

Frequency Stability

LTE

LTE Band 2 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-1.23	±4700	Pass
	-20	-2.57		
	-10	-0.96		
	0	-1.72		
	+10	1.82		
	+20	1.13		
	+25	-2.1		
	+30	1.96		
	+40	-2.35		
	+50	-0.7		
4.5	+25	-1.86	±4700	Pass
3.3	+25	-1.5		

LTE Band 2 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-3.16	±4700	Pass
	-20	-2.69		
	-10	1.62		
	0	-0.56		
	+10	0.94		
	+20	0.07		
	+25	-1.33		
	+30	-2.4		
	+40	-0.04		
	+50	-1.52		
4.5	+25	0.06	±4700	Pass
3.3	+25	1.69		

LTE Band 4 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-5.75	±4331.25	Pass
	-20	-1.65		
	-10	-0.1		
	0	1		
	+10	1.69		
	+20	3.52		
	+25	-1.37		
	+30	1.47		
	+40	-1		
	+50	0.19		
4.5	+25	0.94	±4331.25	Pass
3.3	+25	-0.3		

LTE Band 4 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-4.13	±4331.25	Pass
	-20	-2.49		
	-10	-2.89		
	0	-0.2		
	+10	1.52		
	+20	-0.84		
	+25	-2.79		
	+30	-1.96		
	+40	0.39		
	+50	-3.5		
4.5	+25	-1.1	±4331.25	Pass
3.3	+25	2.09		

LTE Band 5 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 836.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-1.73	±2091.25	Pass
	-20	-2.13		
	-10	-1.52		
	0	-1.04		
	+10	-0.97		
	+20	-0.09		
	+25	0.3		
	+30	-1.09		
	+40	0.2		
	+50	0.69		
4.5	+25	-0.2		
3.3	+25	0.34		

LTE Band 5 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 836.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-2.1	±2091.25	Pass
	-20	-3.12		
	-10	-2		
	0	-0.2		
	+10	-1.44		
	+20	-1.17		
	+25	-0.34		
	+30	-1.65		
	+40	-0.39		
	+50	-0.11		
4.5	+25	-0.62		
3.3	+25	-1.83		

LTE Band 12 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-2.2	±1768.75	Pass
	-20	-1.52		
	-10	-1.9		
	0	0.33		
	+10	-0.77		
	+20	-0.14		
	+25	-1.33		
	+30	-0.66		
	+40	-0.37		
	+50	-0.67		
4.5	+25	0.87		
3.3	+25	1.27		

LTE Band 12 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-2.25	±1768.75	Pass
	-20	-1.19		
	-10	-1.54		
	0	-1.72		
	+10	-2.3		
	+20	-1.22		
	+25	-2.23		
	+30	-1.32		
	+40	-0.96		
	+50	-0.57		
4.5	+25	-0.73		
3.3	+25	-0.62		

LTE Band 13 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-1.24	±1768.75	Pass
	-20	-1.53		
	-10	-2.46		
	0	-0.4		
	+10	-0.43		
	+20	-0.47		
	+25	-1.02		
	+30	-0.49		
	+40	-1.03		
	+50	0.29		
4.5	+25	0.33		
3.3	+25	0.84		

LTE Band 13 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-0.99	±1768.75	Pass
	-20	-0.54		
	-10	-1.34		
	0	-0.56		
	+10	-0.67		
	+20	-1.6		
	+25	-0.23		
	+30	-0.53		
	+40	-0.07		
	+50	-1.44		
4.5	+25	0.19		
3.3	+25	0.86		

LTE Band 66 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1745 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-4.09	±4362.5	Pass
	-20	-2.82		
	-10	-0.21		
	0	0.47		
	+10	1.1		
	+20	-0.26		
	+25	-2.33		
	+30	-1.39		
	+40	-3.36		
	+50	-1.8		
4.5	+25	0.31	±4362.5	Pass
3.3	+25	-0.59		

LTE Band 66 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1745 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-1.79	±4362.5	Pass
	-20	0.31		
	-10	-1		
	0	1.39		
	+10	-2.07		
	+20	1.56		
	+25	0.2		
	+30	-1.92		
	+40	-2.49		
	+50	-0.17		
4.5	+25	2.35	±4362.5	Pass
3.3	+25	0.24		

LTE Band 71 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 680.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-2.03	±4362.5	Pass
	-20	-1.85		
	-10	-1.04		
	0	-0.66		
	+10	-0.57		
	+20	0.1		
	+25	-1.33		
	+30	-1.09		
	+40	-0.46		
	+50	-0.36		
4.5	+25	0.69		
3.3	+25	-0.6		

LTE Band 71 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 680.5 MHz		
		Value(Hz)	Limits (Hz)	
3.8	-30	-2.32	±4362.5	Pass
	-20	-1.04		
	-10	-1.17		
	0	-1.19		
	+10	-0.97		
	+20	-1.59		
	+25	-0.11		
	+30	-0.92		
	+40	-0.97		
	+50	-1.06		
4.5	+25	-1.12		
3.3	+25	-1.37		

1. LTE_Band2

1.1. LTE Frequency Stability_Part22-24-27(-30 Degree)

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	18900	10	QPSK	50	0	-4700	4700	-1.23	Pass
-30 Degree	18900	10	16QAM	27	0	-4700	4700	-3.16	Pass

1.2. LTE Frequency Stability_Part22-24-27(-20 Degree)

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	18900	10	QPSK	50	0	-4700	4700	-2.57	Pass
-20 Degree	18900	10	16QAM	27	0	-4700	4700	-2.69	Pass

1.3. LTE Frequency Stability_Part22-24-27(-10 Degree)

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	18900	10	QPSK	50	0	-4700	4700	-0.96	Pass
-10 Degree	18900	10	16QAM	27	0	-4700	4700	1.62	Pass

1.4. LTE Frequency Stability_Part22-24-27(0 Degree)

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	18900	10	QPSK	50	0	-4700	4700	-1.72	Pass
0 Degree	18900	10	16QAM	27	0	-4700	4700	-0.56	Pass

1.5. LTE Frequency Stability_Part22-24-27(10 Degree)

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	18900	10	QPSK	50	0	-4700	4700	1.82	Pass
10 Degree	18900	10	16QAM	27	0	-4700	4700	0.94	Pass

1.6. LTE Frequency Stability_Part22-24-27(20 Degree)

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	18900	10	QPSK	50	0	-4700	4700	1.13	Pass
20 Degree	18900	10	16QAM	27	0	-4700	4700	0.07	Pass

1.7. LTE Frequency Stability_Part22-24-27(25 Degree)

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	18900	10	QPSK	50	0	-4700	4700	-2.1	Pass
25 Degree	18900	10	16QAM	27	0	-4700	4700	-1.33	Pass

1.8. LTE Frequency Stability_Part22-24-27(30 Degree)

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	18900	10	QPSK	50	0	-4700	4700	1.96	Pass
30 Degree	18900	10	16QAM	27	0	-4700	4700	-2.4	Pass

1.9. LTE Frequency Stability_Part22-24-27(40 Degree)

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	18900	10	QPSK	50	0	-4700	4700	-2.35	Pass
40 Degree	18900	10	16QAM	27	0	-4700	4700	-0.04	Pass

1.10. LTE Frequency Stability_Part22-24-27(50 Degree)

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	18900	10	QPSK	50	0	-4700	4700	-0.7	Pass
50 Degree	18900	10	16QAM	27	0	-4700	4700	-1.52	Pass

1.11. LTE Frequency Stability_Part22-24-27(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	18900	10	QPSK	50	0	-4700	4700	-1.86	Pass
NTHV	18900	10	16QAM	27	0	-4700	4700	0.06	Pass

1.12. LTE Frequency Stability_Part22-24-27(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	18900	10	QPSK	50	0	-4700	4700	-1.5	Pass
NTLV	18900	10	16QAM	27	0	-4700	4700	1.69	Pass

2. LTE_Band4

2.1. LTE Frequency Stability_Part22-24-27(-30 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	-5.75	Pass
-30 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-4.13	Pass

2.2. LTE Frequency Stability_Part22-24-27(-20 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	-1.65	Pass
-20 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-2.49	Pass

2.3. LTE Frequency Stability_Part22-24-27(-10 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	-0.1	Pass
-10 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-2.89	Pass

2.4. LTE Frequency Stability_Part22-24-27(0 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	1	Pass
0 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-0.2	Pass

2.5. LTE Frequency Stability_Part22-24-27(10 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	1.69	Pass
10 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	1.52	Pass

2.6. LTE Frequency Stability_Part22-24-27(20 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	3.52	Pass
20 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-0.84	Pass

2.7. LTE Frequency Stability_Part22-24-27(25 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	-1.37	Pass
25 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-2.79	Pass

2.8. LTE Frequency Stability_Part22-24-27(30 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	1.47	Pass
30 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-1.96	Pass

2.9. LTE Frequency Stability_Part22-24-27(40 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	-1	Pass
40 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	0.39	Pass

2.10. LTE Frequency Stability_Part22-24-27(50 Degree)

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	20175	10	QPSK	50	0	-4331.25	4331.25	0.19	Pass
50 Degree	20175	10	16QAM	27	0	-4331.25	4331.25	-3.5	Pass

2.11. LTE Frequency Stability_Part22-24-27(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	20175	10	QPSK	50	0	-4331.25	4331.25	0.94	Pass
NTHV	20175	10	16QAM	27	0	-4331.25	4331.25	-1.1	Pass

2.12. LTE Frequency Stability_Part22-24-27(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	20175	10	QPSK	50	0	-4331.25	4331.25	-0.3	Pass
NTLV	20175	10	16QAM	27	0	-4331.25	4331.25	2.09	Pass

3. LTE_Band5

3.1. LTE Frequency Stability_Part22-24-27(-30 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	-1.73	Pass
-30 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-2.1	Pass

3.2. LTE Frequency Stability_Part22-24-27(-20 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	-2.13	Pass
-20 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-3.12	Pass

3.3. LTE Frequency Stability_Part22-24-27(-10 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	-1.52	Pass
-10 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-2	Pass

3.4. LTE Frequency Stability_Part22-24-27(0 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	-1.04	Pass
0 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-0.2	Pass

3.5. LTE Frequency Stability_Part22-24-27(10 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	-0.97	Pass
10 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-1.44	Pass

3.6. LTE Frequency Stability_Part22-24-27(20 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	-0.09	Pass
20 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-1.17	Pass

3.7. LTE Frequency Stability_Part22-24-27(25 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	0.3	Pass
25 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-0.34	Pass

3.8. LTE Frequency Stability_Part22-24-27(30 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	-1.09	Pass
30 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-1.65	Pass

3.9. LTE Frequency Stability_Part22-24-27(40 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	0.2	Pass
40 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-0.39	Pass

3.10. LTE Frequency Stability_Part22-24-27(50 Degree)

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	20525	10	QPSK	50	0	-2091.25	2091.25	0.69	Pass
50 Degree	20525	10	16QAM	27	0	-2091.25	2091.25	-0.11	Pass

3.11. LTE Frequency Stability_Part22-24-27(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	20525	10	QPSK	50	0	-2091.25	2091.25	-0.2	Pass
NTHV	20525	10	16QAM	27	0	-2091.25	2091.25	-0.62	Pass

3.12. LTE Frequency Stability_Part22-24-27(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	20525	10	QPSK	50	0	-2091.25	2091.25	0.34	Pass
NTLV	20525	10	16QAM	27	0	-2091.25	2091.25	-1.83	Pass

4. LTE_Band12

4.1. LTE Frequency Stability_Part22-24-27(-30 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-2.2	Pass
-30 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-2.25	Pass

4.2. LTE Frequency Stability_Part22-24-27(-20 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-1.52	Pass
-20 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-1.19	Pass

4.3. LTE Frequency Stability_Part22-24-27(-10 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-1.9	Pass
-10 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-1.54	Pass

4.4. LTE Frequency Stability_Part22-24-27(0 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	0.33	Pass
0 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-1.72	Pass

4.5. LTE Frequency Stability_Part22-24-27(10 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-0.77	Pass
10 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-2.3	Pass

4.6. LTE Frequency Stability_Part22-24-27(20 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-0.14	Pass
20 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-1.22	Pass

4.7. LTE Frequency Stability_Part22-24-27(25 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-1.33	Pass
25 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-2.23	Pass

4.8. LTE Frequency Stability_Part22-24-27(30 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-0.66	Pass
30 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-1.32	Pass

4.9. LTE Frequency Stability_Part22-24-27(40 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-0.37	Pass
40 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-0.96	Pass

4.10. LTE Frequency Stability_Part22-24-27(50 Degree)

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	23095	10	QPSK	50	0	-1768.75	1768.75	-0.67	Pass
50 Degree	23095	10	16QAM	27	0	-1768.75	1768.75	-0.57	Pass

4.11. LTE Frequency Stability_Part22-24-27(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	23095	10	QPSK	50	0	-1768.75	1768.75	0.87	Pass
NTHV	23095	10	16QAM	27	0	-1768.75	1768.75	-0.73	Pass

4.12. LTE Frequency Stability_Part22-24-27(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	23095	10	QPSK	50	0	-1768.75	1768.75	1.27	Pass
NTLV	23095	10	16QAM	27	0	-1768.75	1768.75	-0.62	Pass

5. LTE_Band13

5.1. LTE Frequency Stability_Part22-24-27(-30 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-1.24	Pass
-30 Degree	23230	10	16QAM	27	0	-1955	1955	-0.99	Pass

5.2. LTE Frequency Stability_Part22-24-27(-20 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-1.53	Pass
-20 Degree	23230	10	16QAM	27	0	-1955	1955	-0.54	Pass

5.3. LTE Frequency Stability_Part22-24-27(-10 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-2.46	Pass
-10 Degree	23230	10	16QAM	27	0	-1955	1955	-1.34	Pass

5.4. LTE Frequency Stability_Part22-24-27(0 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-0.4	Pass
0 Degree	23230	10	16QAM	27	0	-1955	1955	-0.56	Pass

5.5. LTE Frequency Stability_Part22-24-27(10 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-0.43	Pass
10 Degree	23230	10	16QAM	27	0	-1955	1955	-0.67	Pass

5.6. LTE Frequency Stability_Part22-24-27(20 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-0.47	Pass
20 Degree	23230	10	16QAM	27	0	-1955	1955	-1.6	Pass

5.7. LTE Frequency Stability_Part22-24-27(25 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-1.02	Pass
25 Degree	23230	10	16QAM	27	0	-1955	1955	-0.23	Pass

5.8. LTE Frequency Stability_Part22-24-27(30 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-0.49	Pass
30 Degree	23230	10	16QAM	27	0	-1955	1955	-0.53	Pass

5.9. LTE Frequency Stability_Part22-24-27(40 Degree)

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	23230	10	QPSK	50	0	-1955	1955	-1.03	Pass
40 Degree	23230	10	16QAM	27	0	-1955	1955	-0.07	Pass

5.10. LTE Frequency Stability_Part22-24-27(50 Degree)

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	23230	10	QPSK	50	0	-1955	1955	0.29	Pass
50 Degree	23230	10	16QAM	27	0	-1955	1955	-1.44	Pass

5.11. LTE Frequency Stability_Part22-24-27(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	23230	10	QPSK	50	0	-1955	1955	0.33	Pass
NTHV	23230	10	16QAM	27	0	-1955	1955	0.19	Pass

5.12. LTE Frequency Stability_Part22-24-27(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	23230	10	QPSK	50	0	-1955	1955	0.84	Pass
NTLV	23230	10	16QAM	27	0	-1955	1955	0.86	Pass

6. LTE_Band66

6.1. LTE Frequency Stability_Part22-24-27(-30 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-4.09	Pass
-30 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	-1.79	Pass

6.2. LTE Frequency Stability_Part22-24-27(-20 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-2.82	Pass
-20 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	0.31	Pass

6.3. LTE Frequency Stability_Part22-24-27(-10 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-0.21	Pass
-10 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	-1	Pass

6.4. LTE Frequency Stability_Part22-24-27(0 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	0.47	Pass
0 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	1.39	Pass

6.5. LTE Frequency Stability_Part22-24-27(10 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	1.1	Pass
10 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	-2.07	Pass

6.6. LTE Frequency Stability_Part22-24-27(20 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-0.26	Pass
20 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	1.56	Pass

6.7. LTE Frequency Stability_Part22-24-27(25 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-2.33	Pass
25 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	0.2	Pass

6.8. LTE Frequency Stability_Part22-24-27(30 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-1.39	Pass
30 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	-1.92	Pass

6.9. LTE Frequency Stability_Part22-24-27(40 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-3.36	Pass
40 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	-2.49	Pass

6.10. LTE Frequency Stability_Part22-24-27(50 Degree)

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	132322	10	QPSK	50	0	-4362.5	4362.5	-1.8	Pass
50 Degree	132322	10	16QAM	27	0	-4362.5	4362.5	-0.17	Pass

6.11. LTE Frequency Stability_Part22-24-27(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	132322	10	QPSK	50	0	-4362.5	4362.5	0.31	Pass
NTHV	132322	10	16QAM	27	0	-4362.5	4362.5	2.35	Pass

6.12. LTE Frequency Stability_Part22-24-27(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	132322	10	QPSK	50	0	-4362.5	4362.5	-0.59	Pass
NTLV	132322	10	16QAM	27	0	-4362.5	4362.5	0.24	Pass

7. LTE_Band71

7.1. LTE Frequency Stability_Part22-24-27(-30 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-2.03	Pass
-30 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-2.32	Pass

7.2. LTE Frequency Stability_Part22-24-27(-20 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-1.85	Pass
-20 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-1.04	Pass

7.3. LTE Frequency Stability_Part22-24-27(-10 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-1.04	Pass
-10 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-1.17	Pass

7.4. LTE Frequency Stability_Part22-24-27(0 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-0.66	Pass
0 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-1.19	Pass

7.5. LTE Frequency Stability_Part22-24-27(10 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-0.57	Pass
10 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-0.97	Pass

7.6. LTE Frequency Stability_Part22-24-27(20 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	0.1	Pass
20 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-1.59	Pass

7.7. LTE Frequency Stability_Part22-24-27(25 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-1.33	Pass
25 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-0.11	Pass

7.8. LTE Frequency Stability_Part22-24-27(30 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-1.09	Pass
30 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-0.92	Pass

7.9. LTE Frequency Stability_Part22-24-27(40 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-0.46	Pass
40 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-0.97	Pass

7.10. LTE Frequency Stability_Part22-24-27(50 Degree)

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	133297	10	QPSK	50	0	-1701.25	1701.25	-0.36	Pass
50 Degree	133297	10	16QAM	27	0	-1701.25	1701.25	-1.06	Pass

7.11. LTE Frequency Stability_Part22-24-27(NTHV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTHV	133297	10	QPSK	50	0	-1701.25	1701.25	0.69	Pass
NTHV	133297	10	16QAM	27	0	-1701.25	1701.25	-1.12	Pass

7.12. LTE Frequency Stability_Part22-24-27(NTLV)

Test Environment	UL Channel	Bandwidth (MHz)	UL Modulation	UL RB Number	UL RB Position	Lower Limit (Hz)	Upper Limit (Hz)	Measured (Hz)	Verdict
NTLV	133297	10	QPSK	50	0	-1701.25	1701.25	-0.6	Pass
NTLV	133297	10	16QAM	27	0	-1701.25	1701.25	-1.37	Pass

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