13	0.001370	± 2.5	PASS
		VN	50	1.39	0.001685	± 2.5	PASS
	MCH	VN	-30	4.23	0.005057	± 2.5	PASS
		VN	-20	0.41	0.000490	± 2.5	PASS

		VN	-10	2.78	0.003323	± 2.5	PASS
		VN	0	0.14	0.000167	± 2.5	PASS
		VN	10	-0.07	-0.000084	± 2.5	PASS
		VN	20	2.18	0.002606	± 2.5	PASS
		VN	30	3.19	0.003814	± 2.5	PASS
		VN	40	0.96	0.001148	± 2.5	PASS
		VN	50	1.73	0.002068	± 2.5	PASS
	HCH	VN	-30	4.76	0.005611	± 2.5	PASS
		VN	-20	3.62	0.004267	± 2.5	PASS
		VN	-10	1.13	0.001332	± 2.5	PASS
		VN	0	0.05	0.000059	± 2.5	PASS
		VN	10	3.09	0.003643	± 2.5	PASS
		VN	20	1.38	0.001627	± 2.5	PASS
		VN	30	-1.46	-0.001721	± 2.5	PASS
		VN	40	4.04	0.004762	± 2.5	PASS
		VN	50	0.05	0.000059	± 2.5	PASS
16QAM	LCH	VN	-30	4.18	0.005069	± 2.5	PASS
		VN	-20	-0.26	-0.000315	± 2.5	PASS
		VN	-10	3.35	0.004062	± 2.5	PASS
		VN	0	-0.8	-0.000970	± 2.5	PASS
		VN	10	0.02	0.000024	± 2.5	PASS
		VN	20	1.77	0.002146	± 2.5	PASS
		VN	30	3.84	0.004656	± 2.5	PASS
		VN	40	-1.04	-0.001261	± 2.5	PASS
		VN	50	4.83	0.005857	± 2.5	PASS
	MCH	VN	-30	-0.74	-0.000872	± 2.5	PASS
		VN	-20	3.99	0.004704	± 2.5	PASS
		VN	-10	0.84	0.000990	± 2.5	PASS
		VN	0	1.33	0.001568	± 2.5	PASS
		VN	10	-0.03	-0.000035	± 2.5	PASS
		VN	20	-0.47	-0.000554	± 2.5	PASS
		VN	30	-0.51	-0.000601	± 2.5	PASS
		VN	40	4.81	0.005670	± 2.5	PASS
		VN	50	-1.84	-0.002169	± 2.5	PASS
	HCH	VN	-30	3.91	0.004609	± 2.5	PASS
		VN	-20	-0.74	-0.000872	± 2.5	PASS
		VN	-10	-0.73	-0.000861	± 2.5	PASS
		VN	0	-0.01	-0.000012	± 2.5	PASS
		VN	10	3.56	0.004197	± 2.5	PASS
		VN	20	2.58	0.003041	± 2.5	PASS
		VN	30	2.37	0.002794	± 2.5	PASS

		VN	40	3.47	0.004091	± 2.5	PASS
		VN	50	3.06	0.003607	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	4.39	0.005318	± 2.5	PASS
		VN	TN	3.86	0.004676	± 2.5	PASS
		VH	TN	-0.36	-0.000436	± 2.5	PASS
	MCH	VL	TN	-1.52	-0.001817	± 2.5	PASS
		VN	TN	-0.82	-0.000980	± 2.5	PASS
		VH	TN	0.54	0.000646	± 2.5	PASS
	HCH	VL	TN	2.17	0.002560	± 2.5	PASS
		VN	TN	1.22	0.001440	± 2.5	PASS
		VH	TN	-1.31	-0.001546	± 2.5	PASS
16QAM	LCH	VL	TN	-1.03	-0.001248	± 2.5	PASS
		VN	TN	0.26	0.000315	± 2.5	PASS
		VH	TN	3.93	0.004761	± 2.5	PASS
	MCH	VL	TN	0.53	0.000634	± 2.5	PASS
		VN	TN	-1.91	-0.002283	± 2.5	PASS
		VH	TN	0.49	0.000586	± 2.5	PASS
	HCH	VL	TN	2.04	0.002407	± 2.5	PASS
		VN	TN	1.43	0.001687	± 2.5	PASS
		VH	TN	4.14	0.004885	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.98	0.004821	± 2.5	PASS
		VN	-20	-1.88	-0.002277	± 2.5	PASS
		VN	-10	2.08	0.002520	± 2.5	PASS
		VN	0	2.52	0.003053	± 2.5	PASS
		VN	10	3.63	0.004397	± 2.5	PASS
		VN	20	1.63	0.001975	± 2.5	PASS
		VN	30	-1.82	-0.002205	± 2.5	PASS
		VN	40	-1.46	-0.001769	± 2.5	PASS
		VN	50	0.05	0.000061	± 2.5	PASS
	MCH	VN	-30	-0.65	-0.000777	± 2.5	PASS
		VN	-20	-0.89	-0.001064	± 2.5	PASS
		VN	-10	3.91	0.004674	± 2.5	PASS

		VN	0	0.16	0.000191	± 2.5	PASS
		VN	10	3.57	0.004268	± 2.5	PASS
		VN	20	-1.94	-0.002319	± 2.5	PASS
		VN	30	-1.6	-0.001913	± 2.5	PASS
		VN	40	3.51	0.004196	± 2.5	PASS
		VN	50	4.08	0.004877	± 2.5	PASS
	HCH	VN	-30	-0.04	-0.000047	± 2.5	PASS
		VN	-20	4.43	0.005227	± 2.5	PASS
		VN	-10	3.76	0.004437	± 2.5	PASS
		VN	0	0.81	0.000956	± 2.5	PASS
		VN	10	-0.27	-0.000319	± 2.5	PASS
		VN	20	1.75	0.002065	± 2.5	PASS
		VN	30	1.25	0.001475	± 2.5	PASS
		VN	40	-0.95	-0.001121	± 2.5	PASS
		VN	50	-1.86	-0.002195	± 2.5	PASS
16QAM	LCH	VN	-30	0.53	0.000634	± 2.5	PASS
		VN	-20	2.39	0.002857	± 2.5	PASS
		VN	-10	-0.42	-0.000502	± 2.5	PASS
		VN	0	-1.28	-0.001530	± 2.5	PASS
		VN	10	2.44	0.002917	± 2.5	PASS
		VN	20	4.21	0.005033	± 2.5	PASS
		VN	30	2	0.002391	± 2.5	PASS
		VN	40	2.96	0.003539	± 2.5	PASS
		VN	50	2.43	0.002905	± 2.5	PASS
	MCH	VN	-30	4.01	0.004732	± 2.5	PASS
		VN	-20	3.62	0.004271	± 2.5	PASS
		VN	-10	-0.55	-0.000649	± 2.5	PASS
		VN	0	4.26	0.005027	± 2.5	PASS
		VN	10	2.89	0.003410	± 2.5	PASS
		VN	20	2.82	0.003327	± 2.5	PASS
		VN	30	2.48	0.002926	± 2.5	PASS
		VN	40	1.87	0.002206	± 2.5	PASS
		VN	50	0.82	0.000968	± 2.5	PASS
	HCH	VN	-30	-0.54	-0.000637	± 2.5	PASS
		VN	-20	3.31	0.003906	± 2.5	PASS
		VN	-10	3.16	0.003729	± 2.5	PASS
		VN	0	2.64	0.003115	± 2.5	PASS
		VN	10	4.84	0.005711	± 2.5	PASS
		VN	20	1.06	0.001251	± 2.5	PASS
		VN	30	1.07	0.001263	± 2.5	PASS
		VN	40	-0.06	-0.000071	± 2.5	PASS

		VN	50	1.4	0.001652	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.09	-0.000109	± 2.5	PASS
		VN	TN	1.63	0.001972	± 2.5	PASS
		VH	TN	2.99	0.003618	± 2.5	PASS
	MCH	VL	TN	2.42	0.002893	± 2.5	PASS
		VN	TN	3.69	0.004411	± 2.5	PASS
		VH	TN	2.57	0.003072	± 2.5	PASS
	HCH	VL	TN	3.02	0.003568	± 2.5	PASS
		VN	TN	3.61	0.004265	± 2.5	PASS
		VH	TN	0.55	0.000650	± 2.5	PASS
16QAM	LCH	VL	TN	0.74	0.000895	± 2.5	PASS
		VN	TN	0.94	0.001137	± 2.5	PASS
		VH	TN	1.59	0.001924	± 2.5	PASS
	MCH	VL	TN	-1.31	-0.001566	± 2.5	PASS
		VN	TN	1.96	0.002343	± 2.5	PASS
		VH	TN	2.6	0.003108	± 2.5	PASS
	HCH	VL	TN	-0.34	-0.000402	± 2.5	PASS
		VN	TN	3.08	0.003639	± 2.5	PASS
		VH	TN	2.41	0.002847	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.09	0.004949	± 2.5	PASS
		VN	-20	-0.8	-0.000968	± 2.5	PASS
		VN	-10	4.15	0.005021	± 2.5	PASS
		VN	0	-1.71	-0.002069	± 2.5	PASS
		VN	10	-1.72	-0.002081	± 2.5	PASS
		VN	20	1.47	0.001779	± 2.5	PASS
		VN	30	1.91	0.002311	± 2.5	PASS
		VN	40	-0.87	-0.001053	± 2.5	PASS
		VN	50	1.96	0.002371	± 2.5	PASS
	MCH	VN	-30	-0.97	-0.001160	± 2.5	PASS
		VN	-20	0.04	0.000048	± 2.5	PASS
		VN	-10	2.29	0.002738	± 2.5	PASS
		VN	0	1.09	0.001303	± 2.5	PASS

		VN	10	-1.83	-0.002188	± 2.5	PASS
		VN	20	0.46	0.000550	± 2.5	PASS
		VN	30	-0.38	-0.000454	± 2.5	PASS
		VN	40	4.21	0.005033	± 2.5	PASS
		VN	50	1.75	0.002092	± 2.5	PASS
	HCH	VN	-30	3.06	0.003615	± 2.5	PASS
		VN	-20	-1.29	-0.001524	± 2.5	PASS
		VN	-10	0.82	0.000969	± 2.5	PASS
		VN	0	4.32	0.005103	± 2.5	PASS
		VN	10	3.72	0.004395	± 2.5	PASS
		VN	20	1.42	0.001677	± 2.5	PASS
		VN	30	4.47	0.005281	± 2.5	PASS
		VN	40	3.14	0.003709	± 2.5	PASS
		VN	50	4.91	0.005800	± 2.5	PASS
16QAM	LCH	VN	-30	-1.71	-0.002044	± 2.5	PASS
		VN	-20	4.14	0.004949	± 2.5	PASS
		VN	-10	3.44	0.004112	± 2.5	PASS
		VN	0	0.59	0.000705	± 2.5	PASS
		VN	10	-1.71	-0.002044	± 2.5	PASS
		VN	20	3.25	0.003885	± 2.5	PASS
		VN	30	0.44	0.000526	± 2.5	PASS
		VN	40	2.57	0.003072	± 2.5	PASS
		VN	50	-1.2	-0.001435	± 2.5	PASS
	MCH	VN	-30	2.94	0.003473	± 2.5	PASS
		VN	-20	4.81	0.005682	± 2.5	PASS
		VN	-10	0.72	0.000851	± 2.5	PASS
		VN	0	-0.95	-0.001122	± 2.5	PASS
		VN	10	-0.55	-0.000650	± 2.5	PASS
		VN	20	-1.7	-0.002008	± 2.5	PASS
		VN	30	0.65	0.000768	± 2.5	PASS
		VN	40	2.62	0.003095	± 2.5	PASS
		VN	50	4	0.004725	± 2.5	PASS
	HCH	VN	-30	2.05	0.002422	± 2.5	PASS
		VN	-20	-1.11	-0.001311	± 2.5	PASS
		VN	-10	1.01	0.001193	± 2.5	PASS
		VN	0	-0.4	-0.000473	± 2.5	PASS
		VN	10	3.45	0.004076	± 2.5	PASS
		VN	20	1.94	0.002292	± 2.5	PASS
		VN	30	-0.06	-0.000071	± 2.5	PASS
		VN	40	0.93	0.001099	± 2.5	PASS
		VN	50	-1.74	-0.002056	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.77	0.003341	± 2.5	PASS
		VN	TN	1.56	0.001882	± 2.5	PASS
		VH	TN	0	0.000000	± 2.5	PASS
	MCH	VL	TN	4.13	0.004937	± 2.5	PASS
		VN	TN	-1.78	-0.002128	± 2.5	PASS
		VH	TN	3.39	0.004053	± 2.5	PASS
	HCH	VL	TN	3.03	0.003590	± 2.5	PASS
		VN	TN	-0.93	-0.001102	± 2.5	PASS
		VH	TN	1.18	0.001398	± 2.5	PASS
16QAM	LCH	VL	TN	0.7	0.000844	± 2.5	PASS
		VN	TN	-1.71	-0.002063	± 2.5	PASS
		VH	TN	2.07	0.002497	± 2.5	PASS
	MCH	VL	TN	3.31	0.003957	± 2.5	PASS
		VN	TN	2.95	0.003527	± 2.5	PASS
		VH	TN	4.91	0.005870	± 2.5	PASS
	HCH	VL	TN	-1.71	-0.002026	± 2.5	PASS
		VN	TN	4.97	0.005889	± 2.5	PASS
		VH	TN	1.58	0.001872	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.4	0.001689	± 2.5	PASS
		VN	-20	-1.02	-0.001230	± 2.5	PASS
		VN	-10	-0.27	-0.000326	± 2.5	PASS
		VN	0	-1.12	-0.001351	± 2.5	PASS
		VN	10	0.55	0.000663	± 2.5	PASS
		VN	20	3.86	0.004656	± 2.5	PASS
		VN	30	2.2	0.002654	± 2.5	PASS
		VN	40	3.66	0.004415	± 2.5	PASS
		VN	50	4.66	0.005621	± 2.5	PASS
	MCH	VN	-30	-0.01	-0.000012	± 2.5	PASS
		VN	-20	-1.41	-0.001686	± 2.5	PASS
		VN	-10	1.88	0.002247	± 2.5	PASS
		VN	0	3.65	0.004363	± 2.5	PASS
		VN	10	2	0.002391	± 2.5	PASS
		VN	20	3.45	0.004124	± 2.5	PASS

		VN	30	1.44	0.001721	± 2.5	PASS
		VN	40	-0.12	-0.000143	± 2.5	PASS
		VN	50	3.2	0.003825	± 2.5	PASS
	HCH	VN	-30	-0.8	-0.000948	± 2.5	PASS
		VN	-20	4.68	0.005545	± 2.5	PASS
		VN	-10	0.32	0.000379	± 2.5	PASS
		VN	0	-1.56	-0.001848	± 2.5	PASS
		VN	10	1.21	0.001434	± 2.5	PASS
		VN	20	2.93	0.003472	± 2.5	PASS
		VN	30	3.86	0.004573	± 2.5	PASS
		VN	40	2.62	0.003104	± 2.5	PASS
		VN	50	-1.1	-0.001303	± 2.5	PASS
16QAM	LCH	VN	-30	0.7	0.000837	± 2.5	PASS
		VN	-20	2.82	0.003371	± 2.5	PASS
		VN	-10	-0.3	-0.000359	± 2.5	PASS
		VN	0	2.86	0.003419	± 2.5	PASS
		VN	10	4.18	0.004997	± 2.5	PASS
		VN	20	-1.05	-0.001255	± 2.5	PASS
		VN	30	-0.07	-0.000084	± 2.5	PASS
		VN	40	-0.08	-0.000096	± 2.5	PASS
		VN	50	-1.87	-0.002236	± 2.5	PASS
	MCH	VN	-30	2.11	0.002500	± 2.5	PASS
		VN	-20	-1.07	-0.001268	± 2.5	PASS
		VN	-10	-1.69	-0.002002	± 2.5	PASS
		VN	0	1.93	0.002287	± 2.5	PASS
		VN	10	-0.84	-0.000995	± 2.5	PASS
		VN	20	0.17	0.000201	± 2.5	PASS
		VN	30	2.5	0.002962	± 2.5	PASS
		VN	40	1.42	0.001682	± 2.5	PASS
		VN	50	1.4	0.001659	± 2.5	PASS
	HCH	VN	-30	3.33	0.003945	± 2.5	PASS
		VN	-20	4.3	0.005095	± 2.5	PASS
		VN	-10	0.04	0.000047	± 2.5	PASS
		VN	0	-1.09	-0.001291	± 2.5	PASS
		VN	10	3.78	0.004479	± 2.5	PASS
		VN	20	0.61	0.000723	± 2.5	PASS
		VN	30	0.47	0.000557	± 2.5	PASS
		VN	40	0.16	0.000190	± 2.5	PASS
		VN	50	2.88	0.003412	± 2.5	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.77	0.003331	± 2.5	PASS
		VN	TN	4.46	0.005364	± 2.5	PASS
		VH	TN	-1.61	-0.001936	± 2.5	PASS
	MCH	VL	TN	4.67	0.005583	± 2.5	PASS
		VN	TN	-1.63	-0.001949	± 2.5	PASS
		VH	TN	0.37	0.000442	± 2.5	PASS
	HCH	VL	TN	2.14	0.002543	± 2.5	PASS
		VN	TN	-0.32	-0.000380	± 2.5	PASS
		VH	TN	-1.33	-0.001581	± 2.5	PASS
16QAM	LCH	VL	TN	-1.77	-0.002129	± 2.5	PASS
		VN	TN	-0.93	-0.001118	± 2.5	PASS
		VH	TN	4.58	0.005508	± 2.5	PASS
	MCH	VL	TN	4.12	0.004925	± 2.5	PASS
		VN	TN	-1.71	-0.002044	± 2.5	PASS
		VH	TN	-1.75	-0.002092	± 2.5	PASS
	HCH	VL	TN	4.82	0.005728	± 2.5	PASS
		VN	TN	-0.36	-0.000428	± 2.5	PASS
		VH	TN	-1.06	-0.001260	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.93	0.005929	± 2.5	PASS
		VN	-20	4.93	0.005929	± 2.5	PASS
		VN	-10	-1.25	-0.001503	± 2.5	PASS
		VN	0	3.35	0.004029	± 2.5	PASS
		VN	10	2.95	0.003548	± 2.5	PASS
		VN	20	-1.04	-0.001251	± 2.5	PASS
		VN	30	1.83	0.002201	± 2.5	PASS
		VN	40	0.99	0.001191	± 2.5	PASS
		VN	50	2.49	0.002995	± 2.5	PASS
	MCH	VN	-30	-1.45	-0.001733	± 2.5	PASS
		VN	-20	4.98	0.005953	± 2.5	PASS
		VN	-10	1.88	0.002247	± 2.5	PASS
		VN	0	3.98	0.004758	± 2.5	PASS
		VN	10	1.25	0.001494	± 2.5	PASS

		VN	20	3.32	0.003969	± 2.5	PASS
		VN	30	1	0.001195	± 2.5	PASS
		VN	40	-0.43	-0.000514	± 2.5	PASS
		VN	50	1.74	0.002080	± 2.5	PASS
	HCH	VN	-30	2.2	0.002614	± 2.5	PASS
		VN	-20	3.9	0.004635	± 2.5	PASS
		VN	-10	-0.26	-0.000309	± 2.5	PASS
		VN	0	4.56	0.005419	± 2.5	PASS
		VN	10	4.23	0.005027	± 2.5	PASS
		VN	20	3.6	0.004278	± 2.5	PASS
		VN	30	2.18	0.002591	± 2.5	PASS
		VN	40	3.85	0.004575	± 2.5	PASS
		VN	50	2.72	0.003232	± 2.5	PASS
16QAM	LCH	VN	-30	0.62	0.000746	± 2.5	PASS
		VN	-20	2.5	0.003007	± 2.5	PASS
		VN	-10	1	0.001203	± 2.5	PASS
		VN	0	-0.2	-0.000241	± 2.5	PASS
		VN	10	-0.51	-0.000613	± 2.5	PASS
		VN	20	-1.84	-0.002213	± 2.5	PASS
		VN	30	-0.05	-0.000060	± 2.5	PASS
		VN	40	-1.56	-0.001876	± 2.5	PASS
		VN	50	3.44	0.004137	± 2.5	PASS
	MCH	VN	-30	0.16	0.000191	± 2.5	PASS
		VN	-20	3.37	0.004029	± 2.5	PASS
		VN	-10	2.31	0.002762	± 2.5	PASS
		VN	0	-1.19	-0.001423	± 2.5	PASS
		VN	10	0.72	0.000861	± 2.5	PASS
		VN	20	1.7	0.002032	± 2.5	PASS
		VN	30	2.36	0.002821	± 2.5	PASS
		VN	40	1.79	0.002140	± 2.5	PASS
		VN	50	4.41	0.005272	± 2.5	PASS
	HCH	VN	-30	2.22	0.002638	± 2.5	PASS
		VN	-20	2.25	0.002674	± 2.5	PASS
		VN	-10	3.56	0.004231	± 2.5	PASS
		VN	0	-0.11	-0.000131	± 2.5	PASS
		VN	10	3.27	0.003886	± 2.5	PASS
		VN	20	1.73	0.002056	± 2.5	PASS
		VN	30	1.71	0.002032	± 2.5	PASS
		VN	40	-1.41	-0.001676	± 2.5	PASS
		VN	50	1.95	0.002317	± 2.5	PASS