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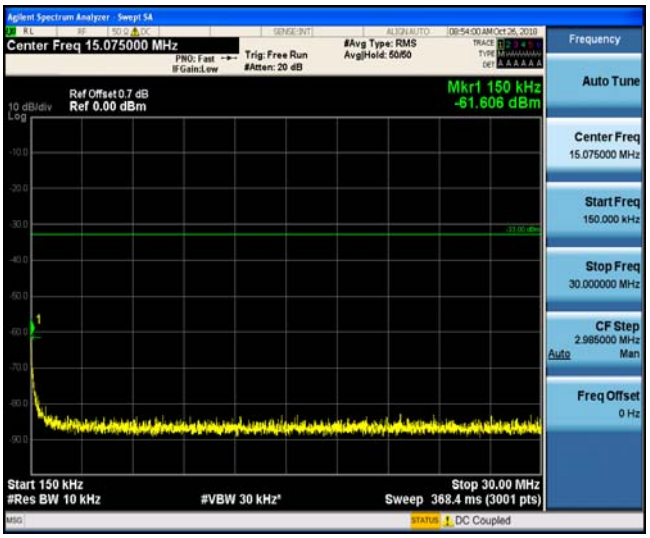
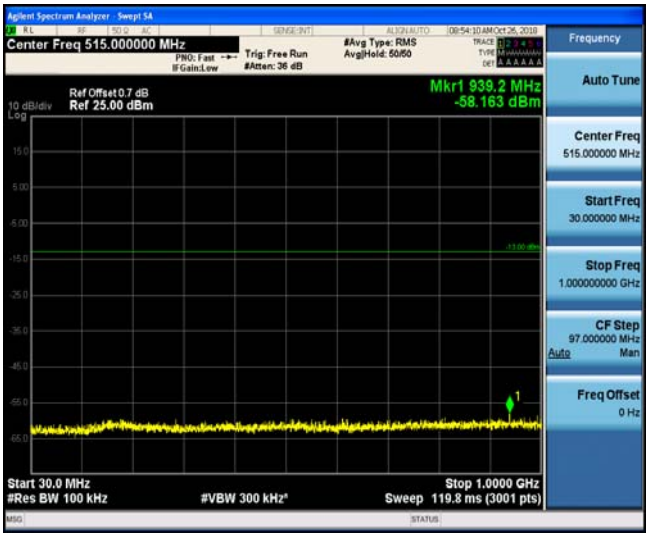
Band4_5MHz_16QAM_20175_1RB#0



Band4_5MHz_16QAM_20175_1RB#0



Band4_5MHz_16QAM_20175_1RB#0

Band4_5MHz_16QAM_20175_1RB#0

Band4_5MHz_16QAM_20175_1RB#0

Band4_5MHz_16QAM_20375_1RB#0

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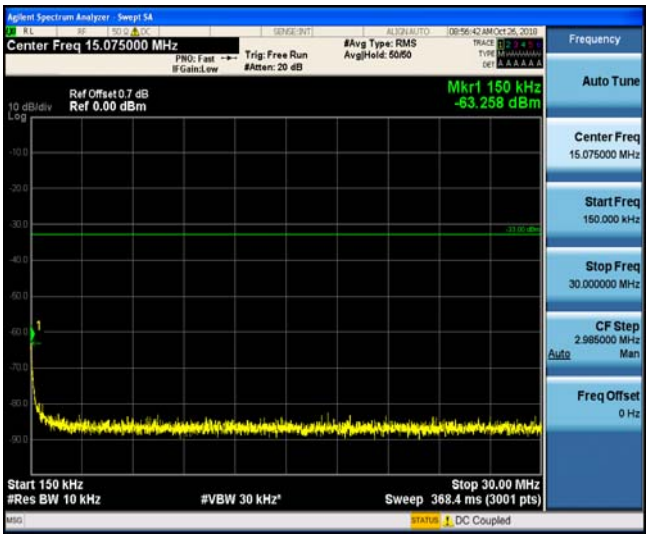

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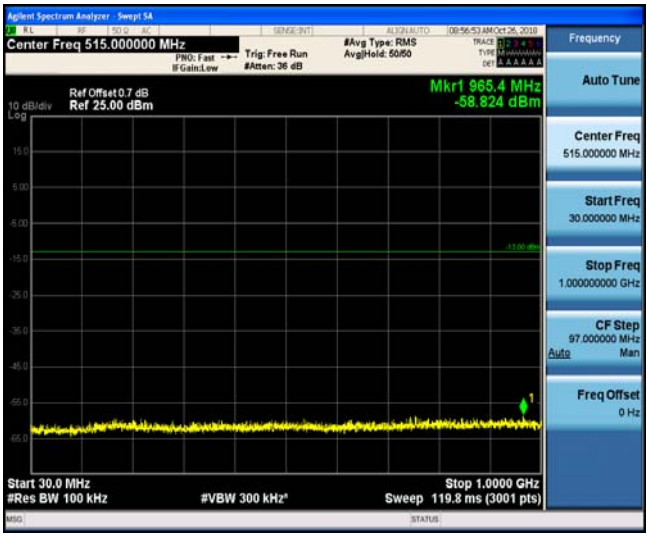

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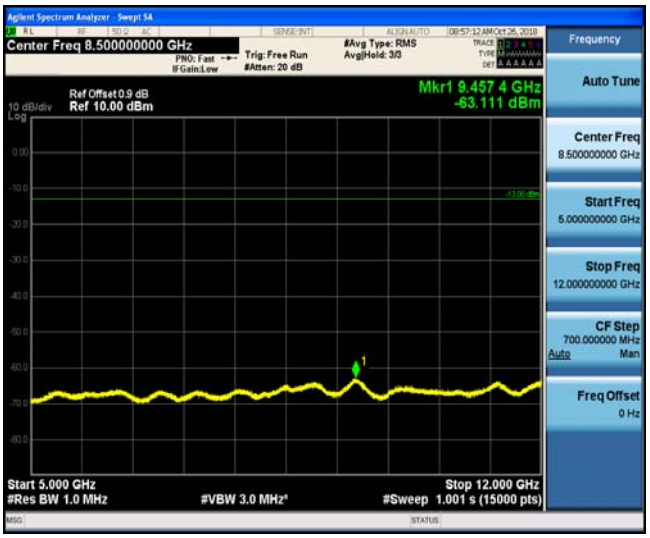
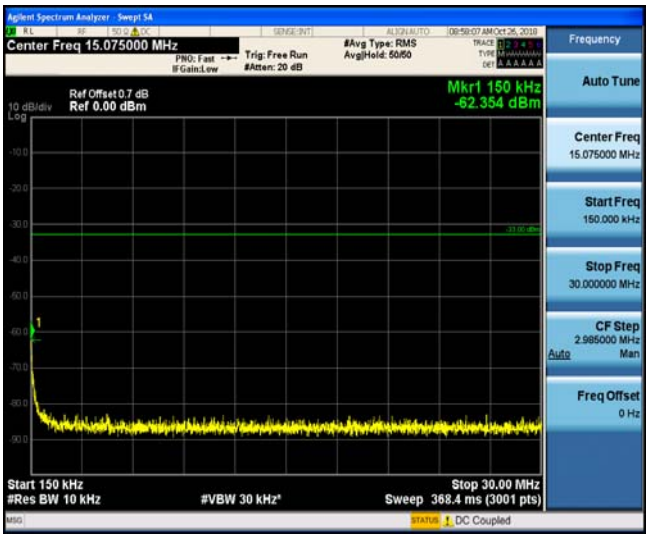


Band4_5MHz_16QAM_20375_1RB#0

Band4_10MHz_QPSK_20000_1RB#0

Band4_10MHz_QPSK_20000_1RB#0



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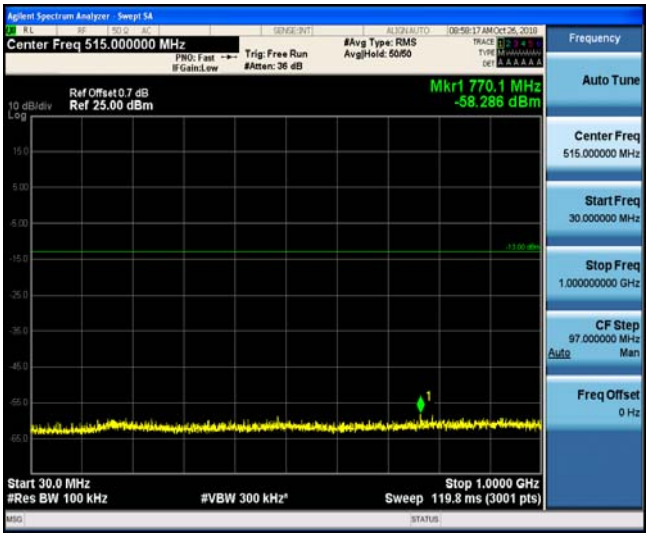

Band4_10MHz_QPSK_20000_1RB#0

Band4_10MHz_QPSK_20000_1RB#0

Band4_10MHz_QPSK_20000_1RB#0

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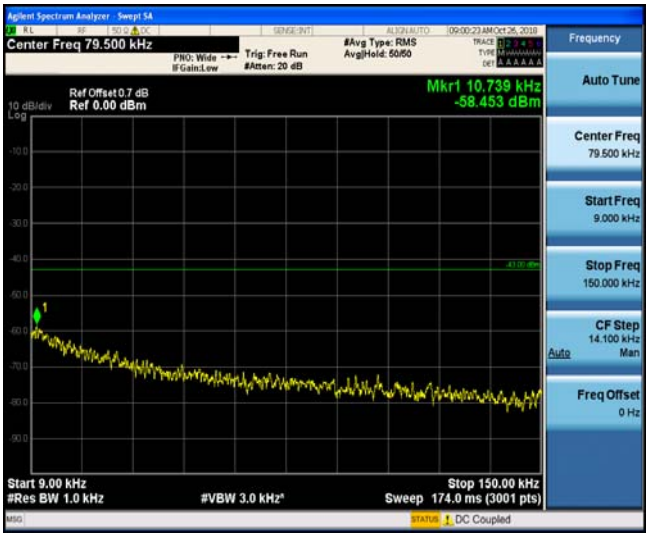

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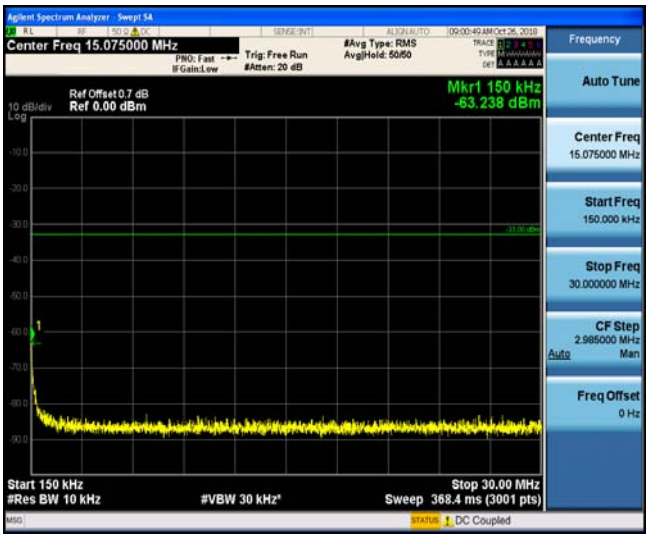
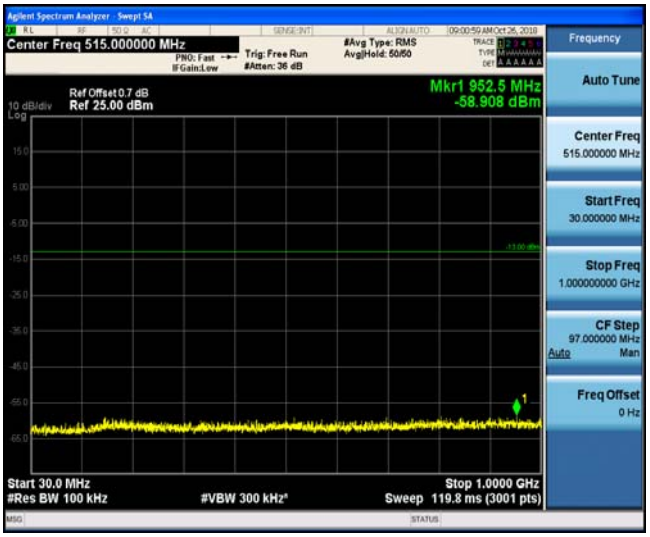
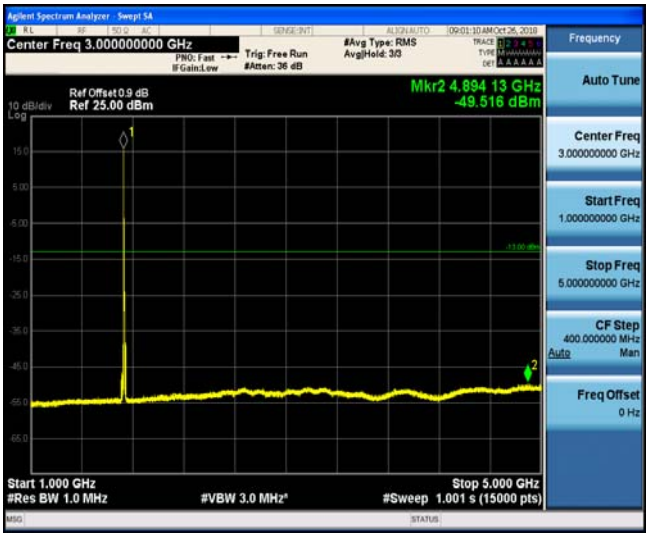


Band4_10MHz_QPSK_20175_1RB#0



Band4_10MHz_QPSK_20175_1RB#0



Band4_10MHz_QPSK_20175_1RB#0

Band4_10MHz_QPSK_20175_1RB#0

Band4_10MHz_QPSK_20350_1RB#0

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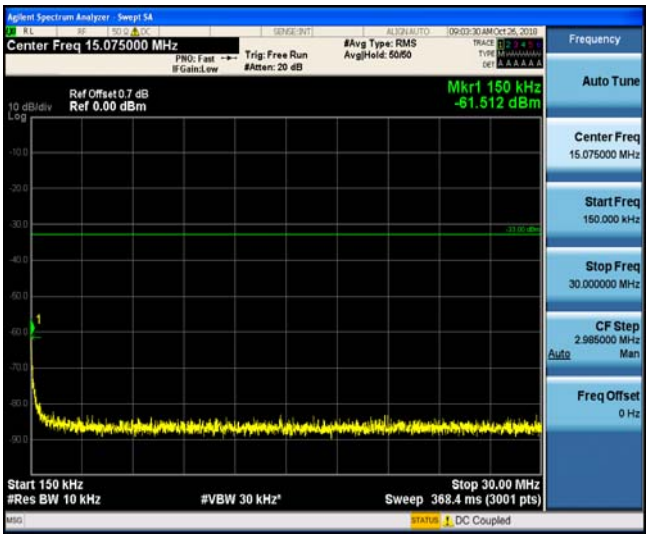

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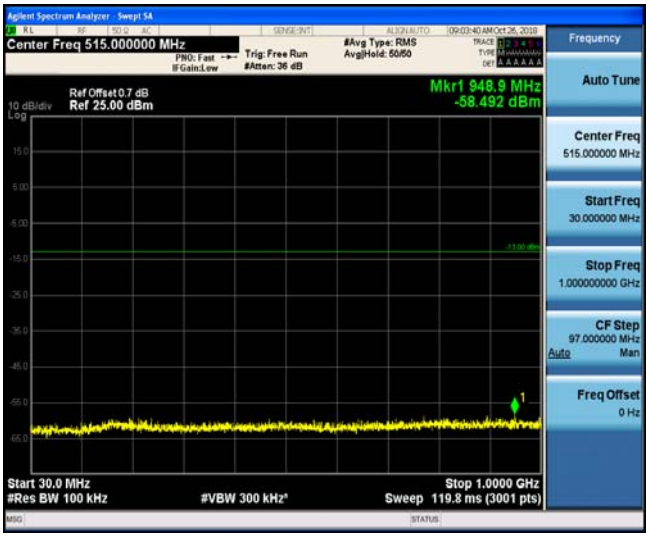

Band4_10MHz_QPSK_20350_1RB#0

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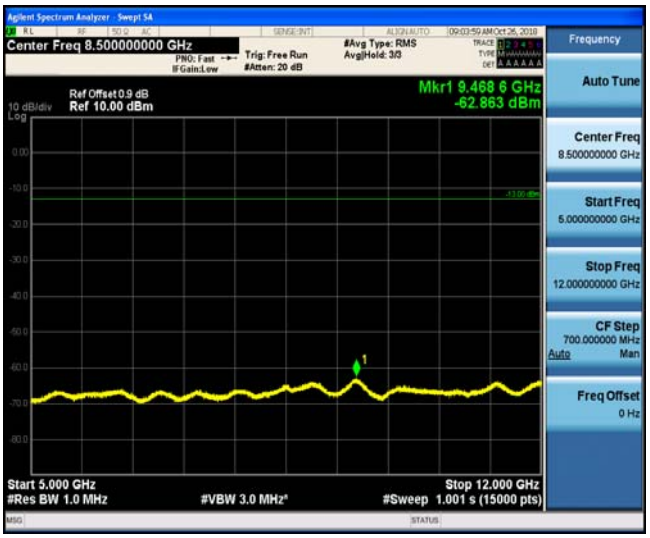
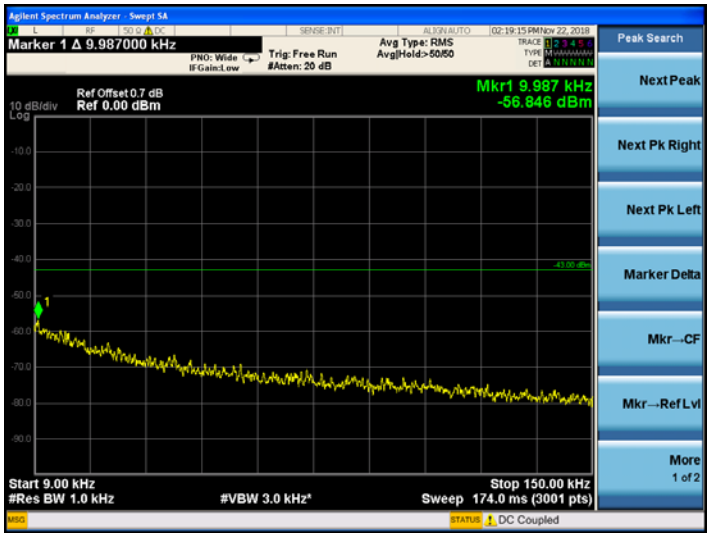


Band4_10MHz_QPSK_20350_1RB#0

Band4_10MHz_16QAM_20000_1RB#0



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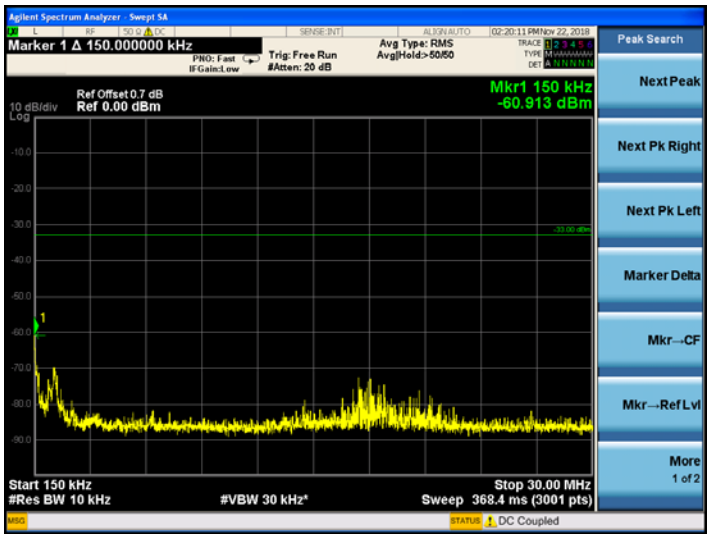

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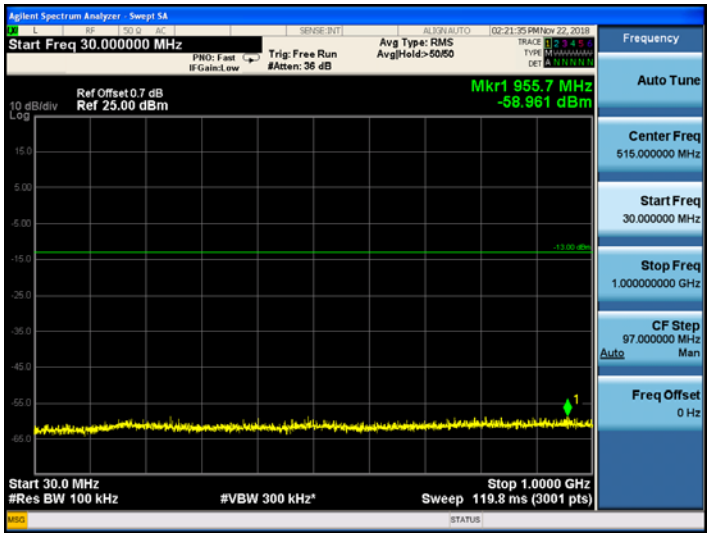

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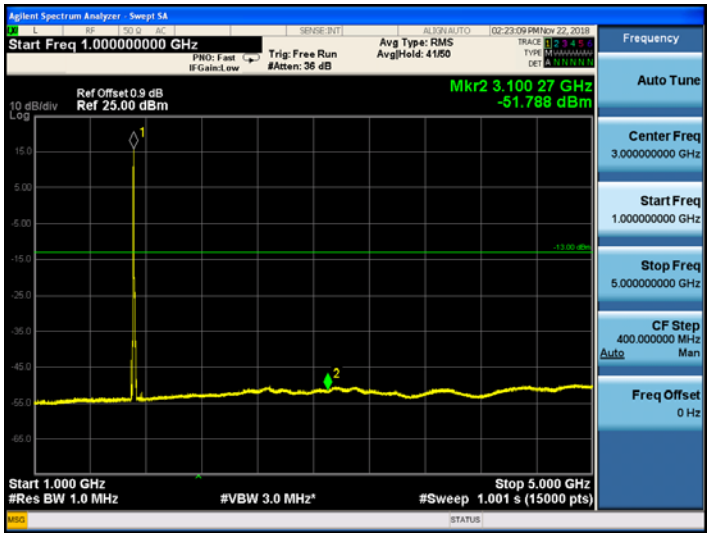

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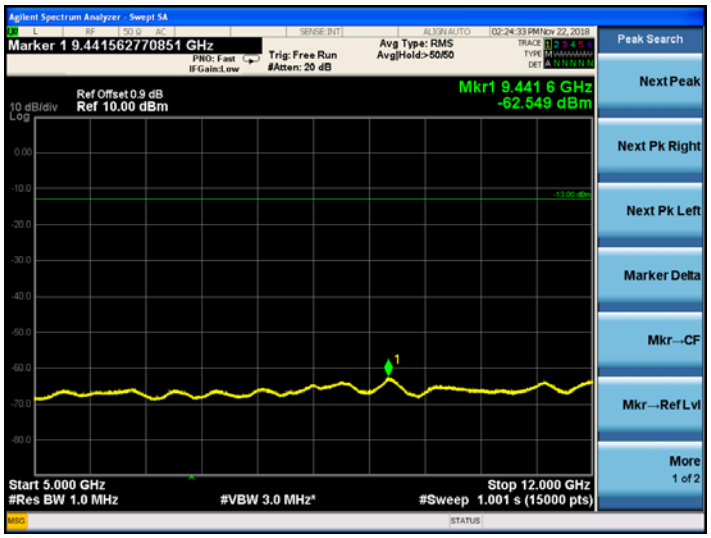
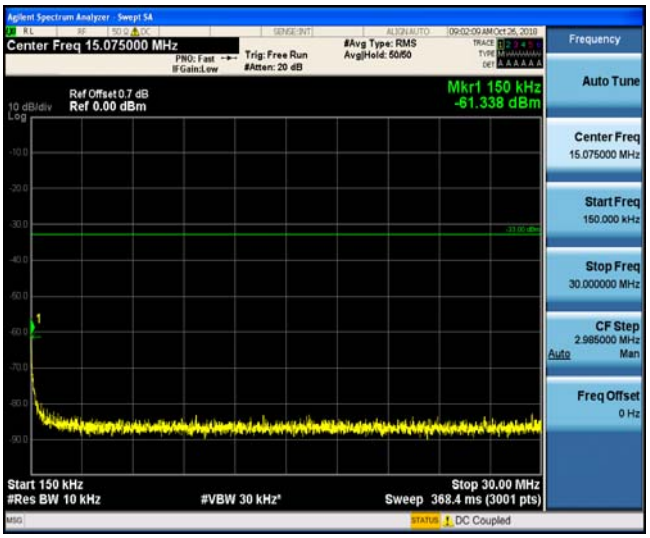


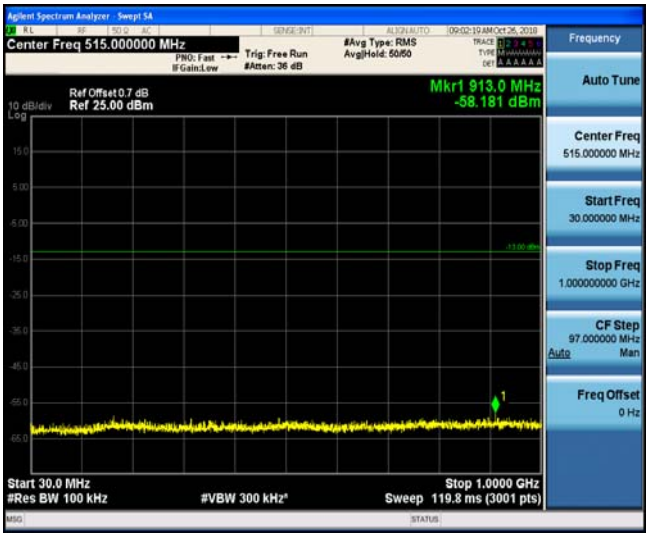
Band4_10MHz_16QAM_20000_1RB#0

Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20175_1RB#0



Band4_10MHz_16QAM_20175_1RB#0

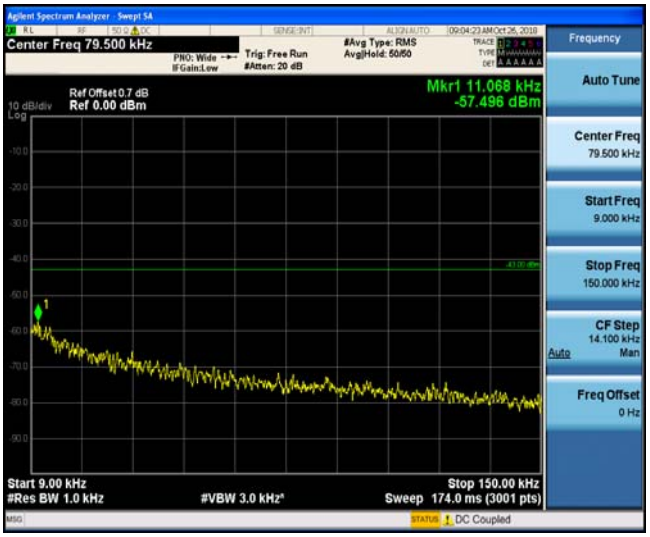


Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20350_1RB#0



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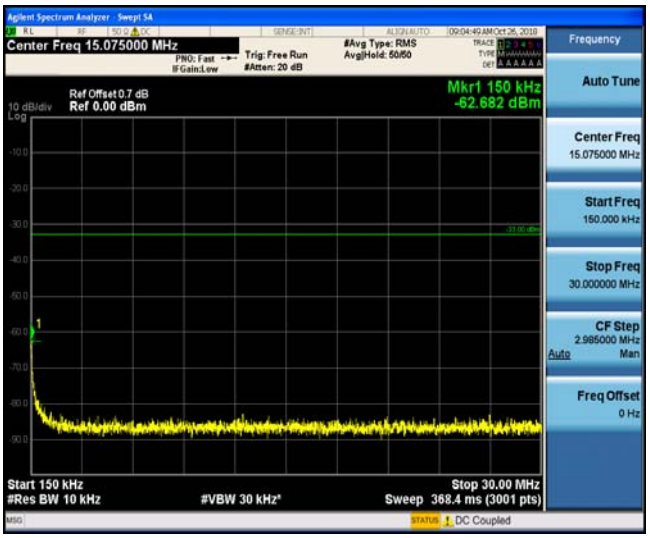

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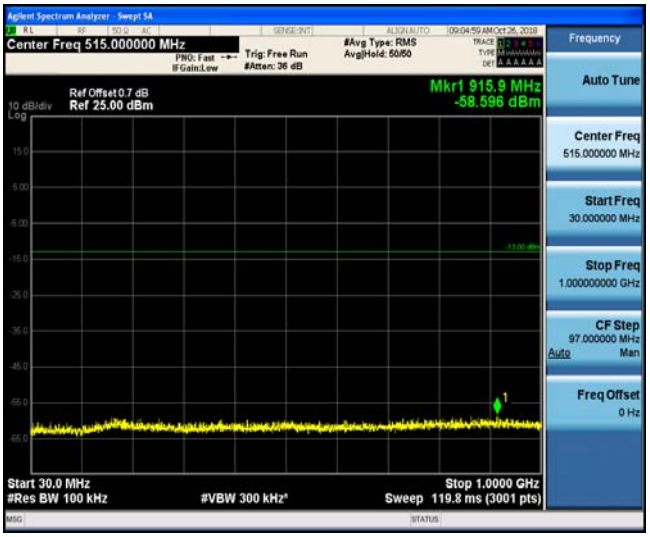

Band4_10MHz_16QAM_20350_1RB#0

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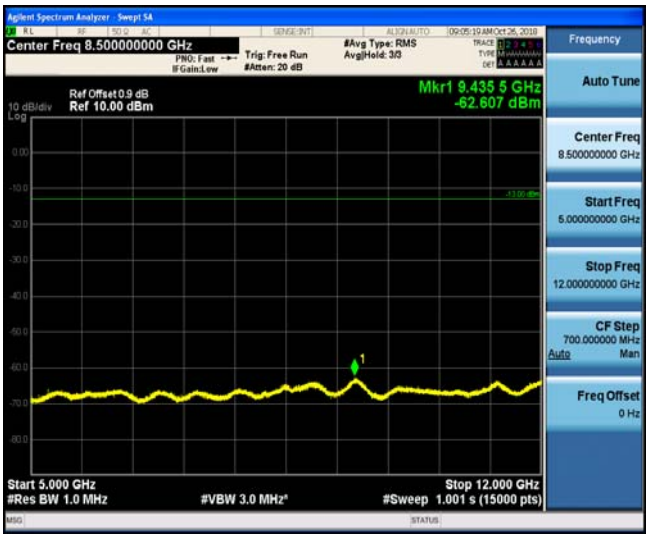

Band4_10MHz_16QAM_20350_1RB#0

Band4_15MHz_QPSK_20025_1RB#0

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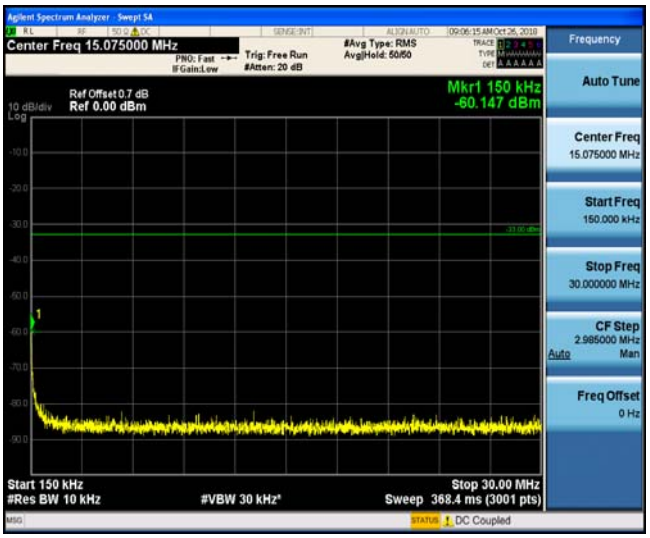

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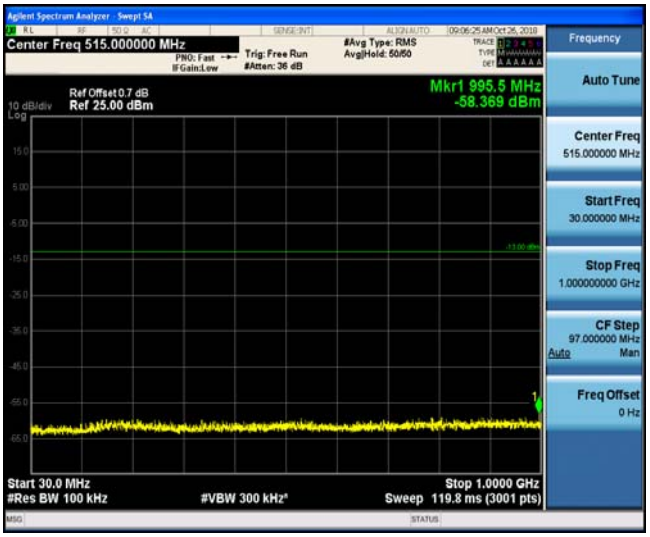

Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20025_1RB#0

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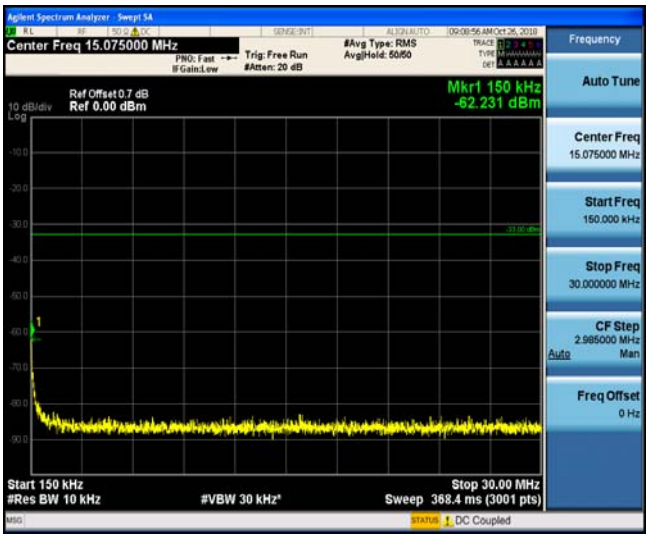
Band4_15MHz_QPSK_20175_1RB#0



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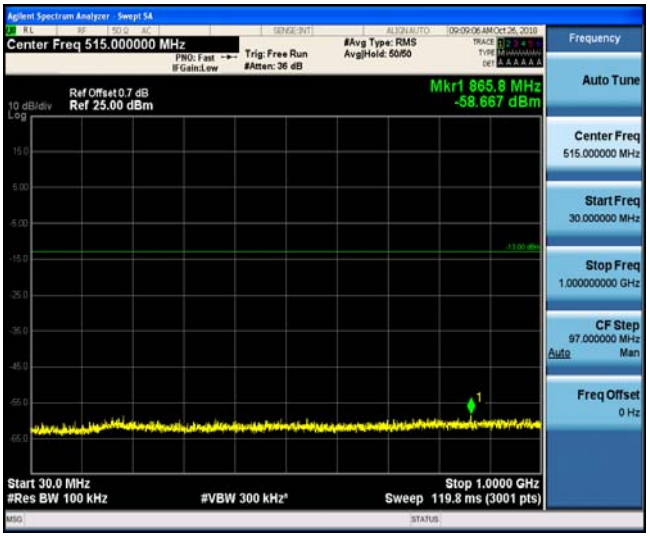
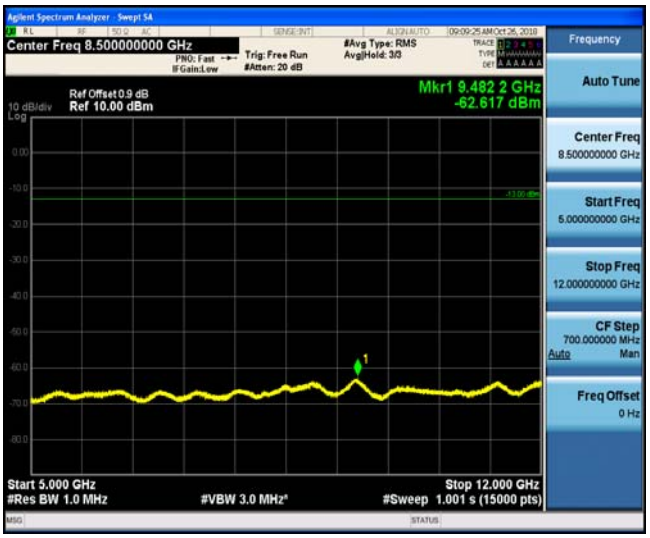


Band4_15MHz_QPSK_20175_1RB#0

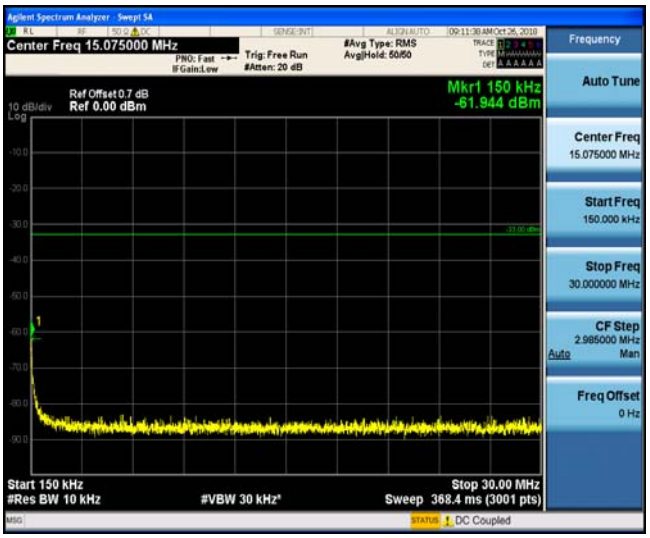
Band4_15MHz_QPSK_20175_1RB#0



Band4_15MHz_QPSK_20175_1RB#0

Band4_15MHz_QPSK_20325_1RB#0

Band4_15MHz_QPSK_20325_1RB#0



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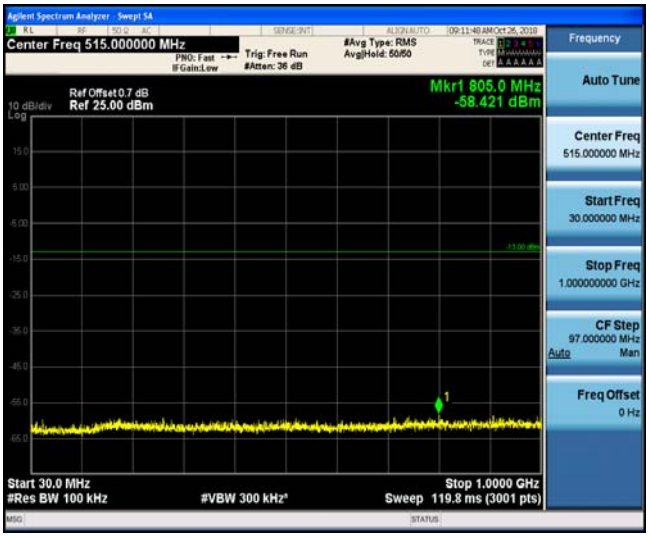


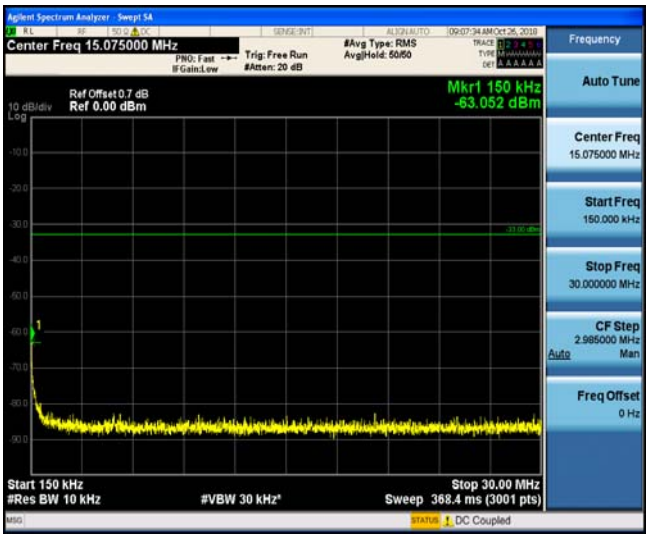
Band4_15MHz_QPSK_20325_1RB#0

Band4_15MHz_QPSK_20325_1RB#0

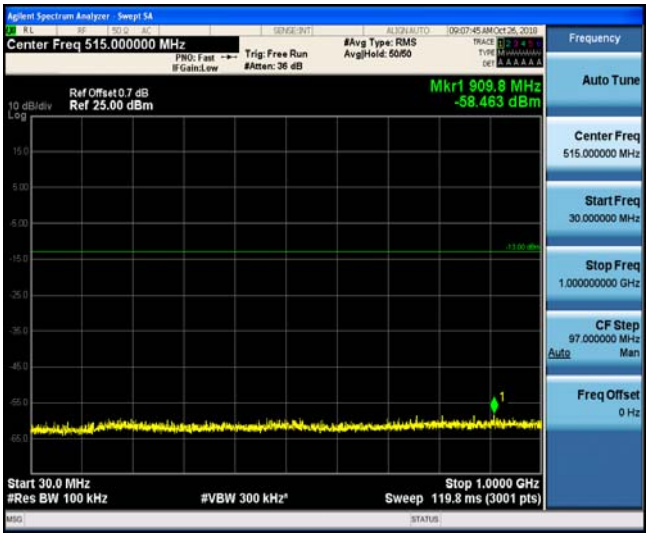
Band4_15MHz_QPSK_20325_1RB#0

Band4_15MHz_16QAM_20025_1RB#0

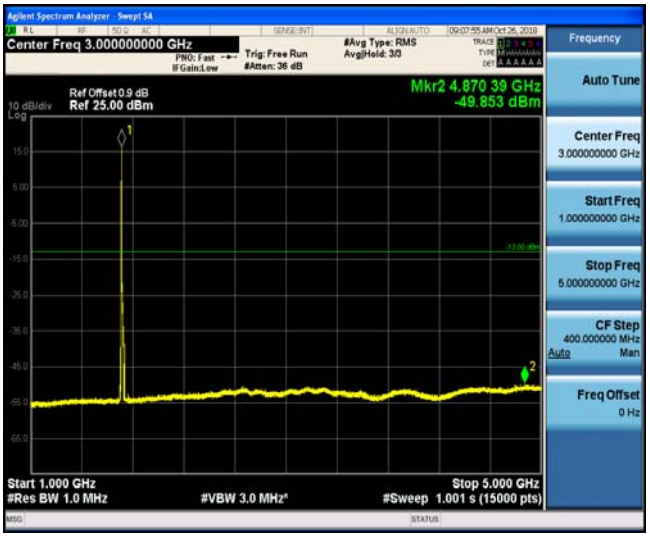
Band4_15MHz_16QAM_20025_1RB#0



Band4_15MHz_16QAM_20025_1RB#0



Band4_15MHz_16QAM_20025_1RB#0

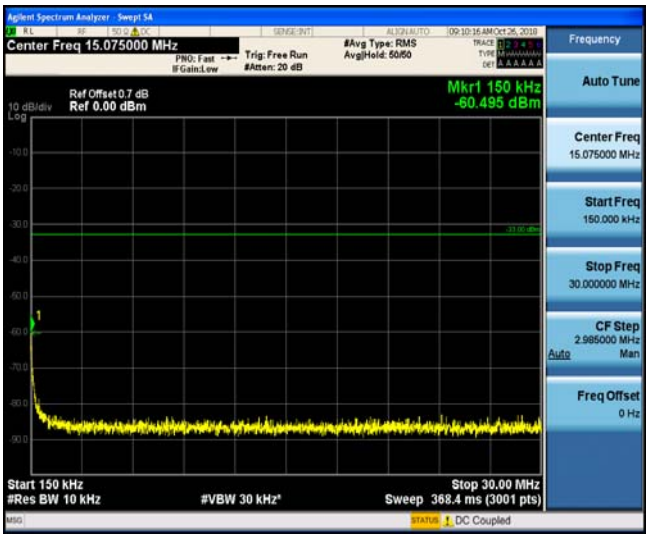


Band4_15MHz_16QAM_20025_1RB#0

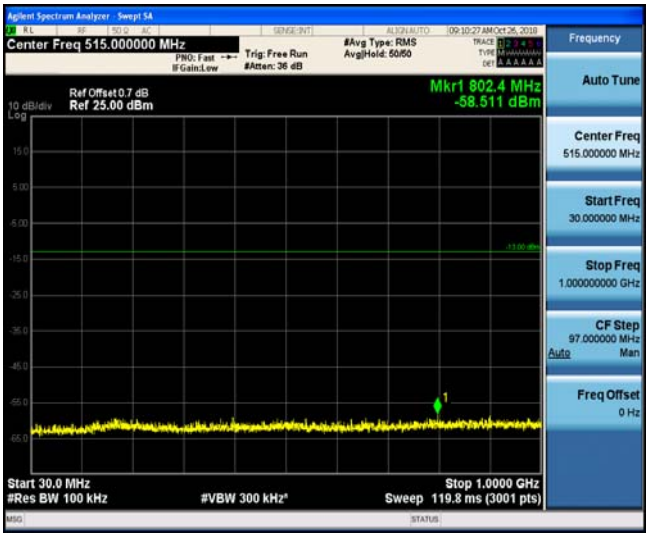
Band4_15MHz_16QAM_20025_1RB#0

Band4_15MHz_16QAM_20175_1RB#0

Band4_15MHz_16QAM_20175_1RB#0



Band4_15MHz_16QAM_20175_1RB#0



Band4_15MHz_16QAM_20175_1RB#0

Band4_15MHz_16QAM_20175_1RB#0

Band4_15MHz_16QAM_20175_1RB#0

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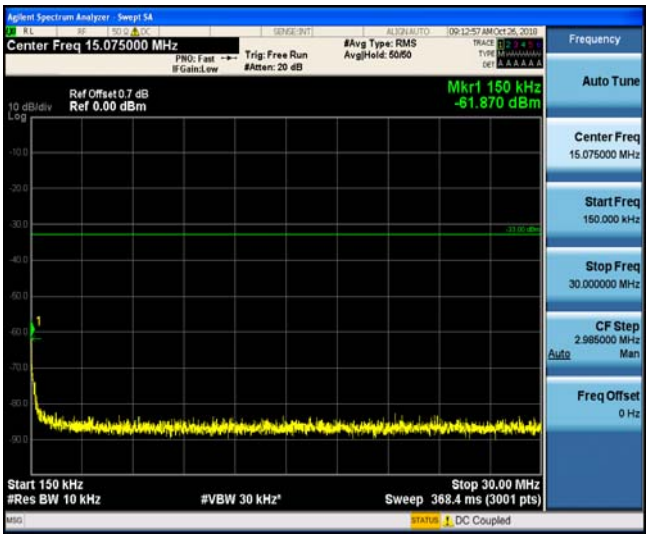
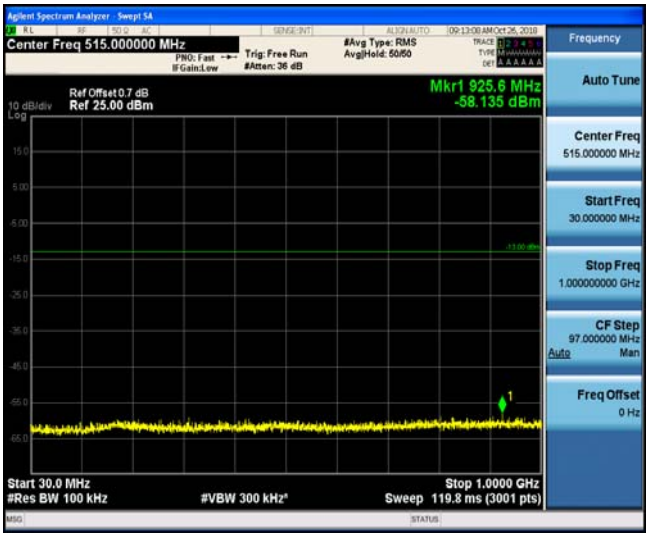
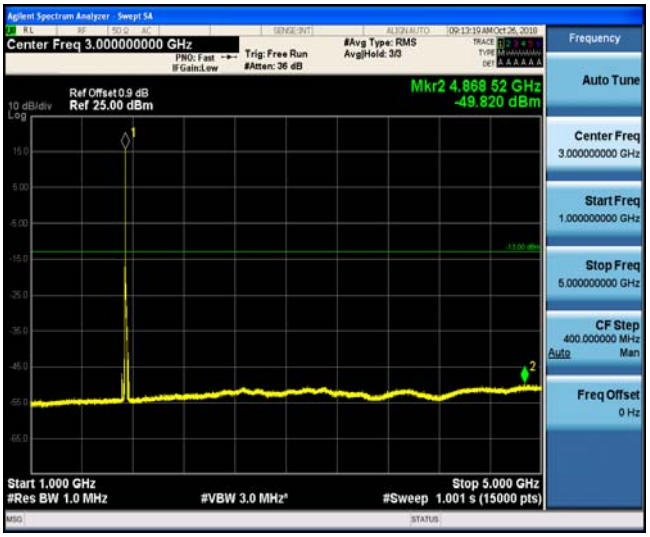
Band4_15MHz_16QAM_20325_1RB#0



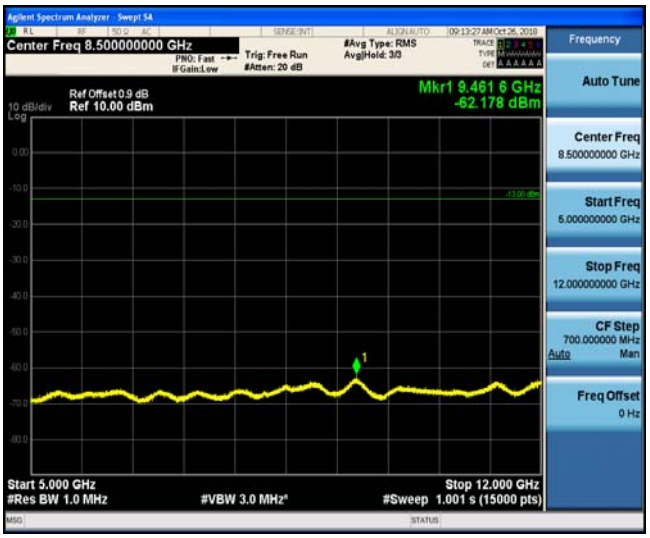
Band4_15MHz_16QAM_20325_1RB#0



Band4_15MHz_16QAM_20325_1RB#0



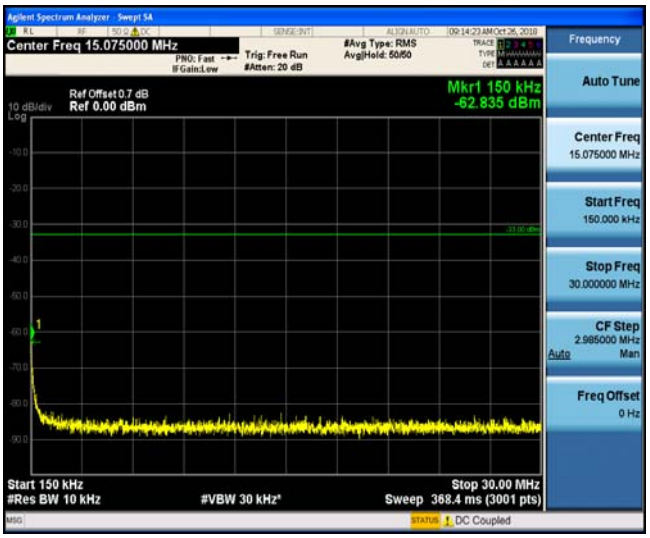
Band4_15MHz_16QAM_20325_1RB#0



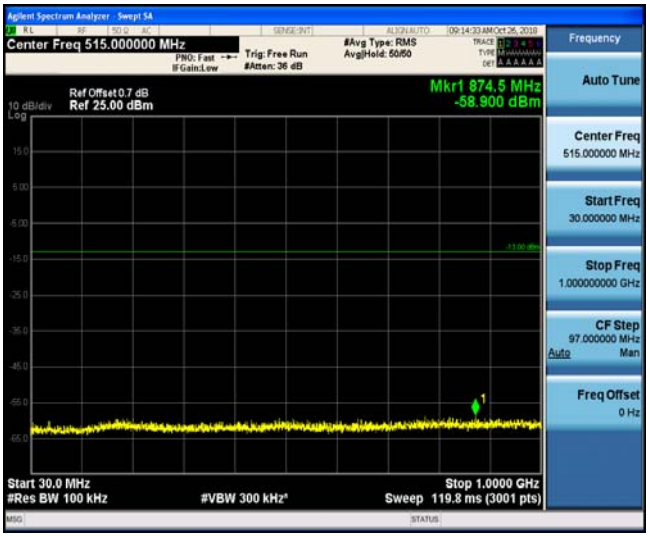
Band4_15MHz_16QAM_20325_1RB#0

Band4_20MHz_QPSK_20050_1RB#0

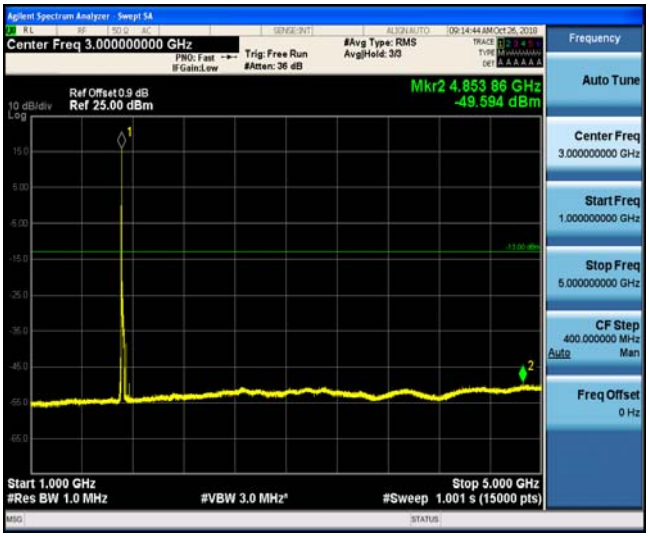
Band4_20MHz_QPSK_20050_1RB#0



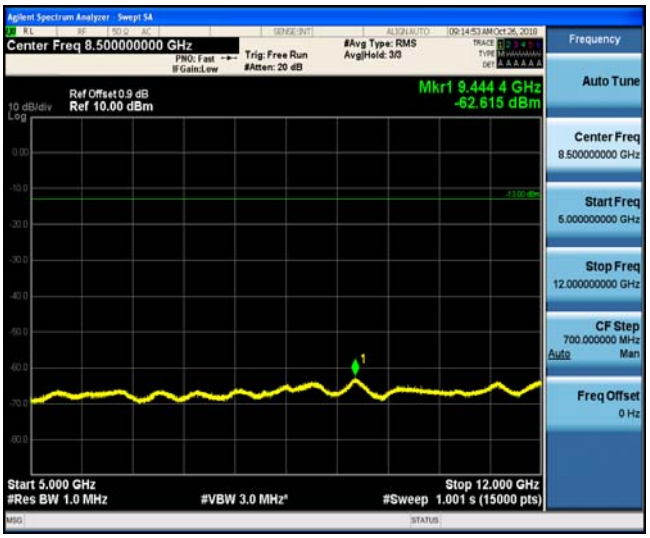
Band4_20MHz_QPSK_20050_1RB#0



Band4_20MHz_QPSK_20050_1RB#0



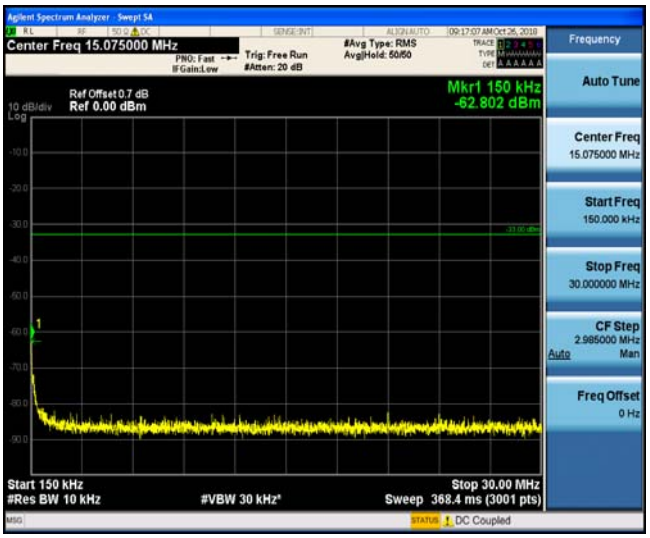
Band4_20MHz_QPSK_20050_1RB#0



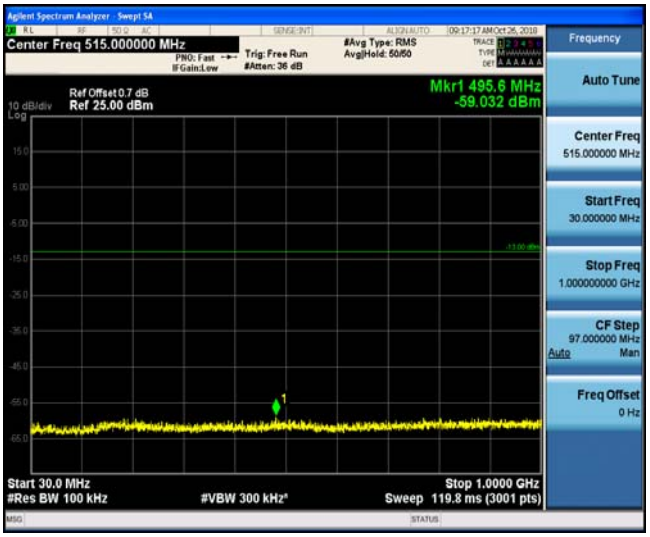
Band4_20MHz_QPSK_20050_1RB#0

Band4_20MHz_QPSK_20175_1RB#0

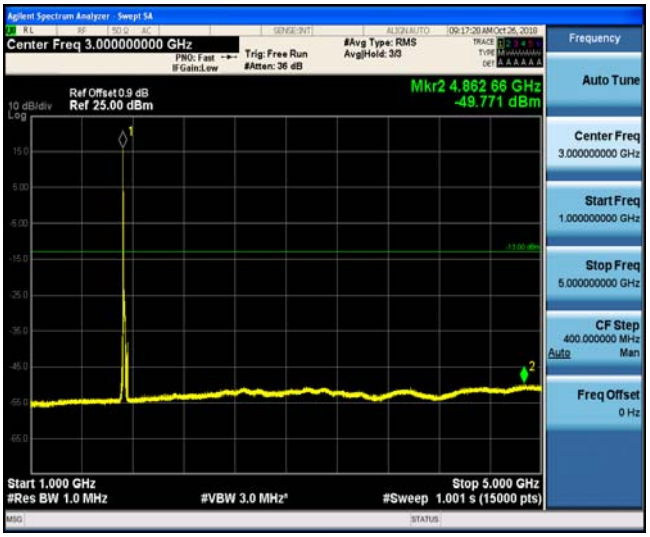
Band4_20MHz_QPSK_20175_1RB#0



Band4_20MHz_QPSK_20175_1RB#0



Band4_20MHz_QPSK_20175_1RB#0

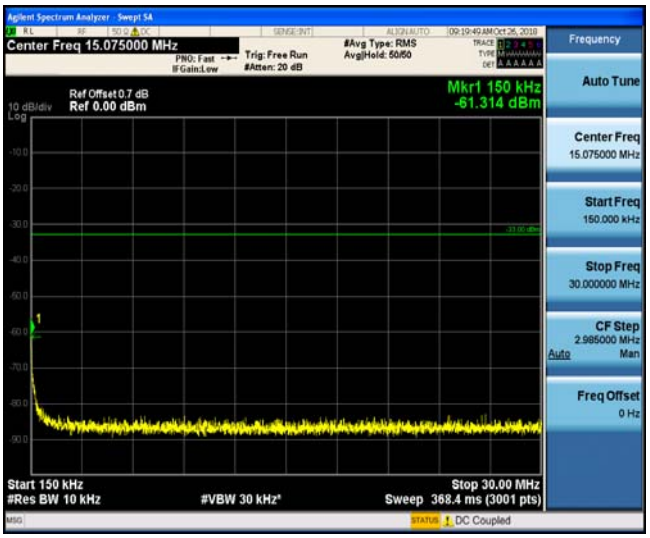


Band4_20MHz_QPSK_20175_1RB#0

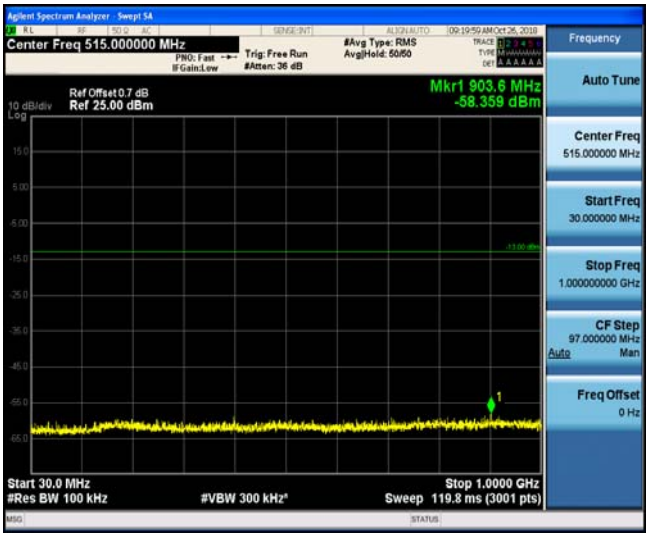
Band4_20MHz_QPSK_20175_1RB#0

Band4_20MHz_QPSK_20300_1RB#0

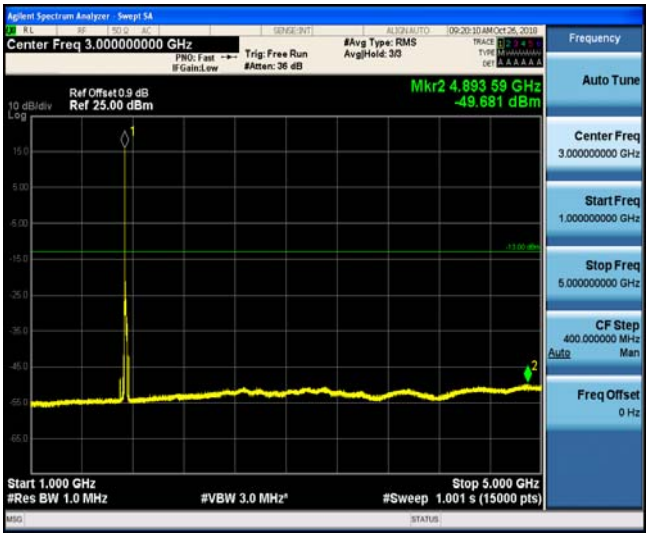
Band4_20MHz_QPSK_20300_1RB#0



Band4_20MHz_QPSK_20300_1RB#0



Band4_20MHz_QPSK_20300_1RB#0

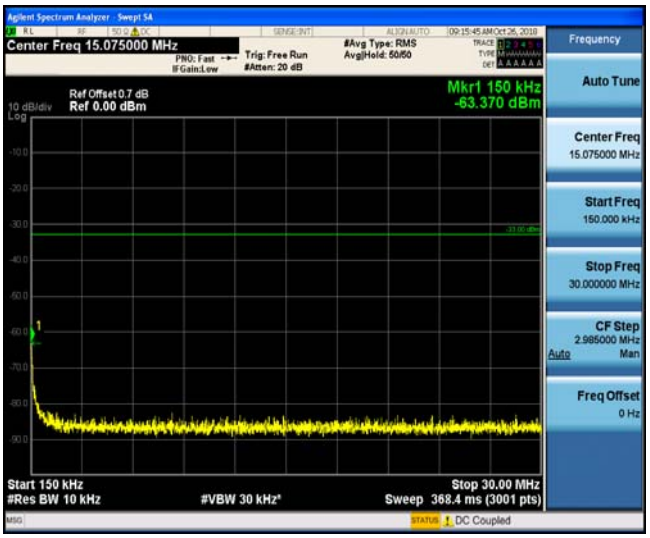


Band4_20MHz_QPSK_20300_1RB#0

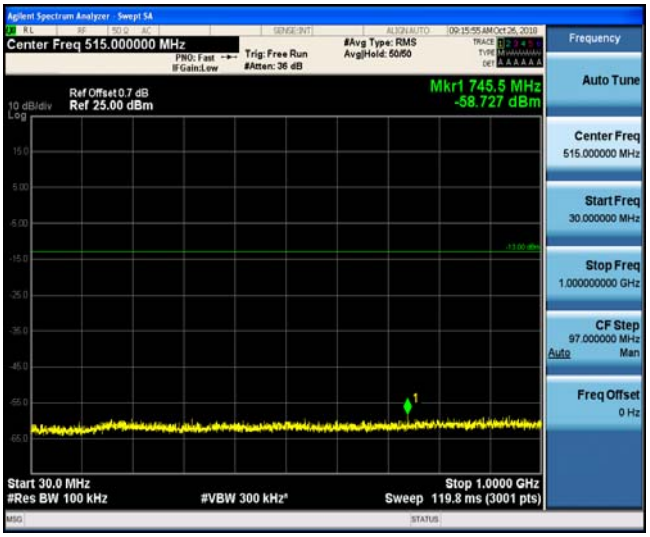
Band4_20MHz_QPSK_20300_1RB#0

Band4_20MHz_16QAM_20050_1RB#0

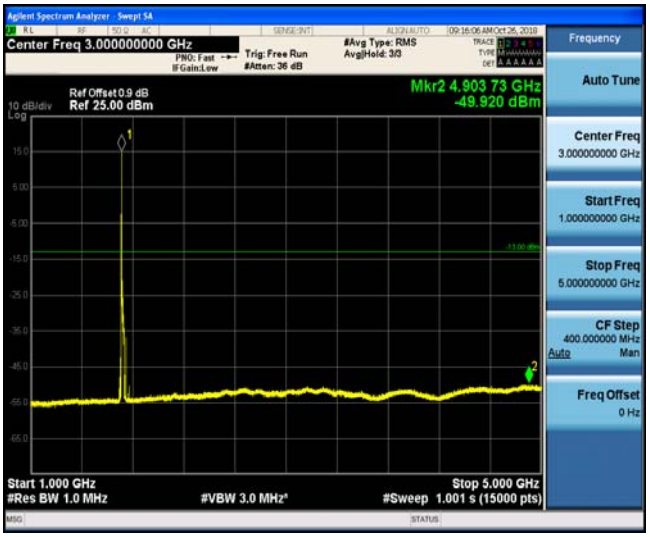
Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_1RB#0

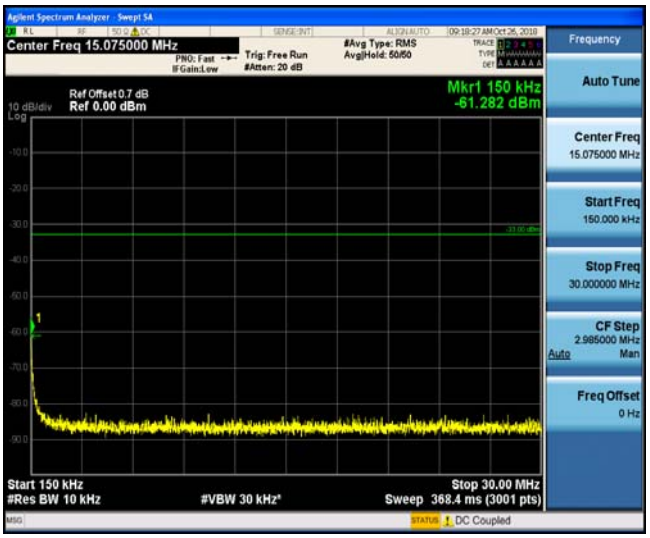


Band4_20MHz_16QAM_20050_1RB#0

Band4_20MHz_16QAM_20050_1RB#0

Band4_20MHz_16QAM_20175_1RB#0

Band4_20MHz_16QAM_20175_1RB#0



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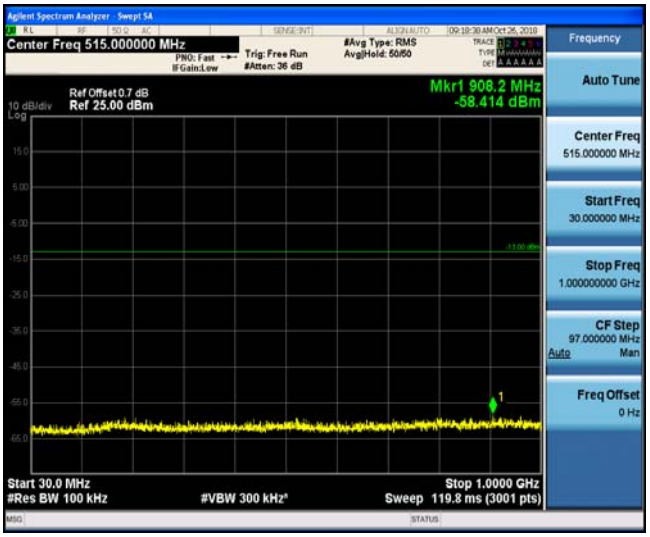

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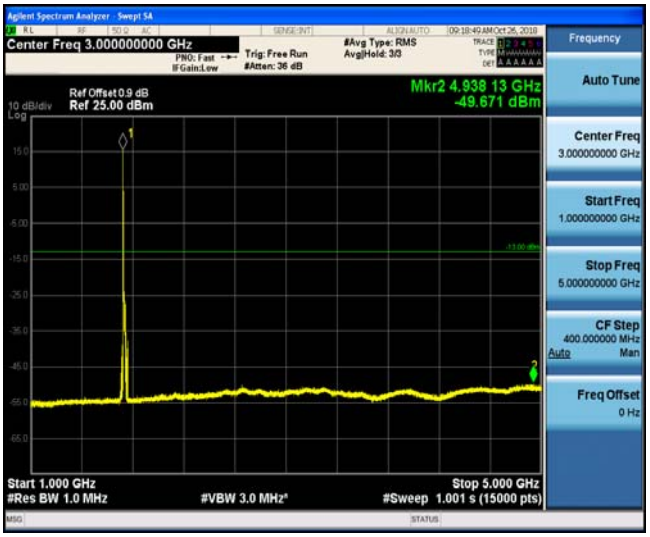
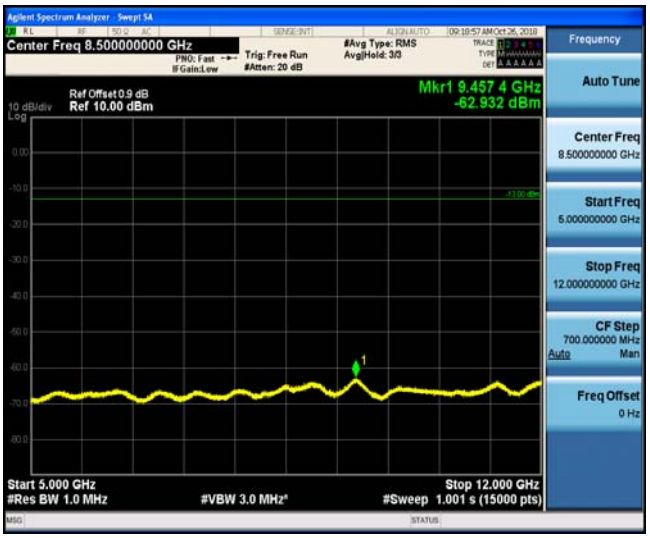


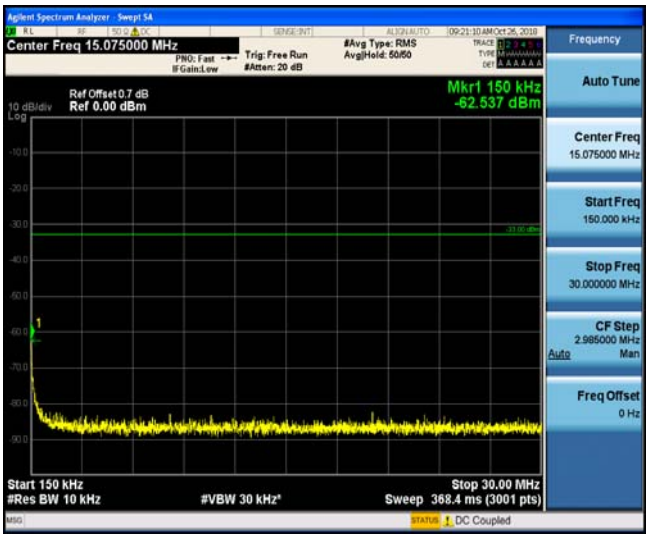
Band4_20MHz_16QAM_20175_1RB#0



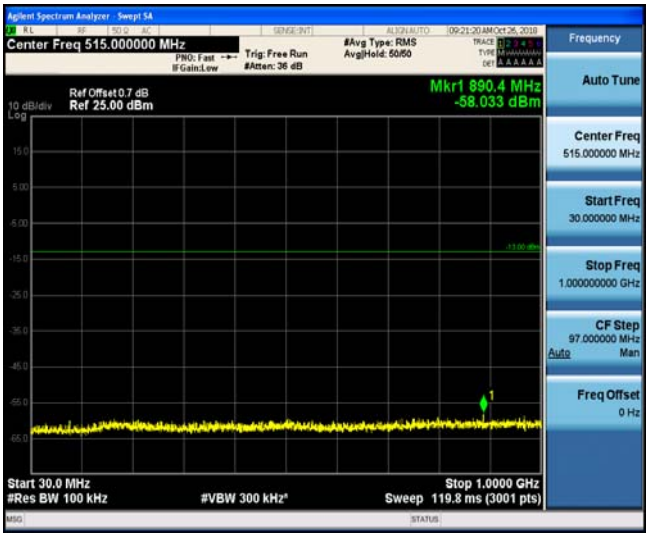
Band4_20MHz_16QAM_20175_1RB#0

Band4_20MHz_16QAM_20300_1RB#0

Band4_20MHz_16QAM_20300_1RB#0



Band4_20MHz_16QAM_20300_1RB#0



Band4_20MHz_16QAM_20300_1RB#0

Band4_20MHz_16QAM_20300_1RB#0

Band4_20MHz_16QAM_20300_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 0.9 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 16.945 1 GHz
-58.413 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	3.28	0.001917	± 2.5	PASS
		VN	TN	-1.44	-0.000842	± 2.5	PASS
		VH	TN	2.7	0.001578	± 2.5	PASS
	MCH	VL	TN	-0.74	-0.000427	± 2.5	PASS
		VN	TN	1.88	0.001085	± 2.5	PASS
		VH	TN	2.18	0.001258	± 2.5	PASS
	HCH	VL	TN	-1.24	-0.000707	± 2.5	PASS
		VN	TN	-0.23	-0.000131	± 2.5	PASS
		VH	TN	3.11	0.001773	± 2.5	PASS
16QAM	LCH	VL	TN	-0.59	-0.000345	± 2.5	PASS
		VN	TN	4.86	0.002841	± 2.5	PASS
		VH	TN	-1.02	-0.000596	± 2.5	PASS
	MCH	VL	TN	4.88	0.002817	± 2.5	PASS
		VN	TN	0.07	0.000040	± 2.5	PASS
		VH	TN	-1.74	-0.001004	± 2.5	PASS
	HCH	VL	TN	3.4	0.001938	± 2.5	PASS
		VN	TN	-0.18	-0.000103	± 2.5	PASS
		VH	TN	-0.25	-0.000143	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.66	-0.000386	± 2.5	PASS
		VN	-20	-0.54	-0.000316	± 2.5	PASS
		VN	-10	-0.29	-0.000170	± 2.5	PASS
		VN	0	-0.21	-0.000123	± 2.5	PASS
		VN	10	-1.81	-0.001058	± 2.5	PASS
		VN	20	0.56	0.000327	± 2.5	PASS
		VN	30	1.77	0.001035	± 2.5	PASS
		VN	40	-1.93	-0.001128	± 2.5	PASS
		VN	50	2.5	0.001461	± 2.5	PASS
	MCH	VN	-30	3.47	0.002003	± 2.5	PASS
		VN	-20	3.69	0.002130	± 2.5	PASS

		VN	-10	3.96	0.002286	± 2.5	PASS
		VN	0	-1.88	-0.001085	± 2.5	PASS
		VN	10	4.02	0.002320	± 2.5	PASS
		VN	20	3.44	0.001986	± 2.5	PASS
		VN	30	-0.49	-0.000283	± 2.5	PASS
		VN	40	4.69	0.002707	± 2.5	PASS
		VN	50	0.49	0.000283	± 2.5	PASS
	HCH	VN	-30	-0.79	-0.000450	± 2.5	PASS
		VN	-20	-0.86	-0.000490	± 2.5	PASS
		VN	-10	4.65	0.002651	± 2.5	PASS
		VN	0	1.9	0.001083	± 2.5	PASS
		VN	10	3.67	0.002092	± 2.5	PASS
		VN	20	0.44	0.000251	± 2.5	PASS
		VN	30	1.27	0.000724	± 2.5	PASS
		VN	40	3.56	0.002029	± 2.5	PASS
		VN	50	0.98	0.000559	± 2.5	PASS
16QAM	LCH	VN	-30	4.95	0.002894	± 2.5	PASS
		VN	-20	4.34	0.002537	± 2.5	PASS
		VN	-10	-0.04	-0.000023	± 2.5	PASS
		VN	0	2.28	0.001333	± 2.5	PASS
		VN	10	-0.69	-0.000403	± 2.5	PASS
		VN	20	4.75	0.002777	± 2.5	PASS
		VN	30	4.19	0.002449	± 2.5	PASS
		VN	40	0.65	0.000380	± 2.5	PASS
		VN	50	4.42	0.002584	± 2.5	PASS
	MCH	VN	-30	4.6	0.002622	± 2.5	PASS
		VN	-20	-1.94	-0.001106	± 2.5	PASS
		VN	-10	1.6	0.000912	± 2.5	PASS
		VN	0	3.76	0.002143	± 2.5	PASS
		VN	10	4.16	0.002371	± 2.5	PASS
		VN	20	-1.25	-0.000713	± 2.5	PASS
		VN	30	4.72	0.002691	± 2.5	PASS
		VN	40	1.69	0.000963	± 2.5	PASS
		VN	50	0.76	0.000433	± 2.5	PASS
	HCH	VN	-30	4.45	0.002537	± 2.5	PASS
		VN	-20	1.57	0.000895	± 2.5	PASS
		VN	-10	2.26	0.001288	± 2.5	PASS
		VN	0	0.68	0.000388	± 2.5	PASS
		VN	10	2.74	0.001562	± 2.5	PASS
		VN	20	1.85	0.001055	± 2.5	PASS
		VN	30	4.73	0.002696	± 2.5	PASS

		VN	40	-0.24	-0.000137	± 2.5	PASS
		VN	50	2.56	0.001459	± 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	-0.11	-0.000064	± 2.5	PASS
		VN	TN	4.1	0.002396	± 2.5	PASS
		VH	TN	4.58	0.002676	± 2.5	PASS
	MCH	VL	TN	0.16	0.000092	± 2.5	PASS
		VN	TN	3.05	0.001760	± 2.5	PASS
		VH	TN	3.46	0.001997	± 2.5	PASS
	HCH	VL	TN	3.36	0.001916	± 2.5	PASS
		VN	TN	-0.88	-0.000502	± 2.5	PASS
		VH	TN	0.37	0.000211	± 2.5	PASS
16QAM	LCH	VL	TN	2.41	0.001408	± 2.5	PASS
		VN	TN	2.52	0.001472	± 2.5	PASS
		VH	TN	-1.77	-0.001034	± 2.5	PASS
	MCH	VL	TN	1.22	0.000704	± 2.5	PASS
		VN	TN	2.63	0.001518	± 2.5	PASS
		VH	TN	2.36	0.001362	± 2.5	PASS
	HCH	VL	TN	4.41	0.002515	± 2.5	PASS
		VN	TN	0.46	0.000262	± 2.5	PASS
		VH	TN	-1.21	-0.000690	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.75	0.002775	± 2.5	PASS
		VN	-20	-1.04	-0.000608	± 2.5	PASS
		VN	-10	2.99	0.001747	± 2.5	PASS
		VN	0	-1.59	-0.000929	± 2.5	PASS
		VN	10	4.89	0.002857	± 2.5	PASS
		VN	20	0.39	0.000228	± 2.5	PASS
		VN	30	-1.92	-0.001122	± 2.5	PASS
		VN	40	-1.85	-0.001081	± 2.5	PASS
		VN	50	-1.53	-0.000894	± 2.5	PASS
	MCH	VN	-30	1.61	0.000929	± 2.5	PASS
		VN	-20	-0.69	-0.000398	± 2.5	PASS
		VN	-10	3.19	0.001841	± 2.5	PASS

		VN	0	-0.51	-0.000294	± 2.5	PASS
		VN	10	2.22	0.001281	± 2.5	PASS
		VN	20	4.44	0.002563	± 2.5	PASS
		VN	30	4.59	0.002649	± 2.5	PASS
		VN	40	2.26	0.001304	± 2.5	PASS
		VN	50	2.89	0.001668	± 2.5	PASS
	HCH	VN	-30	-1.31	-0.000747	± 2.5	PASS
		VN	-20	1.12	0.000639	± 2.5	PASS
		VN	-10	4	0.002281	± 2.5	PASS
		VN	0	-0.43	-0.000245	± 2.5	PASS
		VN	10	3.15	0.001796	± 2.5	PASS
		VN	20	0.57	0.000325	± 2.5	PASS
		VN	30	1.21	0.000690	± 2.5	PASS
		VN	40	3.82	0.002179	± 2.5	PASS
		VN	50	0.16	0.000091	± 2.5	PASS
16QAM	LCH	VN	-30	2.96	0.001709	± 2.5	PASS
		VN	-20	3.08	0.001778	± 2.5	PASS
		VN	-10	1.4	0.000808	± 2.5	PASS
		VN	0	3.35	0.001934	± 2.5	PASS
		VN	10	2.41	0.001391	± 2.5	PASS
		VN	20	-1.11	-0.000641	± 2.5	PASS
		VN	30	1.94	0.001120	± 2.5	PASS
		VN	40	4.98	0.002874	± 2.5	PASS
		VN	50	1.01	0.000583	± 2.5	PASS
	MCH	VN	-30	0.39	0.000222	± 2.5	PASS
		VN	-20	4.25	0.002424	± 2.5	PASS
		VN	-10	1.19	0.000679	± 2.5	PASS
		VN	0	-1.93	-0.001101	± 2.5	PASS
		VN	10	4.6	0.002623	± 2.5	PASS
		VN	20	3.39	0.001933	± 2.5	PASS
		VN	30	4.35	0.002481	± 2.5	PASS
		VN	40	2.26	0.001289	± 2.5	PASS
		VN	50	0.17	0.000097	± 2.5	PASS
	HCH	VN	-30	1.69	0.000964	± 2.5	PASS
		VN	-20	3.3	0.001882	± 2.5	PASS
		VN	-10	1.79	0.001021	± 2.5	PASS
		VN	0	1.46	0.000833	± 2.5	PASS
		VN	10	1.62	0.000924	± 2.5	PASS
		VN	20	-1.83	-0.001044	± 2.5	PASS
		VN	30	-1.33	-0.000758	± 2.5	PASS
		VN	40	-0.94	-0.000536	± 2.5	PASS

		VN	50	-0.22	-0.000125	± 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	-1.58	-0.000923	± 2.5	PASS
		VN	TN	-0.84	-0.000491	± 2.5	PASS
		VH	TN	1.74	0.001016	± 2.5	PASS
	MCH	VL	TN	-0.03	-0.000017	± 2.5	PASS
		VN	TN	0.98	0.000566	± 2.5	PASS
		VH	TN	3.26	0.001882	± 2.5	PASS
	HCH	VL	TN	2.07	0.001181	± 2.5	PASS
		VN	TN	1	0.000571	± 2.5	PASS
		VH	TN	-0.77	-0.000439	± 2.5	PASS
16QAM	LCH	VL	TN	2.73	0.001594	± 2.5	PASS
		VN	TN	4.95	0.002891	± 2.5	PASS
		VH	TN	3.56	0.002079	± 2.5	PASS
	MCH	VL	TN	4.58	0.002644	± 2.5	PASS
		VN	TN	2.49	0.001437	± 2.5	PASS
		VH	TN	3.09	0.001784	± 2.5	PASS
	HCH	VL	TN	0.5	0.000285	± 2.5	PASS
		VN	TN	2.55	0.001455	± 2.5	PASS
		VH	TN	3.26	0.001860	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.92	0.002289	± 2.5	PASS
		VN	-20	-0.95	-0.000555	± 2.5	PASS
		VN	-10	2	0.001168	± 2.5	PASS
		VN	0	2.49	0.001454	± 2.5	PASS
		VN	10	4.08	0.002382	± 2.5	PASS
		VN	20	-0.71	-0.000415	± 2.5	PASS
		VN	30	0.65	0.000380	± 2.5	PASS
		VN	40	3.27	0.001909	± 2.5	PASS
		VN	50	1.3	0.000759	± 2.5	PASS
	MCH	VN	-30	3.06	0.001766	± 2.5	PASS
		VN	-20	4.53	0.002615	± 2.5	PASS
		VN	-10	-1.7	-0.000981	± 2.5	PASS
		VN	0	-0.32	-0.000185	± 2.5	PASS

		VN	10	-0.41	-0.000237	± 2.5	PASS
		VN	20	2.36	0.001362	± 2.5	PASS
		VN	30	4.03	0.002326	± 2.5	PASS
		VN	40	1.45	0.000837	± 2.5	PASS
		VN	50	1.48	0.000854	± 2.5	PASS
	HCH	VN	-30	-0.08	-0.000046	± 2.5	PASS
		VN	-20	2.79	0.001463	± 2.5	PASS
		VN	-10	-1.5	-0.000786	± 2.5	PASS
		VN	0	2.43	0.001274	± 2.5	PASS
		VN	10	-1.69	-0.000886	± 2.5	PASS
		VN	20	-1.18	-0.000619	± 2.5	PASS
		VN	30	0.49	0.000257	± 2.5	PASS
		VN	40	-0.1	-0.000052	± 2.5	PASS
		VN	50	1.99	0.001043	± 2.5	PASS
16QAM	LCH	VN	-30	-1.56	-0.000900	± 2.5	PASS
		VN	-20	3.79	0.002188	± 2.5	PASS
		VN	-10	-0.48	-0.000277	± 2.5	PASS
		VN	0	1.54	0.000889	± 2.5	PASS
		VN	10	2.68	0.001547	± 2.5	PASS
		VN	20	3.19	0.001841	± 2.5	PASS
		VN	30	-0.5	-0.000289	± 2.5	PASS
		VN	40	-0.92	-0.000531	± 2.5	PASS
		VN	50	-0.51	-0.000294	± 2.5	PASS
	MCH	VN	-30	-1.61	-0.000919	± 2.5	PASS
		VN	-20	-0.79	-0.000451	± 2.5	PASS
		VN	-10	-0.6	-0.000342	± 2.5	PASS
		VN	0	4.71	0.002688	± 2.5	PASS
		VN	10	-1.13	-0.000645	± 2.5	PASS
		VN	20	-1.69	-0.000964	± 2.5	PASS
		VN	30	3.63	0.002071	± 2.5	PASS
		VN	40	4.72	0.002693	± 2.5	PASS
		VN	50	-0.43	-0.000245	± 2.5	PASS
	HCH	VN	-30	-1.6	-0.000839	± 2.5	PASS
		VN	-20	1.23	0.000645	± 2.5	PASS
		VN	-10	-0.18	-0.000094	± 2.5	PASS
		VN	0	4.05	0.002123	± 2.5	PASS
		VN	10	2.7	0.001415	± 2.5	PASS
		VN	20	2.98	0.001562	± 2.5	PASS
		VN	30	0.59	0.000309	± 2.5	PASS
		VN	40	-1.52	-0.000797	± 2.5	PASS
		VN	50	2.24	0.001174	± 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	4.95	0.002886	± 2.5	PASS
		VN	TN	3.06	0.001784	± 2.5	PASS
		VH	TN	-1.96	-0.001143	± 2.5	PASS
	MCH	VL	TN	-1.31	-0.000756	± 2.5	PASS
		VN	TN	1.45	0.000837	± 2.5	PASS
		VH	TN	1.79	0.001033	± 2.5	PASS
	HCH	VL	TN	4.34	0.002480	± 2.5	PASS
		VN	TN	4.34	0.002480	± 2.5	PASS
		VH	TN	4.61	0.002634	± 2.5	PASS
16QAM	LCH	VL	TN	0.47	0.000274	± 2.5	PASS
		VN	TN	1.99	0.001160	± 2.5	PASS
		VH	TN	-1.24	-0.000723	± 2.5	PASS
	MCH	VL	TN	0.95	0.000548	± 2.5	PASS
		VN	TN	0.38	0.000219	± 2.5	PASS
		VH	TN	1.85	0.001068	± 2.5	PASS
	HCH	VL	TN	-1.11	-0.000634	± 2.5	PASS
		VN	TN	0.53	0.000303	± 2.5	PASS
		VH	TN	-0.42	-0.000240	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.7	0.000408	± 2.5	PASS
		VN	-20	2.12	0.001236	± 2.5	PASS
		VN	-10	0.9	0.000525	± 2.5	PASS
		VN	0	-1.45	-0.000845	± 2.5	PASS
		VN	10	-0.29	-0.000169	± 2.5	PASS
		VN	20	0.85	0.000496	± 2.5	PASS
		VN	30	-0.32	-0.000187	± 2.5	PASS
		VN	40	4.09	0.002385	± 2.5	PASS
		VN	50	3.82	0.002227	± 2.5	PASS
	MCH	VN	-30	0.62	0.000358	± 2.5	PASS
		VN	-20	1.96	0.001131	± 2.5	PASS
		VN	-10	3.3	0.001905	± 2.5	PASS
		VN	0	2.62	0.001512	± 2.5	PASS
		VN	10	-1.54	-0.000889	± 2.5	PASS
		VN	20	-0.96	-0.000554	± 2.5	PASS

		VN	30	-0.08	-0.000046	± 2.5	PASS
		VN	40	3.53	0.002038	± 2.5	PASS
		VN	50	3.49	0.002014	± 2.5	PASS
	HCH	VN	-30	0.16	0.000091	± 2.5	PASS
		VN	-20	4.59	0.002623	± 2.5	PASS
		VN	-10	3.29	0.001880	± 2.5	PASS
		VN	0	2.74	0.001566	± 2.5	PASS
		VN	10	4.99	0.002851	± 2.5	PASS
		VN	20	4.57	0.002611	± 2.5	PASS
		VN	30	0.38	0.000217	± 2.5	PASS
		VN	40	3.55	0.002029	± 2.5	PASS
		VN	50	2.56	0.001463	± 2.5	PASS
16QAM	LCH	VN	-30	0.31	0.000179	± 2.5	PASS
		VN	-20	3.11	0.001795	± 2.5	PASS
		VN	-10	2.88	0.001662	± 2.5	PASS
		VN	0	2.88	0.001662	± 2.5	PASS
		VN	10	1.36	0.000785	± 2.5	PASS
		VN	20	-1.6	-0.000924	± 2.5	PASS
		VN	30	4.19	0.002418	± 2.5	PASS
		VN	40	-0.31	-0.000179	± 2.5	PASS
		VN	50	3.94	0.002274	± 2.5	PASS
	MCH	VN	-30	-1.12	-0.000640	± 2.5	PASS
		VN	-20	4.49	0.002566	± 2.5	PASS
		VN	-10	2.05	0.001171	± 2.5	PASS
		VN	0	-1.38	-0.000789	± 2.5	PASS
		VN	10	-0.09	-0.000051	± 2.5	PASS
		VN	20	4.41	0.002520	± 2.5	PASS
		VN	30	0.91	0.000520	± 2.5	PASS
		VN	40	0.09	0.000051	± 2.5	PASS
		VN	50	2.11	0.001206	± 2.5	PASS
	HCH	VN	-30	2.95	0.001686	± 2.5	PASS
		VN	-20	2.26	0.001291	± 2.5	PASS
		VN	-10	-1.79	-0.001023	± 2.5	PASS
		VN	0	3.78	0.002160	± 2.5	PASS
		VN	10	2.38	0.001360	± 2.5	PASS
		VN	20	4.53	0.002589	± 2.5	PASS
		VN	30	-0.07	-0.000040	± 2.5	PASS
		VN	40	3.04	0.001737	± 2.5	PASS
		VN	50	0.21	0.000120	± 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	-0.001164	± 2.5	PASS
		VN	TN	-1.77	-0.001031	± 2.5	PASS
		VH	TN	-1.16	-0.000675	± 2.5	PASS
	MCH	VL	TN	3.02	0.001743	± 2.5	PASS
		VN	TN	-1.22	-0.000704	± 2.5	PASS
		VH	TN	2.07	0.001195	± 2.5	PASS
	HCH	VL	TN	-0.24	-0.000137	± 2.5	PASS
		VN	TN	0.28	0.000160	± 2.5	PASS
		VH	TN	2.61	0.001494	± 2.5	PASS
16QAM	LCH	VL	TN	1.87	0.001089	± 2.5	PASS
		VN	TN	-1.39	-0.000809	± 2.5	PASS
		VH	TN	-0.89	-0.000518	± 2.5	PASS
	MCH	VL	TN	-0.79	-0.000456	± 2.5	PASS
		VN	TN	4.87	0.002811	± 2.5	PASS
		VH	TN	-1.1	-0.000635	± 2.5	PASS
	HCH	VL	TN	0.76	0.000435	± 2.5	PASS
		VN	TN	2.2	0.001259	± 2.5	PASS
		VH	TN	3.8	0.002175	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.98	0.002900	± 2.5	PASS
		VN	-20	0.66	0.000384	± 2.5	PASS
		VN	-10	4.52	0.002632	± 2.5	PASS
		VN	0	4.46	0.002597	± 2.5	PASS
		VN	10	-1.21	-0.000705	± 2.5	PASS
		VN	20	0.56	0.000326	± 2.5	PASS
		VN	30	0.6	0.000349	± 2.5	PASS
		VN	40	-1.56	-0.000908	± 2.5	PASS
		VN	50	1.45	0.000844	± 2.5	PASS
	MCH	VN	-30	3.61	0.002084	± 2.5	PASS
		VN	-20	4.62	0.002667	± 2.5	PASS
		VN	-10	0.52	0.000300	± 2.5	PASS
		VN	0	4.93	0.002846	± 2.5	PASS
		VN	10	3.44	0.001986	± 2.5	PASS
		VN	20	0.62	0.000358	± 2.5	PASS

		VN	30	-0.66	-0.000381	± 2.5	PASS
		VN	40	2.81	0.001622	± 2.5	PASS
		VN	50	2.13	0.001229	± 2.5	PASS
	HCH	VN	-30	4.61	0.002638	± 2.5	PASS
		VN	-20	3.1	0.001774	± 2.5	PASS
		VN	-10	2.22	0.001270	± 2.5	PASS
		VN	0	1.91	0.001093	± 2.5	PASS
		VN	10	0.04	0.000023	± 2.5	PASS
		VN	20	4.78	0.002735	± 2.5	PASS
		VN	30	-1.32	-0.000755	± 2.5	PASS
		VN	40	-1.08	-0.000618	± 2.5	PASS
		VN	50	3.8	0.002175	± 2.5	PASS
16QAM	LCH	VN	-30	-0.59	-0.000341	± 2.5	PASS
		VN	-20	2.26	0.001304	± 2.5	PASS
		VN	-10	-0.25	-0.000144	± 2.5	PASS
		VN	0	0.6	0.000346	± 2.5	PASS
		VN	10	2.68	0.001547	± 2.5	PASS
		VN	20	2.93	0.001691	± 2.5	PASS
		VN	30	0.29	0.000167	± 2.5	PASS
		VN	40	4.67	0.002696	± 2.5	PASS
		VN	50	0.25	0.000144	± 2.5	PASS
	MCH	VN	-30	3.32	0.001900	± 2.5	PASS
		VN	-20	-1.61	-0.000921	± 2.5	PASS
		VN	-10	3.91	0.002237	± 2.5	PASS
		VN	0	3.88	0.002220	± 2.5	PASS
		VN	10	4.66	0.002667	± 2.5	PASS
		VN	20	2.14	0.001225	± 2.5	PASS
		VN	30	-0.47	-0.000269	± 2.5	PASS
		VN	40	4.66	0.002667	± 2.5	PASS
		VN	50	-1.45	-0.000830	± 2.5	PASS
	HCH	VN	-30	0.86	0.000492	± 2.5	PASS
		VN	-20	1.75	0.001001	± 2.5	PASS
		VN	-10	4.19	0.002398	± 2.5	PASS
		VN	0	0.25	0.000143	± 2.5	PASS
		VN	10	1.67	0.000956	± 2.5	PASS
		VN	20	1.19	0.000681	± 2.5	PASS
		VN	30	-1.86	-0.001064	± 2.5	PASS
		VN	40	2.8	0.001602	± 2.5	PASS
		VN	50	5	0.002861	± 2.5	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.23	-0.000715	± 2.5	PASS
		VN	TN	1.66	0.000965	± 2.5	PASS
		VH	TN	3.26	0.001895	± 2.5	PASS
	MCH	VL	TN	-0.51	-0.000294	± 2.5	PASS
		VN	TN	1.13	0.000652	± 2.5	PASS
		VH	TN	-0.15	-0.000087	± 2.5	PASS
	HCH	VL	TN	3.99	0.002287	± 2.5	PASS
		VN	TN	4.42	0.002533	± 2.5	PASS
		VH	TN	-0.88	-0.000504	± 2.5	PASS
16QAM	LCH	VL	TN	1.62	0.000942	± 2.5	PASS
		VN	TN	2.57	0.001494	± 2.5	PASS
		VH	TN	0.55	0.000320	± 2.5	PASS
	MCH	VL	TN	3.42	0.001974	± 2.5	PASS
		VN	TN	1.9	0.001097	± 2.5	PASS
		VH	TN	4.78	0.002759	± 2.5	PASS
	HCH	VL	TN	3.14	0.001799	± 2.5	PASS
		VN	TN	3.59	0.002057	± 2.5	PASS
		VH	TN	4	0.002292	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.48	-0.000279	± 2.5	PASS
		VN	-20	3.24	0.001884	± 2.5	PASS
		VN	-10	1.47	0.000855	± 2.5	PASS
		VN	0	2.48	0.001442	± 2.5	PASS
		VN	10	0.2	0.000116	± 2.5	PASS
		VN	20	4.75	0.002762	± 2.5	PASS
		VN	30	1.06	0.000616	± 2.5	PASS
		VN	40	-0.13	-0.000076	± 2.5	PASS
		VN	50	-1.59	-0.000924	± 2.5	PASS
	MCH	VN	-30	1.86	0.001074	± 2.5	PASS
		VN	-20	0.9	0.000519	± 2.5	PASS
		VN	-10	-1.26	-0.000727	± 2.5	PASS
		VN	0	2.72	0.001570	± 2.5	PASS
		VN	10	-0.16	-0.000092	± 2.5	PASS
		VN	20	-1.09	-0.000629	± 2.5	PASS

		VN	30	3.39	0.001957	± 2.5	PASS
		VN	40	3.14	0.001812	± 2.5	PASS
		VN	50	2.94	0.001697	± 2.5	PASS
	HCH	VN	-30	1.98	0.001135	± 2.5	PASS
		VN	-20	-1.58	-0.000905	± 2.5	PASS
		VN	-10	-1.19	-0.000682	± 2.5	PASS
		VN	0	0.71	0.000407	± 2.5	PASS
		VN	10	-0.31	-0.000178	± 2.5	PASS
		VN	20	4.79	0.002745	± 2.5	PASS
		VN	30	1.55	0.000888	± 2.5	PASS
		VN	40	-0.43	-0.000246	± 2.5	PASS
		VN	50	1.89	0.001083	± 2.5	PASS
16QAM	LCH	VN	-30	3.9	0.002251	± 2.5	PASS
		VN	-20	1.38	0.000797	± 2.5	PASS
		VN	-10	1.98	0.001143	± 2.5	PASS
		VN	0	2.78	0.001605	± 2.5	PASS
		VN	10	-0.41	-0.000237	± 2.5	PASS
		VN	20	0.91	0.000525	± 2.5	PASS
		VN	30	-0.02	-0.000012	± 2.5	PASS
		VN	40	2.27	0.001310	± 2.5	PASS
		VN	50	-0.43	-0.000248	± 2.5	PASS
	MCH	VN	-30	-1.95	-0.001117	± 2.5	PASS
		VN	-20	2.78	0.001593	± 2.5	PASS
		VN	-10	2.42	0.001387	± 2.5	PASS
		VN	0	-0.18	-0.000103	± 2.5	PASS
		VN	10	3.78	0.002166	± 2.5	PASS
		VN	20	3.34	0.001914	± 2.5	PASS
		VN	30	1.32	0.000756	± 2.5	PASS
		VN	40	1.22	0.000699	± 2.5	PASS
		VN	50	4.9	0.002808	± 2.5	PASS
	HCH	VN	-30	0.27	0.000155	± 2.5	PASS
		VN	-20	-0.4	-0.000229	± 2.5	PASS
		VN	-10	3.28	0.001880	± 2.5	PASS
		VN	0	-1.93	-0.001106	± 2.5	PASS
		VN	10	0.81	0.000464	± 2.5	PASS
		VN	20	2.15	0.001232	± 2.5	PASS
		VN	30	4.89	0.002802	± 2.5	PASS
		VN	40	1.18	0.000676	± 2.5	PASS
		VN	50	-1.09	-0.000625	± 2.5	PASS