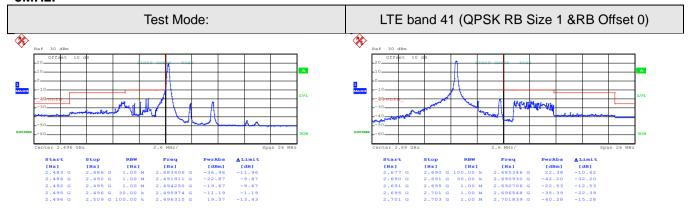




LTE band 41 part:

5MHz:

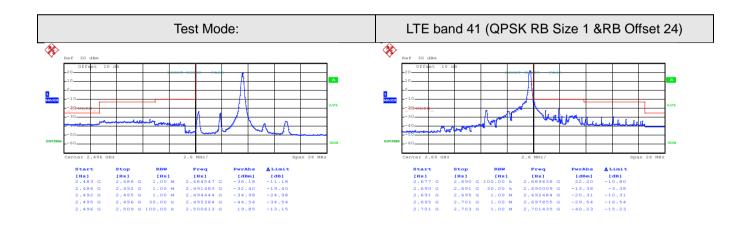


Date: 16.NOV.2016 01:22:26

Date: 16.NOV.2016 02:24:28

Lowest channel

Highest channel



Date: 16.NOV.2016 01:23:06

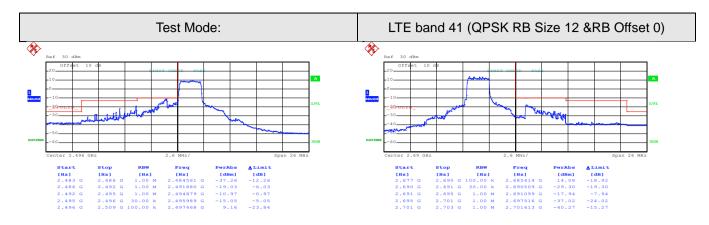
Date: 16.NOV.2016 02:27:35

Lowest channel

Highest channel





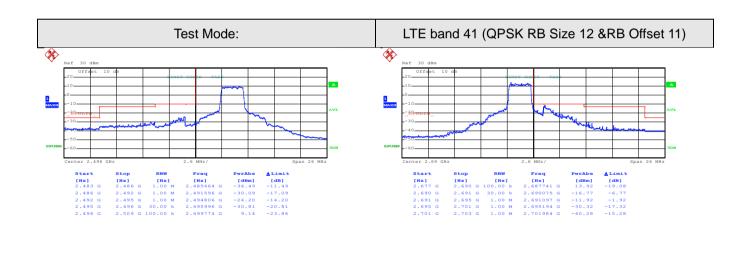


Date: 16.NOV.2016 01:23:56

Date: 16.NOV.2016 02:25:44

Lowest channel

Highest channel



Date: 16.NOV.2016 01:25:08

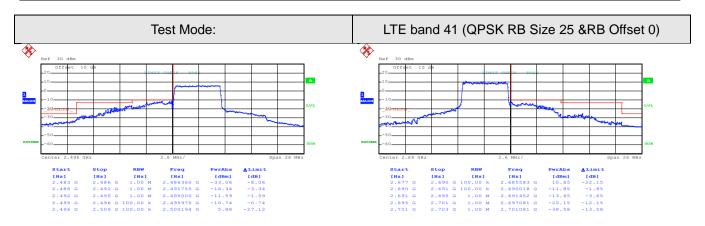
Date: 16.NOV.2016 02:28:44

Lowest channel

Highest channel





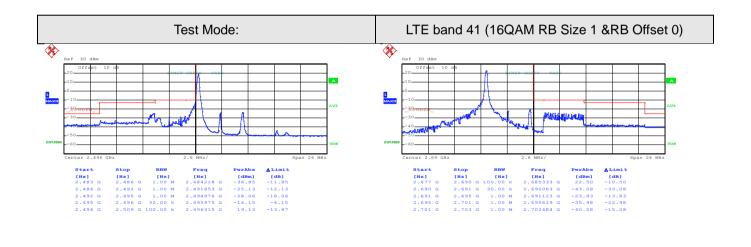


Date: 16.NOV.2016 01:27:49

Date: 16.NOV.2016 02:29:40

Lowest channel

Highest channel



Date: 16.NOV.2016 01:22:44

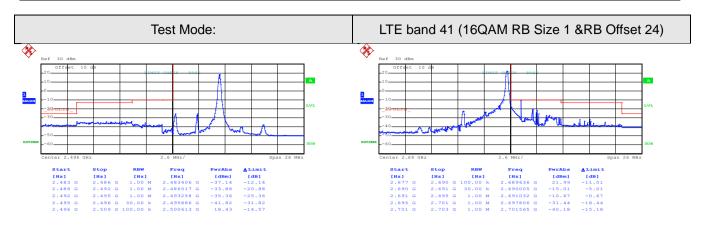
Date: 16.NOV.2016 02:25:19

Lowest channel

Highest channel





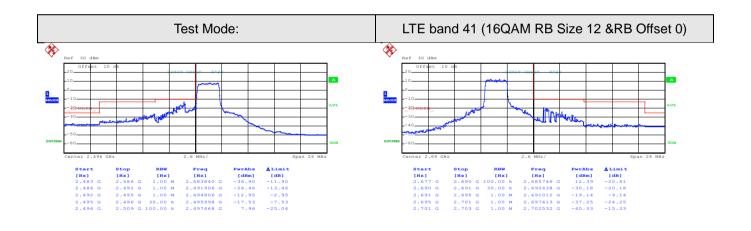


Date: 16.NOV.2016 01:23:20

Date: 16.NOV.2016 02:28:13

Lowest channel

Highest channel



Date: 16.NOV.2016 01:24:16

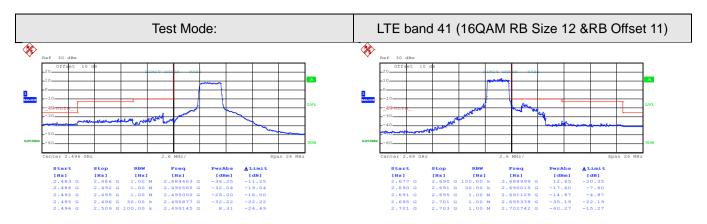
Date: 16.NOV.2016 02:26:00

Lowest channel

Highest channel





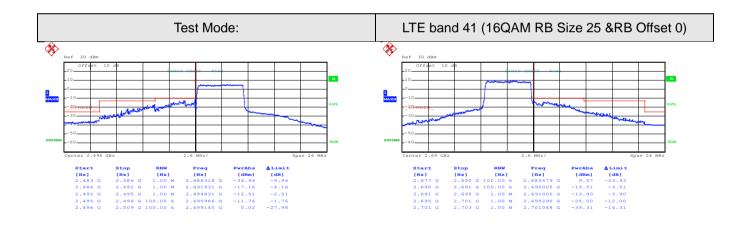


Date: 16.NOV.2016 01:25:26

Date: 16.NOV.2016 02:29:01

Lowest channel

Highest channel



Date: 16.NOV.2016 01:28:06

Date: 16.NOV.2016 02:30:39

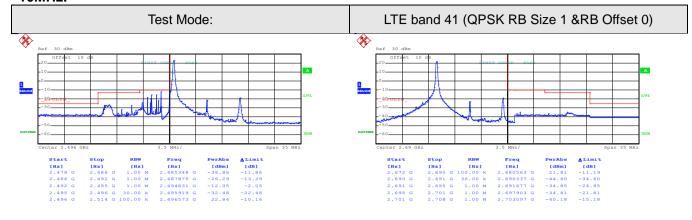
Lowest channel

Highest channel





10MHz:

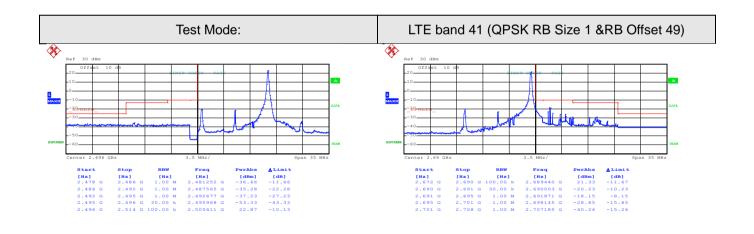


Date: 16.NOV.2016 02:35:34

Date: 16.NOV.2016 02:41:24

Lowest channel

Highest channel



Date: 16.NOV.2016 02:37:00

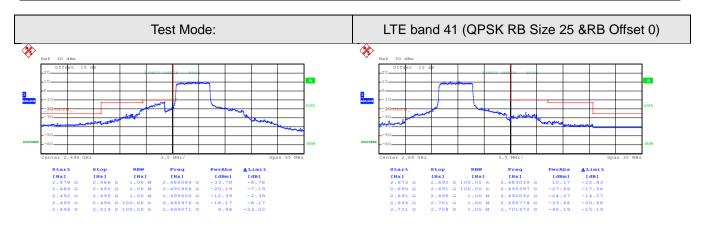
Date: 16.NOV.2016 02:42:33

Lowest channel

Highest channel





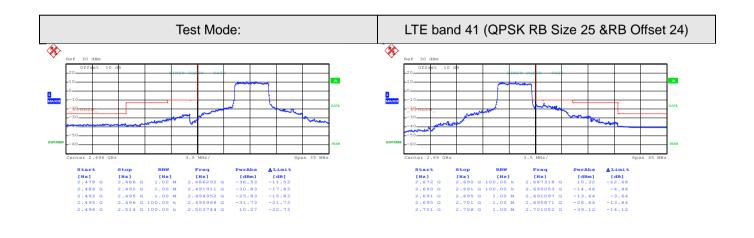


Date: 16.NOV.2016 02:37:58

Date: 16.NOV.2016 02:43:50

Lowest channel

Highest channel



Date: 16.NOV.2016 02:38:40

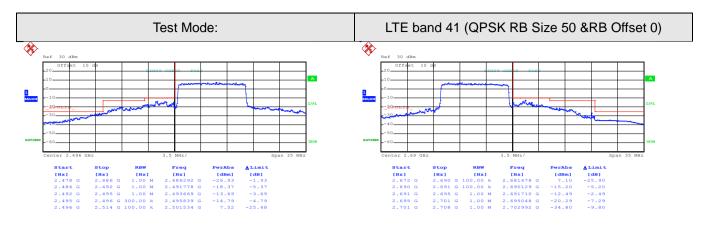
Date: 16.NOV.2016 02:44:31

Lowest channel

Highest channel





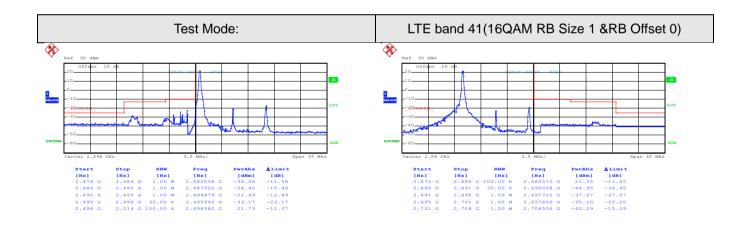


Date: 16.NOV.2016 02:39:46

Date: 16.NOV.2016 02:45:15

Lowest channel

Highest channel



Date: 16.NOV.2016 02:35:56

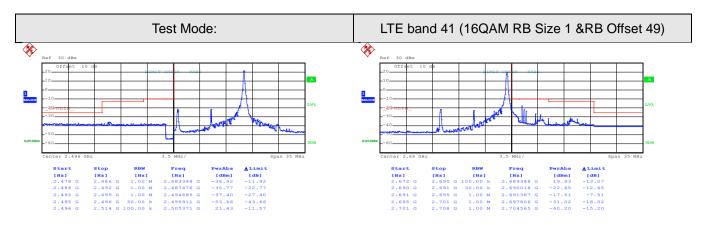
Date: 16.NOV.2016 02:41:50

Lowest channel

Highest channel





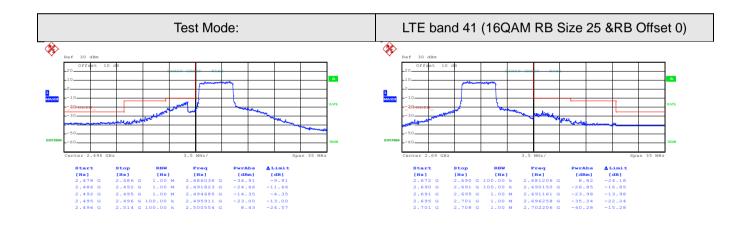


Date: 16.NOV.2016 02:37:17

Date: 16.NOV.2016 02:42:59

Lowest channel

Highest channel



Date: 16.NOV.2016 02:38:15

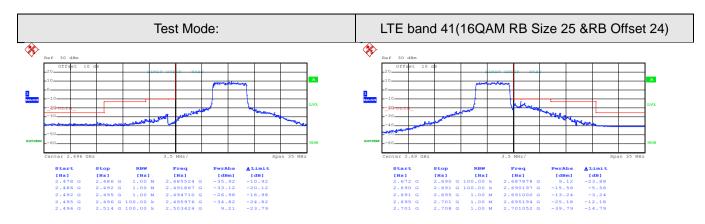
Date: 16.NOV.2016 02:44:08

Lowest channel

Highest channel





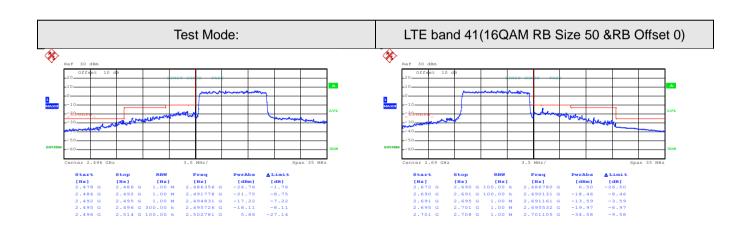


Date: 16.NOV.2016 02:38:55

Date: 16.NOV.2016 02:44:56

Lowest channel

Highest channel



Date: 16.NOV.2016 02:39:57

Date: 16.NOV.2016 02:45:28

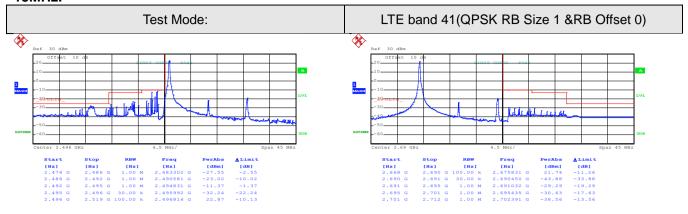
Lowest channel

Highest channel





15MHz:

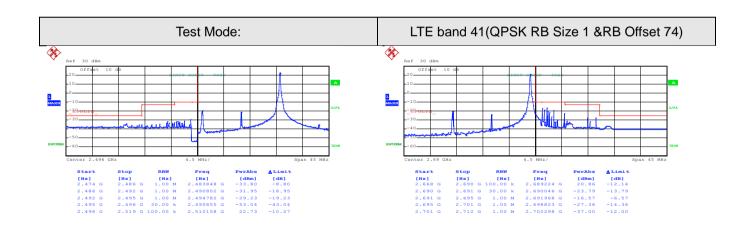


Date: 16.NOV.2016 02:50:41

Date: 16.NOV.2016 02:59:54

Lowest channel

Highest channel



Date: 16.NOV.2016 02:51:51

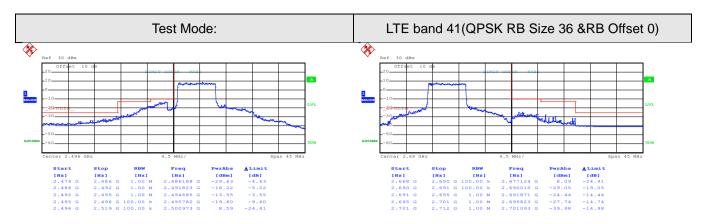
Date: 16.NOV.2016 03:00:48

Lowest channel

Highest channel





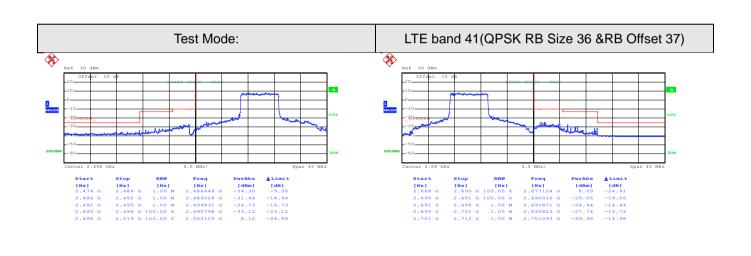


Date: 16.NOV.2016 02:53:35

Date: 16.NOV.2016 03:02:16

Lowest channel

Highest channel



Date: 16.NOV.2016 02:55:56

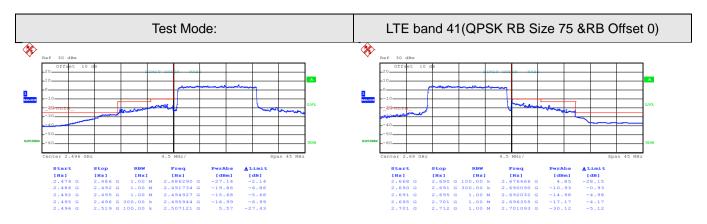
Date: 16.NOV.2016 03:02:16

Lowest channel

Highest channel





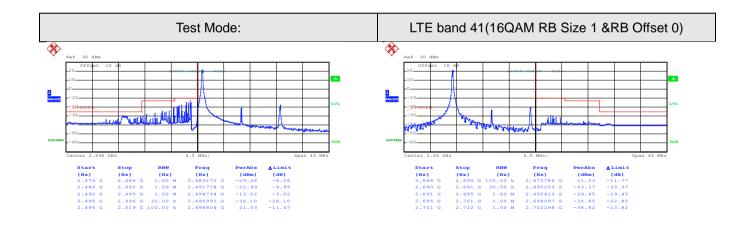


Date: 16.NOV.2016 02:58:04

Date: 16.NOV.2016 03:03:56

Lowest channel

Highest channel



Date: 16.NOV.2016 02:51:17

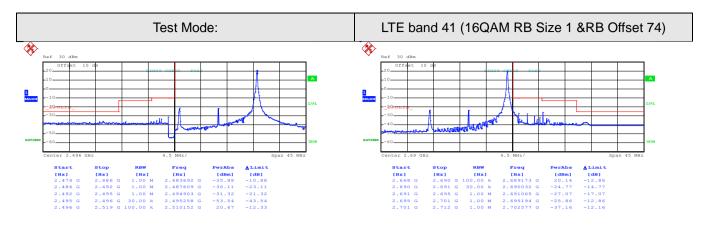
Date: 16.NOV.2016 03:00:24

Lowest channel

Highest channel





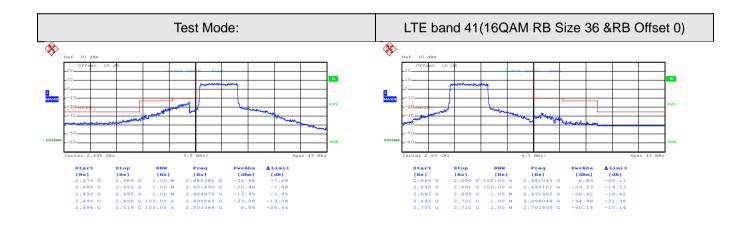


Date: 16.NOV.2016 02:52:15

Date: 16.NOV.2016 03:01:04

Lowest channel

Highest channel



Date: 16.NOV.2016 02:55:15

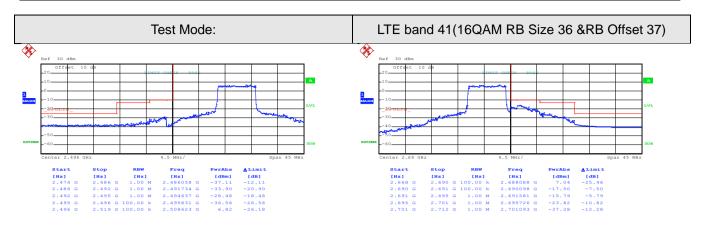
Date: 16.NOV.2016 03:02:30

Lowest channel

Highest channel





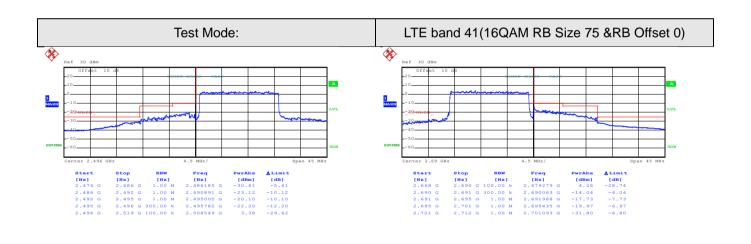


Date: 16.NOV.2016 02:56:11

Date: 16.NOV.2016 03:03:21

Lowest channel

Highest channel



Date: 16.NOV.2016 02:58:18

Date: 16.NOV.2016 03:22:11

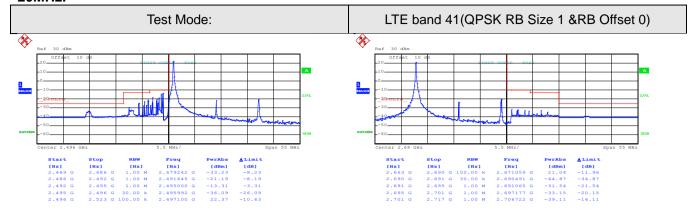
Lowest channel

Highest channel





20MHz:

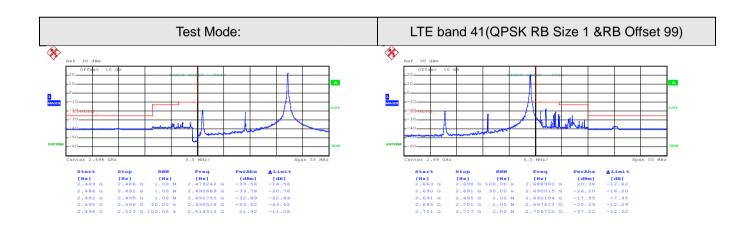


Date: 16.NOV.2016 03:07:14

Date: 16.NOV.2016 03:12:46

Lowest channel

Highest channel



Date: 16.NOV.2016 03:07:55

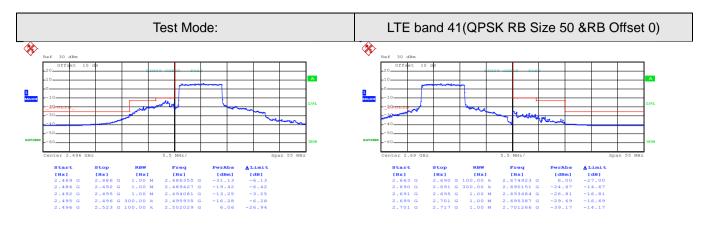
Date: 16.NOV.2016 03:13:49

Lowest channel

Highest channel





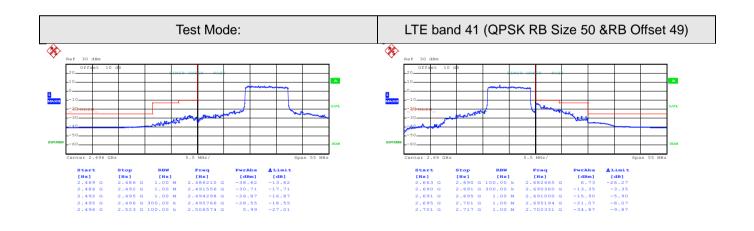


Date: 16.NOV.2016 03:09:15

Date: 16.NOV.2016 03:14:56

Lowest channel

Highest channel



Date: 16.NOV.2016 03:09:56

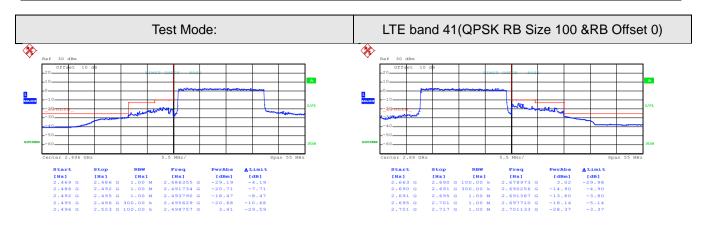
Date: 16.NOV.2016 03:15:38

Lowest channel

Highest channel





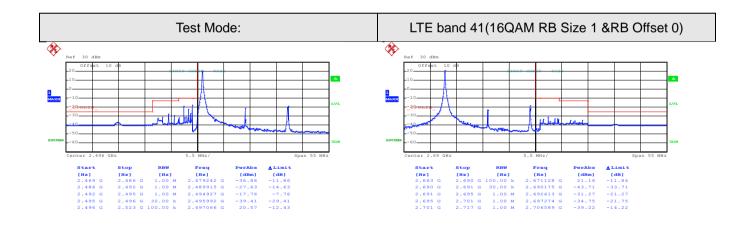


Date: 16.NOV.2016 03:10:50

Date: 16.NOV.2016 03:16:26

Lowest channel

Highest channel



Date: 16.NOV.2016 03:07:33

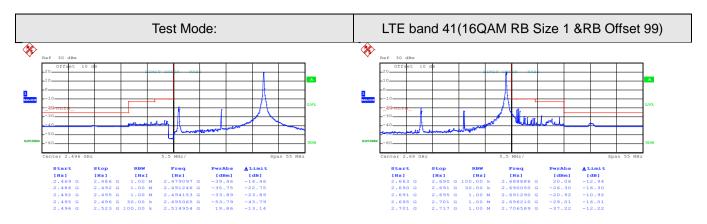
Date: 16.NOV.2016 03:13:21

Lowest channel

Highest channel





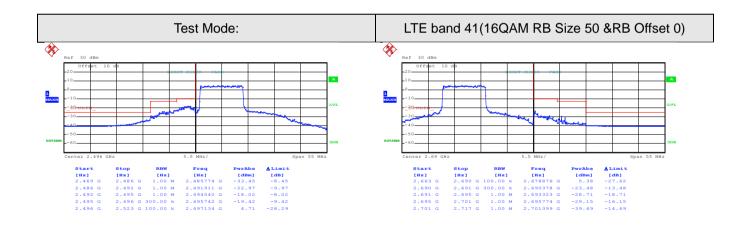


Date: 16.NOV.2016 03:08:23

Date: 16.NOV.2016 03:14:19

Lowest channel

Highest channel



Date: 16.NOV.2016 03:09:35

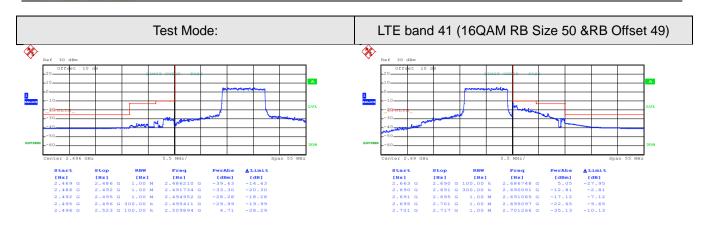
Date: 16.NOV.2016 03:15:15

Lowest channel

Highest channel





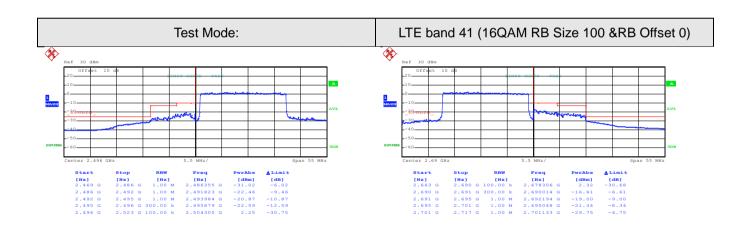


Date: 16.NOV.2016 03:10:10

Date: 16.NOV.2016 03:15:54

Lowest channel

Highest channel



Date: 16.NOV.2016 03:11:07

Date: 16.NOV.2016 03:16:49

Lowest channel

Highest channel





6.10 ERP, EIRP Measurement

6.10 ERP, EIRP Measure	ment
Test Requirement:	FCC part 22.913 (a), 24.232 (c), part 27.50(c), part 27.50(d), part 27.50 (h)
Test Method:	FCC part2.1046
Limit:	LTE Band 2: 2W EIRP LTE Band 4: 1W EIRP LTE Band 5: 7W ERP LTE Band 7: 2W EIRP LTE Band 17: 3W ERP LTE Band 41: 2W EIRP
Test setup:	Antenna Tower Seurch Antenna Tower Seurch Antenna Tower Receiver Antenna Tower Receiver Receiver Antenna Tower Item Antenna mast Ground plane d: distance in meters d: 3 meter Substituted Dipole or Hom Antenna Bi-Log Antenna or Hom Antenna





	T
Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
	2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.
	3. ERP in frequency band below 1GHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:
	ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB)
	4. EIRP in frequency band above 1GHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:
	EIRP = S.G. output (dBm) + Antenna Gain (dBi) - Cable Loss (dB)
	5. The worse case was relating to the conducted output power.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed





Measurement Data (worst case):

LTE band 2 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
		1.	4MHz(RB s	ize 1 & RB	offset 0)					
1850.70	18607	QPSK	1.4	Н	V	21.72				
1650.70	10007	QPSK	1.4	П	Н	26.82	33.00	Pass		
1850.70	18607	16QAM	1.4	Н	V	21.81	33.00	Pass		
1650.70	10007	IOQAW	1.4	П	Н	27.07				
	1.4MHz(RB size 3 & RB offset 0)									
1050.70	10607	ODSK	1.4	Н	V	21.61				
1850.70	18607	QPSK	1.4		Н	26.78	33.00	Pass		
1850.70	18607	16QAM	1.4	Н	V	21.79	33.00	Pass		
1650.70	10007	TOQAW	1.4	П	Н	27.06				
		1.	4MHz(RB s	ize 6 & RB	offset 0)					
4050.70	40007	ODCK	4.4		V	20.51				
1850.70	18607	QPSK	1.4	H	Н	25.73	22.00	Door		
1950.70	10607	16O A M	1.4	Н	V	20.85	33.00	Pass		
1850.70	18607	16QAM	1.4		Н	26.07				

Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
		1.4	4MHz(RB	size 1 & RE	3 offset 0)						
1880.00	18900	QPSK	1.4	Н	V	21.56					
1000.00	16900	QF3K	1.4	П	Н	26.14	33.00	Pass			
1880.00	18900	16QAM	1.4	Н	V	21.58	33.00	Fa55			
1000.00	10900	TOQAM	1.4	П	Н	26.98					
	1.4MHz(RB size 3 & RB offset 0)										
1880.00	18900	QPSK	1.4	Н	V	21.54					
1000.00	16900	QFSK	1.4	П	Н	26.41	33.00	Pass			
1880.00	18900	16QAM	1.4	Н	V	21.84	33.00	F 455			
1000.00	16900	TOQAW	1.4	П	Н	26.89					
		1.4	4MHz(RB	size 6 & RE	3 offset 0)						
1880.00	18900	QPSK	1.40	Н	V	20.87					
1000.00	16900	QFSK	1.40	П	Н	25.14	33.00	Pass			
1880.00	18900	16QAM	1.40	Н	V	20.47	33.00	F d55			
1000.00	10900	TOQAM	1.40	''	Н	25.99	1				





Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
			1.4MHz(RE	3 size 1 & F	RB offset 0)					
1000 20	10102	QPSK	1.4	Н	V	21.45				
1909.30	19193	QFSK	1.4	П	Н	26.48	22.00	Door		
1000 20	10102	160014	1.4	Н	V	21.48	33.00	Pass		
1909.30	19193	16QAM	1.4	П	Н	26.35				
	1.4MHz(RB size 3 & RB offset 0)									
4000 00	40400	ODCK		11	V	21.98		Door		
1909.30	19193	QPSK	1.4	Н	Н	26.32	22.00			
1000 20	10102	160014	1.4	Н	V	21.42	33.00	Pass		
1909.30	19193	16QAM	1.4	П	Н	26.35				
			1.4MHz(RE	3 size 6 & F	RB offset 0)					
4000 20	40400	ODCK	4.4	11	V	21.02				
1909.30	19193	QPSK	1.4	Н	Н	25.63	22.00	Doos		
1000 20	10102	160AM	4.4	Ш	V	20.89	33.00	Pass		
1909.30	19193	16QAM	1.4	Н	Н	25.47				

Lowest channel

	Lowest Channel										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
	20MHz(RB size 1 & RB offset 0)										
1860.00	18700	QPSK	20	Н	V	21.92					
1000.00	18700	QPSK	20	П	Н	27.12	33.00	Pass			
1860.00	18700	16QAM	20	Н	V	22.04	33.00	Fa55			
1000.00	10700	18QAIVI 20 H H 27.26	20 H 7 27.26	27.26							
	20MHz(RB size 50 & RB offset 0)										
1860.00	18700	QPSK	20	Н	V	22.02					
1000.00	16700	QFSK	20	П	Н	26.84	33.00	Pass			
1860.00	18700	16QAM	20	Н	V	21.96	33.00	Fa55			
1000.00	16700	TOQAM	20	П	Н	26.69					
		20	MHz(RB siz	e 100 & R	RB offset 0)						
1960.00	19700	ODSK	20	Н	V	20.80					
1860.00	18700	QPSK	20		Н	25.50	33.00	Pass			
1860.00	18700	16QAM	20	Н	V	21.48	33.00	Fa55			
1000.00	18700	IOQAM	20	П	Н	26.08		<u> </u>			





Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result				
	20MHz(RB size 1 & RB offset 0)											
1990.00	19000	ODSK	20	Ш	V	22.01						
1880.00	18900	QPSK	20	Н	Н	27.45	22.00	Door				
1000.00	19000	16O A M	20	Н	V	21.98	33.00	Pass				
1880.00	18900	16QAM	20	П	Н	27.49						
	20MHz(RB size 50 & RB offset 0)											
1000.00	10000	ODSK	20	Н	V	22.36						
1880.00	18900	QPSK	20	П	Н	26.41	33.00	Pass				
1880.00	18900	16QAM	20	Н	V	22.04	33.00	F488				
1000.00	10900	IOQAW	20	П	Н	26.54						
		20	MHz(RB siz	ze 100 & R	B offset 0)							
1000.00	40000	ODCK	20	11	V	21.04						
1880.00	18900	QPSK	20	Н	Н	25.36	22.00	Door				
1880.00	18900	16QAM	20	Н	V	21.85	33.00	Pass				
1000.00	10900	IOQAW	20	17	Н	26.52						

Highest channel

	nighest channel										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
	20MHz(RB size 1 & RB offset 0)										
1900.00	19100	QPSK	20	Н	V	21.96					
1900.00	19100	QFSK	20		Н	27.14	33.00	Door			
1900.00	19100	16QAM	20 I	ы	V	22.06	33.00	Pass			
1900.00	19100	TOQAW	20 H		Н	27.46		_			
	20MHz(RB size 50 & RB offset 0)										
1900.00	19100	QPSK	20	20 H	V	22.48	33.00				
1900.00	19100	QF 5K	20	11	Н	26.12		Pass			
1900.00	19100	16QAM	20	Н	٧	22.36	33.00	F 455			
1900.00	19100	TOQAW	20	11	Н	26.19					
		2	0MHz(RB s	ize 100 8	RB offset ())					
1900.00	19100	QPSK	20	Н	V	21.44					
1900.00	19100	QF SIX	20	11	Н	25.91	33.00	Pass			
1900.00	19100	16QAM	20	Н	V	22.04	33.00	F 055			
1900.00	19100	ΙΟΩΛΙΝΙ	20	11	Н	26.36					





LTE band 4 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
		•	1.4MHz(RE	3 size 1 &	RB offset 0)						
1710.70	19957	QPSK	1.4	Н	V	22.37					
1710.70	19937	QFSK	1.4	+ 11	Н	19.10	30.00	Pass			
1710.70	19957	16QAM	1.4 H		V	22.41	30.00	Fa55			
1710.70	19937	IOQAW	1.4	H 19.17							
	1.4MHz(RB size 3 & RB offset 0)										
4740.70	10057	ODCK	4.4	1.1	V	22.45	30.00	Pass			
1710.70	19957	QPSK	1.4	1.4 H	Н	19.22					
1710.70	100F7	160 A M	1.4	Н	V	22.44	30.00				
1710.70	19957	16QAM	1.4	П	Н	19.18					
		•	1.4MHz(RE	3 size 6 &	RB offset 0)						
1710 70	10057	ODSK	1.4	Н	V	21.72					
1710.70	19957	QPSK	1.4	П	Н	18.49	20.00	Pass			
1710 70	10057	160 A M	1.4	Н	V	21.83	30.00				
1710.70	19957	16QAM	1.4	П	Н	18.79					

Middle channel

	imidate difamer										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
		1	.4MHz(RE	3 size 1 &	RB offset 0)						
1732.50	20175	QPSK	1.4	Н	V	22.89					
1732.30	20175	QF3K	1.4	П	Н	19.63	20.00	Pass			
1732.50	20175	16QAM	1 /	ы	V	22.78	30.00	Fa55			
1732.30	20175	TOQAIVI	1.4 H		Н	19.26					
	1.4MHz(RB size 3 & RB offset 0)										
1732.50	20175	QPSK	1.4	Н	V	22.68					
1732.50	20175	QFSK	1.4	П	Н	19.52	30.00	Pass			
1732.50	20175	16QAM	1.4	1.4 H	V	22.74	30.00	F 455			
1732.30	20175	TOQAM	1.4		Н	19.45					
		1	.4MHz(RE	3 size 6 &	RB offset 0)						
1722.50	20175	ODSK	1.1	Н	V	21.14					
1732.50	20175	QPSK	1.4		Н	18.96	20.00	Door			
1732.50	20175	16QAM	1.4	Н	V	21.93	30.00	Pass			
1732.00	20173	IOQAW	1.4	П	Н	18.62					





Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
			1.4MHz(RE	size 1 & F	RB offset 0)					
1754.30	20393	QPSK	1.4	Н	V	22.84				
1754.50	20393	QFSK	1.4	П	Н	19.45	30.00	Pass		
1754 20	20393	16QAM	1.4	Н	V	22.15	30.00	Fa55		
1754.30	20393	IOQAW	1.4	П	Н	19.86		<u> </u>		
	1.4MHz(RB size 3 & RB offset 0)									
1754.30	20202	QPSK	1.4	Н	V	22.47				
1754.30	20393	QPSK	1.4	П	Н	19.63	20.00	Pass		
1754.30	20393	16QAM	1.4	Н	V	22.96	30.00	Fa55		
1754.50	20393	IOQAW	1.4	П	Н	19.94				
		•	1.4MHz(RE	3 size 6 & F	RB offset 0)					
1751 20	20202	ODSK	1.4	Н	V	21.98				
1754.30	20393	QPSK	1.4	П	Н	19.06	20.00	Door		
1754.20	20202	160 AM	4.4	Н	V	22.06	30.00	Pass		
1754.30	20393	16QAM	1.4	П	Н	19.13				

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
		2	0MHz(RB si	ze 1 & RB	offset 0)					
1720.00	20050	QPSK	20	Н	V	22.41				
1720.00	20050	QF3K	20	П	Н	19.27	30.00	Pass		
1720.00	20050	16QAM	20	Н	V	23.19	30.00	Pa55		
1720.00	20050	IOQAW	20	П	Н	22.45				
	20MHz(RB size 50 & RB offset 0)									
1720.00	20050	QPSK	20	Н	V	23.36				
1720.00	20050	QFSK	20	П	Н	22.75	30.00	Pass		
1720.00	20050	16QAM	20	Н	V	23.36	30.00	F a 5 5		
1720.00	20030	TOQAIVI	20	11	Н	22.82				
		20MHz(RB size 100	& RB offs	et 0)					
1720.00	20050	QPSK	20	Н	V	22.51				
1720.00	20030	QF3N	20	17	Н	21.78	30.00	Pass		
1720.00	20050	16QAM	20	Н	V	22.27	30.00	F a 5 5		
1720.00	20000	IOQAW	20	11	Н	21.97				



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Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
	20MHz(RB size 1 & RB offset 0)									
1732.50	20175	QPSK	20	Н	V	22.96				
1732.50	20175	QFSN	20	П	Н	20.14	30.00	Pass		
1732.50	20175	16QAM	20	Н	V	23.48	30.00	F 455		
1732.50	20175	TOQAM	20	П	Н	22.01				
20MHz(RB size 50 & RB offset 0)										
1732.50	50 2017E ODSV	20	Н	V	23.48					
1732.50	20175	QPSK	20	П	Н	22.41	30.00	Pass		
1732.50	20175	16QAM	20	Н	V	23.04	30.00	rass		
1732.30	20173	TOQAW	20	!!	Н	22.15				
		20	MHz(RB siz	e 100 & RI	B offset 0)					
1732.50	20175	QPSK	20	Н	V	22.71				
1732.50	20175	QF3N	20	П	Н	21.36	30.00	Door		
1732.50 20175	20175	16QAM	20	Н	V	22.16	30.00	Pass		
1732.50	20175	TOQAW	20	11	Н	21.44				

High channel

High channel										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
	20MHz(RB size 1 & RB offset 0)									
1745.00	20300	QPSK	20	Н	V	23.11				
1745.00	20300	QFSK	20	П	Н	20.59	30.00	Pass		
1745.00	20300	16QAM	20	Н	V	23.03	30.00	F a 5 5		
1745.00	20300	TOQAM	20	!!	Н	22.19				
20MHz(RB size 50 & RB offset 0)										
1745.00	20300	QPSK	20	Н	V	23.07				
1745.00	20300	QFSK	20	П	Н	22.63	30.00	Pass		
1745.00	20300	16QAM	20	Н	V	23.48	30.00	F a 5 5		
1745.00	20300	TOQAM	20	11	Н	22.65				
		2	20MHz(RB siz	e 100 & RI	3 offset 0)					
1745.00	20300	QPSK	20	Н	V	22.46				
1745.00	20300	QFSK	20	П	Н	21.69	30.00	Page		
1745.00	20300	0 16QAM 20	20	Н	V	22.35	30.00	Pass		
1745.00	20300	IOQAM	20	11	Н	21.74				





LTE band 5 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result			
	1.4MHz(RB size 1 & RB offset 0)										
824.70	20407	QPSK	1.4	Н	V	19.28					
024.70	20407	QFSK	1.4	П	Н	18.14	38.45	Pass			
824.70	20407	16QAM	1.4	Н	V	19.20	30.43	Fa55			
024.70	20407	TOQAW	1.4		Н	17.76					
			1.4MHz(RI	B size 3&	RB offset 0)						
924.70	20407	QPSK	1.4	Н	V	19.61					
824.70	20407	QPSK	1.4		Н	17.98	38.45	Pass			
824.70	20407	16QAM	4.4	Н	V	19.26	30.43	Fa55			
024.70	20407	IOQAW	1.4	П	Н	17.75					
			1.4MHz(RI	B size 6&	RB offset 0)						
024.70	20407	ODSK	1.1	Н	V	17.86					
824.70	20407	QPSK	1.4		Н	16.33	20.45	Door			
024.70 20407 46	16QAM	1.1	Н	V	18.14	38.45	Pass				
824.70	20407	IOQAW	1.4	П	Н	16.00					

Middle channel

	Middle Channel										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result			
1.4MHz(RB size 1 & RB offset 0)											
926 50	20525	OBSK	1.4 H	Н	V	19.36					
836.50	20525	QPSK	1.4	Г	Н	18.56	38.45	Pass			
836.50	20525	16QAM	1.4	Н	V	19.84	30.43	Fa55			
636.50	20323	IOQAW	1.4	П	Н	17.96					
1.4MHz(RB size 3& RB offset 0)											
836.50	20525		1.4	Н	V	19.74		Pass			
636.50	20323	QPSK	1.4 П	П	Н	18.36	38.45				
836.50	20525	16QAM	1.4	Н	V	19.85	30.43	F 455			
630.50	20020	TOQAM	1.4	П	Н	18.04					
		1	.4MHz(RI	B size 6&	RB offset 0)						
926 50	20525	QPSK	1.1	Н	V	18.06					
836.50	20020	UPSK	1.4	П	Н	17.12	38.45	Pass			
936 50	836.50 20525 16QAM	1.4	Н	V	18.47	30.43	rass				
030.50	20323	IOQAW	1.4	П	Н	16.98					





Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
			1.4MHz(RE	size 1 & l	RB offset 0)					
848.30	20643	QPSK	1.4	Н	V	19.89				
646.30	20043	QPSK	1.4	П	Н	18.54	38.45	Pass		
949 20	20643	16O A M	1.4	Н	V	19.74	30.43	Fa55		
848.30	20043	16QAM	1.4	П	Н	18.09				
	1.4MHz(RB size 3& RB offset 0)									
040.20	20642	ODSK	<u> </u>	1.4	Н	V	19.77			
848.30	20643	QPSK	1.4	П	Н	18.65	38.45	Pass		
848.30	20643	16QAM	1.4	Н	V	19.74	30.43	Fa55		
040.30	20043	IOQAW	1.4	П	Н	18.52				
			1.4MHz(RE	3 size 6& F	RB offset 0)					
0.40, 0.0	20042	ODCK	4.4	- 11	V	18.56				
848.30	20643	QPSK	1.4 H	П	Н	17.91	20.45	Desa		
0.40.20	20642	160 AM	1.4	Н	V	18.75	38.45	Pass		
848.30	20643	16QAM	1.4	П	Н	17.59				

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
		1	0MHz(RB si	ze 1 & RB	offset 0)					
920.00	20450	ODSK	10	ы	V	19.45				
829.00	20450	QPSK	10	Н	Н	17.65	20.45	Door		
920.00	20450	16O A M	10	ы	V	20.12	38.45	Pass		
829.00	20450	16QAM	10	Н	Н	17.92				
	10MHz(RB size 25& RB offset 0)									
920.00	20450	ODSK	10	Н	V	19.24				
829.00	20450	QPSK	10	П	Н	17.56	38.45	Pass		
920.00	20450	16QAM	10	Н	V	19.86	30.43	Pa55		
829.00	20430	TOQAM	10	П	Н	17.62				
		1	0MHz(RB siz	ze 50& RB	offset 0)					
829.00	20450	QPSK	10	Н	V	17.81				
029.00	20430	QFSK	10	П	Н	15.86	20.45	Door		
920.00	829.00 20450 16QAM	10	Н	V	18.51	38.45	Pass			
029.00	20430	TOQAM	10	П	Н	16.41				



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Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
		1	0MHz(RB si	ze 1 & RB	offset 0)					
836.50	20525	QPSK	10	Н	V	19.39				
636.50	20525	QFSN	10	П	Н	17.85	38.45	Pass		
836.50	20525	16QAM	10	Н	V	19.98	30.43	F 455		
636.50	20020	TOQAM	10	П	Н	18.01				
	10MHz(RB size 25& RB offset 0)									
836.50	20525	QPSK	10	Н	V	19.86				
636.50	20525	QFSN	10	П	Н	17.89	38.45	Pass		
836.50	20525	16QAM	10	Н	V	19.68	30.43	F 455		
636.30	20020	TOQAM	10	П	Н	18.04				
		10	MHz(RB siz	ze 50 & RE	3 offset 0)					
836.50	20525	QPSK	10	Н	V	18.14				
030.30	20020	QF3K	10	П	Н	16.93	38.45	Pass		
836.50 20525	16QAM	10	Н	V	18.96	30.43	Fa55			
030.30	20020	TOQAW	10	11	Н	16.87				

High channel

High channel										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
	10MHz(RB size 1 & RB offset 0)									
844.00	20600	QPSK	10	Н	V	19.78				
044.00	20000	QFSK	10	П	Н	17.98	38.45	Pass		
844.00	20600	16QAM	10	Н	V	19.47	30.43	F 455		
044.00	20000	TOQAM	10	11	Н	18.13				
	10MHz(RB size 25& RB offset 0)									
844.00	20600 QPSK	QPSK 1	10	Н	V	19.74				
844.00	20000	QFSK	10		Н	18.25	38.45	Pass		
844.00	20600	16QAM	10	Н	V	19.87	30.43	F 455		
044.00	20000	TOQAM	10	11	Н	18.45				
		10	MHz(RB siz	e 50 & RE	offset 0)					
844.00	20600	QPSK	10	ш	V	18.96				
044.00	20000	QF3N	10	10	10	10 H	Н	17.05	38.45	Door
844.00 20600	20600	16QAM	10	Н	V	19.06	30.43	Pass		
044.00	20000	IOQAW	10	П	Н	17.15				





LTE band 7 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result						
			5MHz(RB	size 1 & I	RB offset 0)									
2502.50	20775	QPSK	5	Н	V	23.01								
2502.50	20773	QFSK	5	П	Н	21.02	33.00	Pass						
2502.50	20775	16QAM	5	Н	V	22.80	33.00	Fa55						
2502.50	20773	IOQAW	5	П	Н	21.19								
	5MHz(RB size 12& RB offset 0)													
2502.50	20775	QPSK	5	Н	V	22.12								
2502.50	20775	QPSK	5	П	Н	20.41	22.00	Pass						
2502.50	20775	16QAM	5	Н	V	22.05	33.00	Fa55						
2502.50	20773	IOQAW	5	П	Н	20.38								
			5MHz(RB	size 25&	RB offset 0)									
2502.50	20775	ODSK	E	Ш	V	20.87								
2502.50	20775	QPSK	5	5 H	Н	19.17	22.00	Door						
2502.50	20775	160 A M	QAM 5 H -			11	- 11		11		V	21.03	33.00	Pass
2502.50	20773	IOQAW		Н	19.31									

Middle channel

	Middle Channel										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
	5MHz(RB size 1 & RB offset 0)										
2525.00	24400	ODSK	5	Н	V	23.58					
2535.00	21100	QPSK	5	П	Н	21.96	33.00	Door			
2535.00	21100	16QAM	5	Н	V	23.05	33.00	Pass			
2555.00	21100	IOQAW		3 11	Н	21.58					
5MHz(RB size 12& RB offset 0)											
2535.00	21100	QPSK	5	Н	V	22.97					
2555.00	21100	QPSK	5	П	Н	21.01	33.00	Pass			
2535.00	21100	16QAM	5	Н	V	22.69	33.00	F 455			
2555.00	21100	TOQAM	5		Н	21.11					
		Ę	MHz(RB	size 25&	RB offset 0)						
2535.00	21100	QPSK	E	Н	V	21.36					
2555.00	21100	QPSK	5		Н	19.86	22.00	Door			
2535.00	35.00 21100 16QAM 5	5	Н	V	21.87	33.00	Pass				
2555.00	21100	TOQAM	5	П	Н	19.99					





Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
			5MHz(RB	size 1 & R	B offset 0)					
2567.50	21425	QPSK	5	Н	V	23.14				
2567.50	21423	QFSK	5	П	Н	22.03	33.00	Pass		
2567.50	21425	16QAM	5	Н	V	23.69	33.00	Fa55		
2567.50	21423	IOQAW	5	П	Н	21.85				
	5MHz(RB size 12& RB offset 0)									
2567.50	24.425	ODSK	1	H V 23	23.06					
2567.50	21425	QPSK	5	П	Н	21.95	22.00	Door		
2567.50	21425	16QAM	5	Н	V	22.98	33.00	Pass		
2567.50	21423	IOQAW	5	П	Н	21.86				
			5MHz(RB	size 25& R	B offset 0)					
2507.50	04.405	ODCK	-	1.1	V	21.94				
2567.50	21425	QPSK	5 H	П	Н	20.01	22.00	Doos		
2567.50	24.425	160 AM	E	Н	V	22.05	33.00	Pass		
2567.50	21425	16QAM	5	П	Н	20.11				

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
		2	0MHz(RB si	ze 1 & RB	offset 0)					
2510.00	20050	ODSK	20	Ш	V	25.01				
2510.00	20850	QPSK	20	Н	Н	21.14	22.00	Door		
2510.00	20850	16QAM	20	Н	V	25.05	33.00	Pass		
2510.00	20000	TOQAM	20	П	Н	21.23				
	20MHz(RB size 50 & RB offset 0)									
2510.00	20850	QPSK	20	Н	V	23.94				
2510.00	20030	QFSK	20	П	Н	20.24	33.00	Pass		
2510.00	20850	16QAM	20	Н	V	24.24	33.00	Pa55		
2510.00	20000	TOQAM	20		Н	20.58				
		20MHz(RB size 100	& RB offs	et 0)					
2510.00	20850	QPSK	20	Ш	V	22.95				
2510.00	20000	QFSK	20	20	H	Н	19.19	33.00	Door	
2510.00	510.00 20850 16QAM	20	Н	V	22.30	33.00	Pass			
2510.00	20000	TOQAM	20	17	Н	19.96				



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Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result				
20MHz(RB size 1 & RB offset 0)												
2535.00	21100	21100 ODSK	20	Н	V	24.99						
2555.00	21100	QPSK	20	П	Н	21.56	22.00	Docc				
2535.00	21100	16QAM	20 H	V	24.97	33.00	Pass					
2555.00	21100	TOQAM	20	П	Н	21.86						
		20	MHz(RB siz	ze 50 & RE	3 offset 0)							
2535.00	21100	QPSK	20	Н	V	23.14						
2555.00	21100	QFSK		20	П	Н	20.78	33.00	Pass			
2535.00	21100	16QAM	AM 20	Н	V	24.01	33.00	Pa55				
2555.00	21100	TOQAM	20	П	Н	20.96						
		20	MHz(RB siz	e 100 & R	B offset 0)							
2535.00	21100	QPSK	20	Н	V	23.01						
2555.00	21100	QFON 20	1100 Q1 510 20 11	20	20	20	20	Six 20	Н	19.86	22.00	Door
2535.00	21100	21100 16QAM	16QAM 20	Н	V	22.89	33.00	Pass				
2000.00	21100	IUQAW		11	Н	20.06						

High channel

High channel															
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result							
20MHz(RB size 1 & RB offset 0)															
2560.00	21350	QPSK	20	Н	V	24.96									
2560.00	21330	QFSK	20	П	Н	21.45	33.00	Pass							
2560.00	21350	16QAM	20 F	ы	V	24.57	33.00	F 455							
2300.00	21330	TOQAM		20	11	Н	22.03								
	20MHz(RB size 50 & RB offset 0)														
2560.00	21350	ODSK	OBSK	QPSK	OBSK	ODSK	OBSK	ODGK	20	н	ш	V	23.69		
2300.00	21330	QFSK	20	20	20		Н	21.04	33.00	Pass					
2560.00	21350	21350	21350	16QAM	20	20		V	23.99	33.00	F 455				
2300.00				21330	21330	21330	21330	21300	21350	21350	IOQAW	TOQAM	20	H	Н
	20MHz(RB size 100 & RB offset 0)														
2560.00	2500 00 24250 OPCK	21250	21250	30.00 31350	21350 QPSK	OBSK	1350 ODSK	20	20	20	20 H	V	23.65		
2500.00	21330	QFSN	20	П	Н	19.88	33.00	Pass							
2560.00	2560.00 21350 16QAM	16QAM	20	20 H	V	23.01	33.00	Fa55							
2300.00	21330	IOQAW			Н	20.56									





LTE band 17 part Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result					
	5MHz(RB size 1 & RB offset 0)												
706.50	23755	QPSK	5	Н	V	13.84							
700.50	23755	QFSK	5		Н	13.05	34.77	Daga					
706.50	23755	16QAM		Н	V	13.17	34.77	Pass					
706.50	23733	IOQAW	5	П	Н	12.76							
			5MHz(RB	size 12 8	RB offset 0)								
706.50	700 F0 007FF 0D0V	QPSK	5	Н	V	12.67							
706.50	23755	QFSK		3	П	Н	12.31	34.77	Pass				
706.50	23755	16QAM		5	5	5	Н	V	12.53	34.77	газэ		
700.50	23733	TOQAW	5	!!	Н	12.19							
		!	5MHz(RB	size 25 8	RB offset 0)								
706.50	23755	QPSK	ZEE ODCK	ZEE ODSK	OBSK	F	E	_	Н	V	13.19		
700.50	23700	QF3N	5	5	3	П	Н	12.83	34.77	Pass			
706.50	706.50 23755 16QA	16QAM	AM 5	Н	V	13.05	34.77	F a 3 3					
700.50	20700	IOQAW		11	Н	12.71							

Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result					
5MHz(RB size 1 & RB offset 0)													
710.00	23790	QPSK	5	Н	V	13.56							
7 10.00	23790	QFSK	5	11	Н	13.78	34.77	Pass					
710.00	23790	16QAM	5	Н	V	13.85	34.77	Pass					
710.00	23790	IOQAW	5	П	Н	13.14	ļ						
			5MHz(RE	size 12 &	RB offset 0)								
710.00	23790	QPSK	5	5 H	V	12.98							
710.00	23790	QFSK	J	3	Г	Н	12.54	34.77	Pass				
710.00	23790	16QAM	F	5	5	5	5	5	Н	V	12.95	34.77	Fa55
7 10.00	23790	IOQAW	5		Н	12.38							
			5MHz(RE	size 25 &	RB offset 0)								
710.00	22700	22700	ODCK	700 ODSK	QPSK 5	Н	V	13.25					
710.00	23790	QF3K	5	5		П	Н	13.65	34.77	Pass			
710.00	710.00 23790 16QAM	5	Н	V	13.47	34.11	газэ						
7 10.00	23790	TOQAM	3	11	Н	12.98							





Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result									
	5MHz(RB size 1 & RB offset 0)																
712.50	22025	OBSK	E	ы	V	13.85											
713.50	23825	QPSK	5 H	5 H	Н	13.69	24.77	Door									
712.50	22025	160AM		V	13.78	34.77	Pass										
713.50	23825	16QAM	5	П	Н	13.25											
	5MHz(RB size 12 & RB offset 0)																
712.50	740.50	22025	22025	ODCK	QPSK	5	Н	V	13.05								
713.50	23825	QFSK	5	5	3		3	11	Н	13.47	34.77	Door					
713.50	23825	16QAM	5	5	5		Н	V	13.65	34.77	Pass						
713.50	23020	IOQAW					5	П	Н	12.99							
			5MHz(RB	size 25 &	RB offset 0)												
740.50	23825 QPSK 5	00005	22025	22025	22025	00005	22025	0001/	ODOK	_	_	DOW 5		V	13.85		
713.50		5 H	П	Н	13.47	04.77	Daga										
712.50	2.50 20005 4004M 5	E	Н	V	13.69	34.77	Pass										
713.50	23825	16QAM	5	П	Н	13.05											

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result				
	10MHz(RB size 1 & RB offset 0)											
709.00	23780	QPSK	10	Н	V	13.47						
709.00	23/00	QFSK		П	Н	13.06	34.77	Pass				
700.00	23780	16QAM		Н	V	13.62	34.77	Fa55				
709.00	23700	IOQAW	10	П	Н	13.15						
		•	10MHz(R	B size 258	RB offset 0)							
700.00	22700	00700 ODCK	10			Н	V	12.96				
709.00	23780	QPSK				10	10	П	Н	12.56	34.77	Door
709.00	23780	16QAM				10	10	Н	V	12.71		Pass
709.00	23700	IOQAW	10	П	Н	12.46						
		•	10MHz(R	B size 508	RB offset 0)							
700.00	700.00 00700 00701	40	10	10	QPSK 10	DDCK 40	10	0 H	V	12.97		
709.00	23780	QPSK				П	Н	12.65	24 77	Door		
709.00	700.00 22780 46	3780 16QAM 10	Ш	V	12.91	34.77	Pass					
709.00	23700		10 H	Н	12.65							



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Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result	
			10MHz(R	B size 1 &	RB offset 0)				
710.00	23790	QPSK	10	Н	V	13.85			
710.00	23790	QFSK	10	П	Н	13.66	34.77	Doce	
710.00	23790	16QAM	10	Н	V	13.47		Pass	
7 10.00	23790	IOQAW	10		Н	13.22			
	10MHz(RB size 25& RB offset 0)								
710.00	22700	0001/	10	10 H	V	13.14	24.77	Pass	
710.00	23790	QPSK	10		Н	12.86			
710.00	23790	16QAM	10	Н	V	12.98	34.77		
710.00	23790	TOQAW	10	П	Н	12.67			
			10MHz(R	B size 50&	RB offset 0)				
740.00	22700	ODCK	40	40	V	13.56			
710.00	23790	QPSK	10	Н	Н	12.86	04.77	Desa	
710.00	22700	160AM	10	Ш	V	13.05	34.77	Pass	
710.00	23790	16QAM	10	Н	Н	12.98			

Highest channel

	nighest channel									
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
			10MHz(R	B size 1 &	RB offset 0)					
711.00	23800	QPSK	10	Н	V	13.45				
711.00	23000	QFSK	10	П	Н	13.42	34.77	Pass		
711.00	23800	16QAM	10	Н	V	13.95	34.77	Fa55		
711.00	23000	TOQAW	10	П	Н	13.74				
	10MHz(RB size 25& RB offset 0)									
711.00	23800	QPSK	(10	10 H	V	13.79		Pass		
711.00	23000	QFSK	10		Н	13.65	34.77			
711.00	23800	16QAM	10	Н	V	13.44	34.77			
711.00	23000	IOQAW	10	П	Н	12.88				
		•	10MHz(R	B size 50&	RB offset 0)					
711.00	22000	OBSK	10	Н	V	13.87				
711.00	23800	QPSK	10	П	Н	13.65	34.77	Pass		
711.00	23800	16QAM	10	Н	V	13.54	34.11	газэ		
711.00	23000	IOQAW	10	П	Н	13.25		ı		





LTE band 41 part Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
			5MHz(RE	3 size 1 &	RB offset 0)					
2498.50	39675	QPSK	5	Н	V	27.77				
2490.50	39073	QFSK	5	П	Н	28.30	33.00	Pass		
2498.50	20675	16QAM	5	Н	V	27.59	33.00	Pa55		
2496.50	39675	IOQAW	5		Н	28.37				
	5MHz(RB size 12 & RB offset 0)									
2498.50	39675	QPSK	E	5 H	V	27.94	33.00			
2496.50	39073	QFSK	5		Н	28.81		Pass		
2498.50	39675	16QAM	5	5 H	V	27.97	33.00	F 455		
2490.50	39073	TOQAM	5		Н	28.82				
		!	5MHz(RB	size 25 8	RB offset 0)					
2498.50	39675	QPSK	5	Н	V	28.13				
2490.00	39073	QF3N	J	П	Н	29.14	33.00	Pass		
2498.50	39675	16QAM	5	Н	V	28.25	33.00	газэ		
2490.50	39073	TOQAM	3	11	Н	29.20				

Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result			
	5MHz(RB size 1 & RB offset 0)										
2593.00	40620	QPSK	5	Н	V	28.15					
2595.00	40020	QF5K	5	11	Н	29.41	33.00	Pass			
2593.00	40620	16QAM	5	Н	V	28.04	33.00	F a 5 5			
2595.00	40020	IOQAM	5	П	Н	29.33					
			5MHz(RE	size 12 &	RB offset 0)						
2593.00	40620	OBSK	QPSK 5	Н	V	28.04					
2595.00	40020	QFSK	5	Г	Н	29.06	33.00	Pass			
2593.00	40620	16QAM	5	Н	V	28.11	33.00	Pa55			
2595.00	40020	TOQAM	5		Н	29.32					
			5MHz(RE	size 25 &	RB offset 0)						
2502.00	40620	ODCK	E	ш	V	29.10					
2593.00	40620	QPSK	5	H	Н	29.63	33.00	Pass			
2593.00	40620	16QAM	5	Н	V	28.99	33.00	F a 5 5			
2593.00	40020	IOQAW	3	11	Н	29.65					



			Hi	ghest cha	ınnel				
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result	
			5MHz(RE	3 size 1 &	RB offset 0)				
2687.50	41565	QPSK	5 H V 28.14						
2007.50	41303	QFSK	5	ΙŢ	Н	29.63	33.00	Pass	
2687.50	41565	16QAM	5	Н	V	28.56	33.00	Pass	
2007.50	41303	TOQAM	5	П	Н	29.34			
	5MHz(RB size 12 & RB offset 0)								
2687.50	41565	QPSK	5	Н	V	28.54			
2007.50	41363	QFSK	5	П	Н	29.13	22.00	Door	
2687.50	41565	16QAM	5	Н	V	28.56	33.00	Pass	
2007.50	41363	TOQAM	5	П	Н	29.47			
			5MHz(RB	size 25 &	RB offset 0)				
2697.50	11EGE	ODGK	5	Н	V	29.36			
2687.50	41565	QPSK	5	П	Н	29.48	22.00	Door	
2697.50	11EGE	16O A M	E	Н	V	28.96	33.00	Pass	
2687.50	41565	16QAM	5	П	Н	29.47			

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result			
	20MHz(RB size 1 & RB offset 0)										
2506.00	39750	QPSK	20	Н	V	27.93					
2500.00	39730	QFSK	20		Н	28.68	33.00	Pass			
2506.00	39750	16QAM	20	Н	V	27.79		F a 5 5			
2506.00	39730	IOQAW	20	П	Н	28.57					
		2	20MHz(R	B size 258	RB offset 0)						
2506.00	20750	QPSK	20	Н	V	27.29		Pass			
2506.00	39750	QFSK	20	20 H	Н	28.68	33.00				
2506.00	39750	16QAM	20	20 H	V	27.63	33.00				
2500.00	39730	TOQAM	20		Н	29.02					
		2	20MHz(R	B size 508	RB offset 0)						
2506.00	39750	QPSK	20	Н	V	26.20					
2506.00	39730	QF3N	20		Н	27.45	33.00	Pass			
2506.00	39750	16QAM	20	Н	V	26.66	33.00	F d S S			
2500.00	39730	IOQAW	20	11	Н	27.96					



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Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result	
			20MHz(R	B size 1 &	RB offset 0)				
2593.00	40620	QPSK	20	Н	V	28.06			
2595.00	40020	QFSK	20	П	Н	28.99	33.00	Pass	
2593.00	40620	16QAM	20	Н	V	28.14	33.00	F a 5 5	
2595.00	40020	IOQAW	20		Н	29.31			
	20MHz(RB size 25& RB offset 0)								
2502.00	40620	ODOK 00	20	20 H	V	28.04	1		
2593.00	40620	QPSK	20 11	QI OIL 20	П	Н	29.15	22.00	Door
2593.00	40620	16QAM	20	Н	V	28.03	33.00	Pass	
2595.00	40020	IOQAW	20	П	Н	28.56			
		:	20MHz(R	B size 50&	RB offset 0)				
2502.00	40000	ODCK	20	11	V	27.14			
2593.00	40620	QPSK	20	Н	Н	28.45	22.00	Door	
2502.00	40620	160 A M	20	Ш	V	27.36	33.00	Pass	
2593.00	40620	16QAM	20	Н	Н	28.65			

Highest channel

	nighest Chainlei									
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
			20MHz(R	B size 1 &	RB offset 0)					
2680.00	41490	QPSK	20	Н	V	28.11				
2000.00	41490	QFSK	20	П	Н	29.03	33.00	Door		
2680.00	41490	16QAM	20	Н	V	28.47	33.00	Pass		
2000.00	41490	TOQAW	20	П	Н	29.14				
	20MHz(RB size 25& RB offset 0)									
2680.00	41490	QPSK	QPSK 20	Н	V	28.88				
2000.00	41490	QFSK	20	п	Н	29.41	33.00	Door		
2680.00	41490	16QAM	20	Н	V	28.76	33.00	Pass		
2000.00	41490	IOQAW	20	П	Н	29.58				
		2	20MHz(R	B size 50&	RB offset 0)					
2690.00	41400	OBSK	20	Н	V	27.77				
2680.00	41490	QPSK	20	П	Н	28.46	33.00	Pass		
2680.00	41490	16QAM	20	Н	V	27.39	33.00	гаъъ		
2000.00	41430	IOQAW	20		Н	28.68				





6.11 Field strength of spurious radiation measurement

Test Requirement:	FCC Part 22.917(a), Part 24.238 (a), Part 27.53(g), Part 27.53(m), Part 27.53(h)
Test Method:	FCC part2.1053
Limit:	LTE Band 2, LTE Band 4, LTE Band 5, LTE Band 12 and LTE Band 17: -13dBm, LTE Band 7, LTE Band 41: -25dBm
Test setup:	Below 1GHz Antenna Tower
	Search Aotenna RF Test Receiver Tam Table Ground Plane
	Above 1GHz
	Astenia Tower Horn Automa FLIT Turn G, Set Im Table Amplifier
	Substituted method:
	Ground plane d: distance in meters d:3 meter I m S.G. Substituted Dipole or Horn Antenna Bi-Log Antenna or Horn Antenna
Test Procedure:	 The EUT was placed on an non-conductive turntable using a non- conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
	2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.
	The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels).

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	Once spurious emission was identified, the power of the emission was determined using the substitution method.
	4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) – Cable Loss (dB)
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

Measurement Data (worst case):

Below 1GHz:

The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

Above 1GHz

For above 1 GHz, all test modes were performed, and just the worst case shown in the report.



Report No: CCISE160905303

LTE band 2 part:

		ze 1 & RB offset 0) for	or QPSK	
Frequency (MHz)	Spurious I	Emission	Limit (dBm)	Result
rrequericy (wiriz)	Polarization	Level (dBm)	Limit (ubin)	Kesuit
		Lowest		
3701.40	Vertical	-43.55		
5552.10	V	-23.10		
7402.00	V	-33.31	42.00	Door
3701.40	Horizontal	-41.18	-13.00	Pass
5552.10	Н	-18.54		
7402.00	Н	-30.14		
<u> </u>		Middle		
3760.00	Vertical	-40.39		
5640.00	V	-23.83		
7520.00	V	-36.31	40.00	Door
3760.00	Horizontal	-40.74	-13.00	Pass
5640.00	Н	-21.76		
7520.00	Н	-33.03		
		Highest		
3816.60	Vertical	-42.99		
5724.90	V	-33.86		
7633.20	V	-31.88	40.00	D.
3816.60	Horizontal	-45.60	-13.00	Pass
5724.90	Н	-35.68		
7633.20	Н	-32.48		





	3MHz(RB siz	ze 1 & RB offset 0)	for QPSK		
F (MILL)		Emission		D II	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
		Lowest			
3703.00	Vertical	-43.62			
5554.50	V	-25.48			
7406.00	V	-30.02	-13.00	Pass	
3703.00	Horizontal	-38.56	-13.00	Pass	
5554.50	Н	-19.54			
7406.00	Н	-29.65			
		Middle		<u>.</u>	
3760.00	Vertical	-42.36		Pass	
5640.00	V	-26.38			
7520.00	V	-36.69	-13.00		
3760.00	Horizontal	-41.58	-13.00	Pass	
5640.00	Н	-24.59			
7520.00	Н	-39.33			
		Highest		·	
3817.00	Vertical	-44.14			
5725.50	V	-26.38	1		
7634.00	V	-30.05	12.00	Dana	
3817.00	Horizontal	-44.36	-13.00	Pass	
5725.50	Н	-26.35	1		
7634.00	Н	-33.47	1		





_		ze 1 & RB offset 0) for	or QPSK	
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
1 requeries (Willie)	Polarization	Level (dBm)	Limit (dBin)	rtoodit
		Lowest		
3705.00	Vertical	-44.25		
5557.50	V	-22.63		
7410.00	V	-32.14	-13.00	Pass
3705.00	Horizontal	-40.12	-13.00	Pass
5557.50	Н	-19.26		
7410.00	Н	-29.54		
<u>.</u>		Middle		
3760.00	Vertical	-39.65		Pass
5640.00	V	-24.17		
7520.00	V	-35.24	-13.00	
3760.00	Horizontal	-39.47	-13.00	Pass
5640.00	Н	-22.15		
7520.00	Н	-32.45		
<u>.</u>		Highest		
3815.00	Vertical	-41.78		
5722.50	V	-32.58		
7630.00	V	-32.47	-13.00	Pass
3815.00	Horizontal	-44.85		Pass
5722.50	Н	-36.78		
7630.00	Н	-31.47		





	10MHz(RB si	ze 1 & RB offset 0) f	or QPSK	
	Spurious Emission			
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
3710.00	Vertical	-45.25		
5565.00	V	-25.36		
7420.00	V	-32.41	12.00	Door
3710.00	Horizontal	-38.47	-13.00	Pass
5565.00	Н	-19.63		
7420.00	Н	-27.44		
		Middle		
3760.00	Vertical	-40.25		Door
5640.00	V	-26.35		
7520.00	V	-36.24	42.00	
3760.00	Horizontal	-39.57	-13.00	Pass
5640.00	Н	-22.45		
7520.00	Н	-39.68		
<u> </u>		Highest		
3810.00	Vertical	-44.78		
5715.00	V	-26.38		
7620.00	V	-28.49	-13.00	Door
3810.00	Horizontal	-44.74		Pass
5715.00	Н	-26.35		
7620.00	Н	-31.47		





	15MHz(RB	size 1 & RB offset 0) for QPSK	
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
r requericy (Wir 12)	Polarization	Level (dBm)	Limit (dDin)	Result
		Lowest		
3715.00	Vertical	-45.96		
5572.50	V	-21.47		
7430.00	V	-31.47	-13.00	Pass
3715.00	Horizontal	-40.11	-13.00	F d 5 5
5572.50	Н	-19.44		
7430.00	Н	-28.46		
		Middle	<u> </u>	
3760.00	Vertical	-38.45		Pass
5640.00	V	-23.58		
7520.00	V	-34.65	42.00	
3760.00	Horizontal	-40.12	-13.00	
5640.00	Н	-23.69		
7520.00	Н	-33.47		
		Highest		
3805.00	Vertical	-42.45		
5707.50	V	-33.69		
7610.00	V	-33.47	-13.00	Daga
3805.00	Horizontal	-45.63		Pass
5707.50	Н	-37.48		
7610.00	Н	-32.58		





	20MHz(RB size 1 & RB offset 0) for QPSK				
	Spurious Emission				
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
		Lowest			
3720.00	Vertical	-44.02			
5580.00	V	-24.14			
7440.00	V	-31.44	-13.00	Pass	
3720.00	Horizontal	-39.56	-13.00	Pass	
5580.00	Н	-18.92			
7440.00	Н	-28.27			
		Middle			
3760.00	Vertical	-41.46			
5640.00	V	-25.97			
7520.00	V	-37.21	12.00	Door	
3760.00	Horizontal	-40.25	-13.00	Pass	
5640.00	Н	-23.03			
7520.00	Н	-40.08			
		Highest			
3800.00	Vertical	-43.44			
5700.00	V	-25.81]		
7600.00	V	-29.39	-13.00	Door	
3800.00	Horizontal	-45.19		Pass	
5700.00	Н	-25.33			
7600.00	Н	-32.60			





LTE Band 4 Part:

1.4MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious	Emission	Limit (dBm)	Result
Frequency (Miriz)	Polarization	Level (dBm)	Limit (dbin)	Kesuit
		Lowest		
3421.40	Vertical	-46.18		
5132.10	V	-27.80		
6842.80	V	-24.14	-13.00	Pass
3421.40	Horizontal	-47.79	-13.00	Pass
5132.10	Н	-27.94		
6842.80	Н	-28.26		
<u> </u>		Middle	<u> </u>	<u>.</u>
3465.00	Vertical	-43.06		
5197.50	V	-26.82		
6930.00	V	-28.30	42.00	Door
3465.00	Horizontal	-41.77	-13.00	Pass
5197.50	Н	-26.07		
6930.00	Н	-30.37		
<u> </u>		Highest	<u> </u>	<u>.</u>
3508.60	Vertical	-40.98		
5262.90	V	-23.17		
7017.20	V	-24.11	-13.00	Door
3508.60	Horizontal	-45.06		Pass
5262.90	Н	-23.31]	
7017.20	Н	-33.35]	





	•	e 1 & RB offset 0) fo	r QPSK	
Frequency (MHz)	Spurious	Emission	Limit (dBm)	Result
1 requeries (Wil 12)	Polarization	Level (dBm)	Limit (dDin)	resuit
		Lowest		
3423.00	Vertical	-45.12		
5134.50	V	-27.85		
6846.00	V	-23.69	12.00	Pass
3423.00	Horizontal	-42.53	-13.00	Pass
5134.50	Н	-25.64		
6846.00	Н	-23.96		
<u>.</u>		Middle		
3465.00	Vertical	-42.69		
5197.50	V	-27.48		
6930.00	V	-29.64	42.00	Door
3465.00	Horizontal	-31.24	-13.00	Pass
5197.50	Н	-27.54		
6930.00	Н	-28.53		
		Highest		
3507.00	Vertical	-42.69		
5260.50	V	-30.14		
7014.00	V	-32.65	-13.00	Dess
3507.00	Horizontal	-43.25		Pass
5260.50	Н	-27.45		
7014.00	Н	-31.28		





	5MUz/DD ci	ze 1 & RB offset 0) f	or OBSK	
		Emission		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
3425.00	Vertical	-45.96		
5137.50	V	-28.12	1	
6850.00	V	-23.69	42.00	Dese
3425.00	Horizontal	-48.51	-13.00	Pass
5137.50	Н	-28.41		
6850.00	Н	-27.12		
		Middle		
3465.00	Vertical	-42.36		Pass
5197.50	V	-27.85		
6930.00	V	-27.48	-13.00	
3465.00	Horizontal	-42.36	-13.00	Pass
5197.50	Н	-27.96		
6930.00	Н	-29.45		
		Highest		
3505.00	Vertical	-39.65		
5257.50	V	-24.15		
7010.00	V	-25.63	-13.00	Pass
3505.00	Horizontal	-46.96		газэ
5257.50	Н	-24.15		
7010.00	Н	-34.52		





	10MHz(RB s	ize 1 & RB offset 0)	for QPSK	
[Spurious Emission			
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
3430.00	Vertical	-44.78		
5145.00	V	-26.35		
6860.00	V	-24.17	-13.00	Pass
3430.00	Horizontal	-43.69	-13.00	Pass
5145.00	Н	-24.36		
6860.00	Н	-24.64		
		Middle		•
3465.00	Vertical	-43.25		Pass
5197.50	V	-28.69		
6930.00	V	-30.25	-13.00	
3465.00	Horizontal	-41.32	-13.00	Pass
5197.50	Н	-26.35		
6930.00	Н	-29.54		
		Highest		
3500.00	Vertical	-43.65		
5250.00	V	-29.63	1	
7000.00	V	-31.55	-13.00	Door
3500.00	Horizontal	-42.36		Pass
5250.00	Н	-26.45	1	
7000.00	Н	-30.47]	





	15MHz(RB size 1 & RB offset 0) for QPSK				
Fraguency (MHz)	Spurious Emission			Result	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
	Lowest				
3435.00	Vertical	-44.96			
5152.50	V	-27.41			
6870.00	V	-24.69	42.00	Door	
3435.00	Horizontal	-49.86	-13.00	Pass	
5152.50	Н	-27.45			
6870.00	Н	-26.39			
		Middle		<u> </u>	
3465.00	Vertical	-43.69			
5197.50	V	-28.74			
6930.00	V	-26.95	12.00	Door	
3465.00	Horizontal	-43.66	-13.00	Pass	
5197.50	Н	-26.96			
6930.00	Н	-30.21			
		Highest		<u> </u>	
3495.00	Vertical	-38.56			
5242.50	V	-25.74			
6990.00	V	-26.38	-13.00	Pass	
3495.00	Horizontal	-45.32		Fd55	
5242.50	Н	-23.65			
6990.00	Н	-33.14			





	20MHz(RB s	ize 1 & RB offset 0)	for QPSK	
Frequency (MHz)	Spurious	Emission	Limit (dBm)	Result
r requericy (Wir 12)	Polarization	Level (dBm)	Limit (dbin)	Result
		Lowest		
3440.00	Vertical	-45.32		
5160.00	V	-27.00		
6880.00	V	-25.59	-13.00	Door
3440.00	Horizontal	-44.08	-13.00	Pass
5160.00	Н	-25.33		
6880.00	Н	-25.70		
		Middle		
3465.00	Vertical	-44.88		Pass
5197.50	V	-27.73		
6930.00	V	-29.44	42.00	
3465.00	Horizontal	-42.54	-13.00	
5197.50	Н	-25.64		
6930.00	Н	-30.32		
		Highest		
3490.00	Vertical	-44.78		
5235.00	V	-28.12		
6980.00	V	-30.29	-13.00	Door
3490.00	Horizontal	-41.41		Pass
5235.00	Н	-25.53		
6980.00	Н	-31.03		





LTE Band 5 Part:

	1.4MHz(RB s	ize 1 & RB offset 0)	for QPSK	
	Spurious	Emission		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
<u>.</u>		Lowest		
1649.40	Vertical	-33.05		
2474.10	V	-48.85		
3298.80	V	-47.50	42	Dage
1649.40	Horizontal	-41.14	-13	Pass
2474.10	Н	-54.50		
3298.80	Н	-49.53		
<u>.</u>		Middle		
1673.00	Vertical	-41.89		
2509.50	V	-48.43		
3346.00	V	-49.66	-13	Pass
1673.00	Horizontal	-48.27	-13	Pass
2509.50	Н	-49.40		
3346.00	Н	-49.18		
<u>.</u>		Highest		
1696.60	Vertical	-40.04		
2544.90	V	-47.58		
3393.20	V	-47.03	40	Door
1696.60	Horizontal	-45.53	-13	Pass
2544.90	Н	-50.97		
3393.20	Н	-47.39	1	





3MHz(RB size 1 & RB offset 0) for QPSK				
Crocusos (MII-)		Spurious Emission		D !!
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
1651.00	Vertical	-31.52		
2476.50	V	-48.69		
3302.00	V	-43.24	-13	Pass
1651.00	Horizontal	-41.56	-13	Pass
2476.50	Н	-44.78		
3302.00	Н	-48.36		
		Middle		
1673.00	Vertical	-37.85		
2509.50	V	-46.35		
3346.00	V	-48.63	-13	Pass
1673.00	Horizontal	-45.23	-13	Pa55
2509.50	Н	-49.63		
3346.00	Н	-46.21		
		Highest		
1695.00	Vertical	-35.26		
2542.50	V	-47.15		
3390.00	V	-43.29	10	Pass
1695.00	Horizontal	-42.53	-13	Fa55
2542.50	Н	-48.56		
3390.00	Н	-44.15		





	5MHz(RB siz	ze 1 & RB offset 0) fo	or QPSK	
	Spurious	Emission		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
·		Lowest		
1653.00	Vertical	-34.56		
2479.50	V	-47.54		
3306.00	V	-48.62	-13	Pass
1653.00	Horizontal	-40.32	-13	Pa55
2479.50	Н	-55.24		
3306.00	Н	-48.96		
·		Middle		
1673.00	Vertical	-40.36		Pass
2509.50	V	-47.56		
3346.00	V	-48.54	-13	
1673.00	Horizontal	-49.63	-13	F455
2509.50	Н	-50.32		
3346.00	Н	-48.38		
·		Highest		
1693.00	Vertical	-39.65		
2539.50	V	-46.35		
3386.00	V	-48.63	-13	Pass
1693.00	Horizontal	-44.65		Pass
2539.50	Н	-49.82		
3386.00	Н	-48.53		





10MHz(RB size 1 & RB offset 0) for QPSK				
Fraguenov (MUz)	Spurious Emission		Limit (dDm)	D !!
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
1658.00	Vertical	-32.52		
2487.00	V	-49.98		
3316.00	V	-44.77	-13	Pass
1658.00	Horizontal	-40.27	-13	F d 5 5
2487.00	Н	-45.59		
3316.00	Н	-49.37		
		Middle		
1673.00	Vertical	-38.62		
2509.50	V	-47.84		
3346.00	V	-47.14	-13	Pass
1673.00	Horizontal	-44.56	-13	F d 5 5
2509.50	Н	-50.03		
3346.00	Н	-47.17		
		Highest		
1688.00	Vertical	-34.36		
2532.00	V	-46.61		
3376.00	V	-42.41	-13	Pass
1688.00	Horizontal	-41.66	-13	rass
2532.00	Н	-47.87		
3376.00	Н	-43.61		





LTE Band 7 Part:

	•	e 1 & RB offset 0) fo	or QPSK	
Frequency (MHz)	Spurious		Limit (dBm)	Result
r requericy (Wir 12)	Polarization	Level (dBm)	Limit (dDin)	Nesuit
		Lowest		
5005.00	Vertical	-37.16		
7507.50	V	-33.24		
10010.00	V	-36.09	-25.00	Pass
5005.00	Horizontal	-41.32	-25.00	Pass
7507.50	Н	-25.24		
10010.00	Н	-35.30		
		Middle		
5070.00	Vertical	-39.13		Pass
7605.00	V	-34.22		
10140.00	V	-35.33	-25.00	
5070.00	Horizontal	-39.35	-25.00	
7605.00	Н	-27.56		
10140.00	Н	-32.19		
		Highest		
5135.00	Vertical	-39.62		
7702.50	V	-33.24	-25.00	
10270.00	V	-36.16		Pass
5135.00	Horizontal	-36.00		Pass
7702.50	Н	-27.58		





	10MHz(RB s	ize 1 & RB offset 0)	for QPSK	
[Emission		Dooult
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
5010.00	Vertical	-38.56		
7515.00	V	-31.26		
10020.00	V	-34.15	-25.00	Pass
5010.00	Horizontal	-39.65	-25.00	Pass
7515.00	Н	-26.35		
10020.00	Н	-36.14		
		Middle	<u> </u>	
5070.00	Vertical	-38.15		Pass
7605.00	V	-36.58		
10140.00	V	-36.59	-25.00	
5070.00	Horizontal	-35.68	-25.00	Pass
7605.00	Н	-30.14		
10140.00	Н	-34.52		
		Highest		
5130.00	Vertical	-41.52		
7695.00	V	-36.25]	
10260.00	V	-36.74	-25.00	Pass
5130.00	Horizontal	-38.47		Pass
7695.00	Н	-31.24]	
10260.00	Н	-32.75]	





	15MHz(RB	size 1 & RB offset 0) for QPSK	
Fraguenov (MHz)		s Emission		Dogult
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
5015.00	Vertical	-38.25		
7522.50	V	-34.56		
10030.00	V	-37.15	05.00	Dana
5015.00	Horizontal	-42.36	-25.00	Pass
7522.50	Н	-26.31		
10030.00	Н	-34.56		
<u> </u>		Middle		
5070.00	Vertical	-38.54		Pass
7605.00	V	-35.26		
10140.00	V	-36.24	25.00	
5070.00	Horizontal	-40.15	-25.00	
7605.00	Н	-28.56		
10140.00	Н	-33.15		
		Highest		
5125.00	Vertical	-40.21		
7687.50	V	-34.12		
10250.00	V	-37.45	-25.00	Desa
5125.00	Horizontal	-37.11		Pass
7687.50	Н	-28.45		
10250.00	Н	-34.25		





	20MHz(RB si	ze 1 & RB offset 0)	for QPSK	
Fraguency (MUz)		Emission	Limit (dBm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Liffiit (dbfff)	Result
		Lowest		
5020.00	Vertical	-37.30		
7530.00	V	-30.76		
10040.00	V	-35.32	-25.00	Door
5020.00	Horizontal	-40.46	-25.00	Pass
7530.00	Н	-25.08		
10040.00	Н	-35.45		
		Middle		
5070.00	Vertical	-39.67		Pass
7605.00	V	-35.96		
10140.00	V	-35.44	-25.00	
5070.00	Horizontal	-34.97	-25.00	
7605.00	Н	-29.07		
10140.00	Н	-33.67		
		Highest		
5120.00	Vertical	-40.31		
7680.00	V	-35.97		
10240.00	V	-35.56	-25.00	Door
5120.00	Horizontal	-37.80		Pass
7680.00	Н	-30.16		
10240.00	Н	-31.59		





LTE Band 17 Part:

		e 1 & RB offset 0) for	or QPSK	
Frequency (MHz)		Spurious Emission		Result
r requericy (Wir 12)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
1413.00	Vertical	-44.71		
2119.50	V	-51.18		
2826.00	V	-47.70	-13.00	Pass
1413.00	Horizontal	-42.88	-13.00	Pass
2119.50	Н	-53.18		
2826.00	Н	-44.10		
		Middle		
1420.00	Vertical	-46.28		
2130.00	V	-51.37		
2840.00	V	-46.82	42.00	Door
1420.00	Horizontal	-45.66	-13.00	Pass
2130.00	Н	-54.87		
2840.00	Н	-44.58		
		Highest		
1427.00	Vertical	-50.58		
2140.50	V	-55.30		
2854.00	V	-50.89	-13.00	Pass
1427.00	Horizontal	-53.87		Pass
2140.50	Н	-54.97]	
2854.00	Н	-47.02		





	10MHz(RB siz	ze 1 & RB offset 0) fo	or QPSK	
Fraguency (MHz)	Spurious Emission		Limit (dPm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
1418.00	Vertical	-44.80		
2127.00	V	-52.09		
2836.00	V	-47.45	-13.00	Pass
1418.00	Horizontal	-48.10	-13.00	Pass
2127.00	Н	-55.38		
2836.00	Н	-42.89		
<u>.</u>		Middle		<u>.</u>
1420.00	Vertical	-45.64		
2130.00	V	-50.73		
2840.00	V	-47.76	-13.00	Pass
1420.00	Horizontal	-47.17	-13.00	F ass
2130.00	Н	-56.60		
2840.00	Н	-43.34		
		Highest		
1422.00	Vertical	-46.56		
2133.00	V	-52.08		
2844.00	V	-48.02	-13.00	Door
1422.00	Horizontal	-47.61		Pass
2133.00	Н	-55.16		
2844.00	Н	-42.96		





LTE Band 41 Part:

		IE Band 41 Part:		
	5MHz(RB siz	e 1 & RB offset 0) for	QPSK	
	Spurious	Emission		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
4997.00	Vertical	-31.45		
7495.50	V	-26.95		
9994.00	V	-32.11	-25.00	Pass
4997.00	Horizontal	-25.69	-25.00	FdSS
7495.50	Н	-29.97	7	
9994.00	Н	-31.39		
		Middle		
5186.00	Vertical	-35.61		
7779.00	V	-26.77		
10372.00	V	-32.24	-25.00	Pass
5186.00	Horizontal	-34.71	-25.00	Fass
7779.00	Н	-25.89		
10372.00	Н	-32.82		
		Highest		
5375.00	Vertical	-36.80		
8062.50	V	-25.87	-25.00	
10750.00	V	-37.51		Pass
5375.00	Horizontal	-25.42		Газз
8062.50	Н	-25.73		
10750.00	Н	-32.86	1	





	10MHz(RB si	ze 1 & RB offset 0) fo	r QPSK			
Frequency (MHz)	Spurious	s Emission	Limit (dDm)	Result		
Frequency (MH2)	Polarization	Level (dBm)	Limit (dBm)	Kesuit		
	Lowest					
5002.00	Vertical	-30.14				
7503.00	V	-28.74				
10004.00	V	-30.47	-25.00	Pass		
5002.00	Horizontal	-28.69	-25.00	Pass		
7503.00	Н	-30.12				
10004.00	Н	-30.47	7			
		Middle				
5186.00	Vertical	-30.41				
7779.00	V	-28.69				
10372.00	V	-32.62	-25.00	Pass		
5186.00	Horizontal	-28.96	-25.00	Pass		
7779.00	Н	-26.35				
10372.00	Н	-33.52				
		Highest				
5370.00	Vertical	-30.16				
8055.00	V	-29.65				
10740.00	V	-35.42	-25.00	Door		
5370.00	Horizontal	-26.38		Pass		
8055.00	Н	-30.47				
10740.00	Н	-35.74				





	15MHz(RB siz	ze 1 & RB offset 0) fo	or QPSK	
	Spurious	Emission		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest	•	
5007.00	Vertical	-30.14		
7510.50	V	-27.41		
10014.00	V	-31.14	-25.00	Pass
5007.00	Horizontal	-26.53	-25.00	F455
7510.50	Н	-30.11		
10014.00	Н	-32.41		
		Middle		
5186.00	Vertical	-34.12		
7779.00	V	-27.84		
10372.00	V	-33.15	-25.00	Pass
5186.00	Horizontal	-33.74	-25.00	F 455
7779.00	Н	-26.53		
10372.00	Н	-33.74		
		Highest		
5365.00	Vertical	-35.26		
8047.50	V	-26.53	-25.00	
10730.00	V	-36.47		Pass
5365.00	Horizontal	-26.53		Fa55
8047.50	Н	-26.59		
10730.00	Н	-33.14		





	20MHz(RB siz	ze 1 & RB offset 0) fo	or QPSK	
Frequency (MHz)	Spurious	Emission	Limit (dBm)	Result
r requericy (wir iz)	Polarization	Level (dBm)	Limit (dbin)	Nesuit
		Lowest		
5012.00	Vertical	-31.18		
7518.00	V	-27.11		
10024.00	V	-31.90	-25.00	Pass
5012.00	Horizontal	-27.08	-25.00	Pass
7518.00	Н	-29.90		
10024.00	Н	-31.26		
		Middle		
5186.00	Vertical	-29.75		
7779.00	V	-27.70		
10372.00	V	-33.48	-25.00	Pass
5186.00	Horizontal	-27.45	-25.00	Pass
7779.00	Н	-25.85		
10372.00	Н	-34.43	7	
		Highest		
5360.00	Vertical	-29.99		
8040.00	V	-28.32		
10720.00	V	-36.12	-25.00	Pass
5360.00	Horizontal	-25.68		Pass
8040.00	Н	-29.19		
10720.00	Н	-36.41		



6.12 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part2.1055(a)(1)(b)			
Test Method:	FCC Part2.1055(a)(1)(b)			
Limit:	±2.5ppm			
Test setup:	Spectrum analyzer EUT Att.			
	Variable Power Supply			
Test procedure:	 Note: Measurement setup for testing on Antenna connector The equipment under test was connected to an external DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached 			
Test Instruments:	Refer to section 5.8 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Passed			
Remark:	All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.			

Measurement Data (the worst channel):





LTE Band 2(QPSK):

		LTE Band	2(QPSK):		
Reference Fr	requency: LTE Band	2(1.4MHz) N	Middle channel=18900	channel=1880.00)MHz
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (mmm)	Descrit
		Hz	ppm	Limit (ppm)	Result
3.80	-30	199	0.105851	±2.5	Pass
	-20	113	0.060106		
	-10	135	0.071809		
	0	134	0.071277		
	10	122	0.064894		
0.00	20	132	0.070213		
	30	101	0.053723		
	40	154	0.081915	1	
	50	111	0.059043		1
Reference F	requency: LTF Band	2(3MHz) M	iddle channel=18900 d	hannel=1880 00	MHz
	Tequency. LTL Bund				VII IZ
Power supplied (Vdc)	Temperature (°ℂ)		equency error	Limit (ppm)	Result
(vuc)	20	Hz	ppm		
	-30	163 123	0.086702	±2.5	Pass
	-20		0.065426		
	-10	136	0.072340		
	0	120	0.063830		
3.80	10	144	0.076596		
	20	107	0.056915		
	30	165	0.087766		
	40	108	0.057447		
	50	134	0.071277		
Reference F	requency: LTE Band	2(5MHz) M	iddle channel=18900 d	channel=1880.00	MHz
Power supplied (Vdc)	Temperature (°C)	Frequency error		Lineit (none)	Decult
		Hz	ppm	Limit (ppm)	Result
3.80	-30	116	0.061702	±2.5 Pa	
	-20	123	0.065426		
	-10	147	0.078191		
	0	144	0.076596		_
	10	160	0.085106		Pass
	20	155	0.082447		
	30 40	180 104	0.095745 0.055319	-	
	50	104		-	
	50	102	0.054255		





Reference F	requency: LTE Band	2(10MHz) N	fiddle channel=18900	channel=1880.00	MHz
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm	шин (ррии)	Kesuit
	-30	171	0.090957		Pass
	-20	113	0.060106		
	-10	165	0.087766		
	0	104	0.055319	±2.5	
3.80	10	171	0.090957		
	20	146	0.077660		
	30	100	0.053191		
	40	118	0.062766		
	50	128	0.068085		
Reference Fi	requency: LTE Band	, ,	fiddle channel=18900	channel=1880.00	MHz
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
11 ()		Hz	ppm	(11 /	Nesuit
	-30	151	0.080319		Pass
	-20	165	0.087766	±2.5	
3.80	-10	171	0.090957		
	0	144	0.076596		
	10	100	0.053191		
	20	133	0.070745		
	30	138	0.073404		
	40	104	0.055319		
	50	148	0.078723		
Reference Fi	requency: LTE Band	2(20MHz) M	fiddle channel=18900	channel=1880.00)MHz
D	T(°C)	Frequency error		11. 14.4	
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
3.80	-30	197	0.104787		Dogo
	-20	123	0.065426		
	-10	132	0.070213		
	0	116	0.061702	±2.5	
	10	181	0.096277		
	20	175	0.093085		Pass
	30	148	0.078723		
	40	123	0.065426		
	50	127			
	30	121	0.067553		





LTE Band 2(16QAM):

		LTE Band 2	2(16QAM):		
Reference F	requency: LTE Band	2(1.4MHz)	Middle channel=18900	channel=1880.00	OMHz
Power supplied (Vdc)	Temperature (°C)	Fı	requency error	Limit (nnm)	
		Hz	ppm	Limit (ppm)	Result
	-30	152	0.080851		Pass
	-20	141	0.075000		
	-10	124	0.065957	±2.5	
	0	171	0.090957		
3.80	10	141	0.075000		
	20	133	0.070745		
	30	136	0.072340		
	40	108	0.057447	-	
	50	118	0.062766		
Reference F	requency: LTE Band		iddle channel=18900 d	channel=1880.00	ИНz
Treference 1	roquonoy. Et E Band	<u> </u>			··· ·-
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
	-30	126	0.067021		
	-20	150	0.079787		
	-10	155	0.082447		
	0	123	0.065426	±2.5	
3.80	10	113	0.060106		Pass
	20	126	0.067021		
	30	138	0.073404		
	40	144	0.076596	1	
	50	120	0.063830		
Reference F	requency: LTE Band	2(5MHz) M	iddle channel=18900 d	channel=1880.00	ИНz
Power supplied (Vdc)	T(%)	Frequency error		L'art (anna)	D !!
	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
3.80	-30	137	0.072872		
	-20	123 132	0.065426		
	-10		0.070213		
	0	153	0.081383	±2.5	Pass
	10	126	0.067021		
	20	144	0.076596	_	
	30	148	0.078723	_	
	40	166	0.088298	4	
	50	141	0.075000		





5 " 10/1	T (%C)	Fre	equency error		5 1	
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result	
	-30	171	0.090957			
	-20	127	0.067553			
	-10	144	0.076596			
_	0	135	0.071809			
3.80	10	160	0.085106	±2.5	Pass	
_	20	140	0.074468			
-	30	108	0.057447			
<u>-</u>	40	117	0.062234	_		
	50	153	0.081383			
Reference Fr	equency: LTE Band) channel=1880.00	MHz	
Power supplied (Vdc)	Temperature (°C)		equency error	Limit (ppm)	Result	
· orror ouppriou (vuo)	. , ,	Hz	ppm	Σ (ρρ)	1100011	
_	-30	126	0.067021			
_	-20	160	0.085106		Pass	
	-10	112	0.059574			
	0	110	0.058511			
3.80	10	123	0.065426	±2.5		
	20	115	0.061170			
	30	133	0.070745			
	40	136	0.072340			
	50	122	0.064894			
Reference Fr	equency: LTE Band			channel=1880.00	MHz	
			equency error			
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result	
	-30	115	0.061170			
	-20	161	0.085638			
		123	0.065426			
	-10			1		
	-10 0	+				
3.80	0	133	0.070745	+2.5	Pass	
3.80	0 10	133 135	0.070745 0.071809	±2.5	Pass	
3.80	0 10 20	133 135 136	0.070745 0.071809 0.072340	±2.5	Pass	
3.80	0 10	133 135	0.070745 0.071809	±2.5	Pass	





LTE Band 4(QPSK):

		LTE Band	4(QPSK):		
Reference Fr	equency: LTE Band	4(1.4MHz) N	/liddle channel=20175	channel=1732.50)MHz
Power supplied	Temperature (°C)	Frequency error		Limit (ppm)	Result
(Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Nesuit
	-30	197	0.113709		
	-20	123	0.070996		
	-10	131	0.075613		
	0	116	0.066955		
3.80	10	181	0.104473	±2.5	Pass
	20	171	0.098701		
	30	188	0.108514		
	40	175	0.101010		
	50	174	0.100433		
Reference F			iddle channel=20175	channel-1732 50l	МН
TOTOTOTIC 1	requeriey. ETE Band				Result
Power supplied (Vdc)	Temperature (℃)		equency error	Limit (ppm)	
	20	Hz	ppm		
	-30	178	0.102742	_	Pass
	-20	123	0.070996	_	
	-10	132	0.076190		
	0	116	0.066955		
3.80	10	171	0.098701	±2.5	
	20	141	0.081385		
	30	105	0.060606		
	40	128	0.073882		
	50	135	0.077922		
Reference F	requency: LTE Band	4(5MHz) M	iddle channel=20175	channel=1732.50l	ИНz
D	Tamanaratura (°C)	Fre	equency error	1	Danult
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	144	0.083117		
	-20	132	0.076190		
	-10	136	0.078499		
	0	168	0.096970	_	_
3.80	10	114	0.065801	±2.5	Pass
	20	148	0.085426	_	
	30	101	0.058297	_	
	40	108	0.062338	_	
	50	158	0.091198		





		Fre	equency error		
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	136	0.078499		
	-20	123	0.070996		
	-10	133	0.076768		
	0	128	0.073882		
3.80	10	161	0.092929	±2.5	Pass
	20	164	0.094661		
	30	140	0.080808		
	40	171	0.098701		
	50	140	0.080808		
Reference Fr	equency: LTE Band	4(15MHz) M	liddle channel=2017	5 channel=1732.50l	MHz
Power supplied (Vdc)	Temperature (°C)		equency error	Limit (ppm)	Result
. oner eapphea (146)	, ,	Hz	ppm	Σ (ρρ)	rtoodit
	-30	119	0.068687		Pass
	-20	123	0.070996		
	-10	150	0.086580		
	0	126	0.072727		
3.80	10	114	0.065801	±2.5	
	20	148	0.085426		
	30	133	0.076768		
	40	130	0.075036		
	50	140	0.080808		
Reference Fr	equency: LTE Band	4(20MHz) M	liddle channel=2017	5 channel=1732.50	MHz
			equency error		
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	198	0.114286		
	-20	171	0.098701		
	-10	175	0.101010		
	0	161	0.092929		
3.80	10	131	0.075613	±2.5	Pass
	20	148	0.085426	7	
	30	138	0.079654	-	
			0.080808		
	40	140	().()ชเมชเมช		





LTE Band 4(16QAM):

		LIE Band 4			
Reference F	requency: LTE Band		Middle channel=20175	channel=1732.5	0MHz
Damas and Problem	Temperature (°C)		requency error	Limit (ppm)	D 1
Power supplied (Vdc)		Hz	ppm	Еши (ррш)	Result
	-30	147	0.084848		
	-20	152	0.087734		
	-10	121	0.069841		
	0	153	0.088312		
3.80	10	160	0.092352	±2.5	Pass
	20	154	0.088889		
	30	148	0.085426		
	40	107	0.061760		
	50	103	0.059452		
Reference F	requency: LTF Band		iddle channel=20175 c	hannel=1732 50l	MHz
TOTOTOTO 1	requerity: ETE Baria	, ,		1702.00	VII 12
Power supplied (Vdc)	Temperature (°C)	Fr	equency error	Limit (ppm)	Result
- Системрине (тас)		Hz	ppm	(11 /	
	-30	115	0.066378		Pass
	-20	142	0.081962		
	-10	148	0.085426		
	0	160	0.092352		
3.80	10	132	0.076190	±2.5	
	20	116	0.066955		
	30	126	0.072727		
	40	128	0.073882		
	50	103	0.059452		
Reference F	requency: LTE Band	4(5MHz) M	iddle channel=20175 c	hannel=1732.50	MHz
Dames and 11: 10/11	Tomorous (°C)	Fr	equency error	Limit (D 1
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	124	0.071573		
	-20	164	0.094661		
	-10	158	0.091198		
	0	160	0.092352		_
3.80	10	123	0.070996	±2.5	Pass
	20	131	0.075613		
	30	126	0.072727	-	
	40	130	0.075036		
	50	174	0.100433		





TOTOTOTIOC 1 1	equency. LTL band		liddle channel=2017) Charmel=1732.50	IVIDZ
Power supplied (Vdc)	Temperature (°C)		equency error	Limit (ppm)	Result
., , ,	-30	Hz 145	ppm 0.083694		
	-30 -20	123	0.070996		
	-10	131	0.075613		
	0	144	0.083117		
3.80	10	128	0.073882	±2.5	Pass
	20	126	0.072727		
	30	148	0.085426		
	40	107	0.061760		
	50	163	0.094084		
Reference Fr	requency: LTE Band			channel=1732.50	MHz
Power supplied (Vdc)	Temperature (°C)		equency error	Limit (ppm)	Result
Tower supplied (Vds)	. ,	Hz	ppm	Ziiiii (ppiii)	rtoodit
	-30	157	0.090620		Pass
	-20	141	0.081385		
	-10	162	0.093506		
	0	123	0.070996		
3.80	10	132	0.076190	±2.5	
	20	146	0.084271		
	30	140	0.080808		
	40	151	0.087157		
	50	154	0.088889		
Reference Fr	equency: LTE Band	4(20MHz) N	liddle channel=2017	channel=1732.50	MHz
Power supplied (Vdc)	Temperature (℃)	Fre	equency error	Limit (ppm)	Result
1 ower supplied (vdc)	remperature (c)	Hz	ppm	Еппі (рріп)	Nesuit
	-30	180	0.103896		
	-20	162	0.093506		
	-10	132	0.076190		
	0	135	0.077922		
3.80	10	147	0.084848	±2.5	Pass
	20	140	0.080808		
	30	155	0.089466	-	
	40	150	0.086580		
	- U	100	0.00000	_	





LTE Band 5(QPSK):

		LTE Band	, , , , , , , , , , , , , , , , , , , ,		
	equency: LTE Band 5		Middle channel=20525F	requency=836.50)MHz
Power supplied	Temperature (°C)		requency error	Limpit (mmma)	Daguilt
(Vdc)		Hz	ppm	Limit (ppm)	Result
	-30	197	0.235505		
	-20	123	0.147041		
	-10	144	0.172146		
	0	155	0.185296		
3.80	10	165	0.197250	±2.5	Pass
	20	150	0.179319	12.0	1 433
	30	143	0.170950	=	
	40	176	0.210400		
	50	187	0.223551	-	
Reference F			iddle channel=20525Fr	- 	MHz
Power supplied		<u> </u>	equency error		IVII IZ
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
(v do)	-30	162		W. 1 /	
			0.193664		
	-20	123	0.147041	-	
	-10	130	0.155409		
	0	125	0.149432	_	
3.80	10	134	0.160191	±2.5	Pass
	20	161	0.192469		
	30	144	0.172146		
	40	148	0.176928		
	50	158	0.188882		
Reference F	requency: LTE Band	5(5MHz) M	iddle channel=20525Fr	equency=836.50	MHz
Power supplied	Temperature (°C)	Fr	equency error	Limit (ppm)	Result
(Vdc)	` ` `	Hz	ppm	Еши (ррш)	Nesuit
	-30	129	0.154214		
	-20	132	0.157800	=	
	-10	133	0.158996	=	
	0	162	0.193664		_
3.80	10	128	0.153019	±2.5	Pass
	20	146	0.174537		
	30 40	148	0.176928	_	
	50	171 164	0.204423 0.196055		
Poforonco F			Middle channel=20525F	reguency-836 50	M/Hz
	lequency. LTE band			Tequency=636.30	/IVII 12
Power supplied (Vdc)	Temperature (°C)	Hz	requency error ppm	Limit (ppm)	Result
(v d o)	-30	158	0.188882		
	-20	123	0.147041	1	
	-10	130	0.155409	1	
	0	159	0.190078	1	
3.80	10	147	0.175732	±2.5	Pass
	20	161	0.192469	1	
	30	107	0.127914]	
	40	143	0.170950]	
İ	50	104	0.124328		





LTE Band 5(16QAM):

Reference F	requency: LTE Band (LTE Band 5		Frequency=836.50	IMHz
	Dana (1104001107=000.00	IVII IZ
Power supplied (Vdc)	Temperature (°C)	Hz	equency error ppm	Limit (ppm)	Result
	-30	167	0.199641		
	-20	123	0.147041		
	-10	131	0.156605		
	0	126	0.150628		
3.80	10	160	0.191273	.2.5	Door
0.00	20	149	0.178123	±2.5	Pass
	30	148	0.176928	-	
	40	176	0.210400	-	
	50	107	0.127914	-	
Reference F	requency: LTE Band				
Power supplied					VIII 12
(Vdc)	Temperature (°C)		equency error	Limit (ppm)	Result
(Vac)		Hz	ppm	W 1 /	
	-30	135	0.161387	_	
	-20	162	0.193664	_	
	-10	132	0.157800		
	0	139	0.166169		
3.80	10	148	0.176928	±2.5	Pass
	20	145	0.173341		
	30	123	0.147041	-	
	40	120	0.143455		
	50	113	0.135087		
	requency: LTE Band			requency=836.50	ИНz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	` ` `	Hz	ppm		
	-30	178	0.212791	_	
	-20	141 146	0.168559 0.174537	_	
	-10 0	178	0.212791	_	
3.80	10	164	0.196055	2.5	Pass
0.00	20	133	0.158996		1 400
	30	131	0.156605		
	40	123	0.147041		
	50	116	0.138673		
Reference F	requency: LTE Band	5(10MHz) M	iddle channel=20525	Frequency=836.50	MHz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
			000	Lillit (ppili)	Nesuit
(Vdc)	` '	Hz	ppm		
(Vdc)	-30	157	0.187687		
(Vdc)	-30 -20	157 123	0.187687 0.147041		
(Vdc)	-30 -20 -10	157 123 132	0.187687 0.147041 0.157800		
	-30 -20 -10 0	157 123 132 126	0.187687 0.147041 0.157800 0.150628	2.5	Dece
(Vdc) 3.80	-30 -20 -10 0	157 123 132 126 138	0.187687 0.147041 0.157800 0.150628 0.164973	2.5	Pass
	-30 -20 -10 0 10 20	157 123 132 126 138 144	0.187687 0.147041 0.157800 0.150628 0.164973 0.172146	2.5	Pass
	-30 -20 -10 0	157 123 132 126 138	0.187687 0.147041 0.157800 0.150628 0.164973	2.5	Pass





LTE Band 7(QPSK):

		LTE Band			
Reference F	requency: LTE Band	r '	ddle channel=21100Fre	equency=2535.00)MHz
Power supplied	Temperature (°C)	Fr	equency error	1 ' '(()	D !!
(Vdc)	Tomporataro (c)	Hz	ppm	Limit (ppm)	Result
	-30	198	0.078107		
	-20	123	0.048521		
	-10	161	0.063511		
	0	193	0.076134		
3.80	10	149	0.058777	±2.5	Pass
	20	171	0.067456	_ ±2.5	F d 5 5
	30	180	0.071006		
	40	113	0.044576		
		138			
Deference Fr	50		0.054438	10 mm or 0505 0	ONAL I—
	equency: LIE Band 7	'	ddle channel=21100 F	requency=2535.0	UNHZ
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	00	Hz	ppm	Σ (ββ)	rtocart
	-30	157	0.061933		
	-20	161	0.063511	_	
	-10	123	0.048521	_	
	0	136	0.053649		
3.80	10	168	0.066272	±2.5	Pass
	20	171	0.067456		
	30	180	0.071006		
	40	153	0.060355		
	50	176	0.069428		
Reference Fr			ddle channel=21100 F	requency=2535.0	0MHz
Power supplied		, ,	equency error		
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
,	-30	128	0.050493		
	-20	166	0.065483		
	-10	168	0.066272		
	0	122	0.048126		
3.80	10	146	0.057594	±2.5	Pass
	20	147	0.057988		
	30	101	0.039842		
	40	157	0.061933	_	
	50	155	0.061144		
	requency: LTE Band 7	· · · · · ·	ddle channel=21100 F	requency=2535.0	0MHz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	. ,	Hz	ppm	(- /	
	-30	199	0.078501		
	-20	123	0.048521	-	
	-10	171	0.067456	-	
3.80	0 10	186 161	0.073373 0.063511	±2.5	Pass
3.00	20	144	0.05311	_ <u>±</u> z.5	га55
	30	159	0.062722	-	
	40	155	0.062722	-	
	50	107	0.042209	1	
	1 00	101	0.0 12200	1	





LTE Band 7(16QAM):

Reference F	Frequency: LTE Band	LTE Band 7 7(5MHz) Mid	,	requency=2535.00)MHz
Power supplied	Temperature (°C) Fre		equency error		
(Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Result
	-30	129	0.050888		
	-20	155	0.061144		
	-10	166	0.065483		
	0	161	0.063511		
3.80	10	158	0.062327	±2.5	Pass
	20	134	0.052860		1 433
	30	145	0.057199		
	40	111	0.043787		
	50	126	0.049704		
Reference F	requency: LTE Band 7			Frequency=2535.0	0MHz
Power supplied			equency error		
(Vdc)	Temperature (°C)	Hz		Limit (ppm)	Result
(122)	-30	177	ppm 0.069822		
	-20	126			
			0.049704	_	
	-10	136	0.053649		
0.00	0	124	0.048915		
3.80	10	138	0.054438	±2.5	Pass
	20	108	0.042604		
	30	177	0.069822	-	
	40	165	0.065089		
	50	163	0.064300		
	requency: LTE Band 7			requency=2535.0	0MHz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	-30	Hz 153	ppm 0.060355	/	
	-20	121	0.047732		
	-10	169	0.066667		
	0	171	0.067456		
3.80	10	178	0.070217	2.5	Pass
	20	157	0.061933		
	30	145	0.057199		
	40	146	0.057594		
	50	100	0.039448		
	requency: LTE Band 7	1		requency=2535.0	0MHz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	20	Hz	ppm	(11 /	
	-30 -20	149 151	0.058777 0.059566		
	-10	146	0.059566		
	0	158	0.062327	-	
3.80	10	125	0.049310	2.5	Pass
0.00	20	136	0.053649		, 5.50
	30	104	0.041026		
	40	171	0.067456		
	50	146	0.057594		





LTE Band 17(QPSK):

Reference F	requency: LTE Band		Middle channel=23790	channel=710.00	MHz
Power supplied	Temperature (°ℂ)	Fr	equency error	1 ' '(()	D !
(Vdc)	Tomporature (C)	Hz	ppm	Limit (ppm)	Result
	-30	196	0.276056		
	-20	171	0.240845		
	-10	180	0.253521		
	0	186	0.261972		
3.80	10	173	0.243662	±2.5	Pass
	20	128	0.180282		
	30	136	0.191549		
	40	121	0.170423		
	50	147	0.207042		
Reference F	requency: LTE Band	17(10MHz)	Middle channel=23790	channel=710.00	MHz
Power supplied	Temperature (°ℂ)	Fr	equency error		
(Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Result
	-30	194	0.273239		
	-20	141	0.198592		
	-10	151	0.212676		
	0	168	0.236620		
3.80	10	152	0.214085	±2.5	Pass
	20	149	0.209859		1 2.00
	30	171	0.240845		
	40	183	0.257746		
	50	186	0.261972		

LTE Band 17(16QAM):

Deference		LTE Band 1		shannal 710 00	\			
	rrequency. ∟r ⊑ Band T		Middle channel=23790		VIIIZ			
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result			
(Vdc)	, (- /	Hz	ppm	сини (ррии)	Nesuit			
	-30	136	0.191549					
	-20	141	0.198592					
	-10	181	0.254930					
	0	123	0.173239					
3.80	10	138	0.194366	±2.5	Pass			
	20	171	0.240845					
	30	114	0.160563					
	40	169	0.238028					
	50	100	0.140845					
Reference F	Reference Frequency: LTE Band 17(10MHz) Middle channel=23790 channel=710.00MHz							
Power supplied	Temperature (°C)	Fro		Limit (nnm)	Dooult			
(Vdc)	7 7 337 5 (3)	Hz	ppm	Limit (ppm)	Result			
	-30	106	0.149296					
	-20	181	0.254930					
	-10	141	0.198592					
	0	156	0.219718					
3.80	10	153	0.215493	±2.5	Pass			
	20	123	0.173239],				
	30	168	0.236620]				
	40	117	0.164789	1				
	50	176	0.247887	1				

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LTE Band 41(QPSK):

Reference Fr		LTE Band 4	ht(QPSK): ddle channel=40620F	reguency-2503 00	MHz
Power supplied			equency error		JIVII 1Z
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
(100)	-30	199	0.076745		
	-20	141	0.054377		
	-10	155			
			0.059776	_	
0.00	0	165	0.063633	_	
3.80	10	158	0.060933	±2.5	Pass
	20	147	0.056691		
	30	163	0.062862		
	40	175	0.067489		
	50	181	0.069803		
Reference Fre	quency: LTE Band 4	1(10MHz) M	iddle channel=40625F	requency=2593.0	0MHz
Power supplied	Temperature (°C)	Fre	equency error	Limit (nnm)	D II
(Vdc)	Tomporatoro (O)	Hz	ppm	Limit (ppm)	Result
	-30	112	0.043193		
	-20	184	0.070960		
	-10	176	0.067875		
	0	123	0.047435		
3.80	10	180	0.069418	±2.5	Pass
	20	168	0.064790	_ ±2.5	F 455
	30	169	0.065175		
	40	107	0.041265	-	
	50	129			
Poforonco Erc			0.049749 iddle channel=40620F	Fraguency-2502 0	
Power supplied			equency error	Tequency=2393.0	OIVII IZ
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
(100)	-30	168	0.064790		
	-20	123	0.047435		
	-10	138	0.053220		
	0	129	0.049749		
3.80	10	146	0.056305	±2.5	Pass
	20	150	0.057848		
	30	151	0.058234		
	40	103	0.039722		
	50	107	0.041265		
	quency: LTE Band 4	1(20MHz) M	iddle channel=40620F	requency=2593.0	0MHz
Power supplied		Fre	iddle channel=40620F equency error		
	Temperature (°C)	Fre	equency error ppm	Limit (ppm)	0MHz Result
Power supplied	Temperature (°C) -30	Hz 199	equency error ppm 0.076745		
Power supplied	Temperature (°C) -30 -20	Hz 199 123	equency error ppm 0.076745 0.047435		
Power supplied	Temperature (°C) -30 -20 -10	Hz 199 123 135	equency error ppm 0.076745 0.047435 0.052063		
Power supplied (Vdc)	Temperature (°C) -30 -20 -10 0	Hz 199 123 135 126	equency error ppm 0.076745 0.047435 0.052063 0.048592	Limit (ppm)	Result
Power supplied	Temperature (°C) -30 -20 -10 0 10	Hz 199 123 135 126 131	equency error ppm 0.076745 0.047435 0.052063 0.048592 0.050521		
Power supplied (Vdc)	Temperature (°C) -30 -20 -10 0 10 20	Hz 199 123 135 126 131 144	equency error ppm 0.076745 0.047435 0.052063 0.048592 0.050521 0.055534	Limit (ppm)	Result
Power supplied (Vdc)	Temperature (°C) -30 -20 -10 0 10	Hz 199 123 135 126 131	equency error ppm 0.076745 0.047435 0.052063 0.048592 0.050521	Limit (ppm)	Result





LTE Band 41(16QAM):

Reference F	requency: LTE Band 4	LTE Band 4 (1(5MHz) Mi	, ,	requency=2593.00)MHz
Power supplied			equency error		
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	157	0.060548		
	-20	123	0.047435		
	-10	136	0.052449		
	0	144	0.055534		
3.80	10	178	0.068646	±2.5	Pass
	20	106	0.040879	= ±2.5	rass
	30	160	0.061705		
	40	161	0.062090		
	50	147	0.056691	_	
Reference Fr	equency: LTE Band 4			Frequency=2593.0	0MHz
Power supplied	Temperature (°C)	Fr	equency error	Limit (mmm)	Dazult
(Vdc)	(3)	Hz	ppm	Limit (ppm)	Result
	-30	143	0.055148		
	-20	151	0.058234		
	-10	123	0.047435		
	0	132	0.050906		
3.80	10	155	0.059776	±2.5	Pass
	20	141	0.054377		1 033
	30	107	0.041265		
	40	105	0.040494		
	50	116	0.044736		
Reference Fr	requency: LTE Band 4			Frequency=2593 0	0MHz
Power supplied			equency error		
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	129	0.049749		
	-20	131	0.050521		
	-10	147	0.056691		
	0	151	0.058234	_	_
3.80	10	155	0.059776	2.5	Pass
	20	160	0.061705		
	30 40	143	0.055148	_	
	50	107 117	0.041265 0.045121	_	
Reference Fr	equency: LTE Band 4			Frequency-2593 0	0MHz
Power supplied	T	, ,	equency error		OIVII IZ
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
(100)	-30	163	0.062862		
	-20	169	0.065175		
	-10	144	0.055534	7	
	0	151	0.058234		
3.80	10	154	0.059391	2.5	Pass
	20	171	0.065947		
	30	176	0.067875		
	40	106	0.040879	_	
	50	102	0.039337		



6.13 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part2.1055(d)(1)(2)
Test Method:	FCC Part2.1055(d)(1)(2)
Limit:	2.5ppm
Test setup:	Spectrum analyzer EUT Variable Power Supply Note: Measurement setup for testing on Antenna connector
Test procedure:	 Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation (+/-15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details, and all channels have been tested, only shows the worst channel data in this report.
Test results:	Passed





Measurement Data (the worst channel):

LTE Band 2(QPSK):

Reference F	requency: LTE Band	2(1.4MHz) Middle		channel=1880.00)MHz
	Power supplied	,	ncy error		
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	99	0.052660		
25	3.80	85	0.045213	±2.5	Pass
	3.23	63	0.033511		
Reference F	requency: LTE Band	2(3MHz) Middle	channel=18900 c	channel=1880.00I	MHz
- (00)	Power supplied	Freque	ncy error		_
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	82	0.043617		
25	3.80	74	0.039362	±2.5	Pass
	3.23	98	0.052128	7	
Reference F	requency: LTE Band	2(5MHz) Middle	channel=18900 c	channel=1880.00I	MHz
- (00)	Power supplied	Freque	ncy error		_
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	93	0.049468		
25	3.80	85	0.045213	±2.5	Pass
	3.23	64	0.034043		
Reference F	requency: LTE Band	2(10MHz) Middle	channel=18900	channel=1880.00	MHz
	Power supplied	Freque	ncy error	Limit (ppm)	
Temperature (℃)	(Vdc)	Hz	ppm		Result
	4.37	77	0.040957		
25	3.80	84	0.044681	±2.5	Pass
	3.23	96	0.051064		
Reference F	requency: LTE Band	2(15MHz) Middle	channel=18900	channel=1880.00	MHz
T (%0)	Power supplied	Freque	ncy error		
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	81	0.043085		
25	3.80	72	0.038298	±2.5	Pass
	3.23	89	0.047340		
Reference F	requency: LTE Band	2(20MHz) Middle	channel=20175	channel=1880.00	MHz
Town and (°C)	Power supplied	Freque	ncy error	11	D. "
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	69	0.036702		
25	3.80	90	0.047872	±2.5	Pass
	3.23	82	0.043617		





LTE Band 2(16QAM):

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz		LTE Band 2(16QAM):						
Compensature (C)	Reference Fr	requency: LTE Band	2(1.4MHz) Middle	e channel=18900	channel=1880.00)MHz		
(Vdc)	Tamparatura (°C)	Power supplied	Frequer	ncy error		D !!		
25 3.80 94 0.050000 ±2.5 Pass	remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result		
3.23 81 0.043085		4.37	78	0.041489				
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz	25	3.80	94	0.050000	±2.5	Pass		
Temperature (°C)		3.23	81	0.043085				
Comparature (C)	Reference F	Reference Frequency: LTE Band 2(3MHz) Middle channel=18900						
Comparature (C)	T (%C)	Power supplied	Frequer	ncy error				
A.37	Temperature (C)				Limit (ppm)	Result		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C)		4.37	93	• •				
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz	25	3.80	86	0.045745	±2.5	Pass		
Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 25 3.80 75 0.039894 ±2.5 Pass 3.23 81 0.043085 ±2.5 Pass Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result 4.37 85 0.045213 ±2.5 Pass 25 3.80 42 0.022340 ±2.5 Pass 25 3.80 42 0.022340 ±2.5 Pass Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result 25 3.80 82 0.043617 ±2.5 Pass 25 3.80 82 0.043617 ±2.5 Pass 25 3.80 82 0.040426 Ender on the company of the comp		3.23	81	0.043085	1			
Comperature (C)	Reference F	requency: LTE Band	l 2(5MHz) Middle	channel=18900 c	hannel=1880.00l	ИНz		
Comperature (C)		Power supplied	Frequer	ncy error				
A.37 93 0.049468 ±2.5 Pass	Temperature (℃)	• •		•	Limit (ppm)	Result		
3.80 75 0.039894 ±2.5 Pass 3.23 81 0.043085 ±2.5 Pass Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result 25 3.80 82 0.043617 ±2.5 Pass Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result Temperature (℃) Power supplied (Vdc)		, ,						
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C) Power supplied (Vdc) Hz ppm Limit (ppm) Result	25	3.80			±2.5	Pass		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C) Power supplied (Vdc) Hz ppm Limit (ppm) Result	-	3.23						
Comperature (C)	Reference F	requency: LTE Band	I 2(5MHz) Middle		hannel=1880.00l	ИНz		
Temperature (C)		Power supplied	Frequer	ncv error	Limit (ppm)			
A.37 85 0.045213	Temperature (℃)	• •				Result		
3.80		, ,						
3.23 63 0.033511 Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C) Power supplied (Vdc) Frequency error Limit (ppm) Result 25 3.80 82 0.043617 ±2.5 Pass 3.23 76 0.040426 ±2.5 Pass Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C) Power supplied (Vdc) Frequency error Limit (ppm) Result 4.37 45 0.023936 Limit (ppm) Result 25 3.80 87 0.046277 ±2.5 Pass	25	3.80	42		±2.5	Pass		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C)		3.23						
Power supplied (Vdc)	Reference F	requency: LTE Band			channel=1880.00	MHz		
Column C								
A.37 99 0.052660 25 3.80 82 0.043617 ±2.5 Pass	Temperature (°C)	• •	•		Limit (ppm)	Result		
25 3.80 82 0.043617 ±2.5 Pass 3.23 76 0.040426 Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C) Power supplied (Vdc) Frequency error (Vdc) Limit (ppm) Result 4.37 45 0.023936 25 3.80 87 0.046277 ±2.5 Pass								
3.23 76 0.040426	25	3.80			+2.5	Pass		
Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz Temperature (°C) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 4.37 45 0.023936 25 3.80 87 0.046277 ±2.5 Pass		3.23				. 3.33		
Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 4.37 45 0.023936 25 3.80 87 0.046277 ±2.5 Pass	Reference F				channel=1880.00	MHz		
Columbia			,					
4.37 45 0.023936 25 3.80 87 0.046277 ±2.5 Pass	Temperature (°C)	• •		•	Limit (ppm)	Result		
25 3.80 87 0.046277 ±2.5 Pass		` ,		• •				
	25	3.80			±2.5	Pass		
		3.23		0.051064				





LTE Band 4(QPSK):

LTE Band 4(QPSK):						
Reference F	requency: LTE Band	4(1.4MHz) Middle	channel=20175	channel=1732.50	MHz	
Tomporoture (°C)	Power supplied	Frequer	ncy error	Limit (none)	Doords	
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result	
	4.37	85	0.049062			
25	3.80	93	0.053680	±2.5	Pass	
	3.23	64	0.036941			
Reference F	requency: LTE Band	d 4(3MHz) Middle	channel=20175 c	hannel=1732.50 N	ИHz	
T (%C)	Power supplied	Frequer	ncy error			
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result	
	4.37	90	0.051948			
25	3.80	99	0.057143	±2.5	Pass	
	3.23	85	0.049062			
Reference F	requency: LTE Band	d 4(5MHz) Middle	channel=20175 c	hannel=1732.50N	ИHz	
- (00)	Power supplied	Frequer	ncy error			
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result	
	4.37	96	0.055411	±2.5		
25	3.80	85	0.049062		Pass	
	3.23	74	0.042713			
Reference F	requency: LTE Band	4(10MHz) Middle	channel=20175	channel=1732.50	MHz	
T (%C)	Power supplied	Frequency error				
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result	
	4.37	95	0.054834			
25	3.80	91	0.052525	±2.5	Pass	
	3.23	81	0.046753			
Reference F	requency: LTE Band	4(15MHz) Middle	channel=20175	channel=1732.50	MHz	
T(°C)	Power supplied	Frequer	ncy error	1: 4/		
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result	
	4.37	77	0.044444			
25	3.80	84	0.048485	±2.5	Pass	
	3.23	68	0.039250]		
Reference F	requency: LTE Band	4(20MHz) Middle		channel=1732.50	MHz	
T(°C)	Power supplied	Frequer	ncy error		5	
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result	
	4.37	96	0.055411			
25	3.80	58	0.033478	±2.5	Pass	
_•	3.23	74	0.042713			





LTE Band 4(16QAM):

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Resultant (ppm) 25 3.80 68 0.039250 ±2.5 Pass 3.23 3.23 78 0.045022 ±2.5 Pass 3.23 Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Resultant (ppm) 4.37 66 0.038095 ±2.5 Pass 3.23 3.80 84 0.048485 ±2.5 Pass 3.23 3.23 52 0.030014 ±2.5 Pass 3.25	lt
Column C	lt
Column C	IL
3.80 68 0.039250 ±2.5 Pass	
3.23 78 0.045022	
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 4.37 66 0.038095 ±2.5 Pass 3.80 84 0.048485 ±2.5 Pass 3.23 52 0.030014 *** ***	i
Temperature (°C) Power supplied (Vdc) Hz ppm 4.37 66 0.038095 3.80 84 0.048485 ±2.5 Pass 3.23 52 0.030014	
Temperature (C)	
Columbia	
25 3.80 84 0.048485 ±2.5 Pass 3.23 52 0.030014	lt
3.23 52 0.030014	
	;
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz	
Power supplied Frequency error	
Temperature (°C) (Vdc) Hz ppm Limit (ppm) Resu	lt
4.37 99 0.057143	
25 3.80 85 0.049062 ±2.5 Pass	;
3.23 78 0.045022	
Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz	
Power supplied Frequency error	
Temperature (°C) (Vdc) Hz ppm Limit (ppm) Resu	lt
4.37 99 0.057143	
25 3.80 65 0.037518 ±2.5 Pass	;
3.23 87 0.050216	
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz	
Power supplied Frequency error	
Temperature (°C) (Vdc) Hz ppm Limit (ppm) Resu	lt
4.37 85 0.049062	
25 3.80 94 0.054257 ±2.5 Pass	;
3.23 83 0.047908	
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 channel=1732.50MHz	
Temporature (%) Power supplied Frequency error	14
Temperature (°C) (Vdc) Hz ppm Limit (ppm) Resu	It
4.37 69 0.039827	
25 2.00 94 0.049405 .0.5	.
25 3.80 84 0.048485 ±2.5 Pass	





LTE Band 5(QPSK):

		LIE Ballu 3(G	ron).		
Reference Fr	equency: LTE Band	5(1.4MHz) Middle	e channel=20525F	requency=836.5	0MHz
Temperature (°C)	Power supplied	Freque	ncy error	Limit (ppm)	Result
Temperature (C)	(Vdc)	Hz	ppm	Еши (ррш)	Nesuit
	4.37	78	0.093246		
25	3.80	94	0.112373	±2.5	Pass
	3.23	85	0.101614		
Reference F	requency: LTE Band	5(3MHz) Middle	channel=20525Fr	equency=836.50	MHz
Temperature (℃)	Power supplied	Freque	ncy error	Limit (ppm)	Result
remperature (C)	(Vdc)	Hz	ppm	Limit (ppin)	Result
	4.37	88	0.105200	±2.5	
25	3.80	74	0.088464		Pass
	3.23	90	0.107591		
Reference F	requency: LTE Band	5(5MHz) Middle	channel=20525Fi	equency=836.50	MHz
Temperature (°C)	Power supplied	Freque	ncy error	Limit (ppm)	Dogult
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	85	0.101614		
25	3.80	90	0.107591	±2.5	Pass
	3.23	64	0.076509	1	
Reference F	requency: LTE Band	5(10MHz) Middle	channel=20525F	requency=836.50)MHz
Temperature (°C)	Power supplied	Frequency error		Limit (nnm)	Result
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	96	0.114764		
25	3.80	85	0.101614	±2.5	Pass
	3.23	74	0.088464		





LTE Band 5(16QAM):

		LIE Ballu 3(10	QAIVI).		
Reference Fr	equency: LTE Band	5(1.4MHz) Middle	channel=20525F	requency=836.5	0MHz
Temperature (℃)	Power supplied	•	ncy error	Limit (ppm)	Result
remperature (©)	(Vdc)	Hz	ppm	Еппі (рріп)	resuit
	4.37	56	0.066946		
25	3.80	87	0.104005	±2.5	Pass
	3.23	94	0.112373		
Reference F	requency: LTE Band	5(3MHz) Middle	channel=20525Fr	equency=836.50	MHz
Temperature (℃)	Power supplied	Freque	ncy error	Limit (ppm)	Result
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	99	0.118350	±2.5	
25	3.80	78	0.093246		Pass
	3.23	80	0.095637		
Reference F	requency: LTE Band	5(5MHz) Middle	channel=20525Fr	equency=836.50	MHz
Temperature (°C)	Power supplied	Freque	ncy error	Limit (ppm)	Dogult
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	93	0.111178		
25	3.80	64	0.076509	±2.5	Pass
	3.23	82	0.098027		
Reference F	requency: LTE Band	5(10MHz) Middle	channel=20525F	requency=836.50	OMHz
Temperature (℃)	Power supplied	Frequency error		Limit (mmm)	Result
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	78	0.093246		
25	3.80	94	0.112373	±2.5	Pass
	3.23	80	0.095637		





LTE Band 7(QPSK):

		LIE Ballu / (G	:i Oity.		
Reference Fr	equency: LTE Band	7(5MHz) Middle o	channel=21100 Fr	equency=2535.0	0MHz
Temperature (°ℂ)	Power supplied	Freque	ncy error	Limit (ppm)	Result
Temperature (C)	(Vdc)	Hz	ppm	Limit (ppini)	Nesuit
	4.37	85	0.033531		
25	3.80	96	0.037870	±2.5	Pass
	3.23	88	0.034714		
Reference Fre	equency: LTE Band 7	(10MHz) Middle	channel=21100 F	requency=2535.0	00MHz
Temperature (°ℂ)	Power supplied	Freque	ncy error	Limit (ppm)	Dogult
remperature (C)	(Vdc)	Hz	ppm	Limit (ppin)	Result
	4.37	74	0.029191	±2.5	
25	3.80	81	0.031953		Pass
	3.23	96	0.037870		
Reference Fre	equency: LTE Band 7	(15MHz) Middle	channel=21100 F	requency=2535.0	00MHz
Temperature (°ℂ)	Power supplied	Frequency error		Limit (nnm)	Dogult
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	88	0.034714		
25	3.80	75	0.029586	±2.5	Pass
	3.23	64	0.025247	1	
Reference Fre	equency: LTE Band 7	(20MHz) Middle	channel=21100 F	requency=2535.0	00MHz
Temperature (°ℂ)	Power supplied	Frequency error		1	Dearit
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	84	0.033136		
25	3.80	90	0.035503	±2.5	Pass
	3.23	74	0.029191		





LTE Band 7(16QAM):

		LIE Band /(10	WAIVI).		
Reference Fi	requency: LTE Band	7(5MHz) Middle o	hannel=21100 Fre	equency=2535.0	0MHz
Temperature (°C)	Power supplied	Freque	ncy error	Limit (ppm)	Result
Temperature (C)	(Vdc)	Hz	ppm	шти (ррті)	Resuit
	4.37	95	0.037475		
25	3.80	63	0.024852	±2.5	Pass
	3.23	48	0.018935		
Reference Fr	equency: LTE Band 7	(10MHz) Middle	channel=21100 Fr	requency=2535.0	00MHz
Temperature (°ℂ)	Power supplied	Freque	ncy error	Limit (ppm)	Result
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Resuit
	4.37	99	0.039053	±2.5	
25	3.80	85	0.033531		Pass
	3.23	64	0.025247		
Reference Fr	equency: LTE Band 7	(15MHz) Middle	channel=21100 Fr	requency=2535.0	00MHz
Temperature (°ℂ)	Power supplied	Freque	ncy error	Limit (ppm)	Daguit
remperature (C)	(Vdc)	Hz	ppm		Result
	4.37	58	0.022880		
25	3.80	74	0.029191	±2.5	Pass
	3.23	90	0.035503		
Reference Fr	equency: LTE Band 7	(20MHz) Middle	channel=21100 Fr	equency=2535.0	00MHz
Temperature (°C)	Power supplied	Freque	ncy error	Limit (nnm)	Popult
Temperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
	4.37	69	0.027219		
25	3.80	87	0.034320	±2.5	Pass
	3.23	90	0.035503		





LTE Band 17(QPSK):

Reference Frequency: LTE Band 17(5MHz) Middle channel=23790 channel=710.00MHz							
Temperature (°C)	Power supplied Frequency error		ncy error	Limit (ppm)	Result		
· oporataro (o)	(Vdc)	Hz	ppm	2 (pp)	rtocart		
	4.37	93	0.130986				
25	3.80	90	0.126761	±2.5	Pass		
	3.23	65	0.091549				
Reference F	requency: LTE Band	17(10MHz) Midd	le channel=23790	channel=710.00	MHz		
Temperature (°C)	Power supplied	Frequency error		Limit (ppm)	Result		
remperature (C)	(Vdc)	Hz	ppm	Еши (ррш)	Result		
	4.37	84	0.118310				
25	3.80	75	0.105634	±2.5	Pass		
	3.23	98	0.138028				

LTE Band 17(16QAM)

LIE Band 17(16QAM):							
Reference Frequency: LTE Band 17(5MHz) Middle channel=23790 channel=710.00MHz							
Temperature (°C)	e (°C) Power supplied Frequency error		Limit (ppm) Re	Result			
•	(Vdc)	Hz	ppm	,			
	4.37	85	0.119718				
25	3.80	74	0.104225	±2.5	Pass		
	3.23	99	0.139437				
Reference F	requency: LTE Band	17(10MHz) Midd	le channel=23790	channel=710.00	MHz		
Temperature (°C)	Power supplied	Frequency error		Limit (ppm)	Result		
remperature (C)	(Vdc)	Hz	ppm	Еппі (рріп)	Nesuit		
	4.37	69	0.097183				
25	3.80	92	0.129577	±2.5	Pass		
20	3.23	74	0.104225	1	İ		





LTE Band 41 (QPSK):

		LIE Band 41 (aron).		
Reference Fr	equency: LTE Band 4	11(5MHz) Middle	channel=40620Fr	equency=2593.0	0MHz
Temperature $(^{\circ}\!\!\!\!C)$	Power supplied (Vdc)	Frequency error		Limit (none)	Dooult
		Hz	ppm	Limit (ppm)	Result
	4.37	95	0.036637		
25	3.80	85	0.032781	±2.5	Pass
	3.23	74	0.028538		
Reference Fre	equency: LTE Band 4	1(10MHz) Middle	channel=40625Fi	requency=2593.0	00MHz
Temperature (℃)	Power supplied	Frequency error		Limit (ppm)	Result
	(Vdc)	Hz	ppm	Еппі (рріп)	Kesuit
25	4.37	88	0.033938	±2.5	Pass
	3.80	86	0.033166		
	3.23	91	0.035094		
Reference Fre	equency: LTE Band 4	1(15MHz) Middle	channel=40620Fi	requency=2593.0	00MHz
Temperature (℃)	Power supplied	Frequency error		Limit (nnm)	Dogult
	(Vdc)	Hz	ppm	Limit (ppm)	Result
25	4.37	95	0.036637	±2.5	Pass
	3.80	64	0.024682		
	3.23	72	0.027767		
Reference Fre	equency: LTE Band 4	1(20MHz) Middle	channel=40620Fi	requency=2593.0	00MHz
Temperature (℃)	Power supplied	Frequency error		Limit (nnrs)	Dogult
	(Vdc)	Hz	ppm	Limit (ppm)	Result
25	4.37	99	0.038180	±2.5	Pass
	3.80	63	0.024296		
	3.23	74	0.028538		





LTE Band 12(16QAM):

		ETE Bana 12(1)	 		
Reference Fre	equency: LTE Band 4	41(5MHz) Middle	channel=40620Fr	equency=2593.0	0MHz
Temperature (℃)	Power supplied	Frequency error		Limit (ppm)	Result
	(Vdc)	Hz	ppm	Еши (ррш)	Nesuit
25	4.37	96	0.037023	±2.5	Pass
	3.80	34	0.013112		
	3.23	48	0.018511		
Reference Fre	equency: LTE Band 4	1(10MHz) Middle	channel=40625F	requency=2593.0	00MHz
Temperature $(^{\circ}\!\mathbb{C})$	Power supplied	Frequency error		Limit (mmm)	Decult
	(Vdc)	Hz	ppm	Limit (ppm)	Result
25	4.37	88	0.033938	±2.5	Pass
	3.80	64	0.024682		
	3.23	71	0.027381		
Reference Fre	equency: LTE Band 4	1(15MHz) Middle	channel=40620F	requency=2593.0	00MHz
Temperature ($^{\circ}\!\mathbb{C}$)	Power supplied	Frequency error		1 (Danult
	(Vdc)	Hz	ppm	Limit (ppm)	Result
25	4.37	56	0.021597	±2.5	Pass
	3.80	64	0.024682		
	3.23	71	0.027381		
Reference Fre	equency: LTE Band 4			requency=2593.0	00MHz
Temperature (°C)	Power supplied (Vdc)	Frequency error			D
		Hz	ppm	Limit (ppm)	Result
25	4.37	99	0.038180	±2.5	Pass
	3.80	63	0.024296		
	3.23	74	0.028538		