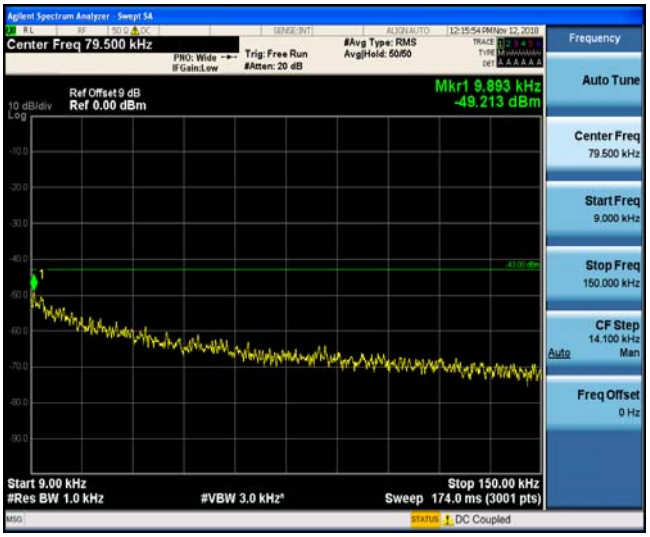
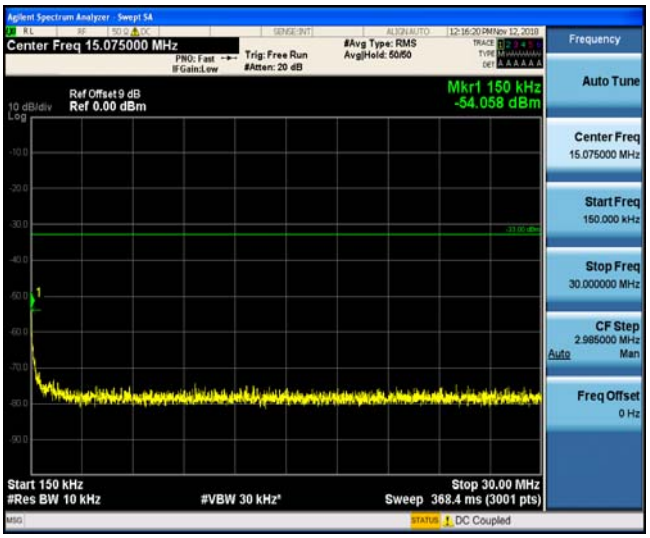
Band4_5MHz_16QAM_20175_1RB#0



Band4_5MHz_16QAM_20175_1RB#0



Band4_5MHz_16QAM_20175_1RB#0

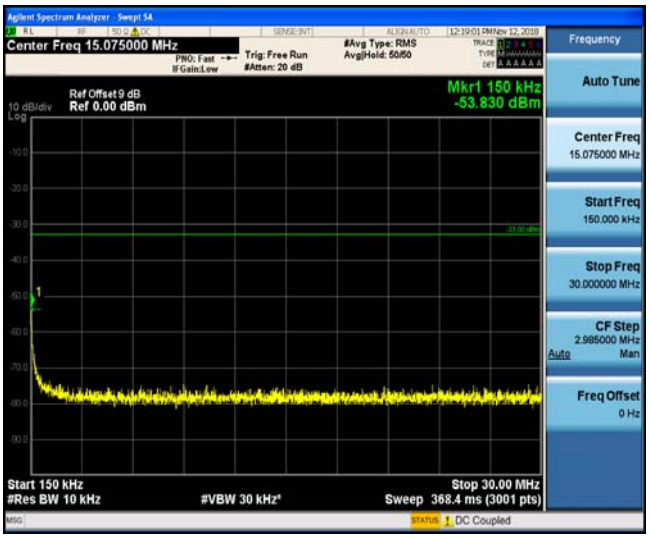
Band4_5MHz_16QAM_20175_1RB#0

Band4_5MHz_16QAM_20175_1RB#0

Band4_5MHz_16QAM_20175_1RB#0

Band4_5MHz_16QAM_20375_1RB#0

Band4_5MHz_16QAM_20375_1RB#0



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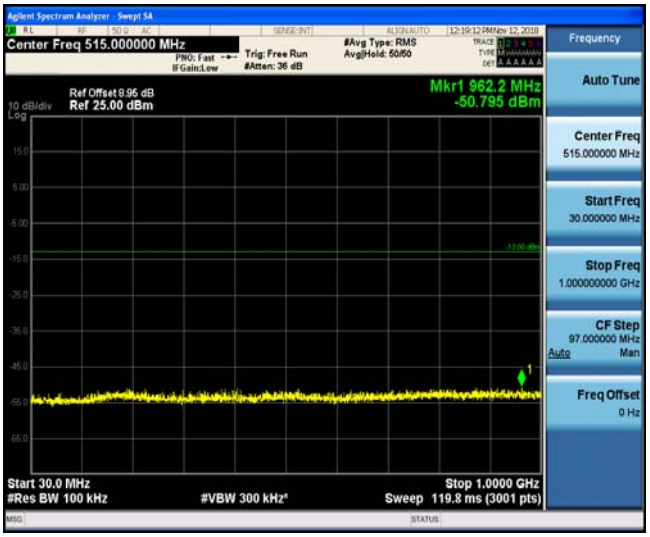

Band4_5MHz_16QAM_20375_1RB#0

Band4_5MHz_16QAM_20375_1RB#0

Band4_5MHz_16QAM_20375_1RB#0

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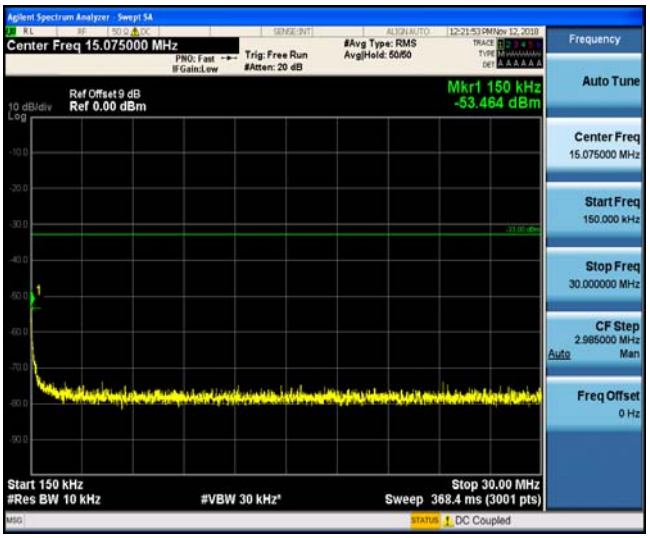
Band4_10MHz_QPSK_20000_1RB#0



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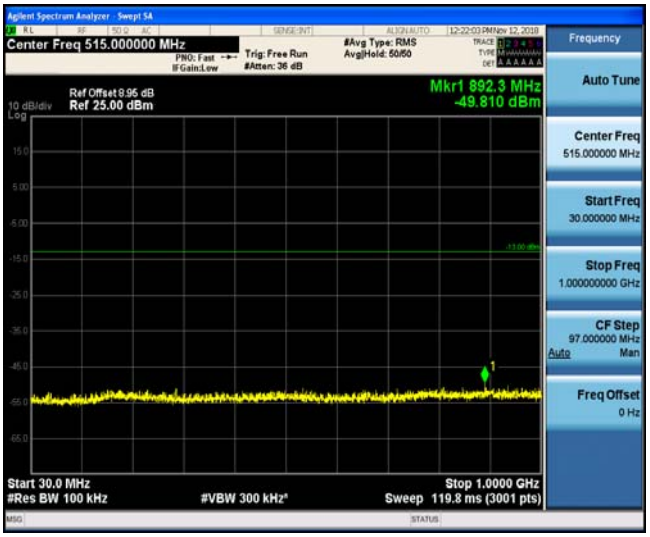

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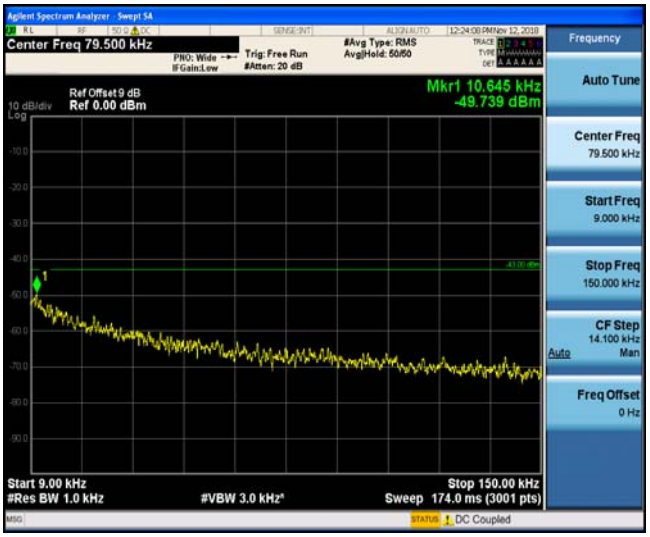
Band4_10MHz_QPSK_20175_1RB#0



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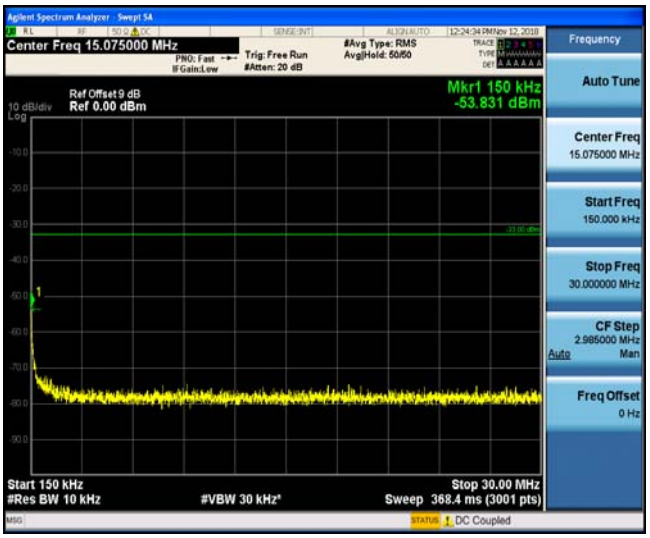

Band4_10MHz_QPSK_20175_1RB#0

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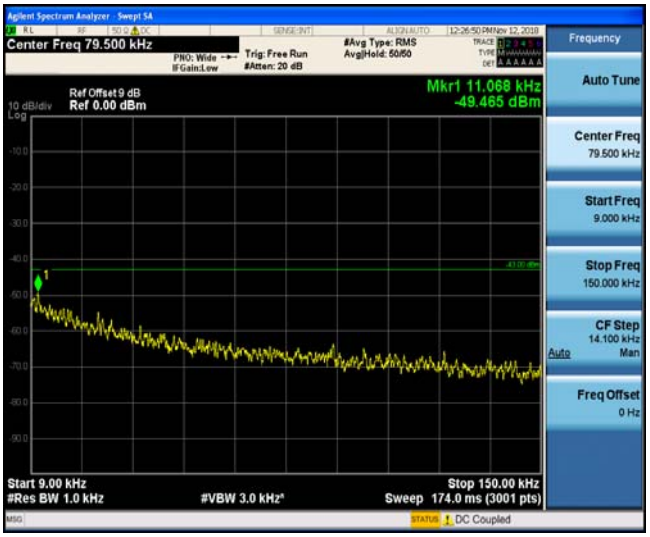
Band4_10MHz_QPSK_20350_1RB#0



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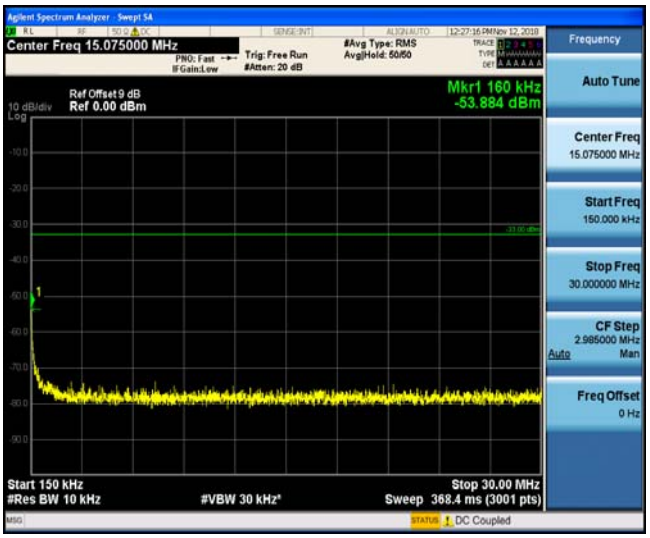

Band4_10MHz_QPSK_20350_1RB#0

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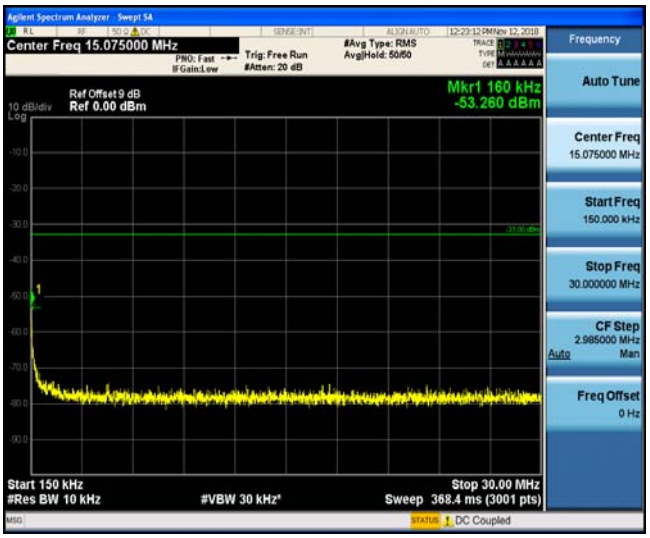
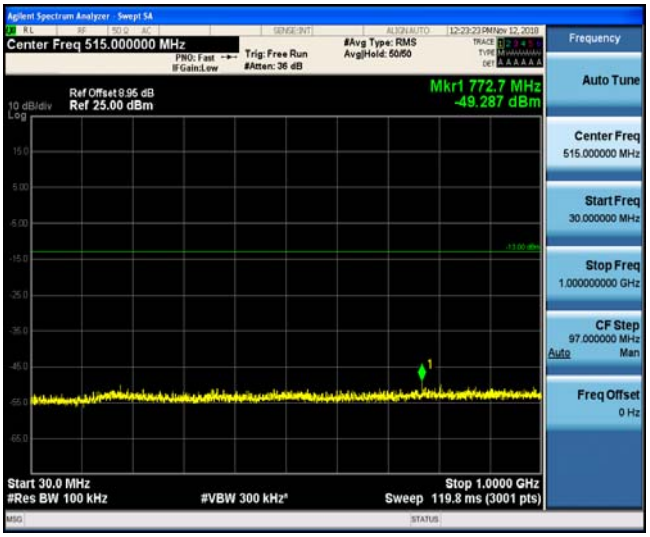
Band4_10MHz_QPSK_20350_1RB#0

Band4_10MHz_16QAM_20000_1RB#0

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

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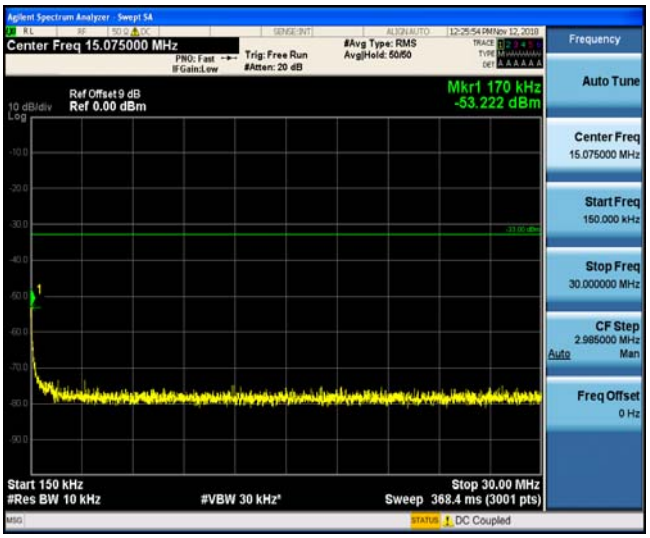
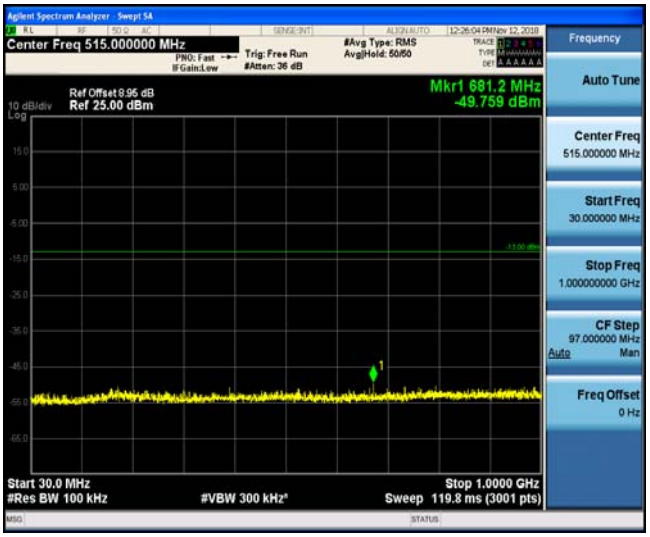
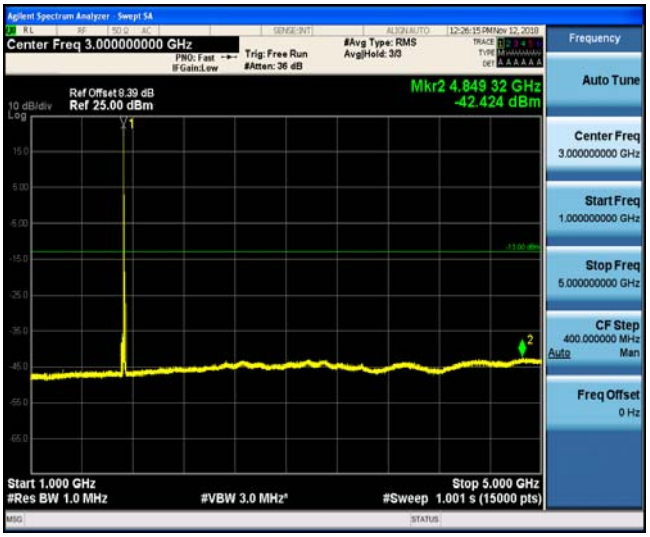
Band4_10MHz_16QAM_20175_1RB#0



Band4_10MHz_16QAM_20175_1RB#0



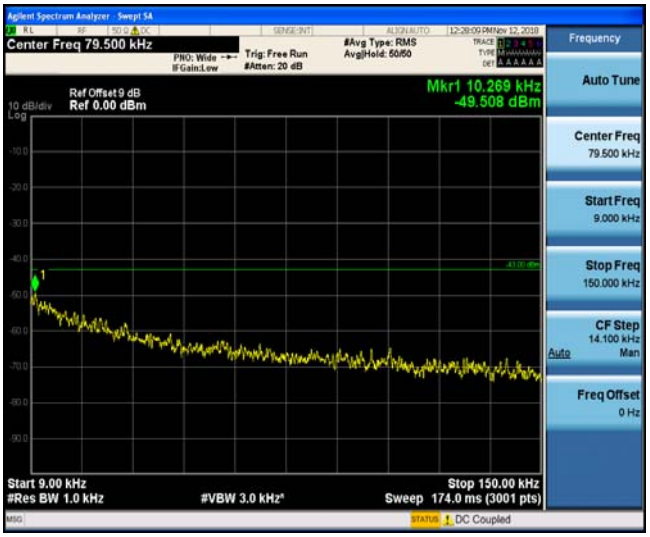
Band4_10MHz_16QAM_20175_1RB#0



Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20175_1RB#0

Band4_10MHz_16QAM_20350_1RB#0



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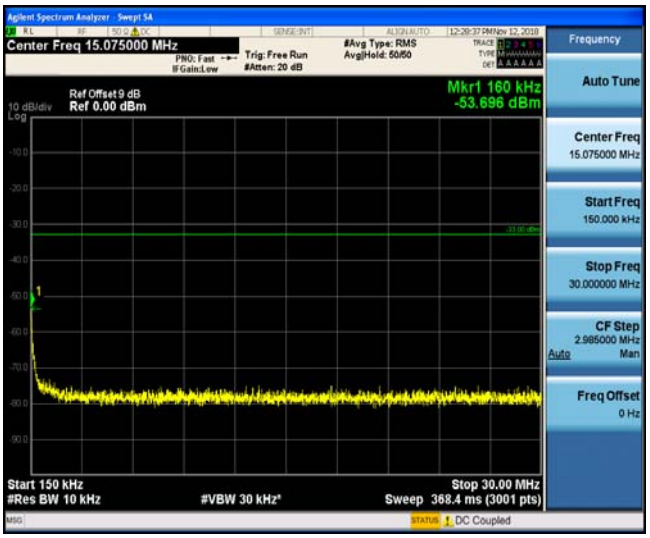

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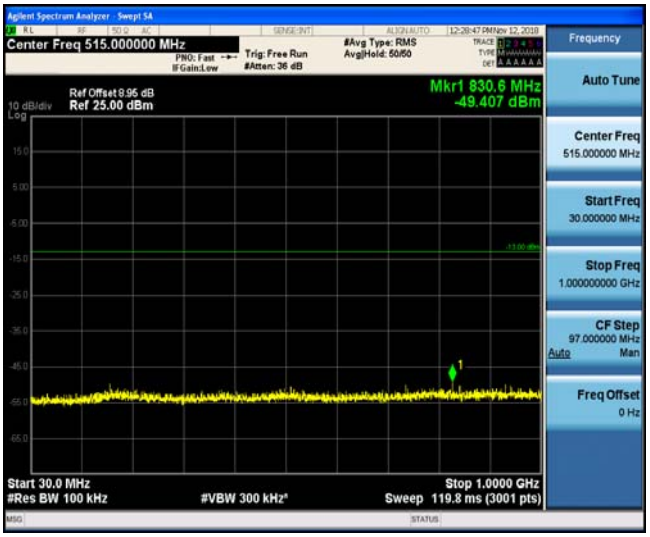
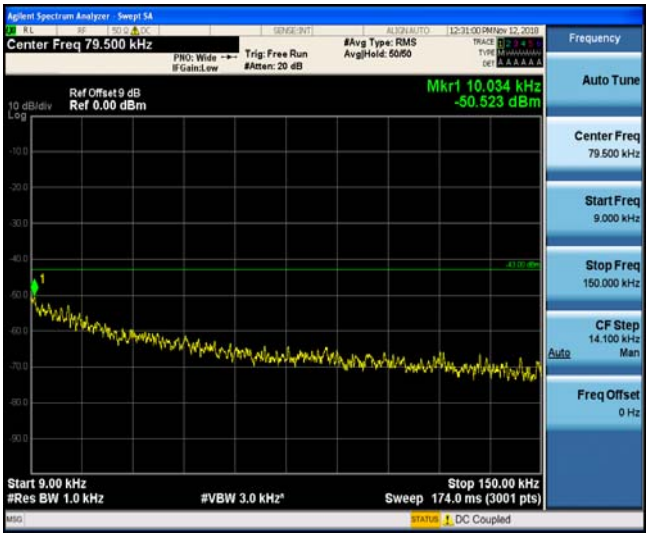


Band4_10MHz_16QAM_20350_1RB#0

Band4_10MHz_16QAM_20350_1RB#0

Band4_10MHz_16QAM_20350_1RB#0

Band4_15MHz_QPSK_20025_1RB#0



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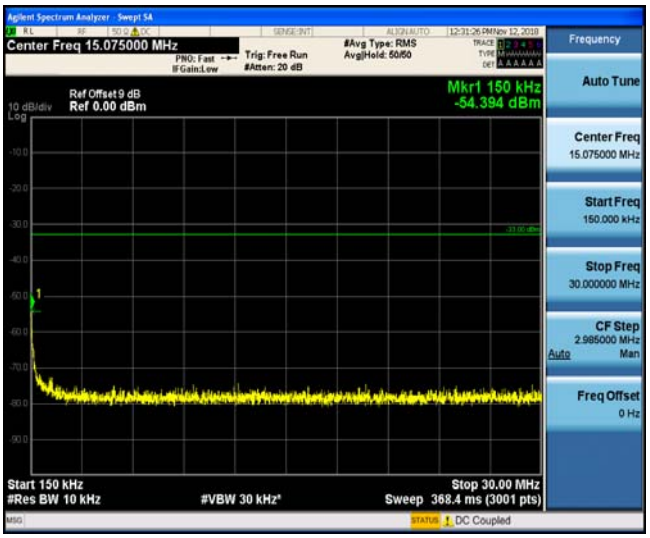

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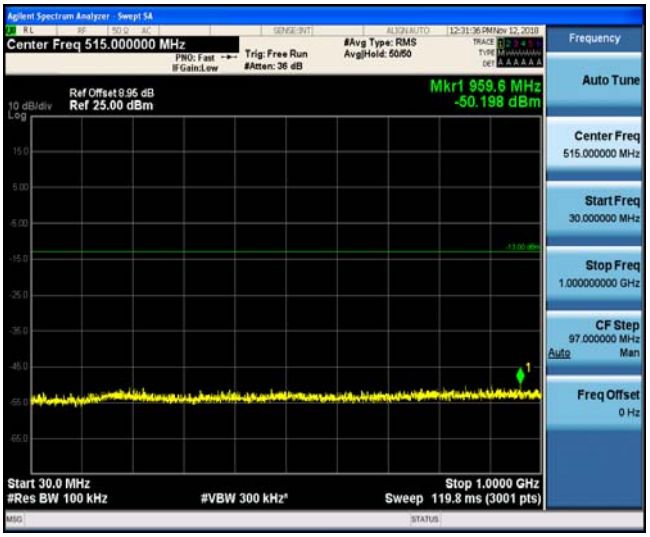

Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20025_1RB#0

Band4_15MHz_QPSK_20175_1RB#0

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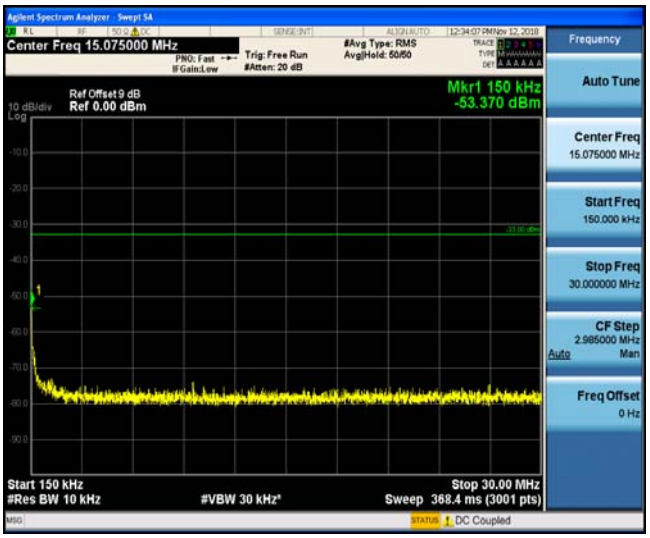

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Band4_15MHz_QPSK_20175_1RB#0

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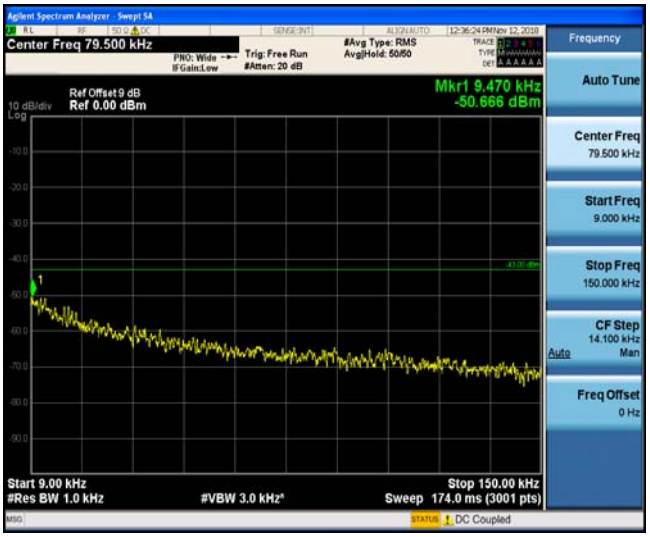
Band4_15MHz_QPSK_20325_1RB#0



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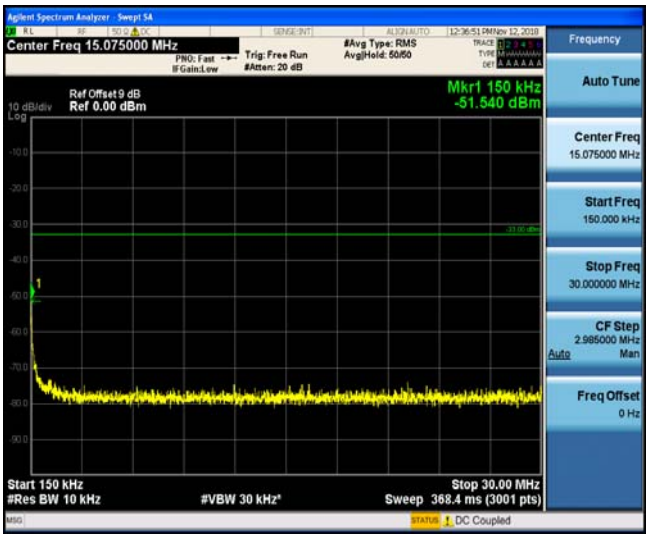

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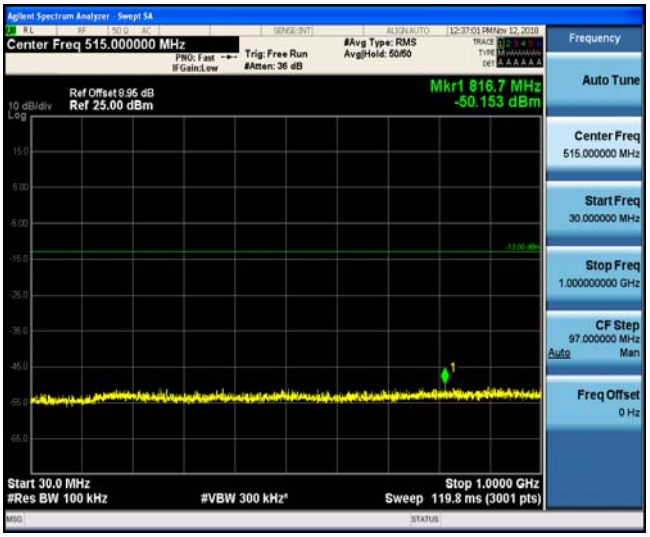

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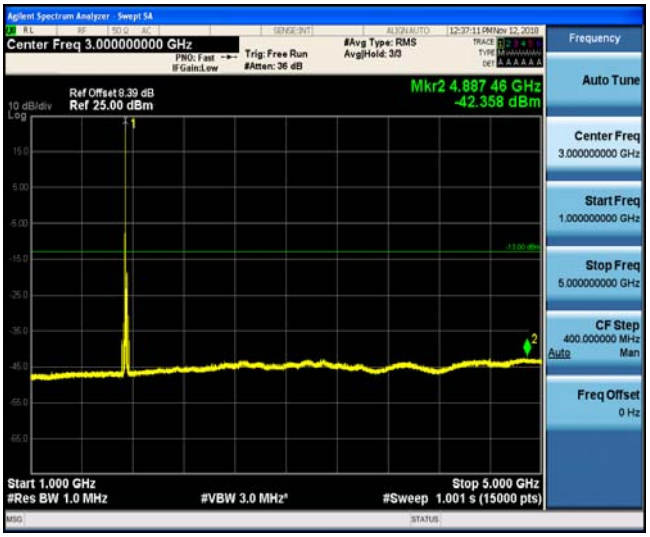

Band4_15MHz_QPSK_20325_1RB#0

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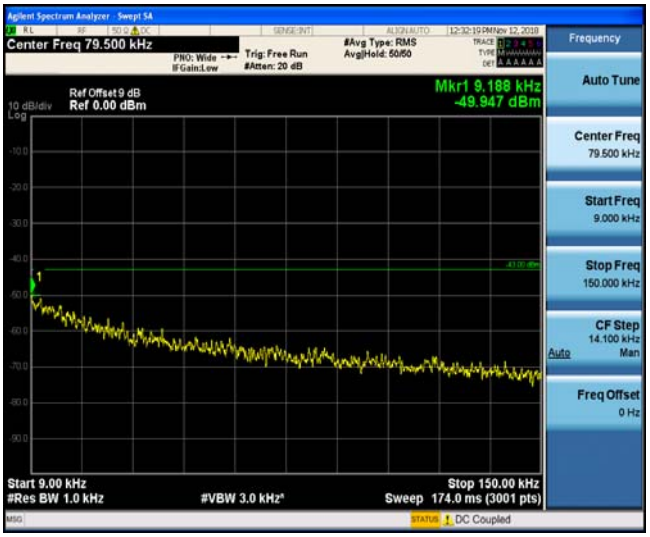
Band4_15MHz_16QAM_20025_1RB#0



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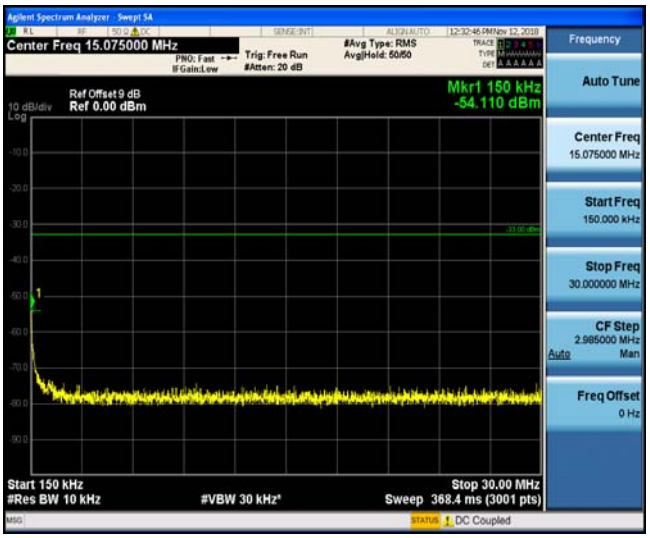

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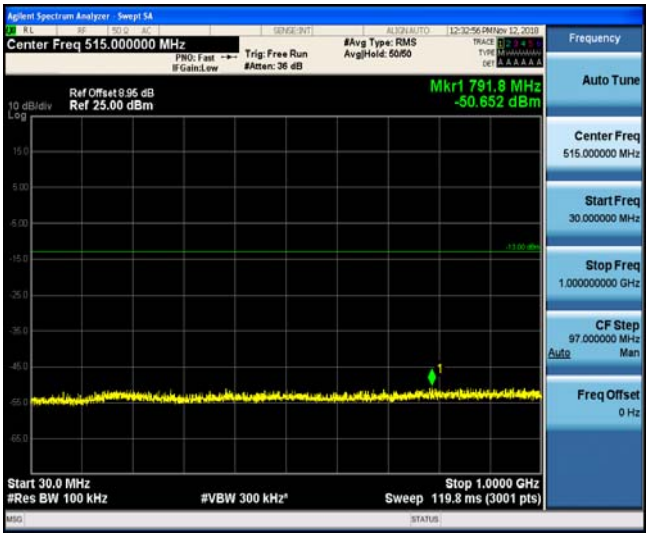
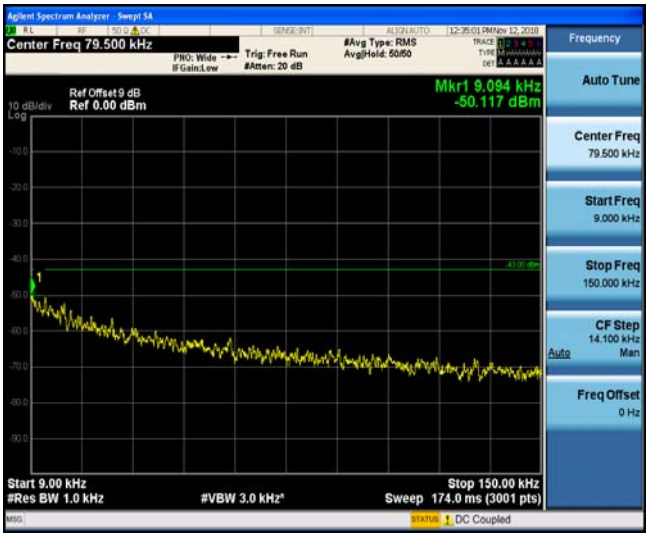


Band4_15MHz_16QAM_20025_1RB#0

Band4_15MHz_16QAM_20025_1RB#0

Band4_15MHz_16QAM_20025_1RB#0

Band4_15MHz_16QAM_20175_1RB#0



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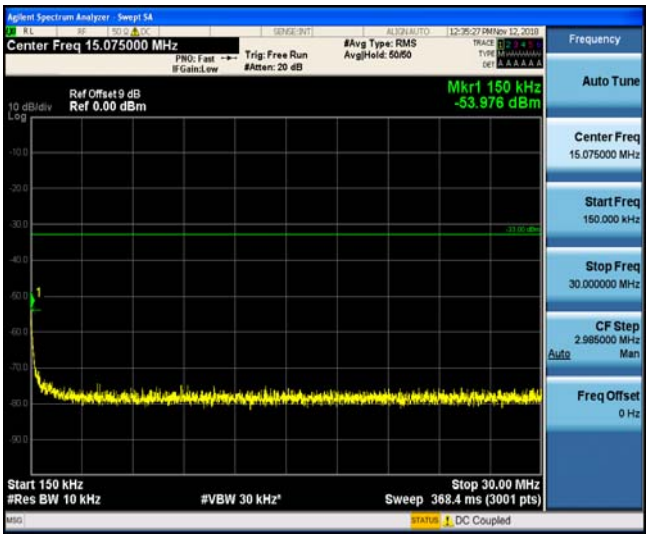

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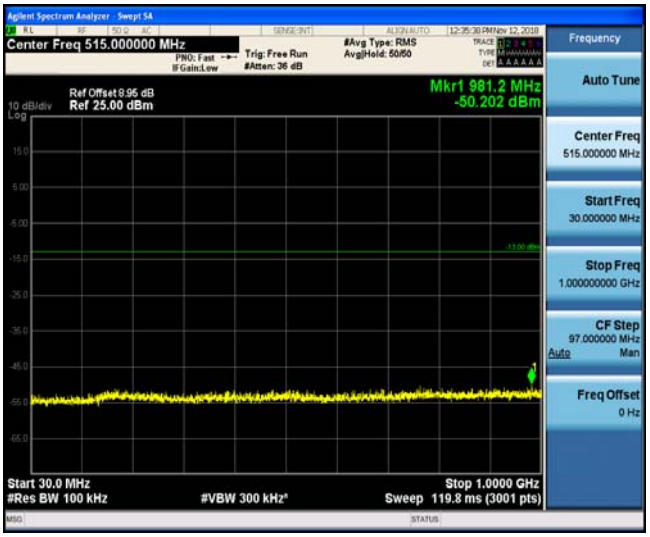

Band4_15MHz_16QAM_20175_1RB#0

Band4_15MHz_16QAM_20175_1RB#0

Band4_15MHz_16QAM_20175_1RB#0

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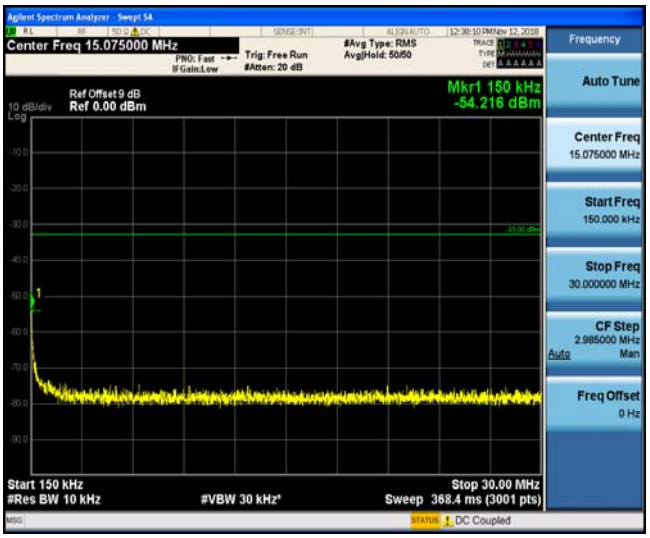
Band4_15MHz_16QAM_20325_1RB#0



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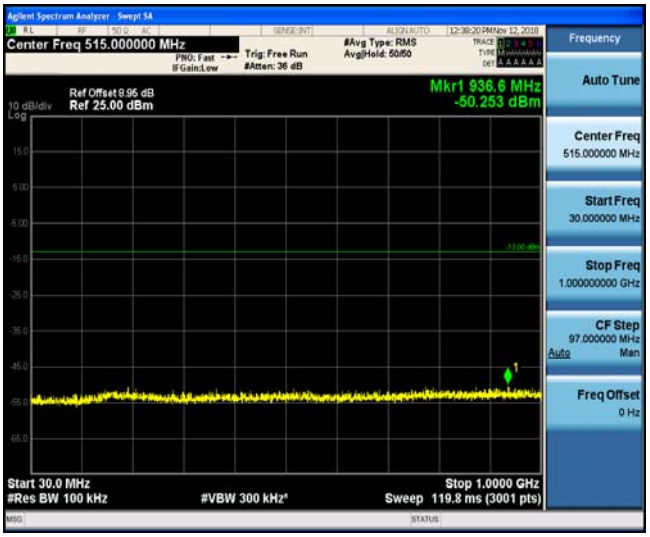
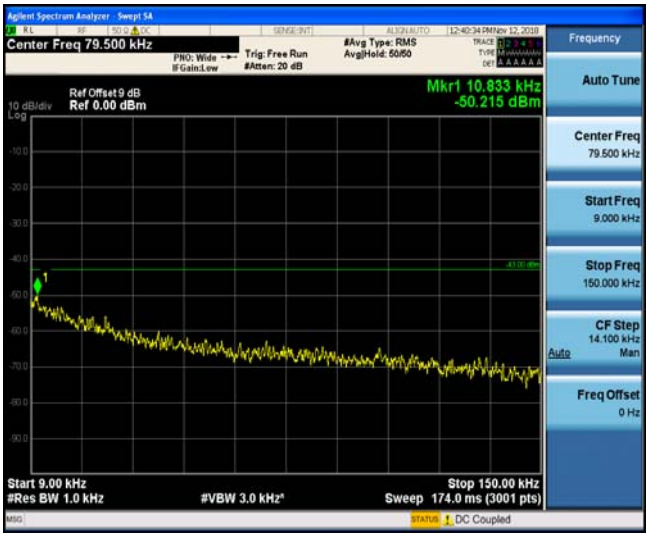


Band4_15MHz_16QAM_20325_1RB#0

Band4_15MHz_16QAM_20325_1RB#0

Band4_15MHz_16QAM_20325_1RB#0

Band4_20MHz_QPSK_20050_1RB#0



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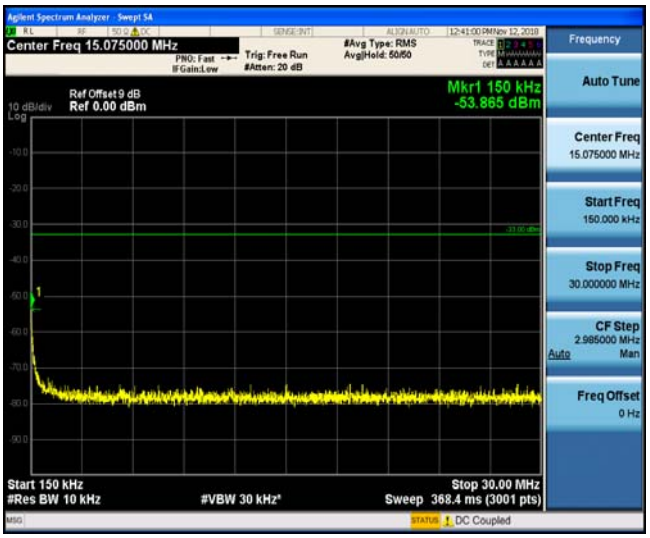

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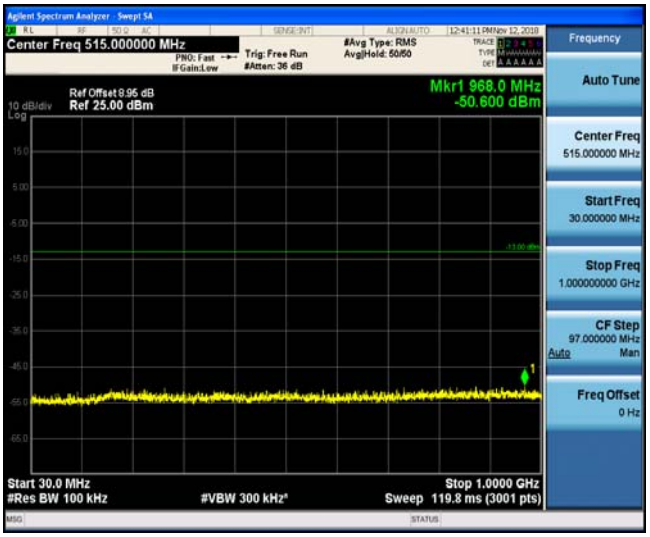


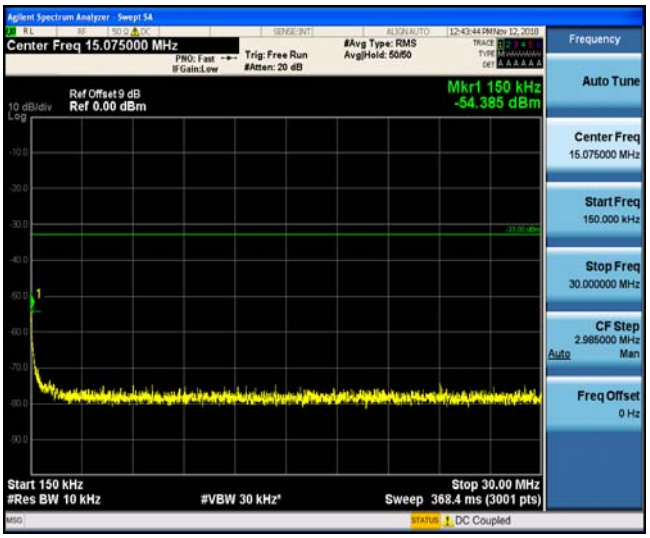
Band4_20MHz_QPSK_20050_1RB#0

Band4_20MHz_QPSK_20050_1RB#0

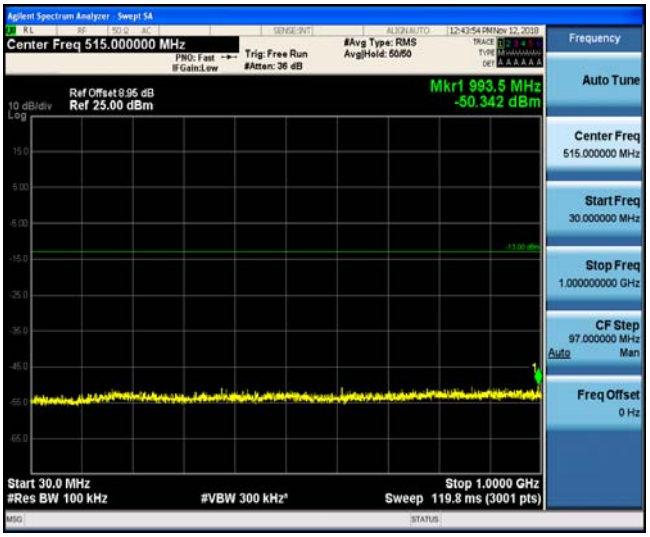
Band4_20MHz_QPSK_20050_1RB#0

Band4_20MHz_QPSK_20175_1RB#0

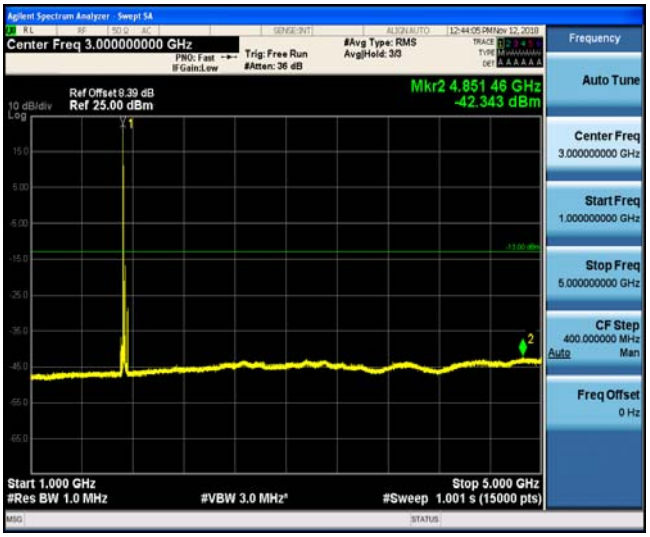
Band4_20MHz_QPSK_20175_1RB#0



Band4_20MHz_QPSK_20175_1RB#0



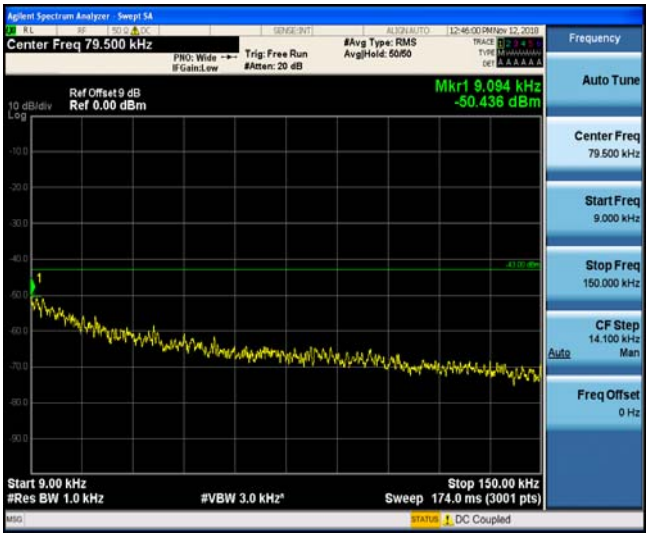
Band4_20MHz_QPSK_20175_1RB#0



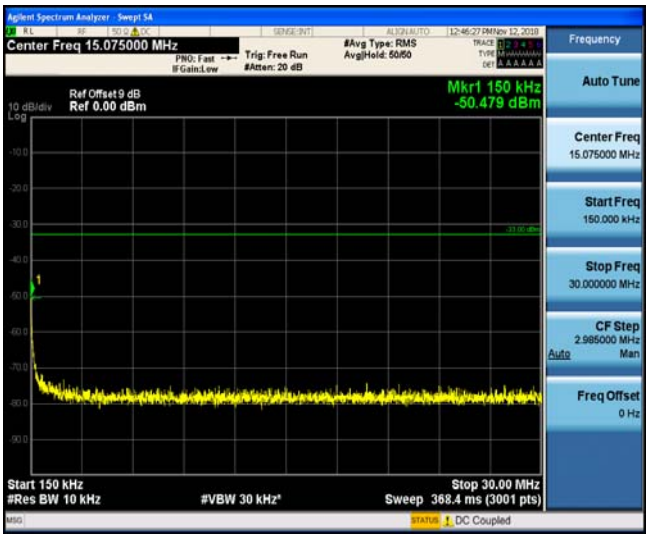
Band4_20MHz_QPSK_20175_1RB#0

Band4_20MHz_QPSK_20175_1RB#0

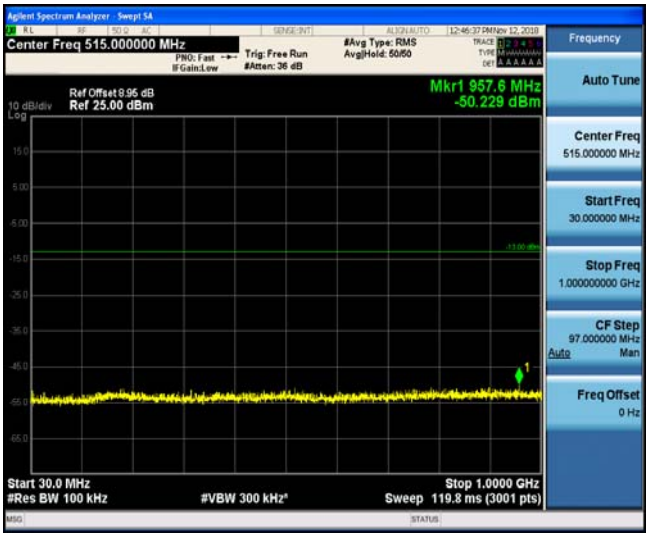
Band4_20MHz_QPSK_20300_1RB#0



Band4_20MHz_QPSK_20300_1RB#0



Band4_20MHz_QPSK_20300_1RB#0

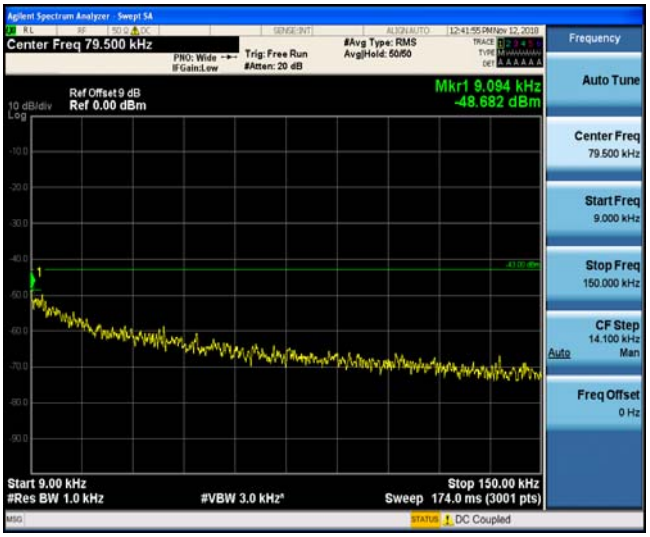


Band4_20MHz_QPSK_20300_1RB#0

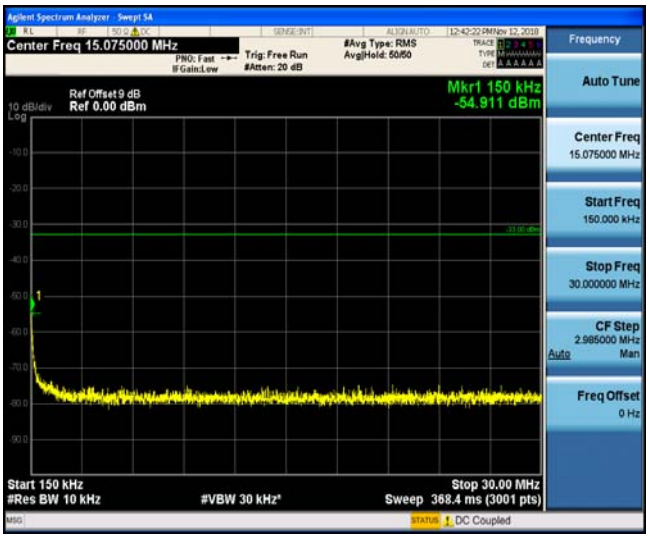
Band4_20MHz_QPSK_20300_1RB#0

Band4_20MHz_QPSK_20300_1RB#0

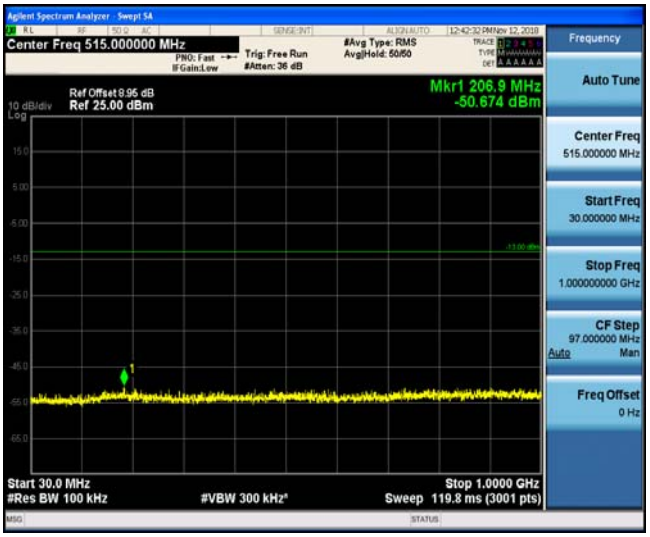
Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_1RB#0

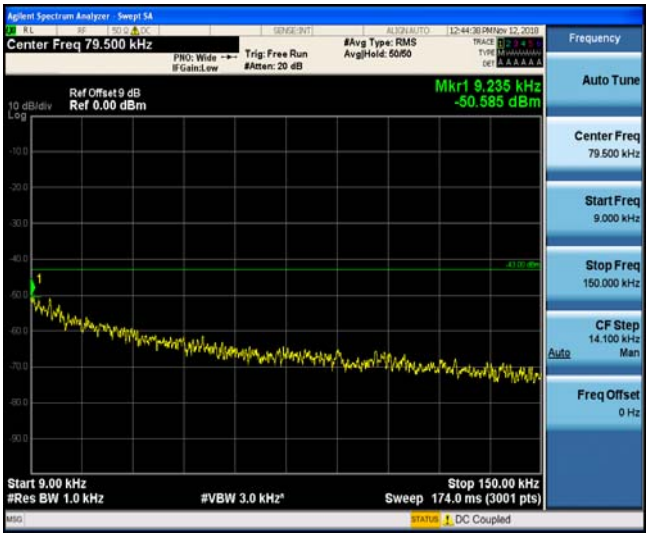


Band4_20MHz_16QAM_20050_1RB#0

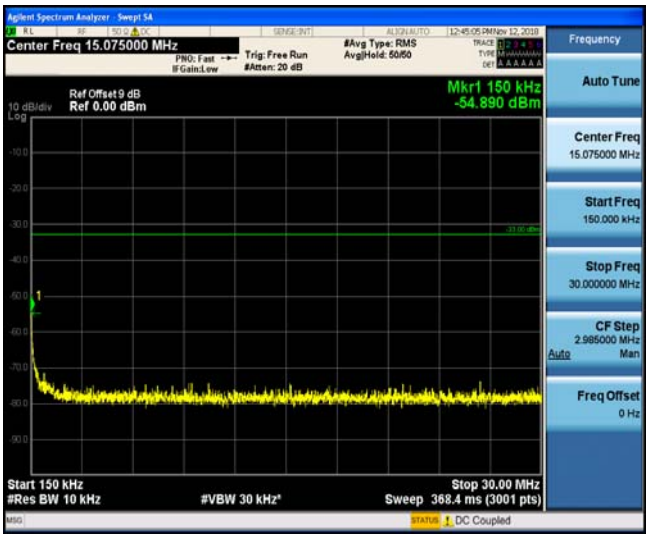
Band4_20MHz_16QAM_20050_1RB#0

Band4_20MHz_16QAM_20050_1RB#0

Band4_20MHz_16QAM_20175_1RB#0

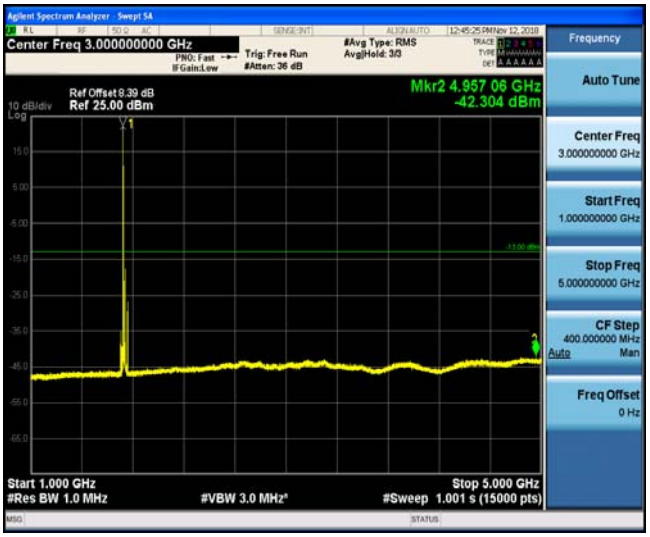


Band4_20MHz_16QAM_20175_1RB#0



Band4_20MHz_16QAM_20175_1RB#0

Band4_20MHz_16QAM_20175_1RB#0

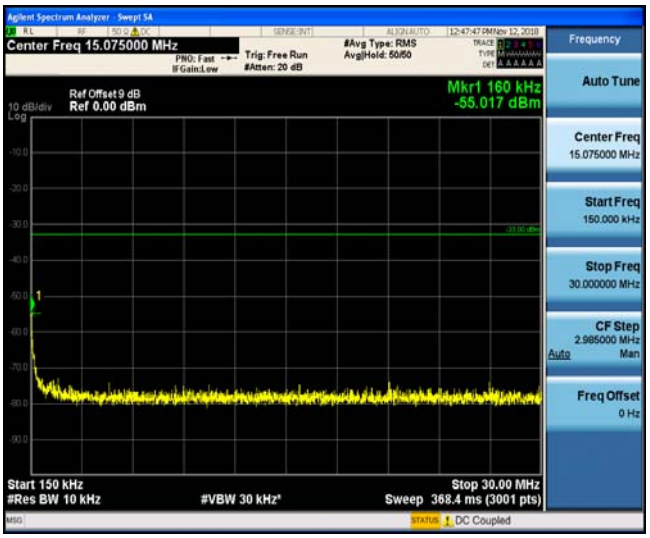


Band4_20MHz_16QAM_20175_1RB#0

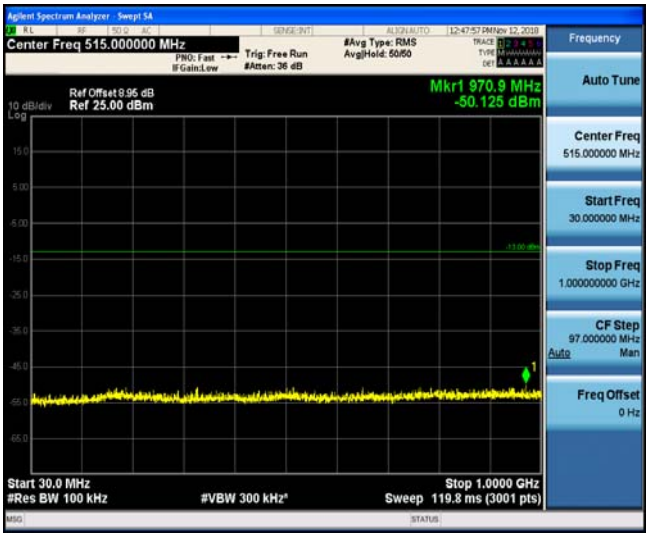
Band4_20MHz_16QAM_20175_1RB#0

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
Ref Offset 18.76 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 17.026 3 GHz
-40.517 dBm
Center Freq
15.000000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
18.000000000 GHz
CF Step
600.000000 MHz
Auto
Man
Freq Offset
0 Hz
Start 12.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 18.000 GHz
#Sweep 1.001 s (15000 pts)

Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.6	0.002104	± 2.5	PASS
		VN	TN	4.42	0.002584	± 2.5	PASS
		VH	TN	3.86	0.002256	± 2.5	PASS
	MCH	VL	TN	2.5	0.001443	± 2.5	PASS
		VN	TN	0.25	0.000144	± 2.5	PASS
		VH	TN	-1.08	-0.000623	± 2.5	PASS
	HCH	VL	TN	2.06	0.001174	± 2.5	PASS
		VN	TN	3.59	0.002046	± 2.5	PASS
		VH	TN	-1.57	-0.000895	± 2.5	PASS
16QAM	LCH	VL	TN	4.75	0.002777	± 2.5	PASS
		VN	TN	4.35	0.002543	± 2.5	PASS
		VH	TN	2.86	0.001672	± 2.5	PASS
	MCH	VL	TN	2.91	0.001680	± 2.5	PASS
		VN	TN	0.89	0.000514	± 2.5	PASS
		VH	TN	0.21	0.000121	± 2.5	PASS
	HCH	VL	TN	0.38	0.000217	± 2.5	PASS
		VN	TN	2.96	0.001687	± 2.5	PASS
		VH	TN	1.41	0.000804	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.83	0.002823	± 2.5	PASS
		VN	-20	0.66	0.000386	± 2.5	PASS
		VN	-10	3.15	0.001841	± 2.5	PASS
		VN	0	3.35	0.001958	± 2.5	PASS
		VN	10	4.48	0.002619	± 2.5	PASS
		VN	20	1.42	0.000830	± 2.5	PASS
		VN	30	-1.49	-0.000871	± 2.5	PASS
		VN	40	-0.22	-0.000129	± 2.5	PASS
		VN	50	-1.12	-0.000655	± 2.5	PASS
	MCH	VN	-30	4.59	0.002649	± 2.5	PASS
		VN	-20	2.16	0.001247	± 2.5	PASS

		VN	-10	-0.96	-0.000554	± 2.5	PASS
		VN	0	-0.17	-0.000098	± 2.5	PASS
		VN	10	-0.2	-0.000115	± 2.5	PASS
		VN	20	0.71	0.000410	± 2.5	PASS
		VN	30	-0.07	-0.000040	± 2.5	PASS
		VN	40	4.15	0.002395	± 2.5	PASS
		VN	50	1.95	0.001126	± 2.5	PASS
	HCH	VN	-30	3.13	0.001784	± 2.5	PASS
		VN	-20	4.42	0.002520	± 2.5	PASS
		VN	-10	4.34	0.002474	± 2.5	PASS
		VN	0	0.78	0.000445	± 2.5	PASS
		VN	10	4.07	0.002320	± 2.5	PASS
		VN	20	3.63	0.002069	± 2.5	PASS
		VN	30	3.52	0.002006	± 2.5	PASS
		VN	40	-0.97	-0.000553	± 2.5	PASS
		VN	50	1.01	0.000576	± 2.5	PASS
16QAM	LCH	VN	-30	-1.54	-0.000900	± 2.5	PASS
		VN	-20	3.9	0.002280	± 2.5	PASS
		VN	-10	2.99	0.001748	± 2.5	PASS
		VN	0	2.51	0.001467	± 2.5	PASS
		VN	10	-1.27	-0.000742	± 2.5	PASS
		VN	20	-0.47	-0.000275	± 2.5	PASS
		VN	30	1.31	0.000766	± 2.5	PASS
		VN	40	-0.74	-0.000433	± 2.5	PASS
		VN	50	2.03	0.001187	± 2.5	PASS
	MCH	VN	-30	1.1	0.000627	± 2.5	PASS
		VN	-20	1.03	0.000587	± 2.5	PASS
		VN	-10	-1.19	-0.000678	± 2.5	PASS
		VN	0	3.23	0.001841	± 2.5	PASS
		VN	10	-0.98	-0.000559	± 2.5	PASS
		VN	20	2.32	0.001322	± 2.5	PASS
		VN	30	3.1	0.001767	± 2.5	PASS
		VN	40	-0.87	-0.000496	± 2.5	PASS
		VN	50	0.16	0.000091	± 2.5	PASS
	HCH	VN	-30	2.13	0.001214	± 2.5	PASS
		VN	-20	3.78	0.002155	± 2.5	PASS
		VN	-10	1.1	0.000627	± 2.5	PASS
		VN	0	-0.72	-0.000410	± 2.5	PASS
		VN	10	-1.63	-0.000929	± 2.5	PASS
		VN	20	0.59	0.000336	± 2.5	PASS
		VN	30	0.61	0.000348	± 2.5	PASS

		VN	40	3.02	0.001721	± 2.5	PASS
		VN	50	0.73	0.000416	± 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	-1.19	-0.000695	± 2.5	PASS
		VN	TN	1.87	0.001093	± 2.5	PASS
		VH	TN	4.62	0.002699	± 2.5	PASS
	MCH	VL	TN	-1.35	-0.000779	± 2.5	PASS
		VN	TN	2.27	0.001310	± 2.5	PASS
		VH	TN	4.61	0.002661	± 2.5	PASS
	HCH	VL	TN	-1.27	-0.000724	± 2.5	PASS
		VN	TN	2.55	0.001454	± 2.5	PASS
		VH	TN	0.65	0.000371	± 2.5	PASS
16QAM	LCH	VL	TN	4.97	0.002904	± 2.5	PASS
		VN	TN	-0.23	-0.000134	± 2.5	PASS
		VH	TN	3.89	0.002273	± 2.5	PASS
	MCH	VL	TN	1.73	0.000999	± 2.5	PASS
		VN	TN	3.43	0.001980	± 2.5	PASS
		VH	TN	0.27	0.000156	± 2.5	PASS
	HCH	VL	TN	-1.9	-0.001084	± 2.5	PASS
		VN	TN	-1	-0.000570	± 2.5	PASS
		VH	TN	-1.82	-0.001038	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.95	-0.001139	± 2.5	PASS
		VN	-20	4.7	0.002746	± 2.5	PASS
		VN	-10	0.69	0.000403	± 2.5	PASS
		VN	0	4.14	0.002419	± 2.5	PASS
		VN	10	1.34	0.000783	± 2.5	PASS
		VN	20	4.05	0.002366	± 2.5	PASS
		VN	30	1.31	0.000765	± 2.5	PASS
		VN	40	1.32	0.000771	± 2.5	PASS
		VN	50	-1.22	-0.000713	± 2.5	PASS
	MCH	VN	-30	-1.81	-0.001045	± 2.5	PASS
		VN	-20	1.82	0.001051	± 2.5	PASS
		VN	-10	2.59	0.001495	± 2.5	PASS

		VN	0	3.64	0.002101	± 2.5	PASS
		VN	10	2.59	0.001495	± 2.5	PASS
		VN	20	1.81	0.001045	± 2.5	PASS
		VN	30	4.29	0.002476	± 2.5	PASS
		VN	40	1.78	0.001027	± 2.5	PASS
		VN	50	4.4	0.002540	± 2.5	PASS
	HCH	VN	-30	2.64	0.001506	± 2.5	PASS
		VN	-20	2.81	0.001603	± 2.5	PASS
		VN	-10	-1.16	-0.000662	± 2.5	PASS
		VN	0	1.18	0.000673	± 2.5	PASS
		VN	10	0.29	0.000165	± 2.5	PASS
		VN	20	1.01	0.000576	± 2.5	PASS
		VN	30	0.63	0.000359	± 2.5	PASS
		VN	40	-1.17	-0.000667	± 2.5	PASS
		VN	50	-1.73	-0.000987	± 2.5	PASS
16QAM	LCH	VN	-30	-1.49	-0.000860	± 2.5	PASS
		VN	-20	2.11	0.001218	± 2.5	PASS
		VN	-10	4.29	0.002476	± 2.5	PASS
		VN	0	3.07	0.001772	± 2.5	PASS
		VN	10	2.14	0.001235	± 2.5	PASS
		VN	20	3.85	0.002222	± 2.5	PASS
		VN	30	-0.72	-0.000416	± 2.5	PASS
		VN	40	-0.02	-0.000012	± 2.5	PASS
		VN	50	-1.76	-0.001016	± 2.5	PASS
	MCH	VN	-30	-0.98	-0.000559	± 2.5	PASS
		VN	-20	2.48	0.001414	± 2.5	PASS
		VN	-10	-1.16	-0.000662	± 2.5	PASS
		VN	0	1.96	0.001118	± 2.5	PASS
		VN	10	-1.2	-0.000684	± 2.5	PASS
		VN	20	2.5	0.001426	± 2.5	PASS
		VN	30	3.92	0.002236	± 2.5	PASS
		VN	40	-0.77	-0.000439	± 2.5	PASS
		VN	50	-1.95	-0.001112	± 2.5	PASS
	HCH	VN	-30	0.81	0.000462	± 2.5	PASS
		VN	-20	-0.02	-0.000011	± 2.5	PASS
		VN	-10	3.95	0.002253	± 2.5	PASS
		VN	0	3.15	0.001796	± 2.5	PASS
		VN	10	1.84	0.001049	± 2.5	PASS
		VN	20	3.56	0.002030	± 2.5	PASS
		VN	30	4.7	0.002680	± 2.5	PASS
		VN	40	1.99	0.001135	± 2.5	PASS

		VN	50	3.29	0.001876	± 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	4.67	0.002727	± 2.5	PASS
		VN	TN	4.77	0.002787	± 2.5	PASS
		VH	TN	0.64	0.000374	± 2.5	PASS
	MCH	VL	TN	0.47	0.000271	± 2.5	PASS
		VN	TN	-0.03	-0.000017	± 2.5	PASS
		VH	TN	-0.2	-0.000115	± 2.5	PASS
	HCH	VL	TN	4.26	0.002429	± 2.5	PASS
		VN	TN	0.15	0.000086	± 2.5	PASS
		VH	TN	4.08	0.002327	± 2.5	PASS
16QAM	LCH	VL	TN	4.61	0.002694	± 2.5	PASS
		VN	TN	0.52	0.000304	± 2.5	PASS
		VH	TN	2.55	0.001490	± 2.5	PASS
	MCH	VL	TN	4.92	0.002840	± 2.5	PASS
		VN	TN	4.96	0.002863	± 2.5	PASS
		VH	TN	0.06	0.000035	± 2.5	PASS
	HCH	VL	TN	0.29	0.000165	± 2.5	PASS
		VN	TN	3.74	0.002133	± 2.5	PASS
		VH	TN	-1.3	-0.000741	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.89	0.002272	± 2.5	PASS
		VN	-20	2.28	0.001331	± 2.5	PASS
		VN	-10	3.95	0.002307	± 2.5	PASS
		VN	0	4.69	0.002739	± 2.5	PASS
		VN	10	2.05	0.001197	± 2.5	PASS
		VN	20	3.11	0.001816	± 2.5	PASS
		VN	30	-0.43	-0.000251	± 2.5	PASS
		VN	40	4.92	0.002873	± 2.5	PASS
		VN	50	-0.86	-0.000502	± 2.5	PASS
	MCH	VN	-30	3.43	0.001980	± 2.5	PASS
		VN	-20	4.3	0.002482	± 2.5	PASS
		VN	-10	1.44	0.000831	± 2.5	PASS
		VN	0	4.85	0.002799	± 2.5	PASS

		VN	10	3.32	0.001916	± 2.5	PASS
		VN	20	-1.2	-0.000693	± 2.5	PASS
		VN	30	-0.76	-0.000439	± 2.5	PASS
		VN	40	-1.81	-0.001045	± 2.5	PASS
		VN	50	3.47	0.002003	± 2.5	PASS
	HCH	VN	-30	3.06	0.001746	± 2.5	PASS
		VN	-20	-1.06	-0.000556	± 2.5	PASS
		VN	-10	-0.19	-0.000100	± 2.5	PASS
		VN	0	-1.21	-0.000634	± 2.5	PASS
		VN	10	1.13	0.000592	± 2.5	PASS
		VN	20	4.9	0.002569	± 2.5	PASS
		VN	30	2.52	0.001321	± 2.5	PASS
		VN	40	1.69	0.000886	± 2.5	PASS
		VN	50	-1.93	-0.001012	± 2.5	PASS
16QAM	LCH	VN	-30	3.75	0.002165	± 2.5	PASS
		VN	-20	2.06	0.001189	± 2.5	PASS
		VN	-10	-0.28	-0.000162	± 2.5	PASS
		VN	0	4.88	0.002817	± 2.5	PASS
		VN	10	1.73	0.000999	± 2.5	PASS
		VN	20	1.59	0.000918	± 2.5	PASS
		VN	30	3.62	0.002089	± 2.5	PASS
		VN	40	4.35	0.002511	± 2.5	PASS
		VN	50	-0.02	-0.000012	± 2.5	PASS
	MCH	VN	-30	0.39	0.000223	± 2.5	PASS
		VN	-20	-1.21	-0.000690	± 2.5	PASS
		VN	-10	-0.08	-0.000046	± 2.5	PASS
		VN	0	2.58	0.001472	± 2.5	PASS
		VN	10	-0.94	-0.000536	± 2.5	PASS
		VN	20	-0.43	-0.000245	± 2.5	PASS
		VN	30	0.05	0.000029	± 2.5	PASS
		VN	40	0.54	0.000308	± 2.5	PASS
		VN	50	-1.01	-0.000576	± 2.5	PASS
	HCH	VN	-30	1.35	0.000708	± 2.5	PASS
		VN	-20	2.65	0.001389	± 2.5	PASS
		VN	-10	1.87	0.000980	± 2.5	PASS
		VN	0	4.06	0.002128	± 2.5	PASS
		VN	10	-1.57	-0.000823	± 2.5	PASS
		VN	20	1.43	0.000750	± 2.5	PASS
		VN	30	3.4	0.001782	± 2.5	PASS
		VN	40	-1.36	-0.000713	± 2.5	PASS
		VN	50	0.33	0.000173	± 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	0.36	0.000210	± 2.5	PASS
		VN	TN	2.78	0.001621	± 2.5	PASS
		VH	TN	4.46	0.002601	± 2.5	PASS
	MCH	VL	TN	0.85	0.000491	± 2.5	PASS
		VN	TN	-1.62	-0.000935	± 2.5	PASS
		VH	TN	-0.42	-0.000242	± 2.5	PASS
	HCH	VL	TN	4.56	0.002606	± 2.5	PASS
		VN	TN	3.27	0.001869	± 2.5	PASS
		VH	TN	1.6	0.000914	± 2.5	PASS
16QAM	LCH	VL	TN	0.8	0.000466	± 2.5	PASS
		VN	TN	-0.51	-0.000297	± 2.5	PASS
		VH	TN	4.88	0.002845	± 2.5	PASS
	MCH	VL	TN	3.24	0.001870	± 2.5	PASS
		VN	TN	3.73	0.002153	± 2.5	PASS
		VH	TN	-0.6	-0.000346	± 2.5	PASS
	HCH	VL	TN	1.91	0.001091	± 2.5	PASS
		VN	TN	2.52	0.001440	± 2.5	PASS
		VH	TN	2.8	0.001600	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	2.51	0.001464	± 2.5	PASS
		VN	-20	4.31	0.002513	± 2.5	PASS
		VN	-10	3.67	0.002140	± 2.5	PASS
		VN	0	2.66	0.001551	± 2.5	PASS
		VN	10	4.87	0.002840	± 2.5	PASS
		VN	20	-1.68	-0.000980	± 2.5	PASS
		VN	30	1.74	0.001015	± 2.5	PASS
		VN	40	2.64	0.001539	± 2.5	PASS
		VN	50	-0.86	-0.000501	± 2.5	PASS
	MCH	VN	-30	0.19	0.000110	± 2.5	PASS
		VN	-20	-0.83	-0.000479	± 2.5	PASS
		VN	-10	3.72	0.002147	± 2.5	PASS
		VN	0	0.11	0.000063	± 2.5	PASS
		VN	10	-0.08	-0.000046	± 2.5	PASS
		VN	20	4.74	0.002736	± 2.5	PASS

		VN	30	-1.9	-0.001097	± 2.5	PASS
		VN	40	-0.13	-0.000075	± 2.5	PASS
		VN	50	3.91	0.002257	± 2.5	PASS
	HCH	VN	-30	2.04	0.001166	± 2.5	PASS
		VN	-20	-0.51	-0.000291	± 2.5	PASS
		VN	-10	1.25	0.000714	± 2.5	PASS
		VN	0	0.85	0.000486	± 2.5	PASS
		VN	10	2.69	0.001537	± 2.5	PASS
		VN	20	2.61	0.001491	± 2.5	PASS
		VN	30	0.8	0.000457	± 2.5	PASS
		VN	40	-1.2	-0.000686	± 2.5	PASS
		VN	50	4.87	0.002783	± 2.5	PASS
QPSK	LCH	VN	-30	0.6	0.000346	± 2.5	PASS
		VN	-20	-0.78	-0.000450	± 2.5	PASS
		VN	-10	-0.28	-0.000162	± 2.5	PASS
		VN	0	3.95	0.002280	± 2.5	PASS
		VN	10	0.84	0.000485	± 2.5	PASS
		VN	20	4.91	0.002834	± 2.5	PASS
		VN	30	-1.07	-0.000618	± 2.5	PASS
		VN	40	2.19	0.001264	± 2.5	PASS
		VN	50	0.11	0.000063	± 2.5	PASS
	MCH	VN	-30	0.3	0.000171	± 2.5	PASS
		VN	-20	0.62	0.000354	± 2.5	PASS
		VN	-10	2.23	0.001274	± 2.5	PASS
		VN	0	-0.83	-0.000474	± 2.5	PASS
		VN	10	-0.94	-0.000537	± 2.5	PASS
		VN	20	2.28	0.001303	± 2.5	PASS
		VN	30	2.86	0.001634	± 2.5	PASS
		VN	40	4.03	0.002303	± 2.5	PASS
		VN	50	-1.65	-0.000943	± 2.5	PASS
	HCH	VN	-30	-1.41	-0.000806	± 2.5	PASS
		VN	-20	2.75	0.001571	± 2.5	PASS
		VN	-10	0.81	0.000463	± 2.5	PASS
		VN	0	2.91	0.001663	± 2.5	PASS
		VN	10	4.95	0.002829	± 2.5	PASS
		VN	20	0.87	0.000497	± 2.5	PASS
		VN	30	1.87	0.001069	± 2.5	PASS
		VN	40	-1.37	-0.000783	± 2.5	PASS
		VN	50	4.06	0.002320	± 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	1.61	0.000937	± 2.5	PASS
		VN	TN	-1.53	-0.000891	± 2.5	PASS
		VH	TN	4.67	0.002719	± 2.5	PASS
	MCH	VL	TN	3.97	0.002291	± 2.5	PASS
		VN	TN	4.59	0.002649	± 2.5	PASS
		VH	TN	-0.19	-0.000110	± 2.5	PASS
	HCH	VL	TN	0.59	0.000338	± 2.5	PASS
		VN	TN	0.79	0.000452	± 2.5	PASS
		VH	TN	4.22	0.002415	± 2.5	PASS
16QAM	LCH	VL	TN	1.51	0.000879	± 2.5	PASS
		VN	TN	3.81	0.002218	± 2.5	PASS
		VH	TN	3.37	0.001962	± 2.5	PASS
	MCH	VL	TN	3.26	0.001882	± 2.5	PASS
		VN	TN	3.32	0.001916	± 2.5	PASS
		VH	TN	4.79	0.002765	± 2.5	PASS
	HCH	VL	TN	3.73	0.002134	± 2.5	PASS
		VN	TN	2.46	0.001408	± 2.5	PASS
		VH	TN	3.54	0.002026	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.57	0.001496	± 2.5	PASS
		VN	-20	-1.41	-0.000821	± 2.5	PASS
		VN	-10	0.83	0.000483	± 2.5	PASS
		VN	0	0.6	0.000349	± 2.5	PASS
		VN	10	-1.9	-0.001106	± 2.5	PASS
		VN	20	3.7	0.002154	± 2.5	PASS
		VN	30	3	0.001747	± 2.5	PASS
		VN	40	3.06	0.001782	± 2.5	PASS
		VN	50	0.28	0.000163	± 2.5	PASS
	MCH	VN	-30	3.42	0.001974	± 2.5	PASS
		VN	-20	0.76	0.000439	± 2.5	PASS
		VN	-10	0.19	0.000110	± 2.5	PASS
		VN	0	4.95	0.002857	± 2.5	PASS
		VN	10	3.91	0.002257	± 2.5	PASS
		VN	20	3.53	0.002038	± 2.5	PASS

		VN	30	0.79	0.000456	± 2.5	PASS
		VN	40	-0.01	-0.000006	± 2.5	PASS
		VN	50	3.68	0.002124	± 2.5	PASS
	HCH	VN	-30	3.62	0.002072	± 2.5	PASS
		VN	-20	-0.12	-0.000069	± 2.5	PASS
		VN	-10	2.21	0.001265	± 2.5	PASS
		VN	0	-0.65	-0.000372	± 2.5	PASS
		VN	10	2.3	0.001316	± 2.5	PASS
		VN	20	2.19	0.001253	± 2.5	PASS
		VN	30	1.5	0.000858	± 2.5	PASS
		VN	40	-1.35	-0.000773	± 2.5	PASS
		VN	50	4.89	0.002798	± 2.5	PASS
16QAM	LCH	VN	-30	-0.25	-0.000144	± 2.5	PASS
		VN	-20	0.5	0.000289	± 2.5	PASS
		VN	-10	4.37	0.002522	± 2.5	PASS
		VN	0	-0.46	-0.000266	± 2.5	PASS
		VN	10	4.38	0.002528	± 2.5	PASS
		VN	20	0.86	0.000496	± 2.5	PASS
		VN	30	3.19	0.001841	± 2.5	PASS
		VN	40	-1.03	-0.000595	± 2.5	PASS
		VN	50	0.99	0.000571	± 2.5	PASS
	MCH	VN	-30	3.99	0.002283	± 2.5	PASS
		VN	-20	0.07	0.000040	± 2.5	PASS
		VN	-10	-1	-0.000572	± 2.5	PASS
		VN	0	2.24	0.001282	± 2.5	PASS
		VN	10	4.66	0.002667	± 2.5	PASS
		VN	20	0.94	0.000538	± 2.5	PASS
		VN	30	-1.48	-0.000847	± 2.5	PASS
		VN	40	1.79	0.001024	± 2.5	PASS
		VN	50	4.2	0.002403	± 2.5	PASS
	HCH	VN	-30	4.17	0.002386	± 2.5	PASS
		VN	-20	-1.03	-0.000589	± 2.5	PASS
		VN	-10	-1.31	-0.000750	± 2.5	PASS
		VN	0	3.34	0.001911	± 2.5	PASS
		VN	10	-1.72	-0.000984	± 2.5	PASS
		VN	20	2.11	0.001207	± 2.5	PASS
		VN	30	3.98	0.002278	± 2.5	PASS
		VN	40	1.72	0.000984	± 2.5	PASS
		VN	50	-1.95	-0.001116	± 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	-1.22	-0.000709	± 2.5	PASS
		VN	TN	2.75	0.001599	± 2.5	PASS
		VH	TN	4.03	0.002343	± 2.5	PASS
	MCH	VL	TN	3.23	0.001864	± 2.5	PASS
		VN	TN	-1.22	-0.000704	± 2.5	PASS
		VH	TN	0.23	0.000133	± 2.5	PASS
	HCH	VL	TN	2.17	0.001244	± 2.5	PASS
		VN	TN	0.21	0.000120	± 2.5	PASS
		VH	TN	-0.51	-0.000292	± 2.5	PASS
16QAM	LCH	VL	TN	-1.65	-0.000959	± 2.5	PASS
		VN	TN	2.71	0.001576	± 2.5	PASS
		VH	TN	4.85	0.002820	± 2.5	PASS
	MCH	VL	TN	4.67	0.002696	± 2.5	PASS
		VN	TN	0.45	0.000260	± 2.5	PASS
		VH	TN	-0.33	-0.000190	± 2.5	PASS
	HCH	VL	TN	2.86	0.001639	± 2.5	PASS
		VN	TN	3.57	0.002046	± 2.5	PASS
		VH	TN	2.92	0.001673	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.85	0.001657	± 2.5	PASS
		VN	-20	-1.57	-0.000913	± 2.5	PASS
		VN	-10	2.96	0.001721	± 2.5	PASS
		VN	0	2.71	0.001576	± 2.5	PASS
		VN	10	4.6	0.002674	± 2.5	PASS
		VN	20	0.97	0.000564	± 2.5	PASS
		VN	30	3.71	0.002157	± 2.5	PASS
		VN	40	-0.59	-0.000343	± 2.5	PASS
		VN	50	3.05	0.001773	± 2.5	PASS
	MCH	VN	-30	0.56	0.000323	± 2.5	PASS
		VN	-20	4.37	0.002522	± 2.5	PASS
		VN	-10	2.17	0.001253	± 2.5	PASS
		VN	0	4.12	0.002378	± 2.5	PASS
		VN	10	0.64	0.000369	± 2.5	PASS
		VN	20	4.52	0.002609	± 2.5	PASS

		VN	30	4.76	0.002747	± 2.5	PASS
		VN	40	-1.34	-0.000773	± 2.5	PASS
		VN	50	3.51	0.002026	± 2.5	PASS
	HCH	VN	-30	2.84	0.001628	± 2.5	PASS
		VN	-20	4.42	0.002533	± 2.5	PASS
		VN	-10	0.93	0.000533	± 2.5	PASS
		VN	0	-0.63	-0.000361	± 2.5	PASS
		VN	10	2.52	0.001444	± 2.5	PASS
		VN	20	2.07	0.001186	± 2.5	PASS
		VN	30	-0.05	-0.000029	± 2.5	PASS
		VN	40	-0.26	-0.000149	± 2.5	PASS
		VN	50	4.39	0.002516	± 2.5	PASS
16QAM	LCH	VN	-30	1.45	0.000837	± 2.5	PASS
		VN	-20	4.49	0.002592	± 2.5	PASS
		VN	-10	-0.8	-0.000462	± 2.5	PASS
		VN	0	0.82	0.000473	± 2.5	PASS
		VN	10	4.15	0.002395	± 2.5	PASS
		VN	20	1.66	0.000958	± 2.5	PASS
		VN	30	2.66	0.001535	± 2.5	PASS
		VN	40	3.83	0.002211	± 2.5	PASS
		VN	50	0.58	0.000335	± 2.5	PASS
	MCH	VN	-30	-0.87	-0.000499	± 2.5	PASS
		VN	-20	1.39	0.000797	± 2.5	PASS
		VN	-10	-1.87	-0.001072	± 2.5	PASS
		VN	0	4.51	0.002585	± 2.5	PASS
		VN	10	1.22	0.000699	± 2.5	PASS
		VN	20	0.26	0.000149	± 2.5	PASS
		VN	30	2.79	0.001599	± 2.5	PASS
		VN	40	4.01	0.002298	± 2.5	PASS
		VN	50	-1.96	-0.001123	± 2.5	PASS
	HCH	VN	-30	3.81	0.002183	± 2.5	PASS
		VN	-20	3.58	0.002052	± 2.5	PASS
		VN	-10	4.94	0.002831	± 2.5	PASS
		VN	0	-0.7	-0.000401	± 2.5	PASS
		VN	10	-0.63	-0.000361	± 2.5	PASS
		VN	20	0.76	0.000436	± 2.5	PASS
		VN	30	4.79	0.002745	± 2.5	PASS
		VN	40	0.11	0.000063	± 2.5	PASS
		VN	50	0.19	0.000109	± 2.5	PASS