

Frequency Stability

LTE

LTE Band 48 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 3625 MHz		
		Value(Hz)	Limits (Hz)	
3.92	-10	-11.17	±9062.5	Pass
	0	-4.92		
	+10	-11.56		
	+20	-7.45		
	+25	-9.6		
	+30	-8.97		
	+40	-11.14		
	+50	-3.5		
4.53	+25	-8	±9062.5	Pass
3.4	+25	-10.76		

LTE Band 48 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 3625 MHz		
		Value(Hz)	Limits (Hz)	
3.92	-10	-11.89	±9062.5	Pass
	0	-12.4		
	+10	-9.94		
	+20	-17.91		
	+25	-5.71		
	+30	-9.81		
	+40	-7.65		
	+50	-7.87		
4.53	+25	-8.58	±9062.5	Pass
3.4	+25	-8.48		

NR

NR Band n48 QPSK 40 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 3624.99 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-10	15.83	±9062.47	Pass
	0	4.84		
	+10	-9.81		
	+20	-6.79		
	+25	-6.29		
	+30	-6.49		
	+40	-8.66		
	+50	-7.16		
4.53	+25	-11.34		
3.4	+25	-7.71		

1. LTE_Band48

1.1. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
-10 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-6.19	Pass
-10 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-9.01	Pass
-10 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-11.17	Pass
-10 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-11.89	Pass
-10 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-7.28	Pass
-10 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-4.94	Pass

1.2. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
0 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-10.63	Pass
0 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-12.97	Pass
0 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-4.92	Pass
0 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-12.4	Pass
0 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-10.14	Pass
0 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-11.49	Pass

1.3. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
10 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-13.43	Pass
10 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-13.93	Pass
10 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-11.56	Pass
10 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-9.94	Pass
10 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-13.69	Pass
10 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-10.04	Pass

1.4. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
20 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-9.13	Pass
20 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-12.47	Pass
20 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-7.45	Pass
20 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-17.91	Pass
20 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-2.5	Pass
20 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-4.03	Pass

1.5. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
25 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-13.06	Pass
25 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-11.9	Pass
25 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-9.6	Pass
25 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-5.71	Pass
25 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-8.43	Pass
25 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-13.13	Pass

1.6. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
30 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-15.52	Pass
30 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-11.9	Pass
30 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-8.97	Pass
30 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-9.81	Pass
30 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-11.4	Pass
30 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-12.1	Pass

1.7. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
40 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-10.33	Pass
40 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-16.82	Pass
40 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-11.14	Pass
40 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-7.65	Pass
40 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-8.97	Pass
40 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-11.4	Pass

1.8. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
50 Degree	55290	10	QPSK	50	0	-8887.5	8887.5	-12.13	Pass
50 Degree	55290	10	16QAM	50	0	-8887.5	8887.5	-17.58	Pass
50 Degree	55990	10	QPSK	50	0	-9062.5	9062.5	-3.5	Pass
50 Degree	55990	10	16QAM	50	0	-9062.5	9062.5	-7.87	Pass
50 Degree	56690	10	QPSK	50	0	-9237.5	9237.5	-8.85	Pass
50 Degree	56690	10	16QAM	50	0	-9237.5	9237.5	-4.86	Pass

1.9. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	55290	10	QPSK	50	0	-8887.5	8887.5	-12.03	Pass
NTHV	55290	10	16QAM	50	0	-8887.5	8887.5	-16.19	Pass
NTHV	55990	10	QPSK	50	0	-9062.5	9062.5	-8	Pass
NTHV	55990	10	16QAM	50	0	-9062.5	9062.5	-8.58	Pass
NTHV	56690	10	QPSK	50	0	-9237.5	9237.5	-7.98	Pass
NTHV	56690	10	16QAM	50	0	-9237.5	9237.5	-6.19	Pass

1.10. LTE Frequency Stability_Part96

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	55290	10	QPSK	50	0	-8887.5	8887.5	-14.78	Pass
NTLV	55290	10	16QAM	50	0	-8887.5	8887.5	-10.77	Pass
NTLV	55990	10	QPSK	50	0	-9062.5	9062.5	-10.76	Pass
NTLV	55990	10	16QAM	50	0	-9062.5	9062.5	-8.48	Pass
NTLV	56690	10	QPSK	50	0	-9237.5	9237.5	-10.56	Pass
NTLV	56690	10	16QAM	50	0	-9237.5	9237.5	-10.97	Pass

1. n48 30kHz

1.1. Frequency Error for SA_Part96(-10 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
-10 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	15.83	-9062.47	9062.47	Pass

1.2. Frequency Error for SA_Part96(0 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
0 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	4.84	-9062.47	9062.47	Pass

1.3. Frequency Error for SA_Part96(10 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
10 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	-9.81	-9062.47	9062.47	Pass

1.4. Frequency Error for SA_Part96(20 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
20 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	-6.79	-9062.47	9062.47	Pass

1.5. Frequency Error for SA_Part96(25 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
25 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	-6.29	-9062.47	9062.47	Pass

1.6. Frequency Error for SA_Part96(30 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
30 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	-6.49	-9062.47	9062.47	Pass

1.7. Frequency Error for SA_Part96(40 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
40 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	-8.66	-9062.47	9062.47	Pass

1.8. Frequency Error for SA_Part96(50 Degree)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
50 Degree	641666	40	30	DFT-s-OFDM	100	0	QPSK	-7.16	-9062.47	9062.47	Pass

1.9. Frequency Error for SA_Part96(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
NTHV	641666	40	30	DFT-s-OFDM	100	0	QPSK	-11.34	-9062.47	9062.47	Pass

1.10. Frequency Error for SA_Part96(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	SCS (kHz)	UL OFDM	UL RB Number	UL RB Position	Modulation	Measured (Hz)	Lower Limit (Hz)	Upper Limit (Hz)	Verdict
NTLV	641666	40	30	DFT-s-OFDM	100	0	QPSK	-7.71	-9062.47	9062.47	Pass

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