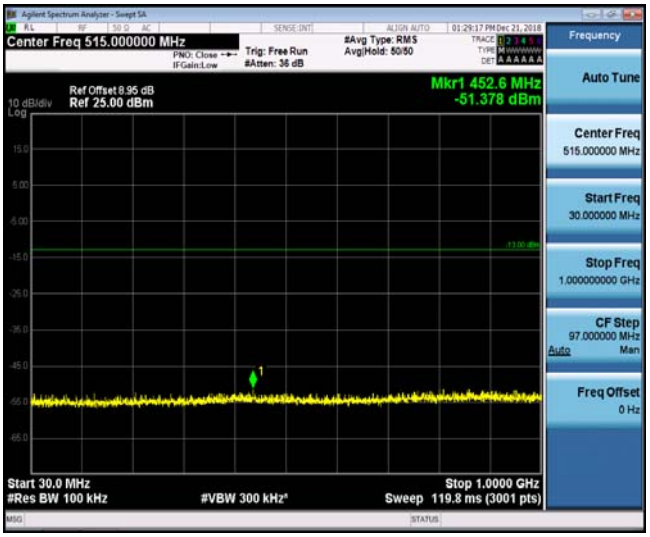

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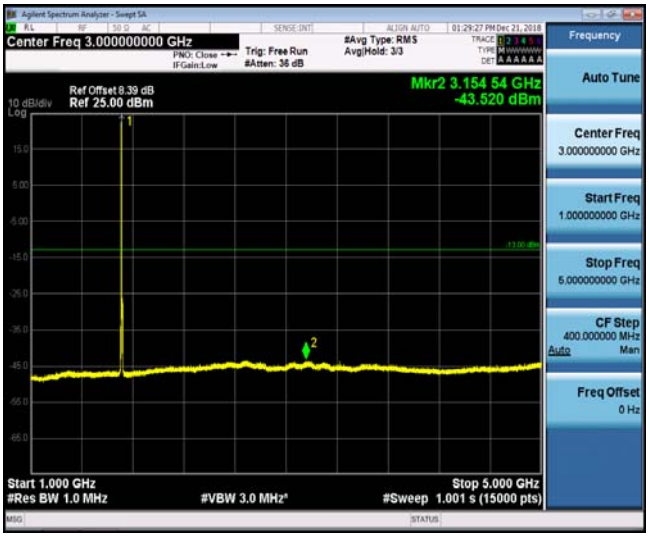

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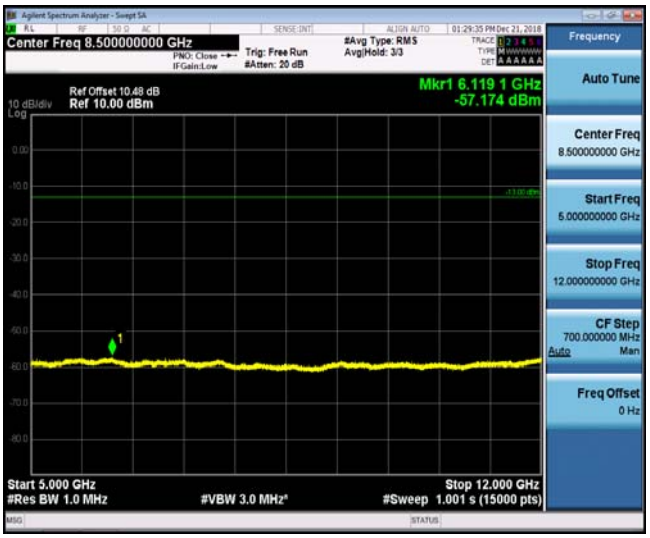

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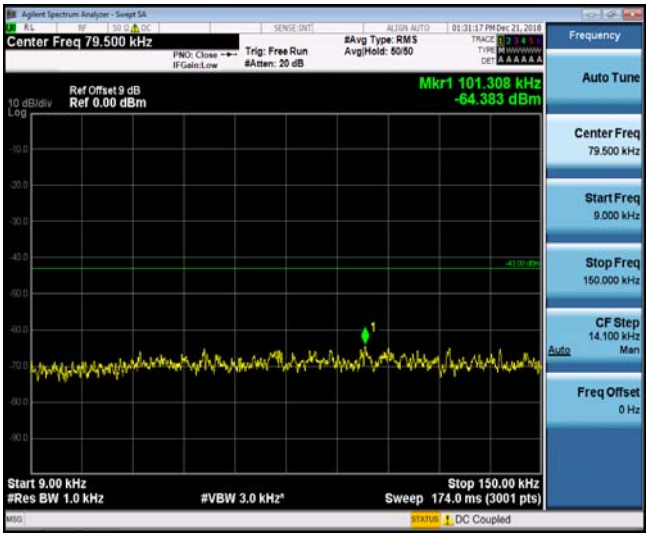

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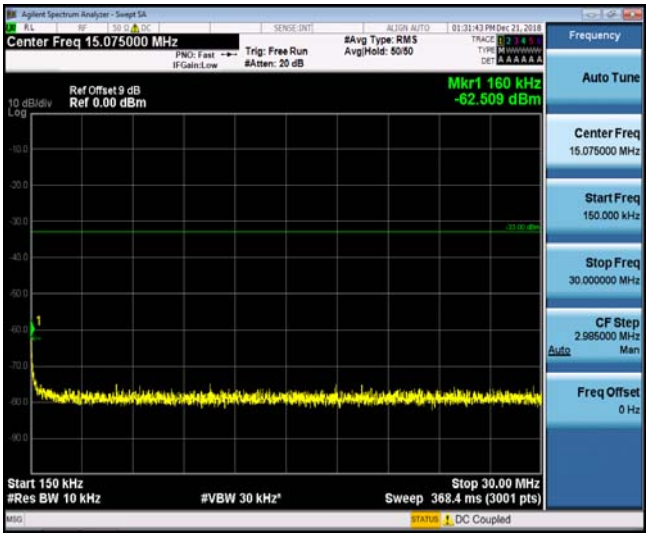

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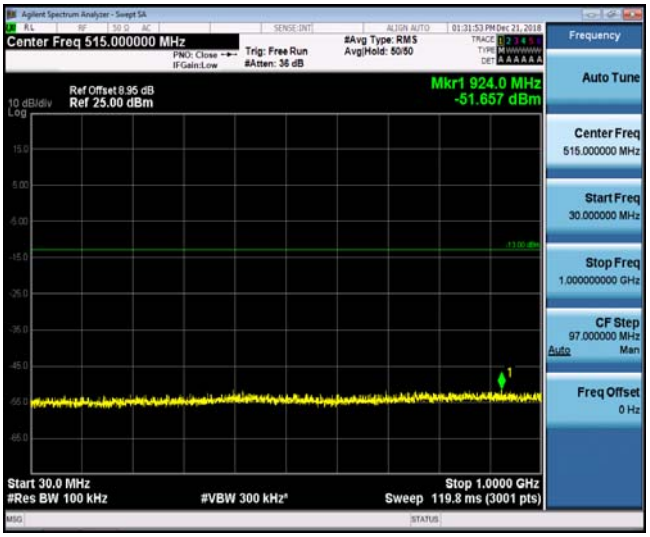

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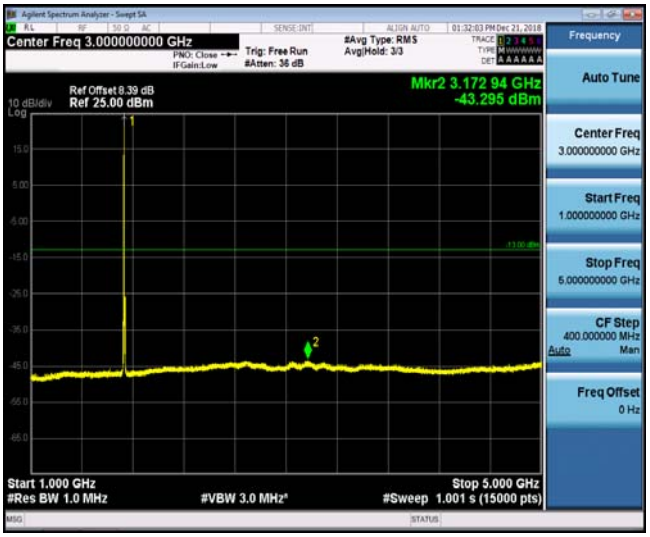

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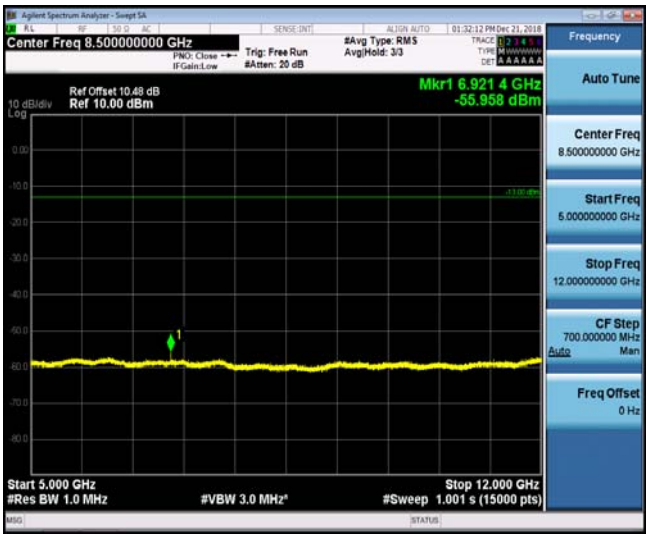

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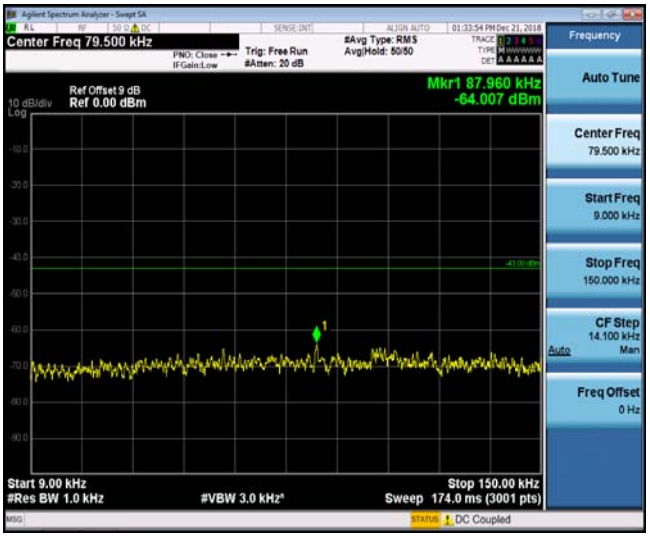

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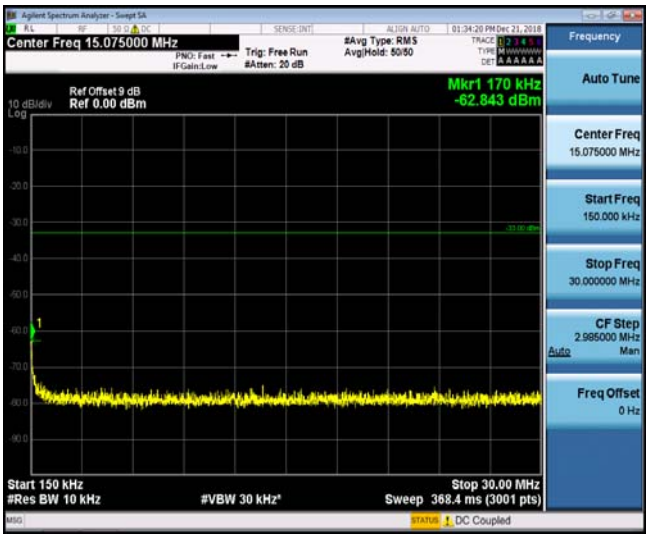

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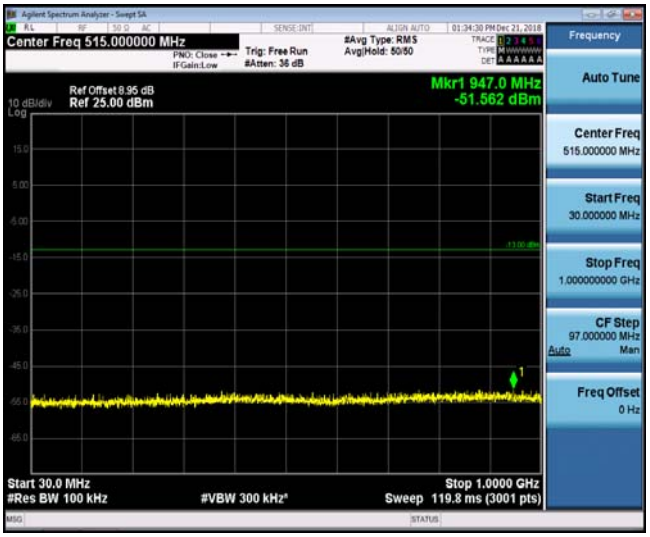

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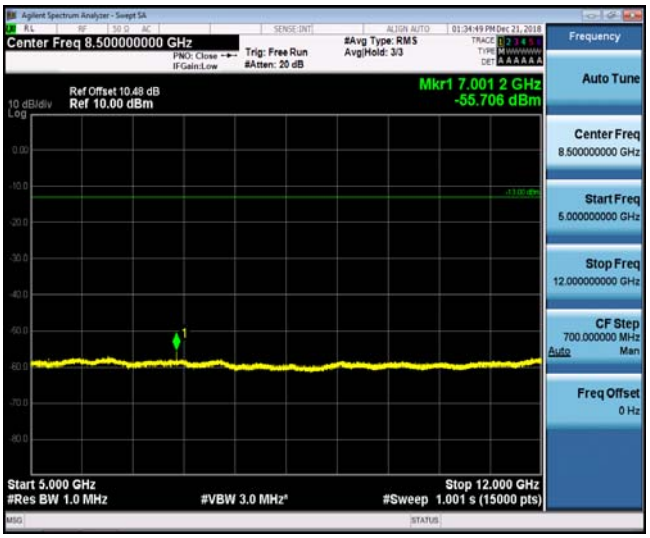
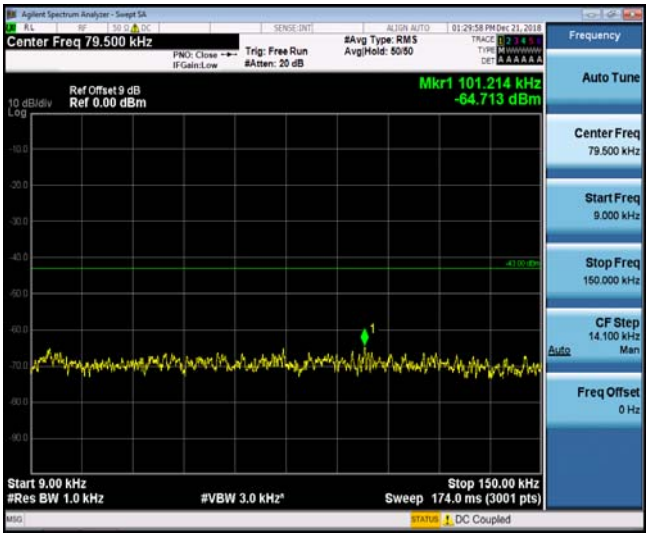


Band4_5MHz_QPSK_20375_1RB#0

Band4_5MHz_16QAM_19975_1RB#0



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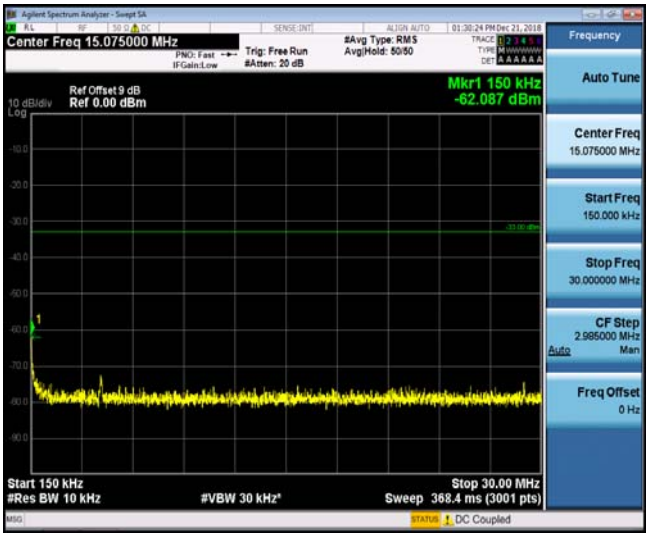

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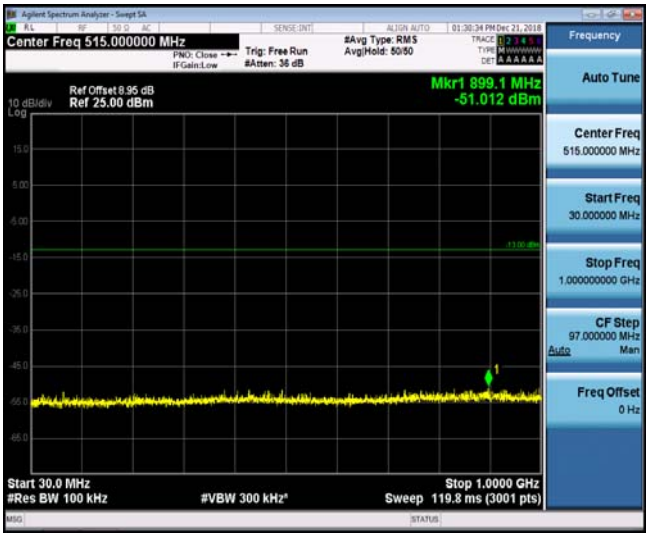

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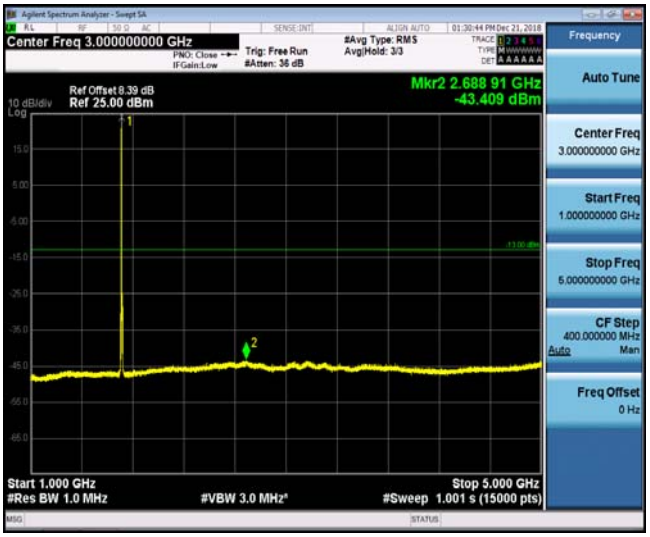

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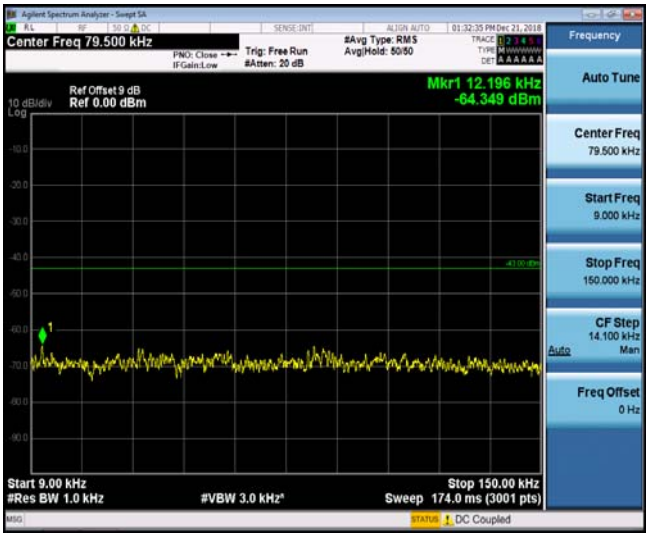

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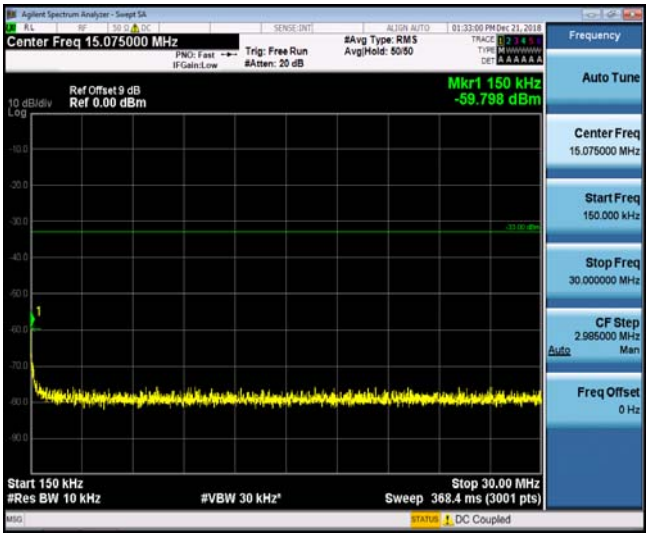

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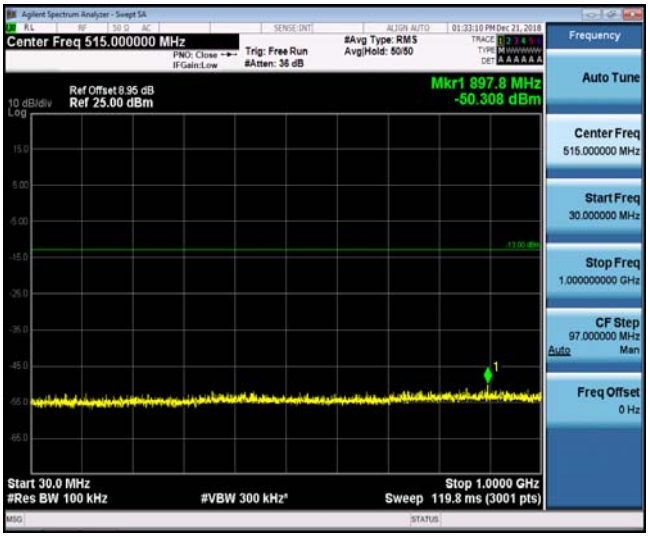

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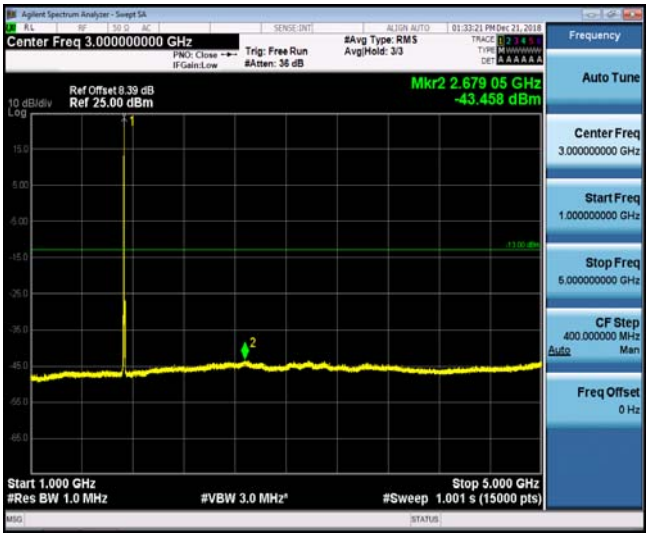

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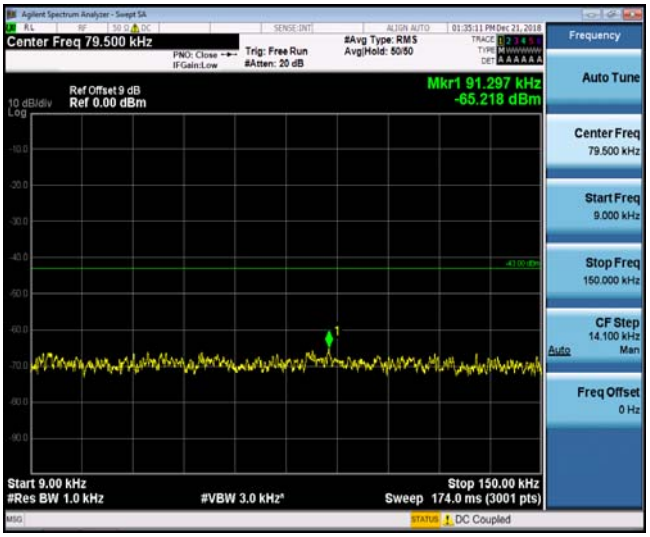

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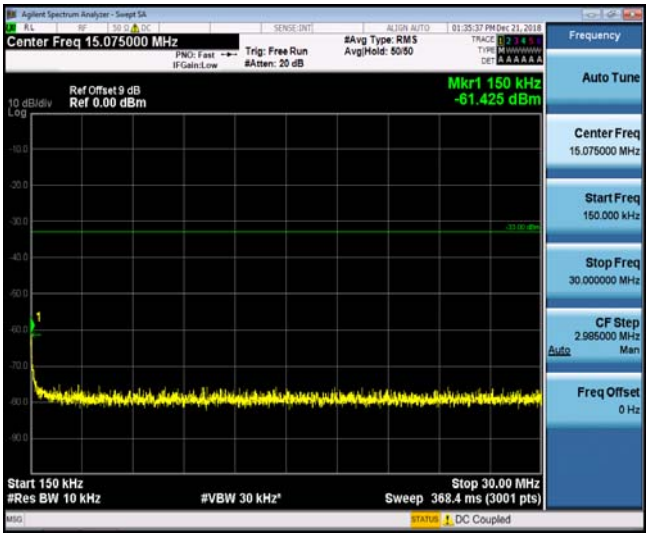

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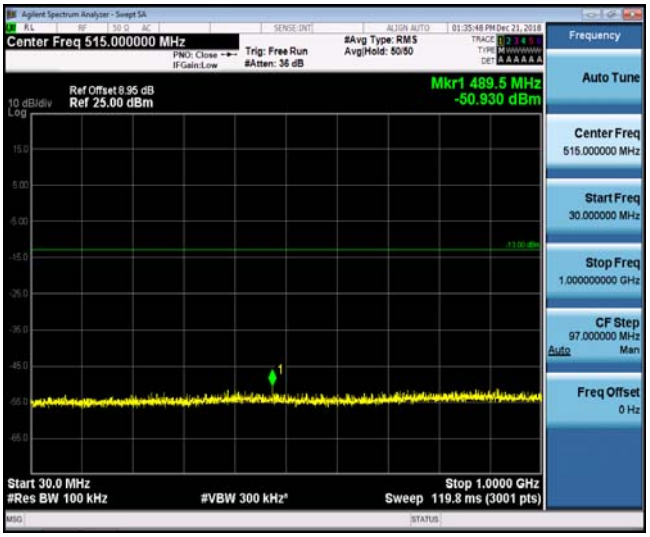

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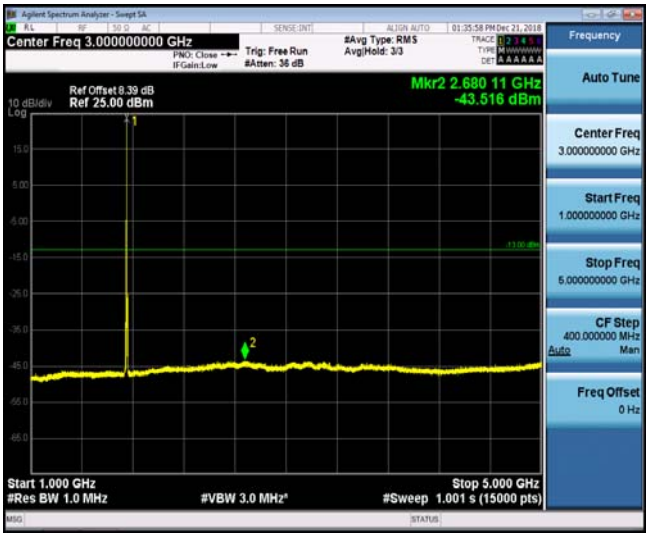

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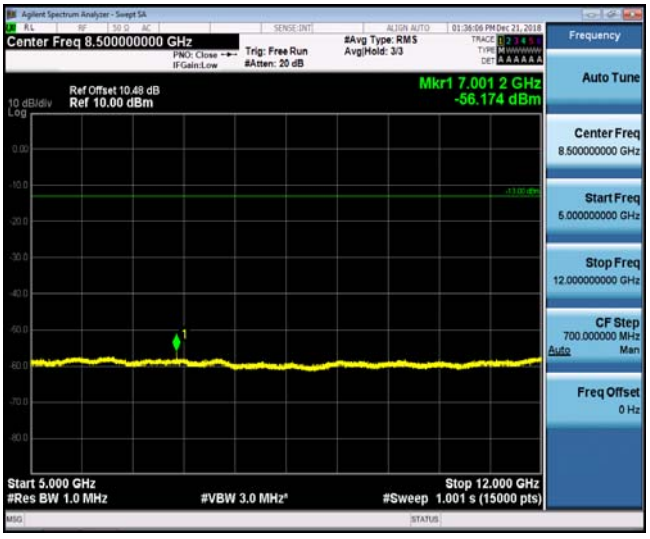

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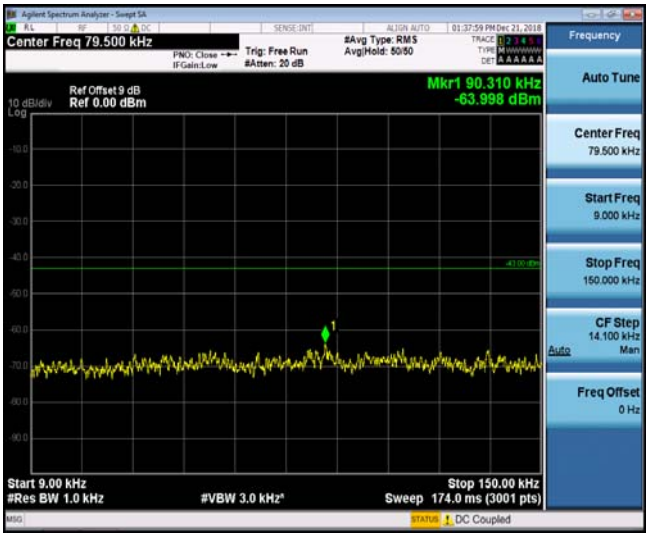

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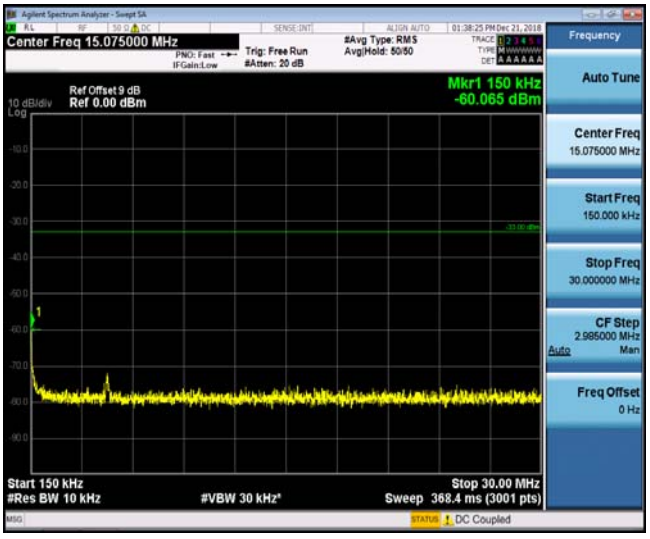

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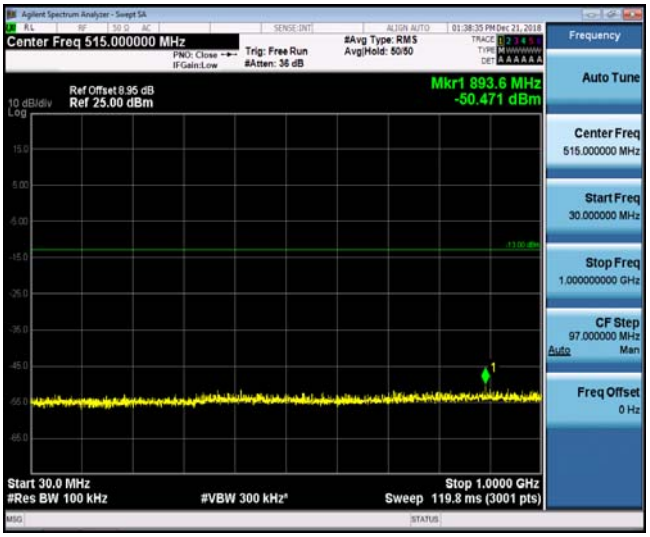

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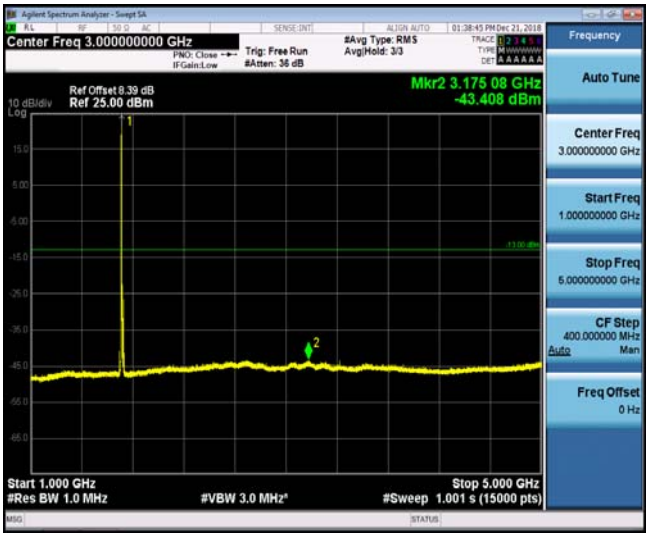

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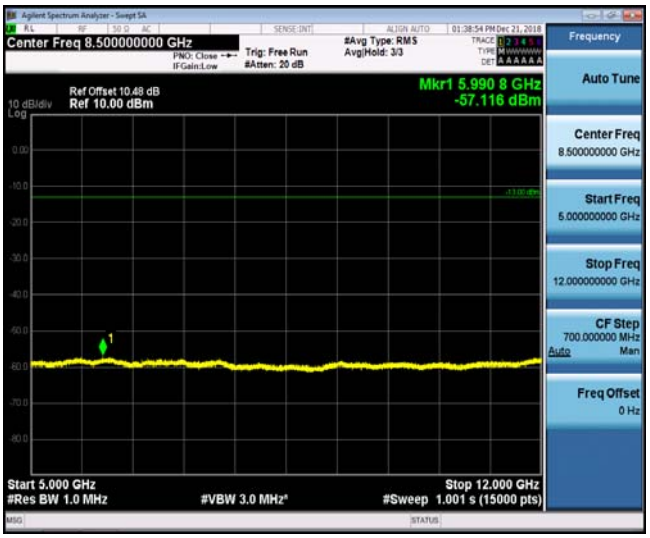

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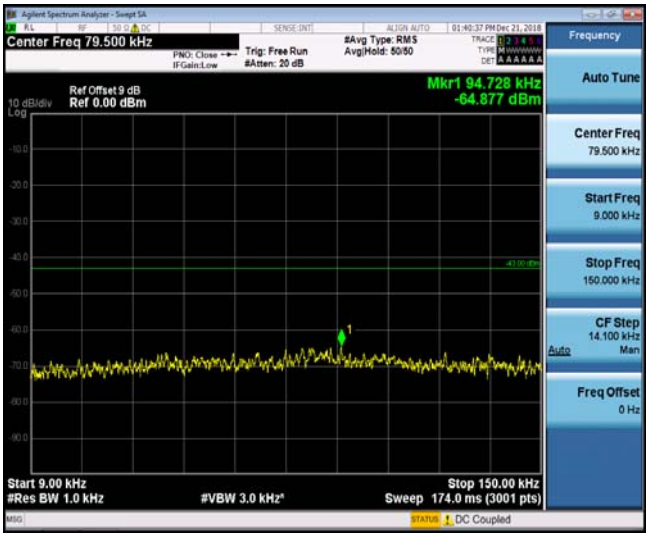

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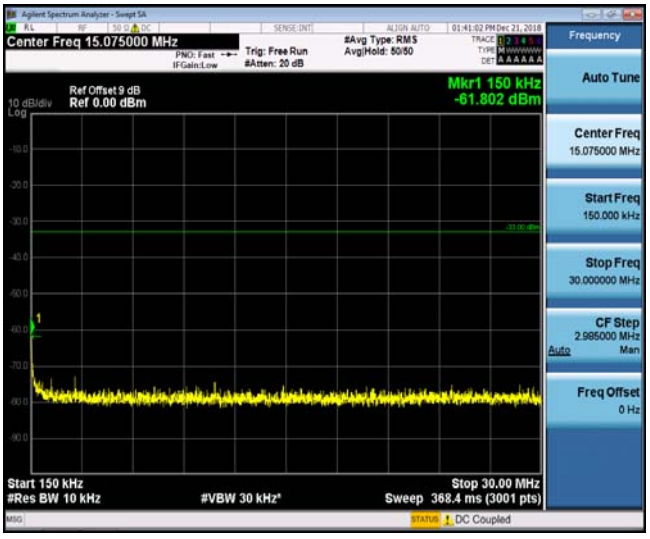

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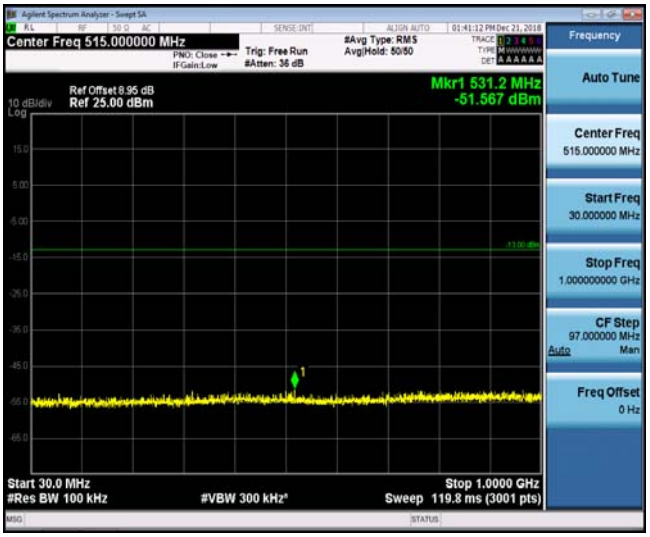

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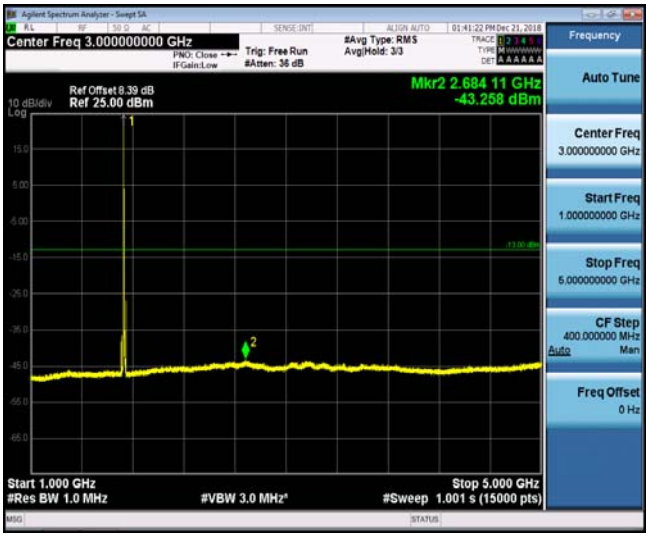

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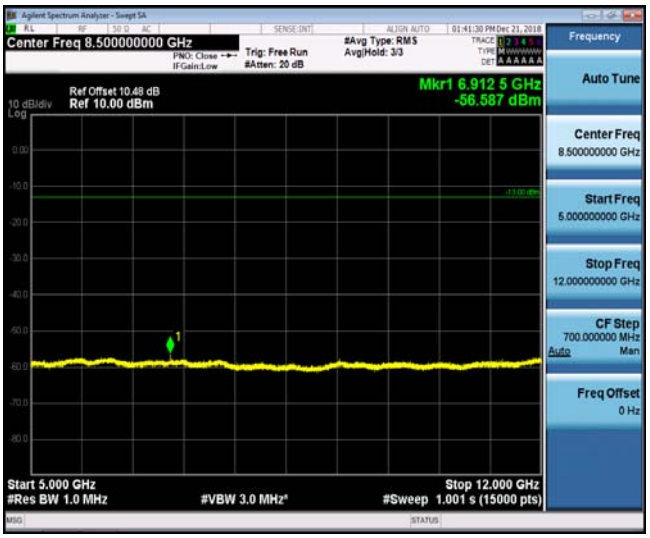

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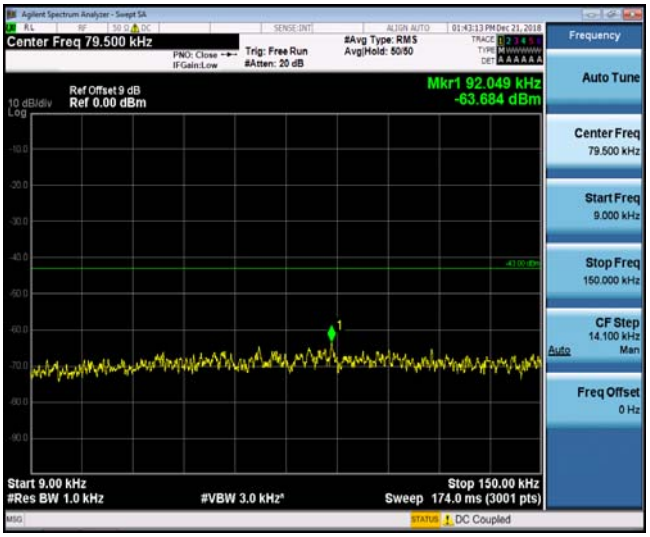

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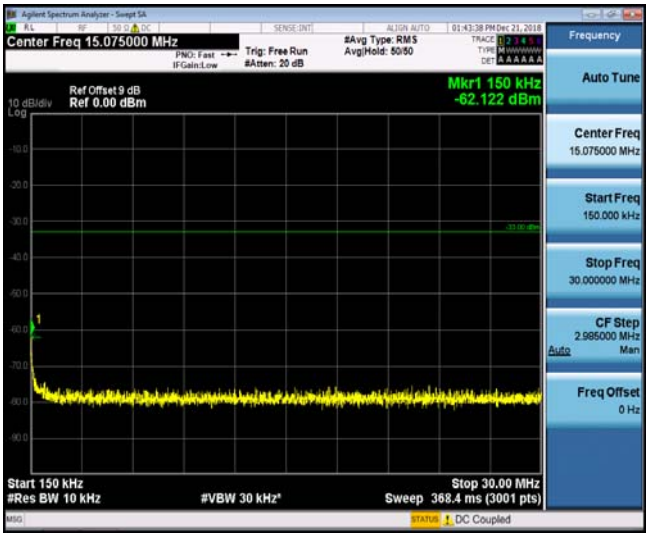

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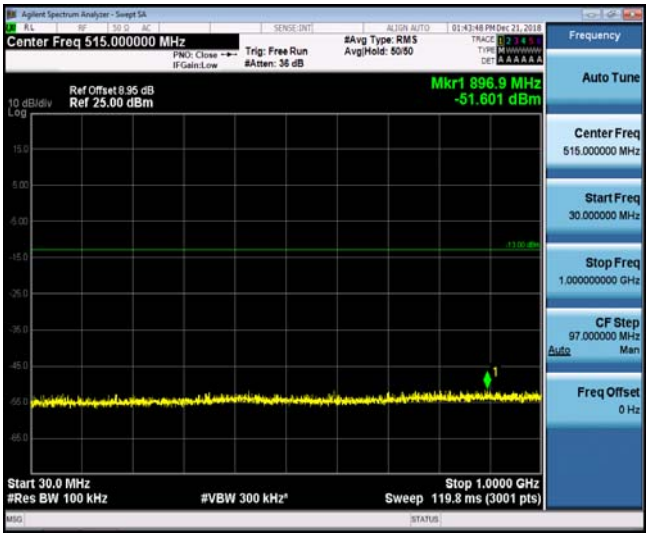

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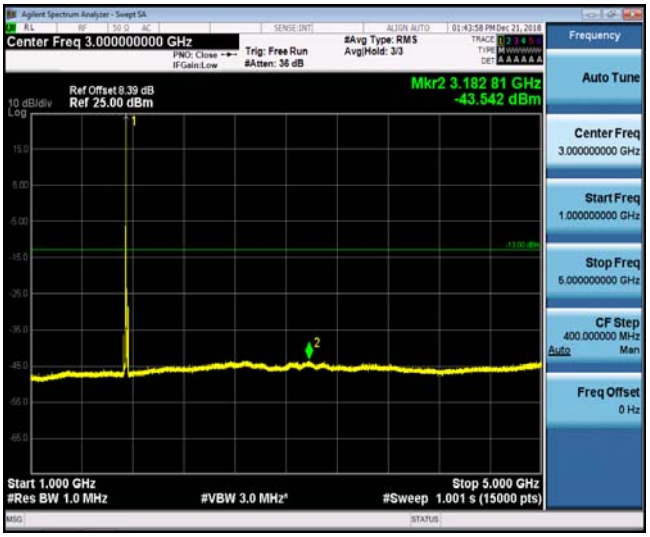
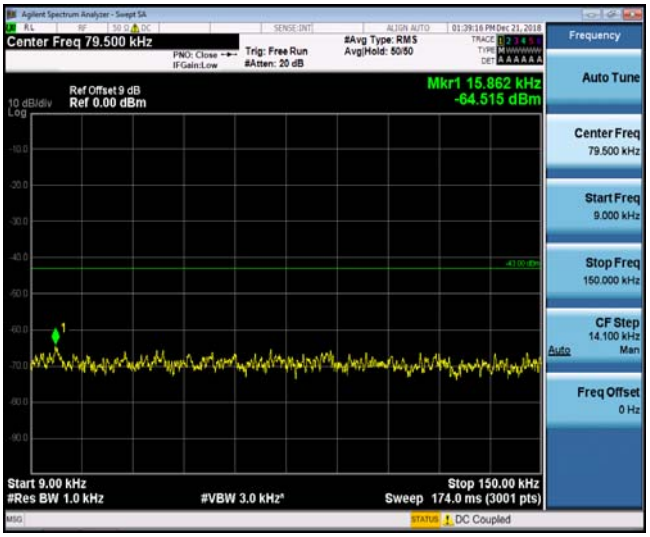


Band4_10MHz_QPSK_20350_1RB#0

Band4_10MHz_QPSK_20350_1RB#0

Band4_10MHz_16QAM_20000_1RB#0



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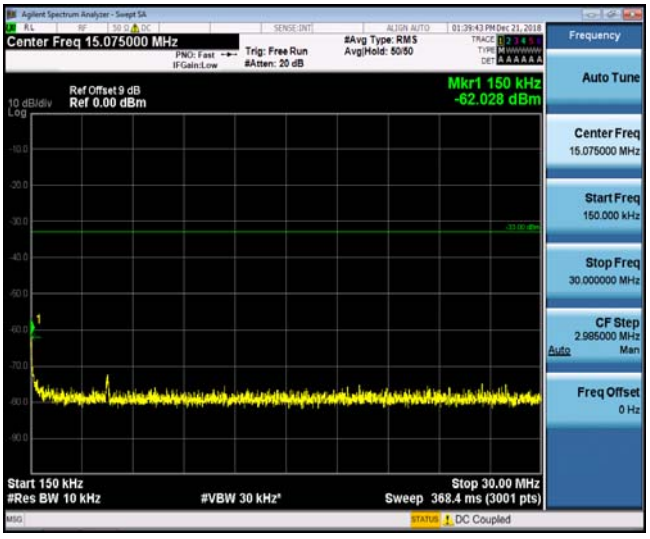

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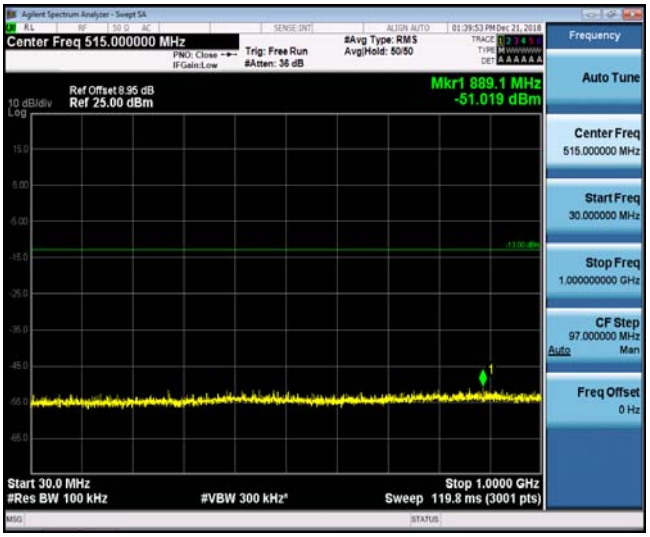

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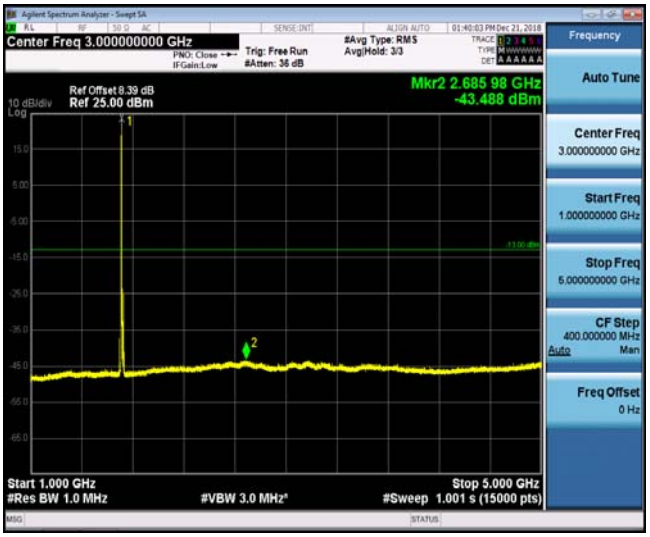

Band4_10MHz_16QAM_20000_1RB#0

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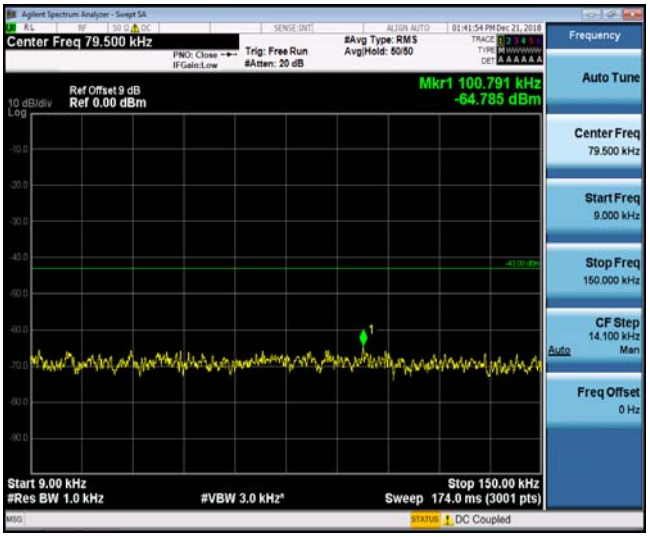

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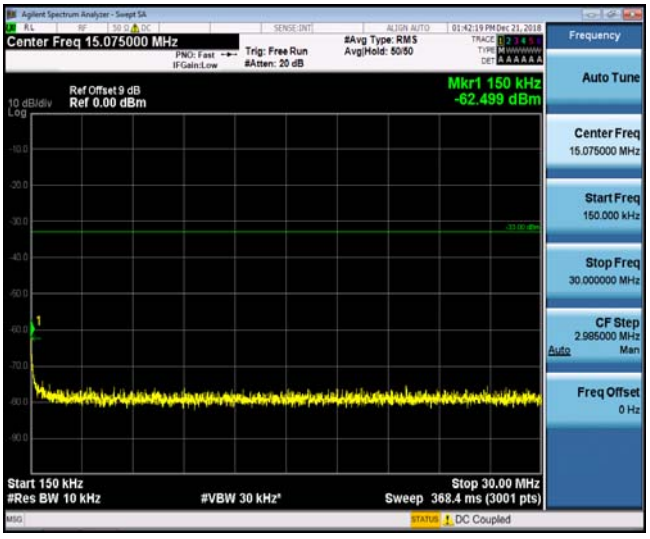

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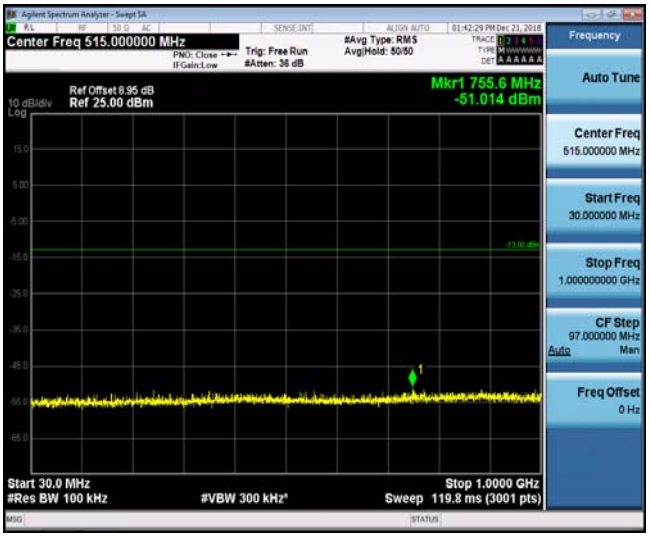

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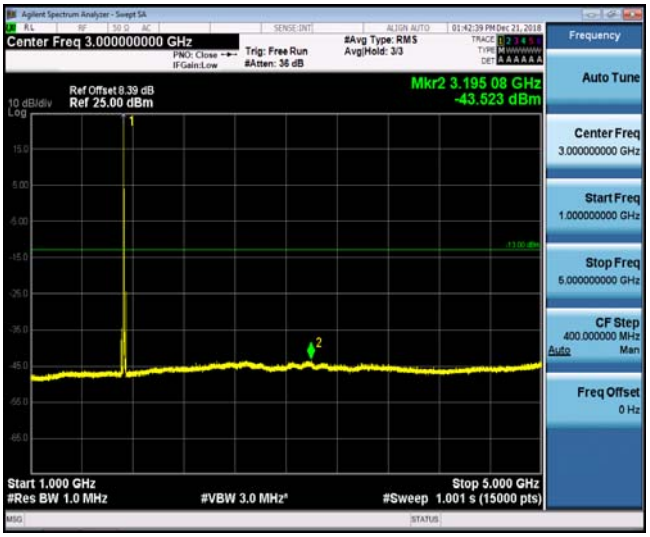

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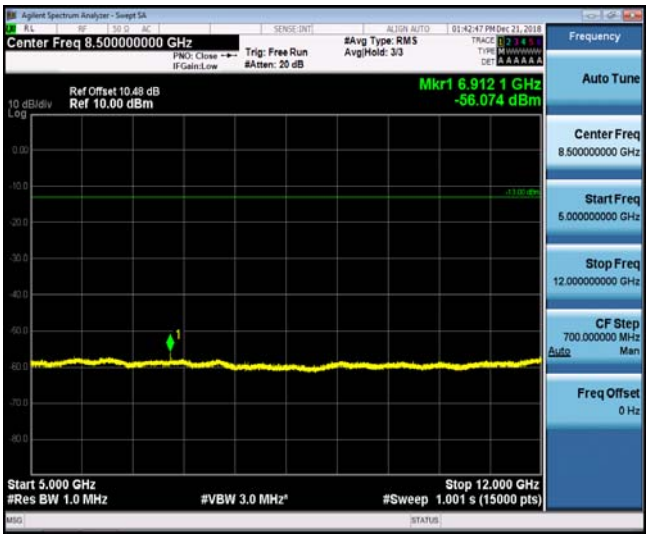

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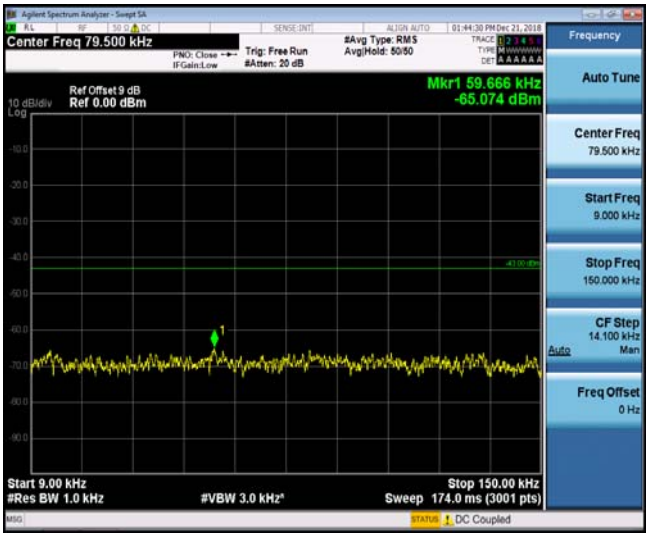
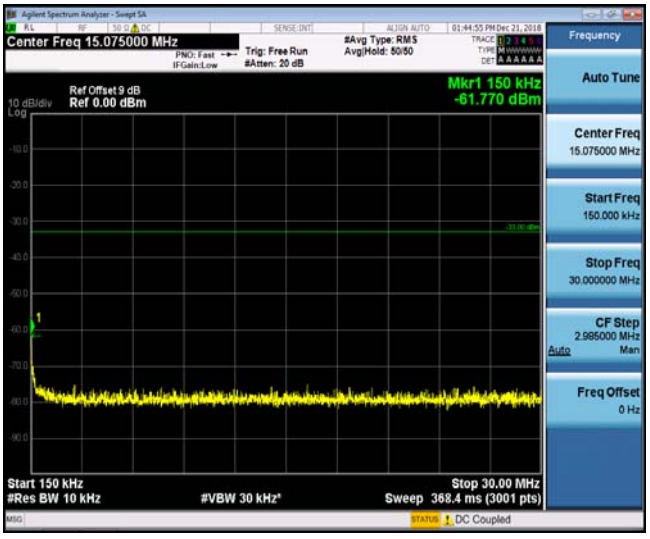


Band4_10MHz_16QAM_20350_1RB#0



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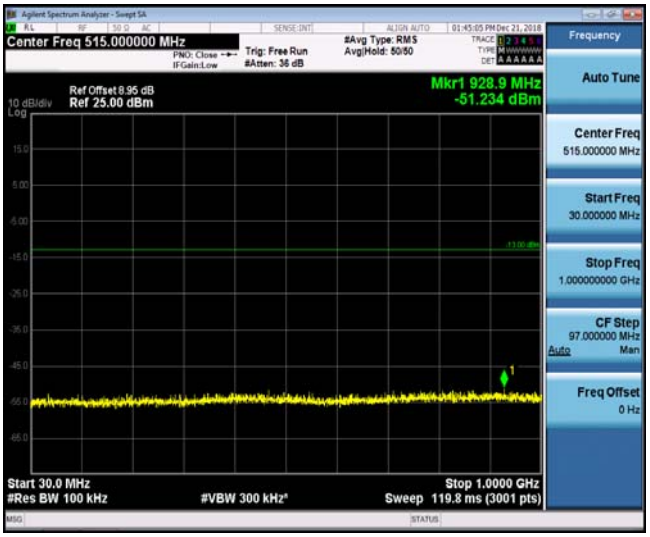

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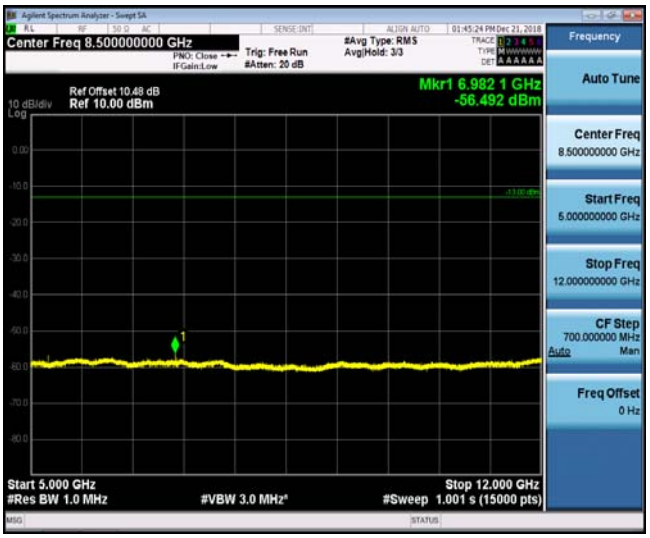

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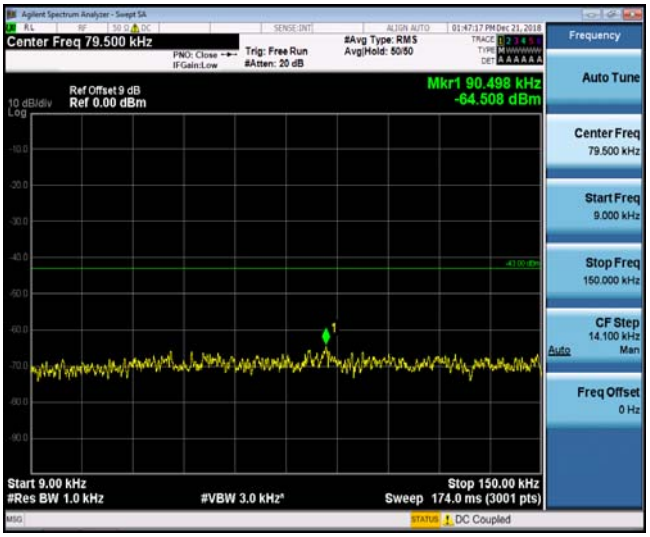

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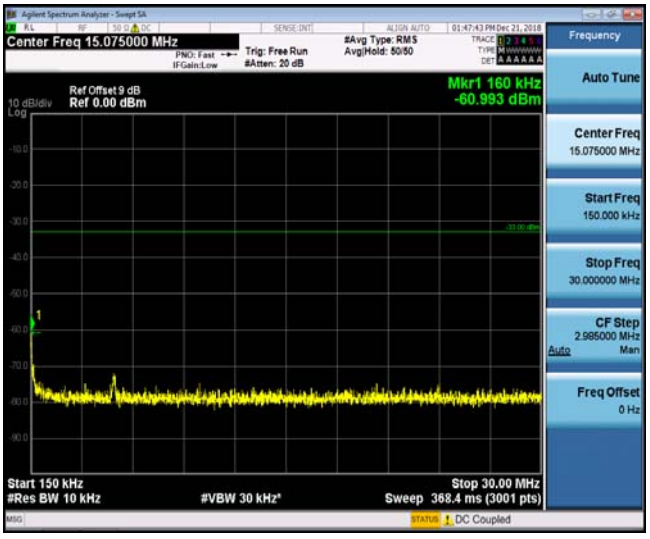

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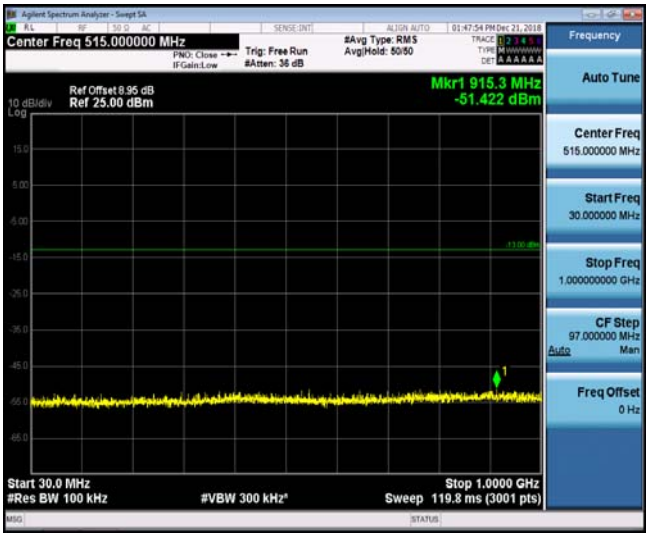

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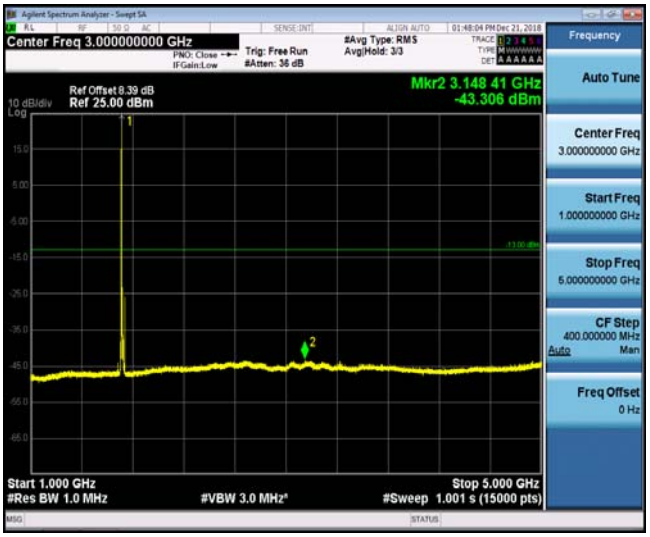

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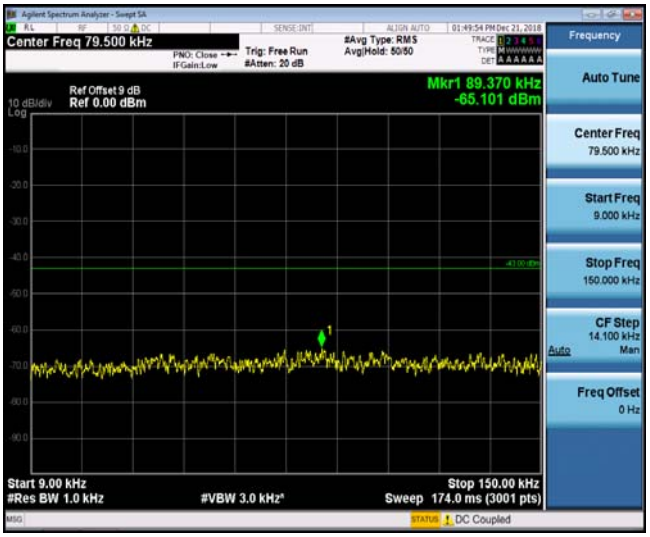

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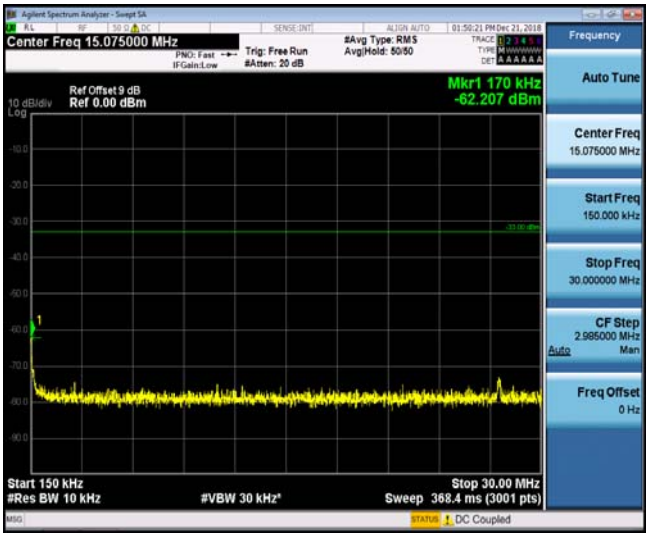

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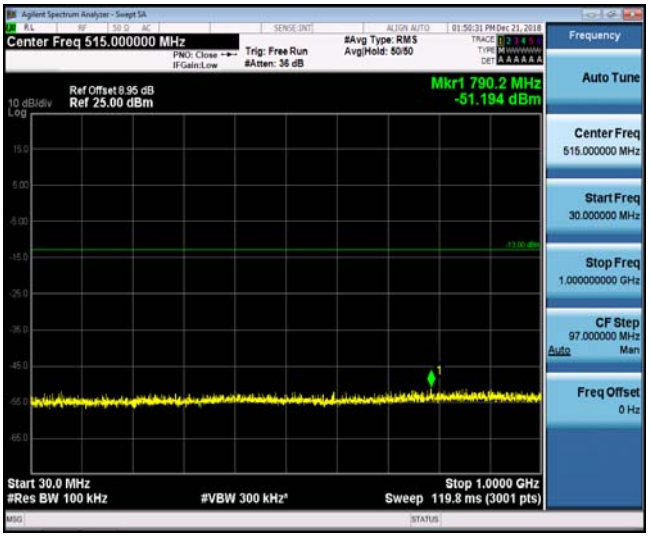

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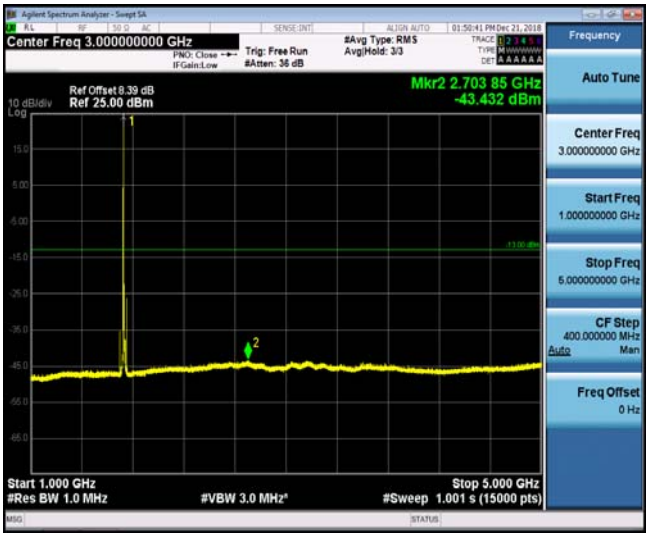

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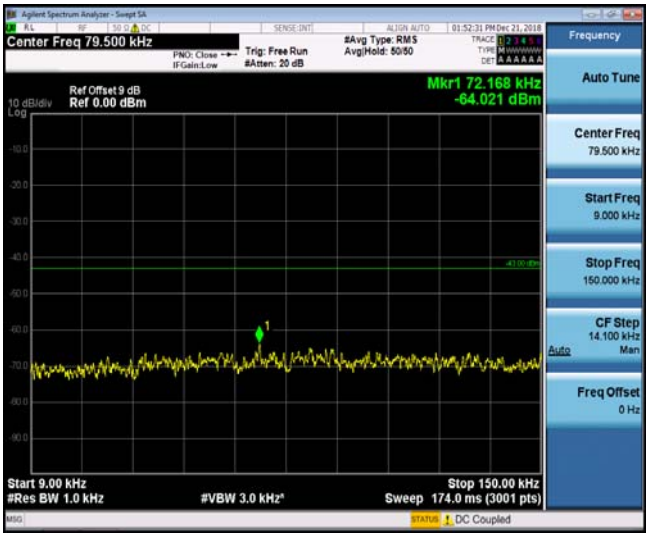

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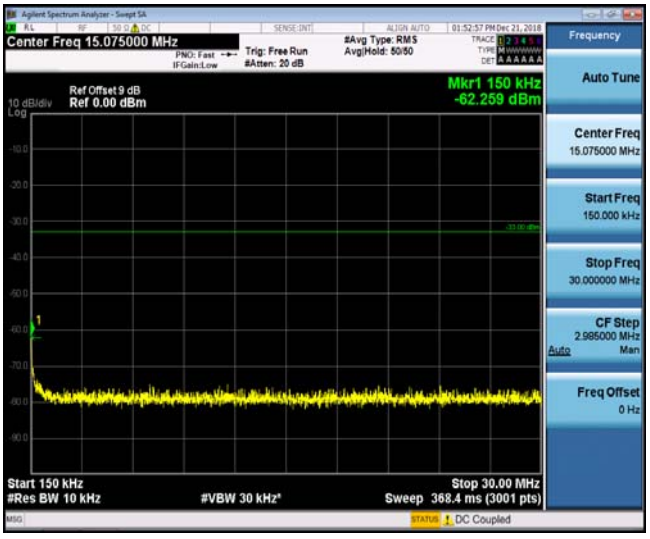

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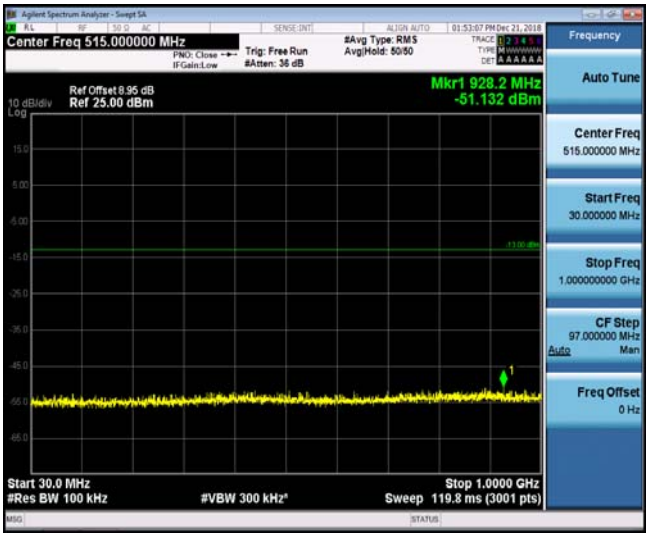

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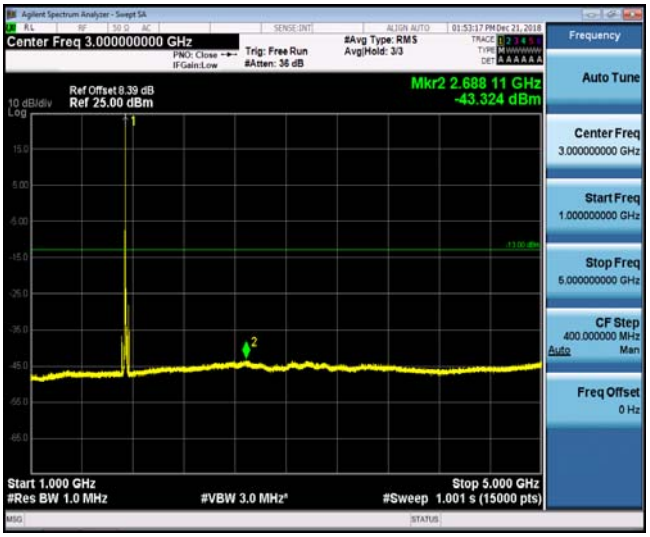

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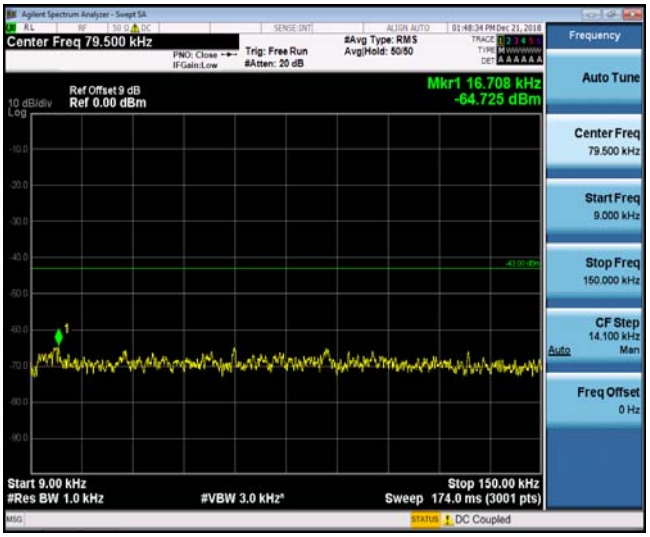
Band4_15MHz_16QAM_20025_1RB#0



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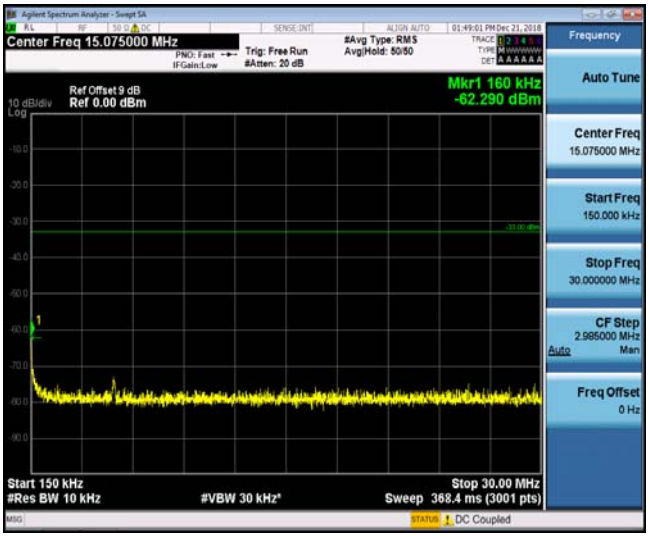

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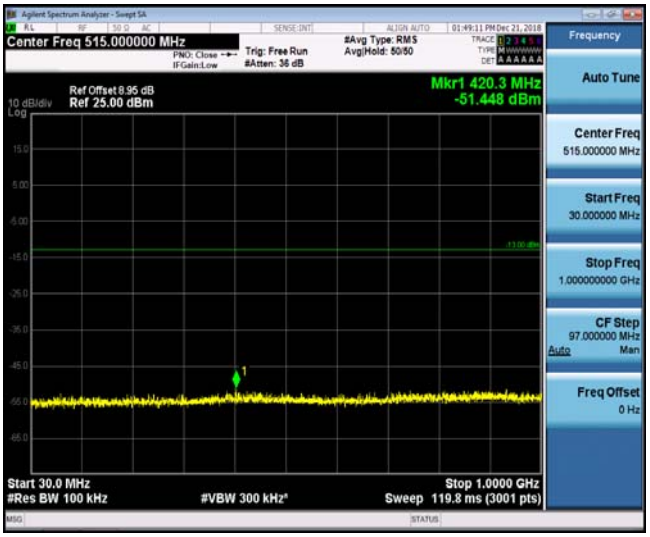

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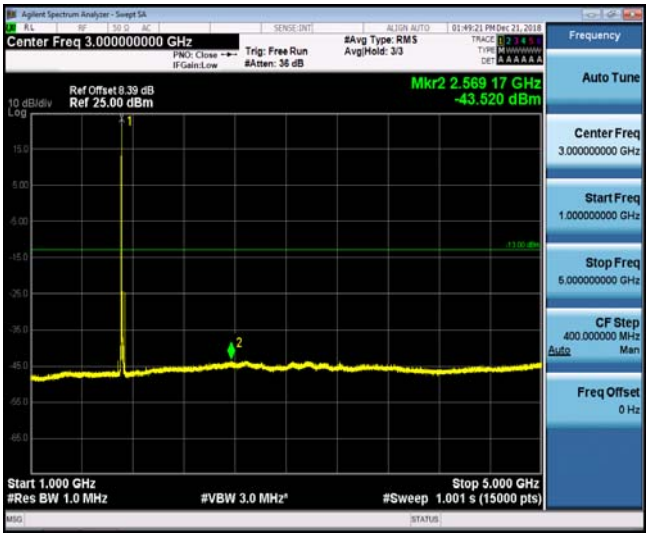

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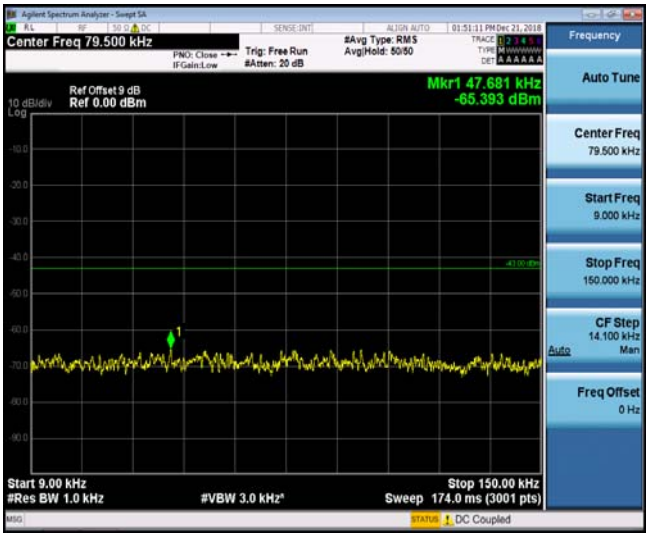

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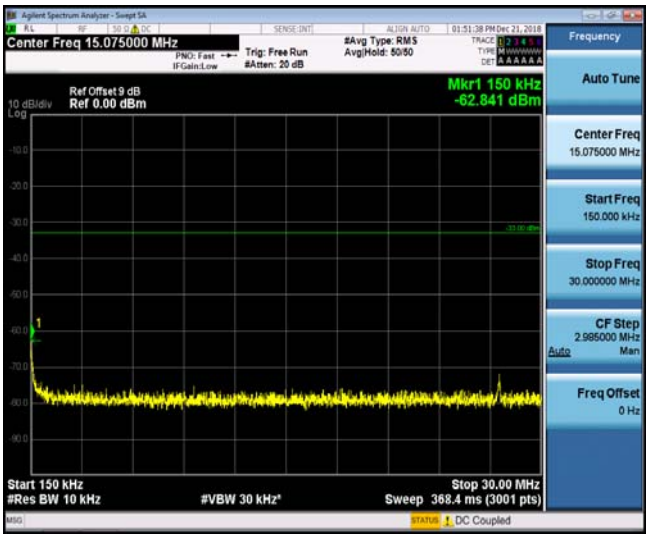

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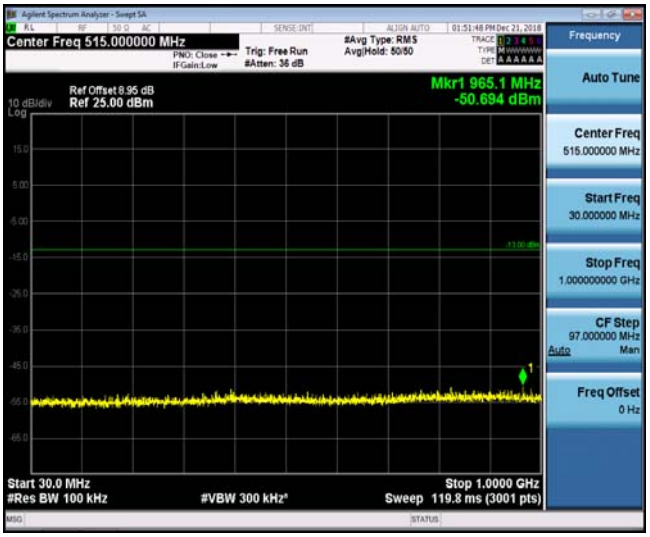

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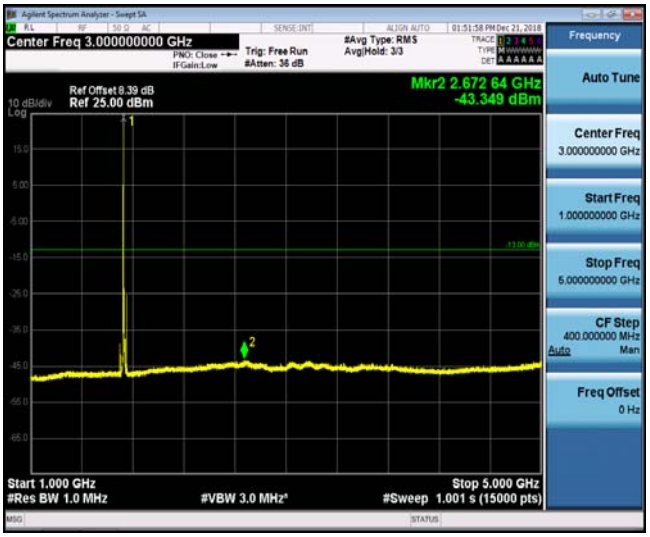

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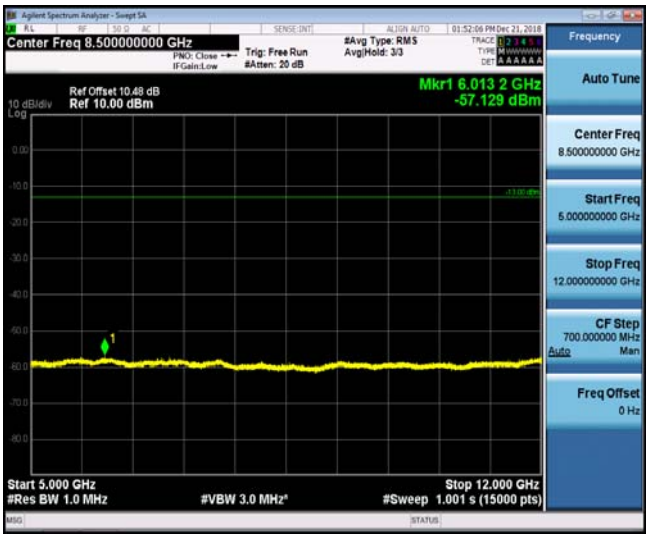

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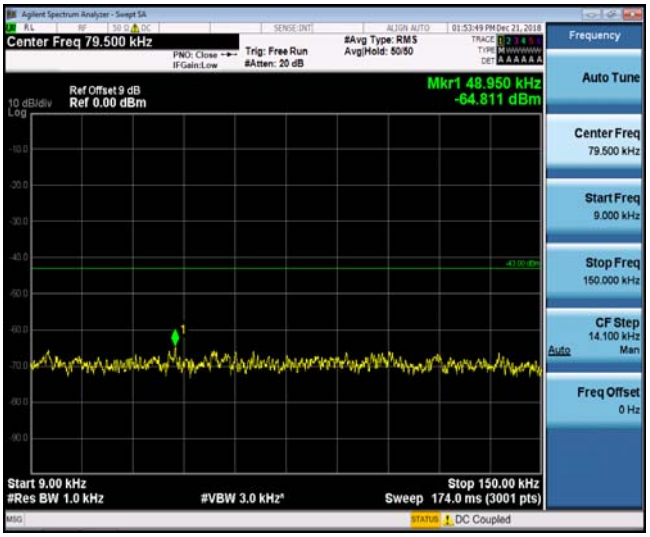

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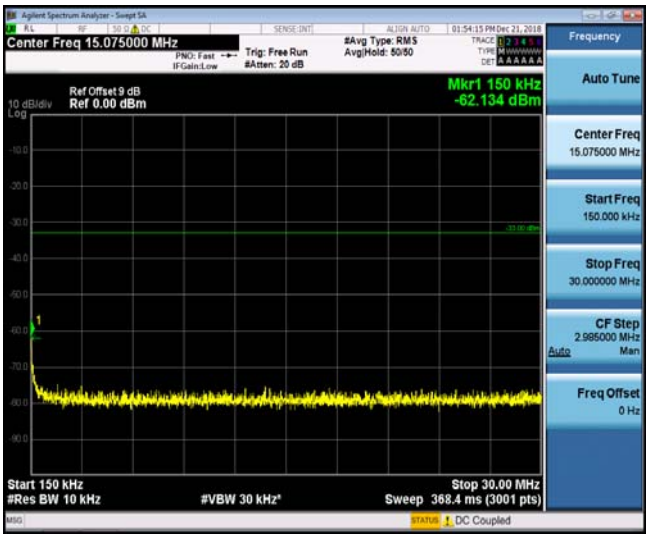

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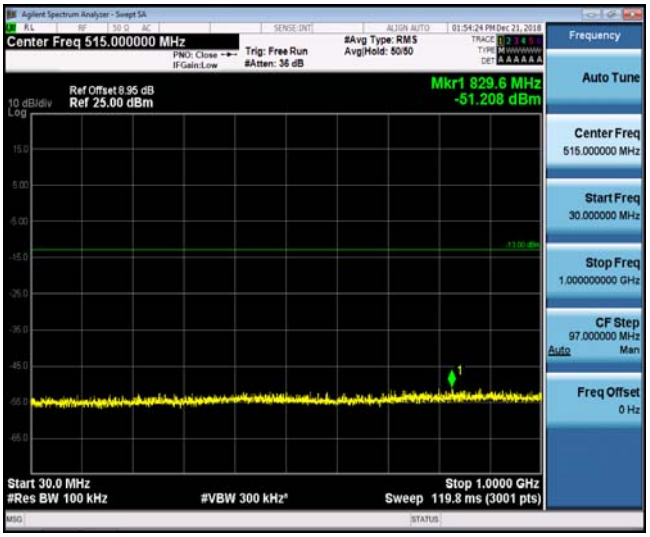

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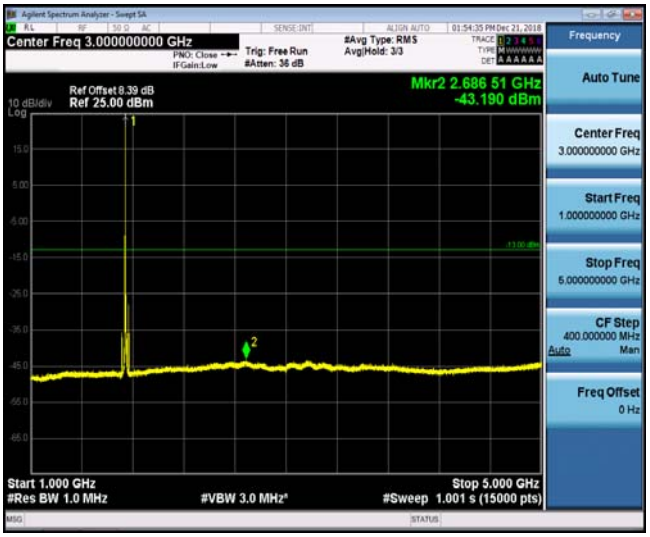

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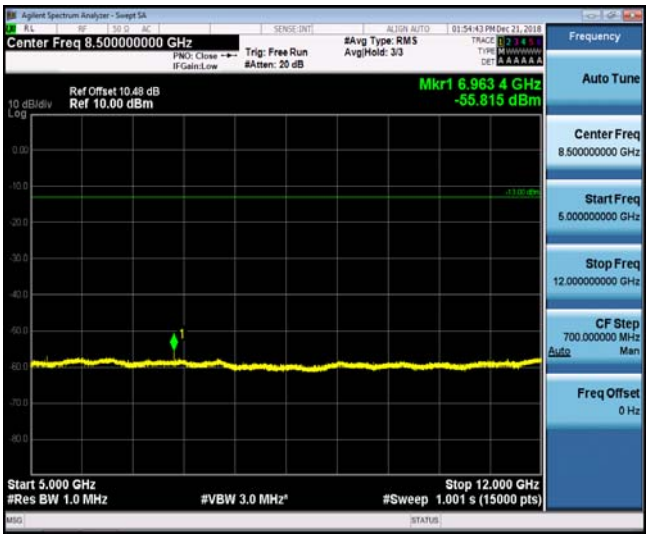

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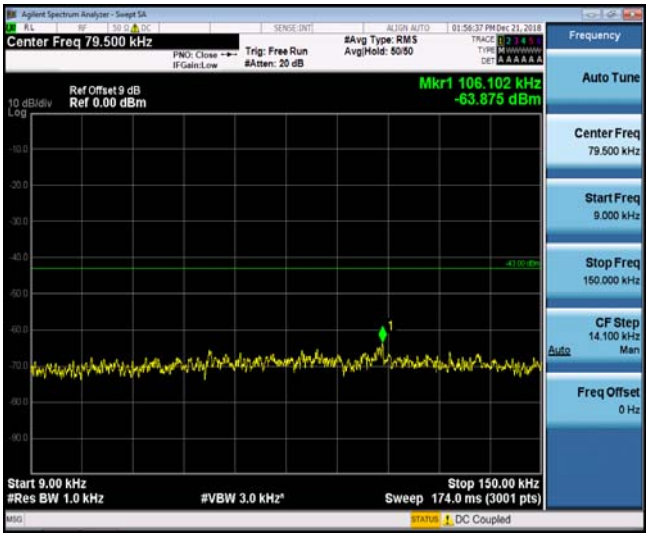
Band4_20MHz_QPSK_20050_1RB#0



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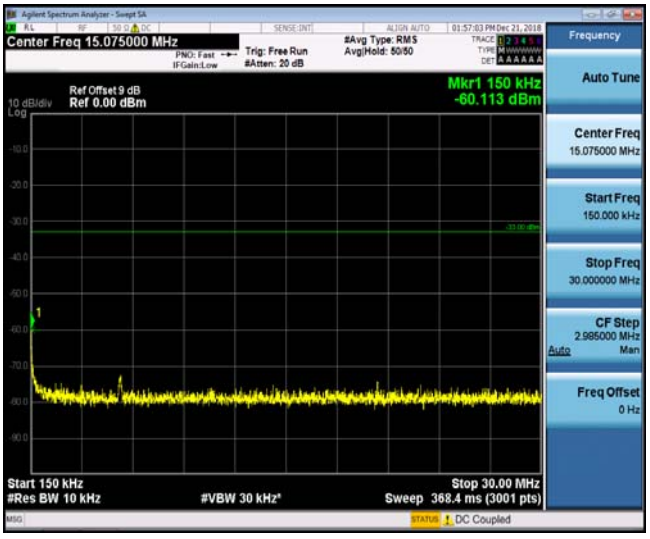

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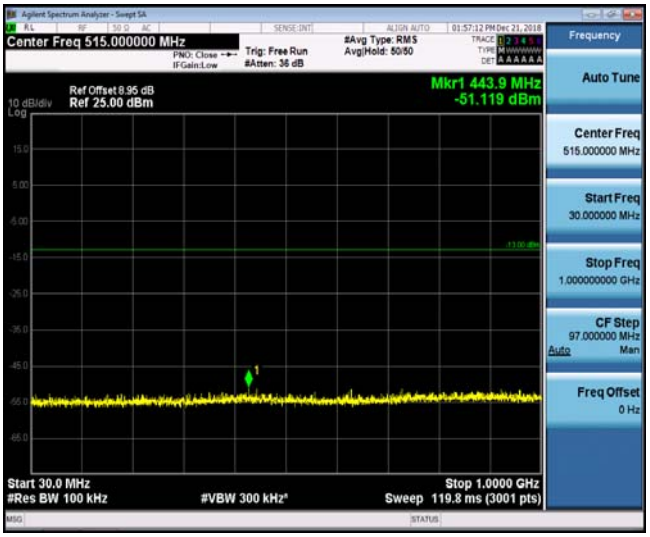

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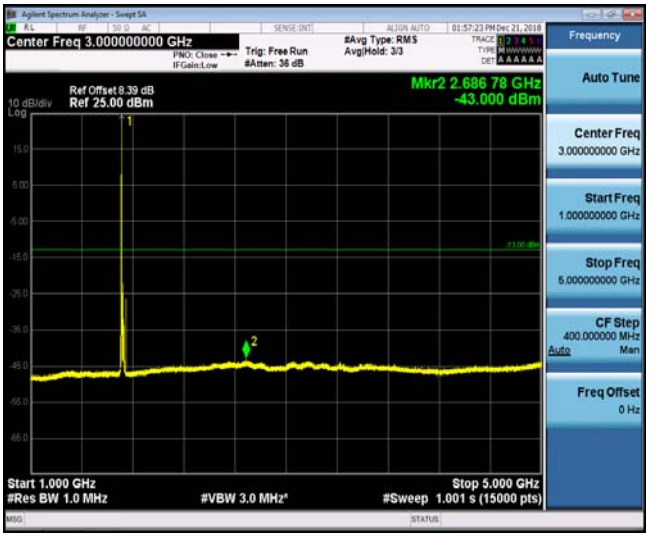

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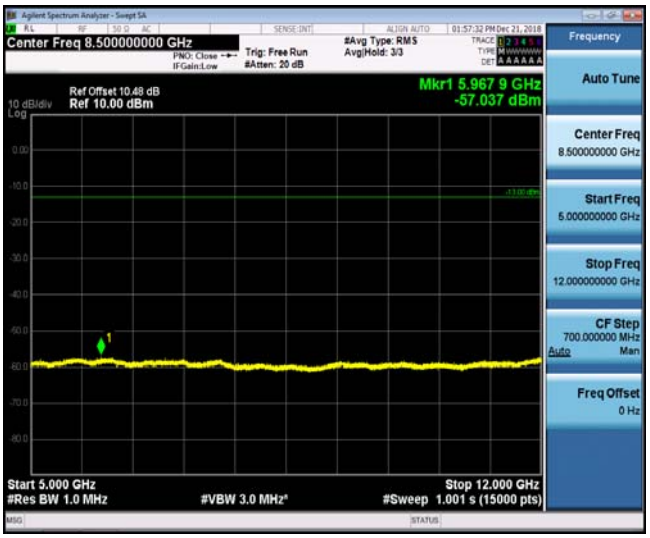

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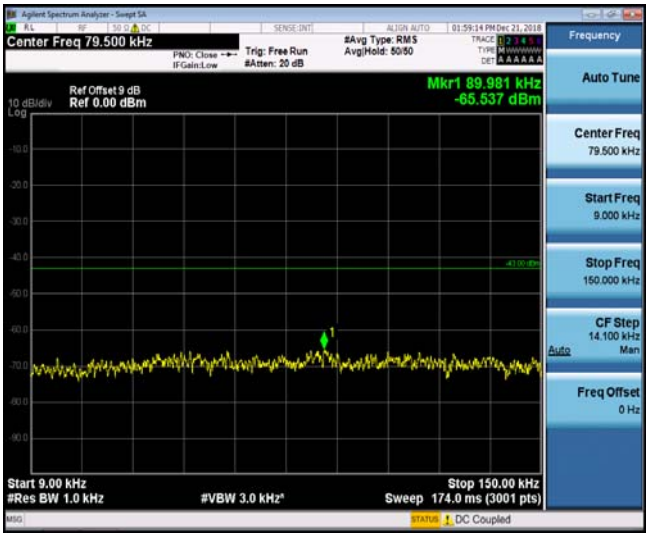

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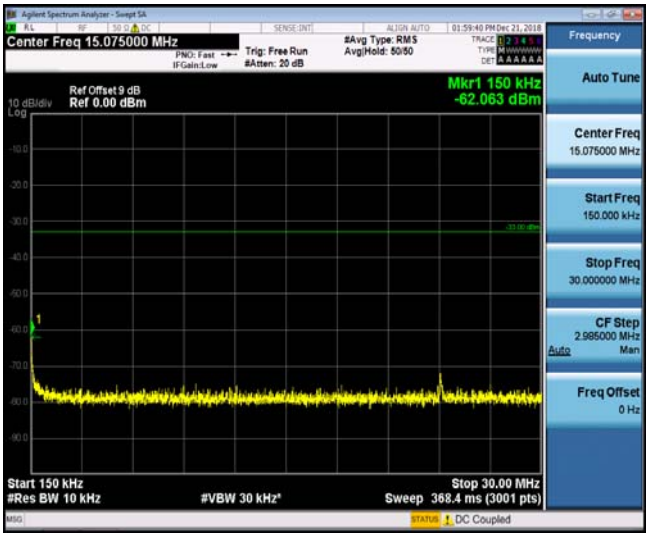

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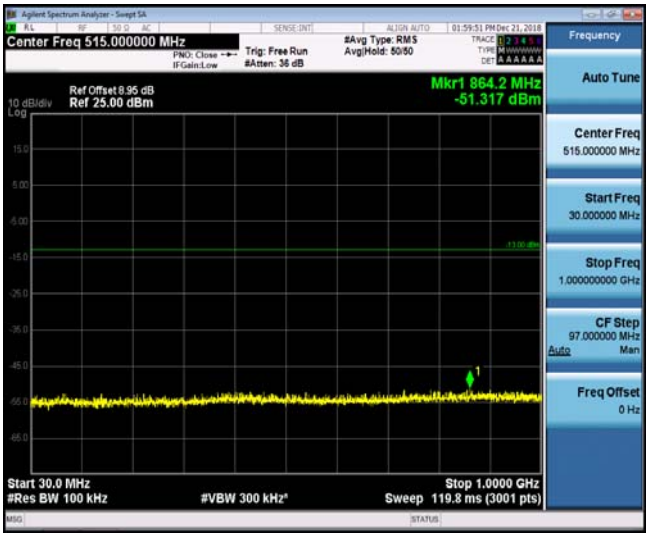

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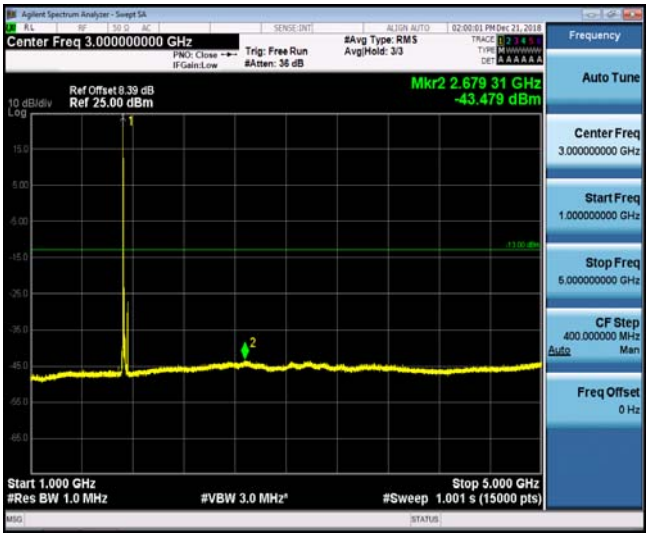

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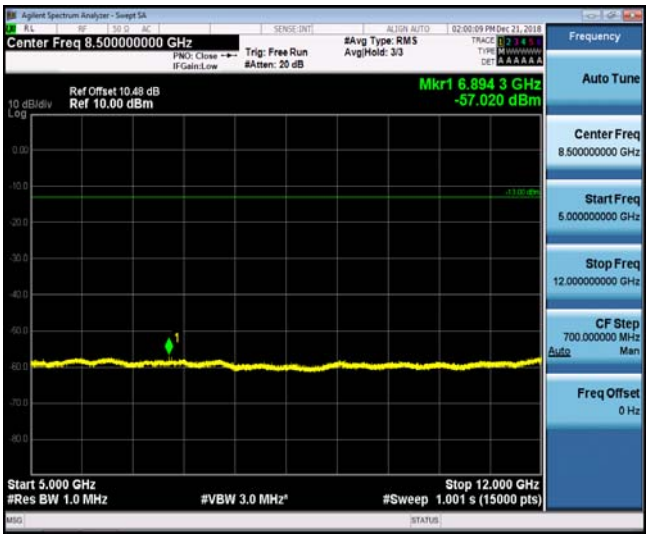

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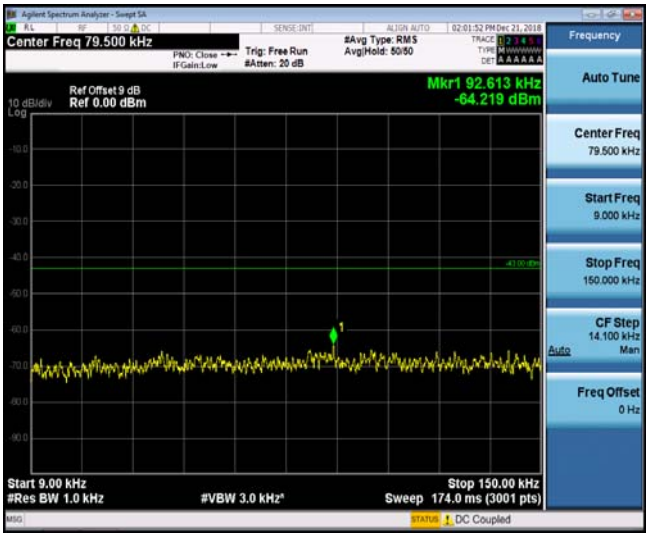

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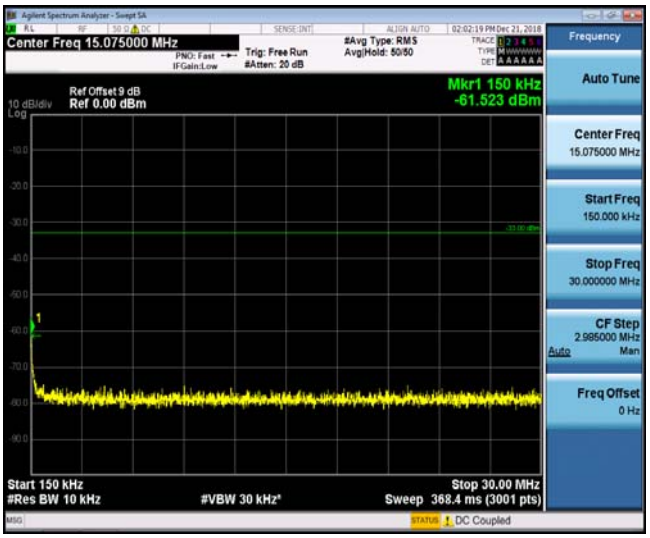

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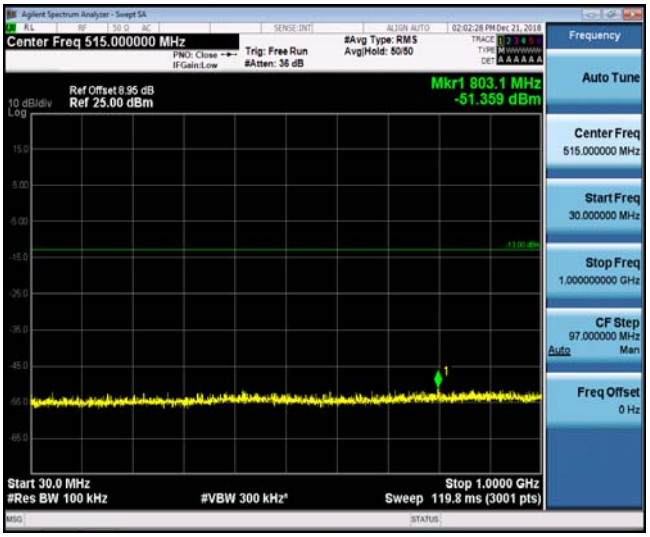

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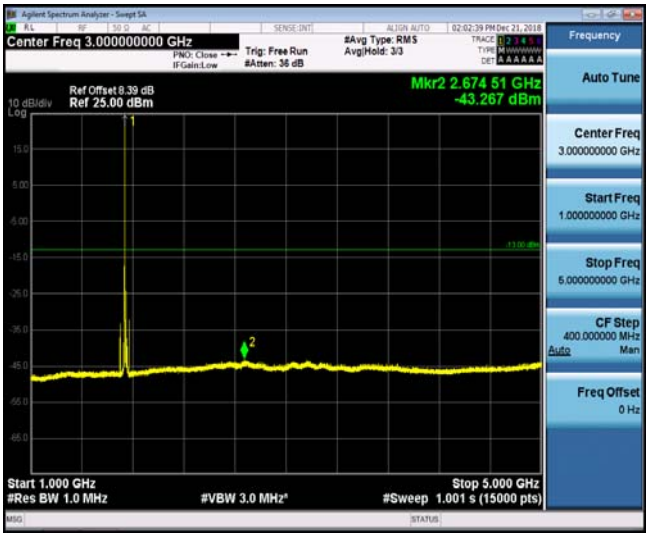

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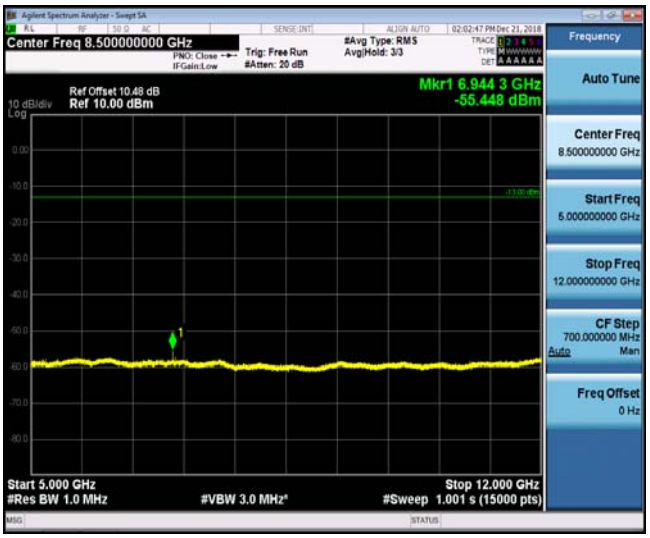

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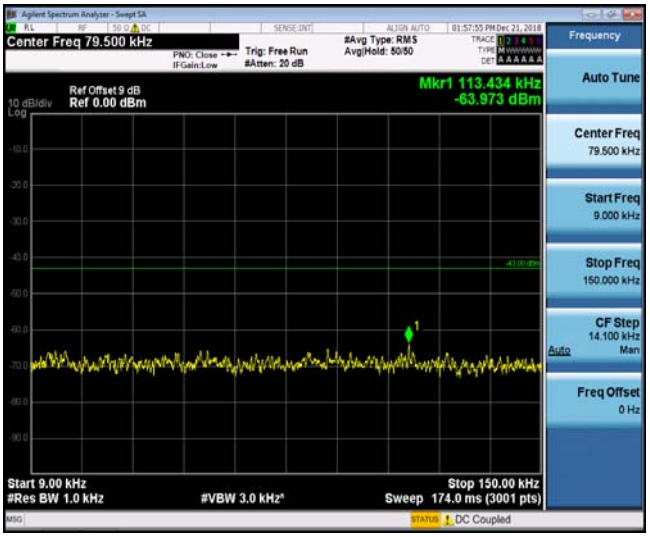
Band4_20MHz_16QAM_20050_1RB#0



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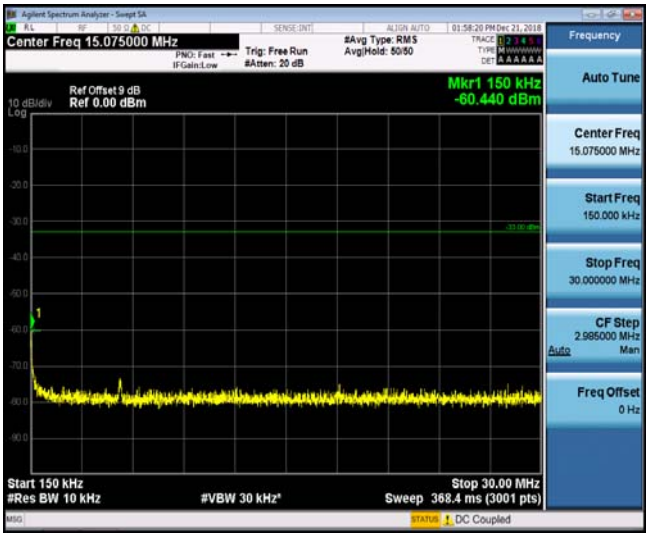

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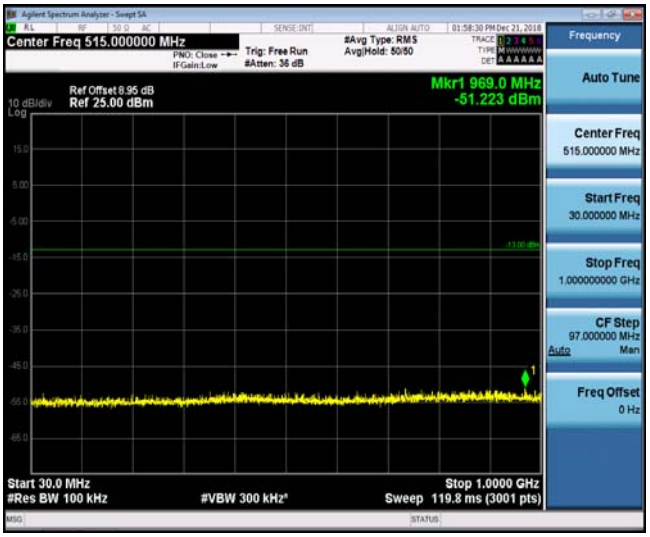

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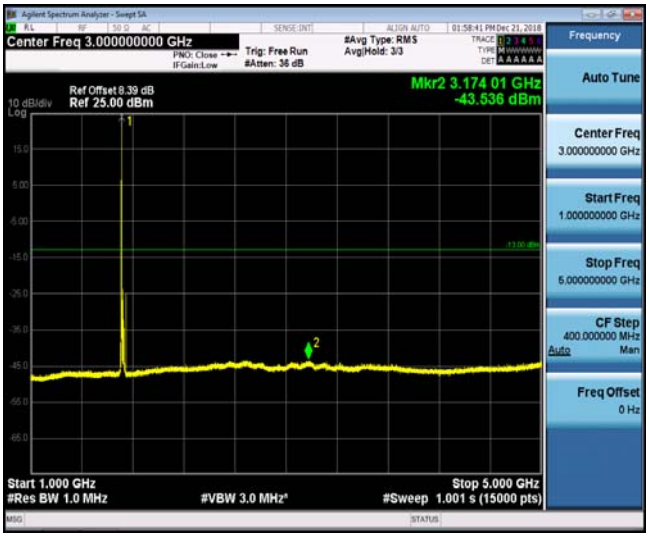
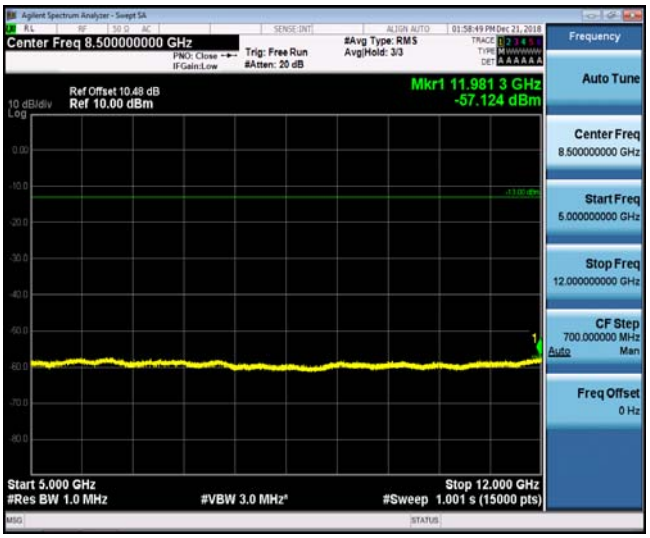
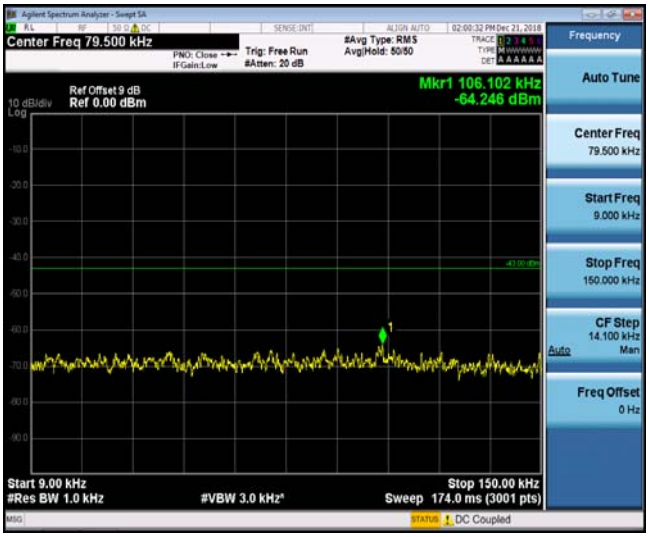


Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_1RB#0

Band4_20MHz_16QAM_20175_1RB#0



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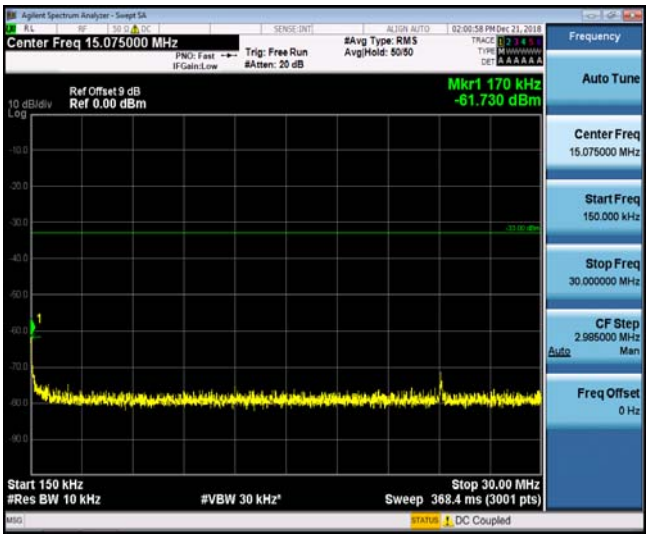

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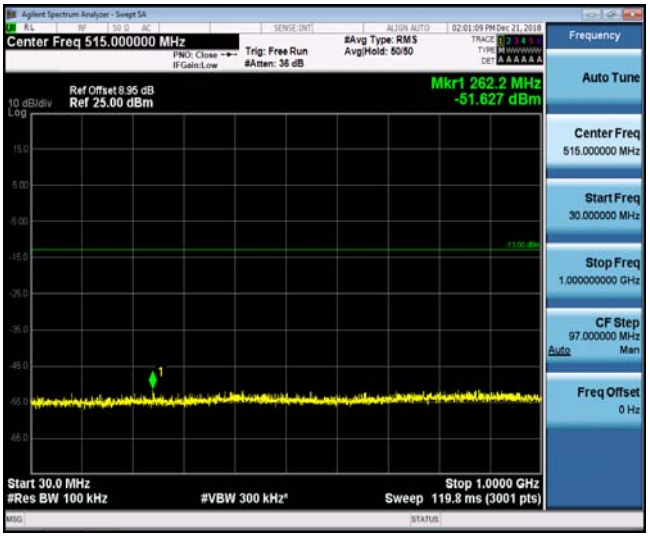

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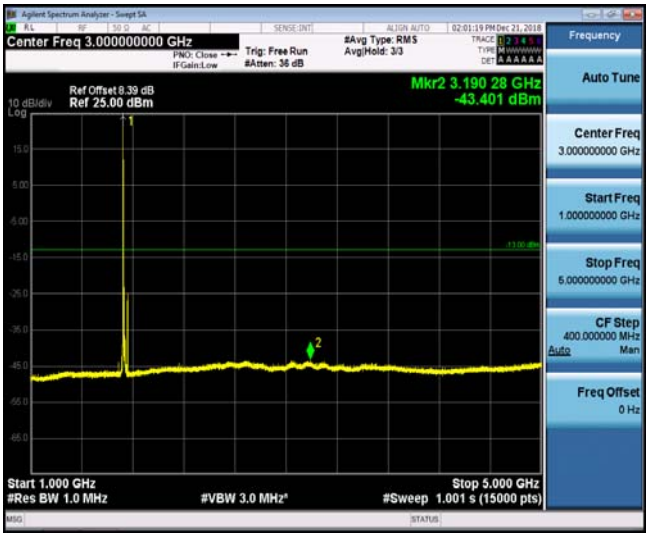

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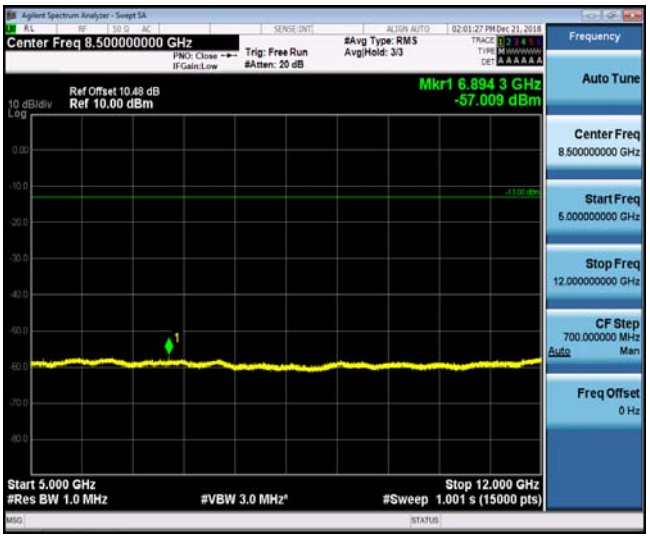
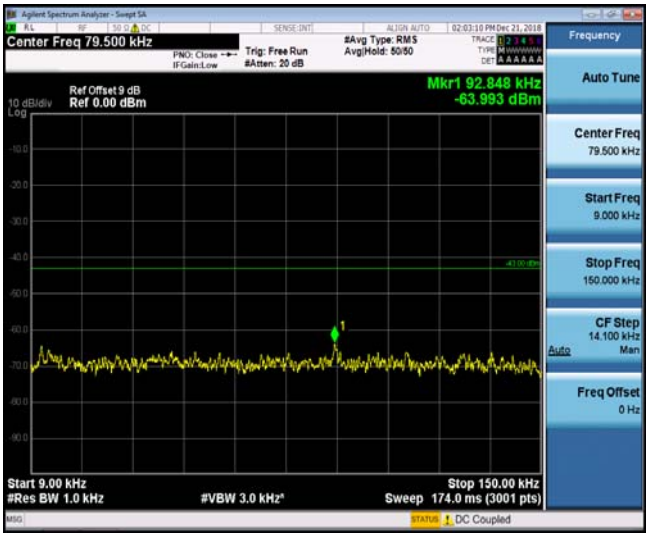


Band4_20MHz_16QAM_20175_1RB#0

Band4_20MHz_16QAM_20300_1RB#0



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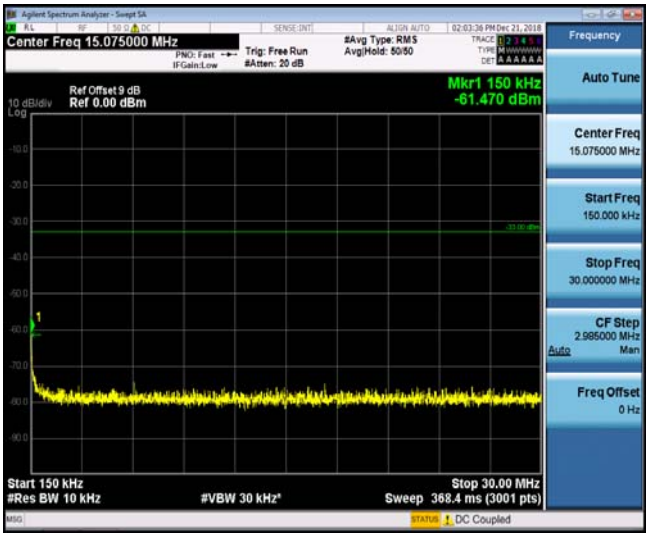
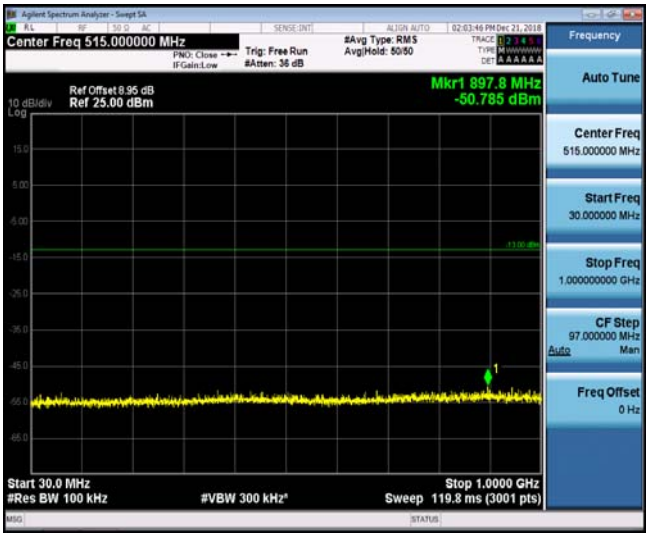
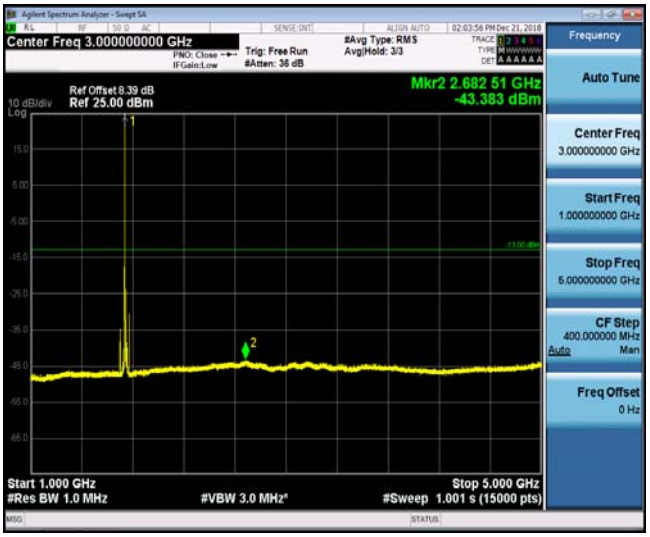


Band4_20MHz_16QAM_20300_1RB#0



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: Close
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 3/3
02:04:13 PM Dec 21, 2018
Ref Offset 18.76 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 16.499 5 GHz
-43.964 dBm
Start 12.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 18.000 GHz
#Sweep 1.001 s (15000 pts)
Frequency
Auto Tune
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
MSG
STATUS

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	3.75	0.002192	± 2.5	PASS
		VN	TN	4.82	0.002818	± 2.5	PASS
		VH	TN	-0.15	-0.000088	± 2.5	PASS
	MCH	VL	TN	3.54	0.002043	± 2.5	PASS
		VN	TN	-1.93	-0.001114	± 2.5	PASS
		VH	TN	3.02	0.001743	± 2.5	PASS
	HCH	VL	TN	3.71	0.002115	± 2.5	PASS
		VN	TN	2.38	0.001357	± 2.5	PASS
		VH	TN	0.65	0.000371	± 2.5	PASS
16QAM	LCH	VL	TN	0.58	0.000339	± 2.5	PASS
		VN	TN	-1.64	-0.000959	± 2.5	PASS
		VH	TN	2.36	0.001380	± 2.5	PASS
	MCH	VL	TN	0.64	0.000369	± 2.5	PASS
		VN	TN	3.45	0.001991	± 2.5	PASS
		VH	TN	2.97	0.001714	± 2.5	PASS
	HCH	VL	TN	1.24	0.000707	± 2.5	PASS
		VN	TN	1.21	0.000690	± 2.5	PASS
		VH	TN	0.15	0.000086	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.26	0.001321	± 2.5	PASS
		VN	-20	0.83	0.000485	± 2.5	PASS
		VN	-10	1.94	0.001134	± 2.5	PASS
		VN	0	1.58	0.000924	± 2.5	PASS
		VN	10	2.13	0.001245	± 2.5	PASS
		VN	20	-0.32	-0.000187	± 2.5	PASS
		VN	30	4.22	0.002467	± 2.5	PASS
		VN	40	2.84	0.001660	± 2.5	PASS
		VN	50	2.43	0.001420	± 2.5	PASS
	MCH	VN	-30	3.76	0.002170	± 2.5	PASS
		VN	-20	0.96	0.000554	± 2.5	PASS

		VN	-10	4.1	0.002367	± 2.5	PASS
		VN	0	1.31	0.000756	± 2.5	PASS
		VN	10	2.13	0.001229	± 2.5	PASS
		VN	20	3.52	0.002032	± 2.5	PASS
		VN	30	1.4	0.000808	± 2.5	PASS
		VN	40	2.03	0.001172	± 2.5	PASS
		VN	50	2.54	0.001466	± 2.5	PASS
	HCH	VN	-30	-0.52	-0.000296	± 2.5	PASS
		VN	-20	-0.64	-0.000365	± 2.5	PASS
		VN	-10	2.5	0.001425	± 2.5	PASS
		VN	0	1.69	0.000963	± 2.5	PASS
		VN	10	2.32	0.001322	± 2.5	PASS
		VN	20	3.38	0.001927	± 2.5	PASS
		VN	30	0.72	0.000410	± 2.5	PASS
		VN	40	2.57	0.001465	± 2.5	PASS
		VN	50	4.79	0.002730	± 2.5	PASS
16QAM	LCH	VN	-30	2.4	0.001403	± 2.5	PASS
		VN	-20	3.2	0.001871	± 2.5	PASS
		VN	-10	-1.94	-0.001134	± 2.5	PASS
		VN	0	3.87	0.002262	± 2.5	PASS
		VN	10	3.73	0.002180	± 2.5	PASS
		VN	20	4.77	0.002788	± 2.5	PASS
		VN	30	-1.28	-0.000748	± 2.5	PASS
		VN	40	3.22	0.001882	± 2.5	PASS
		VN	50	2.13	0.001245	± 2.5	PASS
	MCH	VN	-30	2.43	0.001385	± 2.5	PASS
		VN	-20	4.63	0.002639	± 2.5	PASS
		VN	-10	0.25	0.000143	± 2.5	PASS
		VN	0	-1.55	-0.000884	± 2.5	PASS
		VN	10	2.14	0.001220	± 2.5	PASS
		VN	20	2.12	0.001208	± 2.5	PASS
		VN	30	4.31	0.002457	± 2.5	PASS
		VN	40	0.35	0.000200	± 2.5	PASS
		VN	50	4.17	0.002377	± 2.5	PASS
	HCH	VN	-30	0.84	0.000479	± 2.5	PASS
		VN	-20	1.42	0.000809	± 2.5	PASS
		VN	-10	4.45	0.002537	± 2.5	PASS
		VN	0	3.25	0.001853	± 2.5	PASS
		VN	10	-1.9	-0.001083	± 2.5	PASS
		VN	20	3.02	0.001721	± 2.5	PASS
		VN	30	4.18	0.002383	± 2.5	PASS

		VN	40	2.57	0.001465	± 2.5	PASS
		VN	50	1.49	0.000849	± 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	4.12	0.002407	± 2.5	PASS
		VN	TN	2.57	0.001502	± 2.5	PASS
		VH	TN	-0.53	-0.000310	± 2.5	PASS
	MCH	VL	TN	0.61	0.000352	± 2.5	PASS
		VN	TN	0.05	0.000029	± 2.5	PASS
		VH	TN	3.2	0.001847	± 2.5	PASS
	HCH	VL	TN	0.42	0.000240	± 2.5	PASS
		VN	TN	1.98	0.001129	± 2.5	PASS
		VH	TN	-0.48	-0.000274	± 2.5	PASS
16QAM	LCH	VL	TN	3.67	0.002144	± 2.5	PASS
		VN	TN	-1.06	-0.000619	± 2.5	PASS
		VH	TN	4.34	0.002536	± 2.5	PASS
	MCH	VL	TN	1.37	0.000791	± 2.5	PASS
		VN	TN	1.48	0.000854	± 2.5	PASS
		VH	TN	4.01	0.002315	± 2.5	PASS
	HCH	VL	TN	0.34	0.000194	± 2.5	PASS
		VN	TN	3.4	0.001939	± 2.5	PASS
		VH	TN	0.1	0.000057	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.61	-0.000356	± 2.5	PASS
		VN	-20	3.56	0.002080	± 2.5	PASS
		VN	-10	2.56	0.001496	± 2.5	PASS
		VN	0	-0.95	-0.000555	± 2.5	PASS
		VN	10	1.14	0.000666	± 2.5	PASS
		VN	20	-0.5	-0.000292	± 2.5	PASS
		VN	30	2.22	0.001297	± 2.5	PASS
		VN	40	4.73	0.002764	± 2.5	PASS
		VN	50	4.49	0.002623	± 2.5	PASS
	MCH	VN	-30	-1.27	-0.000733	± 2.5	PASS
		VN	-20	2.34	0.001351	± 2.5	PASS
		VN	-10	0.9	0.000519	± 2.5	PASS

		VN	0	-1.87	-0.001079	± 2.5	PASS
		VN	10	0.46	0.000266	± 2.5	PASS
		VN	20	4.64	0.002678	± 2.5	PASS
		VN	30	-1.72	-0.000993	± 2.5	PASS
		VN	40	4.73	0.002730	± 2.5	PASS
		VN	50	-1.74	-0.001004	± 2.5	PASS
	HCH	VN	-30	3.42	0.001950	± 2.5	PASS
		VN	-20	2.29	0.001306	± 2.5	PASS
		VN	-10	4.15	0.002367	± 2.5	PASS
		VN	0	4.77	0.002720	± 2.5	PASS
		VN	10	1.81	0.001032	± 2.5	PASS
		VN	20	-0.66	-0.000376	± 2.5	PASS
		VN	30	2.62	0.001494	± 2.5	PASS
		VN	40	4.41	0.002515	± 2.5	PASS
		VN	50	-1.13	-0.000644	± 2.5	PASS
16QAM	LCH	VN	-30	3.44	0.001986	± 2.5	PASS
		VN	-20	2.88	0.001662	± 2.5	PASS
		VN	-10	3.11	0.001795	± 2.5	PASS
		VN	0	3.26	0.001882	± 2.5	PASS
		VN	10	-0.03	-0.000017	± 2.5	PASS
		VN	20	4.48	0.002586	± 2.5	PASS
		VN	30	1.87	0.001079	± 2.5	PASS
		VN	40	0	0.000000	± 2.5	PASS
		VN	50	4.1	0.002367	± 2.5	PASS
	MCH	VN	-30	-0.19	-0.000108	± 2.5	PASS
		VN	-20	-1.32	-0.000753	± 2.5	PASS
		VN	-10	4.8	0.002737	± 2.5	PASS
		VN	0	2.16	0.001232	± 2.5	PASS
		VN	10	-1.21	-0.000690	± 2.5	PASS
		VN	20	1.32	0.000753	± 2.5	PASS
		VN	30	0.26	0.000148	± 2.5	PASS
		VN	40	-0.28	-0.000160	± 2.5	PASS
		VN	50	0.67	0.000382	± 2.5	PASS
	HCH	VN	-30	4.91	0.002800	± 2.5	PASS
		VN	-20	3.92	0.002236	± 2.5	PASS
		VN	-10	2.12	0.001209	± 2.5	PASS
		VN	0	-1.43	-0.000816	± 2.5	PASS
		VN	10	-0.9	-0.000513	± 2.5	PASS
		VN	20	2.54	0.001449	± 2.5	PASS
		VN	30	-1.09	-0.000622	± 2.5	PASS
		VN	40	-0.36	-0.000205	± 2.5	PASS

		VN	50	-0.7	-0.000399	± 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	4.71	0.002750	± 2.5	PASS
		VN	TN	-1.82	-0.001063	± 2.5	PASS
		VH	TN	-1.72	-0.001004	± 2.5	PASS
	MCH	VL	TN	2.33	0.001345	± 2.5	PASS
		VN	TN	2.23	0.001287	± 2.5	PASS
		VH	TN	4.34	0.002505	± 2.5	PASS
	HCH	VL	TN	3.45	0.001969	± 2.5	PASS
		VN	TN	-1.61	-0.000919	± 2.5	PASS
		VH	TN	-1.15	-0.000656	± 2.5	PASS
16QAM	LCH	VL	TN	3.46	0.002020	± 2.5	PASS
		VN	TN	0.19	0.000111	± 2.5	PASS
		VH	TN	1.02	0.000596	± 2.5	PASS
	MCH	VL	TN	-0.63	-0.000364	± 2.5	PASS
		VN	TN	-0.04	-0.000023	± 2.5	PASS
		VH	TN	2.77	0.001599	± 2.5	PASS
	HCH	VL	TN	3.2	0.001826	± 2.5	PASS
		VN	TN	1.93	0.001101	± 2.5	PASS
		VH	TN	2.66	0.001518	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.17	0.002435	± 2.5	PASS
		VN	-20	3.07	0.001793	± 2.5	PASS
		VN	-10	0.42	0.000245	± 2.5	PASS
		VN	0	3.8	0.002219	± 2.5	PASS
		VN	10	0.83	0.000485	± 2.5	PASS
		VN	20	3.24	0.001892	± 2.5	PASS
		VN	30	3.74	0.002184	± 2.5	PASS
		VN	40	1.13	0.000660	± 2.5	PASS
		VN	50	-1.71	-0.000999	± 2.5	PASS
	MCH	VN	-30	3.14	0.001812	± 2.5	PASS
		VN	-20	-0.92	-0.000531	± 2.5	PASS
		VN	-10	4.28	0.002470	± 2.5	PASS
		VN	0	-0.47	-0.000271	± 2.5	PASS

		VN	10	3.96	0.002286	± 2.5	PASS
		VN	20	0.71	0.000410	± 2.5	PASS
		VN	30	0.76	0.000439	± 2.5	PASS
		VN	40	3.95	0.002280	± 2.5	PASS
		VN	50	4.92	0.002840	± 2.5	PASS
	HCH	VN	-30	4.04	0.002305	± 2.5	PASS
		VN	-20	-1.96	-0.001028	± 2.5	PASS
		VN	-10	3.32	0.001740	± 2.5	PASS
		VN	0	3.72	0.001950	± 2.5	PASS
		VN	10	2.69	0.001410	± 2.5	PASS
		VN	20	4.36	0.002286	± 2.5	PASS
		VN	30	-0.88	-0.000461	± 2.5	PASS
		VN	40	3.17	0.001662	± 2.5	PASS
		VN	50	-0.01	-0.000005	± 2.5	PASS
16QAM	LCH	VN	-30	4.75	0.002742	± 2.5	PASS
		VN	-20	3.88	0.002240	± 2.5	PASS
		VN	-10	4.59	0.002649	± 2.5	PASS
		VN	0	-1.3	-0.000750	± 2.5	PASS
		VN	10	0.58	0.000335	± 2.5	PASS
		VN	20	3.57	0.002061	± 2.5	PASS
		VN	30	0.01	0.000006	± 2.5	PASS
		VN	40	0.67	0.000387	± 2.5	PASS
		VN	50	3.13	0.001807	± 2.5	PASS
	MCH	VN	-30	2.26	0.001290	± 2.5	PASS
		VN	-20	4.41	0.002516	± 2.5	PASS
		VN	-10	1.23	0.000702	± 2.5	PASS
		VN	0	-1.75	-0.000999	± 2.5	PASS
		VN	10	1.68	0.000959	± 2.5	PASS
		VN	20	2.22	0.001267	± 2.5	PASS
		VN	30	-0.59	-0.000337	± 2.5	PASS
		VN	40	-1.56	-0.000890	± 2.5	PASS
		VN	50	1.93	0.001101	± 2.5	PASS
	HCH	VN	-30	3.52	0.001845	± 2.5	PASS
		VN	-20	0.86	0.000451	± 2.5	PASS
		VN	-10	1.23	0.000645	± 2.5	PASS
		VN	0	0.45	0.000236	± 2.5	PASS
		VN	10	1.06	0.000556	± 2.5	PASS
		VN	20	2.18	0.001143	± 2.5	PASS
		VN	30	1.46	0.000765	± 2.5	PASS
		VN	40	1.2	0.000629	± 2.5	PASS
		VN	50	2.57	0.001347	± 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	4.78	0.002787	± 2.5	PASS
		VN	TN	0.36	0.000210	± 2.5	PASS
		VH	TN	-1.24	-0.000723	± 2.5	PASS
	MCH	VL	TN	3.28	0.001893	± 2.5	PASS
		VN	TN	1.44	0.000831	± 2.5	PASS
		VH	TN	-1.34	-0.000773	± 2.5	PASS
	HCH	VL	TN	0.46	0.000263	± 2.5	PASS
		VN	TN	0.54	0.000309	± 2.5	PASS
		VH	TN	-0.05	-0.000029	± 2.5	PASS
16QAM	LCH	VL	TN	0.03	0.000017	± 2.5	PASS
		VN	TN	-1.78	-0.001038	± 2.5	PASS
		VH	TN	-1.17	-0.000682	± 2.5	PASS
	MCH	VL	TN	-0.22	-0.000127	± 2.5	PASS
		VN	TN	2.08	0.001201	± 2.5	PASS
		VH	TN	-1.81	-0.001045	± 2.5	PASS
	HCH	VL	TN	3.64	0.002080	± 2.5	PASS
		VN	TN	3.66	0.002091	± 2.5	PASS
		VH	TN	1.7	0.000971	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	1.01	0.000589	± 2.5	PASS
		VN	-20	3.08	0.001796	± 2.5	PASS
		VN	-10	4	0.002332	± 2.5	PASS
		VN	0	-0.81	-0.000472	± 2.5	PASS
		VN	10	3.02	0.001761	± 2.5	PASS
		VN	20	1.61	0.000939	± 2.5	PASS
		VN	30	-1.2	-0.000700	± 2.5	PASS
		VN	40	4.17	0.002431	± 2.5	PASS
		VN	50	0.55	0.000321	± 2.5	PASS
	MCH	VN	-30	1.57	0.000906	± 2.5	PASS
		VN	-20	0.66	0.000381	± 2.5	PASS
		VN	-10	-0.92	-0.000531	± 2.5	PASS
		VN	0	1.66	0.000958	± 2.5	PASS
		VN	10	1.81	0.001045	± 2.5	PASS
		VN	20	-0.77	-0.000444	± 2.5	PASS

		VN	30	-1.51	-0.000872	± 2.5	PASS
		VN	40	-0.55	-0.000317	± 2.5	PASS
		VN	50	-0.02	-0.000012	± 2.5	PASS
	HCH	VN	-30	4.1	0.002343	± 2.5	PASS
		VN	-20	1.94	0.001109	± 2.5	PASS
		VN	-10	-1.61	-0.000920	± 2.5	PASS
		VN	0	0.76	0.000434	± 2.5	PASS
		VN	10	1.39	0.000794	± 2.5	PASS
		VN	20	1.41	0.000806	± 2.5	PASS
		VN	30	-0.95	-0.000543	± 2.5	PASS
		VN	40	0.23	0.000131	± 2.5	PASS
		VN	50	2.49	0.001423	± 2.5	PASS
QPSK	LCH	VN	-30	1.77	0.001022	± 2.5	PASS
		VN	-20	4.58	0.002644	± 2.5	PASS
		VN	-10	-0.19	-0.000110	± 2.5	PASS
		VN	0	1.56	0.000900	± 2.5	PASS
		VN	10	1.58	0.000912	± 2.5	PASS
		VN	20	2.92	0.001685	± 2.5	PASS
		VN	30	0.21	0.000121	± 2.5	PASS
		VN	40	2.48	0.001431	± 2.5	PASS
		VN	50	2.06	0.001189	± 2.5	PASS
	MCH	VN	-30	0.81	0.000463	± 2.5	PASS
		VN	-20	3.81	0.002177	± 2.5	PASS
		VN	-10	-1.02	-0.000583	± 2.5	PASS
		VN	0	1.26	0.000720	± 2.5	PASS
		VN	10	2.14	0.001223	± 2.5	PASS
		VN	20	4.57	0.002611	± 2.5	PASS
		VN	30	-0.75	-0.000429	± 2.5	PASS
		VN	40	1.19	0.000680	± 2.5	PASS
		VN	50	-0.09	-0.000051	± 2.5	PASS
	HCH	VN	-30	-0.22	-0.000126	± 2.5	PASS
		VN	-20	2.4	0.001371	± 2.5	PASS
		VN	-10	1.25	0.000714	± 2.5	PASS
		VN	0	3.25	0.001857	± 2.5	PASS
		VN	10	0.61	0.000349	± 2.5	PASS
		VN	20	1.08	0.000617	± 2.5	PASS
		VN	30	-0.96	-0.000549	± 2.5	PASS
		VN	40	0.56	0.000320	± 2.5	PASS
		VN	50	-1.57	-0.000897	± 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	4.21	0.002451	± 2.5	PASS
		VN	TN	2.54	0.001479	± 2.5	PASS
		VH	TN	3.94	0.002294	± 2.5	PASS
	MCH	VL	TN	0.4	0.000231	± 2.5	PASS
		VN	TN	2.35	0.001356	± 2.5	PASS
		VH	TN	-1.25	-0.000722	± 2.5	PASS
	HCH	VL	TN	-1.49	-0.000853	± 2.5	PASS
		VN	TN	1.04	0.000595	± 2.5	PASS
		VH	TN	0.05	0.000029	± 2.5	PASS
16QAM	LCH	VL	TN	0.61	0.000355	± 2.5	PASS
		VN	TN	1.9	0.001106	± 2.5	PASS
		VH	TN	3.15	0.001834	± 2.5	PASS
	MCH	VL	TN	2.46	0.001420	± 2.5	PASS
		VN	TN	0.31	0.000179	± 2.5	PASS
		VH	TN	1.98	0.001143	± 2.5	PASS
	HCH	VL	TN	2.44	0.001396	± 2.5	PASS
		VN	TN	0.33	0.000189	± 2.5	PASS
		VH	TN	-0.73	-0.000418	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3	0.001747	± 2.5	PASS
		VN	-20	4.42	0.002574	± 2.5	PASS
		VN	-10	-1.8	-0.001048	± 2.5	PASS
		VN	0	1.39	0.000809	± 2.5	PASS
		VN	10	4.41	0.002568	± 2.5	PASS
		VN	20	-1.38	-0.000803	± 2.5	PASS
		VN	30	2.78	0.001619	± 2.5	PASS
		VN	40	3.44	0.002003	± 2.5	PASS
		VN	50	3.36	0.001956	± 2.5	PASS
	MCH	VN	-30	0.93	0.000537	± 2.5	PASS
		VN	-20	3.3	0.001905	± 2.5	PASS
		VN	-10	2.81	0.001622	± 2.5	PASS
		VN	0	2.17	0.001253	± 2.5	PASS
		VN	10	1.41	0.000814	± 2.5	PASS
		VN	20	1.13	0.000652	± 2.5	PASS

		VN	30	0.56	0.000323	± 2.5	PASS
		VN	40	-1.02	-0.000589	± 2.5	PASS
		VN	50	4.66	0.002690	± 2.5	PASS
	HCH	VN	-30	1.99	0.001139	± 2.5	PASS
		VN	-20	-1.55	-0.000887	± 2.5	PASS
		VN	-10	2.44	0.001396	± 2.5	PASS
		VN	0	4.82	0.002758	± 2.5	PASS
		VN	10	4.63	0.002649	± 2.5	PASS
		VN	20	2.95	0.001688	± 2.5	PASS
		VN	30	-1.73	-0.000990	± 2.5	PASS
		VN	40	1.93	0.001104	± 2.5	PASS
		VN	50	4.73	0.002707	± 2.5	PASS
16QAM	LCH	VN	-30	-0.6	-0.000346	± 2.5	PASS
		VN	-20	-1.08	-0.000623	± 2.5	PASS
		VN	-10	3.75	0.002165	± 2.5	PASS
		VN	0	-1.98	-0.001143	± 2.5	PASS
		VN	10	4.9	0.002828	± 2.5	PASS
		VN	20	0.22	0.000127	± 2.5	PASS
		VN	30	3.29	0.001899	± 2.5	PASS
		VN	40	-1.49	-0.000860	± 2.5	PASS
		VN	50	3.66	0.002113	± 2.5	PASS
	MCH	VN	-30	-0.96	-0.000549	± 2.5	PASS
		VN	-20	3.08	0.001763	± 2.5	PASS
		VN	-10	2.63	0.001505	± 2.5	PASS
		VN	0	0.71	0.000406	± 2.5	PASS
		VN	10	-1.25	-0.000715	± 2.5	PASS
		VN	20	-1.38	-0.000790	± 2.5	PASS
		VN	30	2.14	0.001225	± 2.5	PASS
		VN	40	4.01	0.002295	± 2.5	PASS
		VN	50	3.74	0.002140	± 2.5	PASS
	HCH	VN	-30	0.18	0.000103	± 2.5	PASS
		VN	-20	-1.46	-0.000835	± 2.5	PASS
		VN	-10	1.81	0.001036	± 2.5	PASS
		VN	0	0.54	0.000309	± 2.5	PASS
		VN	10	-1.63	-0.000933	± 2.5	PASS
		VN	20	-1.61	-0.000921	± 2.5	PASS
		VN	30	1.8	0.001030	± 2.5	PASS
		VN	40	-1.8	-0.001030	± 2.5	PASS
		VN	50	4.13	0.002363	± 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	-1.69	-0.000983	± 2.5	PASS
		VN	TN	2.76	0.001605	± 2.5	PASS
		VH	TN	2.69	0.001564	± 2.5	PASS
	MCH	VL	TN	-1.6	-0.000924	± 2.5	PASS
		VN	TN	1.72	0.000993	± 2.5	PASS
		VH	TN	0.33	0.000190	± 2.5	PASS
	HCH	VL	TN	3.76	0.002155	± 2.5	PASS
		VN	TN	-0.27	-0.000155	± 2.5	PASS
		VH	TN	0.5	0.000287	± 2.5	PASS
16QAM	LCH	VL	TN	0.99	0.000576	± 2.5	PASS
		VN	TN	3.52	0.002047	± 2.5	PASS
		VH	TN	1.1	0.000640	± 2.5	PASS
	MCH	VL	TN	1.95	0.001126	± 2.5	PASS
		VN	TN	3.54	0.002043	± 2.5	PASS
		VH	TN	-0.21	-0.000121	± 2.5	PASS
	HCH	VL	TN	2.72	0.001559	± 2.5	PASS
		VN	TN	2.67	0.001530	± 2.5	PASS
		VH	TN	0.76	0.000436	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.41	0.000238	± 2.5	PASS
		VN	-20	1.79	0.001041	± 2.5	PASS
		VN	-10	3.99	0.002320	± 2.5	PASS
		VN	0	0.71	0.000413	± 2.5	PASS
		VN	10	3.26	0.001895	± 2.5	PASS
		VN	20	-1.22	-0.000709	± 2.5	PASS
		VN	30	-1.45	-0.000843	± 2.5	PASS
		VN	40	3.33	0.001936	± 2.5	PASS
		VN	50	1.48	0.000860	± 2.5	PASS
	MCH	VN	-30	-1.89	-0.001091	± 2.5	PASS
		VN	-20	1.06	0.000612	± 2.5	PASS
		VN	-10	4.49	0.002592	± 2.5	PASS
		VN	0	3.53	0.002038	± 2.5	PASS
		VN	10	-1.77	-0.001022	± 2.5	PASS
		VN	20	1.69	0.000975	± 2.5	PASS

		VN	30	2.5	0.001443	± 2.5	PASS
		VN	40	4.22	0.002436	± 2.5	PASS
		VN	50	0.94	0.000543	± 2.5	PASS
	HCH	VN	-30	3	0.001719	± 2.5	PASS
		VN	-20	-1.44	-0.000825	± 2.5	PASS
		VN	-10	3.41	0.001954	± 2.5	PASS
		VN	0	1.16	0.000665	± 2.5	PASS
		VN	10	2.06	0.001181	± 2.5	PASS
		VN	20	-1.09	-0.000625	± 2.5	PASS
		VN	30	2.73	0.001564	± 2.5	PASS
		VN	40	0.06	0.000034	± 2.5	PASS
		VN	50	3.54	0.002029	± 2.5	PASS
16QAM	LCH	VN	-30	4.68	0.002701	± 2.5	PASS
		VN	-20	3.34	0.001928	± 2.5	PASS
		VN	-10	4.62	0.002667	± 2.5	PASS
		VN	0	1.55	0.000895	± 2.5	PASS
		VN	10	2.45	0.001414	± 2.5	PASS
		VN	20	0.07	0.000040	± 2.5	PASS
		VN	30	1.22	0.000704	± 2.5	PASS
		VN	40	4.98	0.002874	± 2.5	PASS
		VN	50	-1.45	-0.000837	± 2.5	PASS
	MCH	VN	-30	2.36	0.001352	± 2.5	PASS
		VN	-20	3.04	0.001742	± 2.5	PASS
		VN	-10	-1.59	-0.000911	± 2.5	PASS
		VN	0	1.87	0.001072	± 2.5	PASS
		VN	10	0.5	0.000287	± 2.5	PASS
		VN	20	3.69	0.002115	± 2.5	PASS
		VN	30	2.77	0.001587	± 2.5	PASS
		VN	40	2.49	0.001427	± 2.5	PASS
		VN	50	1.12	0.000642	± 2.5	PASS
	HCH	VN	-30	-0.01	-0.000006	± 2.5	PASS
		VN	-20	4.9	0.002808	± 2.5	PASS
		VN	-10	-1.25	-0.000716	± 2.5	PASS
		VN	0	0.27	0.000155	± 2.5	PASS
		VN	10	2.78	0.001593	± 2.5	PASS
		VN	20	1.27	0.000728	± 2.5	PASS
		VN	30	0.35	0.000201	± 2.5	PASS
		VN	40	-0.7	-0.000401	± 2.5	PASS
		VN	50	-0.49	-0.000281	± 2.5	PASS