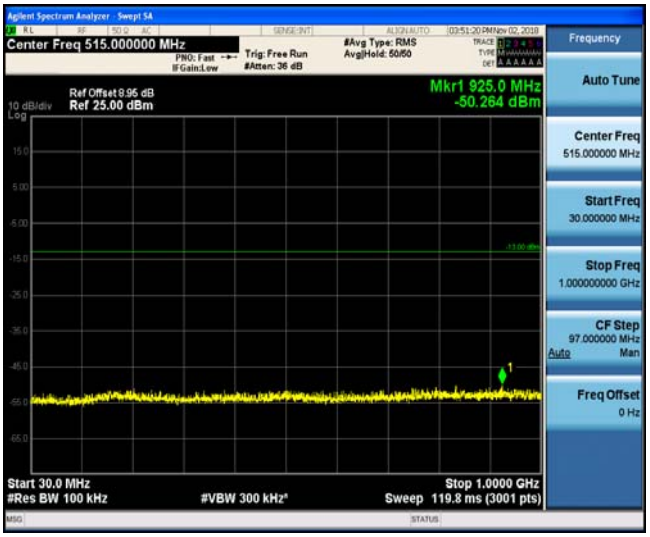
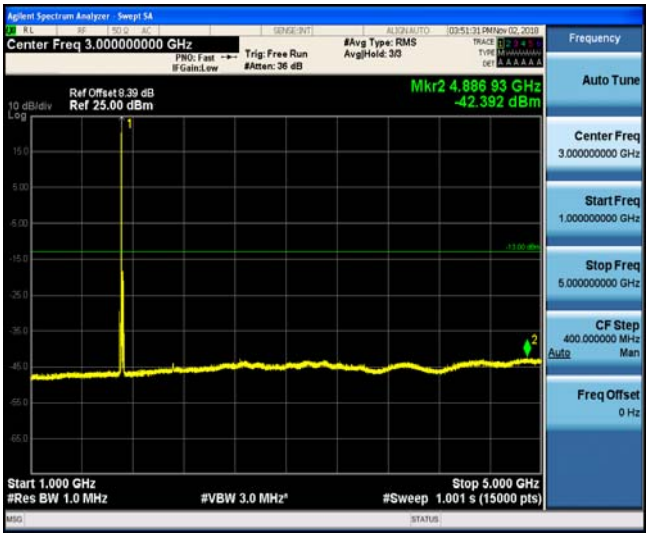


Band4_10MHz_QPSK_20000_1RB#0

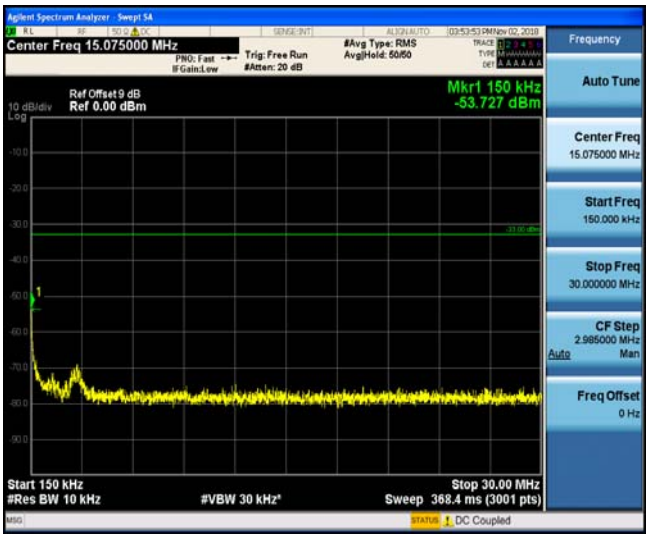


Band4_10MHz_QPSK_20000_1RB#0

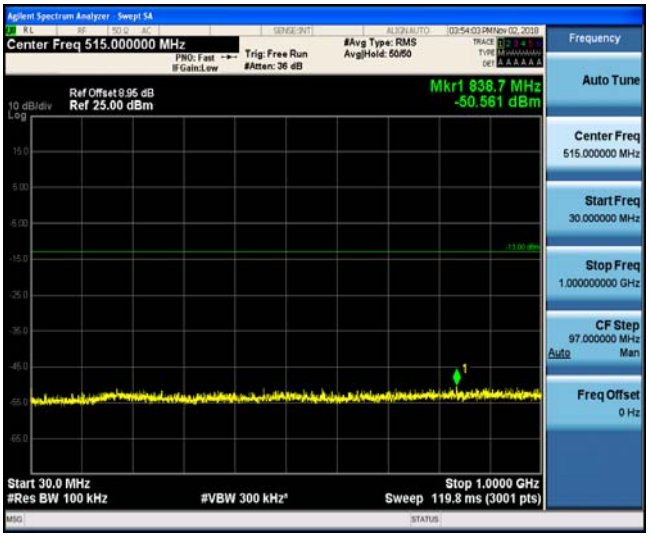
Band4_10MHz_QPSK_20000_1RB#0

Band4_10MHz_QPSK_20175_1RB#0

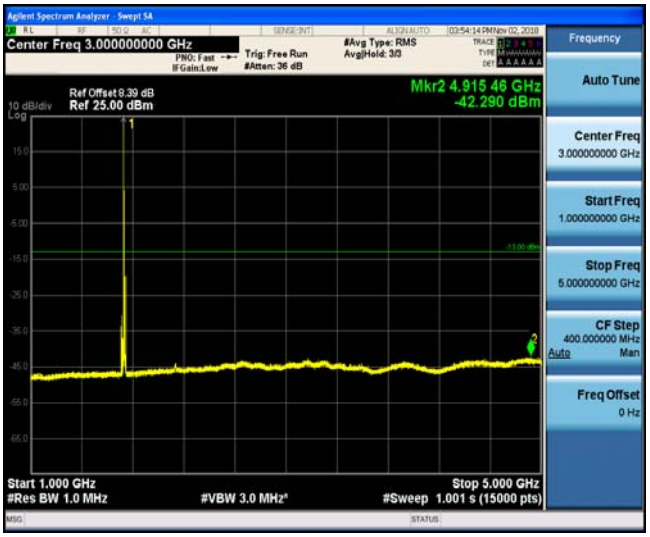
Band4_10MHz_QPSK_20175_1RB#0



Band4_10MHz_QPSK_20175_1RB#0



Band4_10MHz_QPSK_20175_1RB#0



Band4_10MHz_QPSK_20175_1RB#0

Band4_10MHz_QPSK_20175_1RB#0

Band4_10MHz_QPSK_20350_1RB#0

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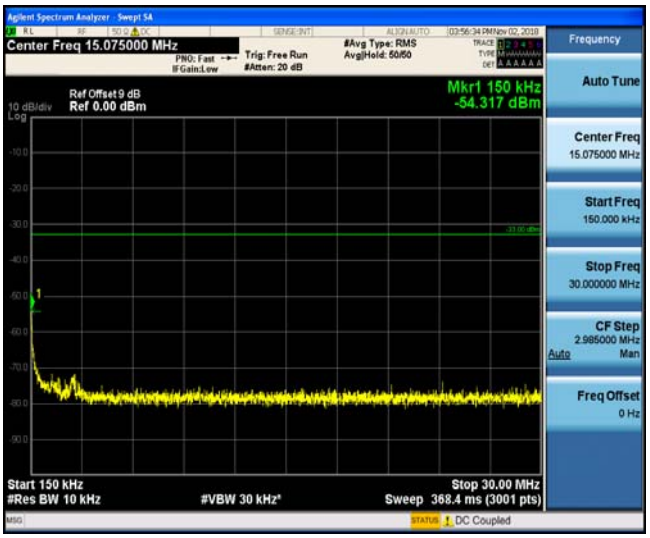

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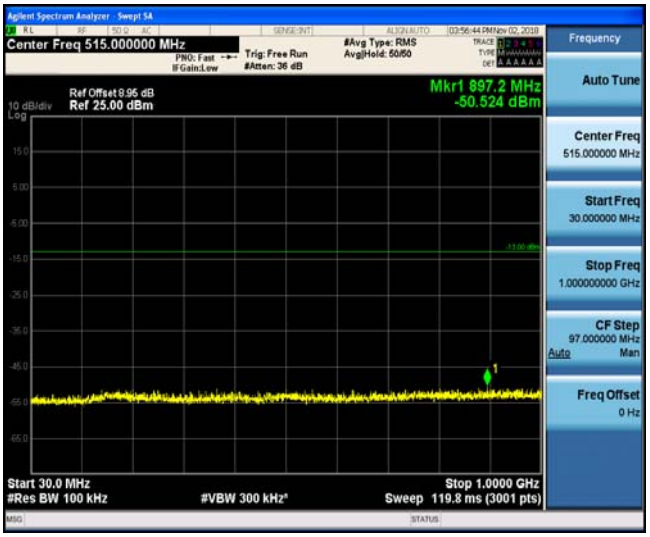


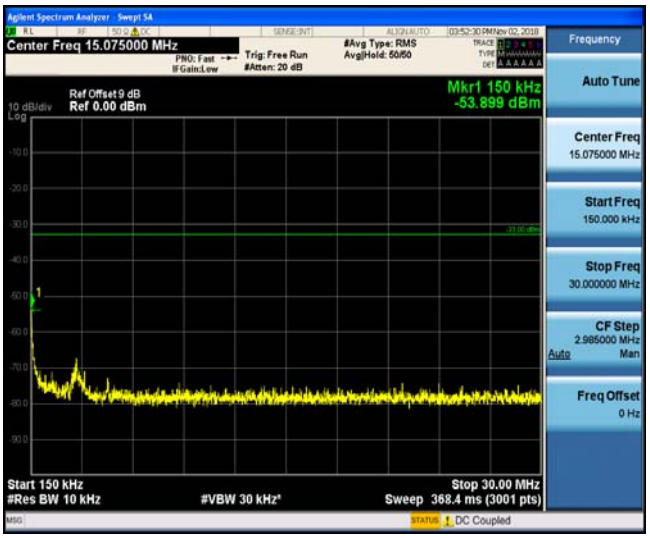
Band4_10MHz_QPSK_20350_1RB#0

Band4_10MHz_QPSK_20350_1RB#0

Band4_10MHz_QPSK_20350_1RB#0

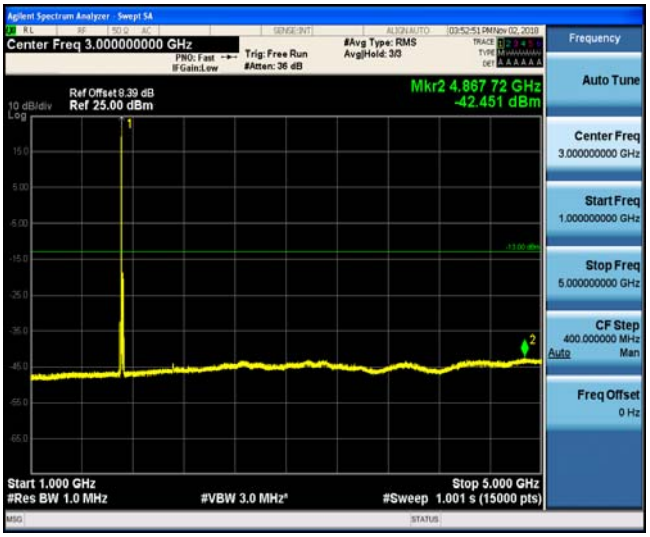
Band4_10MHz_16QAM_20000_1RB#0

Band4_10MHz_16QAM_20000_1RB#0



Band4_10MHz_16QAM_20000_1RB#0

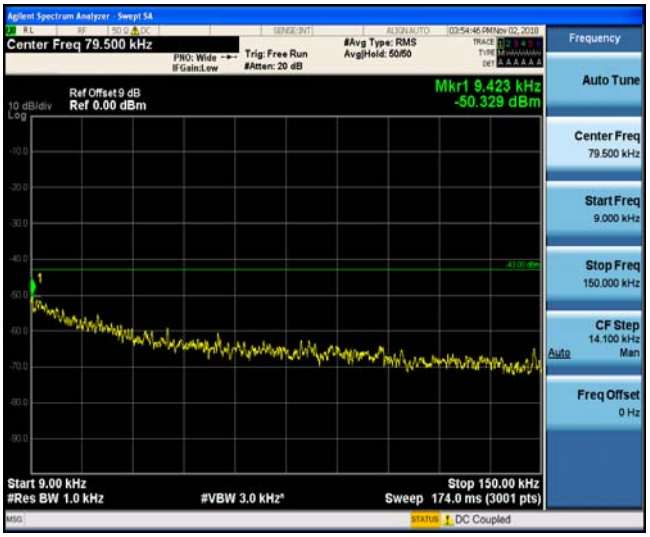
Band4_10MHz_16QAM_20000_1RB#0



Band4_10MHz_16QAM_20000_1RB#0

Band4_10MHz_16QAM_20000_1RB#0

Band4_10MHz_16QAM_20175_1RB#0



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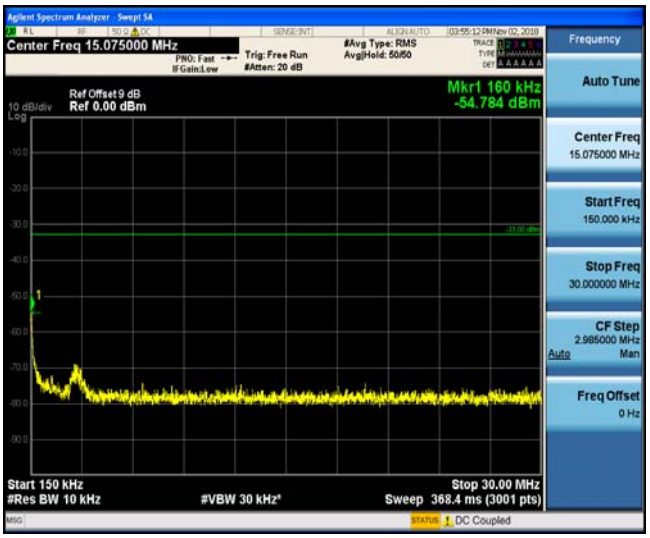
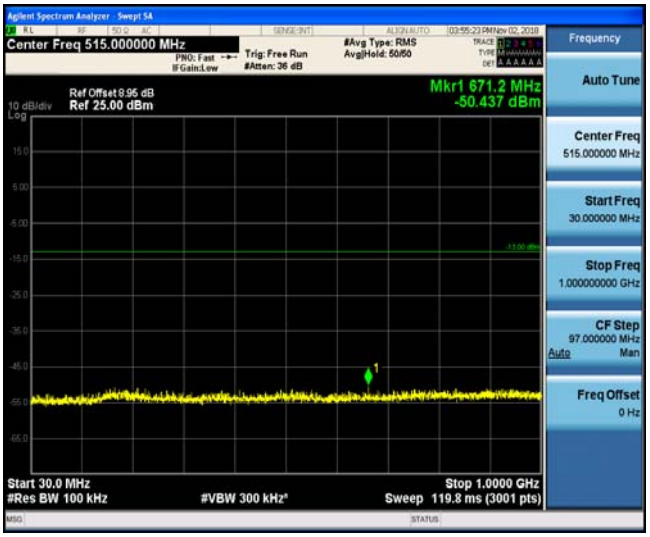
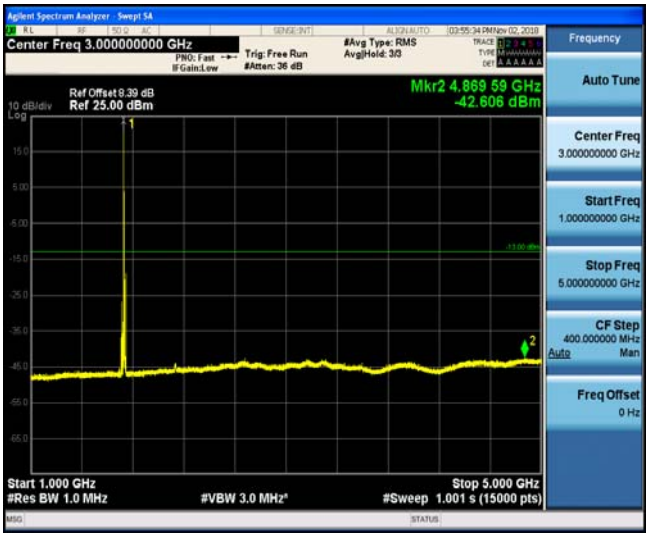


Band4_10MHz_16QAM_20175_1RB#0



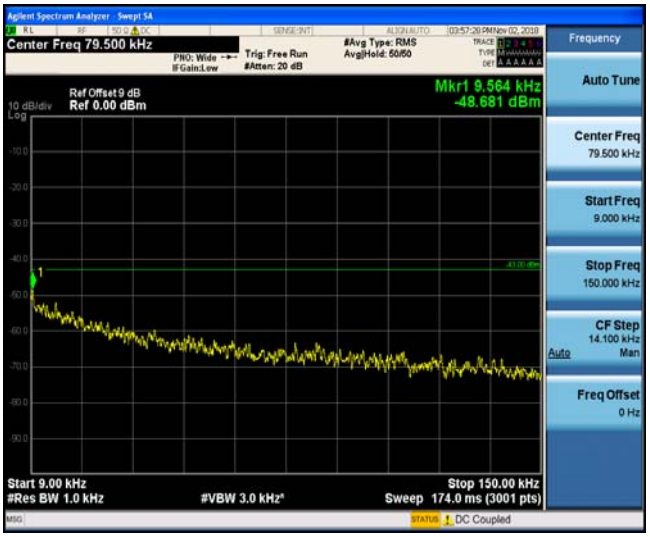
Band4_10MHz_16QAM_20175_1RB#0



Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20350_1RB#0



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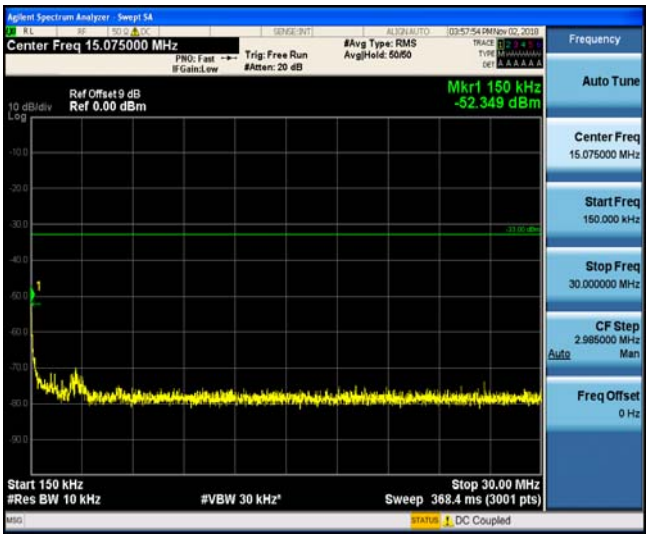

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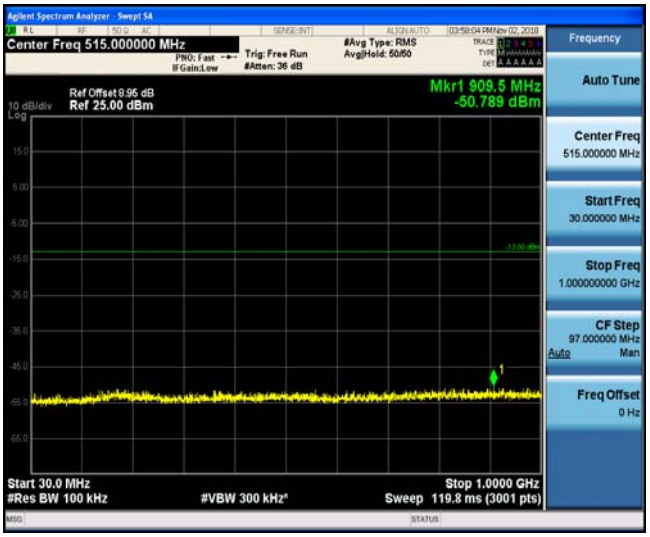


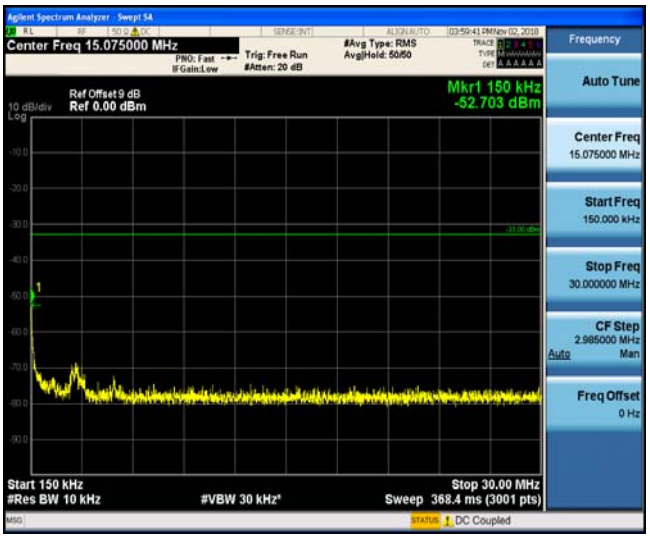
Band4_10MHz_16QAM_20350_1RB#0

Band4_10MHz_16QAM_20350_1RB#0

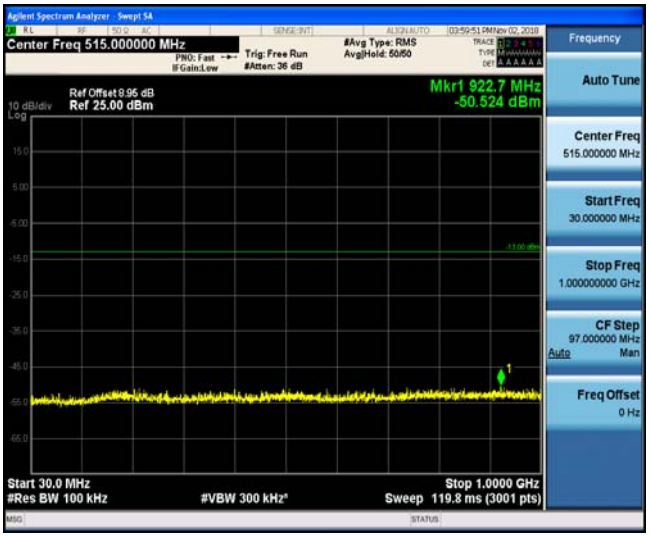
Band4_10MHz_16QAM_20350_1RB#0

Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20025_1RB#0



Band4_15MHz_QPSK_20025_1RB#0



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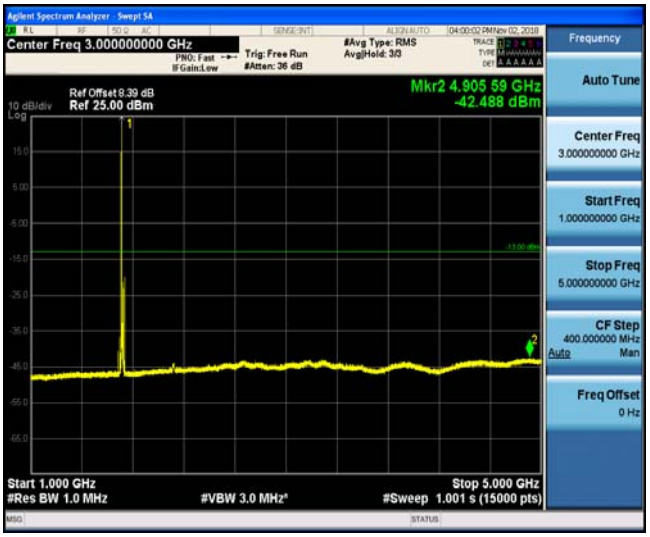
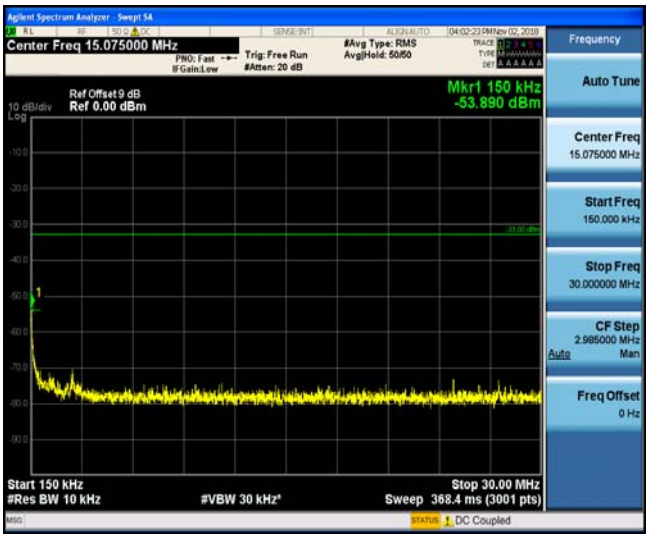


Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20175_1RB#0

Band4_15MHz_QPSK_20175_1RB#0



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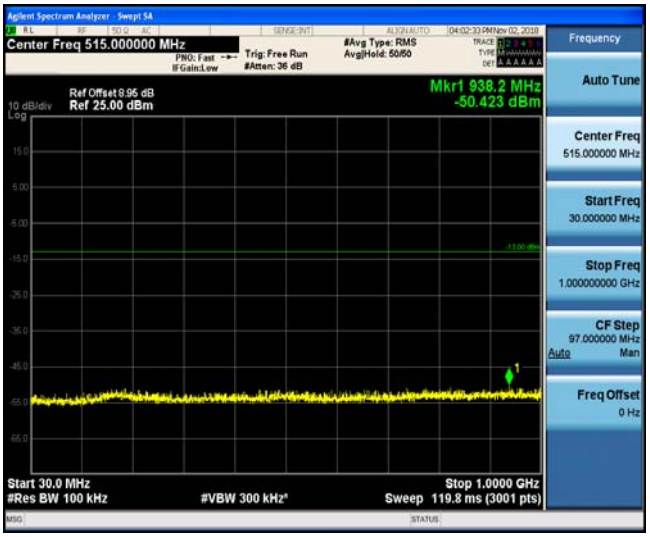
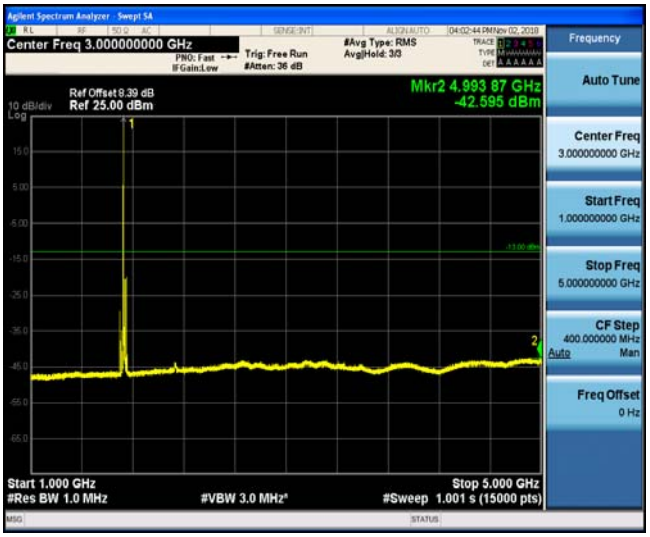


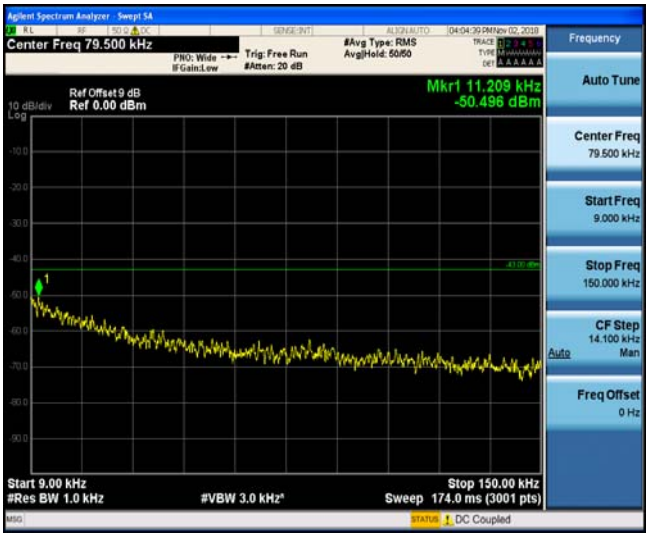
Band4_15MHz_QPSK_20175_1RB#0



Band4_15MHz_QPSK_20175_1RB#0

Band4_15MHz_QPSK_20175_1RB#0

Band4_15MHz_QPSK_20325_1RB#0



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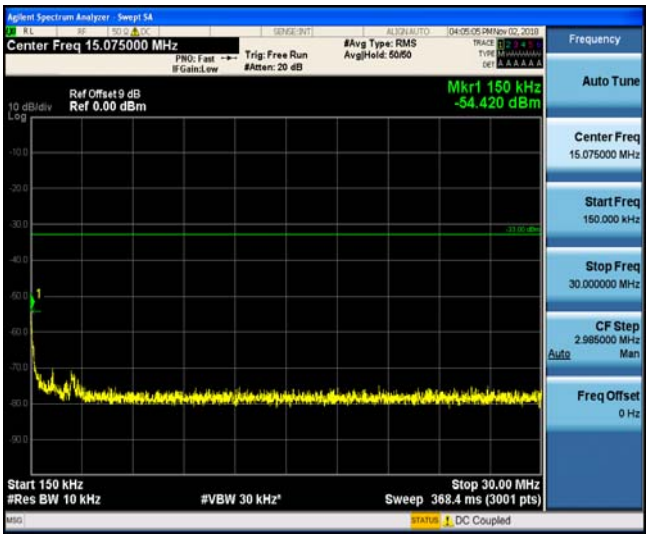

Band4_15MHz_QPSK_20325_1RB#0

Band4_15MHz_QPSK_20325_1RB#0

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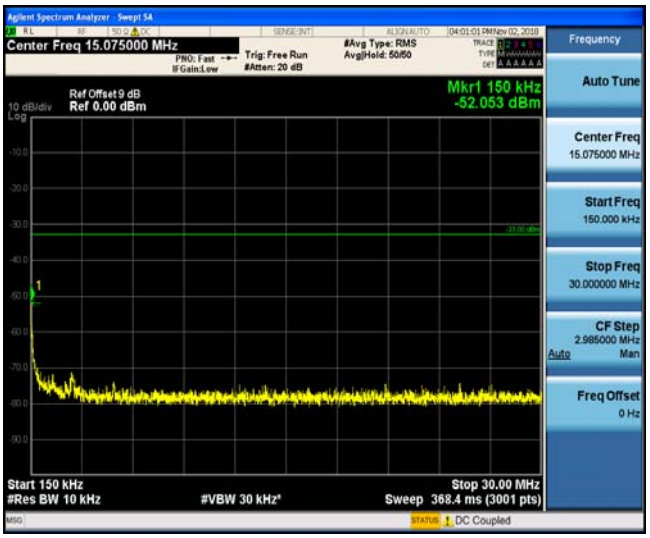
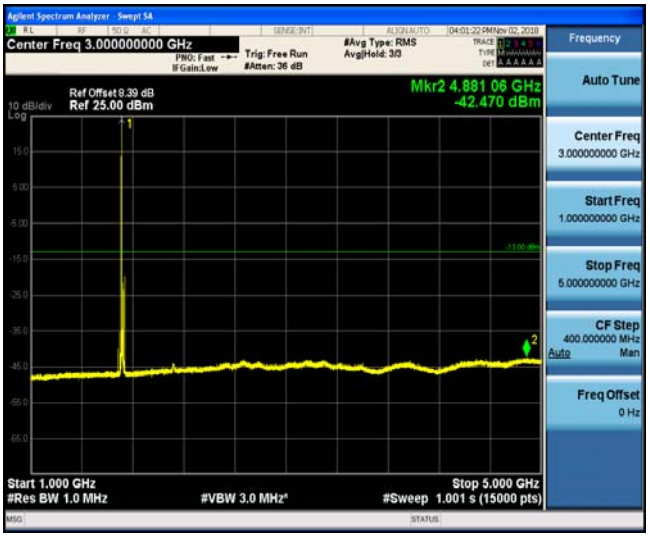
Band4_15MHz_16QAM_20025_1RB#0

Band4_15MHz_16QAM_20025_1RB#0



Band4_15MHz_16QAM_20025_1RB#0

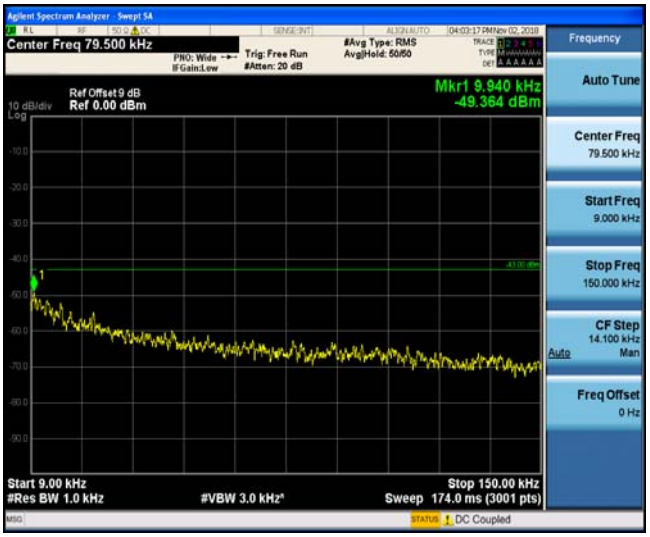
Band4_15MHz_16QAM_20025_1RB#0



Band4_15MHz_16QAM_20025_1RB#0

Band4_15MHz_16QAM_20025_1RB#0

Band4_15MHz_16QAM_20175_1RB#0



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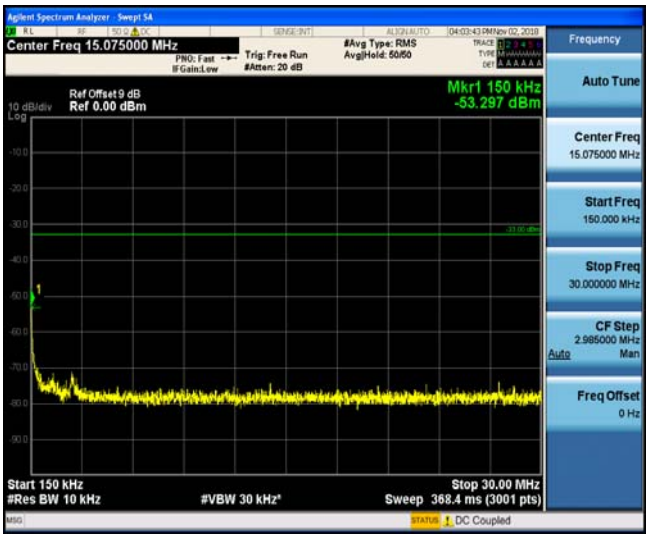
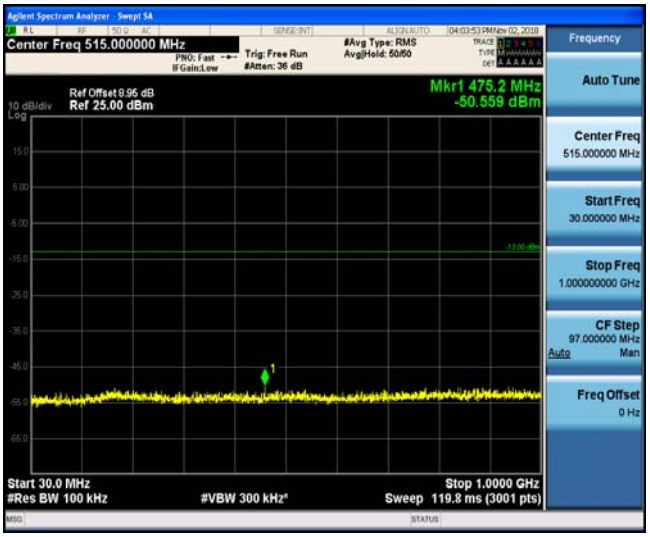


Band4_15MHz_16QAM_20175_1RB#0



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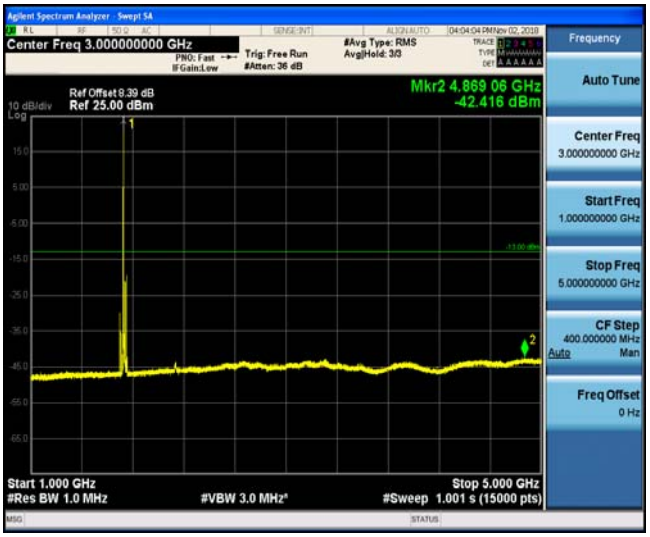
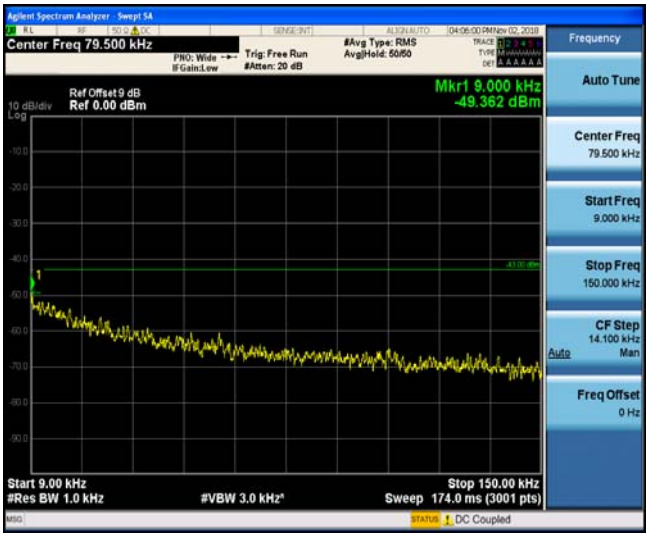


Band4_15MHz_16QAM_20175_1RB#0

Band4_15MHz_16QAM_20175_1RB#0

Band4_15MHz_16QAM_20325_1RB#0



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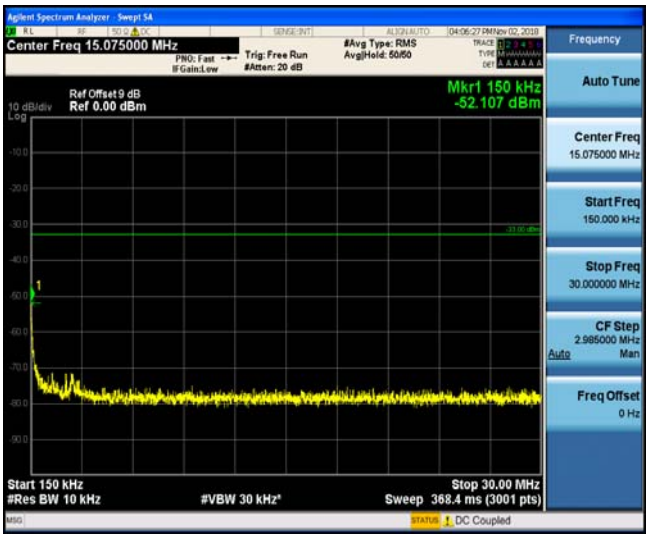


Band4_15MHz_16QAM_20325_1RB#0

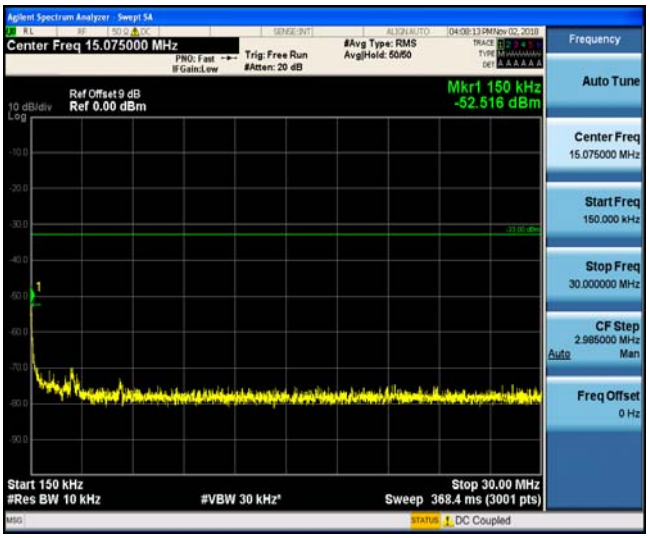
Band4_15MHz_16QAM_20325_1RB#0

Band4_15MHz_16QAM_20325_1RB#0

Band4_15MHz_16QAM_20325_1RB#0

Band4_20MHz_QPSK_20050_1RB#0

Band4_20MHz_QPSK_20050_1RB#0



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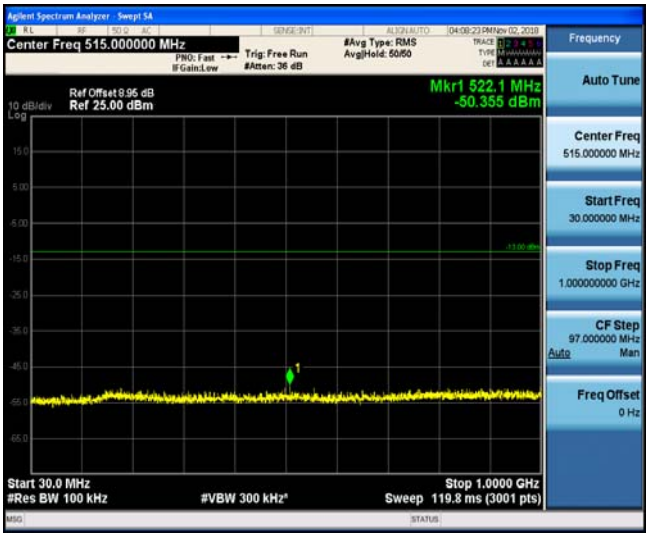
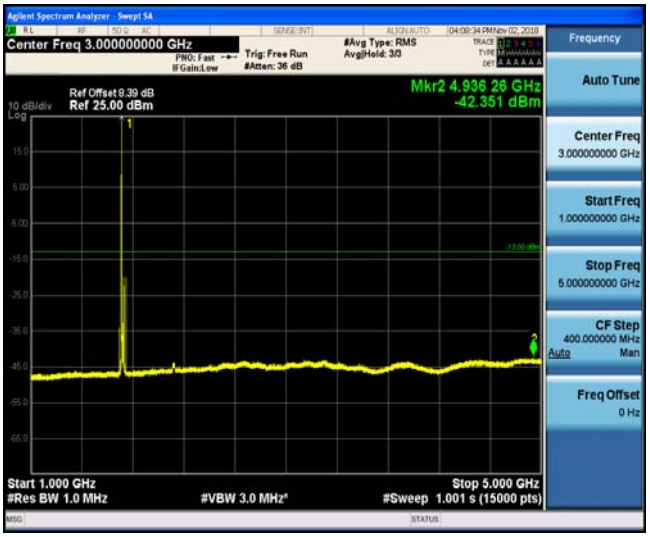


Band4_20MHz_QPSK_20050_1RB#0



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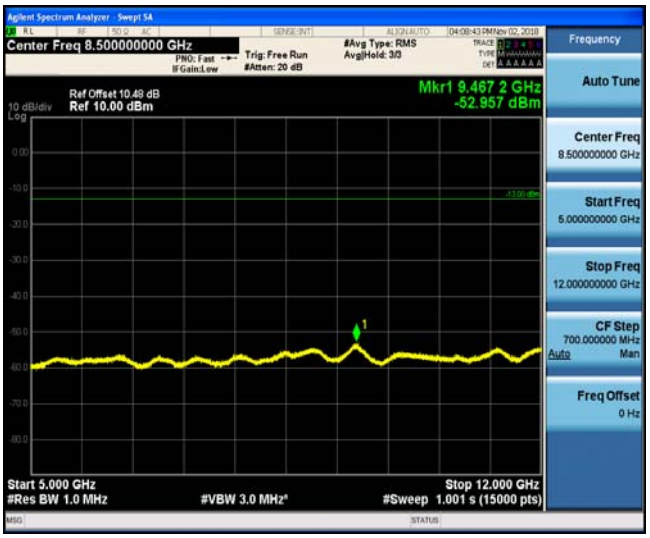
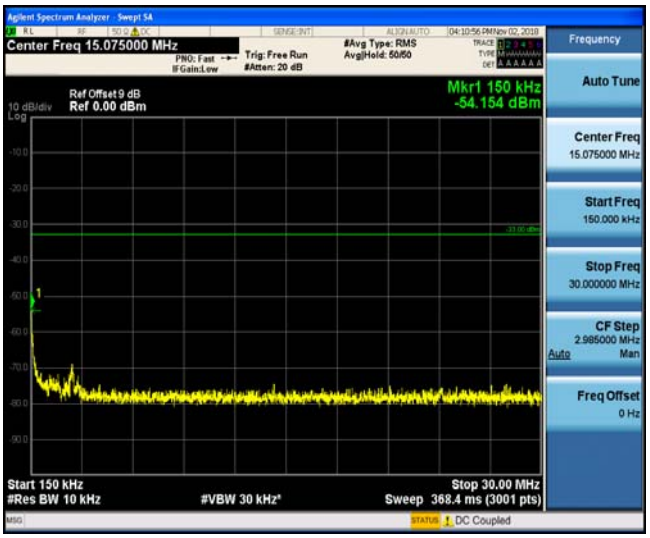


Band4_20MHz_QPSK_20050_1RB#0

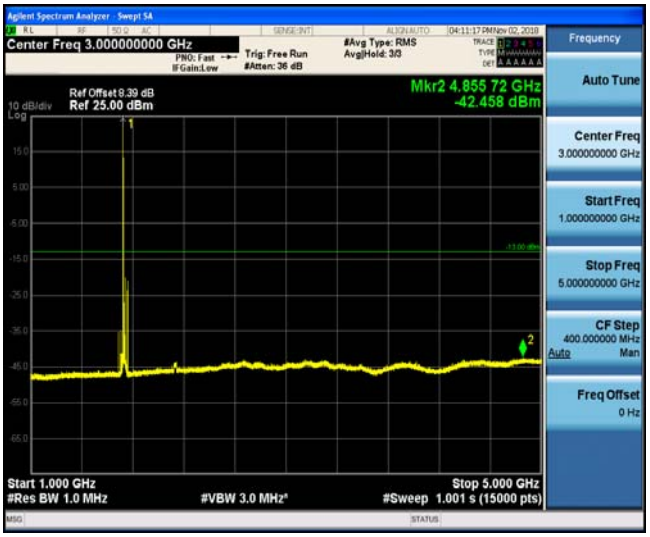
Band4_20MHz_QPSK_20175_1RB#0

Band4_20MHz_QPSK_20175_1RB#0



Band4_20MHz_QPSK_20175_1RB#0

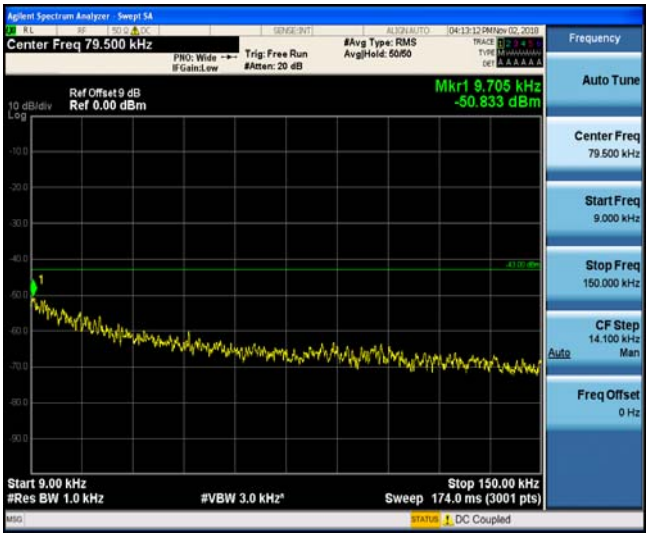
Band4_20MHz_QPSK_20175_1RB#0



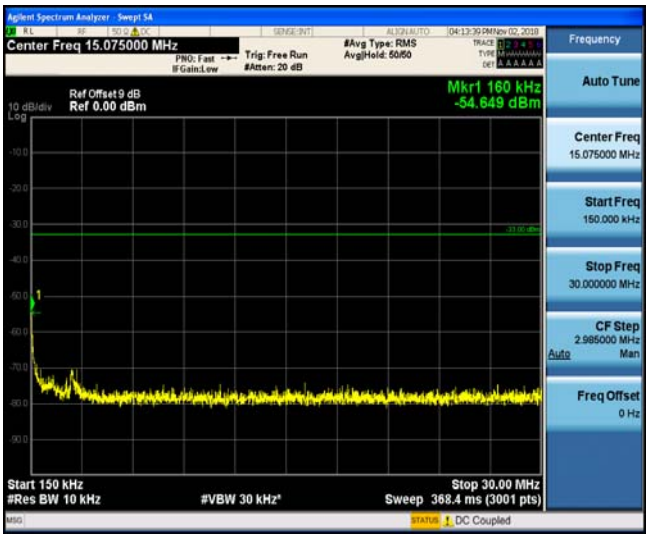
Band4_20MHz_QPSK_20175_1RB#0

Band4_20MHz_QPSK_20175_1RB#0

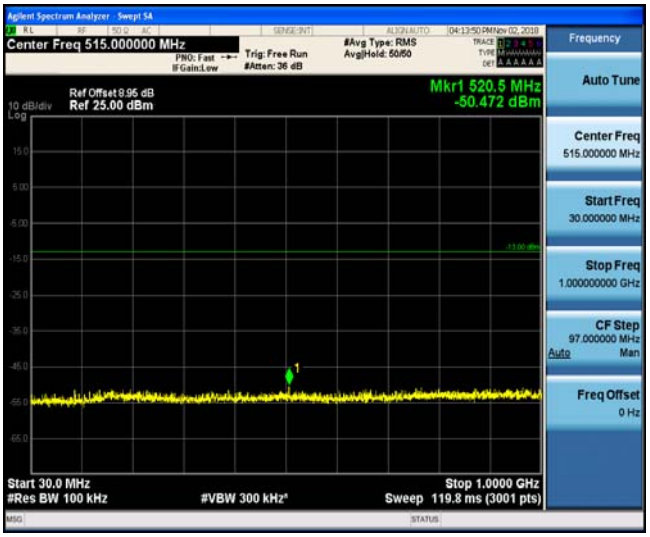
Band4_20MHz_QPSK_20300_1RB#0



Band4_20MHz_QPSK_20300_1RB#0



Band4_20MHz_QPSK_20300_1RB#0

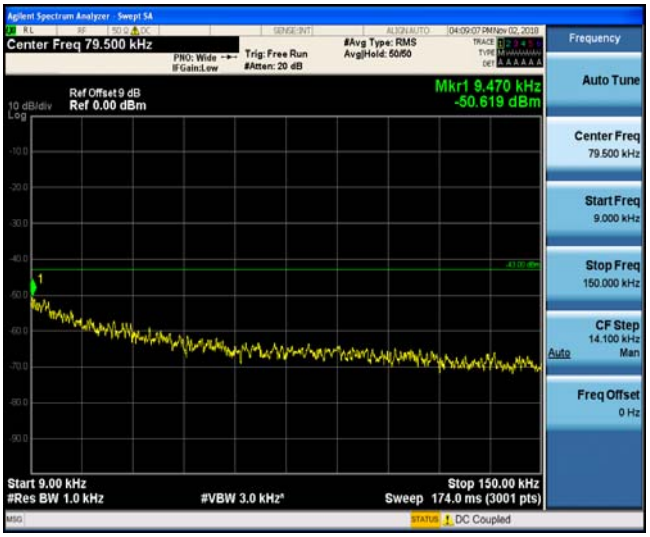


Band4_20MHz_QPSK_20300_1RB#0

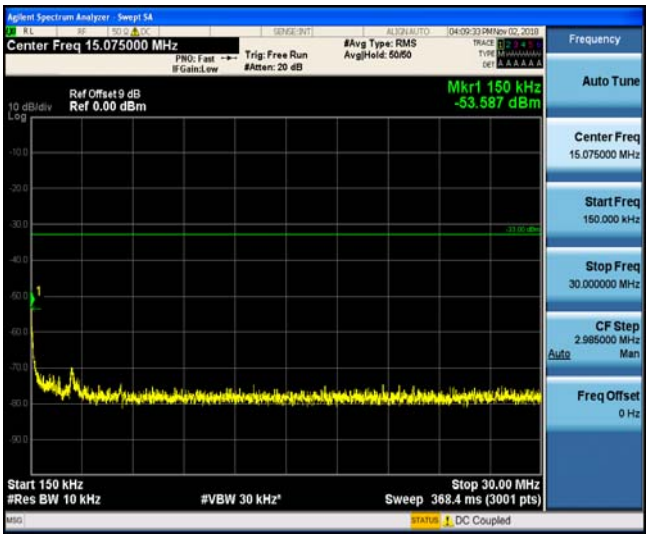
Band4_20MHz_QPSK_20300_1RB#0

Band4_20MHz_QPSK_20300_1RB#0

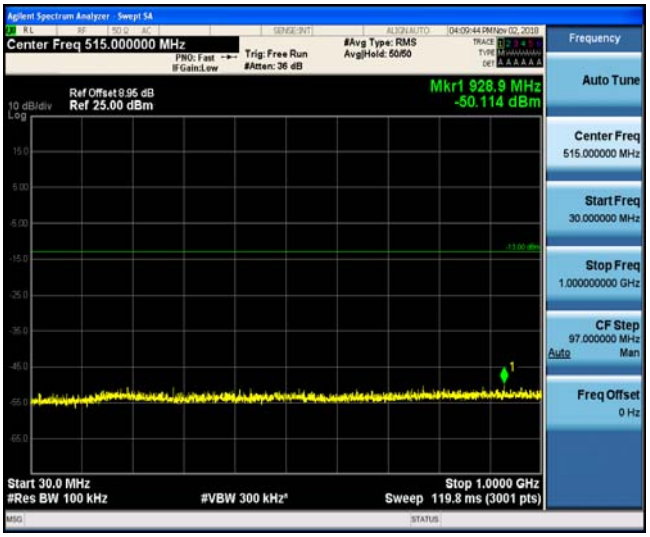
Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_1RB#0



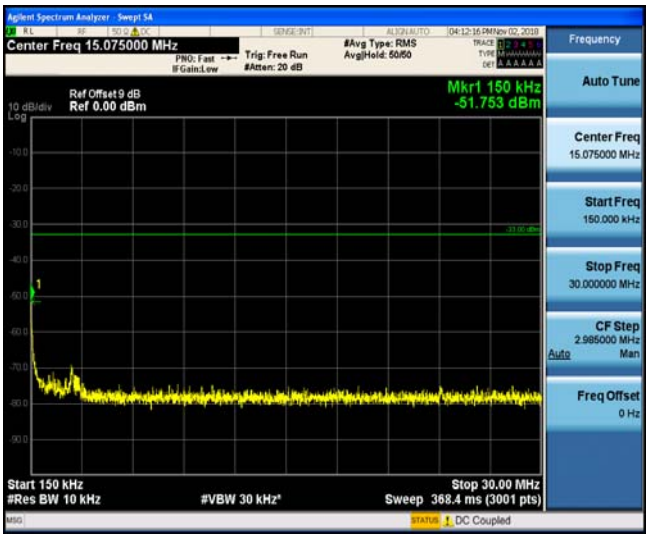
Band4_20MHz_16QAM_20050_1RB#0

Band4_20MHz_16QAM_20050_1RB#0

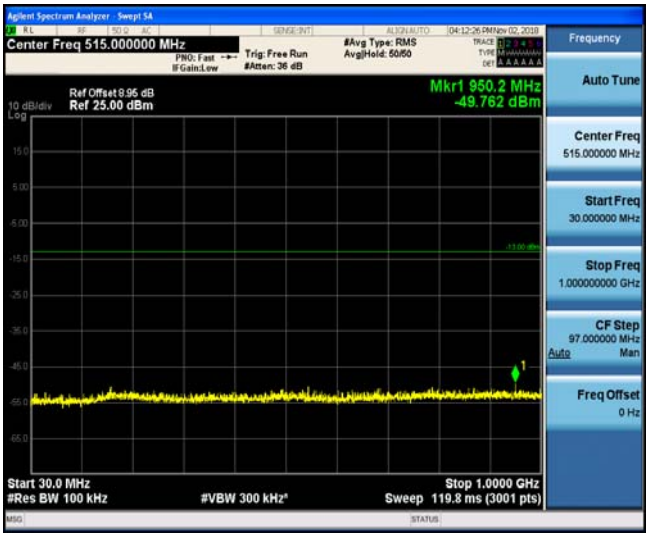
Band4_20MHz_16QAM_20050_1RB#0

Band4_20MHz_16QAM_20175_1RB#0

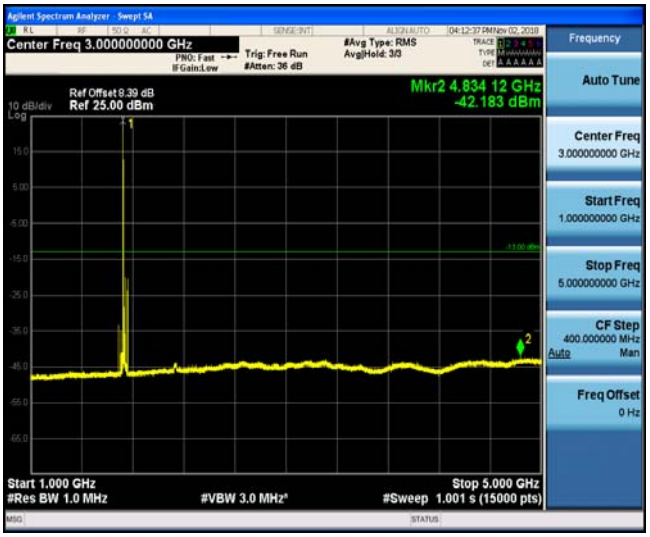
Band4_20MHz_16QAM_20175_1RB#0



Band4_20MHz_16QAM_20175_1RB#0



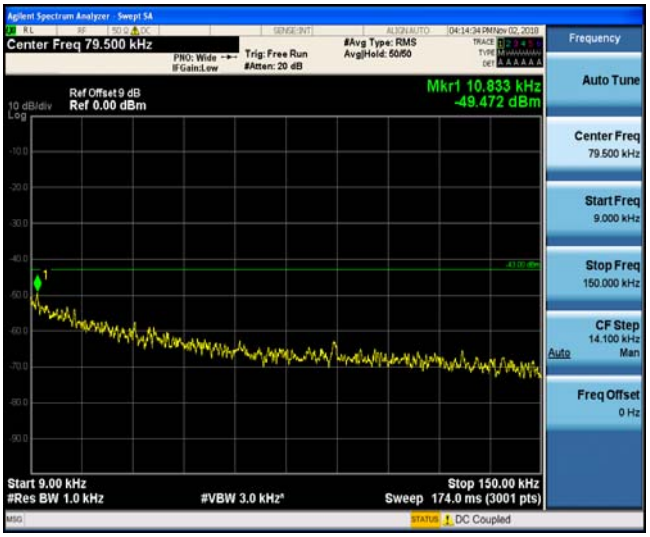
Band4_20MHz_16QAM_20175_1RB#0



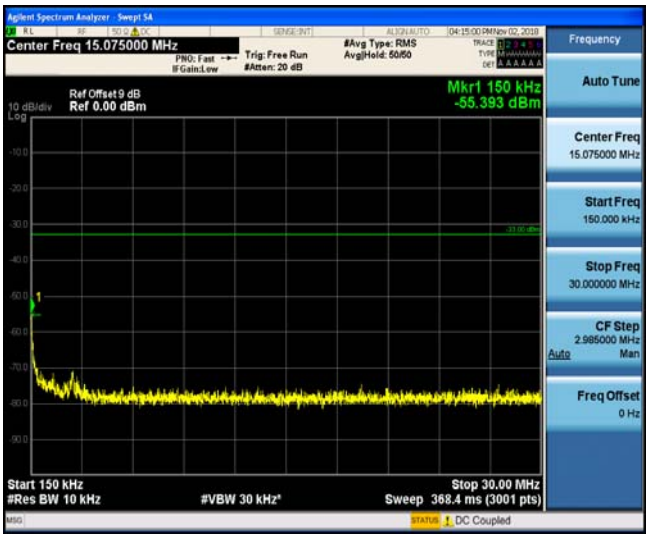
Band4_20MHz_16QAM_20175_1RB#0

Band4_20MHz_16QAM_20175_1RB#0

Band4_20MHz_16QAM_20300_1RB#0

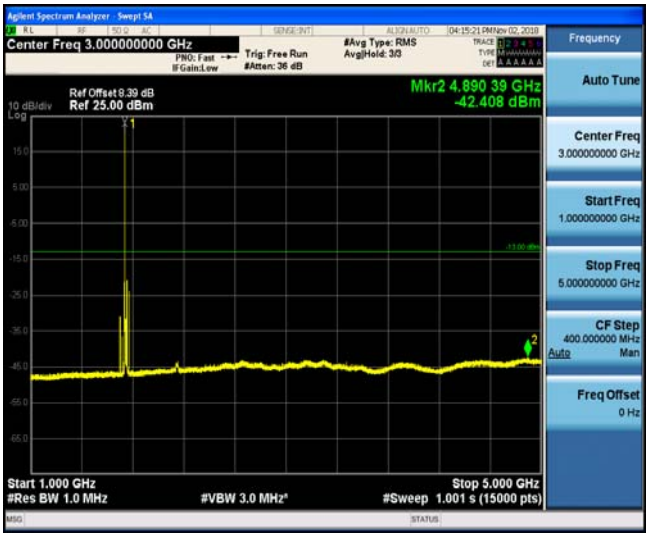


Band4_20MHz_16QAM_20300_1RB#0



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
Mkr1 16.986 7 GHz
-40.659 dBm
Ref Offset 18.76 dB
10 dB/div
Log
Ref 10.00 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	4.78	0.002794	± 2.5	PASS
		VN	TN	0.6	0.000351	± 2.5	PASS
		VH	TN	-1.58	-0.000924	± 2.5	PASS
	MCH	VL	TN	2.93	0.001691	± 2.5	PASS
		VN	TN	3.51	0.002026	± 2.5	PASS
		VH	TN	-1.86	-0.001074	± 2.5	PASS
	HCH	VL	TN	0.47	0.000268	± 2.5	PASS
		VN	TN	4.07	0.002320	± 2.5	PASS
		VH	TN	-0.56	-0.000319	± 2.5	PASS
16QAM	LCH	VL	TN	2.22	0.001298	± 2.5	PASS
		VN	TN	1.23	0.000719	± 2.5	PASS
		VH	TN	-0.89	-0.000520	± 2.5	PASS
	MCH	VL	TN	-0.35	-0.000202	± 2.5	PASS
		VN	TN	-1.55	-0.000895	± 2.5	PASS
		VH	TN	0.63	0.000364	± 2.5	PASS
	HCH	VL	TN	0.55	0.000314	± 2.5	PASS
		VN	TN	2.5	0.001425	± 2.5	PASS
		VH	TN	3.84	0.002189	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.3	-0.000175	± 2.5	PASS
		VN	-20	3.52	0.002058	± 2.5	PASS
		VN	-10	0.24	0.000140	± 2.5	PASS
		VN	0	0.81	0.000473	± 2.5	PASS
		VN	10	2.45	0.001432	± 2.5	PASS
		VN	20	2.06	0.001204	± 2.5	PASS
		VN	30	0.56	0.000327	± 2.5	PASS
		VN	40	0.36	0.000210	± 2.5	PASS
		VN	50	2.01	0.001175	± 2.5	PASS

	MCH	VN	-30	0.15	0.000087	± 2.5	PASS
		VN	-20	-1.59	-0.000918	± 2.5	PASS
		VN	-10	4.58	0.002644	± 2.5	PASS
		VN	0	1.21	0.000698	± 2.5	PASS
		VN	10	2.09	0.001206	± 2.5	PASS
		VN	20	-1.47	-0.000848	± 2.5	PASS
		VN	30	4.97	0.002869	± 2.5	PASS
		VN	40	4.62	0.002667	± 2.5	PASS
		VN	50	4.43	0.002557	± 2.5	PASS
	HCH	VN	-30	0.42	0.000239	± 2.5	PASS
		VN	-20	0.64	0.000365	± 2.5	PASS
		VN	-10	3.23	0.001841	± 2.5	PASS
		VN	0	2.5	0.001425	± 2.5	PASS
		VN	10	-0.26	-0.000148	± 2.5	PASS
		VN	20	2.66	0.001516	± 2.5	PASS
		VN	30	0.92	0.000524	± 2.5	PASS
		VN	40	-1.85	-0.001055	± 2.5	PASS
		VN	50	3.07	0.001750	± 2.5	PASS
16QAM	LCH	VN	-30	2.93	0.001713	± 2.5	PASS
		VN	-20	-1.86	-0.001087	± 2.5	PASS
		VN	-10	3.41	0.001993	± 2.5	PASS
		VN	0	3.02	0.001765	± 2.5	PASS
		VN	10	0.54	0.000316	± 2.5	PASS
		VN	20	2.21	0.001292	± 2.5	PASS
		VN	30	4.68	0.002736	± 2.5	PASS
		VN	40	4.7	0.002747	± 2.5	PASS
		VN	50	4.36	0.002549	± 2.5	PASS
	MCH	VN	-30	-1.13	-0.000644	± 2.5	PASS
		VN	-20	-0.64	-0.000365	± 2.5	PASS
		VN	-10	0.74	0.000422	± 2.5	PASS
		VN	0	-1.32	-0.000752	± 2.5	PASS
		VN	10	0.51	0.000291	± 2.5	PASS
		VN	20	4.29	0.002445	± 2.5	PASS
		VN	30	3.28	0.001870	± 2.5	PASS
		VN	40	1.68	0.000958	± 2.5	PASS
		VN	50	2.05	0.001169	± 2.5	PASS
	HCH	VN	-30	2.48	0.001414	± 2.5	PASS
		VN	-20	3.21	0.001830	± 2.5	PASS
		VN	-10	2.58	0.001471	± 2.5	PASS
		VN	0	0.01	0.000006	± 2.5	PASS
		VN	10	4.59	0.002616	± 2.5	PASS

		VN	20	-1.53	-0.000872	± 2.5	PASS
		VN	30	-1.58	-0.000901	± 2.5	PASS
		VN	40	3.4	0.001938	± 2.5	PASS
		VN	50	-1.87	-0.001066	± 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	-0.48	-0.000280	± 2.5	PASS
		VN	TN	4.1	0.002396	± 2.5	PASS
		VH	TN	1.17	0.000684	± 2.5	PASS
	MCH	VL	TN	-1.81	-0.001045	± 2.5	PASS
		VN	TN	1.35	0.000779	± 2.5	PASS
		VH	TN	-0.47	-0.000271	± 2.5	PASS
	HCH	VL	TN	1.25	0.000713	± 2.5	PASS
		VN	TN	1.15	0.000656	± 2.5	PASS
		VH	TN	0.75	0.000428	± 2.5	PASS
16QAM	LCH	VL	TN	4.74	0.002770	± 2.5	PASS
		VN	TN	3.43	0.002004	± 2.5	PASS
		VH	TN	4.2	0.002454	± 2.5	PASS
	MCH	VL	TN	3.02	0.001743	± 2.5	PASS
		VN	TN	2.39	0.001380	± 2.5	PASS
		VH	TN	-0.64	-0.000369	± 2.5	PASS
	HCH	VL	TN	-1.57	-0.000895	± 2.5	PASS
		VN	TN	0.57	0.000325	± 2.5	PASS
		VH	TN	1.62	0.000924	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.77	0.001034	± 2.5	PASS
		VN	-20	0.98	0.000573	± 2.5	PASS
		VN	-10	0.05	0.000029	± 2.5	PASS
		VN	0	0.83	0.000485	± 2.5	PASS
		VN	10	0.89	0.000520	± 2.5	PASS
		VN	20	0.91	0.000532	± 2.5	PASS
		VN	30	1.45	0.000847	± 2.5	PASS
		VN	40	-0.93	-0.000543	± 2.5	PASS
		VN	50	-1.39	-0.000812	± 2.5	PASS
	MCH	VN	-30	-1.29	-0.000745	± 2.5	PASS

		VN	-20	0.38	0.000219	± 2.5	PASS
		VN	-10	-0.87	-0.000502	± 2.5	PASS
		VN	0	-0.42	-0.000242	± 2.5	PASS
		VN	10	-1.65	-0.000952	± 2.5	PASS
		VN	20	1.17	0.000675	± 2.5	PASS
		VN	30	2.04	0.001177	± 2.5	PASS
		VN	40	-0.03	-0.000017	± 2.5	PASS
		VN	50	-0.14	-0.000081	± 2.5	PASS
	HCH	VN	-30	0.25	0.000143	± 2.5	PASS
		VN	-20	3.37	0.001922	± 2.5	PASS
		VN	-10	-0.79	-0.000451	± 2.5	PASS
		VN	0	2.85	0.001625	± 2.5	PASS
		VN	10	3.64	0.002076	± 2.5	PASS
		VN	20	0.32	0.000182	± 2.5	PASS
		VN	30	-1.94	-0.001106	± 2.5	PASS
		VN	40	2.55	0.001454	± 2.5	PASS
		VN	50	2.17	0.001238	± 2.5	PASS
QPSK	LCH	VN	-30	-0.56	-0.000323	± 2.5	PASS
		VN	-20	3.56	0.002055	± 2.5	PASS
		VN	-10	0.72	0.000416	± 2.5	PASS
		VN	0	3.71	0.002141	± 2.5	PASS
		VN	10	-0.67	-0.000387	± 2.5	PASS
		VN	20	-0.37	-0.000214	± 2.5	PASS
		VN	30	4.72	0.002724	± 2.5	PASS
		VN	40	1.21	0.000698	± 2.5	PASS
		VN	50	-1.75	-0.001010	± 2.5	PASS
	MCH	VN	-30	0.79	0.000451	± 2.5	PASS
		VN	-20	4.49	0.002561	± 2.5	PASS
		VN	-10	-1.04	-0.000593	± 2.5	PASS
		VN	0	0.65	0.000371	± 2.5	PASS
		VN	10	1.5	0.000855	± 2.5	PASS
		VN	20	-1.16	-0.000662	± 2.5	PASS
		VN	30	2.36	0.001346	± 2.5	PASS
		VN	40	4.52	0.002578	± 2.5	PASS
		VN	50	-0.34	-0.000194	± 2.5	PASS
	HCH	VN	-30	-0.55	-0.000314	± 2.5	PASS
		VN	-20	-1.57	-0.000895	± 2.5	PASS
		VN	-10	0.27	0.000154	± 2.5	PASS
		VN	0	-1.55	-0.000884	± 2.5	PASS
		VN	10	-1.39	-0.000793	± 2.5	PASS
		VN	20	-1.57	-0.000895	± 2.5	PASS

		VN	30	-1.24	-0.000707	± 2.5	PASS
		VN	40	4.88	0.002783	± 2.5	PASS
		VN	50	4.31	0.002458	± 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	0.48	0.000280	± 2.5	PASS
		VN	TN	3.74	0.002184	± 2.5	PASS
		VH	TN	-1.53	-0.000893	± 2.5	PASS
	MCH	VL	TN	-0.39	-0.000225	± 2.5	PASS
		VN	TN	0.23	0.000133	± 2.5	PASS
		VH	TN	1.52	0.000877	± 2.5	PASS
	HCH	VL	TN	-1.81	-0.001033	± 2.5	PASS
		VN	TN	2.56	0.001461	± 2.5	PASS
		VH	TN	3.92	0.002237	± 2.5	PASS
16QAM	LCH	VL	TN	2.54	0.001483	± 2.5	PASS
		VN	TN	1.15	0.000672	± 2.5	PASS
		VH	TN	-1.1	-0.000642	± 2.5	PASS
	MCH	VL	TN	0.9	0.000519	± 2.5	PASS
		VN	TN	-1.65	-0.000952	± 2.5	PASS
		VH	TN	3	0.001732	± 2.5	PASS
	HCH	VL	TN	4.7	0.002682	± 2.5	PASS
		VN	TN	4.12	0.002351	± 2.5	PASS
		VH	TN	0.35	0.000200	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.59	0.002680	± 2.5	PASS
		VN	-20	1.77	0.001034	± 2.5	PASS
		VN	-10	4.77	0.002785	± 2.5	PASS
		VN	0	0.33	0.000193	± 2.5	PASS
		VN	10	2.87	0.001676	± 2.5	PASS
		VN	20	0.37	0.000216	± 2.5	PASS
		VN	30	-0.6	-0.000350	± 2.5	PASS
		VN	40	-0.62	-0.000362	± 2.5	PASS
		VN	50	1.98	0.001156	± 2.5	PASS
	MCH	VN	-30	4.77	0.002753	± 2.5	PASS
		VN	-20	-0.68	-0.000392	± 2.5	PASS

		VN	-10	-0.31	-0.000179	± 2.5	PASS
		VN	0	4.1	0.002367	± 2.5	PASS
		VN	10	3.89	0.002245	± 2.5	PASS
		VN	20	-1.35	-0.000779	± 2.5	PASS
		VN	30	-0.34	-0.000196	± 2.5	PASS
		VN	40	2.57	0.001483	± 2.5	PASS
		VN	50	-1.63	-0.000941	± 2.5	PASS
	HCH	VN	-30	1.97	0.001124	± 2.5	PASS
		VN	-20	-1.42	-0.000744	± 2.5	PASS
		VN	-10	2.04	0.001069	± 2.5	PASS
		VN	0	0.15	0.000079	± 2.5	PASS
		VN	10	0.02	0.000010	± 2.5	PASS
		VN	20	-1.97	-0.001033	± 2.5	PASS
		VN	30	2.27	0.001190	± 2.5	PASS
		VN	40	4.43	0.002322	± 2.5	PASS
		VN	50	1.62	0.000849	± 2.5	PASS
16QAM	LCH	VN	-30	0.72	0.000416	± 2.5	PASS
		VN	-20	3.98	0.002297	± 2.5	PASS
		VN	-10	1.59	0.000918	± 2.5	PASS
		VN	0	1.43	0.000825	± 2.5	PASS
		VN	10	1.62	0.000935	± 2.5	PASS
		VN	20	0.34	0.000196	± 2.5	PASS
		VN	30	0.96	0.000554	± 2.5	PASS
		VN	40	3.23	0.001864	± 2.5	PASS
		VN	50	-0.5	-0.000289	± 2.5	PASS
	MCH	VN	-30	-1.5	-0.000856	± 2.5	PASS
		VN	-20	-1.46	-0.000833	± 2.5	PASS
		VN	-10	1.67	0.000953	± 2.5	PASS
		VN	0	4.8	0.002739	± 2.5	PASS
		VN	10	1.37	0.000782	± 2.5	PASS
		VN	20	1.07	0.000611	± 2.5	PASS
		VN	30	2.84	0.001621	± 2.5	PASS
		VN	40	-0.78	-0.000445	± 2.5	PASS
		VN	50	-0.6	-0.000342	± 2.5	PASS
	HCH	VN	-30	1.41	0.000739	± 2.5	PASS
		VN	-20	4.06	0.002128	± 2.5	PASS
		VN	-10	0.34	0.000178	± 2.5	PASS
		VN	0	4.94	0.002590	± 2.5	PASS
		VN	10	4.53	0.002375	± 2.5	PASS
		VN	20	3.69	0.001934	± 2.5	PASS
		VN	30	4.48	0.002349	± 2.5	PASS

		VN	40	1.46	0.000765	± 2.5	PASS
		VN	50	-1.89	-0.000991	± 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	-0.2	-0.000117	± 2.5	PASS
		VN	TN	-1.13	-0.000659	± 2.5	PASS
		VH	TN	3.26	0.001901	± 2.5	PASS
	MCH	VL	TN	2.33	0.001345	± 2.5	PASS
		VN	TN	-1.68	-0.000970	± 2.5	PASS
		VH	TN	3.22	0.001859	± 2.5	PASS
	HCH	VL	TN	3.77	0.002154	± 2.5	PASS
		VN	TN	0.11	0.000063	± 2.5	PASS
		VH	TN	0.93	0.000531	± 2.5	PASS
16QAM	LCH	VL	TN	-1.87	-0.001090	± 2.5	PASS
		VN	TN	-0.4	-0.000233	± 2.5	PASS
		VH	TN	-1.51	-0.000880	± 2.5	PASS
	MCH	VL	TN	0.08	0.000046	± 2.5	PASS
		VN	TN	4.79	0.002765	± 2.5	PASS
		VH	TN	0.7	0.000404	± 2.5	PASS
	HCH	VL	TN	-1.29	-0.000737	± 2.5	PASS
		VN	TN	2.39	0.001366	± 2.5	PASS
		VH	TN	0.49	0.000280	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	4.63	0.002700	± 2.5	PASS
		VN	-20	-1.29	-0.000752	± 2.5	PASS
		VN	-10	0.63	0.000367	± 2.5	PASS
		VN	0	-0.64	-0.000373	± 2.5	PASS
		VN	10	4.74	0.002764	± 2.5	PASS
		VN	20	-0.13	-0.000076	± 2.5	PASS
		VN	30	3.29	0.001918	± 2.5	PASS
		VN	40	-1.69	-0.000985	± 2.5	PASS
		VN	50	4.96	0.002892	± 2.5	PASS
	MCH	VN	-30	0.76	0.000439	± 2.5	PASS
		VN	-20	3.54	0.002043	± 2.5	PASS
		VN	-10	-1.95	-0.001126	± 2.5	PASS

		VN	0	2.89	0.001668	± 2.5	PASS
		VN	10	4.62	0.002667	± 2.5	PASS
		VN	20	0.93	0.000537	± 2.5	PASS
		VN	30	-1.9	-0.001097	± 2.5	PASS
		VN	40	0.64	0.000369	± 2.5	PASS
		VN	50	1.81	0.001045	± 2.5	PASS
	HCH	VN	-30	0.76	0.000434	± 2.5	PASS
		VN	-20	3.04	0.001737	± 2.5	PASS
		VN	-10	-1.19	-0.000680	± 2.5	PASS
		VN	0	2.83	0.001617	± 2.5	PASS
		VN	10	-0.54	-0.000309	± 2.5	PASS
		VN	20	-1.43	-0.000817	± 2.5	PASS
		VN	30	4.35	0.002486	± 2.5	PASS
		VN	40	-0.28	-0.000160	± 2.5	PASS
		VN	50	1.86	0.001063	± 2.5	PASS
QPSK	LCH	VN	-30	0.92	0.000531	± 2.5	PASS
		VN	-20	-1.01	-0.000583	± 2.5	PASS
		VN	-10	3.94	0.002274	± 2.5	PASS
		VN	0	0.84	0.000485	± 2.5	PASS
		VN	10	0.99	0.000571	± 2.5	PASS
		VN	20	0.95	0.000548	± 2.5	PASS
		VN	30	0.87	0.000502	± 2.5	PASS
		VN	40	-0.85	-0.000491	± 2.5	PASS
		VN	50	1.78	0.001027	± 2.5	PASS
	MCH	VN	-30	4.61	0.002634	± 2.5	PASS
		VN	-20	-1.77	-0.001011	± 2.5	PASS
		VN	-10	3.87	0.002211	± 2.5	PASS
		VN	0	-0.03	-0.000017	± 2.5	PASS
		VN	10	2.27	0.001297	± 2.5	PASS
		VN	20	1.44	0.000823	± 2.5	PASS
		VN	30	-1.2	-0.000686	± 2.5	PASS
		VN	40	-0.44	-0.000251	± 2.5	PASS
		VN	50	-1.9	-0.001086	± 2.5	PASS
	HCH	VN	-30	-1.13	-0.000646	± 2.5	PASS
		VN	-20	1.15	0.000657	± 2.5	PASS
		VN	-10	-1.31	-0.000749	± 2.5	PASS
		VN	0	4.12	0.002354	± 2.5	PASS
		VN	10	1.85	0.001057	± 2.5	PASS
		VN	20	0.22	0.000126	± 2.5	PASS
		VN	30	-1.19	-0.000680	± 2.5	PASS
		VN	40	3.11	0.001777	± 2.5	PASS

		VN	50	-1.2	-0.000686	± 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	1.9	0.001106	± 2.5	PASS
		VN	TN	4.47	0.002606	± 2.5	PASS
		VH	TN	3.64	0.002122	± 2.5	PASS
	MCH	VL	TN	-1.83	-0.001056	± 2.5	PASS
		VN	TN	1	0.000577	± 2.5	PASS
		VH	TN	0.11	0.000063	± 2.5	PASS
	HCH	VL	TN	2.22	0.001269	± 2.5	PASS
		VN	TN	-0.17	-0.000097	± 2.5	PASS
		VH	TN	-0.66	-0.000377	± 2.5	PASS
16QAM	LCH	VL	TN	0.78	0.000455	± 2.5	PASS
		VN	TN	4.48	0.002612	± 2.5	PASS
		VH	TN	1.16	0.000676	± 2.5	PASS
	MCH	VL	TN	2.34	0.001351	± 2.5	PASS
		VN	TN	2.87	0.001657	± 2.5	PASS
		VH	TN	4.5	0.002597	± 2.5	PASS
	HCH	VL	TN	3.88	0.002217	± 2.5	PASS
		VN	TN	-1.77	-0.001011	± 2.5	PASS
		VH	TN	4.86	0.002777	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.53	-0.000891	± 2.5	PASS
		VN	-20	0.34	0.000198	± 2.5	PASS
		VN	-10	1.97	0.001147	± 2.5	PASS
		VN	0	1.77	0.001031	± 2.5	PASS
		VN	10	4.69	0.002731	± 2.5	PASS
		VN	20	-1.2	-0.000699	± 2.5	PASS
		VN	30	-1.91	-0.001112	± 2.5	PASS
		VN	40	-1.72	-0.001001	± 2.5	PASS
		VN	50	0.27	0.000157	± 2.5	PASS
	MCH	VN	-30	4.72	0.002724	± 2.5	PASS
		VN	-20	-1.49	-0.000860	± 2.5	PASS
		VN	-10	0.29	0.000167	± 2.5	PASS
		VN	0	-1.33	-0.000768	± 2.5	PASS

		VN	10	-0.79	-0.000456	± 2.5	PASS
		VN	20	2.33	0.001345	± 2.5	PASS
		VN	30	4.04	0.002332	± 2.5	PASS
		VN	40	4.72	0.002724	± 2.5	PASS
		VN	50	-1.14	-0.000658	± 2.5	PASS
	HCH	VN	-30	0.11	0.000063	± 2.5	PASS
		VN	-20	3.34	0.001911	± 2.5	PASS
		VN	-10	3.68	0.002106	± 2.5	PASS
		VN	0	3.15	0.001803	± 2.5	PASS
		VN	10	0.1	0.000057	± 2.5	PASS
		VN	20	2.11	0.001207	± 2.5	PASS
		VN	30	0.81	0.000464	± 2.5	PASS
		VN	40	3.77	0.002157	± 2.5	PASS
		VN	50	0.83	0.000475	± 2.5	PASS
	LCH	VN	-30	1.99	0.001149	± 2.5	PASS
		VN	-20	2.26	0.001304	± 2.5	PASS
		VN	-10	4.32	0.002494	± 2.5	PASS
		VN	0	-0.16	-0.000092	± 2.5	PASS
		VN	10	0.07	0.000040	± 2.5	PASS
		VN	20	0.8	0.000462	± 2.5	PASS
		VN	30	-1.72	-0.000993	± 2.5	PASS
		VN	40	2.54	0.001466	± 2.5	PASS
		VN	50	-0.13	-0.000075	± 2.5	PASS
QPSK	MCH	VN	-30	3.5	0.002003	± 2.5	PASS
		VN	-20	4.55	0.002604	± 2.5	PASS
		VN	-10	2.39	0.001368	± 2.5	PASS
		VN	0	1.83	0.001047	± 2.5	PASS
		VN	10	1.14	0.000652	± 2.5	PASS
		VN	20	-1.35	-0.000773	± 2.5	PASS
		VN	30	0.74	0.000423	± 2.5	PASS
		VN	40	3.41	0.001951	± 2.5	PASS
		VN	50	0.46	0.000263	± 2.5	PASS
	HCH	VN	-30	-0.85	-0.000486	± 2.5	PASS
		VN	-20	3.15	0.001803	± 2.5	PASS
		VN	-10	4.61	0.002638	± 2.5	PASS
		VN	0	3.32	0.001900	± 2.5	PASS
		VN	10	-1.35	-0.000773	± 2.5	PASS
		VN	20	-1.22	-0.000698	± 2.5	PASS
		VN	30	2.43	0.001391	± 2.5	PASS
		VN	40	4.65	0.002661	± 2.5	PASS
		VN	50	-1.03	-0.000589	± 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	-0.69	-0.000401	± 2.5	PASS
		VN	TN	1.91	0.001110	± 2.5	PASS
		VH	TN	4.71	0.002738	± 2.5	PASS
	MCH	VL	TN	-1.08	-0.000623	± 2.5	PASS
		VN	TN	-1.38	-0.000797	± 2.5	PASS
		VH	TN	0.91	0.000525	± 2.5	PASS
	HCH	VL	TN	-1.62	-0.000928	± 2.5	PASS
		VN	TN	0.63	0.000361	± 2.5	PASS
		VH	TN	3.28	0.001880	± 2.5	PASS
16QAM	LCH	VL	TN	-1.54	-0.000895	± 2.5	PASS
		VN	TN	-0.18	-0.000105	± 2.5	PASS
		VH	TN	4.48	0.002605	± 2.5	PASS
	MCH	VL	TN	0.96	0.000554	± 2.5	PASS
		VN	TN	3.85	0.002222	± 2.5	PASS
		VH	TN	-0.28	-0.000162	± 2.5	PASS
	HCH	VL	TN	3.05	0.001748	± 2.5	PASS
		VN	TN	-1.4	-0.000802	± 2.5	PASS
		VH	TN	2.54	0.001456	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.29	-0.000169	± 2.5	PASS
		VN	-20	-0.85	-0.000494	± 2.5	PASS
		VN	-10	3.64	0.002116	± 2.5	PASS
		VN	0	-0.05	-0.000029	± 2.5	PASS
		VN	10	4.51	0.002622	± 2.5	PASS
		VN	20	0.28	0.000163	± 2.5	PASS
		VN	30	0.15	0.000087	± 2.5	PASS
		VN	40	1.36	0.000791	± 2.5	PASS
		VN	50	2.6	0.001512	± 2.5	PASS
	MCH	VN	-30	0.31	0.000179	± 2.5	PASS
		VN	-20	0.48	0.000277	± 2.5	PASS
		VN	-10	0.59	0.000341	± 2.5	PASS
		VN	0	0.16	0.000092	± 2.5	PASS
		VN	10	1.31	0.000756	± 2.5	PASS

		VN	20	-1.54	-0.000889	± 2.5	PASS
		VN	30	2.47	0.001426	± 2.5	PASS
		VN	40	1.89	0.001091	± 2.5	PASS
		VN	50	2.55	0.001472	± 2.5	PASS
	HCH	VN	-30	2.77	0.001587	± 2.5	PASS
		VN	-20	0.83	0.000476	± 2.5	PASS
		VN	-10	3.27	0.001874	± 2.5	PASS
		VN	0	-1.98	-0.001135	± 2.5	PASS
		VN	10	-0.78	-0.000447	± 2.5	PASS
		VN	20	4.62	0.002648	± 2.5	PASS
		VN	30	-0.44	-0.000252	± 2.5	PASS
		VN	40	3.89	0.002229	± 2.5	PASS
		VN	50	-1.03	-0.000590	± 2.5	PASS
QPSK	LCH	VN	-30	0.46	0.000266	± 2.5	PASS
		VN	-20	0.53	0.000306	± 2.5	PASS
		VN	-10	2.28	0.001316	± 2.5	PASS
		VN	0	-1.4	-0.000808	± 2.5	PASS
		VN	10	3.57	0.002061	± 2.5	PASS
		VN	20	0.71	0.000410	± 2.5	PASS
		VN	30	0.35	0.000202	± 2.5	PASS
		VN	40	0.57	0.000329	± 2.5	PASS
		VN	50	0.78	0.000450	± 2.5	PASS
	MCH	VN	-30	0.72	0.000413	± 2.5	PASS
		VN	-20	0.62	0.000355	± 2.5	PASS
		VN	-10	-0.61	-0.000350	± 2.5	PASS
		VN	0	-1.59	-0.000911	± 2.5	PASS
		VN	10	3.93	0.002252	± 2.5	PASS
		VN	20	4.94	0.002831	± 2.5	PASS
		VN	30	-0.5	-0.000287	± 2.5	PASS
		VN	40	4.19	0.002401	± 2.5	PASS
		VN	50	0.36	0.000206	± 2.5	PASS
	HCH	VN	-30	0.65	0.000372	± 2.5	PASS
		VN	-20	-0.63	-0.000361	± 2.5	PASS
		VN	-10	0.63	0.000361	± 2.5	PASS
		VN	0	1.21	0.000693	± 2.5	PASS
		VN	10	0.86	0.000493	± 2.5	PASS
		VN	20	2.87	0.001645	± 2.5	PASS
		VN	30	-0.76	-0.000436	± 2.5	PASS
		VN	40	2.27	0.001301	± 2.5	PASS
		VN	50	4.27	0.002447	± 2.5	PASS