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# **ELECTROMAGNETIC EMISSIONS** COMPLIANCE REPORT





**Partial** 

Telit Communications S.p.A. Applicant:

Via Stazione di Prosecco 5/b 34010 Sgonico - Trieste

Manufacturer: Telit Wireless Solutions. Co. Ltd.

13th Fl., Shinyoung Securities Bld, 6, Gukjegeumyung-ro 8-gil,

Yeongdeungpo-gu, Seoul, 07330, South Korea

LN920A12-WW / LN920A6-WW **Product Name:** 

**Brand Name:** Telit

LN920A12-WW / LN920A6-WW Model No.:

**Model Difference:** Refer to Page 4

TERF2206000793ER **Report Number:** 

FCC ID **RI7LN920** 

IC: 5131A-LN920

Issue Date: August 1, 2022

**Date of Test:** June 8, 2022 ~ July 28, 2022

Date of EUT Received: June 6, 2022

Approved By

Men Lay

### We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI ANSI C63.26-2015 and the energy emitted by the sample EUT comply with FCC rule part 2, 22H & 24E & 27 C & 90S and ISED RSS-Gen, 130, 132, 133, 139, 140, 195, 199.

The results of this report relate only to the sample identified in this report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製

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Revision History						
Report Number	Revision	Description	Issue Date	Revised By	Remark	
TERF2206000793ER	00	HW change from 1.0 to 1.1	August 1, 2022	Yuri Tsai		

### Note:

- 1. The remark "\*" indicates modification of the report upon requests from certification body.
- 2 · Variant information of model numbers is provided by the applicant, test results of this report are applicable to the sample EUT(s) received, and are assessed as electrically identical in RF characteristics, therefore, no further assessment required for the variant(s).
- 3 This is a partial test report with modification from HW1.0 to HW 1.1 based on the EUT in the original report ER/2021/A0027-01 to demonstrate compliance of modification of RF switches and passive filters with identical specification. Maximum output power, conducted out of band emissions and spurious emissions are tested in this report.

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## **GENERAL PRODUCT INFORMATION**

#### 1.1 **Product Description**

Product Name:	LN920A12-WW / LN920A6-WW
Brand Name:	Telit
Model No.:	LN920A12-WW / LN920A6-WW
Model Difference:	Internal Component is different between two models.     Capability is different between two models.
Hardware Version:	1.1
Firmware Version:	LN920A12-WW: M0L.000002 / LN920A6-WW: M0L.010002
EUT Series No.:	354175753009531
Power Supply:	3.3Vdc
Test Software (Name/Version)	Default

#### 1.2 Model difference

- The mobile data modem chip on U200 between two models are pin for pin compatible with identical internal circuits.
- The LN920A6-WW uses MOBILE DATA MODEM SDX12-2 with CAT12 features disabled by a fuse bit with different FVIN.
- The LN920A12-WW is tested as the representative sample with the most modem capabilities.

Model	FVIN	Component on U200	Modem Capability
LN920A12-WW	M0L.000002	MOBILE DATA MODEM SDX12-0	LTE, 4 × 4 MIMO, CA 60 MHz DL 256QAM DL, CA 40 MHz UL, 64 QAM UL,
LN920A6-WW	M0L.010002	MOBILE DATA MODEM SDX12-2	LTE, 4 × 4 MIMO, CA 40 MHz DL, 64 QAM DL, CA 20 MHz UL, 16 QAM UL

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#### **Operation Frequency Range** 1.3

LTE Band 2					
BW (MHz)	Operation	Freque	ency (MHz)		
1.4	1850.7	-	1909.3		
3	1851.5	-	1908.5		
5	1852.5	-	1907.5		
10	1855.0	-	1905.0		
15	1857.5	-	1902.5		
20	1860.0	-	1900.0		
	LTE Bar	nd 4			
BW (MHz)	Operation	Freque	ency (MHz)		
1.4	1710.7	-	1754.3		
3	1711.5	-	1753.5		
5	1712.5	-	1752.5		
10	1715.0	-	1750.0		
15	1717.5	-	1747.5		
20	1720.0	=.	1745.0		
	LTE Bar	nd 5			
BW (MHz)	Operation	Freque	ency (MHz)		
1.4	824.7	-	848.3		
3	825.5	-	847.5		
5	826.5	-	846.5		
10	829.0	-	844.0		
LTE Band 7					
BW (MHz)	Operation	Freque	ency (MHz)		
5	2502.5	-	2567.5		
10	2505.0	-	2565.0		
15	2507.5	-	2562.5		
20	2510.0	-	2560.0		

LTE Band 12				
BW (MHz)	Operation	Freque	ency (MHz)	
1.4	699.7	-	715.3	
3	700.5	-	714.5	
5	701.5	-	713.5	
10	704.0	-	711.0	
	LTE Ban	d 13		
BW (MHz)	Operation	Freque	ency (MHz)	
5	779.5	-	784.5	
10	782.0			
	LTE Ban	d 14		
BW (MHz)	Operation	Freque	ency (MHz)	
5	790.5	-	795.5	
10	793.0			
	LTE Ban	d 17		
BW (MHz)	Operation	Freque	ency (MHz)	
5	706.5	-	713.5	
10	709.0	-	711.0	
	LTE Ban	d 25		
BW (MHz)	Operation Frequency (MHz)			
1.4	1850.7	-	1914.3	
3	1851.5		1913.5	
5	1852.5	-	1912.5	
10	1855.0	-	1910.0	
15	1857.5	-	1907.5	
20	1860.0	-	1905.0	

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	LTE Band 26				
BW (MHz)	Operation Frequency (MHz)				
1.4	824.7	-	848.3		
3	825.5	=	847.5		
5	826.5	-	846.5		
10	829.0	-	844.0		
15	831.5	-	841.5		
	LTE Band 26	5 Part 9	0		
BW (MHz)	Operation	Freque	ency (MHz)		
1.4	814.7	-	823.3		
3	815.5	-	822.5		
5	816.5	-	821.5		
10	819.0				
	LTE Ban	d 30			
BW (MHz)	Operation	Freque	ency (MHz)		
5	2307.5	-	2312.5		
10	2310.0				
LTE Band 38					
BW (MHz)	Operation	Freque	ency (MHz)		
5	2572.5	-	2617.5		
10	2575.0	-	2615.0		
15	2577.5	-	2612.5		
20	2580.0	-	2610.0		

LTE Band 41				
BW (MHz)	Operation	Freque	ency (MHz)	
5	2498.5	-	2687.5	
10	2501.0	-	2685.0	
15	2503.5	-	2682.5	
20	2506.0	-	2680.0	
	LTE Ban	d 66		
BW (MHz)	Operation	Freque	ency (MHz)	
1.4	1710.7	-	1779.3	
3	1711.5	-	1778.5	
5	1712.5	-	1777.5	
10	1715.0	-	1775.0	
15	1717.5	-	1772.5	
20	1720.0	-	1770.0	
	LTE Ban	d 71		
BW (MHz)	Operation	Freque	ency (MHz)	
5	665.5	-	695.5	
10	688.0	=	693.0	
15	670.5	-	690.5	
20	673.0	-	688.0	

Note: Operation in 814~824MHz is disabled in Canada

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#### 1.4 **Antenna Designation**

Antenna Type	Antenna Model No.			
Monopole	TG.55.8113			
<b>Note:</b> Transmission frequencies in this test report are only available by the above				

nsmission frequencies in this test report are only available by the above antenna(s).

Туре	Modulation	Frequency (MHz)		•	Peak Antenna Gain (dBi)
	LTE-Band 2	1850	~	1910	3.05
	LTE-Band 4	1710	~	1755	3.4
	LTE-Band 5	824	~	849	3.2
	LTE-Band 7	2500	~	2570	3.12
	LTE-Band 12	699	~	716	2.51
	LTE-Band 13	777	~	787	2.51
	LTE-Band 14	788	~	798	2.51
N4 1 -	LTE-Band 17	704	~	716	2.51
Monopole	LTE-Band 25	1850	~	1915	3.05
	LTE-Band 26	824	~	849	2.51
	LTE-Band 26 Part 90	814	~	824	3.2
	LTE-Band 30	2305	~	2315	3.12
	LTE-Band 38	2570	~	2620	3.12
	LTE-Band 41	2496	~	2690	3.12
	LTE-Band 66	1710	~	1780	3.4
	LTE-Band 71	663	~	698	1.26

**Note:** Antenna information is provided by the applicant.

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#### 1.5 **Test Methodology of Applied Standards**

FCC 47 CFR Part 2, 22H, 24E, 27C, Part 90.

ISED RSS-130 Issue 2 Feb. 2019,

ISED RSS-132 Issue 3 Jan. 2013

ISED RSS-133 Issue 6, Amendment 1 Jan. 18, 2018, ISED RSS-139 Issue 3 July 16, 2015

ISED RSS-140 Issue 1 Apr. 2018,

ISED RSS-195 Issue 2 Apr. 24, 2014

ISED RSS-199 Issue 3 Dec. 2016

ANSI C63.26-2015

KDB971168 D01 Power Meas license Digital System v03r01

KDB412172 D01 Determining ERP and EIRP v01r01

#### 1.6 **Test Facility**

Laboratory	Test Site Address	Test Site Name	FCC Designa- tion number	IC CAB identifier	
		SAC 1			
		SAC 3			
		Conduction 1			
	No.134, Wu Kung Road, New Taipei	Conducted 1			
	Industrial Park, Wuku District, New	Conducted 2	TW0027		
	Taipei City, Taiwan.	Conducted 3		TW3702	
		Conducted 4			
		Conducted 5			
SGS Taiwan Ltd.		Conducted 6			
Central RF Lab.		Conduction C			
(TAF code 3702)		SAC C			
(1A1 code 3702)		SAC D			
		SAC G			
	No 2 Kaji 1et Dd. Cujeban District	Conducted A			
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conducted B	TW0028		
	ladyuan Gity, Taiwan 555	Conducted C			
		Conducted D			
		Conducted E			
		Conducted F			
		Conducted G			

Note: Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.

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#### 1.7 **Special Accessories**

No special accessories were used during testing.

#### 1.8 **Equipment Modifications**

There was no modifications incorporated into the EUT.

#### 1.9 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m\*6m\*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site. There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

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## SYSTEM TEST CONFIGURATION

#### 2.1 **EUT Configuration**

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

#### **EUT Exercise** 2.2

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

#### **Test Procedure** 2.3

#### 2.3.1 Conducted Measurement at Antenna Port

The EUT is placed on a table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

#### 2.3.2 Radiated Emissions (ERP/EIRP)

The EUT is placed on a turn table, for emission measurements below 1 GHz is 0.8 m above ground plane, for emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both Horizontal and Vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

#### **Measurement Results Explanation Example** 2.4

### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

### Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

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#### 2.5 **Final Amplifier Voltage and Current Information:**

### LTE Band 2

Test mode	DC voltage (V)	DC current (mA)
LTE Band 2_20M QPSK	3.3	490

## LTE Band 4

Test mode	DC voltage (V)	DC current (mA)
LTE Band 4_20M QPSK	3.3	480

# LTE Band 5

Test mode	DC voltage (V)	DC current (mA)
LTE Band 5_10M QPSK	3.3	480

## LTE Band 7

Test mode	DC voltage (V)	DC current (mA)
LTE Band 7_20M QPSK	3.3	470

## LTE Band 12

Test mode	DC voltage (V)	DC current (mA)
LTE Band 5_10M QPSK	3.3	490

# LTE Band 13

Test mode	DC voltage (V)	DC current (mA)
LTE Band 13_10M QPSK	3.3	460

## LTE Band 14

Test mode	DC voltage (V)	DC current (mA)
LTE Band 14_10M QPSK	3.3	470

# LTE Band 17

Test mode	DC voltage (V)	DC current (mA)
LTE Band 17_10M QPSK	3.3	480

## LTE Band 25

Test mode	DC voltage (V)	DC current (mA)
LTE Band 25_20M QPSK	3.3	480

## LTE Band 26 for Part 90S

Test Mode	DC voltage (V)	DC current (mA)
LTE Band 26_10M QPSK	3.3	480

## LTE Band 26

Test mode	DC voltage (V)	DC current (mA)
LTE Band 26_15M QPSK	3.3	470

## LTE Band 30

Test mode	DC voltage (V)	DC current (mA)
LTE Band 30_10M QPSK	3.3	490

## LTE Band 38

Test mode	DC voltage (V)	DC current (mA)
LTE Band 38_20M QPSK	3.3	490

## LTE Band 41

Test Mode	DC voltage (V)	DC current (mA)
LTE Band 41_20M QPSK	3.3	450

## LTE Band 66

Test mode	DC voltage (V)	DC current (mA)
LTE Band 66_20M QPSK	3.3	470

## LTE Band 71

Test mode	DC voltage (V)	DC current (mA)
LTE Band 71_20M QPSK	3.3	460

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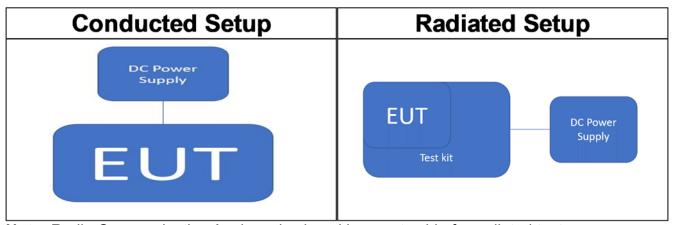
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#### 2.6 **Test Configuration**



Note: Radio Communication Analyzer is placed in remote side for radiated test.

#### 2.7 Control Unit(s)

	Conducted Emission Test Site: Conducted 3									
EQUIPMENT TYPE	MFR MODEL NUMBER		SERIAL NUMBER	LAST CAL.	CAL DUE.					
Test Software	SGS	Radio Test Software	Ver. 21	N.C.R	N.C.R					
		Radiated Emission Te	est Site: SAC 1							
EQUIPMENT TYPE	MFR	MODEL NUMBER SERIAL NUMBER		LAST CAL.	CAL DUE.					
Test Software	Audix	e3	Ver. 9.210322	N.C.R	N.C.R					
		Radiated Emission Tes	t Site: SAC 1							
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.					
Test Software	Audix	e3	Ver. 9.210322	N.C.R	N.C.R					

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## **SUMMARY OF TEST RESULTS**

FCC Rules	IC Rules	Description Of Test	Result
§2.1046(a)	RSS-GEN §6.12	RF Power Output	Compliant
§22.913(a)(5)			
§24.232(c)	RSS-130 §4.6		
§27.50(a)(3)	RSS-132 §5.4		
§27.50(b)(10)	RSS-133 §6.4	ERP/ EIRP measure-	
§27.50(c)(10)	RSS-139 §6.5	ment	Compliant
§27.50(d)(4)	RSS-140 §4.3	IIIeIIt	
§27.50(h)(2)	RSS-195 §5.5		
§90.542(a)(7)	RSS-199 §4.4		
§90.635			
§2.1051 §22.917(a)	RSS-GEN §6.13		
§24.238(a)	RSS-130 §4.7	Out of Band Emissions	
§27.50(c)(5)	RSS-132 §5.5	at Antenna Terminals	
§27.53(c)(2),(4)	RSS-133 §6.5	and	Compliant
§27.53(g)	RSS-139 §6.6	Band Edge / Emission	Compliant
§27.53(h)	RSS-140 §4.4	mask requirements	
§27.53(m)(4)(6)	RSS-195 §5.6	maok roquiromento	
§90.691	RSS-199 §4.5		
§2.1053 §22.917(a)	RSS-GEN §6.13		
§24.238(a)	RSS-130 §4.7		
§27.53(c)(2),(4)	RSS-132 §5.5	Field Strength	
§27.50(c)(5)	RSS-133 §6.5	of	Compliant
§27.53(f)	RSS-139 §6.6	Spurious Radiation	Compliant
§27.53(g) §27.53(h)	RSS-140 §4.4		
§27.53(m)(4)	RSS-195 §5.6		
§90.691(a)(1)(2)	RSS-199 §4.5		

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## **DESCRIPTION OF TEST MODES**

#### 4.1 The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 2. Pre-Scan has been conducted to determine the worst-case scenario from all possible combinations among available modulations, data rates and antenna ports, the worst case configurations listed below for the final test.
- 3. The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.

#### 4.2 **Measurement Configuration**

	Toot Ito	<b></b>						N	ov Outr	out Dow	or				
	Test Iter	115							ax. Outp	out Pow	EI				
Band	Tes	st Chani	nel		Е	Bandwid	th (MHz	)		M	odulatio	on		RB#	
Бани	L	М	Н	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full
2	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
4	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
5	V	V	V	V	V	V	V	-	-	V	V	V	V	V	V
7	V	V	V	-	-	V	V	V	V	V	V	V	V	V	V
12	V	V	V	V	V	V	V	-	-	V	V	V	V	V	V
13	V	V	V	-	-	V	V	-	-	V	V	V	V	V	V
14	V	V	V	-	-	V	V	-	-	V	V	V	V	V	V
17	V	V	V	-	-	V	V	-	-	V	V	V	V	V	V
25	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
26 26 P90	V	V	V	V	V	V	V	V	-	V	V	V	V	V	V
30	V	V	V	V	V	V	V	-	-	V	V	V	V	V	V
38	V	V	V V	-	-	V	V V	-	-	V	V	V	V	V V	V
41	V	V	V	-	-	V	V	V	V V	V	V	V	V	V	V
66	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
71	V	V	V	-	-	V	V	V	V	V	V	V	V	V	V
		-									-				
	Test Iter	ns							Band	Edge					
Band	Tes	st Chani	nel	Bandwidth (MHz)			-								
Бани				• •				M	odulatio	on		RB#			
	L	М	Н	1.4	3	5	10	) 15	20	QPSK	odulation 16QAM	64QAM	1	RB # Half	Full
2	V	M -		1.4 V					20 V				1 V		Full V
4	_		Н		3	5	10	15		QPSK	16QAM	64QAM	•	Half	
<u>4</u> 5	V V	-	H V	V	3 V	5 V V	10 V V	15 v	V	QPSK V V	16QAM -	64QAM -	V	Half V V	V
4 5 7	V V V	-	H V V V	V V	3 V V	5 V V V	10 V V V	15 v v	V V	QPSK V V V	16QAM - -	64QAM - -	V V V	Half V V V	V V V
4 5 7 12	V V V V V	-	H V V V	V V V	3 V V V	5 V V V V	10 V V V V	15 V V	V V -	V V V V	16QAM - -	64QAM - -	V V V V	Half V V V	V V V V
4 5 7 12 13	V V V V V V	-	H V V V V	V V V	3 V V V	5 V V V V V	10 V V V V	15 V V - V	V V - V	QPSK V V V V V V	- - - - -	64QAM - - -	V V V V V V	V V V V V	V V V V
4 5 7 12 13	V V V V V V V		H V V V V V	V V V - V -	3 V V V - V	5 V V V V V	10 V V V V V V V V V V V V V V V V V V V	15 V V - V - -	V V - V - -	QPSK V V V V V V V	16QAM	- - - - - -	V V V V V V V V	V V V V V V	V V V V V
4 5 7 12 13 14 17	V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V - V -	3 V V V - V -	5 V V V V V V	10 V V V V V V	15 V V - V - - -	V V - V - - -	QPSK V V V V V V V V V V V	16QAM		V V V V V V V V V V V V V V V V V V V	Half  V  V  V  V  V  V  V  V  V	V V V V V V
4 5 7 12 13 14 17 25	V V V V V V V V V V V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V - V - - V	3 V V V - V - V	5 V V V V V V V	10 V V V V V V V	15 V V - V - - - - V	V V - V - -	QPSK V V V V V V V V V V V V V	16QAM		V V V V V V V V V V V V V V V V V V V	Half  V  V  V  V  V  V  V  V  V  V	V V V V V V
4 5 7 12 13 14 17 25 26	V V V V V V V V V V V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V - V - - V V	3 V V V - V - V V	5 V V V V V V V	10 V V V V V V V	15 V V - V - - - - V	V V - V - - -	QPSK	16QAM		V V V V V V V V V V V V V V V V V V V	Half V V V V V V V V V V V V V	V V V V V V V
4 5 7 12 13 14 17 25 26 26 P90	V V V V V V V V V V V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V - V - - - V V V	3 V V V - V - - V V V	5 V V V V V V V V	10 V V V V V V V V V V V V V V V V V V V	15 v v - v - - - v v	V V - V - - - V	QPSK			V V V V V V V V V V V V V V V V V V V	Half V V V V V V V V V V V V V V V V V V V	V V V V V V V V
4 5 7 12 13 14 17 25 26 26 P90 30	V V V V V V V V V V V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V - V - - V V V	3 V V V - V - - V V V	5 V V V V V V V V V	10 V V V V V V V V V V V V V V V V V V V	15 v v - - - - v v	V V - V V V V V V	QPSK V V V V V V V V V V V V V V V V V V V	16QAM		V V V V V V V V V V V V V V V V V V V	Half V V V V V V V V V V V V V V V V V V V	V V V V V V V V V V V V V V V V V V V
4 5 7 12 13 14 17 25 26 26 P90 30 38	V V V V V V V V V V V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V - V - - V V V V	3 V V V - - - V V V V	5 V V V V V V V V V V	10 V V V V V V V V V V V V V V V V V V V	15 v v - - - - - v v	V V - V V V - V V - V V V V V V V V	QPSK	16QAM		V V V V V V V V V V V V V V V V V V V	Half V V V V V V V V V V V V V V V V V V V	V V V V V V V V V V V V V V V V V V V
4 5 7 12 13 14 17 25 26 26 P90 30 38 41	V V V V V V V V V V V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V V V V	3 V V V - - - V V V V	5 V V V V V V V V V V	10 V V V V V V V V V V V V V V V V V V V	15 v v - - - - v v - - v v - - v - - v v - - v v - v v v v v v v v v v v v v	V V - V V V - V V V	QPSK	16QAM		V V V V V V V V V V V V V V V V V V V	Half V V V V V V V V V V V V V V V V V V V	V V V V V V V V V V V V V V V V V V V
4 5 7 12 13 14 17 25 26 26 P90 30 38	V V V V V V V V V V V V V V V V V V V		H V V V V V V V V V V V V V V V V V V V	V V V - V - - V V V V	3 V V V - - - V V V V	5 V V V V V V V V V V	10 V V V V V V V V V V V V V V V V V V V	15 v v - - - - - v v	V V - V V V - V V - V V V V V V V V	QPSK	16QAM		V V V V V V V V V V V V V V V V V V V	Half V V V V V V V V V V V V V V V V V V V	V V V V V V V V V V V V V V V V V V V

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## **MEASUREMENT UNCERTAINTY**

Test Items	Und	certair	nty
RF Power Output	+/-	1	dB
ERP/ EIRP measurement	+/-	3	dB
ERP/ EIRP measurement	+/-	3	dB
Emission Bandwidth	+/-	1.53	Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/-	1.68	dB
Peak to Average Ratio	+/-	1	dB
Frequency Stability vs. Temperature	+/-	1.53	Hz
Frequency Stability vs. Voltage	+/-	1.53	Hz
Temperature	+/-	0.4	°C
Humidity	+/-	3.5	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty							
	+/-	2.57	dB	9kHz~30MHz			
Polarization: Vertical	+/-	4.85	dB	30MHz - 1000MHz			
Polarization. Vertical	+/-	4.45	dB	1GHz - 18GHz			
	+/-	4.24	dB	18GHz - 40GHz			
	+/-	2.57	dB	9kHz~30MHz			
Polarization: Horizontal	+/-	4.37	dB	30MHz - 1000MHz			
Polarization. Horizontal	+/-	4.45	dB	1GHz - 18GHz			
	+/-	4.24	dB	18GHz - 40GHz			

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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## **MEASUREMENT EQUIPMENT USED**

#### 6.1 **Conducted Measurement**

	Conducted Emission Test Site: Conducted 3									
EQUIPMENT TYPE	JIPMENT TYPE MFR MODEL NUMBER SERIAL NUMBER LAST CAL. CAL									
EXA Spectrum Analyzer	Agilent	N9010A	MY54200716	10/13/2021	10/12/2022					
Radio Communication Analyer	Anritsu	MT8821C	6261786084	01/18/2022	01/17/2023					
DC Power Supply	Agilent	E3640A	MY52410006	12/21/2021	12/20/2022					
Attenuator	Mini-Circuit	BW-S10W2+	4	12/14/2021	12/13/2022					
DC Block	Mini-Circuits	BLK-18-S+	1	12/14/2021	12/13/2022					
Power Divider	RF-LAMBAD	RFLT2W1G18G	11-JSPF412-020	12/14/2021	12/13/2022					

#### 6.2 **Radiated Measurement**

		Radiated Emission Te	st Site: SAC 1		
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Bi-log Antenna	SCHWARZBECK	VULB9168	300	10/19/2021	10/18/2022
Horn Antenna	SCHWARZBECK	BBHA9120D	D803	12/20/2021	12/19/2022
Bi-log Antenna	TESEO	CBL 6112D	35242 & AT-N0555	01/03/2022	01/02/2023
Horn Antenna	SCHWARZBECK	BBHA9120D	603	05/16/2022	05/15/2023
Horn Antenna	SCHWARZBECK	BBHA9170	184	12/16/2021	12/15/2022
Horn Antenna	SCHWARZBECK	BBHA9170	185	08/06/2021	08/05/2022
Site Cal	SGS	SAC I chamber	N/A	01/01/2022	12/31/2022
Spectrum Analyzer	Agilent	E4446A	MY51100003	10/26/2021	10/25/2022
Signal Generator	R&S	SMBV100A	263084	01/11/2022	01/10/2023
Radio Communication Analyer	Anritsu	MT8821C	6261786084	01/18/2022	01/17/2023
DC Power Supply	Gwinstek	SPS-3610	GEV856750	08/04/2021	08/03/2022
Pre-Amplifier	EMC Instruments	EMC184045B	980135	10/27/2021	10/26/2022
Pre-Amplifier	HP	8449B	3008A01973	12/16/2021	12/15/2022
Pre-Amplifier	НР	8447D	2944A09469	12/16/2021	12/15/2022
Bandreject Filter 635- 920	Micro-Tronics	WI	4	12/14/2021	12/13/2022
Bandreject Filter 800- 1000	Micro-Tronics	EWT	M1	12/14/2021	12/13/2022
Bandreject Filter 1700-2000	Micro-Tronics	EWT	M3	12/14/2021	12/13/2022
Bandreject Filter 2240-2700	Micro-Tronics	WI	2	12/14/2021	12/13/2022
1.3G-15GHz High Pass Filter	WI	WHKX10-1066-80SS	19	12/14/2021	12/13/2022
3.2GHz High Pass Filter	WI	WHKX10-2624-80SS	3	12/14/2021	12/13/2022
Coaxial Cable	Huber Suhner	succoflex 102	MY2622/2	12/16/2021	12/15/2022
Coaxial Cable	Huber Suhner	succoflex 104A	800086/4a	12/16/2021	12/15/2022
Coaxial Cable	Huber Suhner	EMC 104-SM-SM-2000	160123	12/16/2021	12/15/2022
Coaxial Cable	Huber Suhner	SUCOFLEX 104	160125	12/16/2021	12/15/2022
Coaxial Cable	Huber Suhner	SUCOFLEX 106	76096/6	12/16/2021	12/15/2022
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2630/2	12/16/2021	12/15/2022
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY22962/2	12/16/2021	12/15/2022
Coaxial Cable	Huber Suhner	SUCOFLEX 102	SN 520430/2	12/16/2021	12/15/2022

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## 7 MAXIMUM OUTPUT POWER

## 7.1 Standard Applicable

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

### 7.1.1 ERP/EIRP LIMIT

According to FCC §2.1046

### FCC 22.913(a)

(5) mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

### FCC 24.232(c)

Mobile and portable stations are limited to 2 W EIRP.

### FCC 27.50 (a)

(3) for mobile and portable stations compliant with 3GPP LTE standards transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band are limited to 250 mW/ 5MHz EIRP but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth.

### FCC 27.50 (b)

(9) Control stations and mobile stations transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 30 watts ERP.

### FCC 27.50(c)

(9) Control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP.

### FCC 27.50(d)

(4) Mobile, and portable (hand-held) stations operating in the 1710-1755 MHz, 1695-1710 MHz and 1755-1780 MHz bands are limited to 1W EIRP.

## FCC 27, 50(h)

(2) Mobile and other user stations transmitting in the BRS and EBS bands are limited to 2 W EIRP.

### FCC 90.542(a)

(6) Control stations and mobile stations transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 30 watts ERP.

### FCC 90.635(b)

Mobile station is limited to 100W ERP

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### RSS-130 §4.6

The e.r.p. shall not exceed 3 watts for mobile equipment, fixed subscriber equipment and portable equipment operating in the Band 617-652 and 663-698MHz.

The e.r.p. shall not exceed 3 watts for portable equipment and indoor fixed subscriber equipment operating in 698-756 and 777-787 MHz.

### RSS-132 §5.4

The equivalent isotropically radiated power (e.i.r.p.) for mobile equipment in operating in the Bands 824-849 and 869-894MHz shall not exceed 11.5 watts.

### RSS-133 §6.4

The equivalent isotropically radiated power (e.i.r.p.) for transmitters shall not exceed the limits given in SRSP-510.

According to section 5.1.2 of SRSP-510, Mobile stations and hand-held portables are limited to 2 watts maximum e.i.r.p. The equipment shall employ means to limit the power to the minimum necessary for successful communication.

## RSS-139 §6.5

The equivalent isotropically radiated power (e.i.r.p.) for mobile and portable transmitters in the Bands 1710-1780MHz shall not exceed one watt.

### RSS-140 §4.3

The equivalent radiated power (e.r.p.) for control and mobile equipment shall not exceed 30 W. The e.r.p. for portable equipment including handheld devices shall not ex-ceed 3 W.

### RSS-195 §5.5

The e.i.r.p. of mobile or portable equipment transmitting in the band 2305-2315 MHz or the band 2350-2360 MHz, employing 3GPP LTE (Third Generation Part-nership Project Long Term Evolution) standards, shall not exceed 250 mW within any 5 MHz bandwidth. For other technologies, the e.i.r.p. shall not exceed 50 mW within any 1 MHz bandwidth.

### RSS-199 §4.4

For mobile subscriber equipment operating in the Band 2500-2690MHz, the e.i.r.p. shall not exceed 2 W.

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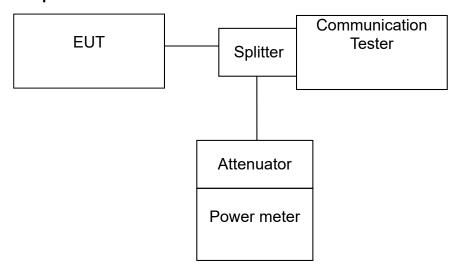
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#### 7.2 **Test Set-up**



**Note:** Measurement setup for testing on Antenna connector

#### 7.3 **Output Power Measurement Applicable Guideance**

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading.

KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results.

All LTE bands conducted average power is obtained from the simulator telecommunication test set.

#### 7.4 Determining ERP and/or EIRP from conducted RF output power measurements

According to KDB 412172 D01 Power Approach,

 $EIRP = P_T + G_T - L_C$ .

ERP= EIRP-2.15,

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power

> (expressed in the same units as PT, typically dBW, dBm, or power spectral density (PSD)2), relative to either a dipole antenna (ERP) or

an isotropic antenna (EIRP);

 $P_T$ = transmitter output power, expressed in dBW, dBm, or PSD;

= gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP); Gт

= signal attenuation in the connecting cable between the transmitter

and antenna, in dB.

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#### 7.5 **Measurement Results:**

Antenna gain (dBi)

Antenna	gain (dBi)	3.05							
		ı	LTE Band 2_Up	link frequ	iency bar	nd : 1850 to 191	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.97	26.02	33	-6.98
	18607	1850.7	QPSK	1	5	22.94	25.99	33	-7.01
	10007	1030.7	QI SIK	3	2	22.95	26.00	33	-7
				6	0	22.00	25.05	33	-7.95
				1	0	22.96	26.01	33	-6.99
1.4	18900	1880	QPSK	1	5	22.91	25.96	33	-7.04
1.4	10700	1000	QI SIK	3	2	23.04	26.09	33	-6.91
				6	0	22.06	25.11	33	-7.89
				1	0	22.96	26.01	33	-6.99
	19193	1909.3	QPSK	1	5	22.99	26.04	33	-6.96
	17173	1707.3		3	2	23.07	26.12	33	-6.88
				6	0	22.06	25.11	33	-7.89
				1	0	22.23	25.28	33	-7.72
	18607	1850.7	16QAM	1	5	22.36	25.41	33	-7.59
	10007	1050.7	TOQAIVI	3	2	22.07	25.12	33	-7.88
				6	0	21.06	24.11	33	-8.89
				1	0	22.11	25.16	33	-7.84
1.4	18900	1880	16QAM	1	5	22.18	25.23	33	-7.77
1.4	10700	1000	TOCAW	3	2	22.00	25.05	33	-7.95
				6	0	21.12	24.17	33	-8.83
				1	0	22.48	25.53	33	-7.47
	19193	1909.3	16QAM	1	5	22.47	25.52	33	-7.48
	17173	1707.3	TOQAW	3	2	22.15	25.20	33	-7.8
				6	0	21.24	24.29	33	-8.71
				1	0	21.42	24.47	33	-8.53
	18607	1850.7	64QAM	1	5	21.20	24.25	33	-8.75
	10007	1030.7	04QAW	3	2	21.13	24.18	33	-8.82
				6	0	20.02	23.07	33	-9.93
				1	0	21.11	24.16	33	-8.84
1.4	18900	1880	64QAM	1	5	21.22	24.27	33	-8.73
1.4	10700	1000	UHQAIVI	3	2	21.12	24.17	33	-8.83
				6	0	20.15	23.20	33	-9.8
				1	0	21.22	24.27	33	-8.73
	19193	1909.3	64QAM	1	5	21.23	24.28	33	-8.72
	17173	1707.3	U4QAIVI	3	2	21.31	24.36	33	-8.64
				6	0	20.05	23.10	33	-9.9

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Antenna gain (dBi) 3.05

						nd : 1850 to 1910		FIDD	
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.98	26.03	33	-6.97
	18615	1851.5	QPSK	1	14	23.00	26.05	33	-6.95
	18015	1851.5	UPSK	8	4	22.11	25.16	33	-7.84
				15	0	22.13	25.18	33	-7.82
				1	0	23.05	26.10	33	-6.9
2	18900	1880	QPSK	1	14	23.03	26.08	33	-6.92
3	18900	1880		8	4	22.15	25.20	33	-7.8
				15	0	22.20	25.25	33	-7.75
				1	0	23.03	26.08	33	-6.92
	10105	1000 F	QPSK	1	14	23.07	26.12	33	-6.88
	19185	1908.5		8	4	22.17	25.22	33	-7.78
				15	0	22.18	25.23	33	-7.77
				1	0	22.46	25.51	33	-7.49
	10/15	1051 5	1/0014	1	14	22.40	25.45	33	-7.55
	18615	1851.5	16QAM	8	4	21.20	24.25	33	-8.75
			-	15	0	21.16	24.21	33	-8.79
				1	0	22.43	25.48	33	-7.52
2	10000	1000	1/0414	1	14	22.56	25.61	33	-7.39
3	18900	1880	16QAM	8	4	21.22	24.27	33	-8.73
				15	0	21.22	24.27	33	-8.73
				1	0	22.30	25.35	33	-7.65
	10105	1000 F	1/0014	1	14	22.40	25.45	33	-7.55
	19185	1908.5	16QAM	8	4	21.13	24.18	33	-8.82
				15	0	21.22	24.27	33	-8.73
				1	0	21.40	24.45	33	-8.55
	18615	1851.5	640004	1	14	21.38	24.43	33	-8.57
	18015	1831.3	64QAM	8	4	20.19	23.24	33	-9.76
				15	0	20.17	23.22	33	-9.78
				1	0	21.23	24.28	33	-8.72
3	10000	1880	640004	1	14	21.22	24.27	33	-8.73
3	18900	Ισσυ	64QAM	8	4	20.16	23.21	33	-9.79
				15	0	20.26	23.31	33	-9.69
				1	0	21.21	24.26	33	-8.74
	10105	1908.5	64QAM	1	14	21.18	24.23	33	-8.77
	19185	1908.5	04QAIVI	8	4	20.16	23.21	33	-9.79
				15	0	20.13	23.18	33	-9.82

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Antenna gain (dBi) 3.05

		l	LTE Band 2_Upl	link frequ	iency bar	nd : 1850 to 191	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.03	26.08	33	-6.92
	10/05	1852.5	QPSK	1	24	23.05	26.10	33	-6.9
	18625	1852.5	UPSK	12	6	22.20	25.25	33	-7.75
				25	0	22.16	25.21	33	-7.79
				1	0	23.14	26.19	33	-6.81
5	18900	1880	QPSK	1	24	23.15	26.20	33	-6.8
3	16900	1000	UP3K	12	6	22.23	25.28	33	-7.72
				25	0	22.25	25.30	33	-7.7
				1	0	23.05	26.10	33	-6.9
	19175	1907.5	QPSK	1	24	23.08	26.13	33	-6.87
	19175	1907.5	UPSK	12	6	22.22	25.27	33	-7.73
				25	0	22.19	25.24	33	-7.76
				1	0	22.65	25.70	33	-7.3
	18625	1852.5	16QAM	1	24	22.54	25.59	33	-7.41
	10020	1602.0		12	6	21.22	24.27	33	-8.73
				25	0	21.16	24.21	33	-8.79
		1880	16QAM	1	0	22.30	25.35	33	-7.65
5	18900			1	24	22.34	25.39	33	-7.61
3	10900	1000	TOQAW	12	6	21.34	24.39	33	-8.61
				25	0	21.26	24.31	33	-8.69
				1	0	22.22	25.27	33	-7.73
	19175	1907.5	16QAM	1	24	22.26	25.31	33	-7.69
	19175	1907.5	TOQAW	12	6	21.28	24.33	33	-8.67
				25	0	21.20	24.25	33	-8.75
				1	0	21.27	24.32	33	-8.68
	18625	1852.5	64QAM	1	24	21.35	24.40	33	-8.6
	10025	1032.3	U4QAIVI	12	6	20.23	23.28	33	-9.72
				25	0	20.22	23.27	33	-9.73
				1	0	21.51	24.56	33	-8.44
5	18900	1880	64QAM	1	24	21.42	24.47	33	-8.53
Ü	10700	1000	04QAIVI	12	6	20.39	23.44	33	-9.56
				25	0	20.21	23.26	33	-9.74
				1	0	21.22	24.27	33	-8.73
	19175	1007 5	1907.5 64QAM -	1	24	21.23	24.28	33	-8.72
	17175	1707.5		12	6	20.29	23.34	33	-9.66
				25	0	20.19	23.24	33	-9.76

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Antenna gain (dBi) 3.05

		T	'	<u> </u>	,	nd : 1850 to 191		EIDD	
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.06	26.11	33	-6.89
	18650	1855	QPSK	1	49	23.07	26.12	33	-6.88
	10000	1000	QF3K	25	12	22.17	25.22	33	-7.78
				50	0	22.18	25.23	33	-7.77
				1	0	23.22	26.27	33	-6.73
10	18900	1880	QPSK	1	49	23.22	26.27	33	-6.73
10	10900	1000	UPSK	25	12	22.33	25.38	33	-7.62
				50	0	22.31	25.36	33	-7.64
				1	0	23.20	26.25	33	-6.75
	19150	1905	QPSK	1	49	23.22	26.27	33	-6.73
	19150	1905	UPSK	25	12	22.29	25.34	33	-7.66
				50	0	22.28	25.33	33	-7.67
				1	0	22.46	25.51	33	-7.49
	10/50	1855	16QAM	1	49	22.54	25.59	33	-7.41
18650	1833	16QAW	25	12	21.21	24.26	33	-8.74	
				50	0	21.20	24.25	33	-8.75
		00 1880	16QAM	1	0	22.42	25.47	33	-7.53
10	18900			1	49	22.48	25.53	33	-7.47
10	18900	1000	TOQAW	25	12	21.34	24.39	33	-8.61
				50	0	21.36	24.41	33	-8.59
				1	0	22.30	25.35	33	-7.65
	10150	1005	1/0014	1	49	22.47	25.52	33	-7.48
	19150	1905	16QAM	25	12	21.26	24.31	33	-8.69
				50	0	21.26	24.31	33	-8.69
				1	0	21.09	24.14	33	-8.86
	10/50	1055	(4000	1	49	21.20	24.25	33	-8.75
	18650	1855	64QAM	25	12	20.20	23.25	33	-9.75
				50	0	20.29	23.34	33	-9.66
				1	0	21.42	24.47	33	-8.53
10	10000	1000	(4000	1	49	21.32	24.37	33	-8.63
10	18900	1880	64QAM	25	12	20.39	23.44	33	-9.56
				50	0	20.33	23.38	33	-9.62
				1	0	21.45	24.50	33	-8.5
	10150	1005	(4000	1	49	21.51	24.56	33	-8.44
	19150	1905	64QAM	25	12	20.27	23.32	33	-9.68
			50	0	20.23	23.28	33	-9.72	

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Antenna gain (dBi) 3.05

		l	LTE Band 2_Upl	link frequ	iency bar	nd : 1850 to 191	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.19	26.24	33	-6.76
	10/75	1857.5	QPSK	1	74	23.24	26.29	33	-6.71
	18675	1857.5	UPSK	36	18	22.28	25.33	33	-7.67
				75	0	22.27	25.32	33	-7.68
				1	0	23.30	26.35	33	-6.65
15	18900	1880	QPSK	1	74	23.24	26.29	33	-6.71
10	18900	1000	UPSK	36	18	22.41	25.46	33	-7.54
				75	0	22.33	25.38	33	-7.62
				1	0	23.26	26.31	33	-6.69
	19125	1902.5	QPSK	1	74	23.25	26.30	33	-6.7
	19123	1902.5	UPSK	36	18	22.33	25.38	33	-7.62
				75	0	22.31	25.36	33	-7.64
				1	0	22.45	25.50	33	-7.5
	18675	1857.5	16QAM	1	74	22.43	25.48	33	-7.52
	18075	1607.0		36	18	21.32	24.37	33	-8.63
				75	0	21.28	24.33	33	-8.67
		1880	16QAM	1	0	22.45	25.50	33	-7.5
15	18900			1	74	22.49	25.54	33	-7.46
13	10900	1000	TOQAW	36	18	21.40	24.45	33	-8.55
				75	0	21.40	24.45	33	-8.55
				1	0	22.50	25.55	33	-7.45
	19125	1902.5	16QAM	1	74	22.53	25.58	33	-7.42
	19123	1902.5	TOQAW	36	18	21.34	24.39	33	-8.61
				75	0	21.32	24.37	33	-8.63
_				1	0	21.55	24.60	33	-8.4
	18675	1857.5	64QAM	1	74	21.53	24.58	33	-8.42
	100/3	1037.3	U4QAIVI	36	18	20.30	23.35	33	-9.65
				75	0	20.26	23.31	33	-9.69
				1	0	21.46	24.51	33	-8.49
15	18900	1880	64QAM	1	74	21.43	24.48	33	-8.52
10	10700	1000	U4QAIVI	36	18	20.45	23.50	33	-9.5
				75	0	20.38	23.43	33	-9.57
				1	0	21.49	24.54	33	-8.46
	19125	1902.5	64QAM	1	74	21.47	24.52	33	-8.48
	1/123	1702.3	UTCAIVI	36	18	20.42	23.47	33	-9.53
				75	0	20.34	23.39	33	-9.61

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Antenna gain (dBi) 3.05

			_TE Band 2_Upl	link frequ	iency bar	nd : 1850 to 191	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.39	26.44	33	-6.56
	18700	1860	QPSK	1	99	23.33	26.38	33	-6.62
	16700	1000	UPSK	50	25	22.40	25.45	33	-7.55
				100	0	22.35	25.40	33	-7.6
				1	0	23.37	26.42	33	-6.58
20	18900	1880	QPSK	1	99	23.27	26.32	33	-6.68
20	16900	1000	UPSK	50	25	22.49	25.54	33	-7.46
				100	0	22.49	25.54	33	-7.46
				1	0	23.34	26.39	33	-6.61
	10100	1900	QPSK	1	99	23.29	26.34	33	-6.66
	19100	1900	UPSK	50	25	22.42	25.47	33	-7.53
				100	0	22.39	25.44	33	-7.56
				1	0	22.64	25.69	33	-7.31
	18700	1860	16QAM	1	99	22.50	25.55	33	-7.45
	18700	1000		50	25	21.45	24.50	33	-8.5
				100	0	21.40	24.45	33	-8.55
		1880	1/0444	1	0	22.62	25.67	33	-7.33
20	10000			1	99	22.62	25.67	33	-7.33
20	18900	1880	16QAM	50	25	21.50	24.55	33	-8.45
				100	0	21.47	24.52	33	-8.48
				1	0	22.74	25.79	33	-7.21
	10100	1000	1/0414	1	99	22.71	25.76	33	-7.24
	19100	1900	16QAM	50	25	21.48	24.53	33	-8.47
				100	0	21.43	24.48	33	-8.52
				1	0	21.42	24.47	33	-8.53
	10700	10/0	(4000	1	99	21.46	24.51	33	-8.49
	18700	1860	64QAM	50	25	20.38	23.43	33	-9.57
				100	0	20.35	23.40	33	-9.6
				1	0	21.65	24.70	33	-8.3
20	10000	1000	(4000	1	99	21.49	24.54	33	-8.46
20	18900	1880	64QAM	50	25	20.52	23.57	33	-9.43
				100	0	20.50	23.55	33	-9.45
				1	0	21.48	24.53	33	-8.47
	10100	1900	<sub>/ 40</sub>	1	99	21.49	24.54	33	-8.46
	19100		64QAM	50	25	20.42	23.47	33	-9.53
				100	0	20.42	23.47	33	-9.53

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Antenna gain (dBi)

	gair (abi)	3.4							
		ļ	LTE Band 4_Up	link frequ	iency bar	nd : 1710 to 175	5 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.11	26.51	30	-3.49
	10057	1710 7	ODCK	1	5	23.06	26.46	30	-3.54
	19957	1710.7	QPSK	3	2	23.14	26.54	30	-3.46
				6	0	22.15	25.55	30	-4.45
				1	0	23.07	26.47	30	-3.53
1.4	20175	1732.5	QPSK	1	5	23.04	26.44	30	-3.56
1.4	20175	1732.5	UPSK	3	2	23.11	26.51	30	-3.49
				6	0	22.15	25.55	30	-4.45
				1	0	23.01	26.41	30	-3.59
	20393	1754.3	QPSK	1	5	23.02	26.42	30	-3.58
	20393	1754.5	UPSK	3	2	23.06	26.46	30	-3.54
				6	0	22.05	25.45	30	-4.55
				1	0	22.23	25.63	30	-4.37
	19957	1710.7	16QAM	1	5	22.24	25.64	30	-4.36
		1710.7		3	2	22.21	25.61	30	-4.39
				6	0	21.19	24.59	30	-5.41
		1732.5	16QAM	1	0	22.23	25.63	30	-4.37
1.4	20175			1	5	22.19	25.59	30	-4.41
1.4	20175	1732.5	TOCAIVI	3	2	22.13	25.53	30	-4.47
				6	0	21.25	24.65	30	-5.35
				1	0	22.18	25.58	30	-4.42
	20393	1754.3	16QAM	1	5	22.32	25.72	30	-4.28
	20393	1704.5	TOQAW	3	2	22.19	25.59	30	-4.41
				6	0	21.15	24.55	30	-5.45
				1	0	21.44	24.84	30	-5.16
	19957	1710.7	64QAM	1	5	21.32	24.72	30	-5.28
	17707	1710.7	U4QAIVI	3	2	21.40	24.80	30	-5.2
				6	0	20.17	23.57	30	-6.43
				1	0	21.30	24.70	30	-5.3
1.4	20175	1732.5	64QAM	1	5	21.21	24.61	30	-5.39
1.4	20173	1732.3	UTUAIVI	3	2	21.32	24.72	30	-5.28
				6	0	20.12	23.52	30	-6.48
				1	0	21.31	24.71	30	-5.29
	20393	1754.3	64QAM	1	5	21.35	24.75	30	-5.25
	20373	1734.3	UTUAIVI	3	2	21.33	24.73	30	-5.27
				6	0	20.07	23.47	30	-6.53

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Antenna gain (dBi)

	gair (abi)	3.4							
		1	LTE Band 4_Up	link frequ	iency bar	nd : 1710 to 175	5 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.02	26.42	30	-3.58
	19965	1711.5	QPSK	1	14	22.96	26.36	30	-3.64
	19900	1/11.5	UPSK	8	4	22.13	25.53	30	-4.47
				15	0	22.14	25.54	30	-4.46
				1	0	23.00	26.40	30	-3.6
3	20175	1732.5	QPSK	1	14	23.03	26.43	30	-3.57
3	20175	1732.3	UPSK	8	4	22.14	25.54	30	-4.46
				15	0	22.07	25.47	30	-4.53
				1	0	23.00	26.40	30	-3.6
	20385	1753.5	QPSK	1	14	22.97	26.37	30	-3.63
	20303	1755.5	QI 3K	8	4	22.06	25.46	30	-4.54
				15	0	22.07	25.47	30	-4.53
				1	0	22.32	25.72	30	-4.28
	19965	1711.5	16QAM	1	14	22.30	25.70	30	-4.3
	17703	1711.5		8	4	21.26	24.66	30	-5.34
				15	0	21.25	24.65	30	-5.35
			16QAM	1	0	22.69	26.09	30	-3.91
3	20175	1732.5		1	14	22.53	25.93	30	-4.07
3	20173	1732.3	100/1111	8	4	21.19	24.59	30	-5.41
				15	0	21.19	24.59	30	-5.41
				1	0	22.29	25.69	30	-4.31
	20385	1753.5	16QAM	1	14	22.20	25.60	30	-4.4
	20000	1700.0	10071111	8	4	21.20	24.60	30	-5.4
				15	0	21.07	24.47	30	-5.53
				1	0	21.43	24.83	30	-5.17
	19965	1711.5	64QAM	1	14	21.30	24.70	30	-5.3
	17700		0.2	8	4	20.29	23.69	30	-6.31
				15	0	20.20	23.60	30	-6.4
				1	0	21.05	24.45	30	-5.55
3	20175	1732.5	64QAM	1	14	21.05	24.45	30	-5.55
,				8	4	20.29	23.69	30	-6.31
				15	0	20.25	23.65	30	-6.35
				1	0	21.07	24.47	30	-5.53
	20385	1753.5	1753.5 64QAM -	1	14	21.09	24.49	30	-5.51
				8	4	20.15	23.55	30	-6.45
				15	0	19.99	23.39	30	-6.61

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Antenna gain (dBi)

	gair (abi)	3.4							
		1	TE Band 4_Up	link frequ	iency bar	nd : 1710 to 175	5 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.00	26.40	30	-3.6
	10075	1710 F	ODCK	1	24	22.98	26.38	30	-3.62
	19975	1712.5	QPSK	12	6	22.18	25.58	30	-4.42
				25	0	22.13	25.53	30	-4.47
				1	0	23.09	26.49	30	-3.51
5	20175	1732.5	QPSK	1	24	23.05	26.45	30	-3.55
0	20175	1/32.3	UPSK	12	6	22.16	25.56	30	-4.44
				25	0	22.09	25.49	30	-4.51
				1	0	22.96	26.36	30	-3.64
	20375	1752.5	QPSK	1	24	22.91	26.31	30	-3.69
	20375	1/32.3	UPSK	12	6	22.07	25.47	30	-4.53
				25	0	22.08	25.48	30	-4.52
				1	0	22.45	25.85	30	-4.15
	19975	1712.5	16QAM	1	24	22.52	25.92	30	-4.08
	19975	1712.3		12	6	21.26	24.66	30	-5.34
				25	0	21.21	24.61	30	-5.39
		1732.5	16QAM	1	0	22.34	25.74	30	-4.26
5	20175			1	24	22.31	25.71	30	-4.29
5	20175	1732.5	TOCAW	12	6	21.26	24.66	30	-5.34
				25	0	21.13	24.53	30	-5.47
				1	0	22.16	25.56	30	-4.44
	20375	1752.5	16QAM	1	24	22.28	25.68	30	-4.32
	20373	1732.3	TOCAW	12	6	21.11	24.51	30	-5.49
				25	0	21.11	24.51	30	-5.49
				1	0	21.31	24.71	30	-5.29
	19975	1712.5	64QAM	1	24	21.29	24.69	30	-5.31
	17773	1712.5	04QAW	12	6	20.25	23.65	30	-6.35
				25	0	20.19	23.59	30	-6.41
				1	0	21.41	24.81	30	-5.19
5	20175	1732.5	64QAM	1	24	21.36	24.76	30	-5.24
J	20173	1732.3	UTCAW	12	6	20.28	23.68	30	-6.32
				25	0	20.09	23.49	30	-6.51
				1	0	21.18	24.58	30	-5.42
	20375	1752 5	64QAM	1	24	21.13	24.53	30	-5.47
	20373	20375 1752.5	UTQAW	12	6	20.14	23.54	30	-6.46
				25	0	20.09	23.49	30	-6.51

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Antenna gain (dBi) 3.4

			LTE Band 4_Upl	ink frequ	iency bar	nd : 1710 to 175	5 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.12	26.52	30	-3.48
	20000	1715	QPSK	1	49	23.04	26.44	30	-3.56
	20000	1/15	QPSK	25	12	22.20	25.60	30	-4.4
				50	0	22.16	25.56	30	-4.44
				1	0	23.07	26.47	30	-3.53
10	20175	1732.5	QPSK	1	49	23.09	26.49	30	-3.51
10	20175	1732.3	UP3K	25	12	22.16	25.56	30	-4.44
				50	0	22.12	25.52	30	-4.48
				1	0	23.10	26.50	30	-3.5
	20350	1750	QPSK	1	49	22.98	26.38	30	-3.62
	20330	1750	UPSK	25	12	22.08	25.48	30	-4.52
				50	0	22.09	25.49	30	-4.51
				1	0	22.56	25.96	30	-4.04
	20000	1715	16QAM	1	49	22.40	25.80	30	-4.2
	20000	1713		25	12	21.21	24.61	30	-5.39
				50	0	21.24	24.64	30	-5.36
		1732.5	16QAM	1	0	22.50	25.90	30	-4.1
10	20175			1	49	22.42	25.82	30	-4.18
10	20173	1732.5		25	12	21.23	24.63	30	-5.37
				50	0	21.17	24.57	30	-5.43
				1	0	22.35	25.75	30	-4.25
	20350	1750	16QAM	1	49	22.22	25.62	30	-4.38
	20350	1750	TOCAIVI	25	12	21.12	24.52	30	-5.48
				50	0	21.06	24.46	30	-5.54
				1	0	21.18	24.58	30	-5.42
	20000	1715	64QAM	1	49	21.11	24.51	30	-5.49
	20000	1713	UTCAWI	25	12	20.19	23.59	30	-6.41
				50	0	20.23	23.63	30	-6.37
	]			1	0	21.27	24.67	30	-5.33
10	20175	1732.5	64QAM	1	49	21.32	24.72	30	-5.28
10	20173	1732.3	UTQAW	25	12	20.24	23.64	30	-6.36
				50	0	20.15	23.55	30	-6.45
				1	0	21.45	24.85	30	-5.15
	20350	1750	64QAM —	1	49	21.30	24.70	30	-5.3
	20000		0+QAW	25	12	20.12	23.52	30	-6.48
	1		1	50	0	20.08	23.48	30	-6.52

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Antenna gain (dBi)

		l	LTE Band 4_Upl	link frequ	iency bar	nd : 1710 to 175	5 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.15	26.55	30	-3.45
	20025	1717.5	QPSK	1	74	23.04	26.44	30	-3.56
	20025	1/1/.5	UPSK	36	18	22.10	25.50	30	-4.5
				75	0	22.11	25.51	30	-4.49
				1	0	23.01	26.41	30	-3.59
15	20175	1732.5	QPSK	1	74	23.04	26.44	30	-3.56
13	20175	1/32.5	UP3K	36	18	22.17	25.57	30	-4.43
				75	0	22.11	25.51	30	-4.49
				1	0	23.15	26.55	30	-3.45
	20325	1747.5	QPSK	1	74	22.96	26.36	30	-3.64
	20325	1/4/.5	UPSK	36	18	22.15	25.55	30	-4.45
				75	0	22.23	25.63	30	-4.37
				1	0	22.36	25.76	30	-4.24
	20025	1717 5	16QAM	1	74	22.22	25.62	30	-4.38
	20025	1717.5		36	18	21.19	24.59	30	-5.41
				75	0	21.13	24.53	30	-5.47
		1722 F	1/000	1	0	22.24	25.64	30	-4.36
15	20175			1	74	22.27	25.67	30	-4.33
15	20175	1732.5	16QAM	36	18	21.23	24.63	30	-5.37
				75	0	21.18	24.58	30	-5.42
				1	0	22.56	25.96	30	-4.04
	20225	1747 5	1/0414	1	74	22.29	25.69	30	-4.31
	20325	1747.5	16QAM	36	18	21.14	24.54	30	-5.46
				75	0	21.26	24.66	30	-5.34
				1	0	21.39	24.79	30	-5.21
	20025	1717 F	640004	1	74	21.29	24.69	30	-5.31
	20025	1717.5	64QAM	36	18	20.14	23.54	30	-6.46
				75	0	20.08	23.48	30	-6.52
				1	0	21.18	24.58	30	-5.42
15	20175	1700 F	(4000	1	74	21.17	24.57	30	-5.43
15	20175	1732.5	64QAM	36	18	20.20	23.60	30	-6.4
				75	0	20.20	23.60	30	-6.4
				1	0	21.44	24.84	30	-5.16
	20225	1747 5	(4000	1	74	21.18	24.58	30	-5.42
	20325	1747.5	64QAM	36	18	20.19	23.59	30	-6.41
				75	0	20.17	23.57	30	-6.43

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Antenna gain (dBi)

7111011110	· ,	3.4							
		1	TE Band 4_Up	link frequ	iency bar	nd : 1710 to 175	5 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.17	26.57	30	-3.43
	20050	1720	QPSK	1	99	23.11	26.51	30	-3.49
	20050	1720	UPSK	50	25	22.17	25.57	30	-4.43
				100	0	22.07	25.47	30	-4.53
				1	0	23.13	26.53	30	-3.47
20	20175	1732.5	QPSK	1	99	23.06	26.46	30	-3.54
20	20175	1732.3	UPSK	50	25	22.13	25.53	30	-4.47
				100	0	22.16	25.56	30	-4.44
				1	0	23.16	26.56	30	-3.44
	20300	1745	QPSK	1	99	22.99	26.39	30	-3.61
	20300	1743	QI 3K	50	25	22.24	25.64	30	-4.36
				100	0	22.20	25.60	30	-4.4
				1	0	22.58	25.98	30	-4.02
	20050	1720	16QAM	1	99	22.44	25.84	30	-4.16
	20030	1720		50	25	21.20	24.60	30	-5.4
				100	0	21.14	24.54	30	-5.46
		1732.5	16QAM	1	0	22.35	25.75	30	-4.25
20	20175			1	99	22.42	25.82	30	-4.18
20	20173	1732.3	TOCAW	50	25	21.24	24.64	30	-5.36
				100	0	21.19	24.59	30	-5.41
				1	0	22.81	26.21	30	-3.79
	20300	1745	16QAM	1	99	22.38	25.78	30	-4.22
	20300	1743	100/11/1	50	25	21.27	24.67	30	-5.33
				100	0	21.23	24.63	30	-5.37
				1	0	21.37	24.77	30	-5.23
İ	20050	1720	64QAM	1	99	21.27	24.67	30	-5.33
	20000	1720	012111	50	25	20.16	23.56	30	-6.44
				100	0	20.20	23.60	30	-6.4
				1	0	21.23	24.63	30	-5.37
20	20175	1732.5	64QAM	1	99	21.28	24.68	30	-5.32
		52.0	3.2.	50	25	20.25	23.65	30	-6.35
				100	0	20.20	23.60	30	-6.4
				1	0	21.31	24.71	30	-5.29
	20300	1745	64QAM	1	99	21.13	24.53	30	-5.47
				50	25	20.25	23.65	30	-6.35
				100	0	20.28	23.68	30	-6.32

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Antenna gain (dBi) 3.2

			LTE Ba	nd 5_Upl	link frequ	ency band: 824	4 to 849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.62	23.67	25.82	38.45	-14.78
	20407	824.7	QPSK	1	5	22.66	23.71	25.86	38.45	-14.74
	20407	024.7	UPSK	3	2	22.72	23.77	25.92	38.45	-14.68
				6	0	21.71	22.76	24.91	38.45	-15.69
				1	0	22.74	23.79	25.94	38.45	-14.66
1.4	20525	836.5	QPSK	1	5	22.73	23.78	25.93	38.45	-14.67
1.4	20020	030.3	UPSK	3	2	22.80	23.85	26.00	38.45	-14.60
				6	0	21.77	22.82	24.97	38.45	-15.63
				1	0	22.84	23.89	26.04	38.45	-14.56
	20/42	040.2	QPSK	1	5	22.80	23.85	26.00	38.45	-14.60
	20643	848.3	UPSK	3	2	22.88	23.93	26.08	38.45	-14.52
				6	0	21.89	22.94	25.09	38.45	-15.51
				1	0	22.02	23.07	25.22	38.45	-15.38
	20407	0047	16QAM	1	5	22.15	23.20	25.35	38.45	-15.25
20407	824.7	16QAIVI	3	2	21.79	22.84	24.99	38.45	-15.61	
			-	6	0	20.78	21.83	23.98	38.45	-16.62
			1/011/	1	0	21.73	22.78	24.93	38.45	-15.67
	00505	2015		1	5	21.89	22.94	25.09	38.45	-15.51
1.4	20525	836.5	16QAM	3	2	21.84	22.89	25.04	38.45	-15.56
				6	0	20.81	21.86	24.01	38.45	-16.59
				1	0	21.96	23.01	25.16	38.45	-15.44
	00/40	0.40.0	4/0414	1	5	22.04	23.09	25.24	38.45	-15.36
	20643	848.3	16QAM	3	2	21.83	22.88	25.03	38.45	-15.57
				6	0	20.95	22.00	24.15	38.45	-16.45
				1	0	20.90	21.95	24.10	38.45	-16.50
	00407	004.7	(404)4	1	5	20.98	22.03	24.18	38.45	-16.42
	20407	824.7	64QAM	3	2	20.95	22.00	24.15	38.45	-16.45
				6	0	19.75	20.80	22.95	38.45	-17.65
				1	0	21.08	22.13	24.28	38.45	-16.32
	00505	00/ 5		1	5	20.94	21.99	24.14	38.45	-16.46
1.4	20525	836.5	64QAM	3	2	21.01	22.06	24.21	38.45	-16.39
				6	0	19.81	20.86	23.01	38.45	-17.59
				1	0	21.04	22.09	24.24	38.45	-16.36
				1	5	20.97	22.02	24.17	38.45	-16.43
	20643	848.3	64QAM	3	2	21.01	22.06	24.21	38.45	-16.39
			6	0	19.98	21.03	23.18	38.45	-17.42	

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Antenna gain (dBi)

	yairi (ubi)	3.2								
			LTE Ba	nd 5_Upl	link frequ	ency band : 824	4 to 849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.70	23.75	25.90	38.45	-14.70
	20415	825.5	QPSK	1	14	22.64	23.69	25.84	38.45	-14.76
	20415	025.5	QF3K	8	4	21.80	22.85	25.00	38.45	-15.60
				15	0	21.80	22.85	25.00	38.45	-15.60
				1	0	22.84	23.89	26.04	38.45	-14.56
3	20525	836.5	QPSK	1	14	22.79	23.84	25.99	38.45	-14.61
]	20323	030.3	QI SIK	8	4	21.87	22.92	25.07	38.45	-15.53
				15	0	21.87	22.92	25.07	38.45	-15.53
				1	0	22.76	23.81	25.96	38.45	-14.64
	20635	847.5	QPSK	1	14	22.84	23.89	26.04	38.45	-14.56
	20033	047.5	QF3K	8	4	21.96	23.01	25.16	38.45	-15.44
				15	0	21.98	23.03	25.18	38.45	-15.42
				1	0	22.06	23.11	25.26	38.45	-15.34
	20415	825.5	16QAM	1	14	22.13	23.18	25.33	38.45	-15.27
	20415		TOQAW	8	4	20.77	21.82	23.97	38.45	-16.63
				15	0	20.87	21.92	24.07	38.45	-16.53
				1	0	21.97	23.02	25.17	38.45	-15.43
3	20525	836.5	16QAM	1	14	22.06	23.11	25.26	38.45	-15.34
3	20323	030.3	TOQAIVI	8	4	20.94	21.99	24.14	38.45	-16.46
				15	0	20.88	21.93	24.08	38.45	-16.52
				1	0	22.20	23.25	25.40	38.45	-15.20
	20635	847.5	16QAM	1	14	22.07	23.12	25.27	38.45	-15.33
	20033	047.5	TOQAIVI	8	4	21.04	22.09	24.24	38.45	-16.36
				15	0	20.89	21.94	24.09	38.45	-16.51
				1	0	20.69	21.74	23.89	38.45	-16.71
	20415	825.5	64QAM	1	14	20.66	21.71	23.86	38.45	-16.74
	20413	023.3	04QAIVI	8	4	19.94	20.99	23.14	38.45	-17.46
				15	0	19.84	20.89	23.04	38.45	-17.56
				1	0	20.87	21.92	24.07	38.45	-16.53
3	20525	836.5	64QAM	1	14	20.92	21.97	24.12	38.45	-16.48
	20020	030.5	UHQAIVI	8	4	19.88	20.93	23.08	38.45	-17.52
				15	0	19.82	20.87	23.02	38.45	-17.58
				1	0	21.18	22.23	24.38	38.45	-16.22
	20635	847.5	64QAM	1	14	21.22	22.27	24.42	38.45	-16.18
	20033	047.0	UHQAIVI	8	4	20.04	21.09	23.24	38.45	-17.36
				15	0	19.93	20.98	23.13	38.45	-17.47



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Antenna gain (dBi)

	yairi (ubi)	3.2								
			LTE Ba	nd 5_Upl	link frequ	ency band : 824	1 to 849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
	20425	826.5	QPSK	1	0	22.76	23.81	25.96	38.45	-14.64
				1	24	22.82	23.87	26.02	38.45	-14.58
				12	6	21.99	23.04	25.19	38.45	-15.41
				25	0	21.93	22.98	25.13	38.45	-15.47
		836.5		1 0 22.81 23.86	26.01	38.45	-14.59			
5	20525		QPSK	1	24	22.86	23.91	26.06	38.45	-14.54
3	20020			12	6	21.93	22.98	25.13	38.45	-15.47
				25	0	21.89	22.94	25.09	38.45	-15.51
		846.5		1	0	22.79	23.84	25.99	38.45	-14.61
	20625		QPSK	1	24	22.84	23.89	26.04	38.45	-14.56
				12	6	21.98	23.03	25.18	38.45	-15.42
				25	0	21.86	22.91	25.06	38.45	-15.54
		826.5		1	0	22.09	23.14	25.29	38.45	-15.31
	20425		16QAM	1	24	22.01	23.06	25.21	38.45	-15.39
			TOQAIVI	12	6	20.90	21.95	24.10	38.45	-16.50
				25	0	20.90	21.95	24.10	38.45	-16.50
	20525	836.5		1	0	21.94	22.99	25.14	38.45	-15.46
5			16QAM	1	24	21.97	23.02	25.17	38.45	-15.43
5				12	6	20.96	22.01	24.16	38.45	-16.44
				25	0	20.85	21.90	24.05	38.45	-16.55
	20625	846.5	16QAM	1	0	22.01	23.06	25.21	38.45	-15.39
				1	24	22.00	23.05	25.20	38.45	-15.40
				12	6	20.95	22.00	24.15	38.45	-16.45
				25	0	20.85	21.90	24.05	Limit (dBm)  38.45	-16.55
	20425	826.5	64QAM	1	0	21.08	22.13	24.28		-16.32
				1	24	21.03	22.08	24.23		-16.37
				12	6	19.92	20.97	23.12		-17.48
				25	0	19.95	21.00	23.15	38.45	-17.45
	20525	836.5	64QAM	1	0	20.93	21.98	24.13		-16.47
5				1	24	20.96	22.01	24.16		-16.44
				12	6	19.96	21.01	23.16		-17.44
				25	0	19.91	20.96	23.11	38.45	-17.49
	20625	846.5	64QAM	1	0	21.04	22.09	24.24	38.45	-16.36
				1	24	21.09	22.14	24.29	38.45	-16.31
			04QAIVI	12	6	19.99	21.04	23.19	38.45	-17.41
				25	0	19.90	20.95	23.10	38.45	-17.50



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Antenna gain (dBi) 3.2

	. ,									
			LTE Ba	nd 5_Up	link frequ	ency band: 82	4 to 849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.92	23.97	26.12	38.45	-14.48
	20450	829	QPSK	1	49	22.87	23.92	26.07	38.45	-14.53
				25	12	21.92	22.97	25.12	38.45	-15.48
				50	0	21.89	22.94	25.09	38.45	-15.51
				1	0	22.78	23.83	25.98	38.45 -14.62	-14.62
10	20525	024 5	QPSK	1	49	22.90	23.95	26.10	38.45	-14.50
10	20525	836.5		25	12	21.93	22.98	25.13	38.45	-15.47
				50	0	21.91	22.96	25.11	38.45	-15.49
				1	0	22.85	23.90	26.05		-14.55
	20400	044	QPSK	1	49	22.90	23.95	26.10	38.45	-14.50
	20600	844		25	12	21.97	23.02	25.17	38.45	-15.43
				50	0	21.94	22.99	25.14	38.45	-15.46
	20450	829		1	0	21.90	22.95	25.10	38.45	-15.50
			1/0414	1	49	22.08	23.13	25.28	38.45	-15.32
			16QAM	25	12	20.89	21.94	24.09	38.45	-16.51
				50	0	20.91	21.96	24.11	38.45	-16.49
		836.5		1	0	22.08	23.13	25.28	38.45	-15.32
10	20525		16QAM	1	49	22.08	23.13	25.28	38.45	-15.32
10				25	12	20.96	22.01	24.16	38.45	-16.44
				50	0	20.92	21.97	24.12	38.45	-16.48
	20600	844	16QAM	1	0	22.36	23.41	25.56	38.45	-15.04
				1	49	22.35	23.40	25.55	38.45	-15.05
				25	12	20.88	21.93	24.08	38.45	-16.52
				50	0	20.90	21.95	24.10	e Limit (dBm)  38.45	-16.50
	20450	829	64QAM	1	0	20.83	21.88	24.03	38.45	-16.57
				1	49	20.99	22.04	24.19	38.45	-16.41
				25	12	19.95	21.00	23.15		-17.45
				50	0	19.88	20.93	23.08		-17.52
	20525	836.5	64QAM	1	0	21.13	22.18	24.33	38.45	-16.27
10				1	49	21.12	22.17	24.32	38.45	-16.28
10				25	12	19.94	20.99	23.14		-17.46
				50	0	19.86	20.91	23.06		-17.54
	20600	844	64QAM	1	0	21.07	22.12	24.27		-16.33
				1	49	21.14	22.19	24.34		-16.26
				25	12	19.96	21.01	23.16	38.45	-17.44
				50	0	19.89	20.94	23.09	38.45	-17.51

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Antenna gain (dBi) 3.12

7 ti itorii i d	3 · · ·	3.12							
		1	TE Band 7_Up	link frequ	iency bar	nd : 2500 to 257	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
		2502.5	QPSK	1	0	22.70	25.82	33	-7.18
	20775			1	24	22.67	25.79	33	-7.21
				12	6	21.81	24.93	33	-8.07
				25	0	21.76	24.88	33	-8.12
				1	0	22.63	25.75	33	-7.25
5	21100	2535	QPSK	1	24	22.67	25.79	33	-7.21
3		2030		12	6	21.77	24.89	33	-8.11
				25	0	21.73	24.85	33	-8.15
		2567.5		1	0	22.60	25.72	33	-7.28
	21425		QPSK	1	24	22.65	25.77	33	-7.23
	21420			12	6	21.74	24.86	33	-8.14
				25	0	21.74	24.86	33	-8.14
		2502.5		1	0	21.81	24.93	33	-8.07
	20775		16QAM	1	24	21.85	24.97	33	-8.03
			TOCAW	12	6	20.84	23.96	33	-9.04
				25	0	20.77	23.89	33	-9.11
		2535		1	0	21.82	24.94	33	-8.06
5	21100		16QAM	1	24	21.80	24.92	33	-8.08
J				12	6	20.81	23.93	33	-9.07
				25	0	20.76	23.88	33	-9.12
	21425	2567.5	16QAM	1	0	21.77	24.89	33	-8.11
				1	24	21.81	24.93	33	-8.07
				12	6	20.77	23.89	33	-9.11
				25	0	20.74	23.86	33	-9.14
	20775	2502.5	64QAM	1	0	20.89	24.01	33	-8.99
				1	24	20.98	24.10	33	-8.9
				12	6	19.90	23.02	33	-9.98
				25	0	19.70	22.82	33	-10.18
	21100	2535		1	0	20.77	23.89	33	-9.11
5			64QAM	1	24	20.82	23.94	33	-9.06
				12	6	19.84	22.96	33	-10.04
				25	0	19.77	22.89	33	-10.11
	21425	2567.5		1	0	20.93	24.05	33	-8.95
			64QAM	1	24	20.95	24.07	33	-8.93
				12	6	19.81	22.93	33	-10.07
				25	0	19.76	22.88	33	-10.12

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Antenna gain (dBi) 3.12

7111011110	· ,	3.12							
		1	LTE Band 7_Up	link frequ	iency bar	nd : 2500 to 257	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.63	25.75	33	-7.25
	20000	2505	ODCK	1	49	22.68	25.80	33	-7.2
	20800	2505	QPSK	25	12	21.77	24.89	33	-8.11
				50	0	21.77	24.89	33	-8.11
				1	0	22.70	25.82	33	-7.18
10	21100	2535	QPSK	1	49	22.78	25.90	33	-7.1
10	21100	2030	UPSK	25	12	21.76	24.88	33	-8.12
				50	0	21.76	24.88	33	-8.12
				1	0	22.62	25.74	33	-7.26
	21400	2565	QPSK	1	49	22.67	25.79	33	-7.21
	21400	2505	UPSK	25	12	21.73	24.85	33	-8.15
				50	0	21.73	24.85	33	-8.15
				1	0	21.91	25.03	33	-7.97
	20800	2505	16QAM	1	49	21.94	25.06	33	-7.94
	20000	2505	TOUAIVI	25	12	20.82	23.94	33	-9.06
				50	0	20.78	23.90	33	-9.1
				1	0	21.96	25.08	33	-7.92
10	21100	2535	16QAM	1	49	22.11	25.23	33	-7.77
10	21100	2555	TOCAM	25	12	20.76	23.88	33	-9.12
				50	0	20.77	23.89	33	-9.11
				1	0	22.04	25.16	33	-7.84
	21400	2565	16QAM	1	49	22.09	25.21	33	-7.79
	21400	2505	TOQAW	25	12	20.73	23.85	33	-9.15
				50	0	20.71	23.83	33	-9.17
				1	0	20.83	23.95	33	-9.05
	20800	2505	64QAM	1	49	20.92	24.04	33	-8.96
	20000	2300	U4QAIVI	25	12	19.80	22.92	33	-10.08
				50	0	19.77	22.89	33	-10.11
				1	0	21.01	24.13	33	-8.87
10	21100	2535	64QAM	1	49	21.04	24.16	33	-8.84
10	21100	2000	UTCAW	25	12	19.82	22.94	33	-10.06
				50	0	19.76	22.88	33	-10.12
				1	0	20.73	23.85	33	-9.15
	21400	2565	64QAM	1	49	20.90	24.02	33	-8.98
	21700	2303	UTQAW	25	12	19.71	22.83	33	-10.17
ı				50	0	19.76	22.88	33	-10.12

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Antenna gain (dBi) 3.12

			TE Band 7_Upl	link frequ	iency bar	nd : 2500 to 257	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.59	25.71	33	-7.29
	20825	2507.5	QPSK	1	74	22.69	25.81	33	-7.19
	20823	2507.5	UPSK	36	18	21.80	24.92	33	-8.08
				75	0	21.75	24.87	33	-8.13
				1	0	22.65	25.77	33	-7.23
15	21100	2535	QPSK	1	74	22.64	25.76	33	-7.24
13	21100	2030	UPSK	36	18	21.82	24.94	33	-8.06
				75	0	21.77	24.89	33	-8.11
				1	0	22.62	25.74	33	-7.26
	21375	2562.5	QPSK	1	74	22.68	25.80	33	-7.2
	21375	2302.3	UPSK	36	18	21.80	24.92	33	-8.08
				75	0	21.77	24.89	33	-8.11
				1	0	21.78	24.90	33	-8.1
	20825	2507.5	16QAM	1	74	21.77	24.89	33	-8.11
	20825	2507.5	ΙουΑίνι	36	18	20.81	23.93	33	-9.07
				75	0	20.74	23.86	33	-9.14
				1	0	21.94	25.06	33	-7.94
15	21100	2535	16QAM	1	74	22.04	25.16	33	-7.84
13	21100	2030	TOQAIVI	36	18	20.83	23.95	33	-9.05
				75	0	20.77	23.89	33	-9.11
				1	0	21.98	25.10	33	-7.9
	21275	2542.5	14000	1	74	22.06	25.18	33	-7.82
	21375	2562.5	16QAM	36	18	20.75	23.87	33	-9.13
				75	0	20.75	23.87	33	-9.13
				1	0	20.80	23.92	33	-9.08
	20825	2507.5	64QAM	1	74	20.77	23.89	33	-9.11
	20823	2307.3	04QAIVI	36	18	19.84	22.96	33	-10.04
				75	0	19.81	22.93	33	-10.07
				1	0	20.96	24.08	33	-8.92
15	21100	2535	64QAM	1	74	21.08	24.20	33	-8.8
13	21100	2030	04QAIVI	36	18	19.82	22.94	33	-10.06
				75	0	19.80	22.92	33	-10.08
				1	0	20.59	23.71	33	-9.29
	21375	2562.5	64QAM	1	74	20.73	23.85	33	-9.15
	213/3	2302.3	U4QAIVI	36	18	19.86	22.98	33	-10.02
				75	0	19.76	22.88	33	-10.12

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Antenna gain (dBi) 3.12

7 ti iterina	· ,	3.12							
		ı	TE Band 7_Up	link frequ	iency bar	nd: 2500 to 257	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.78	25.90	33	-7.1
	20050	2510	ODCK	1	99	22.70	25.82	33	-7.18
	20850	2510	QPSK	50	25	21.78	24.90	33	-8.1
				100	0	21.78	24.90	33	-8.1
				1	0	22.56	25.68	33	-7.32
20	21100	2535	QPSK	1	99	22.75	25.87	33	-7.13
20	21100	2030	UPSK	50	25	21.79	24.91	33	-8.09
				100	0	21.74	24.86	33	-8.14
				1	0	22.60	25.72	33	-7.28
	21350	2560	QPSK	1	99	22.63	25.75	33	-7.25
	21300	2500	UPSK	50	25	21.78	24.90	33	-8.1
				100	0	21.73	24.85	33	-8.15
				1	0	21.86	24.98	33	-8.02
	20850	2510	QPSK	1	99	21.97	25.09	33	-7.91
	20000	2510	UPSK	50	25	20.81	23.93	33	-9.07
				100	0	20.78	23.90	33	-9.1
				1	0	22.04	25.16	33	-7.84
20	21100	2535	QPSK	1	99	22.11	25.23	33	-7.77
20	21100	2000	QF3K	50	25	20.80	23.92	33	-9.08
				100	0	20.78	23.90	33	-9.1
				1	0	21.89	25.01	33	-7.99
	21350	2560	QPSK	1	99	21.88	25.00	33	-8
	21330	2300	QI 3K	50	25	20.73	23.85	33	-9.15
				100	0	20.68	23.80	33	-9.2
				1	0	20.71	23.83	33	-9.17
	20850	2510	QPSK	1	99	20.75	23.87	33	-9.13
	20000	2310	Qi Six	50	25	19.79	22.91	33	-10.09
				100	0	19.78	22.90	33	-10.1
				1	0	20.77	23.89	33	-9.11
20	21100	2535	QPSK	1	99	20.92	24.04	33	-8.96
20	21100	2000	Qi Six	50	25	19.81	22.93	33	-10.07
				100	0	19.79	22.91	33	-10.09
				1	0	20.83	23.95	33	-9.05
	21350	2560	QPSK	1	99	20.93	24.05	33	-8.95
	21330	2300	Qi Sik	50	25	19.76	22.88	33	-10.12
				100	0	19.72	22.84	33	-10.16

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2.51 Antenna gain (dBi)

		2.51								
			LTE Bar	nd 12_Up	link frequ	uency band: 69				
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	23.35	23.71	25.86	34.77	-11.06
	23017	699.7	QPSK	1	5	23.38	23.74	25.89	34.77	-11.03
	23017	099.7	UPSK	3	2	23.44	23.80	25.95	34.77	-10.97
				6	0	22.47	22.83	24.98	34.77	-11.94
				1	0	23.46	23.82	25.97	34.77	-10.95
1.4	23095	707.5	QPSK	1	5	23.47	23.83	25.98	34.77	-10.94
1.4	23093	707.5	UPSK	3	2	23.43	23.79	25.94	34.77	-10.98
				6	0	22.56	22.92	25.07	34.77	-11.85
				1	0	23.49	23.85	26.00	34.77	-10.92
	23173	715.5	QPSK	1	5	23.46	23.82	25.97	34.77	-10.95
	231/3	/10.0	UPSK	3	2	23.47	23.83	25.98	34.77	-10.94
				6	0	22.52	22.88	25.03	34.77	-11.89
				1	0	22.67	23.03	25.18	34.77	-11.74
	23017	699.7	16QAM	1	5	22.73	23.09	25.24	34.77	-11.68
	23017	099.7	TOQAW	3	2	22.44	22.80	24.95	34.77	-11.97
				6	0	21.48	21.84	23.99	34.77	-12.93
				1	0	22.73	23.09	25.24	34.77	-11.68
1.4	23095	707.5	16QAM	1	5	22.71	23.07	25.22	34.77	-11.70
1.4	23093	707.5	TOQAW	3	2	22.60	22.96	25.11	34.77	-11.81
				6	0	21.63	21.99	24.14	34.77	-12.78
				1	0	22.79	23.15	25.30	34.77	-11.62
	23173	715.5	16QAM	1	5	22.87	23.23	25.38	34.77	-11.54
	23173	713.3	TOQAW	3	2	22.55	22.91	25.06	34.77	-11.86
				6	0	21.69	22.05	24.20	34.77	-12.72
				1	0	21.41	21.77	23.92	34.77	-13.00
	23017	699.7	64QAM	1	5	21.28	21.64	23.79	34.77	-13.13
	23017	077.7	U4QAW	3	2	21.62	21.98	24.13	34.77	-12.79
				6	0	20.43	20.79	22.94	34.77	-13.98
				1	0	21.60	21.96	24.11	34.77	-12.81
1.4	23095	707.5	64QAM	1	5	21.66	22.02	24.17	34.77	-12.75
1.4	23073	101.5	U4QAW	3	2	21.61	21.97	24.12	34.77	-12.80
				6	0	20.59	20.95	23.10	34.77	-13.82
				1	0	21.68	22.04	24.19	34.77	-12.73
	23173	715.5	64QAM	1	5	21.81	22.17	24.32	34.77	-12.60
	23173	/10.0	U4QAW	3	2	21.72	22.08	24.23	34.77	-12.69
				6	0	20.51	20.87	23.02	34.77	-13.90

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23025

23095

23165

3

700.5

707.5

714.5

2.51

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Antenna gain (dBi) LTE Band 12\_Uplink frequency band: 699 to 716 MHz Conducted **ERP EIRP ERP** BW UL Frequency RB **RB** Margin Modulation Average Average Average I imit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 23.75 1 0 23.39 25.90 34.77 -11.02 1 14 23.48 23.84 25.99 34.77 -10.93 23025 700.5 **QPSK** 22.52 8 4 22.88 25.03 34.77 -11.89 15 0 22.99 25.14 34.77 -11.78 22.63 1 0 23.49 23.85 26.00 34.77 -10.92 1 14 23.43 23.79 25.94 34.77 -10.98 3 23095 707.5 **QPSK** 23.02 8 4 22.66 25.17 34.77 -11.75 -11.80 15 0 22.61 22.97 25.12 34.77 -11.00 23.41 23.77 25.92 34.77 0 1 14 25.96 -10.96 23.45 23.81 34.77 1 23165 714.5 **QPSK** 22.64 23.00 25.15 -11.77 8 4 34.77 15 0 22.62 22.98 25.13 34.77 -11.79 0 22.95 23.31 25.46 34.77 -11.46 14 22.84 23.20 25.35 34.77 -11.57 23025 700.5 16QAM 8 4 21.59 21.95 24.10 34.77 -12.82 21.69 22.05 24.20 15 0 34.77 -12.7225.48 0 22.97 23.33 34.77 -11.44 23.41 25.56 1 14 23.05 34.77 -11.36 3 23095 707.5 16OAM 8 4 21.66 22.02 24.17 34.77 -12.75 15 0 21.63 21.99 24.14 34.77 -12.78 22.76 23.12 25.27 34.77 -11.65 1 0 1 14 22.64 23.00 25.15 34.77 -11.77 23165 714.5 16QAM 8 4 21.71 22.07 24.22 34.77 -12.70 15 0 21.62 21.98 24.13 34.77 -12.79 1 0 21.85 22.21 24.36 34.77 -12.56

14

4

0

0

14

4

0

0

14

4

0

1

8

15

1

8

15

8

15

64QAM

64QAM

64QAM

21.75

20.67

20.62

21.68

21.69

20.70

20.65

21.81

21.78

20.64

20.62

22.11

21.03

20.98

22.04

22.05

21.06

21.01

22.17

22.14

21.00

20.98

24.26

23.18

23.13

24.19

24.20

23.21

23.16

24.32

24.29

23.15

23.13

34.77

34.77

34.77

34.77

34.77

34.77

34.77

34.77

34.77

34.77

34.77

-12.66

-13.74

-13.79

-12.73

-12.72

-13.71

-13.76

-12.60

-12.63

-13.77

-13.79

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Page: 42 of 231

Antenna gain (dBi) 2.51 LTE Band 12\_Uplink frequency band: 699 to 716 MHz Conducted **ERP EIRP ERP** BW UL Frequency RB **RB** Margin Modulation Average Average Average I imit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 1 0 23.48 23.84 25.99 34.77 -10.93 1 24 23.39 23.75 25.90 34.77 -11.02 23035 701.5 **QPSK** 22.97 12 6 22.61 25.12 34.77 -11.80 25 0 23.02 25.17 34.77 -11.75 22.66 1 0 23.45 23.81 25.96 34.77 -10.96 1 24 23.43 23.79 25.94 34.77 -10.98 5 23095 707.5 **QPSK** 23.06 12 6 22.70 25.21 34.77 -11.71 23.01 25 22.65 25.16 34.77 -11.76 0 23.49 26.00 34.77 -10.92 0 23.85 1 24 25.93 -10.99 23.42 23.78 34.77 1 23155 713.5 **QPSK** 22.63 22.99 25.14 -11.78 12 34.77 6 25 0 22.57 22.93 25.08 34.77 -11.84 0 22.85 23.21 25.36 34.77 -11.56 24 22.86 23.22 25.37 34.77 -11.55 23035 701.5 16QAM 12 6 21.67 22.03 24.18 34.77 -12.74 25 21.65 22.01 24.16 0 34.77 -12.760 22.70 23.06 25.21 34.77 -11.71 22.79 25.30 1 24 23.15 34.77 -11.62 5 23095 707.5 16OAM 12 21.70 22.06 24.21 34.77 -12.71 6 25 0 21.70 22.06 24.21 34.77 -12.71 0 22.95 23.31 25.46 34.77 -11.46 1 1 24 22.88 23.24 25.39 34.77 -11.53 23155 713.5 16QAM 12 6 21.67 22.03 24.18 34.77 -12.74 25 0 21.53 21.89 24.04 34.77 -12.88 21.98 1 0 21.62 24.13 34.77 -12.79 21.99 24 21.63 24.14 34.77 -12.78 1 23035 701.5 64QAM 21.06 20.70 12 23.21 34.77 -13.71 6 25 0 20.62 20.98 23.13 34.77 -13.79 22.00 1 0 21.64 24.15 34.77 -12.77 24 21.71 22.07 24.22 34.77 -12.70 1 5 23095 707.5 64QAM 12 6 20.75 21.11 23.26 34.77 -13.66

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25

12

25

64QAM

0

0

24

6

0

20.68

21.73

21.74

20.69

20.57

21.04

22.09

22.10

21.05

20.93

23.19

24.24

24.25

23.20

23.08

34.77

34.77

34.77

34.77

34.77

-13.73

-12.68

-12.67

-13.72

-13.84

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Antenna gain (dBi) 2.51

			LTED	- 1 10 11	lind, for		00 t = 717 MI			
			L I E Bar	1d 12_Up	link frequ	uency band : 69				
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	23.48	23.84	25.99	34.77	-10.93
	23060	704	QPSK	1	49	23.43	23.79	25.94	34.77	-10.98
	23000	704	QF3K	25	12	22.76	23.12	25.27	34.77	-11.65
				50	0	22.72	23.08	25.23	34.77	-11.69
				1	0	23.46	23.82	25.97	34.77	-10.95
10	23095	707.5	QPSK	1	49	23.39	23.75	25.90	34.77	-11.02
10	23095	707.5	UPSK	25	12	22.71	23.07	25.22	34.77	-11.70
				50	0	22.65	23.01	25.16	34.77	-11.76
				1	0	23.37	23.73	25.88	34.77	-11.04
	23130	711	QPSK	1	49	23.31	23.67	25.82	34.77	-11.10
	23130	/11	QP5K	25	12	22.65	23.01	25.16	34.77	-11.76
				50	0	22.61	22.97	25.12	34.77	-11.80
				1	0	22.46	22.82	24.97	34.77	-11.95
	220/0	704	1/0414	1	49	22.64	23.00	25.15	34.77	-11.77
	23060	704	16QAM	25	12	21.74	22.10	24.25	34.77	-12.67
				50	0	21.73	22.09	24.24	34.77	-12.68
				1	0	22.58	22.94	25.09	34.77	-11.83
10	22005	707.5	1/0414	1	49	22.71	23.07	25.22	34.77	-11.70
10	23095	707.5	16QAM	25	12	21.72	22.08	24.23	34.77	-12.69
				50	0	21.63	21.99	24.14	34.77	-12.78
				1	0	23.09	23.45	25.60	34.77	-11.32
	22120	711	1/0414	1	49	23.02	23.38	25.53	34.77	-11.39
	23130	711	16QAM	25	12	21.64	22.00	24.15	34.77	-12.77
				50	0	21.58	21.94	24.09	34.77	-12.83
				1	0	21.74	22.10	24.25	34.77	-12.67
	220/0	704	(4001	1	49	21.91	22.27	24.42	34.77	-12.50
	23060	704	64QAM	25	12	20.68	21.04	23.19	34.77	-13.73
				50	0	20.73	21.09	23.24	34.77	-13.68
				1	0	21.71	22.07	24.22	34.77	-12.70
10	22005	707.5	(4000	1	49	21.83	22.19	24.34	34.77	-12.58
10	23095	707.5	64QAM	25	12	20.70	21.06	23.21	34.77	-13.71
				50	0	20.68	21.04	23.19	34.77	-13.73
				1	0	21.86	22.22	24.37	34.77	-12.55
	22122	744	(40444	1	49	21.76	22.12	24.27	34.77	-12.65
	23130	711	64QAM	25	12	20.67	21.03	23.18	34.77	-13.74
				50	0	20.65	21.01	23.16	34.77	-13.76

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2.51

Report No.: TERF2206000793ER

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Antenna gain (dBi) LTE Band 13\_Uplink frequency band: 777 to 787 MHz Conducted **ERP EIRP ERP** BW UL Frequency RB **RB** Margin Modulation Average Average Average I imit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 1 0 22.64 23.00 25.15 34.77 -11.77 1 24 22.66 23.02 25.17 34.77 -11.75 23205 779.5 **QPSK** 22.25 -12.52 12 6 21.89 24.40 34.77 25 0 21.90 22.26 24.41 34.77 -12.51 1 0 22.81 23.17 25.32 34.77 -11.60 1 24 22.82 23.18 25.33 34.77 -11.59 5 23230 782 **QPSK** 12 6 21.98 22.34 24.49 34.77 -12.4321.94 25 22.30 24.45 34.77 -12.47 0 -11.59 22.82 25.33 34.77 0 23.18 1 24 22.76 25.27 34.77 -11.65 1 23.12 23255 784.5 **QPSK** 21.92 22.28 24.43 -12.49 12 34.77 6 25 0 21.94 22.30 24.45 34.77 -12.47 0 21.75 22.11 24.26 34.77 -12.66 24 21.98 22.34 24.49 34.77 -12.43 23205 779.5 16QAM 12 6 20.86 21.22 23.37 34.77 -13.55 25 21.23 23.38 0 20.87 34.77 -13.540 22.04 22.40 24.55 34.77 -12.37 22.15 22.51 1 24 24.66 34.77 -12.26 5 23230 782 16OAM 12 21.01 21.37 23.52 34.77 -13.40 6 25 0 20.95 21.31 23.46 34.77 -13.46 0 22.24 24.75 34.77 -12.17 1 22.60 1 24 22.18 22.54 24.69 34.77 -12.23 23255 784.5 16QAM 12 6 20.91 21.27 23.42 34.77 -13.50 25 0 20.94 21.30 23.45 34.77 -13.47 20.78 1 0 21.14 23.29 34.77 -13.6324 21.06 23.57 34.77 -13.35 1 21.42 23205 779.5 64QAM 19.99 22.50 12 20.35 34.77 -14.42 6 25 0 19.82 20.18 22.33 34.77 -14.59 -13.36 1 0 21.05 21.41 23.56 34.77 24 21.03 21.39 23.54 34.77 -13.38 1 5 23230 782 64QAM

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12

25

12

25

64QAM

6

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24

6

0

20.00

19.94

20.86

20.78

20.02

19.95

20.36

20.30

21.22

21.14

20.38

20.31

22.51

22.45

23.37

23.29

22.53

22.46

34.77

34.77

34.77

34.77

34.77

34.77

-14.41

-14.47

-13.55

-13.63

-14.39

-14.46

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Antenna	gain (dBi)	2.51								
			LTE Bar	nd 13_Up	link frequ	uency band : 77	7 to 787 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.91	23.27	25.42	34.77	-11.50
10	23230	782	QPSK	1	49	22.80	23.16	25.31	34.77	-11.61
10	23230	702	Q1 31K	25	12	21.98	22.34	24.49	34.77	-12.43
				50	0	21.96	22.32	24.47	34.77	-12.45
				1	0	21.76	22.12	24.27	34.77	-12.65
10	23230	782	16QAM	1	49	21.86	22.22	24.37	34.77	-12.55
10	23230	702	TOCAW	25	12	20.96	21.32	23.47	34.77	-13.45
				50	0	20.99	21.35	23.50	34.77	-13.42
				1	0	20.94	21.30	23.45	34.77	-13.47
10	23230	782	64QAM	1	49	21.10	21.46	23.61	34.77	-13.31
	20200	702	O T CZI WI	25	12	19.98	20.34	22.49	34.77	-14.43
				50	0	19.95	20.31	22.46	34.77	-14.46

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2.51

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Antenna gain (dBi) LTE Band 14\_Uplink frequency band: 788 to 798 MHz Conducted **ERP EIRP ERP** BW UL Frequency RB **RB** Margin Modulation Average Average Average I imit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 1 0 22.64 23.00 25.15 34.77 -11.77 1 24 22.65 23.01 25.16 34.77 -11.76 23305 790.5 **QPSK** 22.23 -12.54 12 6 21.87 24.38 34.77 25 0 21.84 22.20 24.35 34.77 -12.57 1 0 22.77 23.13 25.28 34.77 -11.64 1 24 22.62 22.98 25.13 34.77 -11.79 5 23330 793 **QPSK** 22.20 12 6 21.84 24.35 34.77 -12.5721.81 25 22.17 24.32 34.77 -12.60 0 23.05 25.20 34.77 -11.72 0 22.69 1 24 22.73 23.09 25.24 34.77 -11.68 1 23355 795.5 **QPSK** 21.85 22.21 24.36 -12.56 12 34.77 6 25 0 21.78 22.14 24.29 34.77 -12.63 0 21.82 22.18 24.33 34.77 -12.59 24 21.91 22.27 24.42 34.77 -12.50 23305 790.5 16QAM 12 6 20.91 21.27 23.42 34.77 -13.50 25 21.22 23.37 0 20.86 34.77 -13.550 22.00 22.36 24.51 34.77 -12.41 21.95 22.31 1 24 24.46 34.77 -12.46 5 23330 793 16OAM 12 20.89 21.25 23.40 34.77 -13.52 6 25 0 20.76 21.12 23.27 34.77 -13.65 0 22.21 22.57 24.72 34.77 -12.20 1 1 24 22.15 22.51 24.66 34.77 -12.26 23355 795.5 16QAM 12 6 20.82 21.18 23.33 34.77 -13.59 25 0 20.79 21.15 23.30 34.77 -13.62 1 0 20.88 21.24 23.39 34.77 -13.53 24 20.80 21.16 23.31 34.77 1 -13.61 23305 790.5 64QAM 19.91 -14.50 12 20.27 22.42 34.77 6 25 0 19.94 20.30 22.45 34.77 -14.47

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1

1

12

25

12

25

64QAM

64QAM

0

24

6

0

0

24

6

0

21.01

21.10

19.90

19.89

20.70

20.82

19.94

19.82

21.37

21.46

20.26

20.25

21.06

21.18

20.30

20.18

23.52

23.61

22.41

22.40

23.21

23.33

22.45

22.33

34.77

34.77

34.77

34.77

34.77

34.77

34.77

34.77

-13.40

-13.31

-14.51

-14.52

-13.71 -13.59

-14.47

-14.59

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5

23330

23355

793

795.5



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Antenna	gain (dBi)	2.51								
			LTE Bar	nd 14_Up	link frequ	uency band : 78	8 to 798 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.80	23.16	25.31	34.77	-11.61
10	23330	793	QPSK	1	49	22.77	23.13	25.28	34.77	-11.64
10	23330	773	Qi Sik	25	12	21.86	22.22	24.37	34.77	-12.55
				50	0	21.79	22.15	24.30	34.77	-12.62
				1	0	21.84	22.20	24.35	34.77	-12.57
10	23330	793	16QAM	1	49	22.04	22.40	24.55	34.77	-12.37
10	23330	773	TOCHIVI	25	12	20.92	21.28	23.43	34.77	-13.49
				50	0	20.85	21.21	23.36	34.77	-13.56
				1	0	20.92	21.28	23.43	34.77	-13.49
10	23330	793	64QAM	1	49	21.04	21.40	23.55	34.77	-13.37
10	2000	773	OTOMINI	25	12	19.80	20.16	22.31	34.77	-14.61
				50	0	19.84	20.20	22.35	34.77	-14.57

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2.51

Antenna gain (dBi)

5

5

23790

23825

23755

23790

23825

710

713.5

706.5

710

713.5

Report No.: TERF2206000793ER

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LTE Band 17\_Uplink frequency band: 704 to 716 MHz Conducted **ERP EIRP ERP** BW UL Frequency RB **RB** Margin Modulation Average Average Average I imit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 1 0 22.81 23.17 25.32 34.77 -11.60 1 24 22.93 23.29 25.44 34.77 -11.48 23755 706.5 **QPSK** 22.38 -12.39 12 6 22.02 24.53 34.77 25 0 22.03 22.39 24.54 34.77 -12.38 1 0 22.91 23.27 25.42 34.77 -11.50 1 24 22.94 23.30 25.45 34.77 -11.47 5 23790 710 **QPSK** 22.00 12 6 22.36 24.51 34.77 -12.41-12.49 25 21.92 22.28 24.43 34.77 0 22.89 23.25 25.40 34.77 -11.52 0 1 24 22.88 25.39 23.24 34.77 -11.53 1 23825 713.5 **QPSK** 22.05 22.41 24.56 -12.36 12 34.77 6 25 0 21.91 22.27 24.42 34.77 -12.50 0 22.01 22.37 24.52 34.77 -12.40 24 22.22 22.58 24.73 34.77 -12.19 23755 706.5 16QAM 12 6 21.06 21.42 23.57 34.77 -13.35 25 20.96 21.32 23.47 0 34.77 -13.450 22.28 22.64 24.79 34.77 -12.13

22.46

21.01

21.01

22.21

22.16

21.06

20.95

21.08

21.13

20.11

20.04

20.93

20.97

20.07

20.01

21.00

21.03

20.02

19.88

1

12

25

1

12

25

1

1

12

25

1

1

12

25

12

25

16OAM

16QAM

64QAM

64QAM

64QAM

24

6

0

0

24

6

0

0

24

6

0

0

24

6

0

0

24

6

0

22.82

21.37

21.37

22.57

22.52

21.42

21.31

21.44

21.49

20.47

20.40

21.29

21.33

20.43

20.37

21.36

21.39

20.38

20.24

24.97

23.52

23.52

24.72

24.67

23.57

23.46

23.59

23.64

22.62

22.55

23.44

23.48

22.58

22.52

23.51

23.54

22.53

22.39

-11.95

-13.40

-13.40

-12.20

-12.25

-13.35

-13.46 -13.33

-13.28

-14.30

-14.37

-13.48

-13.44

-14.34

-14.40

-13.41

-13.38

-14.39

-14.53

34.77

34.77

34.77

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2.51 Antenna gain (dBi)

			LTE Bar	nd 17_Up	link frequ	uency band: 70	4 to 716 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	23.00	23.36	25.51	34.77	-11.41
	23780	709	QPSK	1	49	22.96	23.32	25.47	34.77	-11.45
	23700	709	QF3K	25	12	22.02	22.38	24.53	34.77	-12.39
				50	0	21.97	22.33	24.48	34.77	-12.44
				1	0	22.72	23.08	25.23	34.77	-11.69
10	23790	710	QPSK	1	49	22.74	23.10	25.25	34.77	-11.67
10	23170	710	QF3K	25	12	22.02	22.38	24.53	34.77	-12.39
				50	0	22.00	22.36	24.51	34.77	-12.41
				1	0	22.79	23.15	25.30	34.77	-11.62
	23800	711	QPSK	1	49	22.86	23.22	25.37	34.77	-11.55
	23000	711	QI SIK	25	12	22.00	22.36	24.51	34.77	-12.41
				50	0	21.99	22.35	24.50	34.77	-12.42
				1	0	22.16	22.52	24.67	34.77	-12.25
	23780	709	16QAM	1	49	22.35	22.71	24.86	34.77	-12.06
	23700	707	TOQAW	25	12	21.01	21.37	23.52	34.77	-13.40
				50	0	20.96	21.32	23.47	34.77	-13.45
				1	0	21.99	22.35	24.50	34.77	-12.42
10	23790	710	16QAM	1	49	22.18	22.54	24.69	34.77	-12.23
10	23770	710	TOQAW	25	12	21.07	21.43	23.58	34.77	-13.34
				50	0	20.99	21.35	23.50	34.77	-13.42
				1	0	21.94	22.30	24.45	34.77	-12.47
	23800	711	16QAM	1	49	22.09	22.45	24.60	34.77	-12.32
	23000	711	TOQAW	25	12	20.99	21.35	23.50	34.77	-13.42
				50	0	20.92	21.28	23.43	34.77	-13.49
				1	0	21.08	21.44	23.59	34.77	-13.33
	23780	709	64QAM	1	49	21.08	21.44	23.59	34.77	-13.33
	23700	707	04QAW	25	12	20.03	20.39	22.54	34.77	-14.38
				50	0	19.98	20.34	22.49	34.77	-14.43
				1	0	21.07	21.43	23.58	34.77	-13.34
10	23790	710	64QAM	1	49	21.22	21.58	23.73	34.77	-13.19
10	23170	/10	04QAIVI	25	12	19.97	20.33	22.48	34.77	-14.44
				50	0	20.00	20.36	22.51	34.77	-14.41
				1	0	21.04	21.40	23.55	34.77	-13.37
	23800	711	64QAM	1	49	21.01	21.37	23.52	34.77	-13.40
	23000	/11	04QAIVI	25	12	20.00	20.36	22.51	34.77	-14.41
				50	0	19.99	20.35	22.50	34.77	-14.42

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Antenna gain (dBi) 3.05

		L	TE Band 25_Up	link freq	uency ba	nd : 1850 to 191	15 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.93	25.98	33	-7.02
	2/047	1050.7	ODCK	1	5	22.93	25.98	33	-7.02
	26047	1850.7	QPSK	3	2	22.94	25.99	33	-7.01
				6	0	22.04	25.09	33	-7.91
				1	0	22.73	25.78	33	-7.22
1.4	2/2/5	1000 5	ODCK	1	5	22.71	25.76	33	-7.24
1.4	26365	1882.5	QPSK	3	2	22.84	25.89	33	-7.11
				6	0	21.90	24.95	33	-8.05
				1	0	22.77	25.82	33	-7.18
	2//02	1014.0	ODCK	1	5	22.81	25.86	33	-7.14
	26683	1914.3	QPSK	3	2	22.91	25.96	33	-7.04
				6	0	21.94	24.99	33	-8.01
				1	0	22.33	25.38	33	-7.62
	2/047	1050.7	1/0414	1	5	22.30	25.35	33	-7.65
	26047	1850.7	16QAM	3	2	22.10	25.15	33	-7.85
				6	0	21.15	24.20	33	-8.8
				1	0	22.17	25.22	33	-7.78
1 /	2/2/5	1000 F	1/0414	1	5	22.07	25.12	33	-7.88
1.4	26365	1882.5	16QAM	3	2	21.90	24.95	33	-8.05
				6	0	20.95	24.00	33	-9
				1	0	21.89	24.94	33	-8.06
	2//02	1014.2	1/0414	1	5	21.95	25.00	33	-8
	26683	1914.3	16QAM	3	2	21.99	25.04	33	-7.96
				6	0	21.02	24.07	33	-8.93
				1	0	21.11	24.16	33	-8.84
	26047	1850.7	640004	1	5	21.35	24.40	33	-8.6
	26047	1850.7	64QAM	3	2	21.28	24.33	33	-8.67
				6	0	20.00	23.05	33	-9.95
				1	0	21.04	24.09	33	-8.91
1 /	24245	1882.5	640004	1	5	21.05	24.10	33	-8.9
1.4	26365	1002.5	64QAM	3	2	21.13	24.18	33	-8.82
				6	0	19.92	22.97	33	-10.03
				1	0	21.15	24.20	33	-8.8
	26683	1914.3	64QAM	1	5	20.89	23.94	33	-9.06
	20083	1914.3	04QAIVI	3	2	21.11	24.16	33	-8.84
				6	0	19.88	22.93	33	-10.07

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Antenna gain (dBi) 3.05

		L	TE Band 25_Up	link freq	uency ba	nd: 1850 to 191	15 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.94	25.99	33	-7.01
	26055	1851.5	QPSK	1	14	22.95	26.00	33	-7
	20055	1851.5	UPSK	8	4	22.15	25.20	33	-7.8
				15	0	22.13	25.18	33	-7.82
				1	0	22.81	25.86	33	-7.14
3	26365	1882.5	QPSK	1	14	22.82	25.87	33	-7.13
3	20300	1002.3	UPSK	8	4	21.95	25.00	33	-8
				15	0	22.01	25.06	33	-7.94
				1	0	22.91	25.96	33	-7.04
	26675	1913.5	QPSK	1	14	22.83	25.88	33	-7.12
	20075	1913.3	UPSK	8	4	21.97	25.02	33	-7.98
				15	0	21.98	25.03	33	-7.97
				1	0	22.21	25.26	33	-7.74
	26055	1851.5	16QAM	1	14	22.14	25.19	33	-7.81
	20000	1631.3	TOUAIVI	8	4	21.22	24.27	33	-8.73
				15	0	21.15	24.20	33	-8.8
				1	0	22.25	25.30	33	-7.7
3	26365	1882.5	16QAM	1	14	22.25	25.30	33	-7.7
3	20303	1002.3	TOQAW	8	4	21.10	24.15	33	-8.85
				15	0	21.03	24.08	33	-8.92
				1	0	22.10	25.15	33	-7.85
	26675	1913.5	16QAM	1	14	22.08	25.13	33	-7.87
	20075	1913.3	TOQAW	8	4	21.03	24.08	33	-8.92
				15	0	21.02	24.07	33	-8.93
				1	0	21.32	24.37	33	-8.63
	26055	1851.5	64QAM	1	14	21.22	24.27	33	-8.73
	20000	1031.3	U4QAIVI	8	4	20.24	23.29	33	-9.71
				15	0	20.08	23.13	33	-9.87
				1	0	21.07	24.12	33	-8.88
3	26365	1882.5	64QAM	1	14	20.91	23.96	33	-9.04
J	20303	1002.0	U4QAIVI	8	4	20.13	23.18	33	-9.82
				15	0	20.01	23.06	33	-9.94
				1	0	20.91	23.96	33	-9.04
	26675	1913.5	64QAM	1	14	21.01	24.06	33	-8.94
	20075	1713.5	04QAIVI	8	4	20.06	23.11	33	-9.89
				15	0	20.03	23.08	33	-9.92

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Antenna gain (dBi) 3.05

			12 Dana 23_0p	тик печ	uchicy ba	nd : 1850 to 191			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.01	26.06	33	-6.94
	26065	1852.5	QPSK	1	24	22.95	26.00	33	-7
	20003	1002.0	UPSK	12	6	22.10	25.15	33	-7.85
				25	0	22.10	25.15	33	-7.85
				1	0	22.78	25.83	33	-7.17
5	26365	1882.5	QPSK	1	24	22.74	25.79	33	-7.21
3	20303	1002.3	UPSK	12	6	22.00	25.05	33	-7.95
				25	0	21.96	25.01	33	-7.99
				1	0	22.88	25.93	33	-7.07
	26665	1912.5	QPSK	1	24	22.79	25.84	33	-7.16
	20000	1912.5	UPSK	12	6	21.99	25.04	33	-7.96
				25	0	21.98	25.03	33	-7.97
				1	0	22.31	25.36	33	-7.64
	26065	1852.5	16QAM	1	24	22.31	25.36	33	-7.64
	20000	1002.0	TOQAW	12	6	21.16	24.21	33	-8.79
				25	0	21.08	24.13	33	-8.87
				1	0	22.29	25.34	33	-7.66
5	26365	1882.5	16QAM	1	24	22.12	25.17	33	-7.83
3	20300	1002.3	TOQAW	12	6	21.08	24.13	33	-8.87
				25	0	21.01	24.06	33	-8.94
				1	0	21.88	24.93	33	-8.07
	2///5	1010 F	1/0414	1	24	21.83	24.88	33	-8.12
	26665	1912.5	16QAM	12	6	21.03	24.08	33	-8.92
				25	0	20.96	24.01	33	-8.99
				1	0	21.33	24.38	33	-8.62
	24045	1852.5	640004	1	24	21.18	24.23	33	-8.77
	26065	1832.3	64QAM	12	6	20.18	23.23	33	-9.77
				25	0	20.10	23.15	33	-9.85
				1	0	21.11	24.16	33	-8.84
5	24245	1882.5	640004	1	24	21.13	24.18	33	-8.82
Э	26365	1002.5	64QAM	12	6	20.15	23.20	33	-9.8
				25	0	20.00	23.05	33	-9.95
				1	0	21.12	24.17	33	-8.83
	2///5	1010 F	(4000	1	24	20.93	23.98	33	-9.02
	26665	1912.5	64QAM	12	6	20.05	23.10	33	-9.9
				25	0	19.99	23.04	33	-9.96

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Antenna gain (dBi) 3.05

		L	TE Band 25_Up	link freq	uency ba	nd : 1850 to 191	15 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.98	26.03	33	-6.97
	2/000	1855	QPSK	1	49	22.98	26.03	33	-6.97
	26090	1800	UPSK	25	12	22.02	25.07	33	-7.93
				50	0	21.99	25.04	33	-7.96
				1	0	22.94	25.99	33	-7.01
10	26365	1882.5	QPSK	1	49	22.93	25.98	33	-7.02
10	20300	1002.3	UPSK	25	12	22.01	25.06	33	-7.94
				50	0	22.01	25.06	33	-7.94
				1	0	22.80	25.85	33	-7.15
	26640	1910	QPSK	1	49	22.82	25.87	33	-7.13
	20040	1910	UPSK	25	12	21.94	24.99	33	-8.01
				50	0	21.83	24.88	33	-8.12
				1	0	22.17	25.22	33	-7.78
	26090	1855	16QAM	1	49	22.41	25.46	33	-7.54
	20090	1600	TOQAIVI	25	12	21.06	24.11	33	-8.89
				50	0	20.99	24.04	33	-8.96
				1	0	22.34	25.39	33	-7.61
10	26365	1882.5	16QAM	1	49	22.43	25.48	33	-7.52
10	20303	1002.3	TOQAW	25	12	21.07	24.12	33	-8.88
				50	0	21.01	24.06	33	-8.94
				1	0	21.90	24.95	33	-8.05
	26640	1910	16QAM	1	49	22.05	25.10	33	-7.9
	20040	1910	TOQAIVI	25	12	20.87	23.92	33	-9.08
				50	0	20.89	23.94	33	-9.06
				1	0	21.33	24.38	33	-8.62
	26090	1855	64QAM	1	49	21.33	24.38	33	-8.62
	20090	1600	04QAIVI	25	12	20.08	23.13	33	-9.87
				50	0	20.17	23.22	33	-9.78
				1	0	20.93	23.98	33	-9.02
10	24245	1882.5	640014	1	49	21.10	24.15	33	-8.85
10	26365	1002.0	64QAM	25	12	20.07	23.12	33	-9.88
				50	0	20.05	23.10	33	-9.9
				1	0	20.98	24.03	33	-8.97
	26640	1910	64QAM	1	49	20.89	23.94	33	-9.06
	20040	1910	04QAIVI	25	12	19.86	22.91	33	-10.09
				50	0	19.87	22.92	33	-10.08

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Antenna gain (dBi) 3.05

		L	TE Band 25_Up	link freq	uency ba	nd : 1850 to 191	15 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.94	25.99	33	-7.01
	0/115	1057.5	ODCK	1	74	22.89	25.94	33	-7.06
	26115	1857.5	QPSK	36	18	22.13	25.18	33	-7.82
				75	0	21.95	25.00	33	-8
				1	0	23.01	26.06	33	-6.94
4.5	2/2/5	1000 5	ODCK	1	74	22.89	25.94	33	-7.06
15	26365	1882.5	QPSK	36	18	22.02	25.07	33	-7.93
				75	0	21.96	25.01	33	-7.99
				1	0	22.66	25.71	33	-7.29
	0//15	1007 5	ODGI	1	74	22.78	25.83	33	-7.17
	26615	1907.5	QPSK	36	18	21.89	24.94	33	-8.06
				75	0	21.84	24.89	33	-8.11
				1	0	22.45	25.50	33	-7.5
	0/115	1057.5	1/0414	1	74	22.41	25.46	33	-7.54
	26115	1857.5	16QAM	36	18	21.17	24.22	33	-8.78
				75	0	21.01	24.06	33	-8.94
				1	0	22.21	25.26	33	-7.74
15	2/2/5	1000 5	1/0000	1	74	22.05	25.10	33	-7.9
15	26365	1882.5	16QAM	36	18	21.00	24.05	33	-8.95
				75	0	21.00	24.05	33	-8.95
				1	0	21.81	24.86	33	-8.14
	2//15	1007.5	1/0000	1	74	21.95	25.00	33	-8
	26615	1907.5	16QAM	36	18	20.91	23.96	33	-9.04
				75	0	20.83	23.88	33	-9.12
				1	0	21.25	24.30	33	-8.7
	2/115	1057.5	(4000	1	74	21.13	24.18	33	-8.82
	26115	1857.5	64QAM	36	18	20.17	23.22	33	-9.78
				75	0	20.02	23.07	33	-9.93
				1	0	21.30	24.35	33	-8.65
1 -	2/2/5	1000 5	(4000	1	74	21.15	24.20	33	-8.8
15	26365	1882.5	64QAM	36	18	20.09	23.14	33	-9.86
				75	0	19.92	22.97	33	-10.03
				1	0	20.99	24.04	33	-8.96
	24/15	1007 5	640004	1	74	21.04	24.09	33	-8.91
	26615	1907.5	64QAM	36	18	19.91	22.96	33	-10.04
				75	0	19.86	22.91	33	-10.09

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Antenna gain (dBi) 3.05

		L	TE Band 25_Up	link freq	uency ba	nd: 1850 to 191			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.03	26.08	33	-6.92
	24140	1860	QPSK	1	99	22.96	26.01	33	-6.99
	26140	1800	UP5K	50	25	22.03	25.08	33	-7.92
				100	0	21.99	25.04	33	-7.96
				1	0	22.95	26.00	33	-7
20	26365	1882.5	QPSK	1	99	22.93	25.98	33	-7.02
20	20300	1002.3	UPSK	50	25	21.99	25.04	33	-7.96
				100	0	21.93	24.98	33	-8.02
				1	0	22.81	25.86	33	-7.14
	26590	1905	QPSK	1	99	22.85	25.90	33	-7.1
	20390	1905	QF3K	50	25	21.97	25.02	33	-7.98
				100	0	21.94	24.99	33	-8.01
				1	0	22.09	25.14	33	-7.86
	26140	1860	16QAM	1	99	22.15	25.20	33	-7.8
	20140	1000	TOCAW	50	25	21.11	24.16	33	-8.84
				100	0	20.99	24.04	33	-8.96
				1	0	22.20	25.25	33	-7.75
20	26365	1882.5	16QAM	1	99	22.31	25.36	33	-7.64
20	20303	1002.5	100/11/1	50	25	21.01	24.06	33	-8.94
				100	0	20.95	24.00	33	-9
				1	0	22.24	25.29	33	-7.71
	26590	1905	16QAM	1	99	22.26	25.31	33	-7.69
	20370	1703	10071111	50	25	20.99	24.04	33	-8.96
				100	0	20.95	24.00	33	-9
				1	0	21.22	24.27	33	-8.73
	26140	1860	64QAM	1	99	21.12	24.17	33	-8.83
	20110	1000	012	50	25	20.06	23.11	33	-9.89
				100	0	19.97	23.02	33	-9.98
				1	0	21.32	24.37	33	-8.63
20	26365	1882.5	64QAM	1	99	21.32	24.37	33	-8.63
20		1002.0	3 1 22 1111	50	25	19.99	23.04	33	-9.96
				100	0	19.99	23.04	33	-9.96
				1	0	21.32	24.37	33	-8.63
	26590	1905	64QAM	1	99	21.32	24.37	33	-8.63
		.,,,,	3.2	50	25	19.99	23.04	33	-9.96
				100	0	19.99	23.04	33	-9.96

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3.2

Antenna gain (dBi)

1.4

1.4

26915

27033

26797

26915

27033

836.5

848.3

824.7

836.5

848.3

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LTE Band 26\_Uplink frequency band: 824 to 849 MHz Conducted **ERP EIRP ERP** BW UL Frequency RB **RB** Margin Modulation Average Average Average I imit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 22.81 23.86 26.01 38.45 -14.59 1 1 5 22.85 23.90 26.05 38.45 -14.55 26797 824.7 **QPSK** 2 22.90 23.95 3 26.10 38.45 -14.50 0 21.93 22.98 25.13 38.45 -15.47 6 1 0 22.83 23.88 26.03 38.45 -14.57 1 5 22.80 23.85 26.00 38.45 -14.60 1.4 26915 836.5 **QPSK** 23.92 -14.53 3 2 22.87 26.07 38.45 22.90 0 21.85 25.05 38.45 -15.55 6 -14.53 22.87 23.92 26.07 38.45 0 1 22.84 23.89 26.04 38.45 -14.56 1 5 27033 848.3 **QPSK** 22.96 24.01 26.16 38.45 -14.44 3 2 0 21.94 22.99 25.14 38.45 -15.46 6 0 21.86 22.91 25.06 38.45 -15.54 5 21.88 22.93 25.08 38.45 -15.52 26797 824.7 16QAM

21.93

20.90

21.88

21.87

21.90

20.95

22.29

22.20

21.98

21.11

21.10

21.15

21.05

19.92

21.04

21.06

21.01

19.96

21.17

21.07

21.12

19.94

6

3

6

1 1

3

6

1

1

3

6

1

3

6

16OAM

16QAM

64QAM

64QAM

64QAM

0

0

5

2

0

0

5

2

0

0

5

2

0

0

5

2

0

0

5

2

0

22.98

21.95

22.93

22.92

22.95

22.00

23.34

23.25

23.03

22.16

22.15

22.20

22.10

20.97

22.09

22.11

22.06

21.01

22.22

22.12

22.17

20.99

25.13

24.10

25.08

25.07

25.10

24.15

25.49

25.40

25.18

24.31

24.30

24.35

24.25

23.12

24.24

24.26

24.21

23.16

24.37

24.27

24.32

23.14

38.45

38.45

38.45

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38.45

38.45

-15.47

-16.50 -15.52

-15.53

-15.50

-16.45

-15.11

-15.20

-15.42

-16.29

-16.30

-16.25

-16.35

-17.48

-16.36

-16.34

-16.39

-17.44

-16.23

-16.33

-16.28

-17.46

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Antenna gain (dBi) 3.2

			LTE Bar	nd 26_Up	link frequ	uency band : 82	4 to 849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.92	23.97	26.12	38.45	-14.48
	26805	825.5	QPSK	1	14	22.85	23.90	26.05	38.45	-14.55
	20003	025.5	QF3K	8	4	21.95	23.00	25.15	38.45	-15.45
				15	0	22.03	23.08	25.23	38.45	-15.37
				1	0	22.90	23.95	26.10	38.45	-14.50
3	26915	836.5	QPSK	1	14	22.90	23.95	26.10	38.45	-14.50
3	20713	030.3	QI SIK	8	4	21.93	22.98	25.13	38.45	-15.47
				15	0	21.93	22.98	25.13	38.45	-15.47
				1	0	22.95	24.00	26.15	38.45	-14.45
	27025	847.5	QPSK	1	14	22.87	23.92	26.07	38.45	-14.53
	27023	047.5	QI SIK	8	4	22.02	23.07	25.22	38.45	-15.38
				15	0	22.02	23.07	25.22	38.45	-15.38
				1	0	22.15	23.20	25.35	38.45	-15.25
	26805	825.5	16QAM	1	14	22.06	23.11	25.26	38.45	-15.34
	20003	023.3	TOQAW	8	4	20.97	22.02	24.17	38.45	-16.43
				15	0	21.02	22.07	24.22	38.45	-16.38
				1	0	22.34	23.39	25.54	38.45	-15.06
3	26915	836.5	16QAM	1	14	22.26	23.31	25.46	38.45	-15.14
3	20713	030.3	TOQAW	8	4	21.04	22.09	24.24	38.45	-16.36
				15	0	20.89	21.94	24.09	38.45	-16.51
				1	0	22.19	23.24	25.39	38.45	-15.21
	27025	847.5	16QAM	1	14	22.24	23.29	25.44	38.45	-15.16
	27023	047.5	TOCAM	8	4	21.15	22.20	24.35	38.45	-16.25
				15	0	21.10	22.15	24.30	38.45	-16.30
_				1	0	20.96	22.01	24.16	38.45	-16.44
	26805	825.5	64QAM	1	14	20.97	22.02	24.17	38.45	-16.43
	20003	023.3	04QAW	8	4	20.07	21.12	23.27	38.45	-17.33
				15	0	19.96	21.01	23.16	38.45	-17.44
				1	0	21.18	22.23	24.38	38.45	-16.22
3	26915	836.5	64QAM	1	14	21.13	22.18	24.33	38.45	-16.27
3	20713	030.3	U4QAIVI	8	4	19.98	21.03	23.18	38.45	-17.42
				15	0	19.92	20.97	23.12	38.45	-17.48
			_	1	0	21.13	22.18	24.33	38.45	-16.27
	27025	847.5	64QAM	1	14	21.12	22.17	24.32	38.45	-16.28
	21023	047.3	04QAIVI	8	4	20.11	21.16	23.31	38.45	-17.29
				15	0	19.95	21.00	23.15	38.45	-17.45

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Antenna gain (dBi) 3.2

			LTE Bar	nd 26_Up	link frequ	uency band: 82	4 to 849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.86	23.91	26.06	38.45	-14.54
	26815	826.5	QPSK	1	24	22.82	23.87	26.02	38.45	-14.58
	20010	620.5	UP3K	12	6	21.98	23.03	25.18	38.45	-15.42
				25	0	21.98	23.03	25.18	38.45	-15.42
				1	0	22.85	23.90	26.05	38.45	-14.55
5	26915	836.5	QPSK	1	24	22.81	23.86	26.01	38.45	-14.59
5	20910	630.5	UP3K	12	6	21.97	23.02	25.17	38.45	-15.43
				25	0	21.94	22.99	25.14	38.45	-15.46
				1	0	22.91	23.96	26.11	38.45	-14.49
	27015	846.5	QPSK	1	24	22.90	23.95	26.10	38.45	-14.50
	27015	040.0	UPSK	12	6	22.04	23.09	25.24	38.45	-15.36
				25	0	22.02	23.07	25.22	38.45	-15.38
				1	0	22.00	23.05	25.20	38.45	-15.40
	26815	826.5	16QAM	1	24	22.00	23.05	25.20	38.45	-15.40
	20013	020.5	TOQAW	12	6	20.99	22.04	24.19	38.45	-16.41
				25	0	20.94	21.99	24.14	38.45	-16.46
				1	0	22.04	23.09	25.24	38.45	-15.36
5	26915	836.5	16QAM	1	24	22.09	23.14	25.29	38.45	-15.31
5	20913	030.3	TOUAIVI	12	6	20.98	22.03	24.18	38.45	-16.42
				25	0	20.94	21.99	24.14	38.45	-16.46
				1	0	22.35	23.40	25.55	38.45	-15.05
	27015	846.5	16QAM	1	24	22.30	23.35	25.50	38.45	-15.10
	27013	040.0	TOQAW	12	6	21.08	22.13	24.28	38.45	-16.32
				25	0	21.05	22.10	24.25	38.45	-16.35
				1	0	21.00	22.05	24.20	38.45	-16.40
	26815	826.5	64QAM	1	24	20.94	21.99	24.14	38.45	-16.46
	20015	020.5	04QAIVI	12	6	19.99	21.04	23.19	38.45	-17.41
				25	0	19.93	20.98	23.13	38.45	-17.47
				1	0	21.20	22.25	24.40	38.45	-16.20
5	26915	836.5	64QAM	1	24	21.07	22.12	24.27	38.45	-16.33
ا	20713	030.3	04QAIVI	12	6	20.01	21.06	23.21	38.45	-17.39
				25	0	19.92	20.97	23.12	38.45	-17.48
				1	0	20.92	21.97	24.12	38.45	-16.48
	27015	846.5	640004	1	24	20.79	21.84	23.99	38.45	-16.61
	27013	040.3	64QAM	12	6	20.08	21.13	23.28	38.45	-17.32
				25	0	20.04	21.09	23.24	38.45	-17.36

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Antenna gain (dBi) 3.2

			l TF Rar	nd 26 Hn	link frequ	uency band : 82	4 to 849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.93	23.98	26.13	38.45	-14.47
				1	49	22.80	23.85	26.00	38.45	-14.60
	26840	829	QPSK	25	12	21.97	23.02	25.17	38.45	-15.43
				50	0	21.97	23.02	25.17	38.45	-15.43
				1	0	22.78	23.83	25.98	38.45	-14.62
40	0/015	0015	0001/	1	49	22.90	23.95	26.10	38.45	-14.50
10	26915	836.5	QPSK	25	12	22.00	23.05	25.20	38.45	-15.40
				50	0	21.88	22.93	25.08	38.45	-15.52
				1	0	22.90	23.95	26.10	38.45	-14.50
	0,000	044	ODCK	1	49	22.95	24.00	26.15	38.45	-14.45
	26990	844	QPSK	25	12	21.99	23.04	25.19	38.45	-15.41
				50	0	21.96	23.01	25.16	38.45	-15.44
				1	0	22.09	23.14	25.29	38.45	-15.31
	0/0/0	000	1/0414	1	49	22.04	23.09	25.24	38.45	-15.36
	26840	829	16QAM	25	12	20.91	21.96	24.11	38.45	-16.49
				50	0	20.95	22.00	24.15	38.45	-16.45
				1	0	22.12	23.17	25.32	38.45	-15.28
10	0/015	007.5	1/0414	1	49	22.24	23.29	25.44	38.45	-15.16
10	26915	836.5	16QAM	25	12	20.98	22.03	24.18	38.45	-16.42
				50	0	20.86	21.91	24.06	38.45	-16.54
				1	0	22.22	23.27	25.42	38.45	-15.18
	2/000	044	1/0414	1	49	22.15	23.20	25.35	38.45	-15.25
	26990	844	16QAM	25	12	20.95	22.00	24.15	38.45	-16.45
				50	0	20.97	22.02	24.17	38.45	-16.43
				1	0	21.20	22.25	24.40	38.45	-16.20
	26840	829	64QAM	1	49	21.03	22.08	24.23	38.45	-16.37
	20040	629	04QAIVI	25	12	19.94	20.99	23.14	38.45	-17.46
				50	0	19.91	20.96	23.11	38.45	-17.49
				1	0	20.99	22.04	24.19	38.45	-16.41
10	26915	836.5	64QAM	1	49	21.07	22.12	24.27	38.45	-16.33
10	20710	030.3	04QAIVI	25	12	19.99	21.04	23.19	38.45	-17.41
				50	0	19.86	20.91	23.06	38.45	-17.54
				1	0	21.17	22.22	24.37	38.45	-16.23
	26990	844	64QAM	1	49	21.15	22.20	24.35	38.45	-16.25
	20990	044	04QAIVI	25	12	19.95	21.00	23.15	38.45	-17.45
				50	0	19.95	21.00	23.15	38.45	-17.45

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Antenna gain (dBi) 3.2

	• • •									
			LTE Bar	nd 26_Up	link frequ	iency band: 82				
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.96	24.01	26.16	38.45	-14.44
	26865	831.5	QPSK	1	74	22.88	23.93	26.08	38.45	-14.52
	20000	031.3	UPSK	36	18	21.93	22.98	25.13	38.45	-15.47
				75	0	21.94	22.99	25.14	38.45	-15.46
				1	0	22.82	23.87	26.02	38.45	-14.58
15	26915	836.5	QPSK	1	74	22.89	23.94	26.09	38.45	-14.51
10	20910	030.3	UPSK	36	18	21.89	22.94	25.09	38.45	-15.51
				75	0	21.89	22.94	25.09	38.45	-15.51
				1	0	22.90	23.95	26.10	38.45	-14.50
	26965	841.5	QPSK	1	74	22.95	24.00	26.15	38.45	-14.45
	20900	041.3	UPSK	36	18	21.91	22.96	25.11	38.45	-15.49
				75	0	21.89	22.94	25.09	38.45	-15.51
				1	0	22.13	23.18	25.33	38.45	-15.27
	26865	831.5	16QAM	1	74	22.13	23.18	25.33	38.45	-15.27
	20000	031.3	TOQAW	36	18	20.91	21.96	24.11	38.45	-16.49
				75	0	20.92	21.97	24.12	38.45	-16.48
				1	0	22.20	23.25	25.40	38.45	-15.20
15	26915	836.5	16QAM	1	74	22.24	23.29	25.44	38.45	-15.16
13	20915	030.3	TOQAW	36	18	20.91	21.96	24.11	38.45	-16.49
				75	0	20.86	21.91	24.06	38.45	-16.54
				1	0	22.13	23.18	25.33	38.45	-15.27
	26965	841.5	16QAM	1	74	22.18	23.23	25.38	38.45	-15.22
	20900	041.3	TOQAW	36	18	20.94	21.99	24.14	38.45	-16.46
				75	0	20.87	21.92	24.07	38.45	-16.53
				1	0	21.17	22.22	24.37	38.45	-16.23
	26865	831.5	64QAM	1	74	21.11	22.16	24.31	38.45	-16.29
	20000	031.3	04QAIVI	36	18	20.00	21.05	23.20	38.45	-17.40
				75	0	19.95	21.00	23.15	38.45	-17.45
				1	0	20.81	21.86	24.01	38.45	-16.59
15	26915	836.5	64QAM	1	74	20.82	21.87	24.02	38.45	-16.58
10	20713	030.5	U4QAIVI	36	18	19.98	21.03	23.18	38.45	-17.42
				75	0	19.88	20.93	23.08	38.45	-17.52
				1	0	21.07	22.12	24.27	38.45	-16.33
	26965	841.5	64QAM	1	74	21.05	22.10	24.25	38.45	-16.35
	20700	041.5	U4QAIVI	36	18	19.87	20.92	23.07	38.45	-17.53
				75	0	19.84	20.89	23.04	38.45	-17.56

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2.51

814.7

819

823.3

26697

26740

26783

1.4

Antenna gain (dBi)

Report No.: TERF2206000793ER

50

50

50

50

50

50

50

50

50

50

50

50

-28.66

-28.68

-28.45

-29.65

-28.51

-28.63

-28.61

-29.70

-28.72

-28.73

-28.74

-29.68

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Part 90S\_LTE Band 26\_Uplink frequency band: 814 to 824 MHz Conducted ERP **EIRP ERP** BW UL Frequency RB **RB** Margin Modulation Average Average Average I imit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 22.86 23.22 25.37 50 -26.78 1 1 5 22.78 23.14 25.29 50 -26.86 26697 814.7 **QPSK** 2 22.90 23.26 50 3 25.41 -26.74 0 21.93 24.44 50 -27.71 6 22.29 1 0 22.83 23.19 25.34 50 -26.81 1 5 22.83 23.19 25.34 50 -26.81 1.4 26740 819 **QPSK** 23.24 50 3 2 22.88 25.39 -26.76 21.91 50 0 22.27 24.42 -27.73 6 50 22.75 23.11 25.26 -26.89 0 1 50 22.80 23.16 25.31 -26.84 1 5 26783 823.3 **QPSK** 22.81 23.17 25.32 50 -26.83 3 2 0 21.94 22.30 24.45 50 -27.70 6 0 22.00 22.36 24.51 50 -27.64 5 22.02 22.38 24.53 50 -27.62 26697 814.7 16QAM 21.91 22.27 24.42 50 -27.73 21.06 21.42 23.57 50 6 0 -28.58 22.39 50 0 22.03 24.54 -27.61 5 22.00 50 24.51 -27.64 22.36 1.4 26740 819 16OAM 3 2 21.93 22.29 24.44 50 -27.71 6 0 20.97 21.33 23.48 50 -28.67 0 21.88 22.24 24.39 50 -27.76 1 1 5 21.89 22.25 24.40 50 -27.75 26783 823.3 16QAM 3 2 21.85 22.21 24.36 50 -27.79 6 0 20.96 21.32 23.47 50 -28.68

1

1

3

6

1

3

6

64QAM

64QAM

64QAM

0

5

2

0

0

5

2

0

0

5

2

0

20.98

20.96

21.19

19.99

21.13

21.01

21.03

19.94

20.92

20.91

20.90

19.96

21.34

21.32

21.55

20.35

21.49

21.37

21.39

20.30

21.28

21.27

21.26

20.32

23.49

23.47

23.70

22.50

23.64

23.52

23.54

22.45

23.43

23.42

23.41

22.47

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2.51 Antenna gain (dBi)

		2.51								
			Part 90S_LT	E Band 2	6_Uplink	frequency band				
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.83	23.19	25.34	50	-26.81
	26705	815.5	QPSK	1	14	22.87	23.23	25.38	50	-26.77
	20703	010.0	UPSK	8	4	22.00	22.36	24.51	50	-27.64
				15	0	22.03	22.39	24.54	50	-27.61
				1	0	22.87	23.23	25.38	50	-26.77
3	26740	819	QPSK	1	14	22.84	23.20	25.35	50	-26.80
3	20740	017	QF3K	8	4	21.94	22.30	24.45	50	-27.70
				15	0	21.96	22.32	24.47	50	-27.68
				1	0	22.84	23.20	25.35	50	-26.80
	26775	822.5	QPSK	1	14	22.90	23.26	25.41	50	-26.74
	20773	022.3	UPSK	8	4	21.93	22.29	24.44	50	-27.71
				15	0	22.03	22.39	24.54	50	-27.61
				1	0	22.22	22.58	24.73	50	-27.42
	26705	815.5	16QAM	1	14	22.27	22.63	24.78	50	-27.37
	20703	013.3	TOCAIVI	8	4	21.02	21.38	23.53	50	-28.62
				15	0	21.04	21.40	23.55	50	-28.60
				1	0	22.32	22.68	24.83	50	-27.32
3	26740	819	16QAM	1	14	22.28	22.64	24.79	50	-27.36
3	20740	017	TOQAW	8	4	20.99	21.35	23.50	50	-28.65
				15	0	21.01	21.37	23.52	50	-28.63
				1	0	22.16	22.52	24.67	50	-27.48
	26775	822.5	16QAM	1	14	22.18	22.54	24.69	50	-27.46
	20773	022.3	TOCAM	8	4	20.90	21.26	23.41	50	-28.74
				15	0	21.06	21.42	23.57	50	-28.58
				1	0	21.11	21.47	23.62	50	-28.53
	26705	815.5	64QAM	1	14	21.08	21.44	23.59	50	-28.56
	20703	013.3	UHQAW	8	4	19.98	20.34	22.49	50	-29.66
				15	0	20.07	20.43	22.58	50	-29.57
				1	0	21.04	21.40	23.55	50	-28.60
3	26740	819	64QAM	1	14	20.98	21.34	23.49	50	-28.66
]	20/40	017	UHQAW	8	4	19.96	20.32	22.47	50	-29.68
				15	0	20.05	20.41	22.56	50	-29.59
				1	0	21.03	21.39	23.54	50	-28.61
	26775	822.5	64QAM	1	14	21.03	21.39	23.54	50	-28.61
	20773	022.0	U4QAIVI	8	4	20.00	20.36	22.51	50	-29.64
				15	0	19.99	20.35	22.50	50	-29.65

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Antenna gain (dBi) 2.51

			Part 90S_LTI	E Band 2	6_Uplink	frequency band	d : 814 to 824 M	Hz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	22.87	23.23	25.38	50	-26.77
	26715	816.5	QPSK	1	24	22.90	23.26	25.41	50	-26.74
	20/13	010.3	UPSK	12	6	22.03	22.39	24.54	50	-27.61
				25	0	21.99	22.35	24.50	50	-27.65
				1	0	22.88	23.24	25.39	50	-26.76
5	26740	819	QPSK	1	24	22.81	23.17	25.32	50	-26.83
3	20740	019	QF3K	12	6	21.99	22.35	24.50	50	-27.65
				25	0	21.96	22.32	24.47	50	-27.68
				1	0	22.90	23.26	25.41	50	-26.74
	26765	821.5	QPSK	1	24	22.84	23.20	25.35	50	-26.80
	20/00	821.5	QP5K	12	6	21.95	22.31	24.46	50	-27.69
				25	0	21.93	22.29	24.44	50	-27.71
				1	0	22.26	22.62	24.77	50	-27.38
	26715	816.5	16QAM	1	24	22.34	22.70	24.85	50	-27.30
	20/15	810.5	IbQAIVI	12	6	21.05	21.41	23.56	50	-28.59
				25	0	20.98	21.34	23.49	50	-28.66
				1	0	21.92	22.28	24.43	50	-27.72
-	2/7/0	010	1/0414	1	24	21.98	22.34	24.49	50	-27.66
5	26740	819	16QAM	12	6	21.00	21.36	23.51	50	-28.64
				25	0	20.96	21.32	23.47	50	-28.68
				1	0	22.00	22.36	24.51	50	-27.64
	2/7/5	001 5	1/0414	1	24	21.86	22.22	24.37	50	-27.78
i	26765	821.5	16QAM	12	6	20.97	21.33	23.48	50	-28.67
				25	0	20.93	21.29	23.44	50	-28.71
				1	0	21.16	21.52	23.67	50	-28.48
	24715	01/ 5	44000	1	24	21.13	21.49	23.64	50	-28.51
	26715	816.5	64QAM	12	6	20.13	20.49	22.64	50	-29.51
				25	0	20.04	20.40	22.55	50	-29.60
				1	0	21.23	21.59	23.74	50	-28.41
г	24740	819	64OAM	1	24	21.09	21.45	23.60	50	-28.55
5	26740	819	04QAIVI	12	6	20.11	20.47	22.62	50	-29.53
				25	0	19.92	20.28	22.43	50	-29.72
				1	0	21.07	21.43	23.58	50	-28.57
	247/5	821.5	44000	1	24	21.07	21.43	23.58	50	-28.57
	26765	ŏ∠1.5	64QAM	12	6	20.04	20.40	22.55	50	-29.60
				25	0	19.94	20.30	22.45	50	-29.70

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Antenna gain (dBi) 2.51 Part 90S\_LTE Band 26\_Uplink frequency band: 814 to 824 MHz Conducted ERP **EIRP ERP** BW UL Frequency RB RB Margin Modulation Average Average Average I imit (MHz) (MHz) Channel Size Offset (dB) (dBm) (dBm) (dBm) (dBm) 1 0 22.95 50 23.31 25.46 -26.69 1 49 22.83 23.19 25.34 50 -26.81 **QPSK** 10 26740 819 21.98 22.34 25 12 24.49 50 -27.66 50 0 21.99 22.35 24.50 50 -27.65 1 0 22.10 22.46 24.61 50 -27.54 1 49 22.12 22.48 24.63 50 -27.52 10 26740 819 16QAM 12 20.95 21.31 23.46 50 -28.69 25 50 0 20.96 21.32 23.47 50 -28.68 1 0 21.18 21.54 23.69 50 -28.46 1 49 21.11 21.47 23.62 50 -28.53 10 26740 819 64QAM 19.98 25 12 20.34 22.49 50 -29.66 0 19.93 50 20.29 22.44 50 -29.71

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Antenna gain (dBi)

Antenna	gain (dBi)	3.12							
		L	TE Band 30_Up	link freq	uency ba	nd: 2305 to 231	15 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm/5MHz)	EIRP Average (dBm/5MHz)	EIRP Limit (dBm/5MHz)	Margin (dB)
				1	0	20.71	23.83	24	-0.17
	27685	2307.5	QPSK	1	24	20.69	23.81	24	-0.19
	27003	2307.5	QF3K	12	6	19.72	22.84	24	-1.16
				25	0	19.67	22.79	24	-1.21
				1	0	20.70	23.82	24	-0.18
5	27710	2310	QPSK	1	24	20.62	23.74	24	-0.26
5	27710	2310	QF3K	12	6	19.74	22.86	24	-1.14
				25	0	19.74	22.86	24	-1.14
				1	0	20.69	23.81	24	-0.19
	27735	2312.5	QPSK	1	24	20.67	23.79	24	-0.21
	27733	2312.0	QF3K	12	6	19.75	22.87	24	-1.13
				25	0	19.78	22.90	24	-1.1
				1	0	20.11	23.23	24	-0.77
	27685	2307.5	16QAM	1	24	20.13	23.25	24	-0.75
	27003	2307.5	TOCAIVI	12	6	18.75	21.87	24	-2.13
				25	0	18.75	21.87	24	-2.13
				1	0	20.08	23.20	24	-0.8
5	27710	2310	16QAM	1	24	19.92	23.04	24	-0.96
5	27710	2310	TOCAIVI	12	6	18.69	21.81	24	-2.19
				25	0	18.77	21.89	24	-2.11
				1	0	20.02	23.14	24	-0.86
	27735	2312.5	16QAM	1	24	20.09	23.21	24	-0.79
	21135	2312.3	TOUAIVI	12	6	18.76	21.88	24	-2.12
				25	0	18.74	21.86	24	-2.14
				1	0	18.76	21.88	24	-2.12
	27685	2307.5	64QAM	1	24	18.85	21.97	24	-2.03
	27000	2307.5	04QAIVI	12	6	17.80	20.92	24	-3.08
				25	0	17.78	20.90	24	-3.1
				1	0	18.91	22.03	24	-1.97
5	27710	2310	64QAM	1	24	18.95	22.07	24	-1.93
J	21/10	2310	U4QAIVI	12	6	17.78	20.90	24	-3.1
				25	0	17.77	20.89	24	-3.11
				1	0	18.89	22.01	24	-1.99
	27735	2312.5	64QAM	1	24	18.97	22.09	24	-1.91
	21133	2312.3	U4QAIVI	12	6	17.77	20.89	24	-3.11
	1	1	i .						

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Antenna gain (dBi) 3.12

	J ( )								
		L	TE Band 30_Up	link frequ	uency ba	nd: 2305 to 231			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm/5MHz)	EIRP Average (dBm/5MHz)	EIRP Limit (dBm/5MHz)	Margin (dB)
				1	0	20.71	23.83	24.00	-0.17
10	27710	2310	QPSK	1	49	20.69	23.81	24.00	-0.19
10	27710	2010	Q1 31K	25	12	19.77	22.89	24.00	-1.11
				50	0	19.77	22.89	24.00	-1.11
				1	0	20.26	23.38	24.00	-0.62
10	27710	2310	16QAM	1	49	20.17	23.29	24.00	-0.71
10	27710	2310	TOCAW	25	12	18.76	21.88	24.00	-2.12
				50	0	18.76	21.88	24.00	-2.12
				1	0	19.01	22.13	24.00	-1.87
10	27710	2310	64QAM	1	49	18.90	22.02	24.00	-1.98
10	21110	2310	U#QAIVI	25	12	17.84	20.96	24.00	-3.04
				50	0	17.82	20.94	24.00	-3.06

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Antenna gain (dRi)

Antenna	gain (dBi)	3.12							
		L	TE Band 38_Up	link freq	uency ba	nd: 2570 to 262	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.90	26.02	33	-6.98
	37775	2572.5	QPSK	1	24	22.93	26.05	33	-6.95
	37773	2572.5	QF3K	12	6	22.00	25.12	33	-7.88
				25	0	21.92	25.04	33	-7.96
				1	0	22.80	25.92	33	-7.08
5	38000	2595	QPSK	1	24	22.76	25.88	33	-7.12
J	30000	2373	QI SIK	12	6	21.83	24.95	33	-8.05
				25	0	21.84	24.96	33	-8.04
				1	0	22.77	25.89	33	-7.11
	38225	2617.5	QPSK	1	24	22.78	25.90	33	-7.1
	30223	2017.5	QI SIK	12	6	21.77	24.89	33	-8.11
				25	0	21.79	24.91	33	-8.09
				1	0	22.08	25.20	33	-7.8
	37775	2572.5	16QAM	1	24	22.10	25.22	33	-7.78
	37773	2372.3	TOCAW	12	6	20.97	24.09	33	-8.91
				25	0	20.99	24.11	33	-8.89
				1	0	21.97	25.09	33	-7.91
5	38000	2595	16QAM	1	24	21.95	25.07	33	-7.93
3	30000	2373	TOCAW	12	6	20.83	23.95	33	-9.05
				25	0	20.83	23.95	33	-9.05
				1	0	21.90	25.02	33	-7.98
	38225	2617.5	16QAM	1	24	21.94	25.06	33	-7.94
	30223	2017.3	TOCAW	12	6	20.84	23.96	33	-9.04
				25	0	20.79	23.91	33	-9.09
				1	0	20.96	24.08	33	-8.92
	37775	2572.5	64QAM	1	24	21.01	24.13	33	-8.87
	37773	2372.3	04QAW	12	6	20.00	23.12	33	-9.88
				25	0	20.01	23.13	33	-9.87
				1	0	20.80	23.92	33	-9.08
5	38000	2595	64QAM	1	24	20.83	23.95	33	-9.05
J	30000	2373	UTCAIVI	12	6	19.87	22.99	33	-10.01
				25	0	19.83	22.95	33	-10.05
				1	0	20.81	23.93	33	-9.07
	38225	2617.5	64QAM	1	24	20.81	23.93	33	-9.07
	JUZZJ	2017.3	U4QAIVI	12	6	19.85	22.97	33	-10.03
				25	0	19.83	22.95	33	-10.05

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Antenna gain (dBi) 3.12

7 ti iterii id	3 · · ·	3.12							
		L	TE Band 38_Up	link freq	uency ba	nd: 2570 to 262	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.90	26.02	33	-6.98
	37800	2575	QPSK	1	49	22.86	25.98	33	-7.02
	37800	2575	UPSK	25	12	21.91	25.03	33	-7.97
				50	0	21.91	25.03	33	-7.97
				1	0	22.79	25.91	33	-7.09
10	38000	2595	QPSK	1	49	22.77	25.89	33	-7.11
10	30000	2090	UPSK	25	12	21.84	24.96	33	-8.04
				50	0	21.80	24.92	33	-8.08
				1	0	22.81	25.93	33	-7.07
	38200	2615	QPSK	1	49	22.76	25.88	33	-7.12
	30200	2013	Qi Sik	25	12	21.83	24.95	33	-8.05
				50	0	21.79	24.91	33	-8.09
				1	0	22.12	25.24	33	-7.76
	37800	2575	16QAM	1	49	22.04	25.16	33	-7.84
	37000	2070	100/11/1	25	12	20.96	24.08	33	-8.92
				50	0	20.92	24.04	33	-8.96
				1	0	21.99	25.11	33	-7.89
10	38000	2595	16QAM	1	49	21.94	25.06	33	-7.94
10		2070	1001111	25	12	20.91	24.03	33	-8.97
				50	0	20.81	23.93	33	-9.07
				1	0	21.96	25.08	33	-7.92
	38200	2615	16QAM	1	49	21.97	25.09	33	-7.91
	00200	20.0		25	12	20.89	24.01	33	-8.99
				50	0	20.83	23.95	33	-9.05
				1	0	20.95	24.07	33	-8.93
	37800	2575	64QAM	1	49	20.93	24.05	33	-8.95
				25	12	20.01	23.13	33	-9.87
				50	0	19.90	23.02	33	-9.98
				1	0	20.83	23.95	33	-9.05
10	38000	2595	64QAM	1	49	20.81	23.93	33	-9.07
				25	12	19.89	23.01	33	-9.99
				50	0	19.83	22.95	33	-10.05
				1	0	20.83	23.95	33	-9.05
	38200	2615	64QAM	1	49	20.82	23.94	33	-9.06
				25	12	19.84	22.96	33	-10.04
Ĺ				50	0	19.81	22.93	33	-10.07

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Antenna gain (dBi) 3.12

7111011110	yaiii (ubi)	3.12							
		L	TE Band 38_Up	link freq	uency ba	nd: 2570 to 262	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
	37825	2577.5	QPSK	1	0	22.84	25.96	33	-7.04
				1	74	22.86	25.98	33	-7.02
				36	19	21.91	25.03	33	-7.97
				75	0	21.94	25.06	33	-7.94
		2595	QPSK	1	0	22.79	25.91	33	-7.09
15	38000			1	74	22.79	25.91	33	-7.09
13	30000			36	19	21.83	24.95	33	-8.05
				75	0	21.76	24.88	33	-8.12
		2612.5	QPSK	1	0	22.72	25.84	33	-7.16
	38175			1	74	22.80	25.92	33	-7.08
	38175			36	19	21.84	24.96	33	-8.04
				75	0	21.76	24.88	33	-8.12
		2577.5	16QAM	1	0	22.05	25.17	33	-7.83
	37825			1	74	22.01	25.13	33	-7.87
				36	19	20.90	24.02	33	-8.98
				75	0	20.92	24.04	33	-8.96
		2595	16QAM	1	0	22.00	25.12	33	-7.88
15	38000			1	74	21.93	25.05	33	-7.95
10				36	19	20.81	23.93	33	-9.07
				75	0	20.80	23.92	33	-9.08
	38175	2612.5	16QAM	1	0	21.94	25.06	33	-7.94
				1	74	22.00	25.12	33	-7.88
				36	19	20.80	23.92	33	-9.08
				75	0	20.74	23.86	33	-9.14
	37825	2577.5	64QAM	1	0	20.91	24.03	33	-8.97
				1	74	20.90	24.02	33	-8.98
				36	19	19.95	23.07	33	-9.93
				75	0	19.94	23.06	33	-9.94
	38000	2595	64QAM	1	0	20.83	23.95	33	-9.05
15				1	74	20.79	23.91	33	-9.09
13				36	19	19.83	22.95	33	-10.05
				75	0	19.81	22.93	33	-10.07
	38175	2612.5	64QAM	1	0	20.72	23.84	33	-9.16
				1	74	20.87	23.99	33	-9.01
				36	19	19.82	22.94	33	-10.06
				75	0	19.71	22.83	33	-10.17



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Antenna gain (dBi) 3.12

7 ti iterii id	· ,	3.12							
		L	TE Band 38_Up	link freq	uency ba	nd: 2570 to 262	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
		2580	QPSK	1	0	22.96	26.08	33	-6.92
	37850			1	99	22.80	25.92	33	-7.08
				50	25	21.87	24.99	33	-8.01
				100	0	21.87	24.99	33	-8.01
				1	0	22.75	25.87	33	-7.13
20	38000	2505	ODCK	1	99	22.70	25.82	33	-7.18
20	38000	2595	QPSK	50	25	21.80	24.92	33	-8.08
				100	0	21.80	24.92	33	-8.08
		2610	QPSK	1	0	22.72	25.84	33	-7.16
	38150			1	99	22.78	25.90	33	-7.1
	36130			50	25	21.79	24.91	33	-8.09
				100	0	21.75	24.87	33	-8.13
		2580	16QAM	1	0	22.03	25.15	33	-7.85
	37850			1	99	21.95	25.07	33	-7.93
				50	25	20.90	24.02	33	-8.98
				100	0	20.85	23.97	33	-9.03
		2595	16QAM	1	0	21.96	25.08	33	-7.92
20	38000			1	99	21.90	25.02	33	-7.98
20				50	25	20.79	23.91	33	-9.09
				100	0	20.83	23.95	33	-9.05
	38150	2610	16QAM	1	0	21.88	25.00	33	-8
				1	99	21.98	25.10	33	-7.9
				50	25	20.77	23.89	33	-9.11
				100	0	20.76	23.88	33	-9.12
	37850	2580	64QAM	1	0	20.89	24.01	33	-8.99
				1	99	20.82	23.94	33	-9.06
				50	25	19.90	23.02	33	-9.98
				100	0	19.86	22.98	33	-10.02
	38000	2595	64QAM	1	0	20.83	23.95	33	-9.05
20				1	99	20.73	23.85	33	-9.15
20				50	25	19.79	22.91	33	-10.09
				100	0	19.80	22.92	33	-10.08
	38150	2610	64QAM	1	0	20.76	23.88	33	-9.12
				1	99	20.82	23.94	33	-9.06
				50	25	19.76	22.88	33	-10.12
				100	0	19.72	22.84	33	-10.16

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Antenna gain (dBi) 3.12 LTE Band 41\_Uplink frequency band: 2496 to 2690 MHz LTE Band 41\_RS199\_Uplink frequency band: 2500 to 2690 MHz Conducted **EIRP** EIRP UL RB BW RB Frequency Margin Modulation Average Average Limit (MHz) Channel (MHz) Size Offset (dB) (dBm) (dBm) (dBm) 0 22.94 26.06 -6.94 1 33 24 26.15 33 1 23.03 -6.85 **QPSK** 39675 2498.5 12 21.89 25.01 -7.99 6 33 25 0 21.99 25.11 33 -7.89 22.92 1 26.04 33 0 -6.96 1 24 22.93 26.05 33 -6.95 **QPSK** 5 40620 2593 12 21.96 25.08 33 -7.92 6 25 21.92 25.04 33 -7.96 0 0 21.92 25.04 33 -7.96 1 1 24 22.89 26.01 33 -6.99 **QPSK** 41565 2687.5 21.64 24.76 12 33 -8.24 6 25 21.50 24.62 33 -8.38 0 1 0 22.19 25.31 33 -7.69 1 24 22.19 25.31 33 -7.69 39675 2498.5 16QAM 12 21.04 24.16 33 -8.84 6 25 0 21.02 24.14 33 -8.86 22.10 25.22 33 -7.78 1 0 24 22.12 25.24 33 -7.76 5 40620 2593 16QAM 12 21.01 24.13 33 -8.87 6 25 0 20.94 24.06 33 -8.94 0 22.10 25.22 33 -7.78 1 24 1 21.76 24.88 33 -8.12 41565 2687.5 16QAM 12 20.71 23.83 33 -9.17 6 25 0 20.57 23.69 33 -9.31 0 21.08 24.20 33 -8.8 1 24 21.08 24.20 33 -8.8 1 39675 2498.5 64QAM 12 6 20.10 23.22 33 -9.78 25 0 20.06 23.18 33 -9.82 0 21.02 24.14 33 1 -8.86 21.00 1 24 24.12 33 -8.88 5 40620 2593 64QAM 12 6 19.99 23.11 33 -9.89 25 0 19.96 23.08 33 -9.92 20.93 -8.95 1 0 24.05 33 24 23.74 33 1 20.62 -9.26 64QAM 41565 2687.5 12 19.83 22.95 33 6 -10.05

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Antenna gain (dBi) 3.12

## LTE Band 41\_Uplink frequency band: 2496 to 2690 MHz

LTE Band 41_RS199_Uplink frequency band : 2500 to 2690 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
	39700	2501	QPSK	1	0	22.90	26.02	33	-6.98
				1	49	23.05	26.17	33	-6.83
	39700			25	12	22.03	25.15	33	-7.85
				50	0	21.99	25.11	33	-7.89
	40620	2593	QPSK	1	0	22.97	26.09	33	-6.91
10				1	49	22.96	26.08	33	-6.92
10	40020			25	12	21.93	25.05	33	-7.95
				50	0	21.90	25.02	33	-7.98
		2685	QPSK	1	0	22.82	25.94	33	-7.06
	41540			1	49	22.74	25.86	33	-7.14
	41540			25	12	21.67	24.79	33	-8.21
				50	0	21.68	24.80	33	-8.2
	00700	2501	16QAM	1	0	22.13	25.25	33	-7.75
				1	49	22.22	25.34	33	-7.66
	39700			25	12	21.01	24.13	33	-8.87
				50	0	21.06	24.18	33	-8.82
		2593	16QAM	1	0	22.20	25.32	33	-7.68
10	40/00			1	49	22.18	25.30	33	-7.7
10	40620			25	12	20.93	24.05	33	-8.95
				50	0	20.93	24.05	33	-8.95
		2685	16QAM	1	0	22.04	25.16	33	-7.84
	41540			1	49	22.00	25.12	33	-7.88
				25	12	20.73	23.85	33	-9.15
				50	0	20.70	23.82	33	-9.18
	39700	2501	64QAM	1	0	21.09	24.21	33	-8.79
				1	49	21.06	24.18	33	-8.82
				25	12	20.11	23.23	33	-9.77
				50	0	20.08	23.20	33	-9.8
	40620	2593	64QAM	1	0	21.01	24.13	33	-8.87
10				1	49	20.98	24.10	33	-8.9
				25	12	19.94	23.06	33	-9.94
				50	0	19.93	23.05	33	-9.95
	41540	2685	64QAM	1	0	20.40	23.52	33	-9.48
				1	49	20.53	23.65	33	-9.35
				25	12	19.75	22.87	33	-10.13
				50	0	19.67	22.79	33	-10.21

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Antenna gain (dBi) 3.12

# LTE Band 41\_Uplink frequency band : 2496 to 2690 MHz LTE Band 41\_RS199\_Uplink frequency band : 2500 to 2690 MHz

(MHz)         Channel         (MHz)         Modulation         Size         Offset         Average (dBm)         Average (dBm)         Limit (dBm)         (dBm)	Margin (dB) -6.85 -6.86 -7.82
15 40620 2593 QPSK 1 74 23.02 26.14 33 -6 36 18 22.06 25.18 33 -7 75 0 22.02 25.14 33 -7 1 0 22.97 26.09 33 -6 1 74 22.98 26.10 33 -6 36 18 21.91 25.03 33 -7 75 0 21.81 24.93 33 -8	-6.86 -7.82
15 40620 2593 QPSK 36 18 22.06 25.18 33 -7  T5 0 22.02 25.14 33 -7  1 0 22.97 26.09 33 -6  1 74 22.98 26.10 33 -7  T5 0 21.81 24.93 33 -7	-7.82
15 40620 2593 QPSK	
15 40620 2593 QPSK 1 0 22.97 26.09 33 -6 1 74 22.98 26.10 33 -6 36 18 21.91 25.03 33 -7 75 0 21.81 24.93 33 -8	7.06
15 40620 2593 QPSK 1 74 22.98 26.10 33 -6 36 18 21.91 25.03 33 -7 75 0 21.81 24.93 33 -8	-7.00
36 18 21.91 25.03 33 -7 75 0 21.81 24.93 33 -8	-6.91
36     18     21.91     25.03     33     -7       75     0     21.81     24.93     33     -8	-6.9
	-7.97
	-8.07
1 0 22.99 26.11 33 -6	-6.89
41515 2682.5 QPSK 1 74 22.63 25.75 33 -7	-7.25
36 18 21.62 24.74 33 -8	-8.26
75 0 21.60 24.72 33 -8	-8.28
1 0 22.30 <b>25.42</b> 33 -7	-7.58
39725 2503.5 16QAM 1 74 22.28 25.40 33 -7	-7.6
39725 2503.5 16QAIVI 36 18 21.02 24.14 33 -8	-8.86
75 0 21.01 24.13 33 -8	-8.87
1 0 22.20 25.32 33 -7	-7.68
15 40620 2593 16QAM 1 74 22.17 25.29 33 -7	-7.71
15 40620 2593 16QAM 1 74 22.17 23.27 33 -7	-8.95
75 0 20.96 24.08 33 -8	-8.92
1 0 21.87 24.99 33 -8	-8.01
1 74 21.78 24.90 33 -8	-8.1
41515 2682.5 16QAM 1 74 21.78 24.70 33 -6	-9.16
75 0 20.64 23.76 33 -9	-9.24
1 0 21.05 24.17 33 -8	-8.83
1 74 2110 2422 33 -8	-8.78
1 30775 1 75113 5 1 67(1)41/1	-9.83
	-9.85
	-8.85
1 74 21.02 24.15 22 0	-8.85
	-9.91
	-9.97
	-9.15
1 74 20.66 22.78 23 0	-9.22
1 11515 1 2682 5 1 61(101)	-10.22
75 0 19.62 22.74 33 -10	

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Antenna gain (dBi) 3.12

# LTE Band 41\_Uplink frequency band : 2496 to 2690 MHz LTE Band 41\_RS199\_Uplink frequency band : 2500 to 2690 MHz

		LTE E	Band 41_RS199.	_Uplink f	requency	/ band : 2500 to	2690 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.08	26.20	33	-6.8
	39750	2506	QPSK	1	99	23.00	26.12	33	-6.88
	37730	2500	QI SIX	50	25	21.98	25.10	33	-7.9
				100	0	21.94	25.06	33	-7.94
				1	0	22.93	26.05	33	-6.95
20	40620	2593	QPSK	1	99	22.87	25.99	33	-7.01
20	40020	2093	UPSK	50	25	21.86	24.98	33	-8.02
				100	0	21.88	25.00	33	-8
				1	0	23.00	26.12	33	-6.88
	41490	2680	QPSK	1	99	22.89	26.01	33	-6.99
	41490	2000	UPSK	50	25	21.64	24.76	33	-8.24
				100	0	21.62	24.74	33	-8.26
				1	0	22.36	25.48	33	-7.52
	20750	2507	1/04/4	1	99	22.26	25.38	33	-7.62
	39750	2506	16QAM	50	25	21.03	24.15	33	-8.85
				100	0	20.99	24.11	33	-8.89
		2593	16QAM	1	0	22.22	25.34	33	-7.66
20	40/20			1	99	22.12	25.24	33	-7.76
20	40620			50	25	20.92	24.04	33	-8.96
				100	0	20.97	24.09	33	-8.91
				1	0	21.98	25.10	33	-7.9
	41.400	2400	1/0414	1	99	21.84	24.96	33	-8.04
	41490	2680	16QAM	50	25	20.06	23.18	33	-9.82
				100	0	19.86	22.98	33	-10.02
				1	0	21.13	24.25	33	-8.75
	20750	2507	(4000	1	99	21.26	24.38	33	-8.62
	39750	2506	64QAM	50	25	20.00	23.12	33	-9.88
				100	0	20.01	23.13	33	-9.87
				1	0	21.01	24.13	33	-8.87
20	40/00	2502	(4044	1	99	20.96	24.08	33	-8.92
20	40620	2593	64QAM	50	25	19.94	23.06	33	-9.94
				100	0	19.90	23.02	33	-9.98
				1	0	20.78	23.90	33	-9.1
	44.400	0,400	(404)4	1	99	20.67	23.79	33	-9.21
	41490	2680	64QAM —	50	25	19.77	22.89	33	-10.11
				100	0	19.58	22.70	33	-10.3

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Antenna gain (dBi) 3.4

		L	TE Band 66_Up	iink freq	uency ba				
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.95	26.35	30	-3.65
	131979	1710.7	QPSK	1	5	22.97	26.37	30	-3.63
	131979	1710.7	UPSK	3	2	23.01	26.41	30	-3.59
				6	0	22.04	25.44	30	-4.56
				1	0	22.91	26.31	30	-3.69
1.4	132322	1745	QPSK	1	5	22.94	26.34	30	-3.66
1.4	132322	1745	UPSK	3	2	22.98	26.38	30	-3.62
				6	0	21.99	25.39	30	-4.61
				1	0	22.82	26.22	30	-3.78
	132665	1779.3	QPSK	1	5	22.81	26.21	30	-3.79
	132000	1779.3	UPSK	3	2	22.89	26.29	30	-3.71
				6	0	21.87	25.27	30	-4.73
				1	0	22.45	25.85	30	-4.15
	131979	1710.7	16QAM	1	5	22.32	25.72	30	-4.28
	131979	1710.7	TOQAIVI	3	2	22.16	25.56	30	-4.44
				6	0	21.11	24.51	30	-5.49
			1745 16QAM	1	0	22.51	25.91	30	-4.09
1.4	132322	1745		1	5	22.41	25.81	30	-4.19
1.4	132322	1745		3	2	22.10	25.50	30	-4.5
				6	0	21.08	24.48	30	-5.52
				1	0	21.87	25.27	30	-4.73
	122//5	1770.2	1/0414	1	5	21.92	25.32	30	-4.68
	132665	1779.3	16QAM	3	2	21.92	25.32	30	-4.68
				6	0	20.97	24.37	30	-5.63
				1	0	21.36	24.76	30	-5.24
	131979	1710 7	44000	1	5	21.42	24.82	30	-5.18
	1319/9	1710.7	64QAM	3	2	21.25	24.65	30	-5.35
				6	0	20.14	23.54	30	-6.46
				1	0	21.26	24.66	30	-5.34
1.4	132322	1745	64QAM	1	5	21.26	24.66	30	-5.34
1.4	132322	1/45	04QAIVI	3	2	21.23	24.63	30	-5.37
				6	0	20.05	23.45	30	-6.55
				1	0	21.19	24.59	30	-5.41
	122//5	1770.2	44000	1	5	21.03	24.43	30	-5.57
	132665	1779.3	64QAM —	3	2	20.98	24.38	30	-5.62
				6	0	19.92	23.32	30	-6.68

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Antenna gain (dBi)

	gair (abi)	3.4							
		L	TE Band 66_Up	link freq	uency ba	nd : 1710 to 178	80 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.07	26.47	30	-3.53
	121007	1711 [	QPSK	1	14	22.98	26.38	30	-3.62
	131987	1711.5	QP3K	8	4	22.13	25.53	30	-4.47
				15	0	22.13	25.53	30	-4.47
				1	0	22.99	26.39	30	-3.61
3	132322	1745	QPSK	1	14	22.93	26.33	30	-3.67
3	132322	1745	UPSK	8	4	22.06	25.46	30	-4.54
				15	0	22.07	25.47	30	-4.53
				1	0	22.85	26.25	30	-3.75
	132657	1778.5	QPSK	1	14	22.87	26.27	30	-3.73
	132037	1770.5	QF3K	8	4	21.93	25.33	30	-4.67
				15	0	21.97	25.37	30	-4.63
				1	0	22.43	25.83	30	-4.17
	131987	1711.5	16QAM	1	14	22.37	25.77	30	-4.23
	131707	1711.5	TOCAIVI	8	4	21.22	24.62	30	-5.38
				15	0	21.09	24.49	30	-5.51
		1745	5 16QAM	1	0	22.35	25.75	30	-4.25
3	132322			1	14	22.36	25.76	30	-4.24
J	132322	1743		8	4	21.18	24.58	30	-5.42
				15	0	21.16	24.56	30	-5.44
				1	0	22.08	25.48	30	-4.52
	132657	1778.5	16QAM	1	14	22.02	25.42	30	-4.58
	132037	1770.5	TOCAW	8	4	21.12	24.52	30	-5.48
				15	0	21.07	24.47	30	-5.53
				1	0	21.30	24.70	30	-5.3
	131987	1711.5	64QAM	1	14	21.35	24.75	30	-5.25
	131707	1711.5	0+Q/11/1	8	4	20.19	23.59	30	-6.41
				15	0	20.14	23.54	30	-6.46
				1	0	21.28	24.68	30	-5.32
3	132322	1745	64QAM	1	14	21.20	24.60	30	-5.4
J	102022	1775	0 1 Q/ ((V)	8	4	20.26	23.66	30	-6.34
				15	0	20.04	23.44	30	-6.56
				1	0	21.15	24.55	30	-5.45
	132657	1778.5	64OAM	1	14	21.26	24.66	30	-5.34
i		1778.5	64QAM —	8	4	20.02	23.42	30	-6.58
				15	0	19.96	23.36	30	-6.64

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		<u> </u>							
		L	TE Band 66_Up	link freq	uency ba	nd : 1710 to 178	80 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.97	26.37	30	-3.63
	131997	1712.5	QPSK	1	24	22.96	26.36	30	-3.64
	131997	1/12.3	UPSK	12	6	22.12	25.52	30	-4.48
				25	0	22.07	25.47	30	-4.53
				1	0	22.98	26.38	30	-3.62
5	132322	1745	QPSK	1	24	22.94	26.34	30	-3.66
3	132322	1745	UPSK	12	6	22.06	25.46	30	-4.54
				25	0	22.01	25.41	30	-4.59
				1	0	22.94	26.34	30	-3.66
	122/47	1777 Г	QPSK	1	24	22.85	26.25	30	-3.75
	132647	1777.5	UPSK	12	6	21.97	25.37	30	-4.63
				25	0	21.94	25.34	30	-4.66
				1	0	22.20	25.60	30	-4.4
	131997	1710 F	16QAM	1	24	22.25	25.65	30	-4.35
	131997	1712.5	712.5 TOQAIVI	12	6	21.17	24.57	30	-5.43
				25	0	21.08	24.48	30	-5.52
				1	0	22.53	25.93	30	-4.07
_	12222	1745	1/0414	1	24	22.40	25.80	30	-4.2
5	132322	1745	16QAM	12	6	21.17	24.57	30	-5.43
				25	0	21.10	24.50	30	-5.5
				1	0	22.19	25.59	30	-4.41
	122447	1777.5	16QAM	1	24	22.18	25.58	30	-4.42
	132647	1///.5	TOQAIVI	12	6	21.04	24.44	30	-5.56
				25	0	21.03	24.43	30	-5.57
				1	0	21.31	24.71	30	-5.29
	121007	1710 F	640004	1	24	21.19	24.59	30	-5.41
	131997	1712.5	64QAM	12	6	20.23	23.63	30	-6.37
				25	0	20.16	23.56	30	-6.44
				1	0	21.04	24.44	30	-5.56
Е	132322	1745	64QAM	1	24	20.96	24.36	30	-5.64
5	132322	1745	04QAIVI	12	6	20.14	23.54	30	-6.46
				25	0	20.11	23.51	30	-6.49
				1	0	21.01	24.41	30	-5.59
	132647	1777.5	640004	1	24	21.01	24.41	30	-5.59
	132047	1///.5	64QAM —	12	6	20.07	23.47	30	-6.53
				25	0	19.96	23.36	30	-6.64

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Antenna gain (dBi)

	gair (abi)	3.4							
		L	TE Band 66_Up	link freq	uency ba	nd : 1710 to 178	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.98	26.38	30	-3.62
	122022	1715	ODCK	1	49	22.98	26.38	30	-3.62
	132022	1715	QPSK	25	12	22.14	25.54	30	-4.46
				50	0	22.13	25.53	30	-4.47
				1	0	23.01	26.41	30	-3.59
10	132322	1745	QPSK	1	49	22.91	26.31	30	-3.69
10	132322	1745	UPSK	25	12	22.02	25.42	30	-4.58
				50	0	22.06	25.46	30	-4.54
				1	0	22.87	26.27	30	-3.73
	132622	1775	QPSK	1	49	22.81	26.21	30	-3.79
	132022	1775	UPSK	25	12	21.91	25.31	30	-4.69
				50	0	21.93	25.33	30	-4.67
				1	0	22.46	25.86	30	-4.14
	132022	1715	16QAM	1	49	22.21	25.61	30	-4.39
132	132022	1713	TOCAIVI	25	12	21.20	24.60	30	-5.4
				50	0	21.18	24.58	30	-5.42
		322 1745	16QAM	1	0	22.41	25.81	30	-4.19
10	132322			1	49	22.17	25.57	30	-4.43
10	132322			25	12	21.10	24.50	30	-5.5
				50	0	21.04	24.44	30	-5.56
				1	0	21.93	25.33	30	-4.67
	132622	1775	16QAM	1	49	21.97	25.37	30	-4.63
	132022	1775	TOUAIVI	25	12	21.01	24.41	30	-5.59
				50	0	20.95	24.35	30	-5.65
				1	0	21.24	24.64	30	-5.36
	132022	1715	64QAM	1	49	21.24	24.64	30	-5.36
	132022	1713	04QAIVI	25	12	20.20	23.60	30	-6.4
				50	0	20.12	23.52	30	-6.48
				1	0	21.25	24.65	30	-5.35
10	132322	1745	64QAM	1	49	21.19	24.59	30	-5.41
10	132322	1740	04QAIVI	25	12	20.05	23.45	30	-6.55
				50	0	20.05	23.45	30	-6.55
				1	0	21.04	24.44	30	-5.56
	132622	1775	64QAM	1	49	20.95	24.35	30	-5.65
	132022	1775	U4QAIVI	25	12	20.00	23.40	30	-6.6
				50	0	19.99	23.39	30	-6.61

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Antenna gain (dBi)

7 ti iterina	· ,	3.4							
		L	TE Band 66_Up	link freq	uency ba	nd : 1710 to 178	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.01	26.41	30	-3.59
	100047	4747 5	ODCK	1	74	22.84	26.24	30	-3.76
	132047	1717.5	QPSK	36	18	22.13	25.53	30	-4.47
				75	0	21.96	25.36	30	-4.64
				1	0	23.02	26.42	30	-3.58
15	12222	1745	QPSK	1	74	22.92	26.32	30	-3.68
15	132322	1745	QPSK	36	18	22.05	25.45	30	-4.55
				75	0	21.98	25.38	30	-4.62
				1	0	22.84	26.24	30	-3.76
	132597	1772.5	QPSK	1	74	22.76	26.16	30	-3.84
	132397	1772.3	UPSK	36	18	21.96	25.36	30	-4.64
				75	0	21.91	25.31	30	-4.69
				1	0	22.40	25.80	30	-4.2
	132047	1717.5	16QAM	1	74	22.33	25.73	30	-4.27
	132047	1717.5	TOUAIVI	36	18	21.14	24.54	30	-5.46
				75	0	20.99	24.39	30	-5.61
		2 1745	16QAM	1	0	22.32	25.72	30	-4.28
15	132322			1	74	22.16	25.56	30	-4.44
10	132322	1745	TOCAIVI	36	18	21.09	24.49	30	-5.51
				75	0	21.01	24.41	30	-5.59
				1	0	22.14	25.54	30	-4.46
	132597	1772.5	16QAM	1	74	21.98	25.38	30	-4.62
	132397	1772.3	TOQAW	36	18	21.03	24.43	30	-5.57
				75	0	20.94	24.34	30	-5.66
				1	0	21.30	24.70	30	-5.3
	132047	1717.5	64QAM	1	74	21.17	24.57	30	-5.43
	132047	1717.5	04QAIVI	36	18	20.17	23.57	30	-6.43
				75	0	20.01	23.41	30	-6.59
				1	0	21.37	24.77	30	-5.23
15	132322	1745	64QAM	1	74	21.15	24.55	30	-5.45
10	132322	1740	U4QAIVI	36	18	20.15	23.55	30	-6.45
				75	0	20.05	23.45	30	-6.55
				1	0	21.02	24.42	30	-5.58
	132597	1772.5	64QAM	1	74	21.09	24.49	30	-5.51
	132377	1772.5	UTCAW	36	18	20.06	23.46	30	-6.54
				75	0	19.96	23.36	30	-6.64

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Antenna gain (dBi)

7 ti iterina	. ,	3.4							
		L	TE Band 66_Up	link freq	uency ba	nd: 1710 to 178	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.15	26.55	30	-3.45
	122072	1720	ODCK	1	99	22.88	26.28	30	-3.72
	132072	1720	QPSK	50	25	22.01	25.41	30	-4.59
				100	0	21.95	25.35	30	-4.65
				1	0	22.98	26.38	30	-3.62
20	132322	1745	QPSK	1	99	22.81	26.21	30	-3.79
20	132322	1745	QP3K	50	25	22.02	25.42	30	-4.58
				100	0	21.95	25.35	30	-4.65
				1	0	22.92	26.32	30	-3.68
	132572	1770	QPSK	1	99	22.82	26.22	30	-3.78
	132372	1770	UPSK	50	25	21.88	25.28	30	-4.72
				100	0	21.90	25.30	30	-4.7
				1	0	22.50	25.90	30	-4.1
	132072	1720	16QAM	1	99	22.32	25.72	30	-4.28
	132072	1720	TOQAIVI	50	25	21.04	24.44	30	-5.56
				100	0	21.00	24.40	30	-5.6
		22 1745	16QAM	1	0	22.48	25.88	30	-4.12
20	132322			1	99	22.22	25.62	30	-4.38
20	132322	1745	TOCAIVI	50	25	21.05	24.45	30	-5.55
				100	0	20.97	24.37	30	-5.63
				1	0	22.10	25.50	30	-4.5
	132572	1770	16QAM	1	99	22.02	25.42	30	-4.58
	132372	1770	TOQAW	50	25	21.00	24.40	30	-5.6
				100	0	20.99	24.39	30	-5.61
				1	0	21.30	24.70	30	-5.3
	132072	1720	64QAM	1	99	20.91	24.31	30	-5.69
	132072	1720	U4QAIVI	50	25	20.03	23.43	30	-6.57
				100	0	20.03	23.43	30	-6.57
				1	0	21.14	24.54	30	-5.46
20	132322	1745	64QAM	1	99	20.98	24.38	30	-5.62
20	132322	1743	UTUAIVI	50	25	20.04	23.44	30	-6.56
				100	0	20.02	23.42	30	-6.58
				1	0	21.11	24.51	30	-5.49
	132572	1770	64QAM	1	99	21.10	24.50	30	-5.5
	102012	1770	UTCAW	50	25	19.93	23.33	30	-6.67
				100	0	19.96	23.36	30	-6.64

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Antenna	gain (dBi)	1.26	7							
	J ( 2 · )	1.20	LTE Band 71_U	plink fre	quency b	and: 663 to 698	B MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	ERP Limit (dBm)	Margin (dB)	
				1	0	23.10	22.21	34.77	-12.56	
	122147	//	QPSK	1	24	22.81	21.92	34.77	-12.85	
	133147	665.5	QPSK	12	6	22.14	21.25	34.77	-13.52	
				25	0	22.10	21.21	34.77	-13.56	
				1	0	23.12	22.23	34.77	-12.54	
5	133297	680.5	QPSK	1	24	22.99	22.10	34.77	-12.67	
5	133297	080.5	UP3K	12	6	22.13	21.24	34.77	-13.53	
				25	0	22.19	21.30	34.77	-13.47	
				1	0	23.12	22.23	34.77	-12.54	
	133447	695.5	QPSK	1	24	22.99	22.10	34.77	-12.67	
	133447	095.5	UPSK	12	6	22.13	21.24	34.77	-13.53	
				25	0	22.19	21.30	34.77	-13.47	
				1	0	22.56	21.67	34.77	-13.1	
	133147	665.5	16QAM	1	24	22.05	21.16	34.77	-13.61	
	133147	000.0	TOQAW	12	6	21.12	20.23	34.77	-14.54	
				25	0	21.13	20.24	34.77	-14.53	
		680.5	16QAM	1	0	22.54	21.65	34.77	-13.12	
5	133297			1	24	22.17	21.28	34.77	-13.49	
3	133297			12	6	21.16	20.27	34.77	-14.5	
				25	0	21.19	20.30	34.77	-14.47	
				1	0	22.54	21.65	34.77	-13.12	
	133447	695.5	16QAM	1	24	22.17	21.28	34.77	-13.49	
	133447	075.5	TOCAW	12	6	21.16	20.27	34.77	-14.5	
				25	0	21.19	20.30	34.77	-14.47	
				1	0	21.29	20.40	34.77	-14.37	
	133147	665.5	64QAM	1	24	21.04	20.15	34.77	-14.62	
	133147	003.3	04QAW	12	6	20.18	19.29	34.77	-15.48	
				25	0	20.06	19.17	34.77	-15.6	
				1	0	21.37	20.48	34.77	-14.29	
5	133297	680.5	64OAM	1	24	21.28	20.39	34.77	-14.38	
3	1332/1	000.0	UTQAW	12	6	20.25	19.36	34.77	-15.41	
				25	0	20.13	19.24	34.77	-15.53	
				1	0	21.37	20.48	34.77	-14.29	
	133447	695.5	64QAM —	1	24	21.28	20.39	34.77	-14.38	
	133777	075.5	OTQ/(IVI	12	6	20.25	19.36	34.77	-15.41	
					25	0	20.13	19.24	34.77	-15.53

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Antenna	gain (dBi)	1.26	LTC Day 174 11	I! I C			NALL-				
			LTE Band 71_U	plink free	quency b			500			
BW	UL	Frequency		RB	RB	Conducted	ERP	ERP	Margin		
(MHz)	Channel	(MHz)	Modulation	Size	Offset	Average	Average	Limit	(dB)		
		, ,		1	0	(dBm)	(dBm)	(dBm)	40.50		
				1	0	23.08	22.19	34.77	-12.58		
	133172	668	QPSK	1	49	23.01	22.12	34.77	-12.65		
				25	12	22.15	21.26	34.77	-13.51		
				50	0	22.12	21.23	34.77	-13.54		
				1	0	23.11	22.22	34.77	-12.55		
10	133297	680.5	QPSK	1	49	22.96	22.07	34.77	-12.7		
				25	12	22.17	21.28	34.77	-13.49		
				50	0	22.16	21.27	34.77	-13.5		
				1	0	23.05	22.16	34.77	-12.61		
	133422	693	QPSK	1	49	22.93	22.04	34.77	-12.73		
				25	12	22.14	21.25	34.77	-13.52		
				50	0	22.08	21.19	34.77	-13.58		
				1	0	22.43	21.54	34.77	-13.23		
	133172	668	16QAM	1	49	22.38	21.49	34.77	-13.28		
	100172		102111	25	12	21.15	20.26	34.77	-14.51		
				50	0	21.13	20.24	34.77	-14.53		
		680.5	-	1	0	22.35	21.46	34.77	-13.31		
10	133297		16QAM	1	49	22.38	21.49	34.77	-13.28		
10	133277	000.5	16QAM	25	12	21.17	20.28	34.77	-14.49		
				50	0	21.14	20.25	34.77	-14.52		
				1	0	22.36	21.47	34.77	-13.3		
	133422	693	16QAM	1	49	22.11	21.22	34.77	-13.55		
	133422	073	TOCAW	25	12	21.11	20.22	34.77	-14.55		
				50	0	21.08	20.19	34.77	-14.58		
				1	0	21.22	20.33	34.77	-14.44		
	133172	668	64QAM	1	49	21.09	20.20	34.77	-14.57		
	133172	000	UTUAIVI	25	12	20.16	19.27	34.77	-15.5		
				50	0	20.21	19.32	34.77	-15.45		
				1	0	21.15	20.26	34.77	-14.51		
10	133297	680.5	64QAM	1	49	21.27	20.38	34.77	-14.39		
10	13327/	000.5	U4QAIVI	25	12	20.24	19.35	34.77	-15.42		
				50	0	20.21	19.32	34.77	-15.45		
				1	0	21.30	20.41	34.77	-14.36		
	133422	602	64001	1	49	20.99	20.10	34.77	-14.67		
	133422	693	64QAM	25	12	20.11	19.22	34.77	-15.55		
							50	0	20.15	19.26	34.77

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Antenna	gain (dBi)	1.26	1						
	<u> </u>		LTE Band 71_U	plink fre	quency b	and: 663 to 698	B MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	23.14	22.25	34.77	-12.52
	122107	/70 5	QPSK	1	74	23.07	22.18	34.77	-12.59
	133197	670.5	QPSK	36	18	22.05	21.16	34.77	-13.61
				75	0	22.21	21.32	34.77	-13.45
				1	0	23.15	22.26	34.77	-12.51
15	122207	400 E	ODCK	1	74	22.96	22.07	34.77	-12.7
15	133297	680.5	QPSK	36	18	22.22	21.33	34.77	-13.44
				75	0	22.20	21.31	34.77	-13.46
				1	0	23.07	22.18	34.77	-12.59
	133397	690.5	QPSK	1	74	22.92	22.03	34.77	-12.74
	133397	090.5	UP3K	36	18	22.09	21.20	34.77	-13.57
				75	0	22.05	21.16	34.77	-13.61
				1	0	22.54	21.65	34.77	-13.12
	133197	670.5	16QAM	1	74	22.13	21.24	34.77	-13.53
	133197	070.5	TOUAIVI	36	18	21.14	20.25	34.77	-14.52
				75	0	21.17	20.28	34.77	-14.49
			680.5 16QAM	1	0	22.46	21.57	34.77	-13.2
15	122207	690.5		1	74	22.18	21.29	34.77	-13.48
15	133297	080.5	TOUAIVI	36	18	21.19	20.30	34.77	-14.47
				75	0	21.19	20.30	34.77	-14.47
				1	0	22.26	21.37	34.77	-13.4
	133397	690.5	16QAM	1	74	22.23	21.34	34.77	-13.43
	133397	090.5	TOUAIVI	36	18	21.08	20.19	34.77	-14.58
				75	0	21.05	20.16	34.77	-14.61
				1	0	21.24	20.35	34.77	-14.42
	133197	670.5	64QAM	1	74	21.24	20.35	34.77	-14.42
	133197	070.5	04QAIVI	36	18	20.16	19.27	34.77	-15.5
				75	0	20.26	19.37	34.77	-15.4
				1	0	21.47	20.58	34.77	-14.19
15	133297	680.5	64QAM	1	74	21.02	20.13	34.77	-14.64
13	133297	0.000	04QAIVI	36	18	20.20	19.31	34.77	-15.46
				75	0	20.16	19.27	34.77	-15.5
				1	0	21.31	20.42	34.77	-14.35
	133397	690.5	64QAM	1	74	20.96	20.07	34.77	-14.7
	133371	0,70.5	04QAIVI	36	18	20.08	19.19	34.77	-15.58
				75	0	20.05	19.16	34.77	-15.61

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Antenna	gain (dBi)	1.26	1						
7 111011110	ga (42.)	1.20	LTE Band 71_U	plink fre	quency b	and: 663 to 698	B MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	ERP Limit (dBm)	Margin (dB)
				1	0	23.20	22.31	34.77	-12.46
	122222	(72	ODCK	1	99	23.03	22.14	34.77	-12.63
	133222	673	QPSK	50	25	22.24	21.35	34.77	-13.42
				100	0	22.15	21.26	34.77	-13.51
				1	0	23.09	22.20	34.77	-12.57
20	122207	/ 00 F	QPSK	1	99	23.03	22.14	34.77	-12.63
20	133297	680.5	QPSK	50	25	22.20	21.31	34.77	-13.46
				100	0	22.18	21.29	34.77	-13.48
				1	0	23.11	22.22	34.77	-12.55
	133372	688	QPSK	1	99	22.87	21.98	34.77	-12.79
	133372	000	UP3K	50	25	22.08	21.19	34.77	-13.58
				100	0	22.15	21.26	34.77	-13.51
				1	0	22.26	21.37	34.77	-13.4
	12222	673	14000	1	99	22.37	21.48	34.77	-13.29
	133222	0/3	16QAM	50	25	21.20	20.31	34.77	-14.46
				100	0	21.09	20.20	34.77	-14.57
		680.5		1	0	22.27	21.38	34.77	-13.39
20	133297		14000	1	99	22.30	21.41	34.77	-13.36
20	133297		16QAM	50	25	21.21	20.32	34.77	-14.45
				100	0	21.12	20.23	34.77	-14.54
				1	0	22.48	21.59	34.77	-13.18
	133372	688	16QAM	1	99	22.31	21.42	34.77	-13.35
	133372	000	TOCAIVI	50	25	21.15	20.26	34.77	-14.51
				100	0	21.08	20.19	34.77	-14.58
				1	0	21.34	20.45	34.77	-14.32
	133222	673	64QAM	1	99	21.24	20.35	34.77	-14.42
	133222	0/3	04QAIVI	50	25	20.18	19.29	34.77	-15.48
				100	0	20.18	19.29	34.77	-15.48
				1	0	21.15	20.26	34.77	-14.51
20	133297	680.5	64OAM	1	99	21.24	20.35	34.77	-14.42
20	133271	000.5	U4QAIVI	50	25	20.22	19.33	34.77	-15.44
				100	0	20.13	19.24	34.77	-15.53
				1	0	21.54	20.65	34.77	-14.12
	133372	688	64QAM	1	99	21.12	20.23	34.77	-14.54
	133372	688		50	25	20.14	19.25	34.77	-15.52
				100	0	20.09	19.20	34.77	-15.57

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#### LTE Band 41\_HPUE 7.5.1

Antenna	gain (dBi)	3.12							
	_	L	TE Band 41_Up	link frequ	uency ba	nd : 2496 to 269	0 MHz		
		LTE E	Band 41_RS 199	_Uplink f	requency	y band : 2500 to	2690 MHz		
DW		F		DD	DD	Conducted	EIRP	EIRP	Manaia
BW (MILE)	UL	Frequency	Modulation	RB Size	RB	Average	Average	Limit	Margin
(MHz)	Channel	(MHz)		Size	Offset	(dBm)	(dBm)	(dBm)	(dB)
				1	0	22.46	25.58	33	-7.42
	39675	2498.5	QPSK	1	24	22.87	25.99	33	-7.01
	39073	2490.0	QF3K	12	6	24.41	27.53	33	-5.47
				25	0	24.41	27.53	33	-5.47
				1	0	25.31	28.43	33	-4.57
5	40620	2593	QPSK	1	24	25.29	28.41	33	-4.59
	70020	2373	Q1 31X	12	6	24.35	27.47	33	-5.53
				25	0	24.35	27.47	33	-5.53
		2687.5	QPSK	1	0	23.25	26.37	33	-6.63
	41565			1	24	23.01	26.13	33	-6.87
				12	6	24.21	27.33	33	-5.67
				25	0	24.20	27.32	33	-5.68
	39675	2498.5	16QAM	1	0	24.56	27.68	33	-5.32
				1	24	24.59	27.71	33	-5.29
				12	6	23.45	26.57	33	-6.43
				25	0	23.46	26.58	33	-6.42
	40620			1	0	24.51	27.63	33	-5.37
5		2593	16QAM	1	24	24.54	27.66	33	-5.34
		2373	TOZAW	12	6	23.43	26.55	33	-6.45
				25	0	23.37	26.49	33	-6.51
		2687.5	16QAM	1	0	24.27	27.39	33	-5.61
	41565			1	24	24.23	27.35	33	-5.65
				12	6	23.23	26.35	33	-6.65
				25	0	23.22	26.34	33	-6.66
			64QAM	1	0	23.35	26.47	33	-6.53
	39675	2498.5		1	24	23.38	26.50	33	-6.5
	0,0,0			12	6	22.52	25.64	33	-7.36
				25	0	22.49	25.61	33	-7.39
				1	0	23.22	26.34	33	-6.66
5	40620	2593	64QAM	1	24	23.31	26.43	33	-6.57
				12	6	22.50	25.62	33	-7.38
				25	0	22.43	25.55	33	-7.45
				1	0	23.09	26.21	33	-6.79
	41565	2687.5	64QAM	1	24	23.08	26.20	33	-6.8
	41000			12	6	22.27	25.39	33	-7.61
				25	0	22.25	25.37	33	-7.63

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Antenna	gain (dBi)	3.12							
	LTE Band 41_Uplink frequency band : 2496 to 2690 MHz								
						band : 2500 to			
BW	UL	Frequency	Modulation	RB	RB	Conducted Average	EIRP Average	EIRP Limit	Margin
(MHz)	Channel	(MHz)	Modulation	Size	Offset	(dBm)	(dBm)	(dBm)	(dB)
				1	0	22.54	25.66	33	-7.34
	20700	0504	ODCK	1	49	23.75	26.87	33	-6.13
	39700	2501	QPSK	25	12	24.45	27.57	33	-5.43
				50	0	24.44	27.56	33	-5.44
				1	0	25.37	28.49	33	-4.51
10	40620	2502	ODCK	1	49	25.33	28.45	33	-4.55
10	40620	2593	QPSK	25	12	24.38	27.50	33	-5.5
				50	0	24.39	27.51	33	-5.49
				1	0	23.42	26.54	33	-6.46
	41540	2685	QPSK	1	49	23.15	26.27	33	-6.73
				25	12	24.24	27.36	33	-5.64
				50	0	24.23	27.35	33	-5.65
	39700	2501	16QAM	1	0	24.58	27.70	33	-5.3
				1	49	24.61	27.73	33	-5.27
				25	12	23.47	26.59	33	-6.41
				50	0	23.47	26.59	33	-6.41
	40620			1	0	24.67	27.79	33	-5.21
10		2593	16QAM	1	49	24.57	27.69	33	-5.31
10		2373	TOCAW	25	12	23.47	26.59	33	-6.41
				50	0	23.38	26.50	33	-6.5
		2685	16QAM	1	0	24.39	27.51	33	-5.49
	41540			1	49	24.29	27.41	33	-5.59
	41540			25	12	23.26	26.38	33	-6.62
				50	0	23.28	26.40	33	-6.6
				1	0	23.38	26.50	33	-6.5
	39700	2501	64QAM	1	49	23.59	26.71	33	-6.29
	07700			25	12	22.48	25.60	33	-7.4
				50	0	22.46	25.58	33	-7.42
				1	0	23.61	26.73	33	-6.27
10	40620	2593	64QAM	1	49	23.47	26.59	33	-6.41
				25	12	22.46	25.58	33	-7.42
				50	0	22.40	25.52	33	-7.48
				1	0	23.19	26.31	33	-6.69
	41540	2685	64QAM	1	49	23.09	26.21	33	-6.79
				25	12	22.30	25.42	33	-7.58
				50	0	22.26	25.38	33	-7.62

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Antenna	gain (dBi)	3.12	1							
	LTE Band 41_Uplink frequency band : 2496 to 2690 MHz LTE Band 41_RS199_Uplink frequency band : 2500 to 2690 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	22.51	25.63	33	-7.37	
	39725	2503.5	QPSK	1	74	25.50	28.62	33	-4.38	
	39723	2003.0	UPSK	36	18	24.43	27.55	33	-5.45	
				75	0	24.45	27.57	33	-5.43	
				1	0	25.36	28.48	33	-4.52	
15	40620	2593	QPSK	1	74	25.31	28.43	33	-4.57	
13	40020	2373	QI SK	36	18	24.42	27.54	33	-5.46	
				75	0	24.43	27.55	33	-5.45	
			QPSK	1	0	23.20	26.32	33	-6.68	
	41515	2682.5		1	74	22.61	25.73	33	-7.27	
				36	18	24.26	27.38	33	-5.62	
				75	0	24.24	27.36	33	-5.64	
	39725	2503.5	16QAM	1	0	24.64	27.76	33	-5.24	
				1	74	24.61	27.73	33	-5.27	
				36	18	23.44	26.56	33	-6.44	
				75	0	23.49	26.61	33	-6.39	
				1	0	24.65	27.77	33	-5.23	
15	40620	2593	16QAM	1	74	24.56	27.68	33	-5.32	
15	40020	2593	TOCIAIVI	36	18	23.40	26.52	33	-6.48	
				75	0	23.40	26.52	33	-6.48	
				1	0	24.41	27.53	33	-5.47	
	41515	2682.5	16QAM	1	74	24.27	27.39	33	-5.61	
	41010			36	18	23.25	26.37	33	-6.63	
				75	0	23.27	26.39	33	-6.61	
			64QAM	1	0	23.41	26.53	33	-6.47	
	39765	2507.5		1	74	23.42	26.54	33	-6.46	
				36	18	22.45	25.57	33	-7.43	
				75	0	22.48	25.60	33	-7.4	
				1	0	23.44	26.56	33	-6.44	
15	40620	2593	64QAM	1	74	23.30	26.42	33	-6.58	
13				36	18	22.43	25.55	33	-7.45	
				75	0	22.41	25.53	33	-7.47	
		2682.5		1	0	23.19	26.31	33	-6.69	
	41515		64QAM	1	74	23.07	26.19	33	-6.81	
				36	18	22.27	25.39	33	-7.61	
				75	0	22.27	25.39	33	-7.61	

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BW (NHz)	Antenna	gain (dBi)	3.12	1							
Miles   Miles   March   Modulation   Miles											
20				Modulation			Average	Average	Limit		
20					1		22.61	25.73	33	-7.27	
20		30750	2506	UDSK	1					-4.48	
20		39730	2500	QF 3K	50	25	24.47	27.59		-5.41	
20					100	0	24.48	27.60	33	-5.4	
20					1	0		28.86		-4.14	
20 40620 2593 16QAM 1 0 24.44 27.53 33 -5.44 27.54 28.36 33 -5.44 27.56 27.77 28.2 27.44 28.36 27.77 28.2 27.44 28.36 27.77 28.2 27.44 28.36 27.77 28.2 27.44 28.36 27.77 28.2 27.44 28.36 27.44 28.36 27.77 28.2 27.44 28.36 27.35 28.2 27.44 28.36 27.77 28.2 27.44 28.36 27.35 28.2 27.44 28.36 27.77 28.2 27.45 28.2 27.44 28.36 27.77 28.2 27.45	20	40620	2502	ODCK	1	99	25.29	28.41	33	-4.59	
41490 2680 PSK	20	40020	2093	UPSK	50	25	24.41	27.53		-5.47	
1 99 23.53 26.65 33 -6.35					100	0	24.44	27.56	33	-5.44	
20 40620 2593 16QAM 1 99 24.65 27.77 33 -5.23 33 -5.42 1 0 24.65 27.77 33 -5.23 16QAM 1 99 24.66 27.77 33 -5.23 16QAM 1 99 24.46 27.58 33 -5.23 16QAM 1 99 24.46 27.58 33 -5.42 16QAM 1 99 24.46 27.58 33 -6.43 16QAM 1 99 24.40 27.52 33 -5.48 16QAM 1 99 24.40 27.52 33 -5.48 16QAM 1 99 24.40 27.52 33 -5.48 16QAM 1 99 24.40 27.52 33 -6.55 16QAM 1 99 24.40 27.52 33 -6.55 16QAM 1 99 24.40 27.52 33 -6.65 16QAM 1 99 24.40 27.52 33 -6.48 16QAM 1 99 24.40 27.52 33 -6.49 16QAM 1 99 24.40 27.52 33 -6.47 17.36 16QAM 1 99 24.40 27.52 33 -6.47 17.44				QPSK	1	0	25.24	28.36	33	-4.64	
20 40620 2593 16QAM 1 99 24.46 27.58 33 -5.66 25 23.45 26.57 33 -5.68 25 23.45 26.57 33 -5.42 27.44 33 -5.56 25 23.45 26.57 33 -5.23 26.45 27.77 27.78		41.400	2680		1	99	23.53	26.65	33	-6.35	
20		41490			50	25	24.32	27.44	33	-5.56	
20 40620 2593 16QAM 1 99 24.61 27.73 33 -5.27  100 0 25 23.53 26.65 33 -6.35  100 0 23.50 26.62 33 -6.38  1 0 24.65 27.77 33 -5.23  1 0 24.65 27.77 33 -5.23  1 1 0 24.65 27.77 33 -5.23  1 1 99 24.46 27.58 33 -5.42  2593 16QAM 1 99 24.46 27.58 33 -6.43  1 0 24.40 27.52 33 -6.43  1 99 24.28 27.40 33 -5.48  1 99 24.28 27.40 33 -5.6  1 99 24.28 27.40 33 -5.6  1 99 24.28 27.40 33 -6.55  100 0 23.24 26.36 33 -6.55  100 0 23.24 26.36 33 -6.64  1 99 23.39 26.51 33 -6.49  2593 64QAM 1 99 23.39 26.51 33 -7.36  100 0 22.49 25.61 33 -7.36  100 0 22.49 25.61 33 -7.39  40620 2593 64QAM 1 99 23.28 26.40 33 -7.36  1 99 23.28 26.40 33 -7.36  1 99 23.28 26.40 33 -7.44  1 99 23.28 26.40 33 -7.44  1 99 23.28 26.55 33 -7.44  1 99 23.28 26.40 33 -7.44  1 99 23.28 26.40 33 -7.44  1 99 23.28 26.55 33 -7.44  1 99 23.28 26.35 33 -6.65  100 0 22.46 25.58 33 -7.44  1 99 23.29 26.21 33 -6.65  3 -7.42 3 -7.51					100	0	24.23	27.35	33	-5.65	
20		39750	2506	16QAM	1	0	24.65	27.77	33	-5.23	
20					1	99	24.61	27.73	33	-5.27	
20					50	25	23.53	26.65	33	-6.35	
20					100						
20					1	0	24.65	27.77	33	-5.23	
41490 2680 64QAM	20	40/20	2502	1/0414	1	99	24.46		33	-5.42	
41490 2680 16QAM 100 0 23.46 26.58 33 -6.42 1 0 24.40 27.52 33 -5.48 1 99 24.28 27.40 33 -5.6 50 25 23.33 26.45 33 -6.55 100 0 23.24 26.36 33 -6.55 100 0 23.24 26.36 33 -6.64 1 0 23.40 26.52 33 -6.48 1 99 23.39 26.51 33 -6.49 50 25 22.52 25.64 33 -7.36 100 0 22.49 25.61 33 -7.39 100 0 22.49 25.61 33 -6.47 1 99 23.28 26.40 33 -7.39 1 0 23.41 26.53 33 -6.47 1 99 23.28 26.40 33 -7.44 100 0 22.46 25.58 33 -7.44 100 0 22.46 25.58 33 -7.42 100 0 22.46 25.58 33 -7.42 100 0 23.23 26.35 33 -6.65 100 0 22.46 25.58 33 -7.42 1 0 23.23 26.35 33 -6.679 100 0 25.24 1 25.49 33 -7.51	20	40620	2593	16QAIVI	50	25	23.45	26.57	33	-6.43	
1 99 24.28 27.40 33 -5.6  50 25 23.33 26.45 33 -6.55  100 0 23.24 26.36 33 -6.64  39750 2506 100 0 23.24 26.36 33 -6.48  1 99 23.39 26.51 33 -6.48  1 99 23.39 26.51 33 -6.49  50 25 22.52 25.64 33 -7.36  100 0 22.49 25.61 33 -7.39  1 0 23.41 26.53 33 -6.47  1 99 23.28 26.40 33 -6.47  1 99 23.28 26.40 33 -7.44  1 99 23.28 26.40 33 -7.44  1 100 0 22.46 25.58 33 -7.44  1 100 0 22.46 25.58 33 -7.42  1 1 0 23.23 26.35 33 -6.65  1 1 99 23.09 26.21 33 -6.79  50 25 22.37 25.49 33 -7.51					100	0	23.46	26.58	33	-6.42	
16QAM   50   25   23.33   26.45   33   -6.55   100   0   23.24   26.36   33   -6.64   100   0   23.40   26.52   33   -6.48   100   0   23.40   26.52   33   -6.48   100   0   23.40   26.52   33   -6.49   100   0   22.49   25.61   33   -7.36   100   0   22.49   25.61   33   -7.39   100   0   22.49   25.61   33   -6.47   100   0   23.41   26.53   33   -6.47   100   0   23.41   26.53   33   -6.47   100   0   22.46   25.56   33   -7.44   100   0   22.46   25.58   33   -7.42   100   0   22.46   25.58   33   -7.42   100   0   23.23   26.35   33   -6.65   100   25.25   22.37   25.49   33   -7.51   100   25.50   25   22.37   25.49   33   -7.51   25.50   25   22.37   25.49   33   -7.51   25.50   25   22.37   25.49   33   -7.51   25.50   25   22.37   25.49   33   -7.51   25.50   25   22.37   25.49   33   -7.55   25.50   25   22.37   25.49   33   -7.55   25.50   25   22.37   25.49   33   -7.55   25.50   25   22.37   25.49   33   -7.55   25.50   25   22.37   25.49   33   -7.55   25.50   2					1	0	24.40	27.52	33	-5.48	
20 40620 2593 64QAM 50 25 23.33 26.45 33 -6.55 100 0 23.24 26.36 33 -6.64 1 0 23.40 26.52 33 -6.48 1 99 23.39 26.51 33 -6.49 25.61 33 -7.36 100 0 22.49 25.61 33 -7.36 100 0 22.49 25.61 33 -6.47 1 99 23.28 26.40 33 -6.47 1 99 23.28 26.40 33 -6.47 1 99 23.28 26.40 33 -7.44 100 0 22.46 25.58 33 -7.42 100 0 22.46 25.58 33 -7.42 1 0 23.23 26.35 33 -6.65 100 0 23.23 26.35 33 -6.65 100 0 25.59 25 22.37 25.49 33 -7.51		44.400	0/00	1/0414	1	99	24.28	27.40	33	-5.6	
20 40620 2593 640AM 640AM 1 0 23.40 26.52 33 -6.48  1 99 23.39 26.51 33 -6.49  50 25 22.52 25.64 33 -7.36  100 0 22.49 25.61 33 -7.39  1 0 23.41 26.53 33 -6.47  1 99 23.28 26.40 33 -6.67  50 25 22.44 25.56 33 -7.44  100 0 22.46 25.58 33 -7.42  1 0 23.23 26.35 33 -6.65  1 99 23.09 26.21 33 -6.79  50 25 22.37 25.49 33 -7.51		41490	2680	16QAM	50	25	23.33	26.45	33	-6.55	
20 40620 2593 640AM 640AM 1 0 23.40 26.52 33 -6.48  1 99 23.39 26.51 33 -6.49  50 25 22.52 25.64 33 -7.36  100 0 22.49 25.61 33 -7.39  1 0 23.41 26.53 33 -6.47  1 99 23.28 26.40 33 -6.67  50 25 22.44 25.56 33 -7.44  100 0 22.46 25.58 33 -7.42  1 0 23.23 26.35 33 -6.65  1 99 23.09 26.21 33 -6.79  50 25 22.37 25.49 33 -7.51											
20 40620 2593 64QAM 1 99 23.39 26.51 33 -6.49  40620 2593 64QAM 25.61 33 -7.36  1 0 22.49 25.61 33 -7.39  1 0 23.41 26.53 33 -6.47  1 99 23.28 26.40 33 -6.65  50 25 22.44 25.56 33 -7.44  100 0 22.46 25.58 33 -7.42  41490 2680 64QAM 1 99 23.09 26.21 33 -6.65  1 99 23.09 26.21 33 -6.79  50 25 22.37 25.49 33 -7.51					1	0		26.52		-6.48	
20 40620 2593 64QAM 50 25 22.52 25.64 33 -7.36 100 0 22.49 25.61 33 -7.39 100 0 23.41 26.53 33 -6.47 1 99 23.28 26.40 33 -6.6 100 0 25.56 33 -7.44 100 0 22.46 25.58 33 -7.42 100 0 22.46 25.58 33 -7.42 100 0 23.23 26.35 33 -6.65 1 99 23.09 26.21 33 -6.79 100 25 25 22.37 25.49 33 -7.51		39750	2506	64QAM	1	99		26.51	33		
20 40620 2593 640AM 1 0 23.41 26.53 33 -6.47 1 99 23.28 26.40 33 -6.6 50 25 22.44 25.56 33 -7.44 100 0 22.46 25.58 33 -7.42 41490 2680 640AM 1 99 23.09 26.21 33 -6.79 50 25 22.37 25.49 33 -7.51					50	25	22.52	25.64	33	-7.36	
20 40620 2593 640AM 1 0 23.41 26.53 33 -6.47 1 99 23.28 26.40 33 -6.6 50 25 22.44 25.56 33 -7.44 100 0 22.46 25.58 33 -7.42 41490 2680 640AM 1 99 23.09 26.21 33 -6.79 50 25 22.37 25.49 33 -7.51											
20 40620 2593 640AM 1 99 23.28 26.40 33 -6.6 50 25 22.44 25.56 33 -7.44 100 0 22.46 25.58 33 -7.42 1 0 23.23 26.35 33 -6.65 1 99 23.09 26.21 33 -6.79 50 25 22.37 25.49 33 -7.51						0					
20 40620 2593 64QAM 50 25 22.44 25.56 33 -7.44 100 0 22.46 25.58 33 -7.42 1 0 23.23 26.35 33 -6.65 1 99 23.09 26.21 33 -6.79 50 25 22.37 25.49 33 -7.51		40620	2593	64QAM	1	99		26.40		-6.6	
100 0 22.46 25.58 33 -7.42 1 0 23.23 26.35 33 -6.65 1 99 23.09 26.21 33 -6.79 50 25 22.37 25.49 33 -7.51	20										
41490 2680 64QAM 1 0 23.23 26.35 33 -6.65 1 99 23.09 26.21 33 -6.79 50 25 22.37 25.49 33 -7.51					100						
41490 2680 64QAM 1 99 23.09 26.21 33 -6.79 50 25 22.37 25.49 33 -7.51						0					
41490 2680 64QAM 50 25 22.37 25.49 33 -7.51		44 :	2680	64QAM							
		41490									
					100	0	22.23	25.35	33	-7.65	

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# **OUT OF BAND EMISSION AT ANTENNA TERMINALS**

#### 8.1 Standard Applicable

FCC §22.917(a), §24.238(a), §27.53(h), §90.543(e)(3) RSS-130 §4.7, RSS-132 §5.5, RSS-133 §6.5.1, RSS-139 §6.6, RSS-140 §4.4, RSS-195 §5.6, RSS-199 §4.5

Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

# FCC §27.53(a)

For operations in the 2305-2320 MHz band and the 2345-2360 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:

- (4) For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:
  - (i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;
  - (ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;
  - (iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

#### FCC §27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB (-13dBm)
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

# FCC §27.53(g)

Compliance for operations in the 600 MHz, 698-746 MHz, 746-758 MHz and the 776-788 MHz band with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

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# ISED RSS-130 §4.7.1

Compliance for operations in the 617-652 MHz, 663-698 MHz, 698-756 MHz and the 777-787 MHz band, the unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10 log10 p (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

# ISED RSS-130 §4.7.2 f

In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:

76 + 10 log10 p (watts), dB, for base and fixed equipment and

65 + 10 log10 p (watts), dB, for mobile and portable equipment

the e.i.r.p. in the band 1559-1610 MHz shall not exceed -70 dBW/MHz for wideband signal and -80 dBW for discrete emission with bandwidth less than 700 Hz.

# ISED RSS-132 §5.5

Mobile and base station equipment shall comply with the limits in (i) and (ii) below.

- i. In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands specified in Section 5.1, the power of emissions per any 1% of the occupied bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10p (watts).
- After the first 1.0 MHz immediately outside and adjacent to each of the sub-bands, the power of emissions in any 100 kHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10 p (watts). If the measurement is performed using 1% of the occupied bandwidth, power integration over 100 kHz is required.

#### ISED RSS-133 §6.5.1

Equipment shall comply with the limits in (i) and (ii) below.

- i. In the 1.0 MHz bands immediately outside and adjacent to the equipment's operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10p(watts).
- ii. After the first 1.0 MHz, the emission power in any 1 MHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 log10p(watts). If the measurement is performed using 1% of the emission bandwidth, power integration over 1.0 MHz is required.

#### FCC §27.53(h)(1)

(h) AWS emission limits—(1) General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10} (P) dB$ .

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# RSS-139 §6.6

In the first 1.0 MHz bands immediately outside and adjacent to the equipment's smallest operating frequency block, Footnote 2 which can contain the equipment's occupied bandwidth, the emission power per any 1% of the emission bandwidth shall be attenuated below the transmitter output power P (in dBW) by at least 43 + 10 log10 p (watts) dB.

After the first 1.0 MHz outside the equipment's smallest operating frequency block, which can contain the equipment's occupied bandwidth, the emission power in any 1 MHz bandwidth shall be attenuated below the transmitter output power P (in dBW) by at least 43 + 10 log10 p (watts) dB.

# ISED RSS-140 §4.4

- a. For any frequency between 769-775 MHz and 799-806 MHz:
  - 76 + 10 log (p), dB in a 6.25 kHz band for fixed and base station equipment
  - ii. 65 + 10 log (p), dB in a 6.25 kHz band for mobile and portable/hand-held equip-
- b. For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: 43 + 10 log (p), dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

# FCC §27.53(m) (4) (6)

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Measurement procedure. Compliance with these rules is based on the use of measurement nstrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

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# ISED RSS-195 §5.6

The power of any emission outside the frequency range(s) in which the equipment operates shall be attenuated below the transmitter power, P(dBW), by the amount indicated in Table 2, where p is the transmitter output power measured in watts.

Table 2 — Unwanted Emissions for Mobile, Portable and Low-Power Fixed Subscriber Equipment									
Frequency (MHz)	Attenuation (dB)	Frequency (MHz)	Attenuation (dB)						
<2200	43 + 10 log <sub>10</sub> (p)	2324 - 2328	61 + 10 log <sub>10</sub> (p)						
2200 - 2288	70 + 10 log <sub>10</sub> (p)	2328 - 2337	67 + 10 log <sub>10</sub> (p)						
2288 - 2292	67 + 10 log <sub>10</sub> (p)	2337 - 2341	61 + 10 log <sub>10</sub> (p)						
2292 - 2296	61 + 10 log <sub>10</sub> (p)	2341 - 2345	55 + 10 log10(p)						
2296 - 2300	55 + 10 log <sub>10</sub> (p)	2345 - 2360	43 + 10 log10(p) FootnoteNote						
2300 - 2305	43 + 10 log <sub>10</sub> (p)	2360 - 2365	43 + 10 log <sub>10</sub> (p)						
2305 - 2320	43 + 10 log10(p) FootnoteNote	2365 - 2395	70 + 10 log <sub>10</sub> (p)						
2320 - 2324	55 + 10 log <sub>10</sub> (p)	>2395	43 + 10 log <sub>10</sub> (p)						

Note -- Mobile and portable equipment are prohibited from transmitting in the bands 2315-2320 MHz and 2345-2350 MHz. In addition, mobile and portable equipment employing FDD technology shall be restricted to transmitting in the band 2305-2315 MHz.

### RSS-199 §4.5

In the 1 MHz band immediately outside and adjacent to the channel edge, the unwanted emission power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth for base station and fixed subscriber equipment, and 2% for mobile subscriber equipment. Beyond the 1 MHz band, a resolution bandwidth of 1 MHz shall be used. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz, or 1% or 2% of the occupied bandwidth, as applicable.

Equipment shall comply with the following unwanted emission limits:

for base station and fixed subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least 43 + 10 log10 p for mobile subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least:

- 40 + 10 log10 p from the channel edges to 5 MHz away
- 43 + 10 log10 p between 5 MHz and X MHz from the channel edges, and
- 55 + 10 log10 p at X MHz and beyond from the channel edges

In addition, the attenuation shall not be less than 43 + 10 log10 p on all frequencies between 2490.5 MHz and 2496 MHz, and 55 + 10 log10 p at or below 2490.5 MHz.

In (a) and (b), p is the transmitter power measured in watts and X is 6 MHz or the equipment occupied bandwidth, whichever is greater.

# FCC §90.543 (e)

For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside

licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within

licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations.
- (2) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

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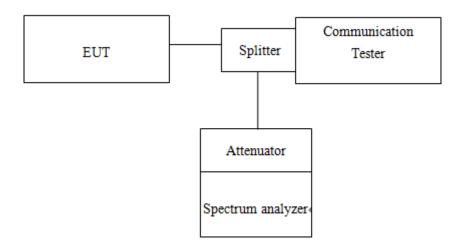
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(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least 43 + 10 log (P) dB.

# FCC §90.691 Emission mask requirements for EA-based systems

- (a) Out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:
- (1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
- (2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

#### 8.2 **Test SET-UP**



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#### 8.3 **Measurement Procedure**

#### **Conducted Emission** 8.3.1

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. Set RBW = 1MHz & VBW = 1MHz on Spectrum.
- 3. Allow trace to fully stabilize
- 4. Repeat above procedures until all default test channel measured were complete.

#### 8.3.2 **Band Edge**

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. The band edge of low and high channels for the highest RF powers was measured. Setting RBW ≥ 1% EBW.
- 3. Allow trace to fully stabilize
- 4. Repeat above procedures until all default test channel measured were complete.

#### **Band Edge Measurement Result:** 8.4

Refer to next pages.

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### Band Edge\_Band2\_1.4MHz\_QPSK\_RB1\_0\_CH18607



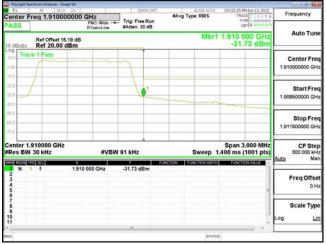
#### Band Edge Band2 1.4MHz QPSK RB1 5 CH19193



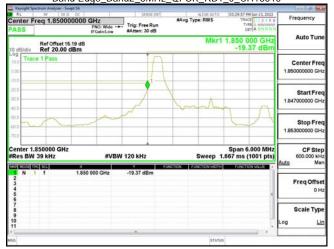
# Band Edge\_Band2\_1.4MHz\_QPSK\_RB6\_0\_CH18607



# Band Edge\_Band2\_1.4MHz\_QPSK\_RB6\_0\_CH19193



#### Band Edge Band2 3MHz QPSK RB1 0 CH18615



# Band Edge\_Band2\_3MHz\_QPSK\_RB1\_14\_CH19185



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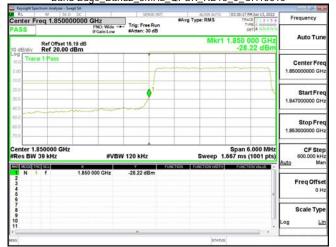
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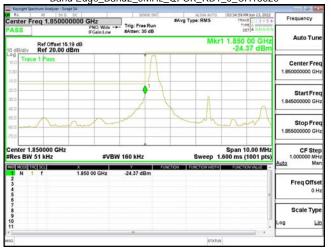
# Band Edge\_Band2\_3MHz\_QPSK\_RB15\_0\_CH18615



#### Band Edge Band2 3MHz QPSK RB15 0 CH19185



Band Edge\_Band2\_5MHz\_QPSK\_RB1\_0\_CH18625



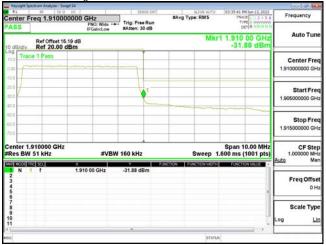
#### Band Edge\_Band2\_5MHz\_QPSK\_RB1\_24\_CH19175



Band Edge Band2 5MHz QPSK RB25 0 CH18625



Band Edge\_Band2\_5MHz\_QPSK\_RB25\_0\_CH19175



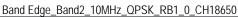
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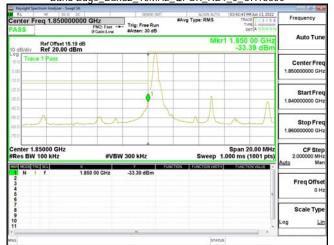
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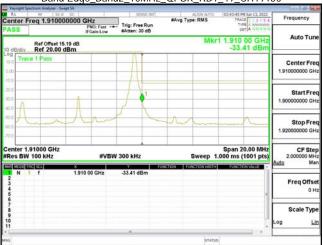


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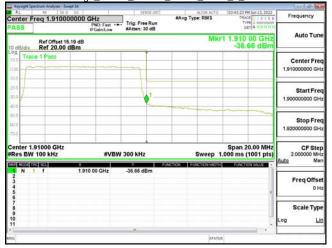
#### Band Edge Band2 10MHz QPSK RB1 49 CH19150



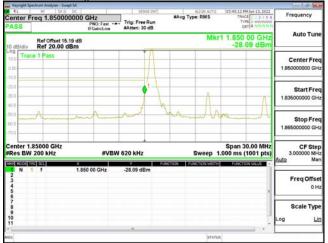
# Band Edge\_Band2\_10MHz\_QPSK\_RB50\_0\_CH18650



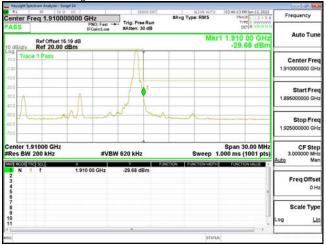
#### Band Edge\_Band2\_10MHz\_QPSK\_RB50\_0\_CH19150



### Band Edge Band2 15MHz QPSK RB1 0 CH18675



# Band Edge\_Band2\_15MHz\_QPSK\_RB1\_74\_CH19125



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### Band Edge\_Band2\_15MHz\_QPSK\_RB75\_0\_CH18675



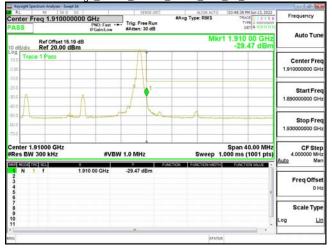
#### Band Edge Band2 15MHz QPSK RB75 0 CH19125



# Band Edge\_Band2\_20MHz\_QPSK\_RB1\_0\_CH18700



#### Band Edge\_Band2\_20MHz\_QPSK\_RB1\_99\_CH19100



#### Band Edge Band2 20MHz QPSK RB100 0 CH18700



# Band Edge\_Band2\_20MHz\_QPSK\_RB100\_0\_CH19100



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# Band Edge\_Band4\_1.4MHz\_QPSK\_RB1\_0\_CH19957



#### Band Edge Band4 1.4MHz QPSK RB1 5 CH20393



Band Edge\_Band4\_1.4MHz\_QPSK\_RB6\_0\_CH19957



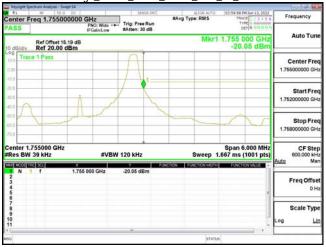
# Band Edge\_Band4\_1.4MHz\_QPSK\_RB6\_0\_CH20393



Band Edge Band4 3MHz QPSK RB1 0 CH19965



Band Edge\_Band4\_3MHz\_QPSK\_RB1\_14\_CH20385



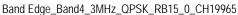
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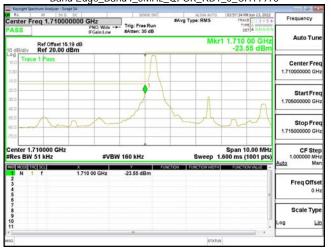




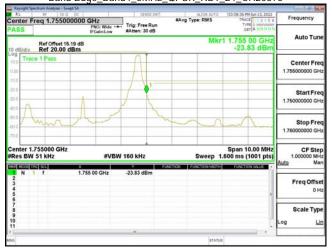
#### Band Edge Band4 3MHz QPSK RB15 0 CH20385



# Band Edge\_Band4\_5MHz\_QPSK\_RB1\_0\_CH19975



#### Band Edge\_Band4\_5MHz\_QPSK\_RB1\_24\_CH20375



#### Band Edge Band4 5MHz QPSK RB25 0 CH19975



# Band Edge\_Band4\_5MHz\_QPSK\_RB25\_0\_CH20375



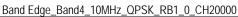
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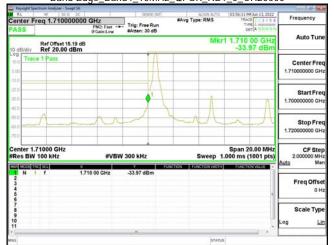
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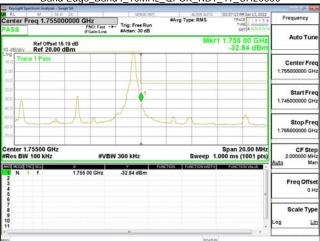


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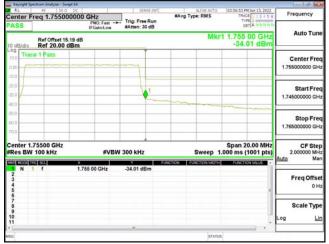
#### Band Edge Band4 10MHz QPSK RB1 49 CH20350



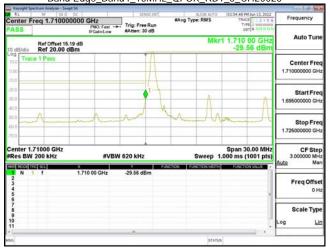
# Band Edge\_Band4\_10MHz\_QPSK\_RB50\_0\_CH20000



### Band Edge\_Band4\_10MHz\_QPSK\_RB50\_0\_CH20350



#### Band Edge Band4 15MHz QPSK RB1 0 CH20025



# Band Edge\_Band4\_15MHz\_QPSK\_RB1\_74\_CH20325



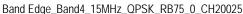
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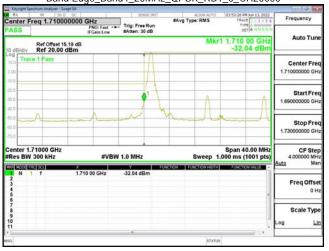




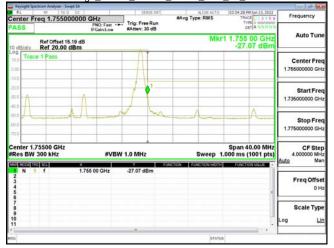
#### Band Edge Band4 15MHz QPSK RB75 0 CH20325



# Band Edge\_Band4\_20MHz\_QPSK\_RB1\_0\_CH20050



#### Band Edge\_Band4\_20MHz\_QPSK\_RB1\_99\_CH20300



#### Band Edge Band4 20MHz QPSK RB100 0 CH20050



# Band Edge\_Band4\_20MHz\_QPSK\_RB100\_0\_CH20300



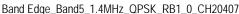
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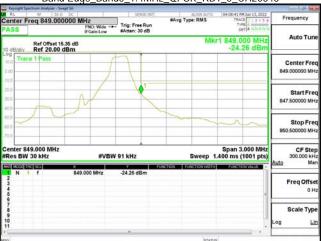


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#### Band Edge Band5 1.4MHz QPSK RB1 5 CH20643



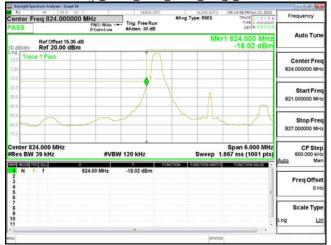
Band Edge\_Band5\_1.4MHz\_QPSK\_RB6\_0\_CH20407



#### Band Edge\_Band5\_1.4MHz\_QPSK\_RB6\_0\_CH20643



Band Edge Band5 3MHz QPSK RB1 0 CH20415



Band Edge\_Band5\_3MHz\_QPSK\_RB1\_14\_CH20635



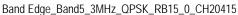
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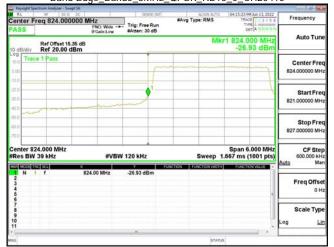
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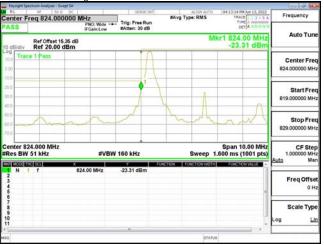




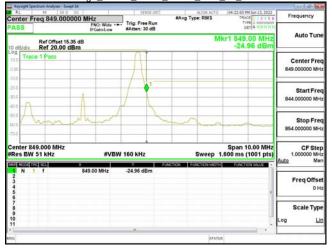
#### Band Edge Band5 3MHz QPSK RB15 0 CH20635



# Band Edge\_Band5\_5MHz\_QPSK\_RB1\_0\_CH20425



#### Band Edge\_Band5\_5MHz\_QPSK\_RB1\_24\_CH20625



### Band Edge Band5 5MHz QPSK RB25 0 CH20425



# Band Edge\_Band5\_5MHz\_QPSK\_RB25\_0\_CH20625



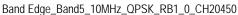
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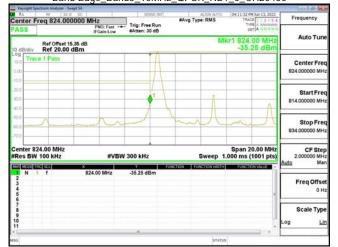
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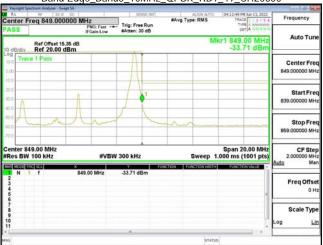


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#### Band Edge Band5 10MHz QPSK RB1 49 CH20600



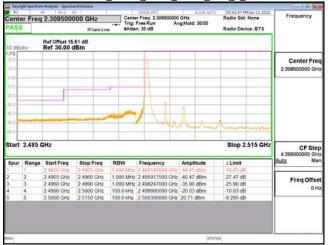
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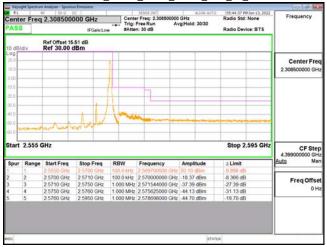
#### Band Edge\_Band5\_10MHz\_QPSK\_RB50\_0\_CH20600



#### Emission Mask Band7 5MHz QPSK RB1 0 CH20775



# Emission Mask\_Band7\_5MHz\_QPSK\_RB1\_24\_CH21425



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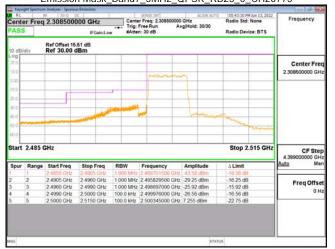
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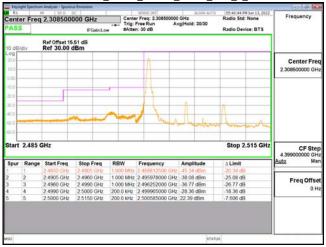
# Emission Mask\_Band7\_5MHz\_QPSK\_RB25\_0\_CH20775



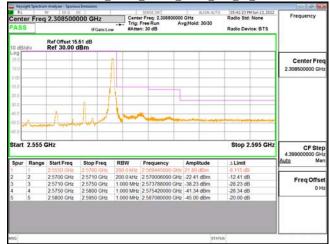
#### Emission Mask Band7 5MHz OPSK RB25 0 CH21425



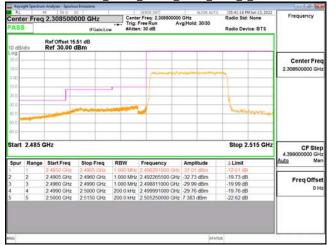
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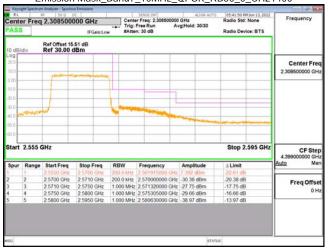
### Emission Mask\_Band7\_10MHz\_QPSK\_RB1\_49\_CH21400



#### Emission Mask Band7 10MHz QPSK RB50 0 CH20800



# Emission Mask\_Band7\_10MHz\_QPSK\_RB50\_0\_CH21400



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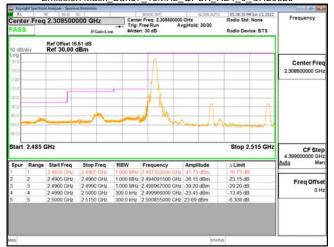
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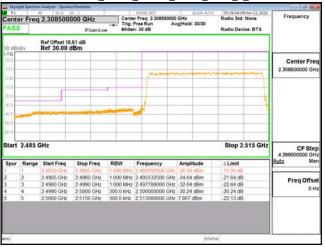
### Emission Mask\_Band7\_15MHz\_QPSK\_RB1\_0\_CH20825



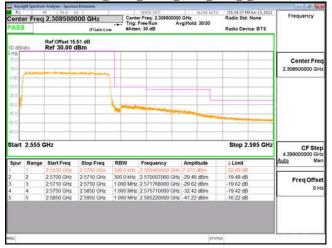
#### Emission Mask Band7 15MHz QPSK RB1 74 CH21375



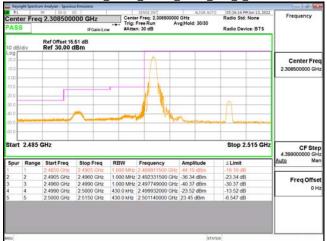
# Emission Mask\_Band7\_15MHz\_QPSK\_RB75\_0\_CH20825



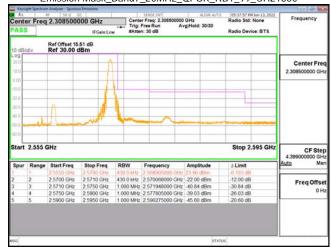
### Emission Mask\_Band7\_15MHz\_QPSK\_RB75\_0\_CH21375



#### Emission Mask Band7 20MHz QPSK RB1 0 CH20850



# Emission Mask\_Band7\_20MHz\_QPSK\_RB1\_99\_CH21350



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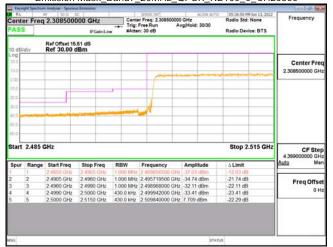
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### Emission Mask\_Band7\_20MHz\_QPSK\_RB100\_0\_CH20850



#### Emission Mask Band7 20MHz QPSK RB100 0 CH21350



# Band Edge\_Band12\_1.4MHz\_QPSK\_RB1\_0\_CH23017



#### Band Edge\_Band12\_1.4MHz\_QPSK\_RB1\_5\_CH23173



Band Edge Band12 1.4MHz QPSK RB6 0 CH23017



Band Edge\_Band12\_1.4MHz\_QPSK\_RB6\_0\_CH23173



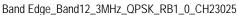
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#### Band Edge Band12 3MHz QPSK RB1 14 CH23165



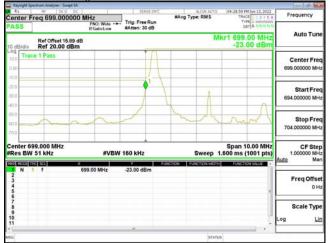
# Band Edge\_Band12\_3MHz\_QPSK\_RB15\_0\_CH23025



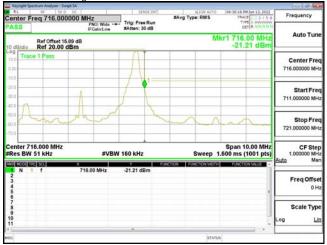
#### Band Edge\_Band12\_3MHz\_QPSK\_RB15\_0\_CH23165



### Band Edge Band12 5MHz QPSK RB1 0 CH23035



# Band Edge\_Band12\_5MHz\_QPSK\_RB1\_24\_CH23155



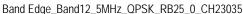
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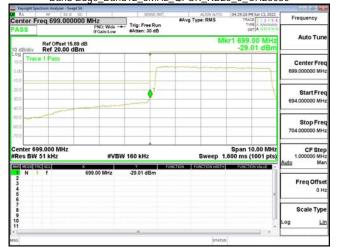
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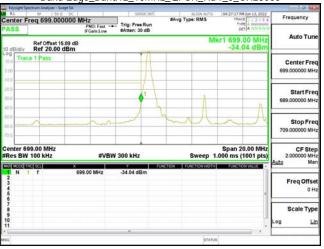




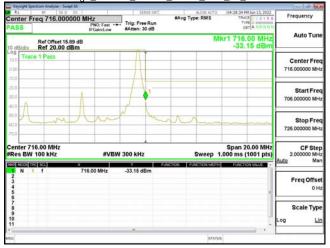
#### Band Edge Band12 5MHz QPSK RB25 0 CH23155



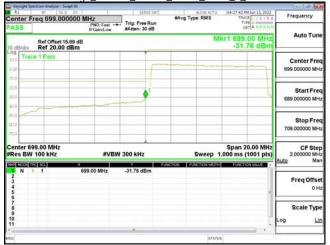
# Band Edge\_Band12\_10MHz\_QPSK\_RB1\_0\_CH23060



#### Band Edge\_Band12\_10MHz\_QPSK\_RB1\_49\_CH23130



#### Band Edge Band12 10MHz QPSK RB50 0 CH23060



# Band Edge\_Band12\_10MHz\_QPSK\_RB50\_0\_CH23130



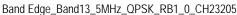
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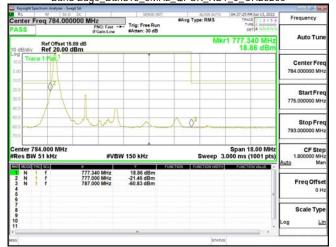
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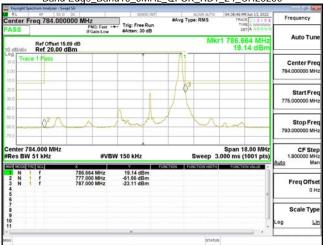


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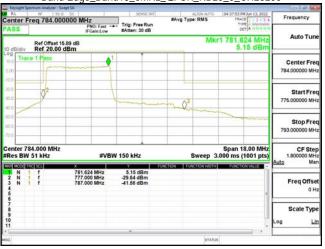




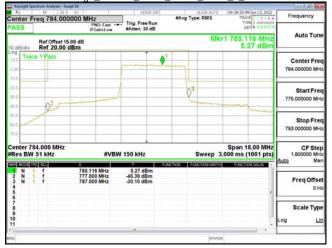
#### Band Edge Band13 5MHz QPSK RB1 24 CH23255



Band Edge\_Band13\_5MHz\_QPSK\_RB25\_0\_CH23205



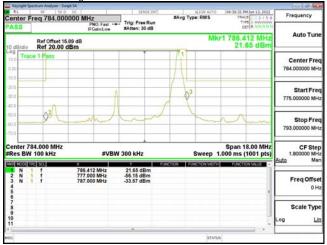
Band Edge\_Band13\_5MHz\_QPSK\_RB25\_0\_CH23255



Band Edge Band13 10MHz QPSK RB1 0 CH23230



Band Edge\_Band13\_10MHz\_QPSK\_RB1\_49\_CH23230



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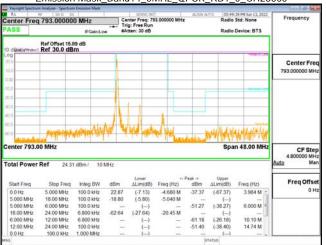


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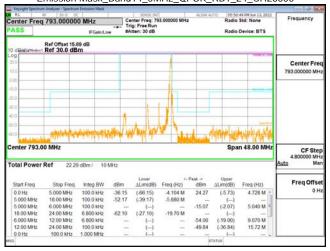
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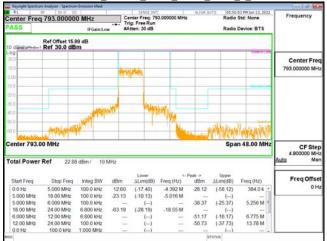
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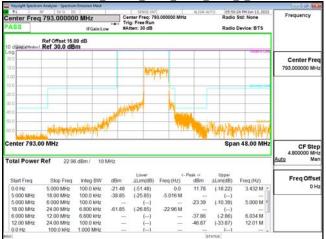
#### Emission Mask Band14 5MHz QPSK RB1 24 CH23355



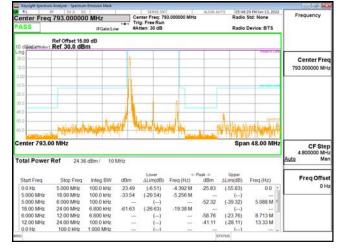
#### Emission Mask\_Band14\_5MHz\_QPSK\_RB25\_0\_CH23305



#### Band14\_5MHz\_QPSK RB25 0 CH23355 **Emission Mask**



#### Emission Mask\_Band14\_10MHz\_QPSK\_ RB1 0 CH23330



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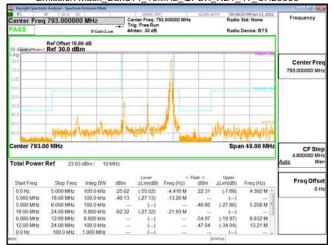
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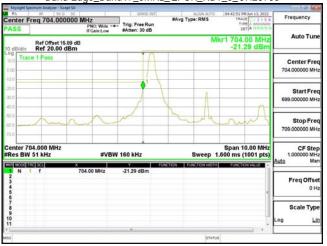
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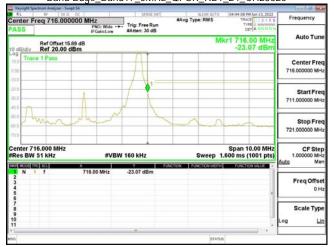
#### Band14\_10MHz\_QPSK\_ RB50 \_0\_CH23330 Emission Mask



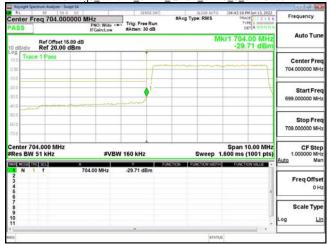
#### Band Edge\_Band17\_5MHz\_QPSK\_RB1\_0\_CH23755



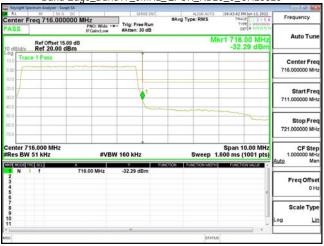
### Band Edge\_Band17\_5MHz\_QPSK\_RB1\_24\_CH23825



#### Band Edge\_Band17\_5MHz\_ QPSK RB25 0 CH23755



Band Edge\_Band17\_5MHz\_QPSK\_RB25\_0\_CH23825



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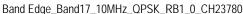
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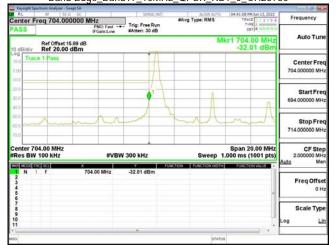
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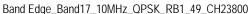
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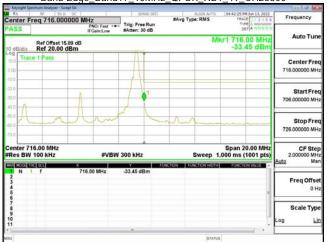


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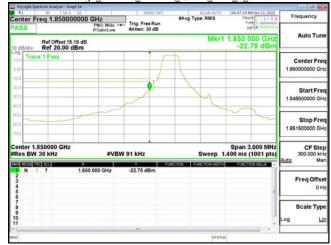
#### Band Edge\_Band17\_10MHz\_QPSK\_RB50\_0\_CH23780



### Band Edge\_Band17\_10MHz\_QPSK\_RB50\_0\_CH23800



#### Band Edge\_Band25\_1.4MHz\_QPSK\_RB1\_0\_CH26047



#### Band Edge\_Band25\_1.4MHz\_QPSK\_RB1\_5\_CH26683



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