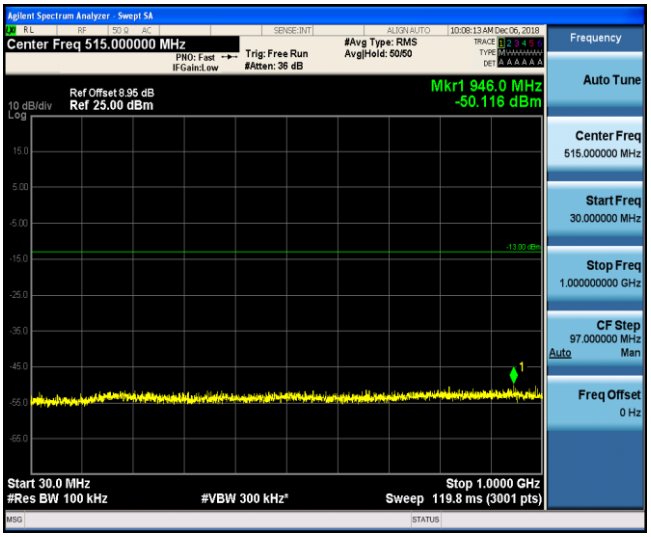
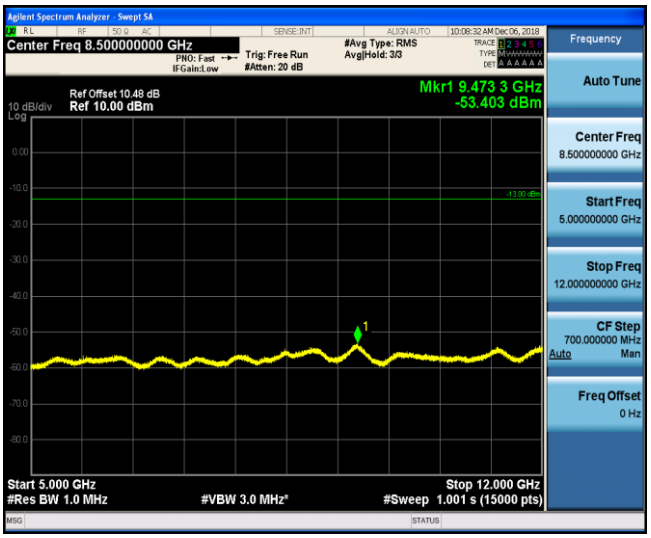


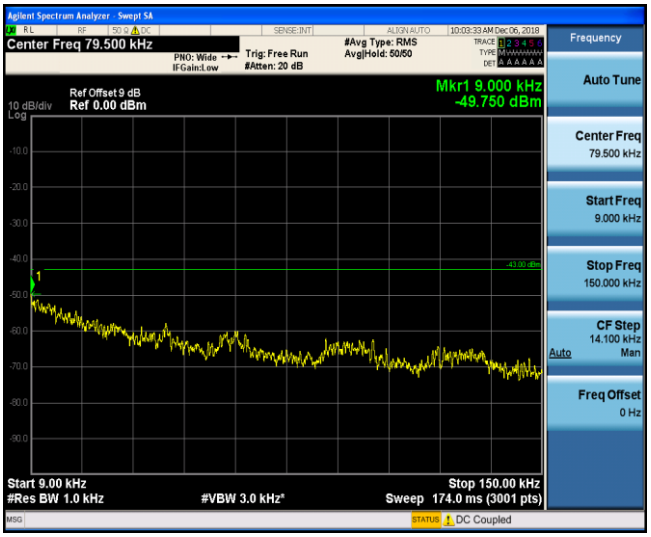
Band2_5MHz_QPSK_19175_1RB#0

Band2_5MHz_QPSK_19175_1RB#0

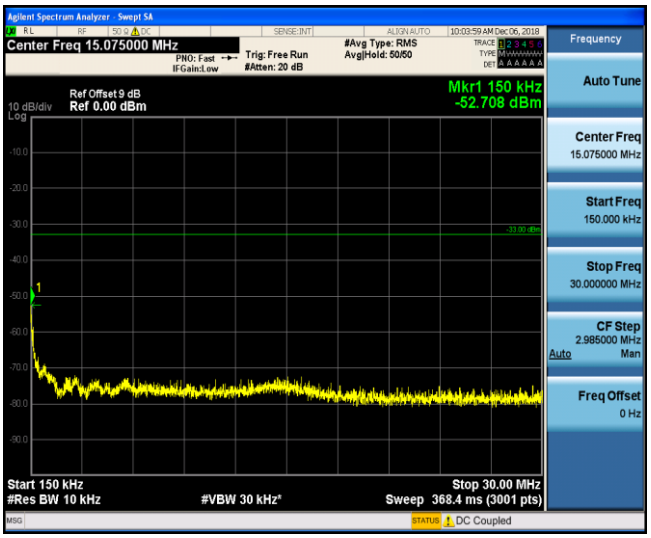


Band2_5MHz_QPSK_19175_1RB#0

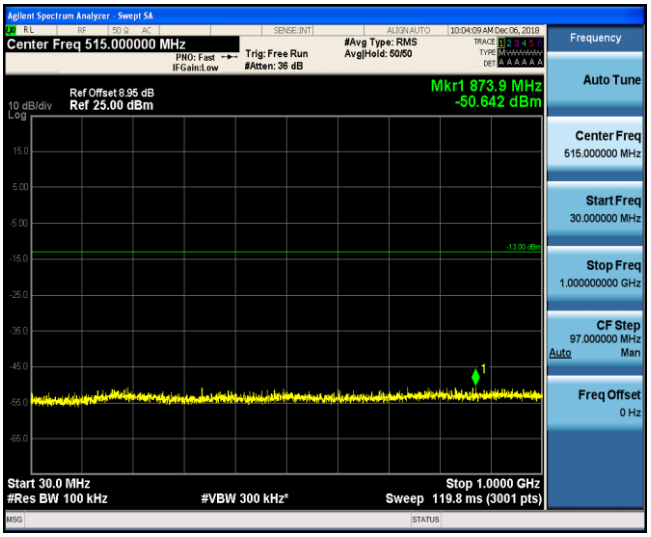
Band2_5MHz_16QAM_18625_1RB#0



Band2_5MHz_16QAM_18625_1RB#0

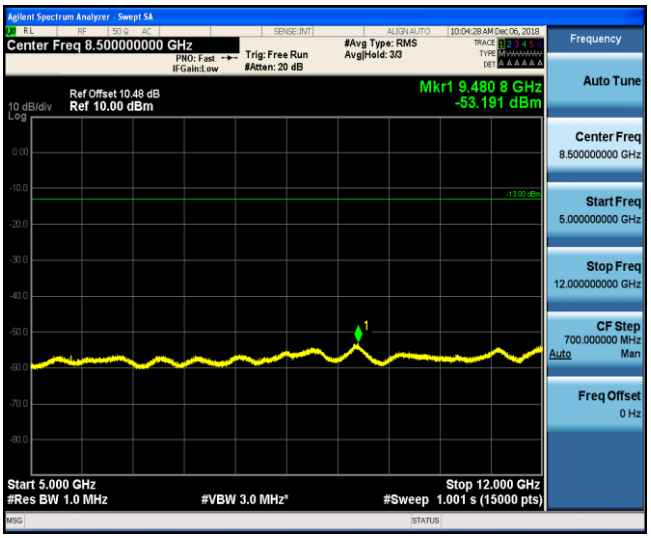


Band2_5MHz_16QAM_18625_1RB#0



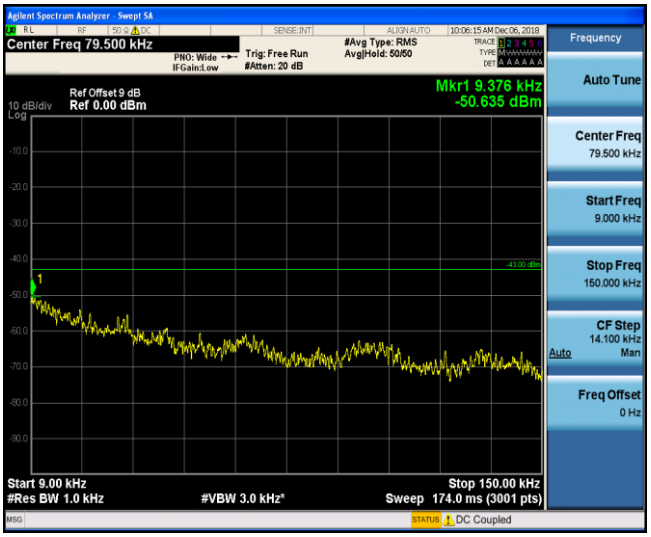
Band2_5MHz_16QAM_18625_1RB#0

Band2_5MHz_16QAM_18625_1RB#0

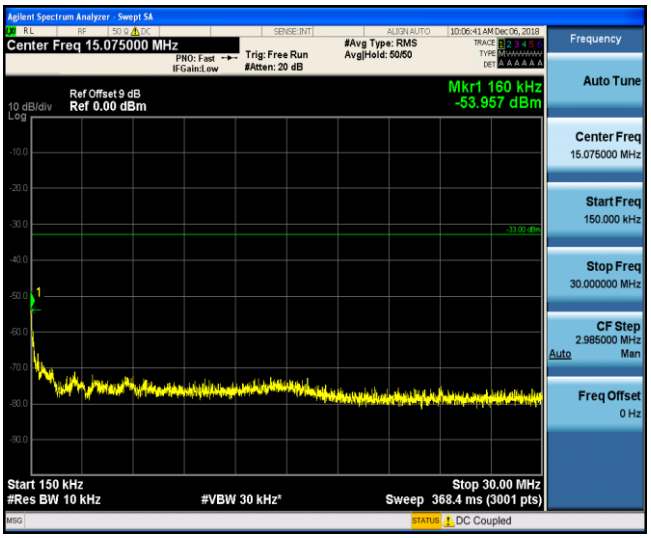


Band2_5MHz_16QAM_18625_1RB#0

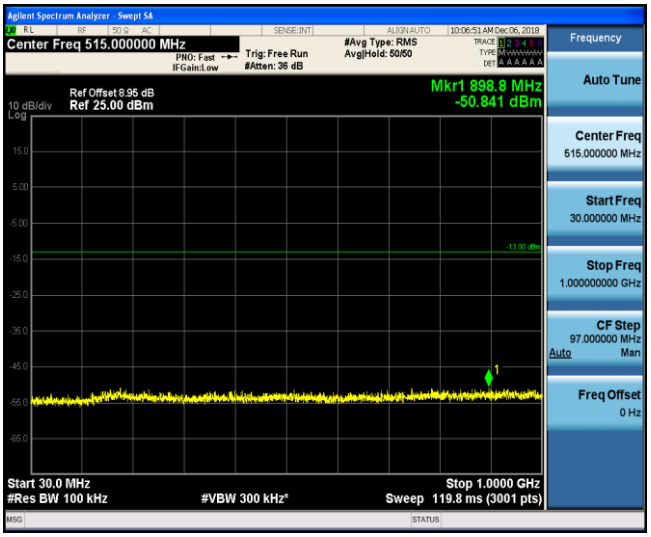
Band2_5MHz_16QAM_18900_1RB#0



Band2_5MHz_16QAM_18900_1RB#0

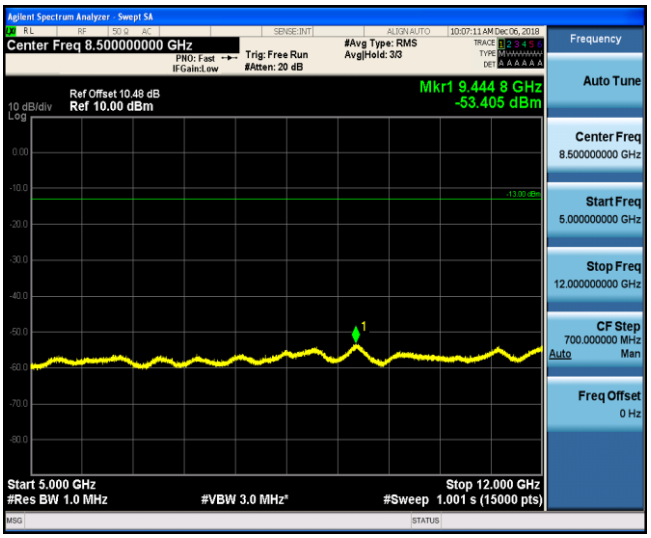


Band2_5MHz_16QAM_18900_1RB#0



Band2_5MHz_16QAM_18900_1RB#0

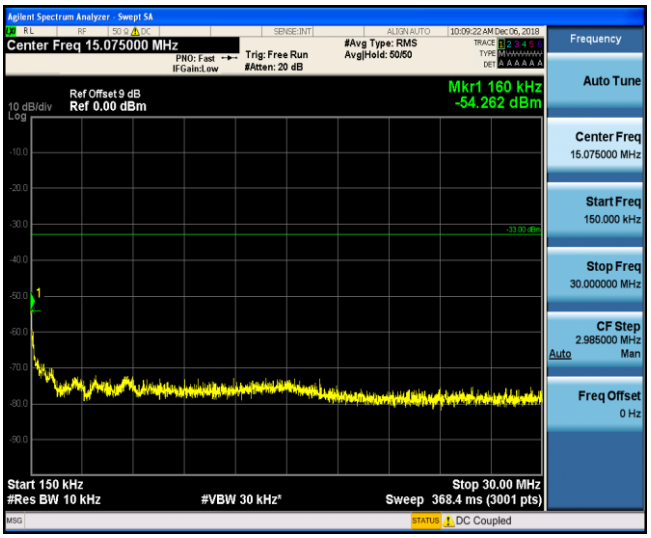
Band2_5MHz_16QAM_18900_1RB#0



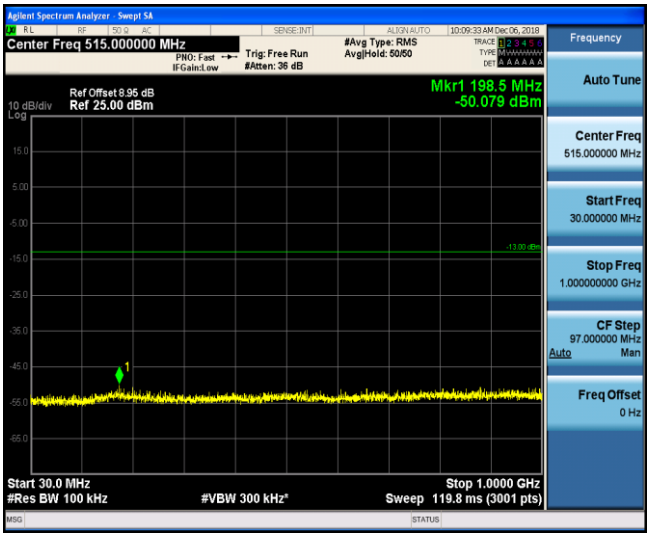
Band2_5MHz_16QAM_18900_1RB#0

Band2_5MHz_16QAM_19175_1RB#0

Band2_5MHz_16QAM_19175_1RB#0

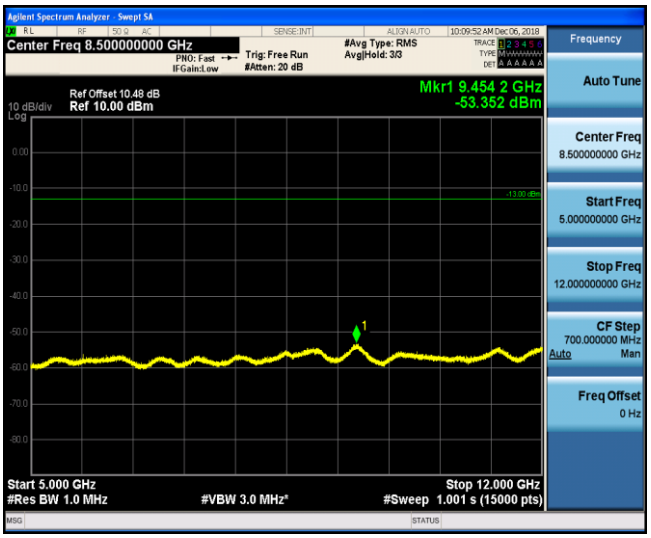


Band2_5MHz_16QAM_19175_1RB#0



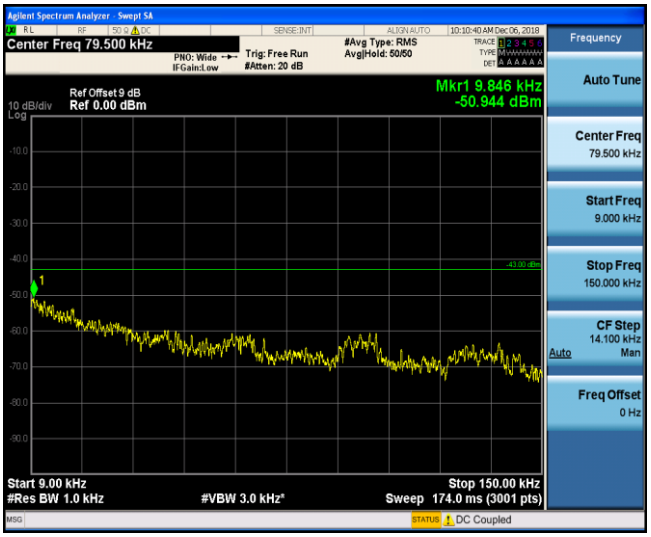
Band2_5MHz_16QAM_19175_1RB#0

Band2_5MHz_16QAM_19175_1RB#0

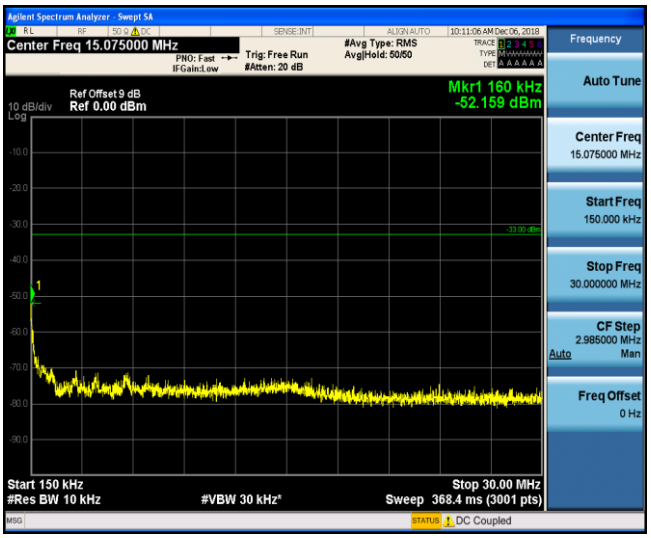


Band2_5MHz_16QAM_19175_1RB#0

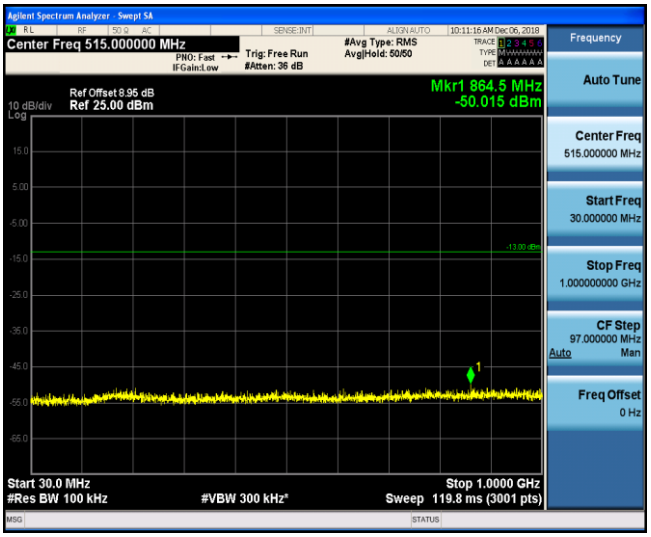
Band2_10MHz_QPSK_18650_1RB#0



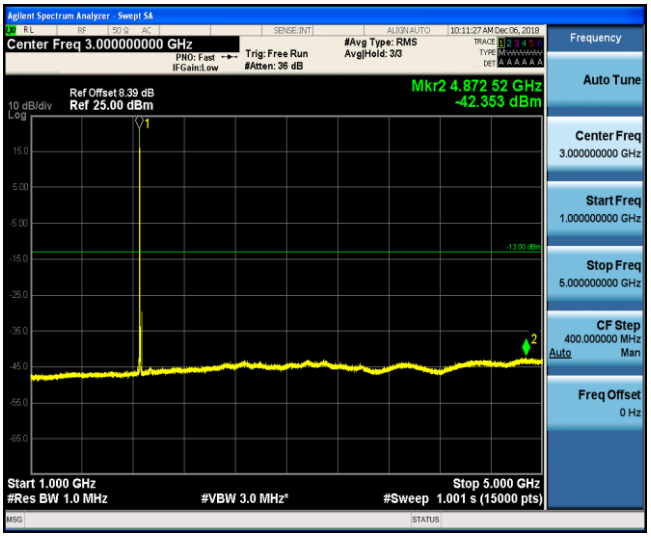
Band2_10MHz_QPSK_18650_1RB#0



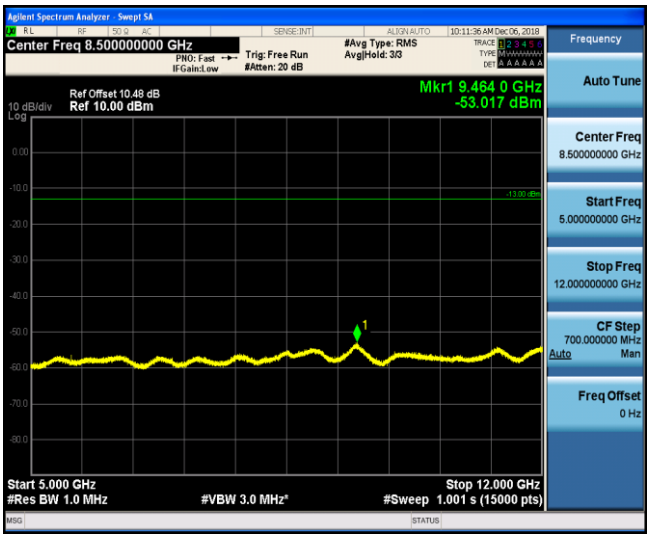
Band2_10MHz_QPSK_18650_1RB#0



Band2_10MHz_QPSK_18650_1RB#0



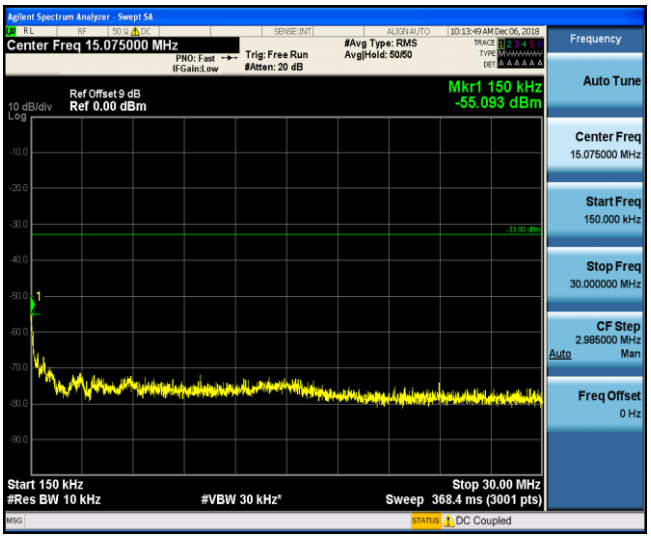
Band2_10MHz_QPSK_18650_1RB#0



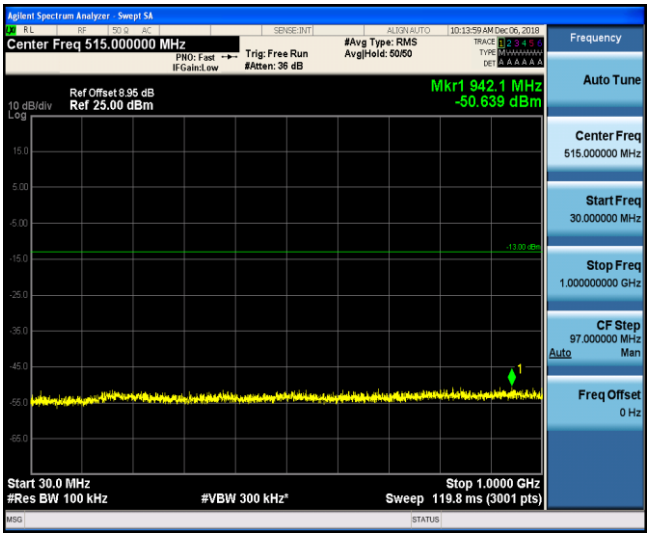
Band2_10MHz_QPSK_18650_1RB#0

Band2_10MHz_QPSK_18900_1RB#0

Band2_10MHz_QPSK_18900_1RB#0

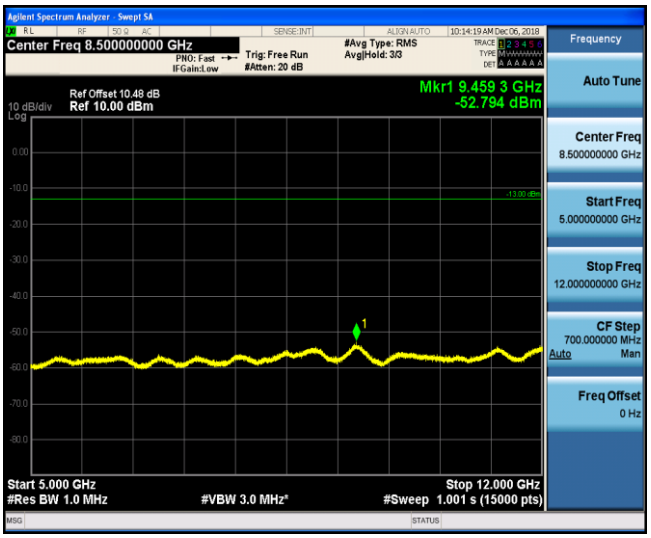


Band2_10MHz_QPSK_18900_1RB#0



Band2_10MHz_QPSK_18900_1RB#0

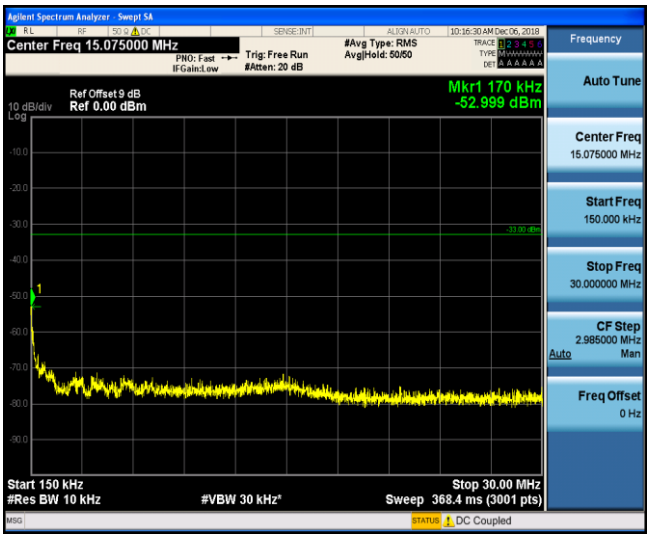
Band2_10MHz_QPSK_18900_1RB#0



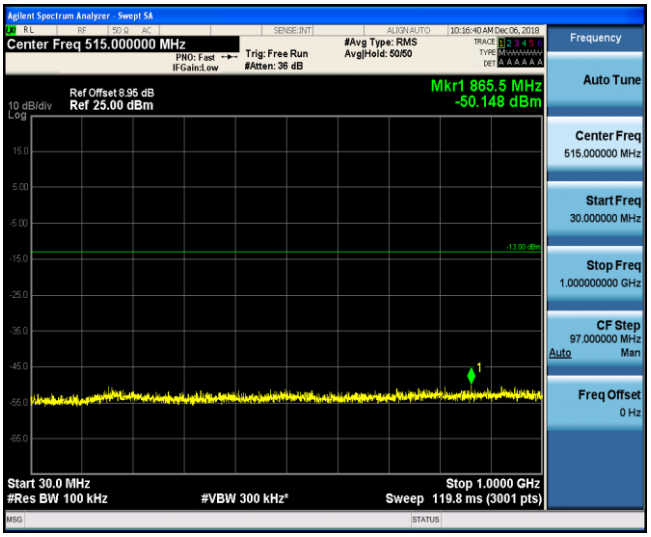
Band2_10MHz_QPSK_18900_1RB#0

Band2_10MHz_QPSK_19150_1RB#0

Band2_10MHz_QPSK_19150_1RB#0

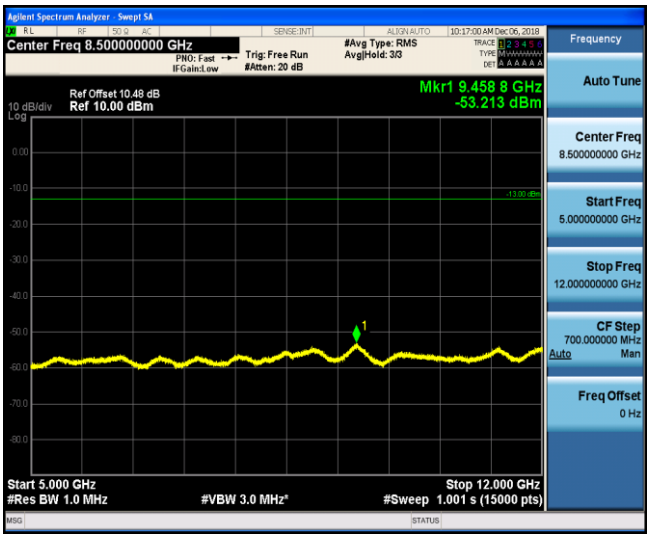


Band2_10MHz_QPSK_19150_1RB#0



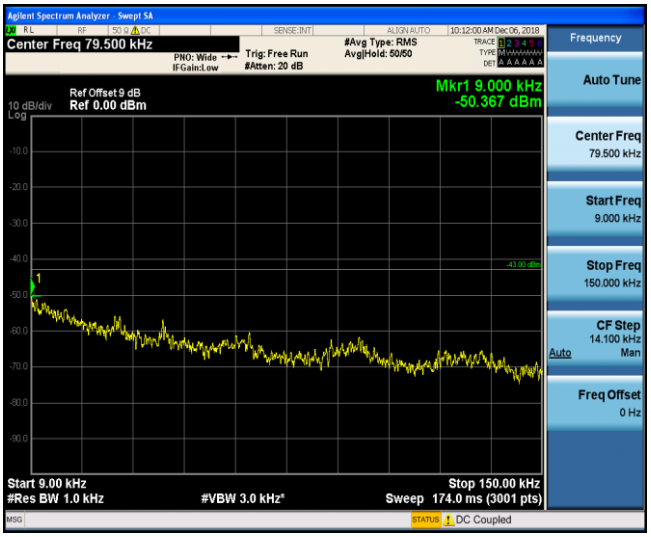
Band2_10MHz_QPSK_19150_1RB#0

Band2_10MHz_QPSK_19150_1RB#0

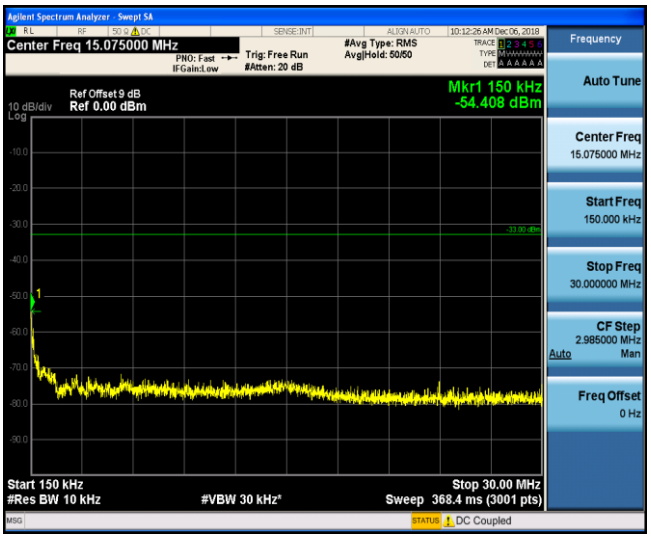


Band2_10MHz_QPSK_19150_1RB#0

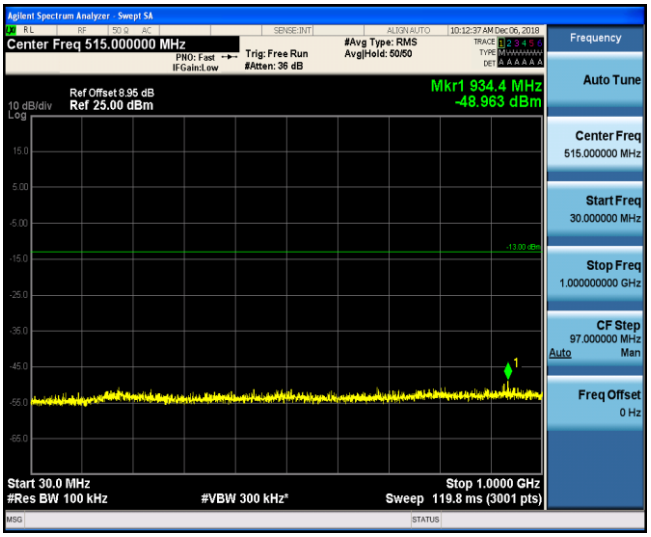
Band2_10MHz_16QAM_18650_1RB#0



Band2_10MHz_16QAM_18650_1RB#0

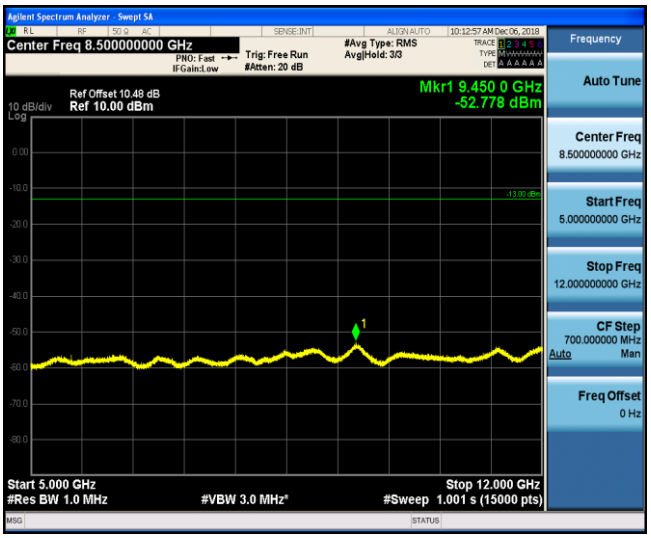


Band2_10MHz_16QAM_18650_1RB#0



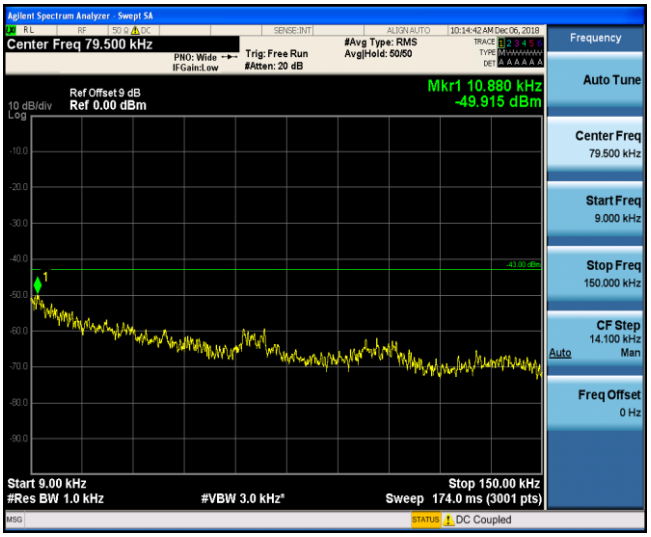
Band2_10MHz_16QAM_18650_1RB#0

Band2_10MHz_16QAM_18650_1RB#0

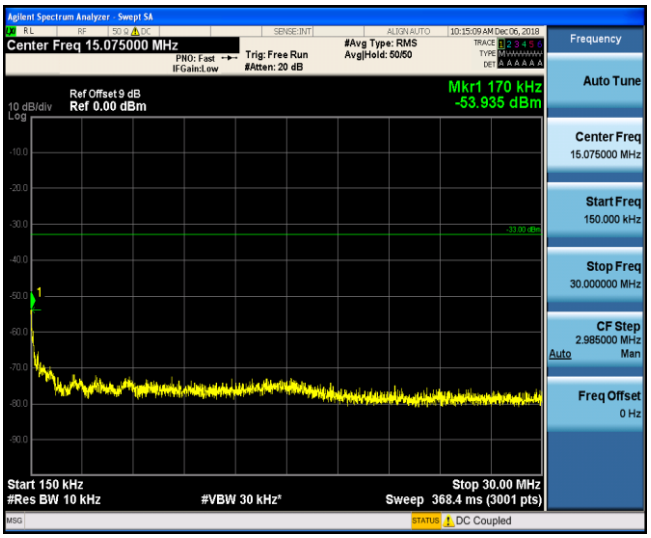


Band2_10MHz_16QAM_18650_1RB#0

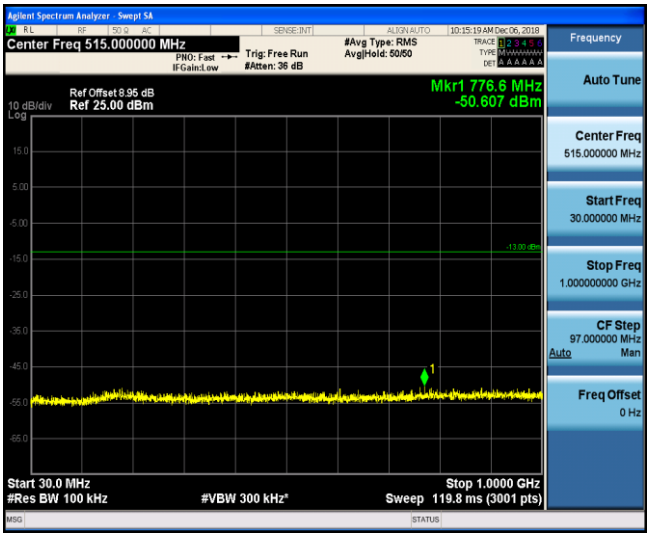
Band2_10MHz_16QAM_18900_1RB#0



Band2_10MHz_16QAM_18900_1RB#0

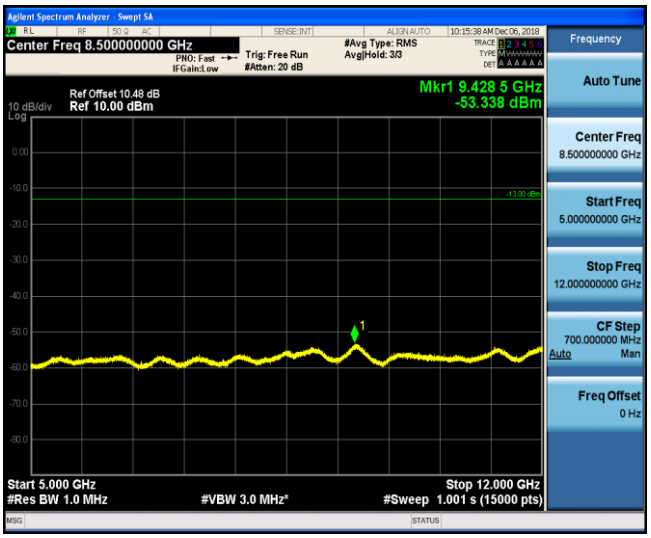


Band2_10MHz_16QAM_18900_1RB#0

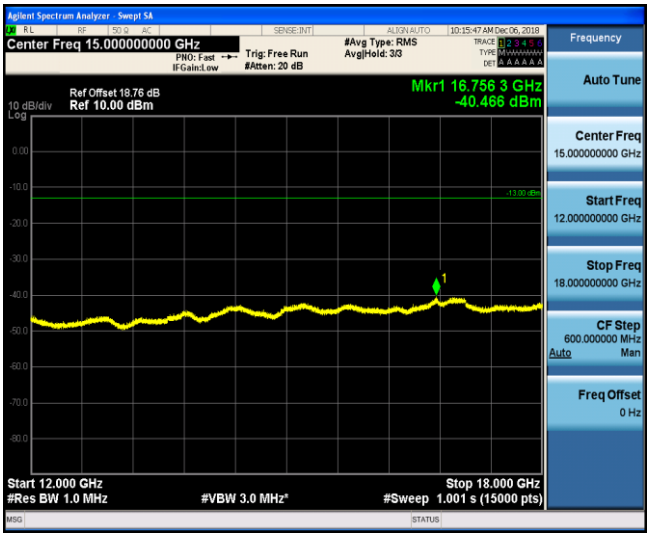


Band2_10MHz_16QAM_18900_1RB#0

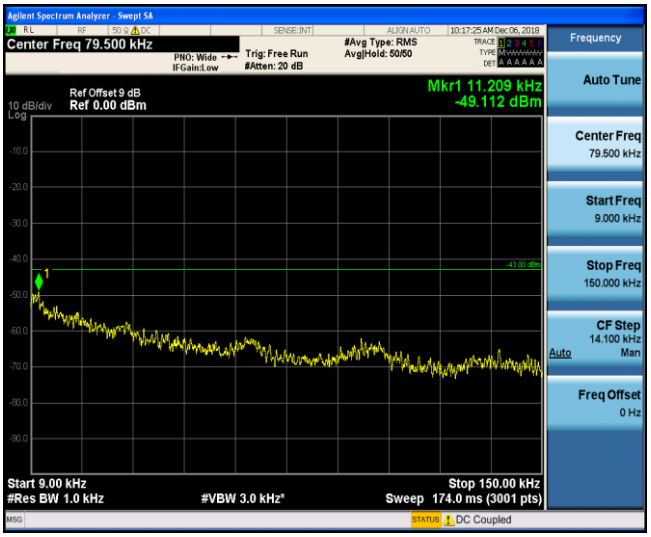
Band2_10MHz_16QAM_18900_1RB#0



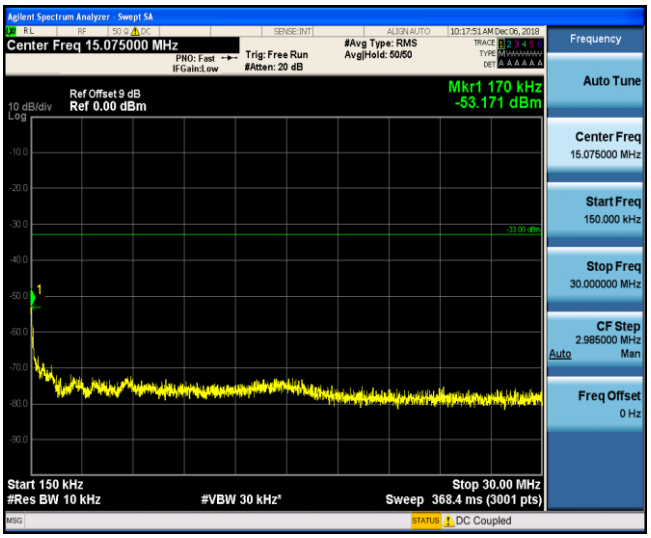
Band2_10MHz_16QAM_18900_1RB#0



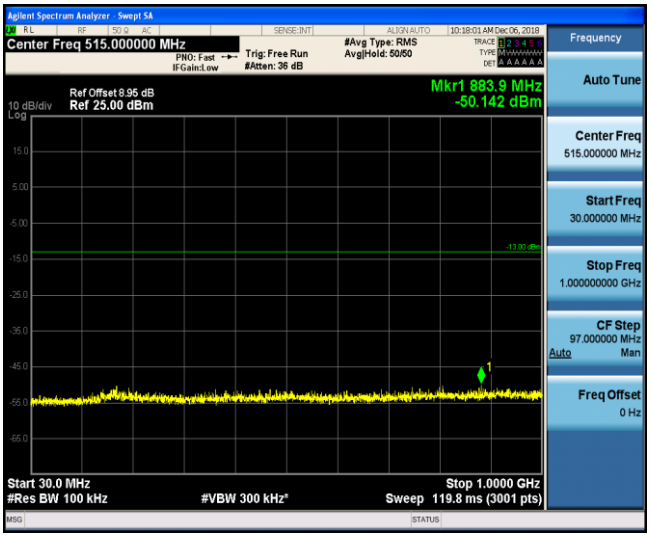
Band2_10MHz_16QAM_19150_1RB#0



Band2_10MHz_16QAM_19150_1RB#0

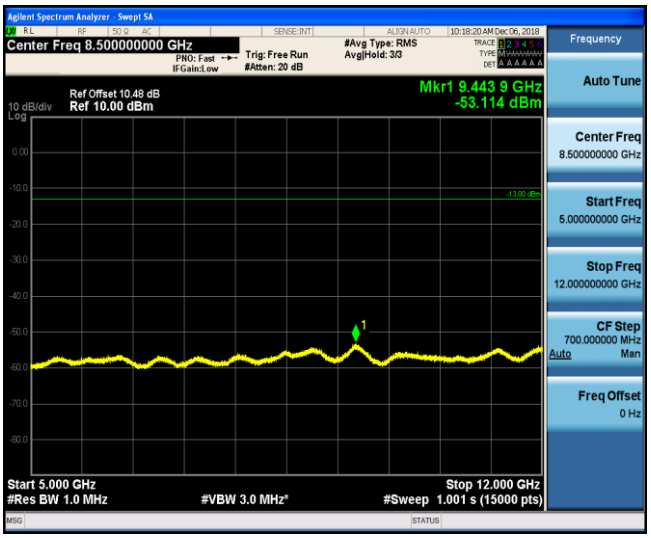


Band2_10MHz_16QAM_19150_1RB#0



Band2_10MHz_16QAM_19150_1RB#0

Band2_10MHz_16QAM_19150_1RB#0



Band2_10MHz_16QAM_19150_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
10:18:29 AM Dec 06, 2018
Frequency
Ref Offset 18.76 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 16.979 5 GHz
-40.471 dBm
-13.00 dBm
Start 12.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 18.000 GHz
#Sweep 1.001 s (15000 pts)
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	2.6	0.001405	± 2.5	PASS
		VN	TN	-0.96	-0.000519	± 2.5	PASS
		VH	TN	-0.53	-0.000286	± 2.5	PASS
	MCH	VL	TN	2.6	0.001383	± 2.5	PASS
		VN	TN	0	0.000000	± 2.5	PASS
		VH	TN	4.23	0.002250	± 2.5	PASS
	HCH	VL	TN	-0.65	-0.000340	± 2.5	PASS
		VN	TN	3.71	0.001943	± 2.5	PASS
		VH	TN	-0.5	-0.000262	± 2.5	PASS
16QAM	LCH	VL	TN	4.9	0.002648	± 2.5	PASS
		VN	TN	2.53	0.001367	± 2.5	PASS
		VH	TN	4.61	0.002491	± 2.5	PASS
	MCH	VL	TN	1.95	0.001037	± 2.5	PASS
		VN	TN	1.35	0.000718	± 2.5	PASS
		VH	TN	3.6	0.001915	± 2.5	PASS
	HCH	VL	TN	2.48	0.001299	± 2.5	PASS
		VN	TN	-0.51	-0.000267	± 2.5	PASS
		VH	TN	-0.98	-0.000513	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.97	-0.000524	± 2.5	PASS
		VN	-20	1.15	0.000621	± 2.5	PASS
		VN	-10	-1.43	-0.000773	± 2.5	PASS
		VN	0	-1.77	-0.000956	± 2.5	PASS
		VN	10	-0.46	-0.000249	± 2.5	PASS
		VN	20	3.44	0.001859	± 2.5	PASS
		VN	30	-1.29	-0.000697	± 2.5	PASS
		VN	40	3.94	0.002129	± 2.5	PASS
		VN	50	4.1	0.002215	± 2.5	PASS
	MCH	VN	-30	4.72	0.002511	± 2.5	PASS
		VN	-20	4.35	0.002314	± 2.5	PASS

		VN	-10	0.07	0.000037	± 2.5	PASS
		VN	0	-1.55	-0.000824	± 2.5	PASS
		VN	10	2.56	0.001362	± 2.5	PASS
		VN	20	0.59	0.000314	± 2.5	PASS
		VN	30	-0.99	-0.000527	± 2.5	PASS
		VN	40	-0.05	-0.000027	± 2.5	PASS
		VN	50	0.17	0.000090	± 2.5	PASS
	HCH	VN	-30	2.38	0.001247	± 2.5	PASS
		VN	-20	0.25	0.000131	± 2.5	PASS
		VN	-10	3.92	0.002053	± 2.5	PASS
		VN	0	1.57	0.000822	± 2.5	PASS
		VN	10	4.97	0.002603	± 2.5	PASS
		VN	20	0.14	0.000073	± 2.5	PASS
		VN	30	0.86	0.000450	± 2.5	PASS
		VN	40	3.37	0.001765	± 2.5	PASS
		VN	50	2.03	0.001063	± 2.5	PASS
16QAM	LCH	VN	-30	0.47	0.000254	± 2.5	PASS
		VN	-20	-1.25	-0.000675	± 2.5	PASS
		VN	-10	-0.77	-0.000416	± 2.5	PASS
		VN	0	1.45	0.000783	± 2.5	PASS
		VN	10	3.1	0.001675	± 2.5	PASS
		VN	20	1.29	0.000697	± 2.5	PASS
		VN	30	-1.52	-0.000821	± 2.5	PASS
		VN	40	1.79	0.000967	± 2.5	PASS
		VN	50	3.3	0.001783	± 2.5	PASS
	MCH	VN	-30	-0.95	-0.000505	± 2.5	PASS
		VN	-20	-1.79	-0.000952	± 2.5	PASS
		VN	-10	1.47	0.000782	± 2.5	PASS
		VN	0	2.64	0.001404	± 2.5	PASS
		VN	10	0.53	0.000282	± 2.5	PASS
		VN	20	4.45	0.002367	± 2.5	PASS
		VN	30	-0.41	-0.000218	± 2.5	PASS
		VN	40	4.86	0.002585	± 2.5	PASS
		VN	50	-1.63	-0.000867	± 2.5	PASS
	HCH	VN	-30	3.64	0.001906	± 2.5	PASS
		VN	-20	3.86	0.002022	± 2.5	PASS
		VN	-10	3.78	0.001980	± 2.5	PASS
		VN	0	1.03	0.000539	± 2.5	PASS
		VN	10	-0.4	-0.000210	± 2.5	PASS
		VN	20	-1.78	-0.000932	± 2.5	PASS
		VN	30	1.69	0.000885	± 2.5	PASS

		VN	40	1.11	0.000581	± 2.5	PASS
		VN	50	0.68	0.000356	± 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	4.05	0.002187	± 2.5	PASS
		VN	TN	2.28	0.001231	± 2.5	PASS
		VH	TN	0.8	0.000432	± 2.5	PASS
	MCH	VL	TN	3.96	0.002106	± 2.5	PASS
		VN	TN	4.83	0.002569	± 2.5	PASS
		VH	TN	1.84	0.000979	± 2.5	PASS
	HCH	VL	TN	4.68	0.002452	± 2.5	PASS
		VN	TN	-0.49	-0.000257	± 2.5	PASS
		VH	TN	3.45	0.001808	± 2.5	PASS
16QAM	LCH	VL	TN	1.04	0.000562	± 2.5	PASS
		VN	TN	1.01	0.000546	± 2.5	PASS
		VH	TN	0.06	0.000032	± 2.5	PASS
	MCH	VL	TN	1.17	0.000622	± 2.5	PASS
		VN	TN	-0.65	-0.000346	± 2.5	PASS
		VH	TN	-0.26	-0.000138	± 2.5	PASS
	HCH	VL	TN	-1.68	-0.000880	± 2.5	PASS
		VN	TN	2.28	0.001195	± 2.5	PASS
		VH	TN	-0.02	-0.000010	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.05	0.002187	± 2.5	PASS
		VN	-20	3.21	0.001734	± 2.5	PASS
		VN	-10	4.52	0.002441	± 2.5	PASS
		VN	0	0.42	0.000227	± 2.5	PASS
		VN	10	1.55	0.000837	± 2.5	PASS
		VN	20	2.09	0.001129	± 2.5	PASS
		VN	30	4.64	0.002506	± 2.5	PASS
		VN	40	0.43	0.000232	± 2.5	PASS
		VN	50	-1.79	-0.000967	± 2.5	PASS
	MCH	VN	-30	4.59	0.002441	± 2.5	PASS
		VN	-20	0.43	0.000229	± 2.5	PASS
		VN	-10	0.77	0.000410	± 2.5	PASS
		VN	0	0.43	0.000229	± 2.5	PASS

		VN	10	1.38	0.000734	± 2.5	PASS
		VN	20	1.26	0.000670	± 2.5	PASS
		VN	30	2.38	0.001266	± 2.5	PASS
		VN	40	-1.11	-0.000590	± 2.5	PASS
		VN	50	4.51	0.002399	± 2.5	PASS
	HCH	VN	-30	4.14	0.002169	± 2.5	PASS
		VN	-20	3.14	0.001645	± 2.5	PASS
		VN	-10	-1.63	-0.000854	± 2.5	PASS
		VN	0	0.43	0.000225	± 2.5	PASS
		VN	10	-0.51	-0.000267	± 2.5	PASS
		VN	20	4.19	0.002195	± 2.5	PASS
		VN	30	0.42	0.000220	± 2.5	PASS
		VN	40	-1.84	-0.000964	± 2.5	PASS
		VN	50	4.84	0.002536	± 2.5	PASS
QPSK	LCH	VN	-30	-1.64	-0.000886	± 2.5	PASS
		VN	-20	3.57	0.001928	± 2.5	PASS
		VN	-10	2.45	0.001323	± 2.5	PASS
		VN	0	2.7	0.001458	± 2.5	PASS
		VN	10	3.17	0.001712	± 2.5	PASS
		VN	20	4.36	0.002355	± 2.5	PASS
		VN	30	2.64	0.001426	± 2.5	PASS
		VN	40	-1.06	-0.000573	± 2.5	PASS
		VN	50	2.02	0.001091	± 2.5	PASS
	MCH	VN	-30	2.9	0.001543	± 2.5	PASS
		VN	-20	-0.58	-0.000309	± 2.5	PASS
		VN	-10	0.07	0.000037	± 2.5	PASS
		VN	0	0.52	0.000277	± 2.5	PASS
		VN	10	-1.97	-0.001048	± 2.5	PASS
		VN	20	0.64	0.000340	± 2.5	PASS
		VN	30	4.14	0.002202	± 2.5	PASS
		VN	40	2.92	0.001553	± 2.5	PASS
		VN	50	1.08	0.000574	± 2.5	PASS
	HCH	VN	-30	-1.97	-0.001032	± 2.5	PASS
		VN	-20	2.76	0.001446	± 2.5	PASS
		VN	-10	-1.04	-0.000545	± 2.5	PASS
		VN	0	-0.26	-0.000136	± 2.5	PASS
		VN	10	3.24	0.001698	± 2.5	PASS
		VN	20	1.9	0.000996	± 2.5	PASS
		VN	30	1.26	0.000660	± 2.5	PASS
		VN	40	3.85	0.002017	± 2.5	PASS
		VN	50	-0.41	-0.000215	± 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	-0.32	-0.000173	± 2.5	PASS
		VN	TN	4.75	0.002564	± 2.5	PASS
		VH	TN	3.46	0.001868	± 2.5	PASS
	MCH	VL	TN	-1.37	-0.000729	± 2.5	PASS
		VN	TN	4.33	0.002303	± 2.5	PASS
		VH	TN	4.64	0.002468	± 2.5	PASS
	HCH	VL	TN	3.76	0.001971	± 2.5	PASS
		VN	TN	3.00	0.001573	± 2.5	PASS
		VH	TN	-1.00	-0.000524	± 2.5	PASS
16QAM	LCH	VL	TN	-1.47	-0.000794	± 2.5	PASS
		VN	TN	4.75	0.002564	± 2.5	PASS
		VH	TN	-1.89	-0.001020	± 2.5	PASS
	MCH	VL	TN	4.00	0.002128	± 2.5	PASS
		VN	TN	-1.25	-0.000665	± 2.5	PASS
		VH	TN	-1.39	-0.000739	± 2.5	PASS
	HCH	VL	TN	4.49	0.002354	± 2.5	PASS
		VN	TN	1.05	0.000550	± 2.5	PASS
		VH	TN	3.79	0.001987	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.44	0.000777	± 2.5	PASS
		VN	-20	-0.63	-0.000340	± 2.5	PASS
		VN	-10	2.77	0.001495	± 2.5	PASS
		VN	0	3.36	0.001814	± 2.5	PASS
		VN	10	-1.97	-0.001063	± 2.5	PASS
		VN	20	4.63	0.002499	± 2.5	PASS
		VN	30	0.53	0.000286	± 2.5	PASS
		VN	40	4.14	0.002235	± 2.5	PASS
		VN	50	3.71	0.002003	± 2.5	PASS
	MCH	VN	-30	-0.26	-0.000138	± 2.5	PASS
		VN	-20	4.29	0.002282	± 2.5	PASS
		VN	-10	3.79	0.002016	± 2.5	PASS
		VN	0	1.26	0.000670	± 2.5	PASS
		VN	10	2.71	0.001441	± 2.5	PASS
		VN	20	2.86	0.001521	± 2.5	PASS
		VN	30	1.21	0.000644	± 2.5	PASS

		VN	40	2.22	0.001181	± 2.5	PASS
		VN	50	4.47	0.002378	± 2.5	PASS
	HCH	VN	-30	-0.48	-0.000252	± 2.5	PASS
		VN	-20	1.80	0.000944	± 2.5	PASS
		VN	-10	0.79	0.000414	± 2.5	PASS
		VN	0	2.19	0.001148	± 2.5	PASS
		VN	10	4.38	0.002296	± 2.5	PASS
		VN	20	-0.73	-0.000383	± 2.5	PASS
		VN	30	-1.46	-0.000765	± 2.5	PASS
		VN	40	-1.34	-0.000702	± 2.5	PASS
		VN	50	-1.54	-0.000807	± 2.5	PASS
16QAM	LCH	VN	-30	-1.47	-0.000794	± 2.5	PASS
		VN	-20	1.97	0.001063	± 2.5	PASS
		VN	-10	-1.57	-0.000848	± 2.5	PASS
		VN	0	0.82	0.000443	± 2.5	PASS
		VN	10	0.81	0.000437	± 2.5	PASS
		VN	20	-1.00	-0.000540	± 2.5	PASS
		VN	30	3.20	0.001727	± 2.5	PASS
		VN	40	-1.59	-0.000858	± 2.5	PASS
		VN	50	4.20	0.002267	± 2.5	PASS
	MCH	VN	-30	3.89	0.002069	± 2.5	PASS
		VN	-20	1.53	0.000814	± 2.5	PASS
		VN	-10	3.51	0.001867	± 2.5	PASS
		VN	0	4.03	0.002144	± 2.5	PASS
		VN	10	-1.46	-0.000777	± 2.5	PASS
		VN	20	-1.56	-0.000830	± 2.5	PASS
		VN	30	-0.55	-0.000293	± 2.5	PASS
		VN	40	0.10	0.000053	± 2.5	PASS
		VN	50	1.31	0.000697	± 2.5	PASS
	HCH	VN	-30	-1.47	-0.000771	± 2.5	PASS
		VN	-20	1.30	0.000682	± 2.5	PASS
		VN	-10	-1.13	-0.000592	± 2.5	PASS
		VN	0	-1.72	-0.000902	± 2.5	PASS
		VN	10	3.39	0.001777	± 2.5	PASS
		VN	20	1.77	0.000928	± 2.5	PASS
		VN	30	3.27	0.001714	± 2.5	PASS
		VN	40	4.24	0.002223	± 2.5	PASS
		VN	50	4.24	0.002223	± 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	4.26	0.002296	± 2.5	PASS
		VN	TN	-0.59	-0.000318	± 2.5	PASS
		VH	TN	3.11	0.001677	± 2.5	PASS
	MCH	VL	TN	4.07	0.002165	± 2.5	PASS
		VN	TN	0.02	0.000011	± 2.5	PASS
		VH	TN	4.30	0.002287	± 2.5	PASS
	HCH	VL	TN	0.75	0.000394	± 2.5	PASS
		VN	TN	-0.33	-0.000173	± 2.5	PASS
		VH	TN	1.29	0.000677	± 2.5	PASS
16QAM	LCH	VL	TN	0.61	0.000329	± 2.5	PASS
		VN	TN	2.83	0.001526	± 2.5	PASS
		VH	TN	1.43	0.000771	± 2.5	PASS
	MCH	VL	TN	-1.56	-0.000830	± 2.5	PASS
		VN	TN	4.65	0.002473	± 2.5	PASS
		VH	TN	2.25	0.001197	± 2.5	PASS
	HCH	VL	TN	-0.53	-0.000278	± 2.5	PASS
		VN	TN	-0.94	-0.000493	± 2.5	PASS
		VH	TN	2.39	0.001255	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	4.70	0.002534	± 2.5	PASS
		VN	-20	4.39	0.002367	± 2.5	PASS
		VN	-10	2.54	0.001369	± 2.5	PASS
		VN	0	0.29	0.000156	± 2.5	PASS
		VN	10	0.93	0.000501	± 2.5	PASS
		VN	20	4.42	0.002383	± 2.5	PASS
		VN	30	3.14	0.001693	± 2.5	PASS
		VN	40	1.47	0.000792	± 2.5	PASS
		VN	50	-1.32	-0.000712	± 2.5	PASS
	MCH	VN	-30	-0.62	-0.000330	± 2.5	PASS
		VN	-20	4.84	0.002574	± 2.5	PASS
		VN	-10	1.76	0.000936	± 2.5	PASS
		VN	0	-0.40	-0.000213	± 2.5	PASS
		VN	10	2.68	0.001426	± 2.5	PASS
		VN	20	3.41	0.001814	± 2.5	PASS

		VN	30	1.18	0.000628	± 2.5	PASS
		VN	40	0.84	0.000447	± 2.5	PASS
		VN	50	3.31	0.001761	± 2.5	PASS
	HCH	VN	-30	3.80	0.001995	± 2.5	PASS
		VN	-20	4.09	0.002147	± 2.5	PASS
		VN	-10	2.43	0.001276	± 2.5	PASS
		VN	0	0.66	0.000346	± 2.5	PASS
		VN	10	-1.65	-0.000866	± 2.5	PASS
		VN	20	-1.04	-0.000546	± 2.5	PASS
		VN	30	0.51	0.000268	± 2.5	PASS
		VN	40	-0.14	-0.000073	± 2.5	PASS
		VN	50	4.97	0.002609	± 2.5	PASS
QPSK	LCH	VN	-30	1.48	0.000798	± 2.5	PASS
		VN	-20	2.00	0.001078	± 2.5	PASS
		VN	-10	-0.14	-0.000075	± 2.5	PASS
		VN	0	0.80	0.000431	± 2.5	PASS
		VN	10	-1.88	-0.001013	± 2.5	PASS
		VN	20	1.01	0.000544	± 2.5	PASS
		VN	30	4.51	0.002431	± 2.5	PASS
		VN	40	-1.62	-0.000873	± 2.5	PASS
		VN	50	1.15	0.000620	± 2.5	PASS
	MCH	VN	-30	-1.23	-0.000654	± 2.5	PASS
		VN	-20	-1.60	-0.000851	± 2.5	PASS
		VN	-10	1.41	0.000750	± 2.5	PASS
		VN	0	4.42	0.002351	± 2.5	PASS
		VN	10	2.79	0.001484	± 2.5	PASS
		VN	20	0.91	0.000484	± 2.5	PASS
		VN	30	4.97	0.002644	± 2.5	PASS
		VN	40	3.77	0.002005	± 2.5	PASS
		VN	50	0.57	0.000303	± 2.5	PASS
	HCH	VN	-30	4.72	0.002478	± 2.5	PASS
		VN	-20	-1.72	-0.000903	± 2.5	PASS
		VN	-10	-0.47	-0.000247	± 2.5	PASS
		VN	0	1.54	0.000808	± 2.5	PASS
		VN	10	0.68	0.000357	± 2.5	PASS
		VN	20	-1.66	-0.000871	± 2.5	PASS
		VN	30	2.15	0.001129	± 2.5	PASS
		VN	40	-0.03	-0.000016	± 2.5	PASS
		VN	50	3.11	0.001633	± 2.5	PASS