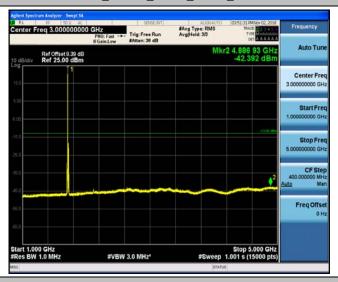




### Band4\_10MHz\_QPSK\_20000\_1RB#0



# Band4\_10MHz\_QPSK\_20000\_1RB#0



Band4\_10MHz\_QPSK\_20000\_1RB#0





## Band4\_10MHz\_QPSK\_20175\_1RB#0

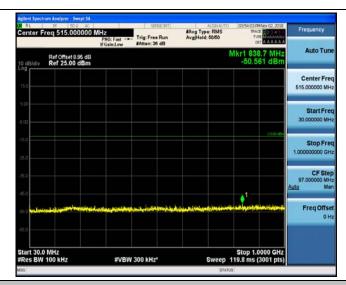


Band4\_10MHz\_QPSK\_20175\_1RB#0

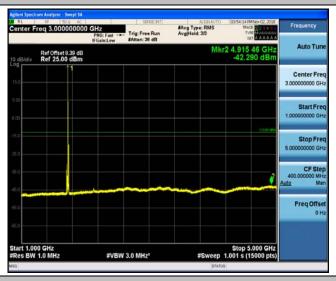


Band4\_10MHz\_QPSK\_20175\_1RB#0





### Band4\_10MHz\_QPSK\_20175\_1RB#0



# Band4\_10MHz\_QPSK\_20175\_1RB#0



Band4\_10MHz\_QPSK\_20175\_1RB#0

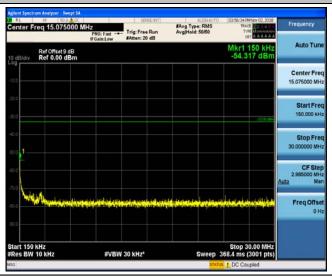




### Band4\_10MHz\_QPSK\_20350\_1RB#0



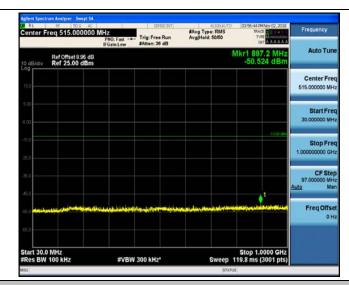
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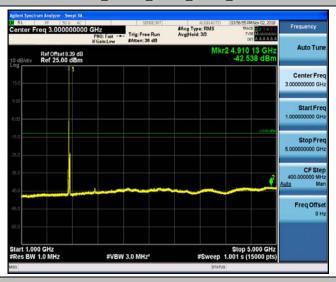
Band4\_10MHz\_QPSK\_20350\_1RB#0

Band 4





### Band4\_10MHz\_QPSK\_20350\_1RB#0

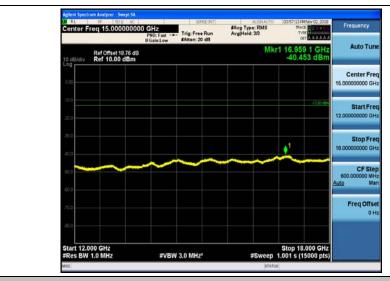


# Band4\_10MHz\_QPSK\_20350\_1RB#0



Band4\_10MHz\_QPSK\_20350\_1RB#0

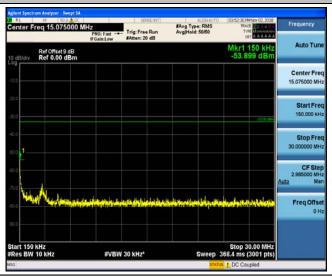




### Band4\_10MHz\_16QAM\_20000\_1RB#0



Band4\_10MHz\_16QAM\_20000\_1RB#0



Band4\_10MHz\_16QAM\_20000\_1RB#0





### Band4\_10MHz\_16QAM\_20000\_1RB#0



Band4\_10MHz\_16QAM\_20000\_1RB#0

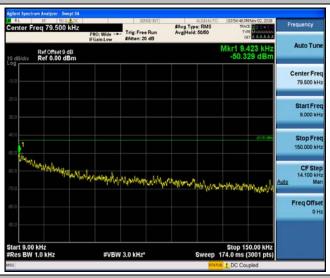


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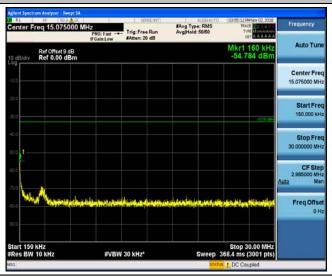




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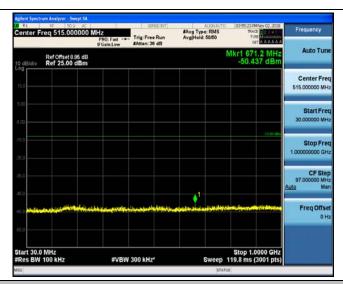


Band4\_10MHz\_16QAM\_20175\_1RB#0



Band4\_10MHz\_16QAM\_20175\_1RB#0





### Band4\_10MHz\_16QAM\_20175\_1RB#0



Band4\_10MHz\_16QAM\_20175\_1RB#0

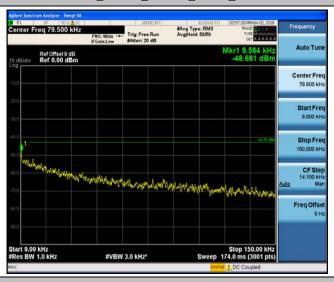


Band4\_10MHz\_16QAM\_20175\_1RB#0





### Band4\_10MHz\_16QAM\_20350\_1RB#0



Band4\_10MHz\_16QAM\_20350\_1RB#0

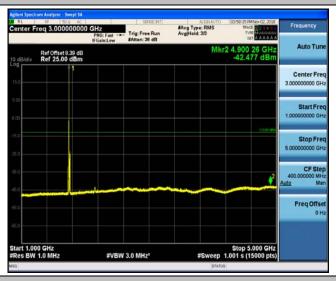


Band4\_10MHz\_16QAM\_20350\_1RB#0

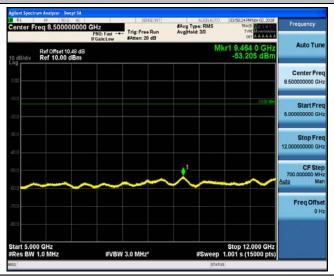




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Band4\_10MHz\_16QAM\_20350\_1RB#0



Band4\_10MHz\_16QAM\_20350\_1RB#0

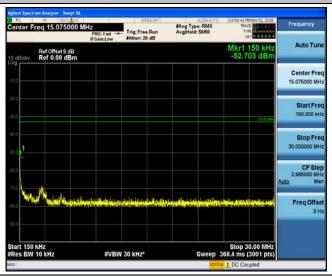




### Band4\_15MHz\_QPSK\_20025\_1RB#0

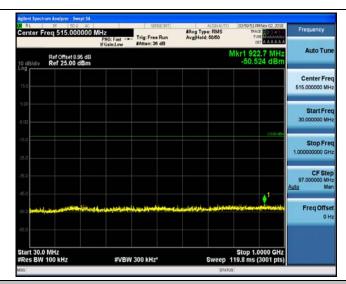


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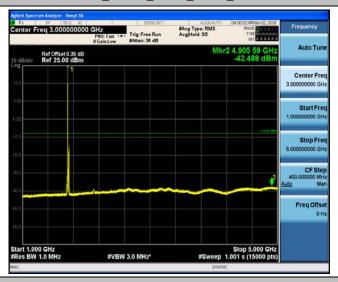


Band4\_15MHz\_QPSK\_20025\_1RB#0





### Band4\_15MHz\_QPSK\_20025\_1RB#0



# Band4\_15MHz\_QPSK\_20025\_1RB#0

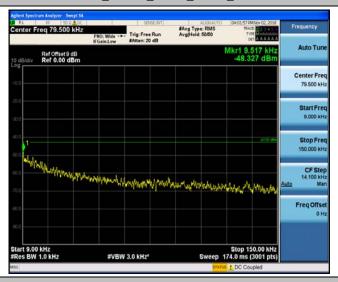


Band4\_15MHz\_QPSK\_20025\_1RB#0

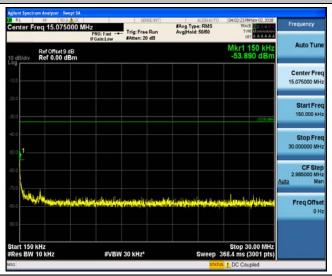




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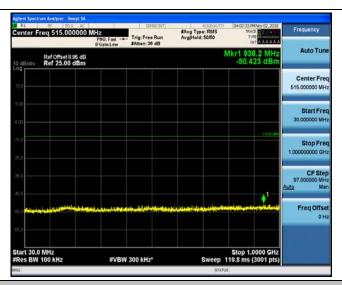


# Band4\_15MHz\_QPSK\_20175\_1RB#0

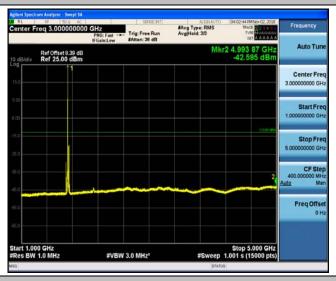


Band4\_15MHz\_QPSK\_20175\_1RB#0





### Band4\_15MHz\_QPSK\_20175\_1RB#0



# Band4\_15MHz\_QPSK\_20175\_1RB#0

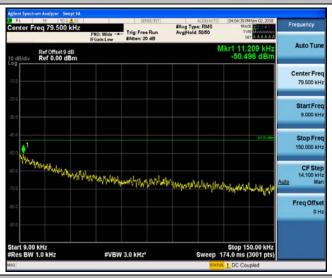


Band4\_15MHz\_QPSK\_20175\_1RB#0





## Band4\_15MHz\_QPSK\_20325\_1RB#0

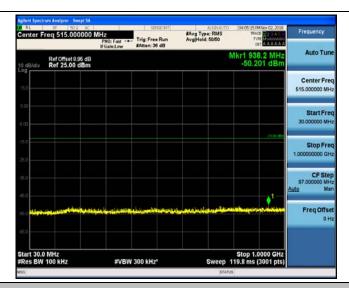


Band4\_15MHz\_QPSK\_20325\_1RB#0



Band4\_15MHz\_QPSK\_20325\_1RB#0

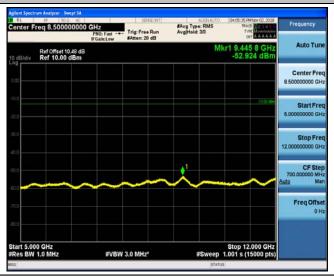




## Band4\_15MHz\_QPSK\_20325\_1RB#0



Band4\_15MHz\_QPSK\_20325\_1RB#0



Band4\_15MHz\_QPSK\_20325\_1RB#0

Band 4

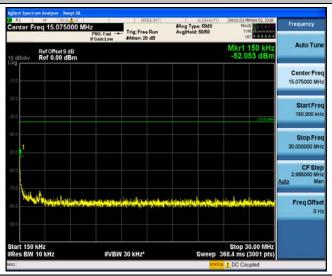




## Band4\_15MHz\_16QAM\_20025\_1RB#0

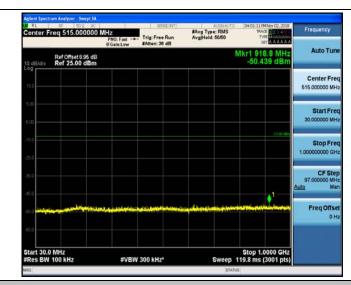


Band4\_15MHz\_16QAM\_20025\_1RB#0



Band4\_15MHz\_16QAM\_20025\_1RB#0

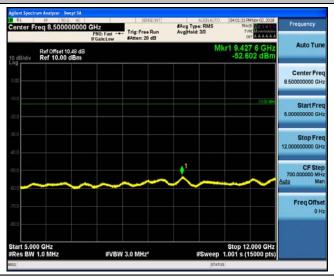




### Band4\_15MHz\_16QAM\_20025\_1RB#0



Band4\_15MHz\_16QAM\_20025\_1RB#0



Band4\_15MHz\_16QAM\_20025\_1RB#0

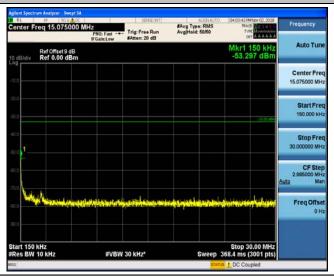




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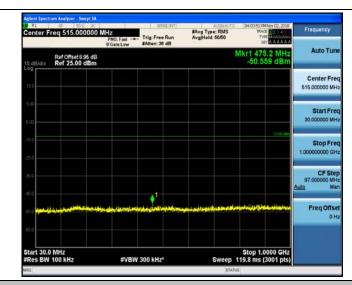


Band4\_15MHz\_16QAM\_20175\_1RB#0



Band4\_15MHz\_16QAM\_20175\_1RB#0





Band4\_15MHz\_16QAM\_20175\_1RB#0



Band4\_15MHz\_16QAM\_20175\_1RB#0

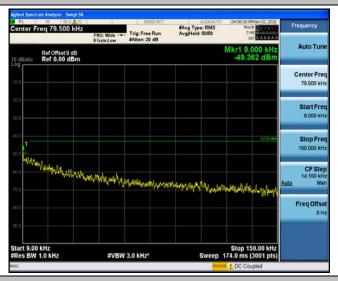


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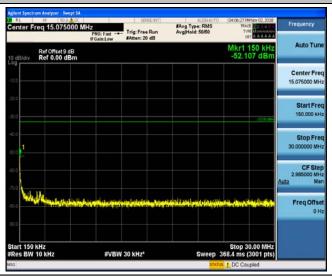




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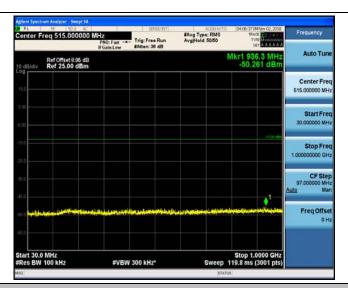


Band4\_15MHz\_16QAM\_20325\_1RB#0



Band4\_15MHz\_16QAM\_20325\_1RB#0

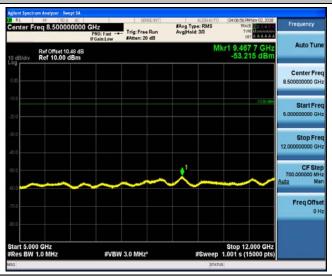




Band4\_15MHz\_16QAM\_20325\_1RB#0



Band4\_15MHz\_16QAM\_20325\_1RB#0



Band4\_15MHz\_16QAM\_20325\_1RB#0

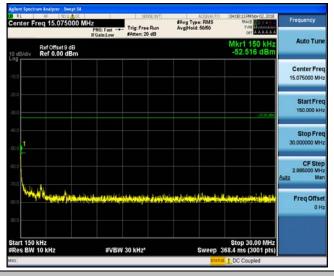




### Band4\_20MHz\_QPSK\_20050\_1RB#0

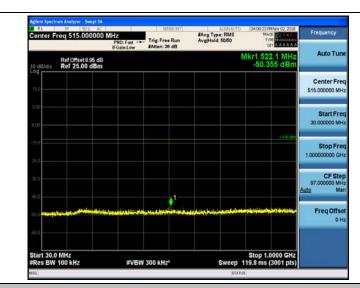


# Band4\_20MHz\_QPSK\_20050\_1RB#0

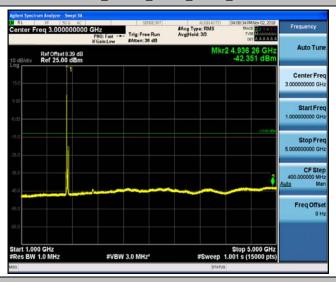


Band4\_20MHz\_QPSK\_20050\_1RB#0

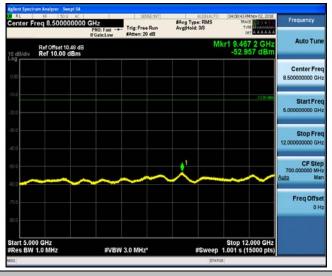




### Band4\_20MHz\_QPSK\_20050\_1RB#0



# Band4\_20MHz\_QPSK\_20050\_1RB#0



Band4\_20MHz\_QPSK\_20050\_1RB#0

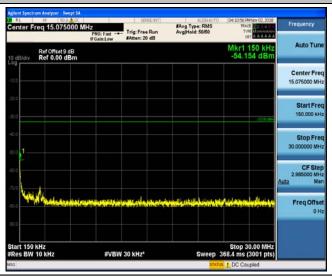




### Band4\_20MHz\_QPSK\_20175\_1RB#0

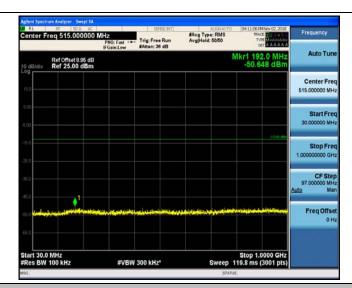


# Band4\_20MHz\_QPSK\_20175\_1RB#0

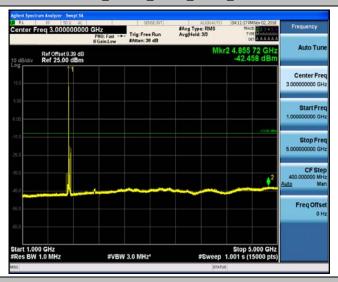


Band4\_20MHz\_QPSK\_20175\_1RB#0





### Band4\_20MHz\_QPSK\_20175\_1RB#0



# Band4\_20MHz\_QPSK\_20175\_1RB#0



Band4\_20MHz\_QPSK\_20175\_1RB#0





### Band4\_20MHz\_QPSK\_20300\_1RB#0

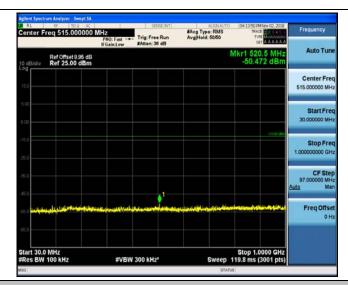


# Band4\_20MHz\_QPSK\_20300\_1RB#0



Band4\_20MHz\_QPSK\_20300\_1RB#0





### Band4\_20MHz\_QPSK\_20300\_1RB#0



# Band4\_20MHz\_QPSK\_20300\_1RB#0



Band4\_20MHz\_QPSK\_20300\_1RB#0

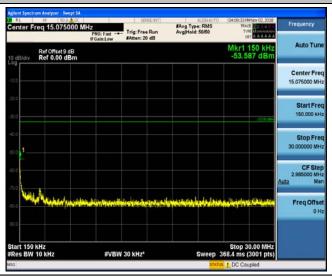




### Band4\_20MHz\_16QAM\_20050\_1RB#0



Band4\_20MHz\_16QAM\_20050\_1RB#0

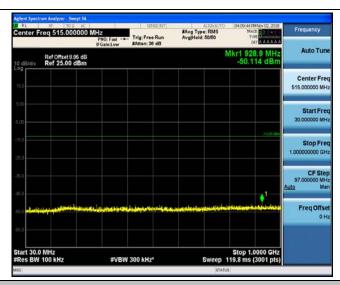


Band4\_20MHz\_16QAM\_20050\_1RB#0

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Band 4

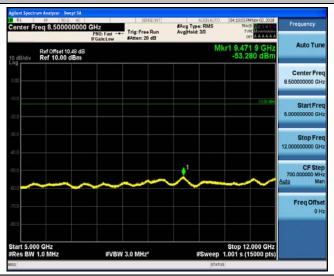




### Band4\_20MHz\_16QAM\_20050\_1RB#0



Band4\_20MHz\_16QAM\_20050\_1RB#0



Band4\_20MHz\_16QAM\_20050\_1RB#0

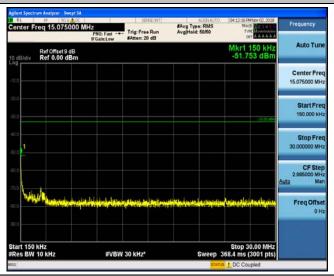




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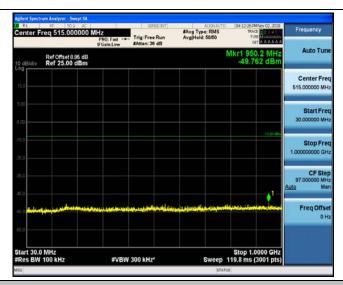


Band4\_20MHz\_16QAM\_20175\_1RB#0



Band4\_20MHz\_16QAM\_20175\_1RB#0





### Band4\_20MHz\_16QAM\_20175\_1RB#0



Band4\_20MHz\_16QAM\_20175\_1RB#0

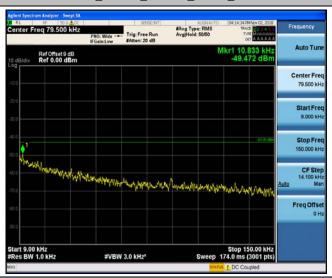


Band4\_20MHz\_16QAM\_20175\_1RB#0

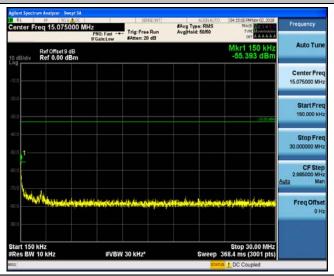




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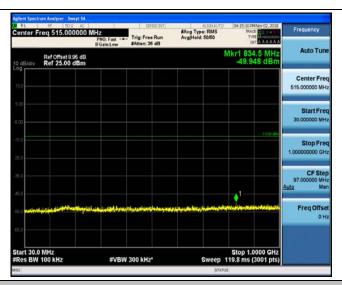


Band4\_20MHz\_16QAM\_20300\_1RB#0



Band4\_20MHz\_16QAM\_20300\_1RB#0





### Band4\_20MHz\_16QAM\_20300\_1RB#0



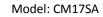
# Band4\_20MHz\_16QAM\_20300\_1RB#0



Band4\_20MHz\_16QAM\_20300\_1RB#0

TEST Model: CM17SA







# **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	4.78	0.002794	± 2.5	PASS
	LCH	VN	TN	0.6	0.000351	± 2.5	PASS
		VH	TN	-1.58	-0.000924	± 2.5	PASS
		VL	TN	2.93	0.001691	± 2.5	PASS
QPSK	MCH	VN	TN	3.51	0.002026	± 2.5	PASS
		VH	TN	-1.86	-0.001074	± 2.5	PASS
		VL	TN	0.47	0.000268	± 2.5	PASS
	HCH	VN	TN	4.07	0.002320	± 2.5	PASS
		VH	TN	-0.56	-0.000319	± 2.5	PASS
		VL	TN	2.22	0.001298	± 2.5	PASS
	LCH	VN	TN	1.23	0.000719	± 2.5	PASS
		VH	TN	-0.89	-0.000520	± 2.5	PASS
		VL	TN	-0.35	-0.000202	± 2.5	PASS
16QAM	MCH	VN	TN	-1.55	-0.000895	± 2.5	PASS
		VH	TN	0.63	0.000364	± 2.5	PASS
	нсн	VL	TN	0.55	0.000314	± 2.5	PASS
		VN	TN	2.5	0.001425	± 2.5	PASS
		VH	TN	3.84	0.002189	± 2.5	PASS
			Tempe	erature			
Modulation	Channe I	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	-0.3	-0.000175	± 2.5	PASS
		VN	-20	3.52	0.002058	± 2.5	PASS
		VN	-10	0.24	0.000140	± 2.5	PASS
		VN	0	0.81	0.000473	± 2.5	PASS
QPSK	LCH	VN	10	2.45	0.001432	± 2.5	PASS
		VN	20	2.06	0.001204	± 2.5	PASS
		VN	30	0.56	0.000327	± 2.5	PASS
		VN	40	0.36	0.000210	± 2.5	PASS
		VN	50	2.01	0.001175	± 2.5	PASS

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

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VN	20	-1.53	-0.000872	± 2.5	PASS
VN	30	-1.58	-0.000901	± 2.5	PASS
VN	40	3.4	0.001938	± 2.5	PASS
VN	50	-1.87	-0.001066	± 2.5	PASS

**Channel Bandwidth: 3 MHz** 

			Channel Band	lwidth: 3 MHz+			
				tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	-0.48	-0.000280	± 2.5	PASS
	LCH	VN	TN	4.1	0.002396	± 2.5	PASS
		VH	TN	1.17	0.000684	± 2.5	PASS
		VL	TN	-1.81	-0.001045	± 2.5	PASS
QPSK	MCH	VN	TN	1.35	0.000779	± 2.5	PASS
		VH	TN	-0.47	-0.000271	± 2.5	PASS
		VL	TN	1.25	0.000713	± 2.5	PASS
	HCH	VN	TN	1.15	0.000656	± 2.5	PASS
		VH	TN	0.75	0.000428	± 2.5	PASS
		VL	TN	4.74	0.002770	± 2.5	PASS
	LCH	VN	TN	3.43	0.002004	± 2.5	PASS
		VH	TN	4.2	0.002454	± 2.5	PASS
		VL	TN	3.02	0.001743	± 2.5	PASS
16QAM	MCH	VN	TN	2.39	0.001380	± 2.5	PASS
		VH	TN	-0.64	-0.000369	± 2.5	PASS
		VL	TN	-1.57	-0.000895	± 2.5	PASS
	HCH	VN	TN	0.57	0.000325	± 2.5	PASS
		VH	TN	1.62	0.000924	± 2.5	PASS
			Tempe	erature		•	
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	1.77	0.001034	± 2.5	PASS
		VN	-20	0.98	0.000573	± 2.5	PASS
		VN	-10	0.05	0.000029	± 2.5	PASS
		VN	0	0.83	0.000485	± 2.5	PASS
QPSK	LCH	VN	10	0.89	0.000520	± 2.5	PASS
		VN	20	0.91	0.000532	± 2.5	PASS
		VN	30	1.45	0.000847	± 2.5	PASS
		VN	40	-0.93	-0.000543	± 2.5	PASS
		VN	50	-1.39	-0.000812	± 2.5	PASS
	MCH	VN	-30	-1.29	-0.000745	± 2.5	PASS

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VN		ı	1		ı	I	1	
VN 0 -0.42 -0.000242 ±2.5 PA  VN 10 -1.65 -0.000952 ±2.5 PA  VN 20 1.17 0.000675 ±2.5 PA  VN 30 2.04 0.001177 ±2.5 PA  VN 40 -0.03 -0.00017 ±2.5 PA  VN -50 -0.14 -0.000081 ±2.5 PA  VN -30 0.25 0.000143 ±2.5 PA  VN -20 3.37 0.00192 ±2.5 PA  VN -10 -0.79 -0.000451 ±2.5 PA  VN 0 2.85 0.001625 ±2.5 PA  VN 20 0.32 0.000182 ±2.5 PA  VN 30 -1.94 -0.001106 ±2.5 PA  VN 30 -1.94 -0.001106 ±2.5 PA  VN 50 2.17 0.001238 ±2.5 PA  VN 50 2.17 0.001238 ±2.5 PA  VN -20 3.56 0.002055 ±2.5 PA  VN -20 3.56 0.002055 ±2.5 PA  VN 0 3 -0.56 -0.000323 ±2.5 PA  VN 0 3 -0.56 -0.000323 ±2.5 PA  VN 10 0.72 0.00416 ±2.5 PA  VN 0 3.71 0.002141 ±2.5 PA  VN 10 -0.67 -0.000387 ±2.5 PA  VN 20 -0.37 -0.000214 ±2.5 PA  VN 30 4.72 0.002724 ±2.5 PA  VN 30 4.72 0.002724 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 -1.16 -0.000692 ±2.5 PA  VN -20 -1.16 -0.000692 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -20 -1.57 -0.0000194 ±2.5 PA  VN -20 -1.57 -0.0000195 ±2.5 PA  VN -20			VN	-20	0.38	0.000219	± 2.5	PASS
VN 10 -1.65 -0.000952 ±2.5 PA  VN 20 1.17 0.000675 ±2.5 PA  VN 30 2.04 0.001177 ±2.5 PA  VN 40 -0.03 -0.000017 ±2.5 PA  VN 50 -0.14 -0.00081 ±2.5 PA  VN -30 0.25 0.000143 ±2.5 PA  VN -20 3.37 0.001922 ±2.5 PA  VN -10 -0.79 -0.000451 ±2.5 PA  VN 0 3.84 0.002076 ±2.5 PA  VN 20 0.32 0.000182 ±2.5 PA  VN 30 -1.94 -0.001106 ±2.5 PA  VN 40 2.55 0.001454 ±2.5 PA  VN 50 2.17 0.001238 ±2.5 PA  VN -30 -0.56 -0.000323 ±2.5 PA  VN -20 3.56 0.002055 ±2.5 PA  VN -10 0.72 0.000416 ±2.5 PA  VN -10 0.72 0.000416 ±2.5 PA  VN -10 10.72 0.000416 ±2.5 PA  VN -10 10.72 0.000416 ±2.5 PA  VN -10 10.072 0.000416 ±2.5 PA  VN -10 10.67 -0.000387 ±2.5 PA  VN -20 4.49 0.002661 ±2.5 PA  VN -30 0.79 0.000451 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 4.49 0.002661 ±2.5 PA  VN -20 -1.16 0.000698 ±2.5 PA  VN -20 -1.16 0.000692 ±2.5 PA  VN -20 -1.16 0.000693 ±2.5			VN	-10	-0.87	-0.000502	± 2.5	PASS
VN 20 1.17 0.000675 ±2.5 PA  VN 30 2.04 0.001177 ±2.5 PA  VN 40 -0.03 -0.000017 ±2.5 PA  VN 50 -0.14 -0.00081 ±2.5 PA  VN -30 0.25 0.000143 ±2.5 PA  VN -20 3.37 0.001922 ±2.5 PA  VN -10 -0.79 -0.000451 ±2.5 PA  VN 0 2.85 0.001625 ±2.5 PA  VN 10 3.64 0.002076 ±2.5 PA  VN 20 0.32 0.000182 ±2.5 PA  VN 30 -1.94 -0.001106 ±2.5 PA  VN 40 2.55 0.001454 ±2.5 PA  VN 50 2.17 0.001238 ±2.5 PA  VN -30 -0.56 -0.000323 ±2.5 PA  VN -20 3.56 0.002055 ±2.5 PA  VN 0 -3.56 0.002055 ±2.5 PA  VN 0 -3.71 0.001241 ±2.5 PA  VN 10 0.72 0.000416 ±2.5 PA  VN 20 -0.37 -0.000214 ±2.5 PA  VN 20 -1.75 -0.001010 ±2.5 PA  VN 30 4.72 0.002724 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 -1.16 -0.000698 ±2.5 PA  VN -20 -1.16 -0.000692 ±2.5 PA  VN -20 -1.16 -0.000693 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA			VN	0	-0.42	-0.000242	± 2.5	PASS
VN			VN	10	-1.65	-0.000952	± 2.5	PASS
VN			VN	20	1.17	0.000675	± 2.5	PASS
VN 50			VN	30	2.04	0.001177	± 2.5	PASS
N			VN	40	-0.03	-0.000017	± 2.5	PASS
HCH    N			VN	50	-0.14	-0.000081	± 2.5	PASS
HCH HCH    HCH   VN			VN	-30	0.25	0.000143	± 2.5	PASS
HCH    VN			VN	-20	3.37	0.001922	± 2.5	PASS
HCH			VN	-10	-0.79	-0.000451	± 2.5	PASS
VN 20 0.32 0.000182 ±2.5 PA  VN 30 -1.94 -0.001106 ±2.5 PA  VN 40 2.55 0.001454 ±2.5 PA  VN 50 2.17 0.001238 ±2.5 PA  VN -30 -0.56 -0.000323 ±2.5 PA  VN -20 3.56 0.002055 ±2.5 PA  VN -10 0.72 0.000416 ±2.5 PA  VN 0 3.71 0.002141 ±2.5 PA  VN 10 -0.67 -0.000387 ±2.5 PA  VN 20 -0.37 -0.000214 ±2.5 PA  VN 30 4.72 0.002724 ±2.5 PA  VN 40 1.21 0.000698 ±2.5 PA  VN -30 0.79 0.000451 ±2.5 PA  VN -30 0.79 0.000451 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -10 -1.04 -0.000593 ±2.5 PA  VN 0 0 0.65 0.000371 ±2.5 PA  VN 20 -1.16 -0.000662 ±2.5 PA  VN 30 2.36 0.001346 ±2.5 PA  VN 40 4.52 0.002578 ±2.5 PA  VN -30 -0.34 -0.000194 ±2.5 PA  VN -30 -0.55 -0.00014 ±2.5 PA  VN -20 -1.57 -0.000194 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA			VN	0	2.85	0.001625	± 2.5	PASS
VN         30         -1.94         -0.001106         ± 2.5         PA           VN         40         2.55         0.001454         ± 2.5         PA           VN         50         2.17         0.001238         ± 2.5         PA           VN         -30         -0.56         -0.000323         ± 2.5         PA           VN         -20         3.56         0.002055         ± 2.5         PA           VN         -10         0.72         0.000416         ± 2.5         PA           VN         -10         0.72         0.000416         ± 2.5         PA           VN         10         -0.67         -0.000387         ± 2.5         PA           VN         10         -0.67         -0.000387         ± 2.5         PA           VN         30         4.72         0.002724         ± 2.5         PA           VN         40         1.21         0.000698         ± 2.5         PA           VN         -30         0.79         0.000451         ± 2.5         PA           VN         -20         4.49         0.002561         ± 2.5         PA           VN         -10         -1.16		нсн	VN	10	3.64	0.002076	± 2.5	PASS
VN 40 2.55 0.001454 ±2.5 PA  VN 50 2.17 0.001238 ±2.5 PA  VN -30 -0.56 -0.000323 ±2.5 PA  VN -20 3.56 0.002055 ±2.5 PA  VN -10 0.72 0.000416 ±2.5 PA  VN 0 3.71 0.002141 ±2.5 PA  VN 10 -0.67 -0.000387 ±2.5 PA  VN 20 -0.37 -0.000214 ±2.5 PA  VN 30 4.72 0.002724 ±2.5 PA  VN 40 1.21 0.000698 ±2.5 PA  VN -30 0.79 0.000451 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN 0 0 0.65 0.000371 ±2.5 PA  VN 0 0 0.65 0.000371 ±2.5 PA  VN 20 -1.16 -0.000692 ±2.5 PA  VN 30 2.36 0.001346 ±2.5 PA  VN 30 2.36 0.001346 ±2.5 PA  VN 30 -30 -0.55 -0.000314 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA			VN	20	0.32	0.000182	± 2.5	PASS
VN 50 2.17 0.001238 ±2.5 PA  VN -30 -0.56 -0.000323 ±2.5 PA  VN -20 3.56 0.002055 ±2.5 PA  VN -10 0.72 0.000416 ±2.5 PA  VN 0 3.71 0.002141 ±2.5 PA  VN 20 -0.37 -0.000214 ±2.5 PA  VN 30 4.72 0.002724 ±2.5 PA  VN 40 1.21 0.000698 ±2.5 PA  VN -30 0.79 0.000451 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN 0 0 0.65 0.000371 ±2.5 PA  VN 0 0 0.65 0.000371 ±2.5 PA  VN 20 -1.16 -0.000692 ±2.5 PA  VN 30 2.36 0.001346 ±2.5 PA  VN 30 2.36 0.001346 ±2.5 PA  VN 40 4.52 0.002578 ±2.5 PA  VN -30 -0.55 -0.000194 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA			VN	30	-1.94	-0.001106	± 2.5	PASS
VN			VN	40	2.55	0.001454	± 2.5	PASS
OPSK  VN			VN	50	2.17	0.001238	± 2.5	PASS
Change   C			VN	-30	-0.56	-0.000323	± 2.5	PASS
CH			VN	-20	3.56	0.002055	± 2.5	PASS
ACH VN 10 -0.67 -0.000387 ±2.5 PA VN 20 -0.37 -0.000214 ±2.5 PA VN 30 4.72 0.002724 ±2.5 PA VN 40 1.21 0.000698 ±2.5 PA VN 50 -1.75 -0.001010 ±2.5 PA VN -30 0.79 0.000451 ±2.5 PA VN -20 4.49 0.002561 ±2.5 PA VN -10 -1.04 -0.000593 ±2.5 PA VN 0 0.65 0.000371 ±2.5 PA VN 20 -1.16 -0.000662 ±2.5 PA VN 30 2.36 0.001346 ±2.5 PA VN 40 4.52 0.002578 ±2.5 PA VN 50 -0.34 -0.000194 ±2.5 PA VN -30 -0.55 -0.000314 ±2.5 PA VN -20 -1.57 -0.000895 ±2.5 PA VN -20 -1.57 -0.000895 ±2.5 PA			VN	-10	0.72	0.000416	± 2.5	PASS
VN         20         -0.37         -0.000214         ± 2.5         PA           VN         30         4.72         0.002724         ± 2.5         PA           VN         40         1.21         0.000698         ± 2.5         PA           VN         50         -1.75         -0.001010         ± 2.5         PA           VN         -30         0.79         0.000451         ± 2.5         PA           VN         -20         4.49         0.002561         ± 2.5         PA           VN         -10         -1.04         -0.000593         ± 2.5         PA           VN         0         0.65         0.000371         ± 2.5         PA           VN         10         1.5         0.000855         ± 2.5         PA           VN         20         -1.16         -0.000662         ± 2.5         PA           VN         30         2.36         0.001346         ± 2.5         PA           VN         40         4.52         0.000578         ± 2.5         PA           VN         -30         -0.55         -0.000314         ± 2.5         PA           VN         -30         -0.55			VN	0	3.71	0.002141	± 2.5	PASS
VN         30         4.72         0.002724         ± 2.5         PA           VN         40         1.21         0.000698         ± 2.5         PA           VN         50         -1.75         -0.001010         ± 2.5         PA           VN         -30         0.79         0.000451         ± 2.5         PA           VN         -20         4.49         0.002561         ± 2.5         PA           VN         -10         -1.04         -0.000593         ± 2.5         PA           VN         0         0.65         0.000371         ± 2.5         PA           VN         10         1.5         0.000855         ± 2.5         PA           VN         20         -1.16         -0.000662         ± 2.5         PA           VN         30         2.36         0.001346         ± 2.5         PA           VN         40         4.52         0.002578         ± 2.5         PA           VN         -30         -0.55         -0.000194         ± 2.5         PA           VN         -20         -1.57         -0.000895         ± 2.5         PA           VN         -20         -1.57		LCH	VN	10	-0.67	-0.000387	± 2.5	PASS
VN         40         1.21         0.000698         ± 2.5         PA           VN         50         -1.75         -0.001010         ± 2.5         PA           VN         -30         0.79         0.000451         ± 2.5         PA           VN         -20         4.49         0.002561         ± 2.5         PA           VN         -10         -1.04         -0.000593         ± 2.5         PA           VN         0         0.65         0.000371         ± 2.5         PA           VN         10         1.5         0.000855         ± 2.5         PA           VN         20         -1.16         -0.000662         ± 2.5         PA           VN         30         2.36         0.001346         ± 2.5         PA           VN         40         4.52         0.002578         ± 2.5         PA           VN         50         -0.34         -0.000194         ± 2.5         PA           VN         -30         -0.55         -0.000314         ± 2.5         PA           VN         -20         -1.57         -0.000895         ± 2.5         PA           VN         -10         0.27			VN	20	-0.37	-0.000214	± 2.5	PASS
VN 50 -1.75 -0.001010 ±2.5 PA  VN -30 0.79 0.000451 ±2.5 PA  VN -20 4.49 0.002561 ±2.5 PA  VN -10 -1.04 -0.000593 ±2.5 PA  VN 0 0.65 0.000371 ±2.5 PA  VN 10 1.5 0.000855 ±2.5 PA  VN 20 -1.16 -0.000662 ±2.5 PA  VN 30 2.36 0.001346 ±2.5 PA  VN 40 4.52 0.002578 ±2.5 PA  VN 50 -0.34 -0.000194 ±2.5 PA  VN -30 -0.55 -0.000314 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA  VN -20 -1.57 -0.000895 ±2.5 PA			VN	30	4.72	0.002724	± 2.5	PASS
VN         -30         0.79         0.000451         ± 2.5         PA           VN         -20         4.49         0.002561         ± 2.5         PA           VN         -10         -1.04         -0.000593         ± 2.5         PA           VN         0         0.65         0.000371         ± 2.5         PA           VN         10         1.5         0.000855         ± 2.5         PA           VN         20         -1.16         -0.000662         ± 2.5         PA           VN         30         2.36         0.001346         ± 2.5         PA           VN         40         4.52         0.002578         ± 2.5         PA           VN         50         -0.34         -0.000194         ± 2.5         PA           VN         -30         -0.55         -0.000314         ± 2.5         PA           VN         -20         -1.57         -0.000895         ± 2.5         PA           VN         -10         0.27         0.000154         ± 2.5         PA			VN	40	1.21	0.000698	± 2.5	PASS
VN -20 4.49 0.002561 ± 2.5 PA  VN -10 -1.04 -0.000593 ± 2.5 PA  VN 0 0.65 0.000371 ± 2.5 PA  VN 10 1.5 0.000855 ± 2.5 PA  VN 20 -1.16 -0.000662 ± 2.5 PA  VN 30 2.36 0.001346 ± 2.5 PA  VN 40 4.52 0.002578 ± 2.5 PA  VN 50 -0.34 -0.000194 ± 2.5 PA  VN -30 -0.55 -0.000314 ± 2.5 PA  VN -20 -1.57 -0.000895 ± 2.5 PA  VN -20 -1.57 -0.000895 ± 2.5 PA  VN -10 0.27 0.000154 ± 2.5 PA			VN	50	-1.75	-0.001010	± 2.5	PASS
QPSK           WN         -10         -1.04         -0.000593         ± 2.5         PA           VN         0         0.65         0.000371         ± 2.5         PA           VN         10         1.5         0.000855         ± 2.5         PA           VN         20         -1.16         -0.000662         ± 2.5         PA           VN         30         2.36         0.001346         ± 2.5         PA           VN         40         4.52         0.002578         ± 2.5         PA           VN         50         -0.34         -0.000194         ± 2.5         PA           VN         -30         -0.55         -0.000314         ± 2.5         PA           VN         -20         -1.57         -0.000895         ± 2.5         PA           VN         -10         0.27         0.000154         ± 2.5         PA			VN	-30	0.79	0.000451	± 2.5	PASS
VN         0         0.65         0.000371         ± 2.5         PA           VN         10         1.5         0.000855         ± 2.5         PA           VN         20         -1.16         -0.000662         ± 2.5         PA           VN         30         2.36         0.001346         ± 2.5         PA           VN         40         4.52         0.002578         ± 2.5         PA           VN         50         -0.34         -0.000194         ± 2.5         PA           VN         -30         -0.55         -0.000314         ± 2.5         PA           VN         -20         -1.57         -0.000895         ± 2.5         PA           VN         -10         0.27         0.000154         ± 2.5         PA			VN	-20	4.49	0.002561	± 2.5	PASS
MCH	ODOK		VN	-10	-1.04	-0.000593	± 2.5	PASS
VN 20 -1.16 -0.000662 ± 2.5 PA  VN 30 2.36 0.001346 ± 2.5 PA  VN 40 4.52 0.002578 ± 2.5 PA  VN 50 -0.34 -0.000194 ± 2.5 PA  VN -30 -0.55 -0.000314 ± 2.5 PA  VN -20 -1.57 -0.000895 ± 2.5 PA  VN -10 0.27 0.000154 ± 2.5 PA	QPSK		VN	0	0.65	0.000371	± 2.5	PASS
VN 30 2.36 0.001346 ± 2.5 PA  VN 40 4.52 0.002578 ± 2.5 PA  VN 50 -0.34 -0.000194 ± 2.5 PA  VN -30 -0.55 -0.000314 ± 2.5 PA  VN -20 -1.57 -0.000895 ± 2.5 PA  VN -10 0.27 0.000154 ± 2.5 PA		МСН	VN	10	1.5	0.000855	± 2.5	PASS
VN 40 4.52 0.002578 ± 2.5 PA  VN 50 -0.34 -0.000194 ± 2.5 PA  VN -30 -0.55 -0.000314 ± 2.5 PA  VN -20 -1.57 -0.000895 ± 2.5 PA  VN -10 0.27 0.000154 ± 2.5 PA			VN	20	-1.16	-0.000662	± 2.5	PASS
VN 50 -0.34 -0.000194 ± 2.5 PA  VN -30 -0.55 -0.000314 ± 2.5 PA  VN -20 -1.57 -0.000895 ± 2.5 PA  VN -10 0.27 0.000154 ± 2.5 PA			VN	30	2.36	0.001346	± 2.5	PASS
VN -30 -0.55 -0.000314 ± 2.5 PA  VN -20 -1.57 -0.000895 ± 2.5 PA  VN -10 0.27 0.000154 ± 2.5 PA			VN	40	4.52	0.002578	± 2.5	PASS
VN -20 -1.57 -0.000895 ± 2.5 PA VN -10 0.27 0.000154 ± 2.5 PA			VN	50	-0.34	-0.000194	± 2.5	PASS
VN -10 0.27 0.000154 ± 2.5 PA			VN	-30	-0.55	-0.000314	± 2.5	PASS
HCH			VN	-20	-1.57	-0.000895	± 2.5	PASS
HCH VN 0 -1.55 -0.000884 + 2.5 PA			VN	-10	0.27	0.000154	± 2.5	PASS
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		HCH	VN	0	-1.55	-0.000884	± 2.5	PASS
VN 10 -1.39 -0.000793 ± 2.5 PA			VN	10	-1.39	-0.000793	± 2.5	PASS
VN 20 -1.57 -0.000895 ± 2.5 PA			VN	20	-1.57	-0.000895	± 2.5	PASS

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	VN	30	-1.24	-0.000707	± 2.5	PASS
	VN	40	4.88	0.002783	± 2.5	PASS
	VN	50	4.31	0.002458	± 2.5	PASS

### **Channel Bandwidth: 5 MHz**

			Channel Ban	dwidth: 5 MHz			
				tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	0.48	0.000280	± 2.5	PASS
	LCH	VN	TN	3.74	0.002184	± 2.5	PASS
		VH	TN	-1.53	-0.000893	± 2.5	PASS
		VL	TN	-0.39	-0.000225	± 2.5	PASS
QPSK	MCH	VN	TN	0.23	0.000133	± 2.5	PASS
		VH	TN	1.52	0.000877	± 2.5	PASS
		VL	TN	-1.81	-0.001033	± 2.5	PASS
	HCH	VN	TN	2.56	0.001461	± 2.5	PASS
		VH	TN	3.92	0.002237	± 2.5	PASS
		VL	TN	2.54	0.001483	± 2.5	PASS
	LCH	VN	TN	1.15	0.000672	± 2.5	PASS
		VH	TN	-1.1	-0.000642	± 2.5	PASS
		VL	TN	0.9	0.000519	± 2.5	PASS
16QAM	MCH	VN	TN	-1.65	-0.000952	± 2.5	PASS
		VH	TN	3	0.001732	± 2.5	PASS
		VL	TN	4.7	0.002682	± 2.5	PASS
	HCH	VN	TN	4.12	0.002351	± 2.5	PASS
		VH	TN	0.35	0.000200	± 2.5	PASS
	T	1	Tempe	erature	1		
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	4.59	0.002680	± 2.5	PASS
		VN	-20	1.77	0.001034	± 2.5	PASS
		VN	-10	4.77	0.002785	± 2.5	PASS
		VN	0	0.33	0.000193	± 2.5	PASS
	LCH	VN	10	2.87	0.001676	± 2.5	PASS
QPSK		VN	20	0.37	0.000216	± 2.5	PASS
		VN	30	-0.6	-0.000350	± 2.5	PASS
		VN	40	-0.62	-0.000362	± 2.5	PASS
		VN	50	1.98	0.001156	± 2.5	PASS
	MCH	VN	-30	4.77	0.002753	± 2.5	PASS
	IVICII	VN	-20	-0.68	-0.000392	± 2.5	PASS

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		\ /A!	40	2.21	0.000470		DAGG
		VN	-10	-0.31	-0.000179	± 2.5	PASS
		VN	0	4.1	0.002367	± 2.5	PASS
		VN	10	3.89	0.002245	± 2.5	PASS
		VN	20	-1.35	-0.000779	± 2.5	PASS
		VN	30	-0.34	-0.000196	± 2.5	PASS
		VN	40	2.57	0.001483	± 2.5	PASS
		VN	50	-1.63	-0.000941	± 2.5	PASS
		VN	-30	1.97	0.001124	± 2.5	PASS
		VN	-20	-1.42	-0.000744	± 2.5	PASS
		VN	-10	2.04	0.001069	± 2.5	PASS
		VN	0	0.15	0.000079	± 2.5	PASS
	HCH	VN	10	0.02	0.000010	± 2.5	PASS
		VN	20	-1.97	-0.001033	± 2.5	PASS
		VN	30	2.27	0.001190	± 2.5	PASS
		VN	40	4.43	0.002322	± 2.5	PASS
		VN	50	1.62	0.000849	± 2.5	PASS
<u> </u>		VN	-30	0.72	0.000416	± 2.5	PASS
		VN	-20	3.98	0.002297	± 2.5	PASS
		VN	-10	1.59	0.000918	± 2.5	PASS
		VN	0	1.43	0.000825	± 2.5	PASS
	LCH	VN	10	1.62	0.000935	± 2.5	PASS
		VN	20	0.34	0.000196	± 2.5	PASS
		VN	30	0.96	0.000554	± 2.5	PASS
		VN	40	3.23	0.001864	± 2.5	PASS
		VN	50	-0.5	-0.000289	± 2.5	PASS
		VN	-30	-1.5	-0.000856	± 2.5	PASS
		VN	-20	-1.46	-0.000833	± 2.5	PASS
		VN	-10	1.67	0.000953	± 2.5	PASS
16QAM		VN	0	4.8	0.002739	± 2.5	PASS
	МСН	VN	10	1.37	0.000782	± 2.5	PASS
		VN	20	1.07	0.000611	± 2.5	PASS
		VN	30	2.84	0.001621	± 2.5	PASS
		VN	40	-0.78	-0.000445	± 2.5	PASS
		VN	50	-0.6	-0.000342	± 2.5	PASS
		VN	-30	1.41	0.000739	± 2.5	PASS
		VN	-20	4.06	0.002128	± 2.5	PASS
	нсн	VN	-10	0.34	0.000178	± 2.5	PASS
		VN	0	4.94	0.002590	± 2.5	PASS
		VN	10	4.53	0.002375	± 2.5	PASS
		VN	20	3.69	0.001934	± 2.5	PASS
		VN	30	4.48	0.002349	± 2.5	PASS
	I .	I	<u> </u>		1	1	

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	VN	40	1.46	0.000765	± 2.5	PASS
	VN	50	-1.89	-0.000991	± 2.5	PASS

# **Channel Bandwidth: 10 MHz**

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

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VN				1	T.	r		
VN   20   0.93   0.000537   ±2.5   PASS			VN	0	2.89	0.001668	± 2.5	PASS
VN   30			VN	10	4.62	0.002667	± 2.5	PASS
VN			VN	20	0.93	0.000537	± 2.5	PASS
VN   50			VN	30	-1.9	-0.001097	± 2.5	PASS
VN			VN	40	0.64	0.000369	± 2.5	PASS
N			VN	50	1.81	0.001045	± 2.5	PASS
HCH			VN	-30	0.76	0.000434	± 2.5	PASS
HCH HCH			VN	-20	3.04	0.001737	± 2.5	PASS
HCH			VN	-10	-1.19	-0.000680	± 2.5	PASS
VN			VN	0	2.83	0.001617	± 2.5	PASS
VN		HCH	VN	10	-0.54	-0.000309	± 2.5	PASS
VN			VN	20	-1.43	-0.000817	± 2.5	PASS
VN   50			VN	30	4.35	0.002486	± 2.5	PASS
VN			VN	40	-0.28	-0.000160	± 2.5	PASS
VN			VN	50	1.86	0.001063	± 2.5	PASS
Change   C			VN	-30	0.92	0.000531	± 2.5	PASS
CH		LCH	VN	-20	-1.01	-0.000583	± 2.5	PASS
A			VN	-10	3.94	0.002274	± 2.5	PASS
OPSK         VN         20         0.95         0.000548         ± 2.5         PASS           VN         30         0.87         0.000502         ± 2.5         PASS           VN         40         -0.85         -0.000491         ± 2.5         PASS           VN         50         1.78         0.001027         ± 2.5         PASS           VN         -30         4.61         0.002634         ± 2.5         PASS           VN         -20         -1.77         -0.001011         ± 2.5         PASS           VN         -10         3.87         0.002211         ± 2.5         PASS           VN         0         -0.03         -0.000017         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         -30         -1.13         -0.000666         ± 2.5         PASS           VN			VN	0	0.84	0.000485	± 2.5	PASS
VN         30         0.87         0.000502         ± 2.5         PASS           VN         40         -0.85         -0.000491         ± 2.5         PASS           VN         50         1.78         0.001027         ± 2.5         PASS           VN         -30         4.61         0.002634         ± 2.5         PASS           VN         -20         -1.77         -0.001011         ± 2.5         PASS           VN         -10         3.87         0.002211         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000667         ± 2.5         PASS           VN         -10         -1.31         -0.000749         ± 2.5         PASS           VN <t< td=""><td></td><td>VN</td><td>10</td><td>0.99</td><td>0.000571</td><td>± 2.5</td><td>PASS</td></t<>			VN	10	0.99	0.000571	± 2.5	PASS
VN         40         -0.85         -0.000491         ± 2.5         PASS           VN         50         1.78         0.001027         ± 2.5         PASS           VN         -30         4.61         0.002634         ± 2.5         PASS           VN         -20         -1.77         -0.001011         ± 2.5         PASS           VN         -10         3.87         0.002211         ± 2.5         PASS           VN         0         -0.03         -0.000017         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000646         ± 2.5         PASS           VN         -10         -1.31         -0.000749         ± 2.5         PASS           VN         0			VN	20	0.95	0.000548	± 2.5	PASS
VN         50         1.78         0.001027         ± 2.5         PASS           VN         -30         4.61         0.002634         ± 2.5         PASS           VN         -20         -1.77         -0.001011         ± 2.5         PASS           VN         -10         3.87         0.002211         ± 2.5         PASS           VN         0         -0.03         -0.00017         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000646         ± 2.5         PASS           VN         -20         1.15         0.000657         ± 2.5         PASS           VN         -10         -1.31         -0.000749         ± 2.5         PASS           VN <td< td=""><td></td><td rowspan="3"></td><td>VN</td><td>30</td><td>0.87</td><td>0.000502</td><td>± 2.5</td><td>PASS</td></td<>			VN	30	0.87	0.000502	± 2.5	PASS
VN         -30         4.61         0.002634         ± 2.5         PASS           VN         -20         -1.77         -0.001011         ± 2.5         PASS           VN         -10         3.87         0.002211         ± 2.5         PASS           VN         0         -0.03         -0.000017         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000646         ± 2.5         PASS           VN         -20         1.15         0.000657         ± 2.5         PASS           VN         0         4.12         0.002354         ± 2.5         PASS           VN         10         1.85         0.001057         ± 2.5         PASS           VN         20			VN	40	-0.85	-0.000491	± 2.5	PASS
VN         -20         -1.77         -0.001011         ± 2.5         PASS           VN         -10         3.87         0.002211         ± 2.5         PASS           VN         0         -0.03         -0.000017         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000646         ± 2.5         PASS           VN         -20         1.15         0.000657         ± 2.5         PASS           VN         -10         -1.31         -0.000749         ± 2.5         PASS           VN         10         1.85         0.001057         ± 2.5         PASS           VN         20         0.22         0.000126         ± 2.5         PASS           VN <td< td=""><td></td><td>VN</td><td>50</td><td>1.78</td><td>0.001027</td><td>± 2.5</td><td>PASS</td></td<>			VN	50	1.78	0.001027	± 2.5	PASS
VN         -10         3.87         0.002211         ± 2.5         PASS           VN         0         -0.03         -0.000017         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000646         ± 2.5         PASS           VN         -20         1.15         0.000657         ± 2.5         PASS           VN         -10         -1.31         -0.000749         ± 2.5         PASS           VN         0         4.12         0.002354         ± 2.5         PASS           VN         10         1.85         0.001057         ± 2.5         PASS           VN         20         0.22         0.000126         ± 2.5         PASS           VN         30<			VN	-30	4.61	0.002634	± 2.5	PASS
QPSK         VN         0 -0.003         -0.000017         ± 2.5         PASS           VN         10         2.27         0.001297         ± 2.5         PASS           VN         20         1.44         0.000823         ± 2.5         PASS           VN         30         -1.2         -0.000686         ± 2.5         PASS           VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000646         ± 2.5         PASS           VN         -20         1.15         0.000657         ± 2.5         PASS           VN         -10         -1.31         -0.000749         ± 2.5         PASS           VN         0         4.12         0.002354         ± 2.5         PASS           VN         10         1.85         0.001057         ± 2.5         PASS           VN         20         0.22         0.000126         ± 2.5         PASS           VN         30         -1.19         -0.000680         ± 2.5         <			VN	-20	-1.77	-0.001011	± 2.5	PASS
MCH			VN	-10	3.87	0.002211	± 2.5	PASS
MCH	ODOL		VN	0	-0.03	-0.000017	± 2.5	PASS
VN 30 -1.2 -0.000686 ±2.5 PASS  VN 40 -0.44 -0.000251 ±2.5 PASS  VN 50 -1.9 -0.001086 ±2.5 PASS  VN -30 -1.13 -0.000646 ±2.5 PASS  VN -20 1.15 0.000657 ±2.5 PASS  VN -10 -1.31 -0.000749 ±2.5 PASS  VN 0 4.12 0.002354 ±2.5 PASS  VN 10 1.85 0.001057 ±2.5 PASS  VN 20 0.22 0.000126 ±2.5 PASS  VN 30 -1.19 -0.000680 ±2.5 PASS	QPSK	мсн	VN	10	2.27	0.001297	± 2.5	PASS
VN         40         -0.44         -0.000251         ± 2.5         PASS           VN         50         -1.9         -0.001086         ± 2.5         PASS           VN         -30         -1.13         -0.000646         ± 2.5         PASS           VN         -20         1.15         0.000657         ± 2.5         PASS           VN         -10         -1.31         -0.000749         ± 2.5         PASS           VN         0         4.12         0.002354         ± 2.5         PASS           VN         10         1.85         0.001057         ± 2.5         PASS           VN         20         0.22         0.000126         ± 2.5         PASS           VN         30         -1.19         -0.000680         ± 2.5         PASS			VN	20	1.44	0.000823	± 2.5	PASS
VN 50 -1.9 -0.001086 ±2.5 PASS  VN -30 -1.13 -0.000646 ±2.5 PASS  VN -20 1.15 0.000657 ±2.5 PASS  VN -10 -1.31 -0.000749 ±2.5 PASS  VN 0 4.12 0.002354 ±2.5 PASS  VN 10 1.85 0.001057 ±2.5 PASS  VN 20 0.22 0.000126 ±2.5 PASS  VN 30 -1.19 -0.000680 ±2.5 PASS			VN	30	-1.2	-0.000686	± 2.5	PASS
HCH			VN	40	-0.44	-0.000251	± 2.5	PASS
HCH			VN	50	-1.9	-0.001086	± 2.5	PASS
HCH			VN	-30	-1.13	-0.000646	± 2.5	PASS
HCH			VN	-20	1.15	0.000657	± 2.5	PASS
VN         10         1.85         0.001057         ± 2.5         PASS           VN         20         0.22         0.000126         ± 2.5         PASS           VN         30         -1.19         -0.000680         ± 2.5         PASS		нсн	VN	-10	-1.31	-0.000749	± 2.5	PASS
VN         10         1.85         0.001057         ± 2.5         PASS           VN         20         0.22         0.000126         ± 2.5         PASS           VN         30         -1.19         -0.000680         ± 2.5         PASS			VN	0	4.12	0.002354	± 2.5	PASS
VN 30 -1.19 -0.000680 ± 2.5 PASS			VN	10	1.85	0.001057	± 2.5	PASS
			VN	20	0.22	0.000126	± 2.5	PASS
			VN	30	-1.19	-0.000680	± 2.5	PASS
VN 40 3.11 0.001777 ± 2.5 PASS			VN	40	3.11	0.001777	± 2.5	PASS

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# **Channel Bandwidth: 15 MHz**

Channel Bandwidth: 15 MHz								
Voltage								
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict	
		VL	TN	1.9	0.001106	± 2.5	PASS	
	LCH	VN	TN	4.47	0.002606	± 2.5	PASS	
		VH	TN	3.64	0.002122	± 2.5	PASS	
		VL	TN	-1.83	-0.001056	± 2.5	PASS	
QPSK	MCH	VN	TN	1	0.000577	± 2.5	PASS	
		VH	TN	0.11	0.000063	± 2.5	PASS	
		VL	TN	2.22	0.001269	± 2.5	PASS	
	HCH	VN	TN	-0.17	-0.000097	± 2.5	PASS	
		VH	TN	-0.66	-0.000377	± 2.5	PASS	
		VL	TN	0.78	0.000455	± 2.5	PASS	
	LCH	VN	TN	4.48	0.002612	± 2.5	PASS	
		VH	TN	1.16	0.000676	± 2.5	PASS	
		VL	TN	2.34	0.001351	± 2.5	PASS	
16QAM	MCH	VN	TN	2.87	0.001657	± 2.5	PASS	
		VH	TN	4.5	0.002597	± 2.5	PASS	
	нсн	VL	TN	3.88	0.002217	± 2.5	PASS	
		VN	TN	-1.77	-0.001011	± 2.5	PASS	
		VH	TN	4.86	0.002777	± 2.5	PASS	
	•		Tempe	erature				
Modulation	Channel	Voltage [Vdc]	Temperature $(^{\circ}\mathbb{C})$	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict	
	LCH	VN	-30	-1.53	-0.000891	± 2.5	PASS	
		VN	-20	0.34	0.000198	± 2.5	PASS	
QPSK		VN	-10	1.97	0.001147	± 2.5	PASS	
		VN	0	1.77	0.001031	± 2.5	PASS	
		VN	10	4.69	0.002731	± 2.5	PASS	
		VN	20	-1.2	-0.000699	± 2.5	PASS	
		VN	30	-1.91	-0.001112	± 2.5	PASS	
		VN	40	-1.72	-0.001001	± 2.5	PASS	
		VN	50	0.27	0.000157	± 2.5	PASS	
	MCH	VN	-30	4.72	0.002724	± 2.5	PASS	
		VN	-20	-1.49	-0.000860	± 2.5	PASS	
		VN	-10	0.29	0.000167	± 2.5	PASS	
		VN	0	-1.33	-0.000768	± 2.5	PASS	

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VN   20   2.33   0.001345   ±2.5   PAS   VN   30   4.04   0.002332   ±2.5   PAS   VN   40   4.72   0.002724   ±2.5   PAS   VN   50   -1.14   -0.000658   ±2.5   PAS   VN   -30   0.11   0.000063   ±2.5   PAS   VN   -20   3.34   0.001911   ±2.5   PAS   VN   -10   3.68   0.002106   ±2.5   PAS   VN   -10   3.68   0.002106   ±2.5   PAS   VN   20   2.11   0.001207   ±2.5   PAS   VN   30   0.81   0.000464   ±2.5   PAS   VN   40   3.77   0.002157   ±2.5   PAS   VN   40   3.77   0.002157   ±2.5   PAS   VN   50   0.83   0.000475   ±2.5   PAS   VN   50   0.83   0.000475   ±2.5   PAS   VN   -10   4.32   0.002494   ±2.5   PAS   VN   -10   4.32   0.002494   ±2.5   PAS   VN   20   0.8   0.000462   ±2.5   PAS   VN   30   -1.72   -0.000993   ±2.5   PAS   VN   40   2.54   0.001468   ±2.5   PAS   VN   -30   3.5   0.002003   ±2.5   PAS   VN   -20   4.55   0.002604   ±2.5   PAS   VN   -20   4.55   0.002603   ±2.5   PAS   VN   -20   4.55   0.002603   ±2.5   PAS   VN   -20   4.55   0.002603   ±2.5   PAS   VN   -20   4.55   0.000263   ±2.5   PAS   VN   -20   4.55   0.000468   ±2.5   PAS   VN   -20   3.15   0.001033   ±2.5   PAS   VN   -20   3.15   0.0000773   ±2.5   PAS   VN   -20   3.15   0.0000773   ±2.5   PAS   V			1/1	40	2 72	0.000:==		DAGG
VN								PASS
VN							1	PASS
VN   50							<b>-</b>	PASS
VN							1	PASS
VN								PASS
HCH HCH HCH VN 10 3.68 0.002106 ±2.5 PAS VN 0 3.15 0.001803 ±2.5 PAS VN 10 0.1 0.000057 ±2.5 PAS VN 20 2.11 0.001207 ±2.5 PAS VN 30 0.81 0.000464 ±2.5 PAS VN 40 3.77 0.002157 ±2.5 PAS VN 50 0.83 0.000475 ±2.5 PAS VN -30 1.99 0.001149 ±2.5 PAS VN -20 2.26 0.001304 ±2.5 PAS VN -20 2.26 0.001304 ±2.5 PAS VN -10 4.32 0.002494 ±2.5 PAS VN -10 4.32 0.002494 ±2.5 PAS VN -10 0.07 0.000000 ±2.5 PAS VN -10 0.07 0.000040 ±2.5 PAS VN -20 0.8 0.000462 ±2.5 PAS VN -30 -1.72 -0.000993 ±2.5 PAS VN -30 -1.72 -0.00093 ±2.5 PAS VN -20 4.55 0.002604 ±2.5 PAS VN -20 4.55 0.002604 ±2.5 PAS VN -20 -1.35 -0.000773 ±2.5 PAS VN -20 -1.35 -0.000682 ±2.5 PAS VN -20 -1.35 -0.000682 ±2.5 PAS VN -20 -1.35 -0.000773 ±2.5 PAS VN -20 -1.35 -0.000773 ±2.5 PAS VN -20 -1.35 -0.000688 ±2.5 PAS VN -20 -1.35 -0.000773 ±2.5 PAS VN -20 -1.22 -0.000698 ±2.5 PAS VN -20 -1.22 -0.000698 ±2.5 PAS VN -20 -1.22 -0.000698							<del> </del>	PASS
HCH HCH VN 10 0.1 0.000057 1.2.5 PAS VN 20 2.11 0.001207 1.2.5 PAS VN 30 0.81 0.000464 1.2.5 PAS VN 40 3.77 0.002157 1.2.5 PAS VN 50 0.83 0.000475 1.2.5 PAS VN -20 2.26 0.001304 1.2.5 PAS VN -20 2.26 0.001304 1.2.5 PAS VN -10 4.32 0.002494 1.2.5 PAS VN 20 0.8 VN -10 0.07 0.000040 1.2.5 PAS VN 30 -1.72 -0.00093 1.2.5 PAS VN 30 -1.72 -0.00093 1.2.5 PAS VN -20 4.55 0.002604 1.2.5 PAS VN -20 4.55 0.000668 1.2.5 PAS VN -20 -1.35 0.000773 1.2.5 PAS VN -20 -1.35 0.001803 1.2.5 PAS VN -20 3.15 0.001803 1.2.5 PAS VN -20 -1.35 0.001900 1.2.5 PAS VN -20 -1.35 0.0001900 1.2.5 PAS VN -20 -1.22 -0.000698 1.2.5 PAS VN -10 -10 -10 -10 -10 -10 -10 -10 -10 -10							<del> </del>	PASS
HCH							1	PASS
VN 20 2.11 0.001207 ± 2.5 PAS VN 30 0.81 0.000464 ± 2.5 PAS VN 40 3.77 0.002157 ± 2.5 PAS VN 50 0.83 0.000475 ± 2.5 PAS VN -30 1.99 0.001149 ± 2.5 PAS VN -20 2.26 0.001304 ± 2.5 PAS VN -10 4.32 0.002494 ± 2.5 PAS VN -10 4.32 0.002494 ± 2.5 PAS VN -10 0.07 0.000040 ± 2.5 PAS VN 20 0.8 0.000462 ± 2.5 PAS VN 30 -1.72 -0.000993 ± 2.5 PAS VN 40 2.54 0.001466 ± 2.5 PAS VN -30 3.5 0.002003 ± 2.5 PAS VN -30 3.5 0.002003 ± 2.5 PAS VN -20 4.55 0.002604 ± 2.5 PAS VN -10 2.39 0.001368 ± 2.5 PAS VN -10 2.39 0.001368 ± 2.5 PAS VN -10 2.39 0.001368 ± 2.5 PAS VN -10 1.83 0.001047 ± 2.5 PAS VN -10 1.83 0.001047 ± 2.5 PAS VN -10 2.39 0.001368 ± 2.5 PAS VN -10 3.41 0.000652 ± 2.5 PAS VN -10 3.41 0.001951 ± 2.5 PAS VN -30 3.41 0.001951 ± 2.5 PAS VN -30 -0.85 -0.000486 ± 2.5 PAS VN -20 3.15 0.002638 ± 2.5 PAS VN -20 3.15 0.001803 ± 2.5 PAS VN -10 4.61 0.002638 ± 2.5 PAS VN -10 4.61 0.002638 ± 2.5 PAS VN -10 4.61 0.002638 ± 2.5 PAS VN -10 -1.35 -0.000773 ± 2.5 PAS								PASS
VN 30 0.81 0.000464 ± 2.5 PAS VN 40 3.77 0.002157 ± 2.5 PAS VN 50 0.83 0.000475 ± 2.5 PAS VN -30 1.99 0.001149 ± 2.5 PAS VN -20 2.26 0.001304 ± 2.5 PAS VN -10 4.32 0.002494 ± 2.5 PAS VN 0 -10 4.32 0.002494 ± 2.5 PAS VN 10 0.07 0.000040 ± 2.5 PAS VN 20 0.8 0.000462 ± 2.5 PAS VN 30 -1.72 -0.000993 ± 2.5 PAS VN 40 2.54 0.001466 ± 2.5 PAS VN 50 -0.13 -0.00075 ± 2.5 PAS VN -30 3.5 0.002003 ± 2.5 PAS VN -20 4.55 0.002604 ± 2.5 PAS VN -20 4.55 0.002604 ± 2.5 PAS VN 0 10 1.14 0.000652 ± 2.5 PAS VN 0 11 1.14 0.000652 ± 2.5 PAS VN 30 0.74 0.000473 ± 2.5 PAS VN 30 0.74 0.000423 ± 2.5 PAS VN 30 0.74 0.000423 ± 2.5 PAS VN -30 3.41 0.001951 ± 2.5 PAS VN -30 3.41 0.001951 ± 2.5 PAS VN -30 3.41 0.001951 ± 2.5 PAS VN -20 3.15 0.001803 ± 2.5 PAS VN -20 -1.35 -0.000773 ± 2.5 PAS VN -20 3.15 0.001803 ± 2.5 PAS VN -20 3.15 0.001803 ± 2.5 PAS VN -20 -1.35 -0.000773 ± 2.5 PAS VN -20 -1.35 -0.000773 ± 2.5 PAS VN -20 3.15 0.001803 ± 2.5 PAS VN -20 -1.35 -0.000773 ± 2.5 PAS VN -20 -1.22 -0.000698 ± 2.5 PAS VN -20 -1.22 -0.000698 ± 2.5 PAS		HCH				0.000057	1	PASS
VN			VN	20	2.11	0.001207	± 2.5	PASS
VN   50   0.83   0.000475   ± 2.5   PAS			VN	30	0.81	0.000464	± 2.5	PASS
VN			VN	40	3.77	0.002157	± 2.5	PASS
VN			VN	50	0.83	0.000475	± 2.5	PASS
VN			VN	-30	1.99	0.001149	± 2.5	PASS
Character   VN			VN	-20	2.26	0.001304	± 2.5	PASS
CH			VN	-10	4.32	0.002494	± 2.5	PASS
VN   20		LCH	VN	0	-0.16	-0.000092	± 2.5	PASS
VN         30         -1.72         -0.000993         ± 2.5         PAS           VN         40         2.54         0.001466         ± 2.5         PAS           VN         50         -0.13         -0.000075         ± 2.5         PAS           VN         -30         3.5         0.002003         ± 2.5         PAS           VN         -20         4.55         0.002604         ± 2.5         PAS           VN         -10         2.39         0.001368         ± 2.5         PAS           VN         10         1.83         0.001047         ± 2.5         PAS           VN         20         -1.35         -0.000773         ± 2.5         PAS           VN         30         0.74         0.000423         ± 2.5         PAS           VN         40         3.41         0.001951         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         -10         -1.35			VN	10	0.07	0.000040	± 2.5	PASS
VN         40         2.54         0.001466         ± 2.5         PAS           VN         50         -0.13         -0.000075         ± 2.5         PAS           VN         -30         3.5         0.002003         ± 2.5         PAS           VN         -20         4.55         0.002604         ± 2.5         PAS           VN         -10         2.39         0.001368         ± 2.5         PAS           VN         0         1.83         0.001047         ± 2.5         PAS           VN         10         1.14         0.000652         ± 2.5         PAS           VN         20         -1.35         -0.000773         ± 2.5         PAS           VN         30         0.74         0.000423         ± 2.5         PAS           VN         40         3.41         0.001951         ± 2.5         PAS           VN         50         0.46         0.000263         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32			VN	20	0.8	0.000462	± 2.5	PASS
VN 50 -0.13 -0.000075 ± 2.5 PAS  VN -30 3.5 0.002003 ± 2.5 PAS  VN -20 4.55 0.002604 ± 2.5 PAS  VN -10 2.39 0.001368 ± 2.5 PAS  VN 0 1.83 0.001047 ± 2.5 PAS  VN 20 -1.35 -0.000773 ± 2.5 PAS  VN 30 0.74 0.000423 ± 2.5 PAS  VN 40 3.41 0.001951 ± 2.5 PAS  VN 50 0.46 0.000263 ± 2.5 PAS  VN -30 -0.85 -0.000486 ± 2.5 PAS  VN -20 3.15 0.001803 ± 2.5 PAS  VN -20 3.15 0.001803 ± 2.5 PAS  VN -10 4.61 0.002638 ± 2.5 PAS  VN 0 3.32 0.001900 ± 2.5 PAS  VN 0 3.32 0.001900 ± 2.5 PAS  VN 20 -1.35 -0.000773 ± 2.5 PAS  VN 20 -1.35 -0.000773 ± 2.5 PAS  VN 20 -1.22 -0.000698 ± 2.5 PAS  VN 20 -1.22 -0.000698 ± 2.5 PAS			VN	30	-1.72	-0.000993	± 2.5	PASS
VN         -30         3.5         0.002003         ± 2.5         PAS           VN         -20         4.55         0.002604         ± 2.5         PAS           VN         -10         2.39         0.001368         ± 2.5         PAS           VN         0         1.83         0.001047         ± 2.5         PAS           VN         10         1.14         0.000652         ± 2.5         PAS           VN         20         -1.35         -0.000773         ± 2.5         PAS           VN         30         0.74         0.000423         ± 2.5         PAS           VN         40         3.41         0.001951         ± 2.5         PAS           VN         50         0.46         0.000263         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         20         -1.22			VN	40	2.54	0.001466	± 2.5	PASS
QPSK         VN         -20         4.55         0.002604         ± 2.5         PAS           VN         -10         2.39         0.001368         ± 2.5         PAS           VN         0         1.83         0.001047         ± 2.5         PAS           VN         10         1.14         0.000652         ± 2.5         PAS           VN         20         -1.35         -0.000773         ± 2.5         PAS           VN         30         0.74         0.000423         ± 2.5         PAS           VN         40         3.41         0.001951         ± 2.5         PAS           VN         50         0.46         0.000263         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20			VN	50	-0.13	-0.000075	± 2.5	PASS
QPSK         MCH         VN         -10         2.39         0.001368         ± 2.5         PAS           VN         0         1.83         0.001047         ± 2.5         PAS           VN         10         1.14         0.000652         ± 2.5         PAS           VN         20         -1.35         -0.000773         ± 2.5         PAS           VN         30         0.74         0.000423         ± 2.5         PAS           VN         40         3.41         0.001951         ± 2.5         PAS           VN         50         0.46         0.000263         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20         -1.22         -0.000698         ± 2.5         PAS           VN		MCH	VN	-30	3.5	0.002003	± 2.5	PASS
QPSK         MCH         VN         0         1.83         0.001047         ± 2.5         PAS           VN         10         1.14         0.000652         ± 2.5         PAS           VN         20         -1.35         -0.000773         ± 2.5         PAS           VN         30         0.74         0.000423         ± 2.5         PAS           VN         40         3.41         0.001951         ± 2.5         PAS           VN         50         0.46         0.000263         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20         -1.22         -0.000698         ± 2.5         PAS           VN         30         2.43         0.001391         ± 2.5         PAS			VN	-20	4.55	0.002604	± 2.5	PASS
QPSK         MCH         VN         10         1.14         0.000652         ± 2.5         PAS           VN         20         -1.35         -0.000773         ± 2.5         PAS           VN         30         0.74         0.000423         ± 2.5         PAS           VN         40         3.41         0.001951         ± 2.5         PAS           VN         50         0.46         0.000263         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20         -1.22         -0.000698         ± 2.5         PAS           VN         30         2.43         0.001391         ± 2.5         PAS			VN	-10	2.39	0.001368	± 2.5	PASS
VN 20 -1.35 -0.000773 ±2.5 PAS  VN 30 0.74 0.000423 ±2.5 PAS  VN 40 3.41 0.001951 ±2.5 PAS  VN 50 0.46 0.000263 ±2.5 PAS  VN -30 -0.85 -0.000486 ±2.5 PAS  VN -20 3.15 0.001803 ±2.5 PAS  VN -10 4.61 0.002638 ±2.5 PAS  VN 0 3.32 0.001900 ±2.5 PAS  VN 20 -1.35 -0.000773 ±2.5 PAS  VN 20 -1.22 -0.000698 ±2.5 PAS  VN 30 2.43 0.001391 ±2.5 PAS			VN	0	1.83	0.001047	± 2.5	PASS
VN 30 0.74 0.000423 ± 2.5 PAS  VN 40 3.41 0.001951 ± 2.5 PAS  VN 50 0.46 0.000263 ± 2.5 PAS  VN -30 -0.85 -0.000486 ± 2.5 PAS  VN -20 3.15 0.001803 ± 2.5 PAS  VN -10 4.61 0.002638 ± 2.5 PAS  VN 0 3.32 0.001900 ± 2.5 PAS  VN 20 -1.35 -0.000773 ± 2.5 PAS  VN 20 -1.22 -0.000698 ± 2.5 PAS  VN 30 2.43 0.001391 ± 2.5 PAS	QPSK		VN	10	1.14	0.000652	± 2.5	PASS
VN         40         3.41         0.001951         ± 2.5         PAS           VN         50         0.46         0.000263         ± 2.5         PAS           VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20         -1.22         -0.000698         ± 2.5         PAS           VN         30         2.43         0.001391         ± 2.5         PAS			VN	20	-1.35	-0.000773	± 2.5	PASS
VN 50 0.46 0.000263 ± 2.5 PAS  VN -30 -0.85 -0.000486 ± 2.5 PAS  VN -20 3.15 0.001803 ± 2.5 PAS  VN -10 4.61 0.002638 ± 2.5 PAS  VN 0 3.32 0.001900 ± 2.5 PAS  VN 10 -1.35 -0.000773 ± 2.5 PAS  VN 20 -1.22 -0.000698 ± 2.5 PAS  VN 30 2.43 0.001391 ± 2.5 PAS			VN	30	0.74	0.000423	± 2.5	PASS
VN         -30         -0.85         -0.000486         ± 2.5         PAS           VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20         -1.22         -0.000698         ± 2.5         PAS           VN         30         2.43         0.001391         ± 2.5         PAS			VN	40	3.41	0.001951	± 2.5	PASS
VN         -20         3.15         0.001803         ± 2.5         PAS           VN         -10         4.61         0.002638         ± 2.5         PAS           VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20         -1.22         -0.000698         ± 2.5         PAS           VN         30         2.43         0.001391         ± 2.5         PAS			VN	50	0.46	0.000263	± 2.5	PASS
VN     -10     4.61     0.002638     ± 2.5     PAS       VN     0     3.32     0.001900     ± 2.5     PAS       VN     10     -1.35     -0.000773     ± 2.5     PAS       VN     20     -1.22     -0.000698     ± 2.5     PAS       VN     30     2.43     0.001391     ± 2.5     PAS		нсн	VN	-30	-0.85	-0.000486	± 2.5	PASS
VN         0         3.32         0.001900         ± 2.5         PAS           VN         10         -1.35         -0.000773         ± 2.5         PAS           VN         20         -1.22         -0.000698         ± 2.5         PAS           VN         30         2.43         0.001391         ± 2.5         PAS			VN	-20	3.15	0.001803	± 2.5	PASS
HCH VN 10 -1.35 -0.000773 ± 2.5 PAS  VN 20 -1.22 -0.000698 ± 2.5 PAS  VN 30 2.43 0.001391 ± 2.5 PAS			VN	-10	4.61	0.002638	± 2.5	PASS
VN         20         -1.22         -0.000698         ± 2.5         PAS           VN         30         2.43         0.001391         ± 2.5         PAS			VN	0	3.32	0.001900	± 2.5	PASS
VN 30 2.43 0.001391 ± 2.5 PAS			VN	10	-1.35	-0.000773	± 2.5	PASS
			VN	20	-1.22	-0.000698	± 2.5	PASS
VN 40 465 0.002661 + 2.5 PAS			VN	30	2.43	0.001391	± 2.5	PASS
			VN	40	4.65	0.002661	± 2.5	PASS
VN 50 -1.03 -0.000589 ± 2.5 PAS			VN	50	-1.03	-0.000589	± 2.5	PASS

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### **Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20 MHz								
Voltage								
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict	
		VL	TN	-0.69	-0.000401	± 2.5	PASS	
	LCH	VN	TN	1.91	0.001110	± 2.5	PASS	
		VH	TN	4.71	0.002738	± 2.5	PASS	
		VL	TN	-1.08	-0.000623	± 2.5	PASS	
QPSK	MCH	VN	TN	-1.38	-0.000797	± 2.5	PASS	
		VH	TN	0.91	0.000525	± 2.5	PASS	
		VL	TN	-1.62	-0.000928	± 2.5	PASS	
	HCH	VN	TN	0.63	0.000361	± 2.5	PASS	
		VH	TN	3.28	0.001880	± 2.5	PASS	
		VL	TN	-1.54	-0.000895	± 2.5	PASS	
	LCH	VN	TN	-0.18	-0.000105	± 2.5	PASS	
		VH	TN	4.48	0.002605	± 2.5	PASS	
		VL	TN	0.96	0.000554	± 2.5	PASS	
16QAM	MCH	VN	TN	3.85	0.002222	± 2.5	PASS	
		VH	TN	-0.28	-0.000162	± 2.5	PASS	
	НСН	VL	TN	3.05	0.001748	± 2.5	PASS	
		VN	TN	-1.4	-0.000802	± 2.5	PASS	
		VH	TN	2.54	0.001456	± 2.5	PASS	
			Tempe	erature	_			
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict	
	LCH	VN	-30	-0.29	-0.000169	± 2.5	PASS	
		VN	-20	-0.85	-0.000494	± 2.5	PASS	
		VN	-10	3.64	0.002116	± 2.5	PASS	
		VN	0	-0.05	-0.000029	± 2.5	PASS	
QPSK		VN	10	4.51	0.002622	± 2.5	PASS	
		VN	20	0.28	0.000163	± 2.5	PASS	
		VN	30	0.15	0.000087	± 2.5	PASS	
		VN	40	1.36	0.000791	± 2.5	PASS	
		VN	50	2.6	0.001512	± 2.5	PASS	
	МСН	VN	-30	0.31	0.000179	± 2.5	PASS	
		VN	-20	0.48	0.000277	± 2.5	PASS	
		VN	-10	0.59	0.000341	± 2.5	PASS	
		VN	0	0.16	0.000092	± 2.5	PASS	
		VN	10	1.31	0.000756	± 2.5	PASS	

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		VN	20	-1.54	-0.000889	± 2.5	PASS
		VN	30	2.47	0.001426	± 2.5	PASS
		VN	40	1.89	0.001420	± 2.5	PASS
		VN	50	2.55	0.001031	± 2.5	PASS
		VN	-30	2.77	0.001472	± 2.5	PASS
		VN	-20	0.83	0.000476	± 2.5	PASS
		VN	-10	3.27	0.001874	± 2.5	PASS
		VN	0	-1.98	-0.00137	± 2.5	PASS
	НСН	VN	10	-0.78	-0.001133	± 2.5	PASS
	11011	VN	20	4.62	0.002648	± 2.5	PASS
		VN	30	-0.44	-0.00252	± 2.5	PASS
		VN	40	3.89	0.002229	± 2.5	PASS
		VN	50	-1.03	-0.000590		PASS
		VN	-30	0.46	0.000390	± 2.5	PASS
		VN	-20	0.53 2.28	0.000306	± 2.5	PASS
		VN	-10	_	0.001316	± 2.5	PASS
	1.011	VN	0	-1.4	-0.000808	± 2.5	PASS
	LCH	VN	10	3.57	0.002061	± 2.5	PASS
		VN	20	0.71	0.000410	± 2.5	PASS
		VN	30	0.35	0.000202	± 2.5	PASS
		VN	40	0.57	0.000329	± 2.5	PASS
		VN	50	0.78	0.000450	± 2.5	PASS
		VN	-30	0.72	0.000413	± 2.5	PASS
		VN	-20	0.62	0.000355	± 2.5	PASS
	MCH	VN	-10	-0.61	-0.000350	± 2.5	PASS
		VN	0	-1.59	-0.000911	± 2.5	PASS
QPSK		VN	10	3.93	0.002252	± 2.5	PASS
		VN	20	4.94	0.002831	± 2.5	PASS
		VN	30	-0.5	-0.000287	± 2.5	PASS
		VN	40	4.19	0.002401	± 2.5	PASS
		VN	50	0.36	0.000206	± 2.5	PASS
	НСН	VN	-30	0.65	0.000372	± 2.5	PASS
		VN	-20	-0.63	-0.000361	± 2.5	PASS
		VN	-10	0.63	0.000361	± 2.5	PASS
		VN	0	1.21	0.000693	± 2.5	PASS
		VN	10	0.86	0.000493	± 2.5	PASS
		VN	20	2.87	0.001645	± 2.5	PASS
		VN	30	-0.76	-0.000436	± 2.5	PASS
		VN	40	2.27	0.001301	± 2.5	PASS
		VN	50	4.27	0.002447	± 2.5	PASS