

Band12_3MHz_16QAM_23025_1RB#0



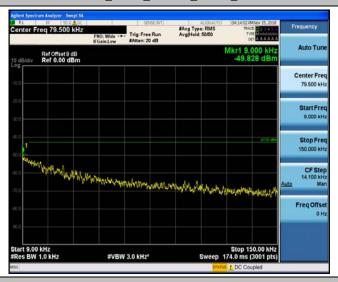
Band12_3MHz_16QAM_23025_1RB#0



Band12_3MHz_16QAM_23025_1RB#0



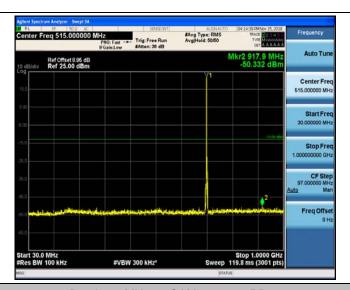
Band12_3MHz_16QAM_23095_1RB#0



Band12_3MHz_16QAM_23095_1RB#0



Band12_3MHz_16QAM_23095_1RB#0



Band12_3MHz_16QAM_23095_1RB#0



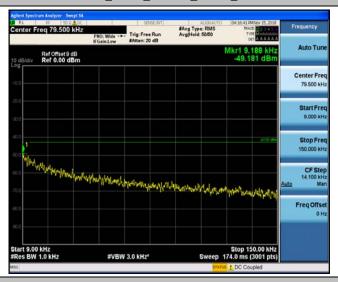
Band12_3MHz_16QAM_23095_1RB#0



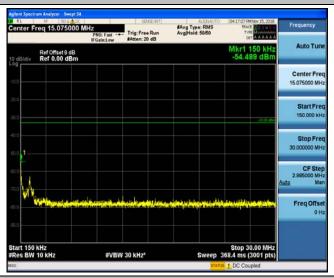
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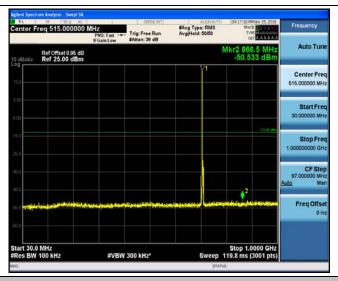
Band12_3MHz_16QAM_23165_1RB#0



Band12_3MHz_16QAM_23165_1RB#0



Band12_3MHz_16QAM_23165_1RB#0



Band12_3MHz_16QAM_23165_1RB#0



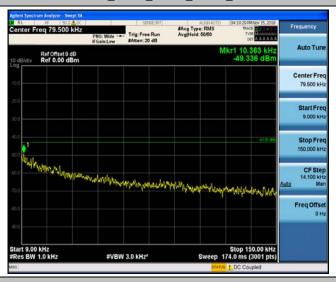
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Band12_3MHz_16QAM_23165_1RB#0



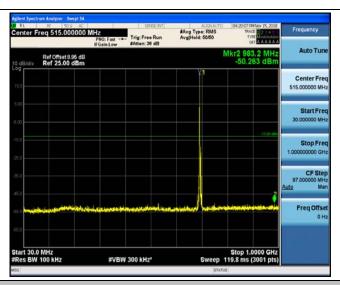
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Band12_5MHz_QPSK_23035_1RB#0



Band12_5MHz_QPSK_23035_1RB#0



Band12_5MHz_QPSK_23035_1RB#0



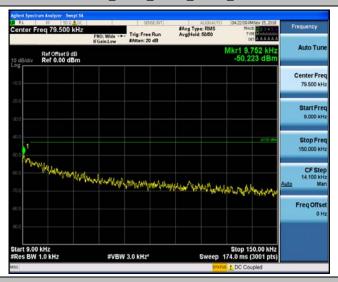
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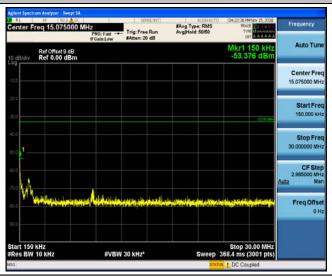
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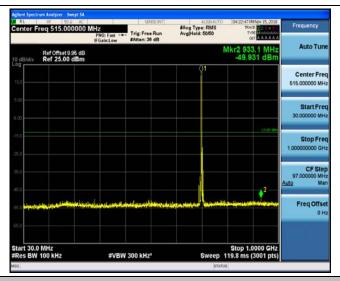
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Band12_5MHz_QPSK_23095_1RB#0



Band12_5MHz_QPSK_23095_1RB#0



Band12_5MHz_QPSK_23095_1RB#0



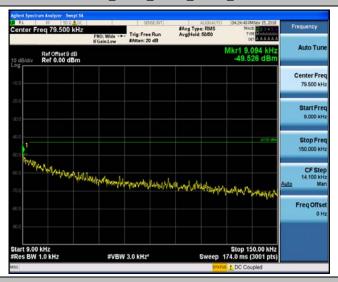
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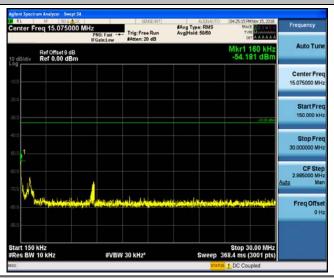
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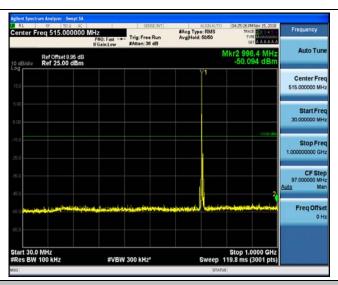
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Band12_5MHz_QPSK_23155_1RB#0



Band12_5MHz_QPSK_23155_1RB#0



Band12_5MHz_QPSK_23155_1RB#0



Band12_5MHz_QPSK_23155_1RB#0



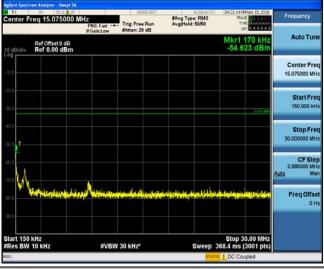
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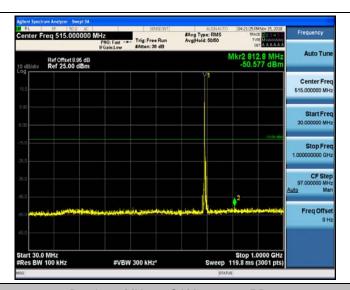
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Band12_5MHz_16QAM_23035_1RB#0



Band12_5MHz_16QAM_23035_1RB#0



Band12_5MHz_16QAM_23035_1RB#0

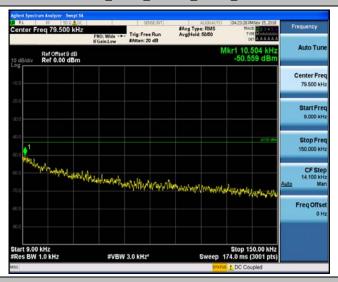


Band12_5MHz_16QAM_23035_1RB#0





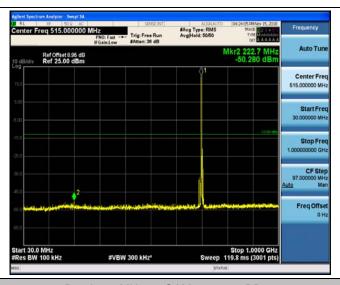
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Band12_5MHz_16QAM_23095_1RB#0



Band12_5MHz_16QAM_23095_1RB#0



Band12_5MHz_16QAM_23095_1RB#0



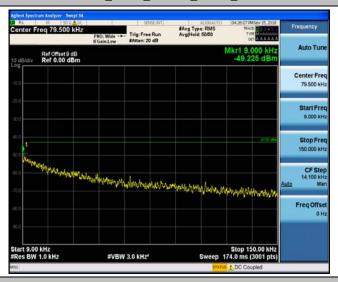
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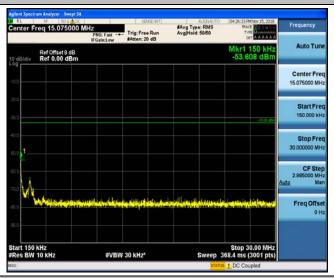
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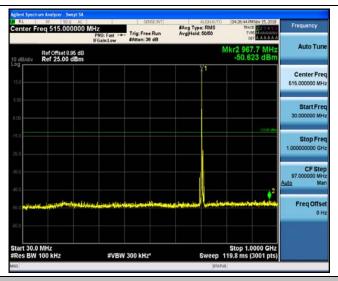
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Band12_5MHz_16QAM_23155_1RB#0



Band12_5MHz_16QAM_23155_1RB#0



Band12_5MHz_16QAM_23155_1RB#0



Band12_5MHz_16QAM_23155_1RB#0



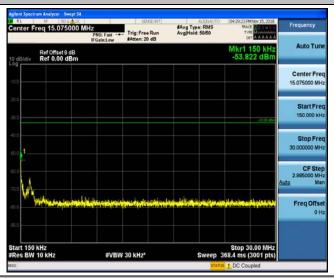
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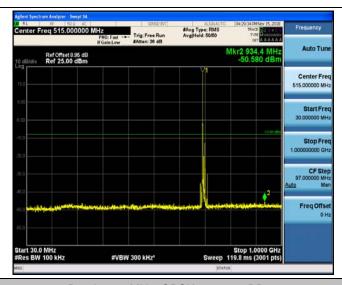
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Band12_10MHz_QPSK_23060_1RB#0



Band12_10MHz_QPSK_23060_1RB#0



Band12_10MHz_QPSK_23060_1RB#0



Band12_10MHz_QPSK_23060_1RB#0



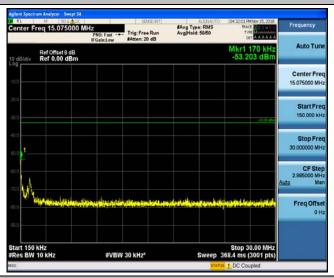
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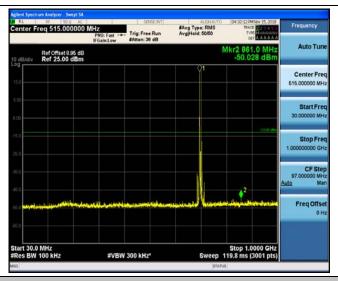
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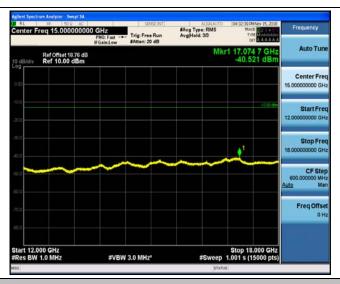


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Band12_10MHz_QPSK_23095_1RB#0

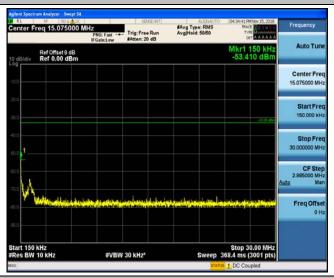




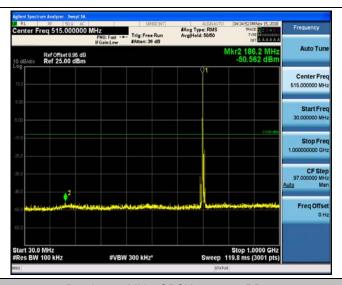
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Band12_10MHz_QPSK_23130_1RB#0



Band12_10MHz_QPSK_23130_1RB#0



Band12_10MHz_QPSK_23130_1RB#0



Band12_10MHz_QPSK_23130_1RB#0



Band12_10MHz_QPSK_23130_1RB#0



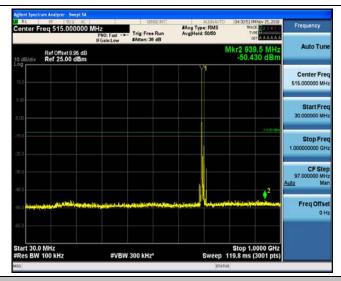
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Band12_10MHz_16QAM_23060_1RB#0



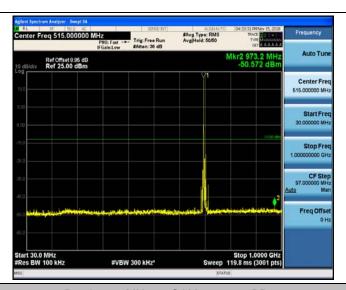
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Band12_10MHz_16QAM_23095_1RB#0



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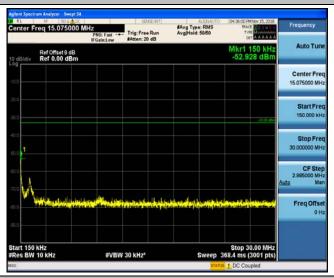
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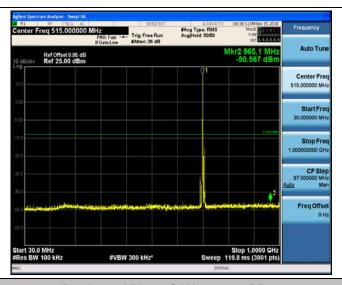
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Band12_10MHz_16QAM_23130_1RB#0



Band12_10MHz_16QAM_23130_1RB#0



Band12_10MHz_16QAM_23130_1RB#0



Band12_10MHz_16QAM_23130_1RB#0



Band12_10MHz_16QAM_23130_1RB#0







Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

			Channel Band	width: 1.4 MHz			
			Vol	tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	4.51	0.006446	± 2.5	PASS
	LCH	VN	TN	-1.31	-0.001872	± 2.5	PASS
		VH	TN	3.14	0.004488	± 2.5	PASS
		VL	TN	0.18	0.000254	± 2.5	PASS
QPSK	MCH	VN	TN	4.96	0.007011	± 2.5	PASS
		VH	TN	1.35	0.001908	± 2.5	PASS
		VL	TN	-1.87	-0.002614	± 2.5	PASS
	HCH	VN	TN	-1.5	-0.002097	± 2.5	PASS
		VH	TN	2.18	0.003048	± 2.5	PASS
		VL	TN	4.61	0.006589	± 2.5	PASS
	LCH	VN	TN	1.62	0.002315	± 2.5	PASS
		VH	TN	3.27	0.004673	± 2.5	PASS
	MCH	VL	TN	4.78	0.006756	± 2.5	PASS
16QAM		VN	TN	1.72	0.002431	± 2.5	PASS
		VH	TN	2.59	0.003661	± 2.5	PASS
	НСН	VL	TN	1.45	0.002027	± 2.5	PASS
		VN	TN	-0.48	-0.000671	± 2.5	PASS
		VH	TN	2.72	0.003803	± 2.5	PASS
			Tempe	erature			
Modulation	Channe I	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	2.94	0.004202	± 2.5	PASS
		VN	-20	-1.67	-0.002387	± 2.5	PASS
		VN	-10	1.85	0.002644	± 2.5	PASS
QPSK		VN	0	-0.17	-0.000243	± 2.5	PASS
	LCH	VN	10	4.62	0.006603	± 2.5	PASS
		VN	20	4.7	0.006717	± 2.5	PASS
		VN	30	4.89	0.006989	± 2.5	PASS
		VN	40	2.06	0.002944	± 2.5	PASS
		VN	50	0.65	0.000929	± 2.5	PASS
		VN	-30	3.06	0.004325	± 2.5	PASS
	MCH	VN	-20	1.23	0.001739	± 2.5	PASS
		VN	-10	0.54	0.000763	± 2.5	PASS

Report No.: STR18108149I-2 Page 171 of 178 LTE Band 12



		•		7		•	
		VN	0	1.35	0.001908	± 2.5	PASS
		VN	10	2.6	0.003675	± 2.5	PASS
		VN	20	2.17	0.003067	± 2.5	PASS
		VN	30	4.6	0.006502	± 2.5	PASS
		VN	40	1.37	0.001936	± 2.5	PASS
		VN	50	3.43	0.004848	± 2.5	PASS
		VN	-30	2.04	0.002852	± 2.5	PASS
		VN	-20	4.08	0.005704	± 2.5	PASS
		VN	-10	0.61	0.000853	± 2.5	PASS
		VN	0	4.95	0.006920	± 2.5	PASS
	HCH	VN	10	-0.58	-0.000811	± 2.5	PASS
		VN	20	1.43	0.001999	± 2.5	PASS
		VN	30	1.26	0.001761	± 2.5	PASS
		VN	40	3.44	0.004809	± 2.5	PASS
		VN	50	-1.9	-0.002656	± 2.5	PASS
		VN	-30	4.94	0.007060	± 2.5	PASS
	LCH	VN	-20	4.65	0.006646	± 2.5	PASS
		VN	-10	4.29	0.006131	± 2.5	PASS
16QAM		VN	0	0.64	0.000915	± 2.5	PASS
		VN	10	4.42	0.006317	± 2.5	PASS
		VN	20	1.52	0.002172	± 2.5	PASS
		VN	30	0.84	0.001201	± 2.5	PASS
		VN	40	1.11	0.001586	± 2.5	PASS
		VN	50	1.62	0.002315	± 2.5	PASS
		VN	-30	-1.63	-0.002304	± 2.5	PASS
		VN	-20	3.41	0.004820	± 2.5	PASS
	МСН	VN	-10	0.09	0.000127	± 2.5	PASS
		VN	0	2.95	0.004170	± 2.5	PASS
		VN	10	-0.05	-0.000071	± 2.5	PASS
		VN	20	1.96	0.002770	± 2.5	PASS
		VN	30	0.11	0.000155	± 2.5	PASS
		VN	40	2.89	0.004085	± 2.5	PASS
		VN	50	1.25	0.001767	± 2.5	PASS
		VN	-30	-1.69	-0.002363	± 2.5	PASS
		VN	-20	-1.58	-0.002209	± 2.5	PASS
		VN	-10	3.79	0.005298	± 2.5	PASS
	ПСП	VN	0	4.96	0.006934	± 2.5	PASS
	HCH	VN	10	1.62	0.002265	± 2.5	PASS
		VN	20	3.33	0.004655	± 2.5	PASS
		VN	30	3.86	0.005396	± 2.5	PASS
		VN	40	0.01	0.000014	± 2.5	PASS
-			-	-	-		



VN	50	0.74	0.001035	+25	PASS
VIN	50	0.74	0.001033	± 2.5	FASS

Channel Bandwidth: 3 MHz

			Channel Band	lwidth: 3 MHz+			
				tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	4.46	0.006367	± 2.5	PASS
	LCH	VN	TN	-1.66	-0.002370	± 2.5	PASS
		VH	TN	-1.7	-0.002427	± 2.5	PASS
		VL	TN	1.1	0.001555	± 2.5	PASS
QPSK	MCH	VN	TN	2.02	0.002855	± 2.5	PASS
		VH	TN	2.22	0.003138	± 2.5	PASS
		VL	TN	-0.81	-0.001134	± 2.5	PASS
	HCH	VN	TN	-1.44	-0.002015	± 2.5	PASS
		VH	TN	-1.56	-0.002183	± 2.5	PASS
		VL	TN	3.5	0.004996	± 2.5	PASS
	LCH	VN	TN	-0.6	-0.000857	± 2.5	PASS
		VH	TN	0.79	0.001128	± 2.5	PASS
		VL	TN	0.4	0.000565	± 2.5	PASS
16QAM	MCH	VN	TN	2.54	0.003590	± 2.5	PASS
		VH	TN	2.75	0.003887	± 2.5	PASS
	НСН	VL	TN	2.19	0.003065	± 2.5	PASS
		VN	TN	1.98	0.002771	± 2.5	PASS
		VH	TN	-0.92	-0.001288	± 2.5	PASS
			Tempe	erature			
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	2.66	0.003797	± 2.5	PASS
		VN	-20	4.58	0.006538	± 2.5	PASS
		VN	-10	2.13	0.003041	± 2.5	PASS
		VN	0	1.53	0.002184	± 2.5	PASS
QPSK	LCH	VN	10	-0.7	-0.000999	± 2.5	PASS
		VN	20	1	0.001428	± 2.5	PASS
		VN	30	4.37	0.006238	± 2.5	PASS
		VN	40	2.15	0.003069	± 2.5	PASS
		VN	50	3.29	0.004697	± 2.5	PASS
		VN	-30	3.6	0.005088	± 2.5	PASS
		VN	-20	-0.93	-0.001314	± 2.5	PASS
	MCH	VN	-10	0.8	0.001131	± 2.5	PASS
		VN	0	-1.26	-0.001781	± 2.5	PASS
		VN	10	3.92	0.005541	± 2.5	PASS



VN 30 -0.54 -0.000763 ± 2.5 PASS VN 40 4.74 0.006700 ± 2.5 PASS VN 50 4.56 0.006445 ± 2.5 PASS VN -30 -0.16 -0.000224 ± 2.5 PASS VN -20 0.86 0.001204 ± 2.5 PASS VN -10 2.9 0.004059 ± 2.5 PASS VN 0 4.15 0.005808 ± 2.5 PASS VN 10 -1.34 -0.001875 ± 2.5 PASS VN 20 2.54 0.003555 ± 2.5 PASS VN 30 2.95 0.004129 ± 2.5 PASS VN 40 0.01 0.000014 ± 2.5 PASS VN 40 0.01 0.000014 ± 2.5 PASS VN 50 3.88 0.005430 ± 2.5 PASS VN -20 1.15 0.001642 ± 2.5 PASS VN -10 4.78 0.006824 ± 2.5 PASS VN 0 2.54 0.003626 ± 2.5 PASS VN 20 0.27 0.000385 ± 2.5 PASS VN 20 0.27 0.000385 ± 2.5 PASS VN 30 4.32 0.006167 ± 2.5 PASS VN 40 0.67 0.000966 ± 2.5 PASS VN 30 4.26 0.006021 ± 2.5 PASS VN -20 1.85 0.002615 ± 2.5 PASS VN -20 1.85 0.002615 ± 2.5 PASS VN -20 1.81 0.002601 ± 2.5 PASS VN -20 1.84 0.002601 ± 2.5 PASS VN -20 1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002611 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -30 1.66 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5			\ / K !	20	0.0	0.000040	. 2.5	DACC
VN			VN	20	-0.6	-0.000848	± 2.5	PASS
VN 50								
VN								
VN	-						± 2.5	
HCH HCH HCH VN			VN	-30	-0.16		± 2.5	
HCH HCH VN 10 -1.34 -0.001875 ±2.5 PASS VN 20 2.54 0.003555 ±2.5 PASS VN 30 2.95 0.004129 ±2.5 PASS VN 40 0.01 0.000014 ±2.5 PASS VN 50 3.88 0.005430 ±2.5 PASS VN -30 0.3 0.000428 ±2.5 PASS VN -20 1.15 0.001642 ±2.5 PASS VN -10 4.78 0.006824 ±2.5 PASS VN -10 4.78 0.006824 ±2.5 PASS VN 0 2.54 0.003626 ±2.5 PASS VN 0 2.54 0.003626 ±2.5 PASS VN 20 0.27 0.00385 ±2.5 PASS VN 30 4.32 0.006167 ±2.5 PASS VN 40 0.67 0.00956 ±2.5 PASS VN 40 0.67 0.00956 ±2.5 PASS VN -30 4.26 0.006021 ±2.5 PASS VN -20 1.85 0.002615 ±2.5 PASS VN -10 0.62 0.000876 ±2.5 PASS VN -10 0.000876 -10 0.00			VN	-20	0.86	0.001204	± 2.5	PASS
HCH			VN	-10	2.9	0.004059	± 2.5	PASS
VN 20 2.54 0.003555 ±2.5 PASS VN 30 2.95 0.004129 ±2.5 PASS VN 40 0.01 0.000014 ±2.5 PASS VN 50 3.88 0.005430 ±2.5 PASS VN -30 0.3 0.000428 ±2.5 PASS VN -20 1.15 0.001642 ±2.5 PASS VN -10 4.78 0.006824 ±2.5 PASS VN 0 2.54 0.003626 ±2.5 PASS VN 20 0.27 0.000385 ±2.5 PASS VN 30 4.32 0.006167 ±2.5 PASS VN 40 0.67 0.000956 ±2.5 PASS VN 40 0.67 0.000956 ±2.5 PASS VN -30 4.26 0.006021 ±2.5 PASS VN -20 1.85 0.002615 ±2.5 PASS VN -10 0.62 0.000876 ±2.5 PASS VN 0 2.17 0.003067 ±2.5 PASS VN 20 -1.91 -0.002700 ±2.5 PASS VN 30 1.84 0.002601 ±2.5 PASS VN 40 3.06 0.004325 ±2.5 PASS VN -30 1.65 0.002309 ±2.5 PASS VN -30 1.65 0.002309 ±2.5 PASS VN -30 1.65 0.002309 ±2.5 PASS VN -20 0.73 0.001022 ±2.5 PASS VN -20 0.73 0.001022 ±2.5 PASS VN -30 1.65 0.002309 ±2.5 PASS VN -20 0.73 0.001022 ±2.5			VN	0	4.15	0.005808	± 2.5	PASS
VN		HCH	VN	10	-1.34	-0.001875	± 2.5	PASS
VN			VN	20	2.54	0.003555	± 2.5	PASS
VN 50 3.88 0.005430 ±2.5 PASS			VN	30	2.95	0.004129	± 2.5	PASS
VN			VN	40	0.01	0.000014	± 2.5	PASS
VN			VN	50	3.88	0.005430	± 2.5	PASS
VN			VN	-30	0.3	0.000428	± 2.5	PASS
LCH			VN	-20	1.15	0.001642	± 2.5	PASS
LCH			VN	-10	4.78	0.006824	± 2.5	PASS
VN 20 0.27 0.000385 ± 2.5 PASS VN 30 4.32 0.006167 ± 2.5 PASS VN 40 0.67 0.000956 ± 2.5 PASS VN 50 2.7 0.003854 ± 2.5 PASS VN -30 4.26 0.006021 ± 2.5 PASS VN -20 1.85 0.002615 ± 2.5 PASS VN -10 0.62 0.000876 ± 2.5 PASS VN 0 2.17 0.003067 ± 2.5 PASS VN 20 -1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022			VN	0	2.54	0.003626	± 2.5	PASS
VN 30 4.32 0.006167 ± 2.5 PASS VN 40 0.67 0.000956 ± 2.5 PASS VN 50 2.7 0.003854 ± 2.5 PASS VN -30 4.26 0.006021 ± 2.5 PASS VN -20 1.85 0.002615 ± 2.5 PASS VN -10 0.62 0.000876 ± 2.5 PASS VN 0 2.17 0.003067 ± 2.5 PASS VN 0 3.83 0.005413 ± 2.5 PASS VN 20 -1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS		LCH	VN	10	4.86	0.006938	± 2.5	PASS
VN			VN	20	0.27	0.000385	± 2.5	PASS
VN 50 2.7 0.003854 ± 2.5 PASS VN -30 4.26 0.006021 ± 2.5 PASS VN -20 1.85 0.002615 ± 2.5 PASS VN -10 0.62 0.000876 ± 2.5 PASS VN 0 2.17 0.003067 ± 2.5 PASS VN 10 3.83 0.005413 ± 2.5 PASS VN 20 -1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	30	4.32	0.006167	± 2.5	PASS
VN			VN	40	0.67	0.000956	± 2.5	PASS
VN -20 1.85 0.002615 ± 2.5 PASS VN -10 0.62 0.000876 ± 2.5 PASS VN 0 2.17 0.003067 ± 2.5 PASS VN 10 3.83 0.005413 ± 2.5 PASS VN 20 -1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	50	2.7	0.003854	± 2.5	PASS
VN		МСН	VN	-30	4.26	0.006021	± 2.5	PASS
16QAM VN 0 2.17 0.003067 ± 2.5 PASS VN 10 3.83 0.005413 ± 2.5 PASS VN 20 -1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	-20	1.85	0.002615	± 2.5	PASS
16QAM MCH VN 10 3.83 0.005413 ± 2.5 PASS VN 20 -1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	-10	0.62	0.000876	± 2.5	PASS
VN 20 -1.91 -0.002700 ± 2.5 PASS VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	0	2.17	0.003067	± 2.5	PASS
VN 30 1.84 0.002601 ± 2.5 PASS VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS	16QAM		VN	10	3.83	0.005413	± 2.5	PASS
VN 40 3.06 0.004325 ± 2.5 PASS VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	20	-1.91	-0.002700	± 2.5	PASS
VN 50 1.54 0.002177 ± 2.5 PASS VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	30	1.84	0.002601	± 2.5	PASS
VN -30 1.65 0.002309 ± 2.5 PASS VN -20 0.73 0.001022 ± 2.5 PASS			VN	40	3.06	0.004325	± 2.5	PASS
VN -20 0.73 0.001022 ± 2.5 PASS			VN	50	1.54	0.002177	± 2.5	PASS
			VN	-30	1.65	0.002309	± 2.5	PASS
VN -10 1.04 0.001456 +2.5 PASS			VN	-20	0.73	0.001022	± 2.5	PASS
10 101 0.001 100 22.0 17.00			VN	-10	1.04	0.001456	± 2.5	PASS
VN 0 -1.18 -0.001652 ± 2.5 PASS			VN	0	-1.18	-0.001652	± 2.5	PASS
HCH VN 10 4.81 0.006732 ± 2.5 PASS		НСН	VN	10	4.81	0.006732	± 2.5	PASS
VN 20 -1.31 -0.001833 ± 2.5 PASS			VN	20			-	PASS
VN 30 2.51 0.003513 ± 2.5 PASS								
VN 40 0.01 0.000014 ± 2.5 PASS								
VN 50 -0.9 -0.001260 ± 2.5 PASS				50			-	



Channel Bandwidth: 5 MHz

			Channel Ban	dwidth: 5 MHz			
				tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	-1.95	-0.002780	± 2.5	PASS
	LCH	VN	TN	-1.85	-0.002637	± 2.5	PASS
		VH	TN	1	0.001426	± 2.5	PASS
		VL	TN	1.55	0.002191	± 2.5	PASS
QPSK	MCH	VN	TN	-0.73	-0.001032	± 2.5	PASS
		VH	TN	1.13	0.001597	± 2.5	PASS
		VL	TN	-0.02	-0.000028	± 2.5	PASS
	HCH	VN	TN	4.74	0.006643	± 2.5	PASS
		VH	TN	-1.46	-0.002046	± 2.5	PASS
		VL	TN	1.88	0.002680	± 2.5	PASS
	LCH	VN	TN	-0.8	-0.001140	± 2.5	PASS
		VH	TN	0.67	0.000955	± 2.5	PASS
		VL	TN	-1.81	-0.002558	± 2.5	PASS
16QAM	MCH	VN	TN	1.32	0.001866	± 2.5	PASS
		VH	TN	-0.71	-0.001004	± 2.5	PASS
	НСН	VL	TN	1.97	0.002761	± 2.5	PASS
Modulation		VN	TN	-0.7	-0.000981	± 2.5	PASS
		VH	TN	2.26	0.003167	± 2.5	PASS
			Tempe	erature		_	
	Channel	Voltage [Vdc]	Temperature $(^{\mathbb{C}})$	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	0.45	0.000641	± 2.5	PASS
		VN	-20	-2	-0.002851	± 2.5	PASS
		VN	-10	-0.65	-0.000927	± 2.5	PASS
		VN	0	-1.68	-0.002395	± 2.5	PASS
	LCH	VN	10	3.63	0.005175	± 2.5	PASS
		VN	20	-0.82	-0.001169	± 2.5	PASS
		VN	30	-1.01	-0.001440	± 2.5	PASS
		VN	40	3.74	0.005331	± 2.5	PASS
		VN	50	3.51	0.005004	± 2.5	PASS
		VN	-30	-1.6	-0.002261	± 2.5	PASS
		VN	-20	-1.5	-0.002120	± 2.5	PASS
		VN	-10	-1.1	-0.001555	± 2.5	PASS
	MCH	VN	0	1.53	0.002163	± 2.5	PASS
		VN	10	3.62	0.005117	± 2.5	PASS
		VN	20	-0.05	-0.000071	± 2.5	PASS
		VN	30	-0.82	-0.001159	± 2.5	PASS



VN 50								
N			VN	40	3.83	0.005413	± 2.5	PASS
HCH HCH			VN	50	1.25	0.001767	± 2.5	PASS
HCH			VN	-30	0.11	0.000154	± 2.5	PASS
HCH			VN	-20	-1.61	-0.002256	± 2.5	PASS
HCH			VN	-10	0.47	0.000659	± 2.5	PASS
VN 20			VN	0	0.46	0.000645	± 2.5	PASS
VN 30		HCH	VN	10	0.67	0.000939	± 2.5	PASS
VN			VN	20	-1.74	-0.002439	± 2.5	PASS
VN 50 -0.71 -0.000995 ± 2.5 F			VN	30	-1.36	-0.001906	± 2.5	PASS
VN			VN	40	3.2	0.004485	± 2.5	PASS
VN			VN	50	-0.71	-0.000995	± 2.5	PASS
LCH			VN	-30	1.98	0.002823	± 2.5	PASS
LCH			VN	-20	3.95	0.005631	± 2.5	PASS
LCH			VN	-10	4.09	0.005830	± 2.5	PASS
VN 20			VN	0	2.24	0.003193	± 2.5	PASS
VN 30 0.84 0.001197 ± 2.5 F VN 40 3.51 0.005004 ± 2.5 F VN 50 1.53 0.002181 ± 2.5 F VN -30 -1.43 -0.002021 ± 2.5 F VN -10 -0.04 -0.000057 ± 2.5 F VN 0 -1.43 -0.002021 ± 2.5 F VN 0 -1.43 -0.002021 ± 2.5 F VN 10 2.37 0.003350 ± 2.5 F VN 20 1.63 0.002304 ± 2.5 F VN 30 2.08 0.002940 ± 2.5 F VN 40 -1.44 -0.002035 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F		LCH	VN	10	3.48	0.004961	± 2.5	PASS
VN			VN	20	4.47	0.006372	± 2.5	PASS
VN 50			VN	30	0.84	0.001197	± 2.5	PASS
VN			VN	40	3.51	0.005004	± 2.5	PASS
VN -20 1.05 0.001484 ± 2.5 F VN -10 -0.04 -0.00057 ± 2.5 F VN 0 -1.43 -0.002021 ± 2.5 F VN 20 1.63 0.002304 ± 2.5 F VN 30 2.08 0.002940 ± 2.5 F VN 40 -1.44 -0.002035 ± 2.5 F VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F			VN	50	1.53	0.002181	± 2.5	PASS
VN -10 -0.04 -0.000057 ± 2.5 F VN 0 -1.43 -0.002021 ± 2.5 F VN 20 1.63 0.002304 ± 2.5 F VN 30 2.08 0.002940 ± 2.5 F VN 40 -1.44 -0.002035 ± 2.5 F VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F		МСН	VN	-30	-1.43	-0.002021	± 2.5	PASS
MCH VN 0 -1.43 -0.002021 ± 2.5 F VN 10 2.37 0.003350 ± 2.5 F VN 20 1.63 0.002304 ± 2.5 F VN 30 2.08 0.002940 ± 2.5 F VN 40 -1.44 -0.002035 ± 2.5 F VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F			VN	-20	1.05	0.001484	± 2.5	PASS
MCH VN 10 2.37 0.003350 ± 2.5 F VN 20 1.63 0.002304 ± 2.5 F VN 30 2.08 0.002940 ± 2.5 F VN 40 -1.44 -0.002035 ± 2.5 F VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F			VN	-10	-0.04	-0.000057	± 2.5	PASS
VN 20 1.63 0.002304 ± 2.5 F VN 30 2.08 0.002940 ± 2.5 F VN 40 -1.44 -0.002035 ± 2.5 F VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F			VN	0	-1.43	-0.002021	± 2.5	PASS
VN 30 2.08 0.002940 ± 2.5 F VN 40 -1.44 -0.002035 ± 2.5 F VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F	6QAM		VN	10	2.37	0.003350	± 2.5	PASS
VN 40 -1.44 -0.002035 ± 2.5 F VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F			VN	20	1.63	0.002304	± 2.5	PASS
VN 50 0.49 0.000693 ± 2.5 F VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F			VN	30	2.08	0.002940	± 2.5	PASS
VN -30 3.39 0.004751 ± 2.5 F VN -20 -0.3 -0.000420 ± 2.5 F			VN	40	-1.44	-0.002035	± 2.5	PASS
VN -20 -0.3 -0.000420 ± 2.5 F			VN	50	0.49	0.000693	± 2.5	PASS
	Γ	НСН	VN	-30	3.39	0.004751	± 2.5	PASS
VN -10 -1.42 -0.001990 ± 2.5 F			VN	-20	-0.3	-0.000420	± 2.5	PASS
			VN	-10	-1.42	-0.001990	± 2.5	PASS
VN 0 0.8 0.001121 ± 2.5 F			VN	0	0.8	0.001121	± 2.5	PASS
HCH VN 10 -0.75 -0.001051 ± 2.5 F			VN	10	-0.75	-0.001051	± 2.5	PASS
VN 20 0.74 0.001037 ± 2.5 F			VN	20	0.74	0.001037	± 2.5	PASS
VN 30 2.09 0.002929 ± 2.5 F			VN	30	2.09	0.002929	± 2.5	PASS
VN 40 3.96 0.005550 ± 2.5 F			VN	40	3.96	0.005550	± 2.5	PASS
VN 50 -1.72 -0.002411 ± 2.5 F			VN	50	-1.72	-0.002411	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz



ī			Vol	tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	4.19	0.005952	± 2.5	PASS
	LCH	VN	TN	-1.14	-0.001619	± 2.5	PASS
		VH	TN	1.93	0.002741	± 2.5	PASS
		VL	TN	3.55	0.005018	± 2.5	PASS
QPSK	MCH	VN	TN	-0.77	-0.001088	± 2.5	PASS
		VH	TN	1.7	0.002403	± 2.5	PASS
		VL	TN	-0.66	-0.000928	± 2.5	PASS
	HCH	VN	TN	4.42	0.006217	± 2.5	PASS
		VH	TN	0.99	0.001392	± 2.5	PASS
		VL	TN	1.81	0.002571	± 2.5	PASS
	LCH	VN	TN	1.75	0.002486	± 2.5	PASS
		VH	TN	4.42	0.006278	± 2.5	PASS
		VL	TN	0.51	0.000721	± 2.5	PASS
16QAM	MCH	VN	TN	-0.16	-0.000226	± 2.5	PASS
		VH	TN	1.26	0.001781	± 2.5	PASS
	НСН	VL	TN	4.5	0.006329	± 2.5	PASS
		VN	TN	-1.1	-0.001547	± 2.5	PASS
		VH	TN	3.83	0.005387	± 2.5	PASS
Modulation	T		Tempe	erature			
	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		\ / N I					
		VN	-30	3.02	0.004290	± 2.5	PASS
		VN	-30 -20	3.02 -0.8	0.004290 -0.001140	± 2.5 ± 2.5	PASS PASS
		VN	-20	-0.8	-0.001140	± 2.5	PASS
	LCH	VN VN	-20 -10	-0.8 2.74	-0.001140 0.003906	± 2.5 ± 2.5	PASS PASS
	LCH	VN VN VN	-20 -10 0	-0.8 2.74 4.89	-0.001140 0.003906 0.006971	± 2.5 ± 2.5 ± 2.5	PASS PASS PASS
	LCH	VN VN VN VN	-20 -10 0 10	-0.8 2.74 4.89 2.83	-0.001140 0.003906 0.006971 0.004034	± 2.5 ± 2.5 ± 2.5 ± 2.5	PASS PASS PASS
	LCH	VN VN VN VN VN	-20 -10 0 10 20	-0.8 2.74 4.89 2.83 3.02	-0.001140 0.003906 0.006971 0.004034 0.004305	± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5	PASS PASS PASS PASS
16OAM	LCH	VN	-20 -10 0 10 20 30	-0.8 2.74 4.89 2.83 3.02 1.69	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409	± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS
16QAM	LCH	\text{\tinit}\\ \text{\ti}\tint{\text{\text{\text{\texi}\tinz{\text{\texi}\tint{\text{\texi}\tint{\ti}\til\titt{\text{\text{\text{\texi}\tint{\text{\tii}}\t	-20 -10 0 10 20 30 40	-0.8 2.74 4.89 2.83 3.02 1.69 2.52	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592	± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS
16QAM	LCH	\text{\tinit}\\ \text{\tin}\}\tittt{\text{\text{\text{\texi}\til\titt{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi\tiin\texict{\text{\tin}\}\titt{\text{\ti}\tinttitt{\text{\texi}\tilit{\text{\texi}\ti	-20 -10 0 10 20 30 40 50	-0.8 2.74 4.89 2.83 3.02 1.69 2.52 2.14	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592 0.003051	± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS
16QAM	LCH	VN	-20 -10 0 10 20 30 40 50 -30	-0.8 2.74 4.89 2.83 3.02 1.69 2.52 2.14 2.41	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592 0.003051 0.003406	± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS PASS
16QAM	LCH	VZ	-20 -10 0 10 20 30 40 50 -30 -20	-0.8 2.74 4.89 2.83 3.02 1.69 2.52 2.14 2.41 0.89	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592 0.003051 0.003406 0.001258	± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS PASS
16QAM	LCH	VZ	-20 -10 0 10 20 30 40 50 -30 -20 -10	-0.8 2.74 4.89 2.83 3.02 1.69 2.52 2.14 2.41 0.89 -1.36	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592 0.003051 0.003406 0.001258 -0.001922	± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS PASS
16QAM		VZ	-20 -10 0 10 20 30 40 50 -30 -20 -10 0	-0.8 2.74 4.89 2.83 3.02 1.69 2.52 2.14 2.41 0.89 -1.36 -0.86	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592 0.003051 0.003406 0.001258 -0.001922 -0.001216	± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS PASS
16QAM		SZ	-20 -10 0 10 20 30 40 50 -30 -20 -10 0 10	-0.8 2.74 4.89 2.83 3.02 1.69 2.52 2.14 2.41 0.89 -1.36 -0.86 4.99	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592 0.003051 0.003406 0.001258 -0.001922 -0.001216 0.007053	± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS PASS
16QAM		SZ	-20 -10 0 10 20 30 40 50 -30 -10 0 10 20	-0.8 2.74 4.89 2.83 3.02 1.69 2.52 2.14 2.41 0.89 -1.36 -0.86 4.99 2.23	-0.001140 0.003906 0.006971 0.004034 0.004305 0.002409 0.003592 0.003051 0.003406 0.001258 -0.001922 -0.001216 0.007053 0.003152	± 2.5 ± 2.5	PASS PASS PASS PASS PASS PASS PASS PASS



		VN	-30	1.44	0.002018	± 2.5	PASS
		VN	-20	4.15	0.002018	± 2.5	PASS
	нсн	VN	-10	0.49	0.003610	± 2.5	PASS
		VN	0	3.28	0.000667	± 2.5	PASS
		VN	10	3.26	0.004597	± 2.5	PASS
	ПСП	VN	20	2.89			PASS
		VN	30	-0.55	0.004050	± 2.5 ± 2.5	PASS
		VN	40	3.45	-0.000771 0.004835	± 2.5	PASS
		VN	50	-1.17	-0.001640	± 2.5	PASS
		VN	-30	3.24	0.004619	± 2.5	PASS
		VN	-20	1.68	0.004019	± 2.5	PASS
		VN	-10	4.17	0.002393	± 2.5	PASS
		VN	0	0.64	0.003944	± 2.5	PASS
	LCH	VN	10	-0.52	-0.000912	± 2.5	PASS
	LOIT	VN	20	0.25	0.000741	± 2.5	PASS
		VN	30	1.5	0.000330	± 2.5	PASS
		VN	40	1.2	0.002130	± 2.5	PASS
		VN	50	4.6	0.006557	± 2.5	PASS
	МСН	VN	-30	0.71	0.001004	± 2.5	PASS
QPSK		VN	-20	-0.44	-0.000622	± 2.5	PASS
		VN	-10	3.84	0.005428	± 2.5	PASS
		VN	0	-0.09	-0.000127	± 2.5	PASS
		VN	10	0.33	0.000466	± 2.5	PASS
		VN	20	3.94	0.005569	± 2.5	PASS
		VN	30	2.23	0.003152	± 2.5	PASS
		VN	40	0.86	0.001216	± 2.5	PASS
		VN	50	2.94	0.004155	± 2.5	PASS
		VN	-30	1.63	0.002285	± 2.5	PASS
		VN	-20	-0.91	-0.001275	± 2.5	PASS
		VN	-10	1.29	0.001808	± 2.5	PASS
		VN	0	4.65	0.006517	± 2.5	PASS
	НСН	VN	10	4.41	0.006181	± 2.5	PASS
		VN	20	-1.7	-0.002383	± 2.5	PASS
		VN	30	3.48	0.004877	± 2.5	PASS
		VN	40	-1.64	-0.002299	± 2.5	PASS
		VN	50	-0.02	-0.000028	± 2.5	PASS
-	-	•			-	•	