

1. Frequency stability

1.1 Test Result

Test Band: 41 _ 10MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
64QAM	50	0	NT	LV	0	3	-8	0	0.0012	-0.0031	2.50	PASS
				NV	-3	4	8	-0.0012	0.0015	0.0031	2.50	PASS
				HV	3	4	8	0.0012	0.0015	0.0031	2.50	PASS
16QAM	50	0	NT	LV	6	4	5	0.0023	0.0015	0.0019	2.50	PASS
				NV	2	-2	-8	0.0008	-0.0008	-0.0031	2.50	PASS
				HV	9	-7	-4	0.0035	-0.0027	-0.0015	2.50	PASS
QPSK	50	0	NT	LV	-8	6	9	-0.0031	0.0023	0.0035	2.50	PASS
				NV	1	-2	-1	0.0004	-0.0008	-0.0004	2.50	PASS
				HV	7	7	5	0.0027	0.0027	0.0019	2.50	PASS

Test Band: 41 _ 10MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
64QAM	50	0	NV	-30.00	4	-3	-6	0.0015	-0.0012	-0.0023	2.50	PASS
				-20.00	-4	7	9	-0.0015	0.0027	0.0035	2.50	PASS
				-10.00	-4	9	-6	-0.0015	0.0035	-0.0023	2.50	PASS
				0.00	8	-9	-8	0.0031	-0.0035	-0.0031	2.50	PASS
				10.00	1	5	7	0.0004	0.0019	0.0027	2.50	PASS
				20.00	-9	-5	9	-0.0035	-0.0019	0.0035	2.50	PASS
				30.00	-10	-3	-8	-0.0039	-0.0012	-0.0031	2.50	PASS
				40.00	6	-2	3	0.0023	-0.0008	0.0012	2.50	PASS
				50.00	8	-2	4	0.0031	-0.0008	0.0015	2.50	PASS
16QAM	50	0	NV	-30.00	0	0	-4	0	0	-0.0015	2.50	PASS
				-20.00	-3	-10	2	-0.0012	-0.0039	0.0008	2.50	PASS
				-10.00	-4	6	2	-0.0015	0.0023	0.0008	2.50	PASS
				0.00	5	-10	4	0.0019	-0.0039	0.0015	2.50	PASS
				10.00	8	1	7	0.0031	0.0004	0.0027	2.50	PASS
				20.00	1	-10	10	0.0004	-0.0039	0.0039	2.50	PASS
				30.00	9	10	-3	0.0035	0.0039	-0.0012	2.50	PASS
				40.00	9	-7	3	0.0035	-0.0027	0.0012	2.50	PASS

				50.00	6	4	4	0.0023	0.0015	0.0015	2.50	PASS
QPSK	50	0	NV	-30.00	6	10	0	0.0023	0.0039	0	2.50	PASS
				-20.00	7	6	-8	0.0027	0.0023	-0.0031	2.50	PASS
				-10.00	-8	-2	-2	-0.0031	-0.0008	-0.0008	2.50	PASS
				0.00	-8	-7	-5	-0.0031	-0.0027	-0.0019	2.50	PASS
				10.00	-10	-2	-6	-0.0039	-0.0008	-0.0023	2.50	PASS
				20.00	0	-2	-9	0	-0.0008	-0.0035	2.50	PASS
				30.00	9	9	2	0.0035	0.0035	0.0008	2.50	PASS
				40.00	-7	-1	1	-0.0027	-0.0004	0.0004	2.50	PASS
				50.00	5	-5	-8	0.0019	-0.0019	-0.0031	2.50	PASS

Test Band: 41 _ 15MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
64QAM	75	0	NT	LV	10	-8	-7	0.0039	-0.0031	-0.0027	2.50	PASS
				NV	-10	8	-3	-0.0039	0.0031	-0.0012	2.50	PASS
				HV	0	0	0	0	0	0	2.50	PASS
16QAM	75	0	NT	LV	7	-1	8	0.0027	-0.0004	0.0031	2.50	PASS
				NV	10	-7	-6	0.0039	-0.0027	-0.0023	2.50	PASS
				HV	-8	-5	1	-0.0031	-0.0019	0.0004	2.50	PASS
QPSK	75	0	NT	LV	-7	1	-6	-0.0027	0.0004	-0.0023	2.50	PASS
				NV	1	6	-6	0.0004	0.0023	-0.0023	2.50	PASS
				HV	-1	4	6	-0.0004	0.0015	0.0023	2.50	PASS

Test Band: 41 _ 15MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
64QAM	75	0	NV	-30.00	2	3	8	0.0008	0.0012	0.0031	2.50	PASS
				-20.00	-3	10	5	-0.0012	0.0039	0.0019	2.50	PASS
				-10.00	3	-4	1	0.0012	-0.0015	0.0004	2.50	PASS
				0.00	10	-5	9	0.0039	-0.0019	0.0035	2.50	PASS
				10.00	-10	-10	3	-0.0039	-0.0039	0.0012	2.50	PASS
				20.00	-3	-8	-6	-0.0012	-0.0031	-0.0023	2.50	PASS
				30.00	8	-4	-7	0.0031	-0.0015	-0.0027	2.50	PASS
				40.00	-4	7	9	-0.0015	0.0027	0.0035	2.50	PASS
				50.00	0	-3	7	0	-0.0012	0.0027	2.50	PASS
16QAM	75	0	NV	-30.00	4	-1	0	0.0015	-0.0004	0	2.50	PASS
				-20.00	5	6	10	0.0019	0.0023	0.0039	2.50	PASS
				-10.00	4	-2	-3	0.0015	-0.0008	-0.0012	2.50	PASS
				0.00	3	-4	7	0.0012	-0.0015	0.0027	2.50	PASS
				10.00	-3	-6	3	-0.0012	-0.0023	0.0012	2.50	PASS
				20.00	0	-3	6	0	-0.0012	0.0023	2.50	PASS
				30.00	-4	-2	-3	-0.0015	-0.0008	-0.0012	2.50	PASS
				40.00	1	7	-8	0.0004	0.0027	-0.0031	2.50	PASS
				50.00	-4	4	3	-0.0015	0.0015	0.0012	2.50	PASS
QPSK	75	0	NV	-30.00	0	-2	-10	0	-0.0008	-0.0039	2.50	PASS

				-20.00	-7	-5	7	-0.0027	-0.0019	0.0027	2.50	PASS
				-10.00	6	-5	0	0.0023	-0.0019	0	2.50	PASS
				0.00	-2	-3	1	-0.0008	-0.0012	0.0004	2.50	PASS
				10.00	-8	3	7	-0.0031	0.0012	0.0027	2.50	PASS
				20.00	-6	1	-6	-0.0023	0.0004	-0.0023	2.50	PASS
				30.00	0	-10	7	0	-0.0039	0.0027	2.50	PASS
				40.00	-7	-7	-7	-0.0027	-0.0027	-0.0027	2.50	PASS
				50.00	-3	6	4	-0.0012	0.0023	0.0015	2.50	PASS

Test Band: 41 _ 20MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
64QAM	100	0	NT	LV	8	0	-10	0.0031	0	-0.0039	2.50	PASS
				NV	9	-10	-2	0.0035	-0.0039	-0.0008	2.50	PASS
				HV	-10	3	-3	-0.0039	0.0012	-0.0012	2.50	PASS
16QAM	100	0	NT	LV	6	5	0	0.0023	0.0019	0	2.50	PASS
				NV	-10	3	-9	-0.0039	0.0012	-0.0035	2.50	PASS
				HV	5	6	-6	0.0019	0.0023	-0.0023	2.50	PASS
QPSK	100	0	NT	LV	-10	0	-9	-0.0039	0	-0.0035	2.50	PASS
				NV	1	10	5	0.0004	0.0039	0.0019	2.50	PASS
				HV	9	3	-3	0.0035	0.0012	-0.0012	2.50	PASS

Test Band: 41 _ 20MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
64QAM	100	0	NV	-30.00	-1	-1	9	-0.0004	-0.0004	0.0035	2.50	PASS
				-20.00	-1	-10	-10	-0.0004	-0.0039	-0.0039	2.50	PASS
				-10.00	10	9	-1	0.0039	0.0035	-0.0004	2.50	PASS
				0.00	7	7	-10	0.0027	0.0027	-0.0039	2.50	PASS
				10.00	7	5	-1	0.0027	0.0019	-0.0004	2.50	PASS
				20.00	-10	-3	10	-0.0039	-0.0012	0.0039	2.50	PASS
				30.00	-9	0	0	-0.0035	0	0	2.50	PASS
				40.00	-6	9	5	-0.0023	0.0035	0.0019	2.50	PASS
				50.00	7	9	0	0.0027	0.0035	0	2.50	PASS
16QAM	100	0	NV	-30.00	-5	-8	5	-0.0019	-0.0031	0.0019	2.50	PASS
				-20.00	9	3	-10	0.0035	0.0012	-0.0039	2.50	PASS
				-10.00	-8	9	-4	-0.0031	0.0035	-0.0015	2.50	PASS
				0.00	7	6	2	0.0027	0.0023	0.0008	2.50	PASS
				10.00	5	-9	-8	0.0019	-0.0035	-0.0031	2.50	PASS
				20.00	10	-10	0	0.0039	-0.0039	0	2.50	PASS
				30.00	-1	3	4	-0.0004	0.0012	0.0015	2.50	PASS
				40.00	6	1	-1	0.0023	0.0004	-0.0004	2.50	PASS
				50.00	-5	10	-1	-0.0019	0.0039	-0.0004	2.50	PASS
QPSK	100	0	NV	-30.00	5	3	4	0.0019	0.0012	0.0015	2.50	PASS

				-20.00	-5	-3	1	-0.0019	-0.0012	0.0004	2.50	PASS
				-10.00	-3	-9	-9	-0.0012	-0.0035	-0.0035	2.50	PASS
				0.00	-1	-8	-2	-0.0004	-0.0031	-0.0008	2.50	PASS
				10.00	-1	-2	-7	-0.0004	-0.0008	-0.0027	2.50	PASS
				20.00	4	-9	4	0.0015	-0.0035	0.0015	2.50	PASS
				30.00	-5	1	10	-0.0019	0.0004	0.0039	2.50	PASS
				40.00	-1	1	10	-0.0004	0.0004	0.0039	2.50	PASS
				50.00	9	8	10	0.0035	0.0031	0.0039	2.50	PASS

Environment Parameter	Selected Values During Tests	
Relative Humidity	51%	
Atmospheric Pressure:	1015 mbar	
Temperature:	TN	20 °C
Voltage:	VL	-55 V
	VN	-48 V
	VH	-42 V

NOTE: VL= lower extreme test voltage

VN= nominal voltage

VH= upper extreme test voltage

TN= normal temperature