

# TEST REPORT

of

FCC Part 2 Subpart J, Part 22 Subpart C/H,  
Part 24 Subpart E, Part 27 Subpart C and Part 90 Subpart S

FCC ID: BEJTN1R23NR


Equipment Under Test : Telematics  
Model Name : TN1R23NR  
Variant Model Name(s) : Refer to the page 4  
Applicant : LG Electronics USA  
Manufacturer : LG Electronics Inc.  
Date of Receipt : 2022.11.04  
Date of Test(s) : 2022.11.04 ~ 2023.01.20  
Date of Issue : 2023.01.20

In the configuration tested, the EUT complied with the standards specified above. This test report does not assure KOLAS accreditation.


- 1) The results of this test report are effective only to the items tested.
- 2) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.
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We are responsible for all the information of this test report except for the data(※) provided by the customer.

Tested by:

  
\_\_\_\_\_  
Murphy Kim

Technical  
Manager:

  
\_\_\_\_\_  
Jinhyoung Cho

**SGS Korea Co., Ltd. Gunpo Laboratory**

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## 1. General Information

### 1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)

- 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- 4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- Designation number: KR0150

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### 1.2. Details of Applicant

Applicant : LG Electronics USA

Address : 111 Sylvan Avenue, North Building, Englewood Cliffs, New Jersey, United States, 07632

Contact Person : Cho, Hee-jae

Phone No. : +1 201 470 2696

### 1.3. Details of Manufacturer

Company : LG Electronics Inc.

Address : 10, Magokjungang 10-ro, Gangseo-gu, Seoul, Korea, 07796

### 1.4. Description of EUT

<b>Kind of Product</b>		Telematics
<b>Model Name</b>		TN1R23NR
<b>Variant Model Names</b>		TN1R23NE
<b>Serial Number</b>		352162110229030
<b>Power Supply</b>		DC 12.5 V
<b>Rated Power</b>	<b>SIM 1</b>	LTE Band 2, 4, 5, 7, 12, 17, 26: 23 dB m LTE Band 41: 26 dB m
	<b>SIM 2</b>	LTE Band 2, 4, 5, 7, 26: 23 dB m LTE Band 41: 26 dB m
<b>Frequency Range</b>	<b>SIM 1</b>	LTE Band 2: 1 850 MHz ~ 1 910 MHz LTE Band 4: 1 710 MHz ~ 1 755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2 500 MHz ~ 2 570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 26(Part 90): 814 MHz ~ 824 MHz LTE Band 26(Part 22): 824 MHz ~ 849 MHz LTE Band 41: 2 496 MHz ~ 2 690 MHz
	<b>SIM 2</b>	LTE Band 2: 1 850 MHz ~ 1 910 MHz LTE Band 4: 1 710 MHz ~ 1 755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2 500 MHz ~ 2 570 MHz LTE Band 26(Part 90): 814 MHz ~ 824 MHz LTE Band 26(Part 22): 824 MHz ~ 849 MHz LTE Band 41: 2 496 MHz ~ 2 690 MHz
<b>Modulation Technique</b>		QPSK, 16QAM
<b>Antenna Type</b>	<b>SIM 1</b>	External Antenna
	<b>SIM 2</b>	External Antenna
<b>Antenna Gain*</b>	<b>SIM 1</b>	699 MHz ~ 716 MHz: 0.1 dB i 704 MHz ~ 716 MHz: 0.1 dB i 814 MHz ~ 824 MHz: 3 dB i 824 MHz ~ 849 MHz: 3 dB i 1 710 MHz ~ 1 755 MHz: 4.1 dB i 1 850 MHz ~ 1 910 MHz: 3.5 dB i 2 500 MHz ~ 2 570 MHz: 4.1 dB i 2 496 MHz ~ 2 690 MHz: 4.1 dB i
	<b>SIM 2</b>	814 MHz ~ 824 MHz: 5 dB i 824 MHz ~ 849 MHz: 5 dB i 1 710 MHz ~ 1 755 MHz: 5 dB i 1 850 MHz ~ 1 910 MHz: 5 dB i 2 500 MHz ~ 2 570 MHz: 5 dB i 2 496 MHz ~ 2 690 MHz: 5 dB i
<b>H/W Version</b>		Rev.D1
<b>S/W Version</b>		v004.144.010

### 1.5. Test Equipment List

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Interval	Cal. Due
Signal Generator	R&S	SMA100B	106887	Oct. 13, 2022	Annual	Oct. 13, 2023
Signal Generator	R&S	SMBV100A	255834	May 25, 2022	Annual	May 25, 2023
Spectrum Analyzer	R&S	FSV30	103210	Dec. 07, 2022	Annual	Dec. 07, 2023
Spectrum Analyzer	Agilent	N9020A	MY53421758	Aug. 26, 2022	Annual	Aug. 26, 2023
Mobile Test Unit	R&S	CMW 500	144034	Feb. 21, 2022	Annual	Feb. 21, 2023
Communication Analyzer	Anritsu	MT8821C	6262192291	Oct. 11, 2022	Annual	Oct. 11, 2023
Power Meter	Anritsu	ML2495A	1223004	Nov. 29, 2022	Annual	Nov. 29, 2023
Power Sensor	Anritsu	MA2411B	1207272	May 27, 2022	Annual	May 27, 2023
Power Splitter	Weinschel	1534	499	May 31, 2022	Annual	May 31, 2023
Temperature Chamber	ESPEC CORP.	SH-662	93000533	Jun. 02, 2022	Annual	Jun. 02, 2023
Low Pass Filter	Mini-Circuits	NLP-1200+	V 8979400903-2	Feb. 10, 2022	Annual	Feb. 10, 2023
High Pass Filter	Wainwright Instrument GmbH	WHKX10-900-1000-18000-40SS	7	Mar. 04, 2022	Annual	Mar. 04, 2023
High Pass Filter	Wainwright Instrument GmbH	WHKX2.2/12.75G-10SS	8	Mar. 04, 2022	Annual	Mar. 04, 2023
High Pass Filter	Wainwright Instrument GmbH	WHKX3.0/18G-6SS	21	Jun. 09, 2022	Annual	Jun. 09, 2023
High Pass Filter	Wainwright Instrument GmbH	WHNX7.5/26.5G-6SS	11	Oct. 24, 2022	Annual	Oct. 24, 2023
BRIDGE COUPLER	MARKI MICROWAVE INC	CBR16-0012	1542	May 06, 2022	Annual	May 06, 2023
Directional Coupler	KRYTAR	152613	122660	Jul. 06, 2022	Annual	Jul. 06, 2023
DC Power Supply	Agilent	U8002A	MY49030063	Jan. 25, 2022	Annual	Jan. 25, 2023
Preamplifier	H.P.	8447F	2944A03909	Aug. 04, 2022	Annual	Aug. 04, 2023
Preamplifier	R&S	SCU 18	10117	Jun. 13, 2022	Annual	Jun. 13, 2023
Preamplifier	TESTEK	TK-PA1840H	130016	Jan. 11, 2023	Annual	Jan. 11, 2024
Test Receiver	R&S	ESCI 7	100911	Feb. 23, 2022	Annual	Feb. 23, 2023
Loop Antenna	Schwarzbeck Mess-Elektronik	FMZB 1519	1519-039	Aug. 23, 2021	Biennial	Aug. 23, 2023
Bilog Antenna	Schwarzbeck Mess-Elektronik	VULB9163	01126	Feb. 07, 2022	Annual	Feb. 07, 2023
Horn Antenna	R&S	HF906	100326	Feb. 18, 2022	Annual	Feb. 18, 2023
Horn Antenna	Schwarzbeck Mess-Elektronik	BBHA 9170	9170-540	Nov. 30, 2022	Annual	Nov. 30, 2023
Antenna Master	Innco systems GmbH	MA4640-XP-ET	MA4640/536/383 30516/L	N.C.R.	N/A	N.C.R.
Turn Table	Innco systems GmbH	DS 1200S	N/A	N.C.R.	N/A	N.C.R.
Controller	Innco systems GmbH	CONTROLLER CO3000-4P	CO3000/963/383 30516/L	N.C.R.	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L x W x H (9.6 m x 6.4 m x 6.6 m)	N/A	N.C.R.	N/A	N.C.R.
Coaxial Cable	RFONE	MWX221-NMSNMS (4 m)	J1023142	Oct. 04, 2022	Semi-Annual	Apr. 04, 2023
Coaxial Cable	Qualwave Inc.	QA500-18-NN-10 (10 m)	22200114	Oct. 04, 2022	Semi-Annual	Apr. 04, 2023
Coaxial Cable	RADIALL	TESTPRO 3	182287	Aug. 18, 2022	Semi-Annual	Feb. 18, 2023
Coaxial Cable	RADIALL	TESTPRO 3	182288	Aug. 18, 2022	Semi-Annual	Feb. 18, 2023
Coaxial Cable	RADIALL	TESTPRO 3	182291	Aug. 18, 2022	Semi-Annual	Feb. 18, 2023

**Note;**

- For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

### 1.6. Summary of Test Results

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 2, 22, 24, 27 and 90		
Section(s)	Test Item(s)	Result
§2.1046 §22.913(a)(5) §24.232(c) §27.50(c)(10) §27.50(d)(4) §27.50(h)(2) §90.635(b)	E.R.P. / E.I.R.P.	Complied
§22.917(a) §24.238(a) §27.53(g) §27.53(h)(1) §27.53(m)(4) §90.691(a)	Radiated Spurious Emissions	Complied
§2.1046	Conducted Output Power	Complied
§2.1049	Occupied Bandwidth	Complied
§22.913(d) §24.232(d) §27.50(d)(5)	Peak-Average Ratio	Complied
§22.917(a) §24.238(a) §27.53(g) §27.53(h)(1) §27.53(m)(4) §90.691(a)	Spurious Emission at Antenna Terminal	Complied
§22.917(a) §24.238(a) §27.53(g) §27.53(h)(1) §27.53(m)(4) §90.691(a)	Band Edge and Emission Mask	Complied
§2.1055 §22.355 §24.235 §27.54 §90.213(a)	Frequency Stability	Complied

## 1.7. Sample Calculation for Offset

Where relevant, the following sample calculation is provided:

### 1.7.1. Conducted Test

Offset value (dB) = Directional Coupler (dB) + Cable loss (dB)

### 1.7.2. Radiation test

- E.I.R.P. (dB m) = Measured level (dB $\mu$ V) + Antenna factor (dB/m) + Cable loss (dB) + 20 Log D - 104.8;  
where D is the measurement distance in meters.
- E.R.P. (dB m) = E.I.R.P. (dB m) - 2.15 (dB)

## 1.8. Device Capabilities

This device contains the following capabilities;

LTE Band 17 (704 MHz ~ 716 MHz) is covered by LTE Band 12 (699 MHz ~ 716 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth. Therefore test data provided in this report covers LTE Band 17 as well as Band 12.

LTE Band 5 (824 MHz ~ 849 MHz) is covered by LTE Band 26 (824 MHz ~ 849 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth. Therefore test data provided in this report covers LTE Band 5 as well as Band 26.

## 1.9. Manufacturer Declaration

EUT has two (SIM1 and SIM2) ports, all testing were performed both SIM1, SIM2.

## 1.10. Worst Case Configuration and Mode

The worst-case is based on the conducted output power measurement investigation results. All testing was performed using QPSK and 16QAM modulations. However, the spurious radiated emission and spurious at antenna terminal were only performed on bandwidth and RB offset (with RB size 1) with the highest conducted power in QPSK.

The peak to average ratio were tested only 16QAM modulation as worst case.

The radiation test of the EUT was investigated in three orthogonal orientations X, Y, and Z, and the worst case data is reported.

### 1.11. Measurement Configuration

**SIM1**

Test Items	Band	Test Channel			Bandwidth (MHz)						Modulation		RB #		
		Low	Mid	High	1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full
Conducted Output Power	2	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
	7	V	V	V			V	V	V	V	V	V	V	V	V
	*12/17	V	V	V	V	V	V	V			V	V	V	V	V
	26/5 Part22	V	V	V	V	V	V	V	V		V	V	V	V	V
	26 Part90	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
Frequency Stability	2	-	V	-	-	-	V	-	-	-	V	-	-	-	V
	4	-	V	-	-	-	V	-	-	-	V	-	-	-	V
	7	-	V	-			V	-	-	-	V	-	-	-	V
	*12/17	-	V	-	-	-	V	-	-		V	-	-	-	V
	26/5 Part22	-	V	-	-	-	V	-	-		V	-	-	-	V
	26 Part90	-	V	-	-	-	V	-	-		V	-	-	-	V
	41	-	V	-			V	-	-	-	V	-	-	-	V
Occupied Bandwidth	2	-	V	-	V	V	V	V	V	V	V	V	-	-	V
	4	-	V	-	V	V	V	V	V	V	V	V	-	-	V
	7	-	V	-			V	V	V	V	V	V	-	-	V
	*12/17	-	V	-	V	V	V	V			V	V	-	-	V
	26/5 Part22	-	V	-	V	V	V	V	V		V	V	-	-	V
	26 Part90	-	V	-	V	V	V	V	V		V	V	-	-	V
	41	-	V	-			V	V	V	V	V	V	-	-	V
Peak-to-Average Ratio	2	V	V	V	V	V	V	V	V	V	-	V	-	-	V
	4	V	V	V	V	V	V	V	V	V	-	V	-	-	V
	7	V	V	V			V	V	V	V	-	V	-	-	V
	*12/17	V	V	V	V	V	V	V			-	V	-	-	V
	26/5 Part22	V	V	V	V	V	V	V	V		-	V	-	-	V
	26 Part90	V	V	V	V	V	V	V	V		-	V	-	-	V
	41	V	V	V			V	V	V	V	-	V	-	-	V

\*B17 is not supported 1.4M and 3M bandwidth.



Test Items	Band	Test Channel			Bandwidth (MHz)						Modulation		RB #		
		Low	Mid	High	1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full
Band edge	2	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
	4	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
	7	✓	-	✓			✓	✓	✓	✓	✓	✓	✓	-	✓
	*12/17	✓	-	✓	✓	✓	✓	✓			✓	✓	✓	-	✓
	26/5 Part22	✓	-	✓	✓	✓	✓	✓	✓		✓	✓	✓	-	✓
	26 Part90	✓	-	✓	✓	✓	✓	✓	✓		✓	✓	✓	-	✓
	41	✓	-	✓			✓	✓	✓	✓	✓	✓	✓	-	✓
Spurious Emission at Antenna Terminal and Radiated Spurious Emissions	2	✓	✓	✓	Worst case										
	4	✓	✓	✓	Worst case										
	7	✓	✓	✓	Worst case										
	*12/17	✓	✓	✓	Worst case										
	26/5 Part22	✓	✓	✓	Worst case										
	26 Part90	✓	✓	✓	Worst case										
	41	✓	✓	✓	Worst case										

\*B17 is not supported 1.4M and 3M bandwidth.

**SIM2**

Test Items	Band	Test Channel			Bandwidth (MHz)						Modulation		RB #		
		Low	Mid	High	1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full
Conducted Output Power	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	7	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
	26/5 Part22	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	26 Part90	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	41	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
Frequency Stability	2	-	✓	-	-	-	✓	-	-	-	✓	-	-	-	✓
	4	-	✓	-	-	-	✓	-	-	-	✓	-	-	-	✓
	7	-	✓	-			✓	-	-	-	✓	-	-	-	✓
	26/5 Part22	-	✓	-	-	-	✓	-	-		✓	-	-	-	✓
	26 Part90	-	✓	-	-	-	✓	-	-		✓	-	-	-	✓
	41	-	✓	-			✓	-	-	-	✓	-	-	-	✓
Occupied Bandwidth	2	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	-	-	✓
	4	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	-	-	✓
	7	-	✓	-			✓	✓	✓	✓	✓	✓	-	-	✓
	26/5 Part22	-	✓	-	✓	✓	✓	✓	✓		✓	✓	-	-	✓
	26 Part90	-	✓	-	✓	✓	✓	✓	✓		✓	✓	-	-	✓
	41	-	✓	-			✓	✓	✓	✓	✓	✓	-	-	✓

Test Items	Band	Test Channel			Bandwidth (MHz)						Modulation		RB #		
		Low	Mid	High	1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full
Peak-to-Average Ratio	2	V	V	V	V	V	V	V	V	V	-	V	-	-	V
	4	V	V	V	V	V	V	V	V	V	-	V	-	-	V
	7	V	V	V			V	V	V	V	-	V	-	-	V
	26/5 Part22	V	V	V	V	V	V	V	V		-	V	-	-	V
	26 Part90	V	V	V	V	V	V	V	V		-	V	-	-	V
	41	V	V	V			V	V	V	V	-	V	-	-	V
Band edge	2	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
	7	V	-	V			V	V	V	V	V	V	V	-	V
	26/5 Part22	V	-	V	V	V	V	V	V		V	V	V	-	V
	26 Part90	V	-	V	V	V	V	V	V		V	V	V	-	V
	41	V	-	V			V	V	V	V	V	V	V	-	V
Spurious Emission at Antenna Terminal and Radiated Spurious Emissions	2	V	V	V	Worst case										
	4	V	V	V	Worst case										
	7	V	V	V	Worst case										
	26/5 Part22	V	V	V	Worst case										
	26 Part90	V	V	V	Worst case										
	41	V	V	V	Worst case										

### 1.12. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty	
RF Output Power	0.32 dB	
Occupied Bandwidth	3.90 kHz	
Conducted Spurious Emissions	0.61 dB	
Peak to Average Ratio	0.60 dB	
Frequency Stability	5.97 kHz	
Radiated Emission, 9 kHz to 30 MHz	H	3.40 dB
	V	3.40 dB
Radiated Emission, below 1 GHz	H	4.50 dB
	V	5.10 dB
Radiated Emission, above 1 GHz	H	3.70 dB
	V	3.90 dB

All measurement uncertainty values are shown with a coverage factor of  $k=2$  to indicate a 95 % level of confidence.

### 1.13. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501-RF-RTL003736	2023.01.20	Initial

### 1.14. Emission Designator and Max Power

#### SIM1

Band	Band width (MHz)	Modulation	Low Freq. (MHz)	Upper Freq. (MHz)	Conducted Average (dB m)	Ant. Gain (dB i)	E.R.P. / E.I.R.P. Average (dB m)	E.R.P. / E.I.R.P. Average (W)	Emission Designator
2	1.4	QPSK	1 850.7	1 909.3	21.90	3.5	25.40	0.347	1M10G7D
		16QAM			21.08		24.58	0.287	1M09D7D
	3	QPSK	1 851.5	1 908.5	21.91		25.41	0.348	2M69G7D
		16QAM			20.87		24.37	0.274	2M69D7D
	5	QPSK	1 852.5	1 907.5	21.86		25.36	0.344	4M51G7D
		16QAM			20.91		24.41	0.276	4M51D7D
	10	QPSK	1 855	1 905	21.90		25.40	0.347	8M95G7D
		16QAM			20.88		24.38	0.274	8M95D7D
	15	QPSK	1 857.5	1 902.5	21.90		25.40	0.347	13M5G7D
		16QAM			20.91		24.41	0.276	13M5D7D
	20	QPSK	1 860	1 900	21.90		25.40	0.347	17M9G7D
		16QAM			20.80		24.30	0.269	17M9D7D
4	1.4	QPSK	1 710.7	1 754.3	21.61	4.1	25.71	0.372	1M10G7D
		16QAM			20.60		24.70	0.295	1M10D7D
	3	QPSK	1 711.5	1 753.5	21.65		25.75	0.376	2M68G7D
		16QAM			20.65		24.75	0.299	2M69D7D
	5	QPSK	1 712.5	1 752.5	21.64		25.74	0.375	4M51G7D
		16QAM			20.65		24.75	0.299	4M49D7D
	10	QPSK	1 715	1 750	21.64		25.74	0.375	8M92G7D
		16QAM			20.65		24.75	0.299	8M92D7D
	15	QPSK	1 717.5	1 747.5	21.62		25.72	0.373	13M5G7D
		16QAM			20.65		24.75	0.299	13M5D7D
	20	QPSK	1 720	1 745	21.64		25.74	0.375	17M9G7D
		16QAM			20.65		24.75	0.299	17M9D7D
7	5	QPSK	2 502.5	2 567.5	21.76	4.1	25.86	0.385	4M51G7D
		16QAM			20.77		24.87	0.307	4M51D7D
	10	QPSK	2 505	2 565	21.76		25.86	0.385	8M95G7D
		16QAM			20.76		24.86	0.306	8M92D7D
	15	QPSK	2 507.5	2 562.5	21.77		25.87	0.386	13M5G7D
		16QAM			20.77		24.87	0.307	13M5D7D
	20	QPSK	2 510	2 560	21.74		25.84	0.384	17M9G7D
		16QAM			21.06		25.16	0.328	17M9D7D
12	1.4	QPSK	699.7	715.3	22.05	0.1	20.00	0.100	1M09G7D
		16QAM			21.05		19.00	0.079	1M09D7D
	3	QPSK	700.5	714.5	22.06		20.01	0.100	2M68G7D
		16QAM			21.04		18.99	0.079	2M69D7D
12/17	5	QPSK	701.5	713.5	22.07		20.02	0.100	4M49G7D
		16QAM			21.06		19.01	0.080	4M49D7D
	10	QPSK	704	711	22.05		20.00	0.100	8M89G7D
		16QAM			21.06		19.01	0.080	8M95D7D

Band	Band width (MHz)	Modulation	Low Freq. (MHz)	Upper Freq. (MHz)	Conducted Average (dB m)	Ant. Gain (dB i)	E.R.P. / E.I.R.P. Average (dB m)	E.R.P. / E.I.R.P. Average (W)	Emission Designator		
26/5 Part 22	1.4	QPSK	824.7	848.3	21.88	3	22.73	0.187	1M09G7D		
		16QAM			20.96		21.81	0.152	1M10D7D		
	3	QPSK	825.5	847.5	21.97		22.82	0.191	2M68G7D		
		16QAM			20.96		21.81	0.152	2M69D7D		
	5	QPSK	826.5	846.5	21.92		22.77	0.189	4M49G7D		
		16QAM			20.95		21.80	0.151	4M49D7D		
	10	QPSK	829	844	21.93		22.78	0.190	8M95G7D		
		16QAM			20.87		21.72	0.149	8M92D7D		
	26 Part 22	15	QPSK	831.5	841.5		21.94	22.79	0.190	13M5G7D	
			16QAM				20.93	21.78	0.151	13M5D7D	
26 Part 90	1.4	QPSK	814.7	823.3	21.74	3	22.59	0.182	1M09G7D		
		16QAM			20.76		21.61	0.145	1M09D7D		
	3	QPSK	815.5	822.5	21.79		22.64	0.184	2M68G7D		
		16QAM			20.77		21.62	0.145	2M69D7D		
	5	QPSK	816.5	821.5	21.77		22.62	0.183	4M48G7D		
		16QAM			20.78		21.63	0.146	4M51D7D		
	10	QPSK	819		21.73		22.58	0.181	8M95G7D		
		16QAM	819		20.76		21.61	0.145	8M92D7D		
	15	QPSK	821.5		21.74		22.59	0.182	13M5G7D		
		16QAM	821.5		20.76		21.61	0.145	13M5D7D		
	41	5	QPSK	2 498.5	2 687.5		24.01	4.1	28.11	0.647	4M49G7D
			16QAM				22.99		27.09	0.512	4M48D7D
		10	QPSK	2 501	2 685		24.02		28.12	0.649	8M95G7D
			16QAM				23.01		27.11	0.514	8M92D7D
15		QPSK	2 503.5	2 682.5	24.01	28.11	0.647		13M4G7D		
		16QAM			23.00	27.10	0.513		13M5D7D		
20		QPSK	2 506	2 680	24.01	28.11	0.647		17M9G7D		
		16QAM			22.98	27.08	0.511		17M9D7D		

**SIM2**

Band	Band width (MHz)	Modulation	Low Freq. (MHz)	Upper Freq. (MHz)	Conducted Average (dB m)	Ant. Gain (dB i)	E.R.P. / E.I.R.P. Average (dB m)	E.R.P. / E.I.R.P. Average (W)	Emission Designator		
2	1.4	QPSK	1 850.7	1 909.3	22.87	5	27.87	0.612	1M09G7D		
		16QAM			21.90		26.90	0.490	1M09D7D		
	3	QPSK	1 851.5	1 908.5	22.91		27.91	0.618	2M69G7D		
		16QAM			21.90		26.90	0.490	2M70D7D		
	5	QPSK	1 852.5	1 907.5	22.88		27.88	0.614	4M49G7D		
		16QAM			21.85		26.85	0.484	4M51D7D		
	10	QPSK	1 855	1 905	22.77		27.77	0.598	8M95G7D		
		16QAM			21.86		26.86	0.485	8M95D7D		
	15	QPSK	1 857.5	1 902.5	22.87		27.87	0.612	13M5G7D		
		16QAM			21.90		26.90	0.490	13M5D7D		
	20	QPSK	1 860	1 900	22.88		27.88	0.614	17M9G7D		
		16QAM			21.80		26.80	0.479	17M9D7D		
	4	1.4	QPSK	1 710.7	1 754.3		22.91	5	27.91	0.618	1M10G7D
			16QAM				21.82		26.82	0.481	1M10D7D
3		QPSK	1 711.5	1 753.5	22.92	27.92	0.619		2M68G7D		
		16QAM			21.90	26.90	0.490		2M69D7D		
5		QPSK	1 712.5	1 752.5	22.90	27.90	0.617		4M49G7D		
		16QAM			21.80	26.80	0.479		4M49D7D		
10		QPSK	1 715	1 750	22.83	27.83	0.607		8M95G7D		
		16QAM			21.91	26.91	0.491		8M92D7D		
15		QPSK	1 717.5	1 747.5	22.91	27.91	0.618		13M4G7D		
		16QAM			21.90	26.90	0.490		13M5D7D		
20		QPSK	1 720	1 745	22.91	27.91	0.618		17M9G7D		
		16QAM			21.89	26.89	0.489		17M9D7D		
7		5	QPSK	2 502.5	2 567.5	23.01	5		28.01	0.632	4M49G7D
			16QAM			21.96			26.96	0.497	4M49D7D
	10	QPSK	2 505	2 565	23.02	28.02		0.634	8M95G7D		
		16QAM			21.98	26.98		0.499	8M95D7D		
	15	QPSK	2 507.5	2 562.5	23.02	28.02		0.634	13M5G7D		
		16QAM			22.00	27.00		0.501	13M5D7D		
	20	QPSK	2 510	2 560	23.00	28.00		0.631	17M9G7D		
		16QAM			22.02	27.02		0.504	17M9D7D		
26/5 Part 22	1.4	QPSK	824.7	848.3	22.77	5	25.62	0.365	1M09G7D		
		16QAM			21.80		24.65	0.292	1M09D7D		
	3	QPSK	825.5	847.5	22.81		25.66	0.368	2M68G7D		
		16QAM			21.80		24.65	0.292	2M69D7D		
	5	QPSK	826.5	846.5	22.79		25.64	0.366	4M49G7D		
		16QAM			21.79		24.64	0.291	4M49D7D		
	10	QPSK	829	844	22.80		25.65	0.367	8M95G7D		
		16QAM			21.80		24.65	0.292	8M92D7D		
26 Part 22	15	QPSK	831.5	841.5	22.73	25.58	0.361	13M5G7D			
		16QAM			21.79	24.64	0.291	13M5D7D			

Band	Band width (MHz)	Modulation	Low Freq. (MHz)	Upper Freq. (MHz)	Conducted Average (dB m)	Ant. Gain (dB i)	E.R.P. / E.I.R.P. Average (dB m)	E.R.P. / E.I.R.P. Average (W)	Emission Designator		
26 Part 90	1.4	QPSK	814.7	823.3	22.72	5	25.57	0.361	1M09G7D		
		16QAM			21.74		24.59	0.288	1M10D7D		
	3	QPSK	815.5	822.5	22.75		25.60	0.363	2M68G7D		
		16QAM			21.70		24.55	0.285	2M68D7D		
	5	QPSK	816.5	821.5	22.74		25.59	0.362	4M49G7D		
		16QAM			21.70		24.55	0.285	4M51D7D		
	10	QPSK	819		22.72		25.57	0.361	8M92G7D		
		16QAM			21.65		24.50	0.282	8M95D7D		
	15	QPSK	821.5		22.58		25.43	0.349	13M5G7D		
		16QAM			21.71		24.56	0.286	13M5D7D		
	41	5	QPSK	2 498.5	2 687.5		25.55	5	30.55	1.135	4M51G7D
			16QAM				24.54		29.54	0.899	4M51D7D
10		QPSK	2 501	2 685	25.56	30.56	1.138		8M92G7D		
		16QAM			24.55	29.55	0.902		8M92D7D		
15		QPSK	2 503.5	2 682.5	25.54	30.54	1.132		13M5G7D		
		16QAM			24.55	29.55	0.902		13M4D7D		
20		QPSK	2 506	2 680	25.54	30.54	1.132		17M9G7D		
		16QAM			24.55	29.55	0.902		17M8D7D		

### 1.15. Information of Variant Model

Model Name		Differences Hardware Part	Description
Basic Model	TN1R23NR	Reference	Fully mounted on hardware.
Variant Model	TN1R23NE	Remove Band 21 related parts	Not support LTE Band 21
		Remove QPM5679AQ, QDM5679AQ	Not support 5G NR n79

### - Supported Cellular Band

MODEL	Mode	SIM 1	SIM 2
TN1R23NR	GSM	GSM850, PCS1900	GSM850, PCS1900
	WCDMA	B2, B4, B5	N/A
	LTE	B2, B4, B5, B7, B12(B17), B26, B41	B2, B4, B5, B7, B26, B41
	5G Sub6_SA	n41	n41
	5G Sub6_NSA	n41	N/A
TN1R23NE	GSM	N/A	N/A
	WCDMA	B2, B4, B5	N/A
	LTE	B2, B4, B5, B7, B12(B17)	B7
	5G Sub6_SA	N/A	N/A
	5G Sub6_NSA	N/A	N/A

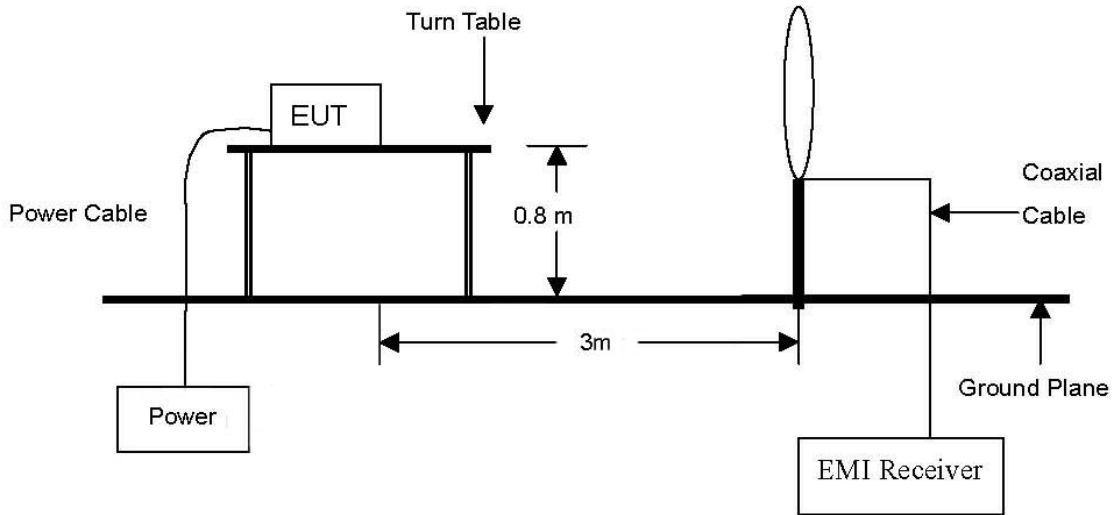
\*Operating bands are different by software.



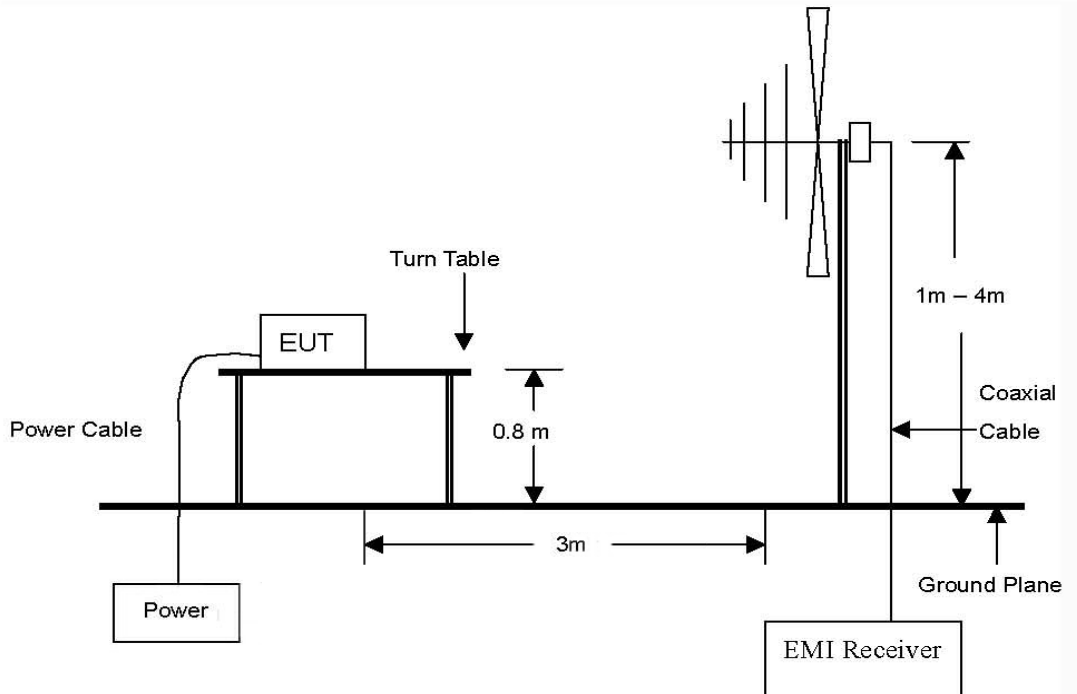
## 2. E.R.P. / E.I.R.P. & Radiated Spurious Emissions

### 2.1. Test setup

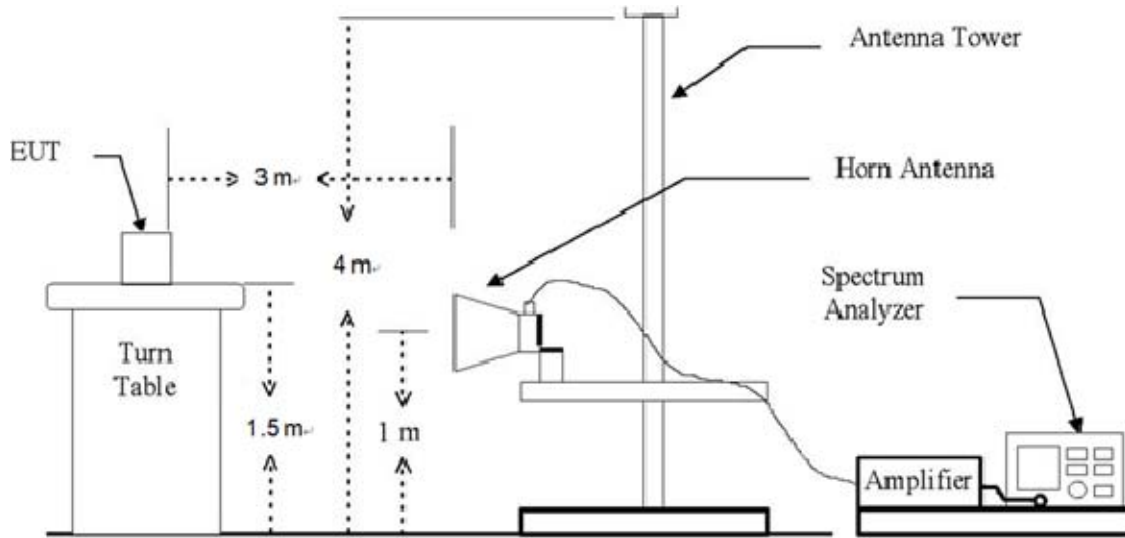
The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 GHz to 27 GHz Emissions.



## 2.2. Limit

### 2.2.1. Limit of E.R.P. / E.I.R.P.

- §22.913(a)(5), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.
- §24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.
- §27.50(c)(10), portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.
- §27.50(d)(4), fixed, mobile, and portable (hand-held) stations operating in the 1 710-1 755 MHz band and mobile and portable stations operating in the 1 695-1 710 MHz and 1 755-1 780 MHz bands are limited to 1 watt EIRP.
- §27.50(h)(2), Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.
- §90.635(b), the maximum output power of the transmitter for mobile stations is 100 watts (20 dBW).

**2.2.2. Limit of Radiated Spurious Emissions**

- §22.917(a), 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.
- §24.238(a), 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.
- §27.53(g), the power of any emission outside a 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, by at least  $43 + 10 \log (P)$  dB.
- §27.53(h)(1), for operations in the 1 695-1 710 MHz, 1 710-1 755 MHz, 1 755-1 780 MHz, 1 915-1 920 MHz, 1 995-2 000 MHz, 2 000-2 020 MHz, 2 110-2 155 MHz, 2 155-2 180 MHz, and 2 180-2 200 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.
- §27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log_{10} (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log_{10} (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log_{10} (P)$  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  $43 + 10 \log_{10} (P)$  dB on all frequencies between 2 490.5 MHz and 2 496 MHz and  $55 + 10 \log_{10} (P)$  dB at or below 2 495 MHz. Mobile Satellite Service licensees operating on frequencies below 2 495 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.
- §90.691(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  $116 \text{ Log}_{10} (f / 6.1)$  decibels or  $50 + 10 \text{ Log}_{10} (P)$  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  $43 + 10 \text{ Log}_{10} (P)$  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.

**2.3. Test Procedure: Based on ANSI/TIA 603E: 2016 and ANSI C63.26-2015 and KDB 971168 D01 Power Meas License Digital Systems v03r01.**

1. On a test site, the EUT shall be placed at 0.8 m or 1.5 m height on a turn table, and in the position close to normal use as declared by the applicant.
2. The test antenna shall be oriented initially for vertical polarization located 3 m from EUT to correspond to the fundamental frequency of the transmitter.
3. The output of the test antenna shall be connected to the measuring receiver and the peak detector is used for the measurement.
4. Radiated spurious emissions measurement method was set as follows:  
RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz, VBW  $\geq$  3 x RBW,  
Detector = RMS, trace mode = max hold, per the guidelines of KDB 971168 D01 Power Meas License Digital Systems v03r01.
5. The transmitter shall be switched on, the measuring receiver shall be tuned to the frequency of the transmitter under test.
6. The test antenna shall be raised and lowered through the specified range of height until the maximum signal level is detected by the measuring receiver.
7. The transmitter shall be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
8. The test antenna shall be raised and lowered again through the specified range of height until the maximum signal level is detected by the measuring receiver.
9. The maximum signal level detected by the measuring receiver shall be noted.
10. In necessary, the input attenuator setting on the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
11. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
12. The measurement shall be repeated with the test antenna orientated for horizontal polarization.

## 2.4. Test results

Ambient temperature : (23 ± 1) °C  
 Relative humidity : 47 % R.H.

### 2.4.1. E.R.P. / E.I.R.P.

#### SIM 1

Band	Frequency (MHz)	Maximum Conducted Power (dB m)	Maximum Conducted Power (W)	Antenna Gain (dB i)	Maximum E.I.R.P. (dB m)	Maximum E.I.R.P. (W)	Maximum E.R.P. (dB m)	Maximum E.R.P. (W)	Limit
2	1 850 ~ 1 910	21.91	0.155	3.5	25.41	0.348			2 W E.I.R.P.
4	1 710 ~ 1 755	21.65	0.146	4.1	25.75	0.376			1 W E.I.R.P.
7	2 500 ~ 2 570	21.77	0.150	4.1	25.87	0.386			2 W E.I.R.P.
12/17	699 ~ 716	22.07	0.161	0.1	22.17	0.165	20.02	0.100	3 W E.R.P.
26/5 Part 22	824 ~ 849	21.97	0.157	3	24.97	0.341	22.82	0.191	7 W E.R.P.
26 Part 90	814 ~ 824	21.79	0.151	3	24.79	0.301	22.64	0.184	100 W
41	2 496 ~ 2 690	24.02	0.252	4.1	28.12	0.649			2 W E.I.R.P.

#### SIM 2

Band	Frequency (MHz)	Maximum Conducted Power (dB m)	Maximum Conducted Power (W)	Antenna Gain (dB i)	Maximum E.I.R.P. (dB m)	Maximum E.I.R.P. (W)	Maximum E.R.P. (dB m)	Maximum E.R.P. (W)	Limit
2	1 850 ~ 1 910	22.91	0.195	5	27.91	0.618			2 W E.I.R.P.
4	1 710 ~ 1 755	22.92	0.196	5	27.92	0.619			1 W E.I.R.P.
7	2 500 ~ 2 570	23.02	0.200	5	28.02	0.634			2 W E.I.R.P.
26/5 Part 22	824 ~ 849	22.81	0.191	5	27.81	0.604	25.66	0.368	7 W E.R.P.
26 Part 90	814 ~ 824	22.75	0.188	5	27.75	0.596	25.60	0.363	100 W
41	2 496 ~ 2 690	25.56	0.360	5	30.56	1.138			2 W E.I.R.P.

#### Remark;

1. E.I.R.P. (dB m) = Maximum Conducted Power (dB m) + Antenna Gain (dB i)
2. E.R.P. (dB m) = E.I.R.P. (dB m) – 2.15 (dB); where E.R.P. and E.I.R.P. are expressed in consistent units.

### 2.4.2. Radiated Spurious Emissions

#### SIM 1

#### LTE band 2 (3 MHz – QPSK)

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (1 851.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (1 880.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (1 908.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

#### LTE band 4 (3 MHz – QPSK)

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (1 711.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (1 732.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (1 753.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 7 (15 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (2 507.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (2 535.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (2 562.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-



**LTE band 12/17 (5 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (701.5 MHz)									
1 398.61	69.00	H	25.10	-39.15	54.95	-97.41	-42.46	-13	29.46
1 398.73	66.95	V	25.10	-39.15	52.90	-97.41	-44.51	-13	31.51
2 098.01	75.39	H	27.50	-37.35	65.54	-97.41	-31.87	-13	18.87
2 098.04	52.97	V	27.50	-37.35	43.12	-97.41	-54.29	-13	41.29
2 797.36	56.96	H	28.89	-36.77	49.08	-97.41	-48.33	-13	35.33
4 196.11	46.48	H	31.91	-36.26	42.13	-97.41	-55.28	-13	42.28
Above 4 200.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (707.5 MHz)									
1 410.73	69.09	H	25.08	-39.15	55.02	-97.41	-42.39	-13	29.39
1 410.71	67.78	V	25.08	-39.15	53.71	-97.41	-43.70	-13	30.70
2 116.05	79.55	H	27.53	-37.14	69.94	-97.41	-27.47	-13	14.47
2 115.95	65.13	V	27.53	-37.14	55.52	-97.41	-41.89	-13	28.89
2 821.24	57.94	H	29.07	-36.76	50.25	-97.41	-47.16	-13	34.16
4 232.02	48.98	H	31.77	-35.93	44.82	-97.41	-52.59	-13	39.59
Above 4 300.00	Not detected	-	-	-	-	-	-	-	-
High Channel (713.5 MHz)									
1 422.80	71.21	H	25.05	-39.14	57.12	-97.41	-40.29	-13	27.29
1 422.69	68.75	V	25.05	-39.14	54.66	-97.41	-42.75	-13	29.75
2 134.04	81.83	H	27.57	-36.93	72.47	-97.41	<b>-24.94</b>	-13	11.94
2 134.24	68.77	V	27.57	-36.93	59.41	-97.41	-38.00	-13	25.00
2 845.32	57.43	H	29.26	-36.74	49.95	-97.41	-47.46	-13	34.46
4 268.15	46.54	H	31.77	-35.64	42.67	-97.41	-54.74	-13	41.74
Above 4 300.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 26/5\_Part 22 (3 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (825.5 MHz)									
1 648.55	71.19	H	25.60	-38.68	58.11	-97.41	<b>-39.30</b>	-13	26.30
1 648.48	70.18	V	25.60	-38.68	57.10	-97.41	-40.31	-13	27.31
Above 1 700.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (836.5 MHz)									
1 670.37	66.46	H	25.84	-38.66	53.64	-97.41	-43.77	-13	30.77
1 670.51	65.93	V	25.85	-38.66	53.12	-97.41	-44.29	-13	31.29
Above 1 700.00	Not detected	-	-	-	-	-	-	-	-
High Channel (847.5 MHz)									
1 692.37	66.39	H	26.11	-38.74	53.76	-97.41	-43.65	-13	30.65
1 692.53	62.20	V	26.11	-38.74	49.57	-97.41	-47.84	-13	34.84
Above 1 700.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 26\_Part 90 (3 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (815.5 MHz)									
1 628.53	75.16	H	25.56	-38.62	62.10	-97.41	-35.31	-13	22.31
1 628.51	73.22	V	25.56	-38.62	60.16	-97.41	-37.25	-13	24.25
2 442.67	75.88	H	28.19	-36.33	67.74	-97.41	<b>-29.67</b>	-13	16.67
2 442.71	67.31	V	28.19	-36.33	59.17	-97.41	-38.24	-13	25.24
3 256.97	61.64	H	30.44	-37.07	55.01	-97.41	-42.40	-13	29.40
3 257.04	63.45	V	30.44	-37.07	56.82	-97.41	-40.59	-13	27.59
4 071.24	56.60	H	31.90	-36.38	52.12	-97.41	-45.29	-13	32.29
4 885.56	56.70	H	32.87	-35.65	53.92	-97.41	-43.49	-13	30.49
Above 4 900.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (819.0 MHz)									
1 635.58	73.27	H	25.57	-38.63	60.21	-97.41	-37.20	-13	24.20
1 635.43	66.22	V	25.57	-38.63	53.16	-97.41	-44.25	-13	31.25
2 453.19	74.81	H	28.19	-36.39	66.61	-97.41	-30.80	-13	17.80
2 453.35	63.94	V	28.19	-36.39	55.74	-97.41	-41.67	-13	28.67
3 271.06	60.81	H	30.53	-37.13	54.21	-97.41	-43.20	-13	30.20
3 270.92	49.78	V	30.53	-37.13	43.18	-97.41	-54.23	-13	41.23
4 088.62	57.50	H	31.90	-36.28	53.12	-97.41	-44.29	-13	31.29
4 906.36	53.82	H	32.91	-35.67	51.06	-97.41	-46.35	-13	33.35
Above 5 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (822.5 MHz)									
1 642.51	74.71	H	25.59	-38.66	61.64	-97.41	-35.77	-13	22.77
1 642.47	70.66	V	25.58	-38.66	57.58	-97.41	-39.83	-13	26.83
2 463.56	71.54	H	28.17	-36.61	63.10	-97.41	-34.31	-13	21.31
2 463.73	54.16	V	28.17	-36.61	45.72	-97.41	-51.69	-13	38.69
3 284.90	60.07	H	30.61	-37.12	53.56	-97.41	-43.85	-13	30.85
3 284.98	56.51	V	30.61	-37.12	50.00	-97.41	-47.41	-13	34.41
4 106.30	57.62	H	31.91	-36.20	53.33	-97.41	-44.08	-13	31.08
4 927.22	55.59	H	32.95	-35.71	52.83	-97.41	-44.58	-13	31.58
Above 5 000.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 41 (10 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (2 501.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (2 593.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (2 685.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

**SIM 2**

**LTE band 2 (3 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (1 851.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (1 880.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (1 908.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 4 (3 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (1 711.5 MHz)									
5 130.76	58.58	H	33.26	-35.45	56.39	-95.26	-38.87	-13	25.87
5 130.66	54.81	V	33.26	-35.45	52.62	-95.26	-42.64	-13	29.64
Above 5 200.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (1 732.5 MHz)									
5 193.90	58.27	H	33.48	-35.20	56.55	-95.26	-38.71	-13	25.71
5 193.74	56.35	V	33.47	-35.21	54.61	-95.26	-40.65	-13	27.65
Above 5 200.00	Not detected	-	-	-	-	-	-	-	-
High Channel (1 753.5 MHz)									
5 256.77	55.57	H	33.63	-35.05	54.15	-95.26	-41.11	-13	28.11
5 256.62	54.85	V	33.63	-35.05	53.43	-95.26	-41.83	-13	28.83
Above 5 300.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 7 (15 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (2 507.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (2 535.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (2 562.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 26/5\_Part 22 (3 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (825.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (836.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (847.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 26\_Part 90 (3 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (815.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Low Channel (819.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Low Channel (822.5 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

**LTE band 41 (10 MHz – QPSK)**

Frequency (MHz)	Measured Level (dB $\mu$ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB $\mu$ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (2 501.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (2 593.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (2 685.0 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

**Remark;**

1. AF = Antenna Factor, CL = Cable Loss, CF = Conversion Factor.
2. E (dB $\mu$ V/m) = Measured Level (dB $\mu$ V) + Antenna Factor (dB/m) + AMP (dB) + Cable Loss (dB).
3. E.I.R.P. (dB m) = E (dB $\mu$ V/m) + CF (dB).
4. E.R.P. (dB m) = E (dB $\mu$ V/m) + CF (dB) – 2.15 (dB); where E.R.P. and E.I.R.P. are expressed in consistent units.
5. CF (dB) = 20 log D - 104.8; where D is the measurement distance in meters, According to ANSI C63.26-2015 5.2.7 and KDB 971168 D01 v03r01 5.8.4
6. The frequency spectrum is examined from 9 kHz to the 10<sup>th</sup> harmonic of the fundamental frequency of the transmitter. No other spurious and harmonic emissions were reported greater than listed emissions above table.

### 3. Conducted Output Power

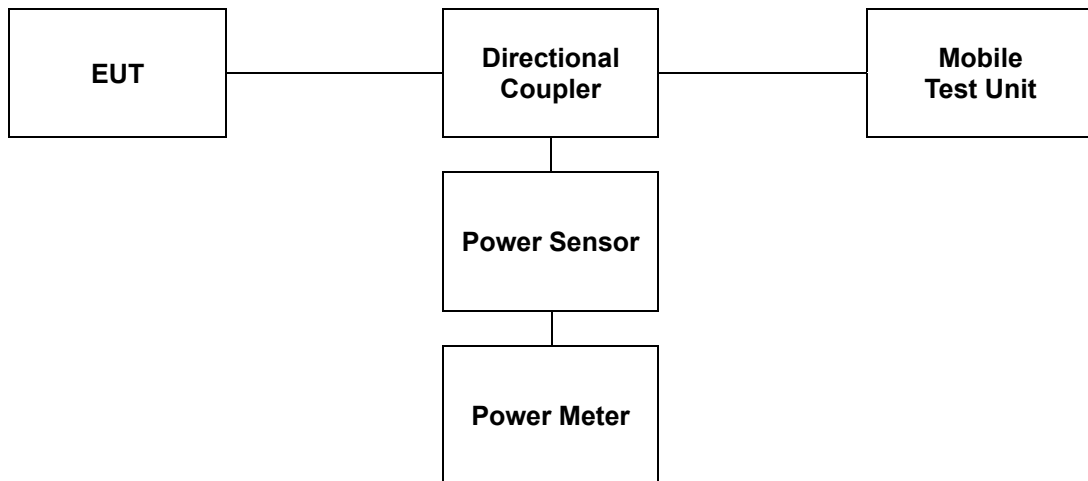
#### 3.1. Limit

CFR 47, Section FCC §2.1046.

#### 3.2. Test Procedure

Output power shall be measured at the RF output terminals for all configurations.

1. The RF output of the transmitter was connected to the input of the mobile test unit in order to establish communication with the EUT.
2. The EUT was set up for the max. output power with pseudo random data modulation by using mobile test unit parameters.
3. The measurement performed using a wideband RF power meter.
4. This EUT was tested under all configurations and the highest power was investigated and reported.





### 3.3. Test Result

Ambient temperature : (23 ± 1) °C  
 Relative humidity : 47 % R.H.

#### SIM 1

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18607 (1 850.7 MHz)		18900 (1 880.0 MHz)		19193 (1 909.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	21.81	0.152	21.66	0.147	21.74	0.149
		1	3	21.76	0.150	<b>21.90</b>	<b>0.155</b>	21.68	0.147
		1	5	21.69	0.148	21.84	0.153	21.87	0.154
		3	0	20.87	0.122	20.71	0.118	20.67	0.117
		3	2	20.74	0.119	20.91	0.123	20.76	0.119
		3	3	20.71	0.118	20.70	0.117	20.74	0.119
		6	0	20.77	0.119	20.76	0.119	20.76	0.119
	16QAM	1	0	<b>21.08</b>	<b>0.128</b>	20.79	0.120	20.83	0.121
		1	3	21.05	0.127	20.78	0.120	20.69	0.117
		1	5	20.99	0.126	20.67	0.117	20.76	0.119
		3	0	20.79	0.120	19.81	0.096	19.76	0.095
		3	2	19.94	0.099	19.69	0.093	19.85	0.097
		3	3	19.91	0.098	19.82	0.096	19.80	0.095
		6	0	19.85	0.097	19.85	0.097	19.85	0.097

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18615 (1 851.5 MHz)		18900 (1 880.0 MHz)		19185 (1 908.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	<b>21.91</b>	<b>0.155</b>	21.83	0.152	21.76	0.150
		1	7	21.81	0.152	21.75	0.150	21.85	0.153
		1	14	21.71	0.148	21.68	0.147	21.82	0.152
		8	0	20.69	0.117	20.82	0.121	20.79	0.120
		8	4	20.69	0.117	20.83	0.121	20.71	0.118
		8	7	20.82	0.121	20.77	0.119	20.77	0.119
		15	0	20.74	0.119	20.76	0.119	20.86	0.122
	16QAM	1	0	20.70	0.117	<b>20.87</b>	<b>0.122</b>	20.68	0.117
		1	7	20.84	0.121	20.83	0.121	20.86	0.122
		1	14	20.74	0.119	20.77	0.119	20.83	0.121
		8	0	19.82	0.096	19.86	0.097	19.79	0.095
		8	4	19.91	0.098	19.87	0.097	19.80	0.095
		8	7	19.91	0.098	19.74	0.094	19.82	0.096
		15	0	19.69	0.093	19.70	0.093	19.68	0.093

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18625 (1 852.5 MHz)		18900 (1 880.0 MHz)		19175 (1 907.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	21.72	0.149	21.75	0.150	<b>21.86</b>	<b>0.153</b>
		1	12	21.84	0.153	21.66	0.147	21.85	0.153
		1	24	21.82	0.152	21.77	0.150	21.85	0.153
		12	0	20.79	0.120	20.83	0.121	20.75	0.119
		12	6	20.78	0.120	20.90	0.123	20.73	0.118
		12	13	20.75	0.119	20.90	0.123	20.72	0.118
		25	0	20.81	0.121	20.83	0.121	20.91	0.123
	16QAM	1	0	<b>20.91</b>	<b>0.123</b>	20.85	0.122	20.84	0.121
		1	12	20.76	0.119	20.87	0.122	20.78	0.120
		1	24	20.86	0.122	20.78	0.120	20.68	0.117
		12	0	19.74	0.094	19.90	0.098	19.91	0.098
		12	6	19.81	0.096	19.81	0.096	19.77	0.095
		12	13	19.68	0.093	19.89	0.097	19.72	0.094
		25	0	19.74	0.094	19.73	0.094	19.77	0.095

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18650 (1 855.0 MHz)		18900 (1 880.0 MHz)		19150 (1 905.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	21.81	0.152	21.84	0.153	21.83	0.152
		1	25	21.85	0.153	<b>21.90</b>	<b>0.155</b>	21.78	0.151
		1	49	21.89	0.155	21.88	0.154	21.89	0.155
		25	0	20.88	0.122	20.83	0.121	20.91	0.123
		25	12	20.86	0.122	20.75	0.119	20.83	0.121
		25	25	20.82	0.121	20.90	0.123	20.80	0.120
		50	0	20.82	0.121	20.87	0.122	20.84	0.121
	16QAM	1	0	20.68	0.117	20.87	0.122	20.70	0.117
		1	25	20.81	0.121	<b>20.88</b>	<b>0.122</b>	20.81	0.121
		1	49	20.67	0.117	20.85	0.122	20.71	0.118
		25	0	19.82	0.096	19.76	0.095	19.69	0.093
		25	12	19.66	0.092	19.74	0.094	19.84	0.096
		25	25	19.73	0.094	19.68	0.093	19.70	0.093
		50	0	19.73	0.094	19.78	0.095	19.66	0.092

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18675 (1 857.5 MHz)		18900 (1 880.0 MHz)		19125 (1 902.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	21.66	0.147	<b>21.90</b>	<b>0.155</b>	21.70	0.148
		1	36	21.89	0.155	21.83	0.152	21.89	0.155
		1	74	21.83	0.152	21.71	0.148	21.74	0.149
		36	0	20.82	0.121	20.74	0.119	20.68	0.117
		36	18	20.83	0.121	20.78	0.120	20.71	0.118
		36	37	20.67	0.117	20.75	0.119	20.80	0.120
		75	0	20.83	0.121	20.88	0.122	20.79	0.120
	16QAM	1	0	20.84	0.121	20.79	0.120	20.74	0.119
		1	36	20.71	0.118	20.77	0.119	20.81	0.121
		1	74	20.80	0.120	<b>20.91</b>	<b>0.123</b>	20.66	0.116
		36	0	19.73	0.094	19.75	0.094	19.77	0.095
		36	18	19.72	0.094	19.68	0.093	19.78	0.095
		36	37	19.83	0.096	19.88	0.097	19.75	0.094
		75	0	19.88	0.097	19.87	0.097	19.66	0.092

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18700 (1 860.0 MHz)		18900 (1 880.0 MHz)		19100 (1 900.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	21.77	0.150	21.78	0.151	21.72	0.149
		1	50	21.67	0.147	<b>21.90</b>	<b>0.155</b>	21.88	0.154
		1	99	21.69	0.148	21.86	0.153	21.88	0.154
		50	0	20.78	0.120	20.67	0.117	20.81	0.121
		50	25	20.72	0.118	20.68	0.117	20.87	0.122
		50	13	20.90	0.123	20.87	0.122	20.76	0.119
		100	0	20.87	0.122	20.82	0.121	20.66	0.116
	16QAM	1	0	20.77	0.119	20.73	0.118	20.70	0.117
		1	50	20.69	0.117	20.70	0.117	20.68	0.117
		1	99	<b>20.80</b>	<b>0.120</b>	20.75	0.119	20.74	0.119
		50	0	19.75	0.094	19.73	0.094	19.85	0.097
		50	25	19.70	0.093	19.80	0.095	19.86	0.097
		50	50	19.81	0.096	19.73	0.094	19.80	0.095
		100	0	19.89	0.097	19.80	0.095	19.67	0.093

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				19957 (1 710.7 MHz)		20175 (1 732.5 MHz)		20393 (1 754.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	21.57	0.144	21.55	0.143	21.50	0.141
		1	3	21.52	0.142	21.53	0.142	21.53	0.142
		1	5	21.56	0.143	21.53	0.142	<b>21.61</b>	<b>0.145</b>
		3	0	20.56	0.114	20.65	0.116	20.62	0.115
		3	2	20.56	0.114	20.51	0.112	20.58	0.114
		3	3	20.53	0.113	20.54	0.113	20.62	0.115
		6	0	20.63	0.116	20.53	0.113	20.65	0.116
	16QAM	1	0	20.49	0.112	20.50	0.112	20.54	0.113
		1	3	20.54	0.113	20.55	0.114	20.52	0.113
		1	5	<b>20.60</b>	<b>0.115</b>	20.51	0.112	20.59	0.115
		3	0	19.51	0.089	19.64	0.092	19.55	0.090
		3	2	19.57	0.091	19.61	0.091	19.50	0.089
		3	3	19.59	0.091	19.63	0.092	19.57	0.091
		6	0	19.58	0.091	19.64	0.092	19.55	0.090

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				19965 (1 711.5 MHz)		20175 (1 732.5 MHz)		20385 (1 753.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	21.61	0.145	21.50	0.141	<b>21.65</b>	<b>0.146</b>
		1	7	21.64	0.146	21.52	0.142	21.51	0.142
		1	14	21.52	0.142	21.56	0.143	21.63	0.146
		8	0	20.61	0.115	20.57	0.114	20.60	0.115
		8	4	20.61	0.115	20.54	0.113	20.51	0.112
		8	7	20.55	0.114	20.51	0.112	20.65	0.116
		15	0	20.55	0.114	20.51	0.112	20.58	0.114
	16QAM	1	0	20.57	0.114	20.54	0.113	20.52	0.113
		1	7	<b>20.65</b>	<b>0.116</b>	20.49	0.112	20.51	0.112
		1	14	20.55	0.114	20.58	0.114	20.63	0.116
		8	0	19.52	0.090	19.64	0.092	19.53	0.090
		8	4	19.63	0.092	19.61	0.091	19.62	0.092
		8	7	19.52	0.090	19.61	0.091	19.60	0.091
		15	0	19.53	0.090	19.59	0.091	19.56	0.090

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				19975 (1 712.5 MHz)		20175 (1 732.5 MHz)		20375 (1 752.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	<b>21.64</b>	<b>0.146</b>	21.49	0.141	21.58	0.144
		1	12	21.54	0.143	21.56	0.143	21.50	0.141
		1	24	21.61	0.145	21.63	0.146	21.58	0.144
		12	0	20.62	0.115	20.56	0.114	20.61	0.115
		12	6	20.55	0.114	20.57	0.114	20.62	0.115
		12	13	20.56	0.114	20.52	0.113	20.57	0.114
		25	0	20.62	0.115	20.64	0.116	20.61	0.115
	16QAM	1	0	20.54	0.113	20.58	0.114	20.60	0.115
		1	12	20.64	0.116	20.60	0.115	20.57	0.114
		1	24	<b>20.65</b>	<b>0.116</b>	20.50	0.112	20.61	0.115
		12	0	19.56	0.090	19.50	0.089	19.61	0.091
		12	6	19.65	0.092	19.63	0.092	19.49	0.089
		12	13	19.57	0.091	19.50	0.089	19.59	0.091
		25	0	19.63	0.092	19.64	0.092	19.51	0.089

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20000 (1 715.0 MHz)		20175 (1 732.5 MHz)		20350 (1 750.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	21.63	0.146	<b>21.64</b>	<b>0.146</b>	21.51	0.142
		1	25	21.63	0.146	21.53	0.142	21.60	0.145
		1	49	21.62	0.145	21.52	0.142	21.61	0.145
		25	0	20.64	0.116	20.50	0.112	20.52	0.113
		25	12	20.65	0.116	20.53	0.113	20.51	0.112
		25	25	20.58	0.114	20.64	0.116	20.62	0.115
		50	0	20.51	0.112	20.57	0.114	20.51	0.112
	16QAM	1	0	20.56	0.114	20.62	0.115	20.59	0.115
		1	25	<b>20.65</b>	<b>0.116</b>	20.55	0.114	20.49	0.112
		1	49	20.64	0.116	20.58	0.114	20.49	0.112
		25	0	19.63	0.092	19.53	0.090	19.56	0.090
		25	12	19.56	0.090	19.54	0.090	19.55	0.090
		25	25	19.62	0.092	19.65	0.092	19.52	0.090
		50	0	19.56	0.090	19.53	0.090	19.51	0.089

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20025 (1 717.5 MHz)		20175 (1 732.5 MHz)		20325 (1 747.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	21.52	0.142	21.55	0.143	21.57	0.144
		1	36	21.57	0.144	<b>21.62</b>	<b>0.145</b>	21.55	0.143
		1	74	21.56	0.143	21.55	0.143	21.61	0.145
		36	0	20.51	0.112	20.52	0.113	20.54	0.113
		36	18	20.57	0.114	20.64	0.116	20.57	0.114
		36	37	20.61	0.115	20.52	0.113	20.61	0.115
		75	0	20.55	0.114	20.57	0.114	20.60	0.115
	16QAM	1	0	20.53	0.113	<b>20.65</b>	<b>0.116</b>	20.52	0.113
		1	36	20.62	0.115	20.59	0.115	20.58	0.114
		1	74	20.58	0.114	20.64	0.116	20.58	0.114
		36	0	19.60	0.091	19.54	0.090	19.60	0.091
		36	18	19.53	0.090	19.61	0.091	19.54	0.090
		36	37	19.57	0.091	19.65	0.092	19.61	0.091
		75	0	19.53	0.090	19.64	0.092	19.49	0.089

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20050 (1 720.0 MHz)		20175 (1 732.5 MHz)		20300 (1 745.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	21.61	0.145	21.61	0.145	<b>21.64</b>	<b>0.146</b>
		1	50	21.63	0.146	21.63	0.146	21.53	0.142
		1	99	21.49	0.141	21.53	0.142	21.63	0.146
		50	0	20.62	0.115	20.49	0.112	20.52	0.113
		50	25	20.51	0.112	20.57	0.114	20.49	0.112
		50	13	20.55	0.114	20.59	0.115	20.65	0.116
		100	0	20.61	0.115	20.49	0.112	20.58	0.114
	16QAM	1	0	20.59	0.115	20.51	0.112	20.55	0.114
		1	50	20.61	0.115	20.60	0.115	<b>20.65</b>	<b>0.116</b>
		1	99	20.51	0.112	20.56	0.114	20.49	0.112
		50	0	19.49	0.089	19.52	0.090	19.53	0.090
		50	25	19.62	0.092	19.55	0.090	19.65	0.092
		50	50	19.64	0.092	19.54	0.090	19.63	0.092
		100	0	19.65	0.092	19.61	0.091	19.59	0.091

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20775 (2 502.5 MHz)		21100 (2 535.0 MHz)		21425 (2 567.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	<b>21.76</b>	<b>0.150</b>	21.58	0.144	21.64	0.146
		1	12	21.58	0.144	21.60	0.145	21.69	0.148
		1	24	21.72	0.149	21.64	0.146	21.71	0.148
		12	0	20.62	0.115	20.77	0.119	20.61	0.115
		12	6	20.70	0.117	20.69	0.117	20.77	0.119
		12	13	20.65	0.116	20.57	0.114	20.58	0.114
		25	0	20.58	0.114	20.61	0.115	20.72	0.118
	16QAM	1	0	20.70	0.117	20.68	0.117	20.73	0.118
		1	12	20.66	0.116	20.71	0.118	20.57	0.114
		1	24	20.72	0.118	20.72	0.118	<b>20.77</b>	<b>0.119</b>
		12	0	19.67	0.093	19.63	0.092	19.67	0.093
		12	6	19.62	0.092	19.60	0.091	19.57	0.091
		12	13	19.61	0.091	19.58	0.091	19.76	0.095
		25	0	19.63	0.092	19.75	0.094	19.67	0.093

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20800 (2 505.0 MHz)		21100 (2 535.0 MHz)		21400 (2 565.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	21.58	0.144	<b>21.76</b>	<b>0.150</b>	21.74	0.149
		1	25	21.58	0.144	21.59	0.144	21.62	0.145
		1	49	21.59	0.144	21.72	0.149	21.59	0.144
		25	0	20.76	0.119	20.67	0.117	20.60	0.115
		25	12	20.70	0.117	20.59	0.115	20.60	0.115
		25	25	20.66	0.116	20.68	0.117	20.59	0.115
		50	0	20.64	0.116	20.57	0.114	20.66	0.116
	16QAM	1	0	20.57	0.114	20.70	0.117	<b>20.76</b>	<b>0.119</b>
		1	25	20.70	0.117	20.75	0.119	20.64	0.116
		1	49	20.69	0.117	20.75	0.119	20.57	0.114
		25	0	19.66	0.092	19.76	0.095	19.75	0.094
		25	12	19.60	0.091	19.61	0.091	19.67	0.093
		25	25	19.69	0.093	19.66	0.092	19.70	0.093
		50	0	19.71	0.094	19.69	0.093	19.60	0.091

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20825 (2 507.5 MHz)		21100 (2 535.0 MHz)		21375 (2 562.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	21.59	0.144	21.58	0.144	<b>21.77</b>	<b>0.150</b>
		1	36	21.74	0.149	21.59	0.144	21.62	0.145
		1	74	21.61	0.145	21.73	0.149	21.75	0.150
		36	0	20.77	0.119	20.66	0.116	20.74	0.119
		36	18	20.69	0.117	20.64	0.116	20.69	0.117
		36	37	20.71	0.118	20.64	0.116	20.65	0.116
		75	0	20.67	0.117	20.60	0.115	20.68	0.117
	16QAM	1	0	<b>20.77</b>	<b>0.119</b>	20.71	0.118	20.72	0.118
		1	36	20.70	0.117	20.73	0.118	20.64	0.116
		1	74	20.62	0.115	20.68	0.117	20.58	0.114
		36	0	19.76	0.095	19.59	0.091	19.71	0.094
		36	18	19.73	0.094	19.60	0.091	19.65	0.092
		36	37	19.67	0.093	19.71	0.094	19.63	0.092
		75	0	19.68	0.093	19.58	0.091	19.62	0.092

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20850 (2 510.0 MHz)		21100 (2 535.0 MHz)		21350 (2 560.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	21.54	0.143	21.49	0.141	21.70	0.148
		1	50	21.57	0.144	21.57	0.144	21.65	0.146
		1	99	21.56	0.143	21.44	0.139	<b>21.74</b>	<b>0.149</b>
		50	0	20.62	0.115	20.58	0.114	20.57	0.114
		50	25	20.62	0.115	20.63	0.116	20.73	0.118
		50	50	20.63	0.116	20.61	0.115	20.68	0.117
		100	0	20.59	0.115	20.47	0.111	20.71	0.118
	16QAM	1	0	20.86	0.122	<b>21.06</b>	<b>0.128</b>	20.64	0.116
		1	50	21.03	0.127	20.93	0.124	20.67	0.117
		1	99	21.00	0.126	20.97	0.125	20.70	0.117
		50	0	19.74	0.094	19.62	0.092	19.70	0.093
		50	25	19.72	0.094	19.70	0.093	19.72	0.094
		50	50	19.72	0.094	19.64	0.092	19.58	0.091
		100	0	19.64	0.092	19.54	0.090	19.71	0.094

LTE Band 12									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				23017 (699.7 MHz)		23095 (707.5 MHz)		23173 (715.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	<b>22.05</b>	<b>0.160</b>	21.96	0.157	22.01	0.159
		1	3	21.93	0.156	21.96	0.157	21.92	0.156
		1	5	22.04	0.160	21.93	0.156	22.03	0.160
		3	0	20.97	0.125	21.02	0.126	21.05	0.127
		3	2	20.96	0.125	21.00	0.126	20.98	0.125
		3	3	21.04	0.127	20.95	0.124	21.00	0.126
		6	0	20.94	0.124	21.03	0.127	21.01	0.126
	16QAM	1	0	20.96	0.125	<b>21.05</b>	<b>0.127</b>	21.00	0.126
		1	3	20.97	0.125	21.00	0.126	20.96	0.125
		1	5	20.93	0.124	20.98	0.125	21.02	0.126
		3	0	19.92	0.098	19.90	0.098	20.01	0.100
		3	2	20.00	0.100	20.05	0.101	20.06	0.101
		3	3	20.02	0.100	19.93	0.098	20.04	0.101
		6	0	20.06	0.101	19.92	0.098	19.91	0.098

LTE Band 12									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				23025 (700.5 MHz)		23095 (707.5 MHz)		23165 (714.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	22.05	0.160	21.97	0.157	21.96	0.157
		1	7	22.04	0.160	21.94	0.156	22.04	0.160
		1	14	<b>22.06</b>	<b>0.161</b>	21.89	0.155	21.97	0.157
		8	0	20.96	0.125	21.00	0.126	21.05	0.127
		8	4	20.94	0.124	21.04	0.127	21.05	0.127
		8	7	21.05	0.127	20.89	0.123	21.03	0.127
		15	0	20.98	0.125	20.99	0.126	21.06	0.128
	16QAM	1	0	20.95	0.124	20.95	0.124	20.97	0.125
		1	7	20.89	0.123	21.01	0.126	<b>21.04</b>	<b>0.127</b>
		1	14	20.96	0.125	20.94	0.124	20.95	0.124
		8	0	20.06	0.101	19.98	0.100	20.00	0.100
		8	4	19.89	0.097	19.96	0.099	19.90	0.098
		8	7	19.91	0.098	19.99	0.100	19.91	0.098
		15	0	19.95	0.099	19.96	0.099	20.03	0.101

LTE Band 12/17									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				23035 (701.5 MHz)		23095 (707.5 MHz)		23155 (713.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	22.06	0.161	21.96	0.157	<b>22.07</b>	<b>0.161</b>
		1	12	21.89	0.155	22.05	0.160	21.96	0.157
		1	24	21.90	0.155	21.90	0.155	21.92	0.156
		12	0	20.92	0.124	20.92	0.124	20.90	0.123
		12	6	21.03	0.127	21.06	0.128	20.92	0.124
		12	13	20.91	0.123	20.97	0.125	21.05	0.127
		25	0	20.94	0.124	21.02	0.126	20.89	0.123
	16QAM	1	0	20.98	0.125	20.93	0.124	20.94	0.124
		1	12	21.04	0.127	20.97	0.125	20.91	0.123
		1	24	20.96	0.125	<b>21.06</b>	<b>0.128</b>	21.04	0.127
		12	0	19.89	0.097	19.99	0.100	19.99	0.100
		12	6	19.89	0.097	19.94	0.099	19.89	0.097
		12	13	19.96	0.099	19.98	0.100	20.01	0.100
		25	0	19.91	0.098	19.92	0.098	20.03	0.101

LTE Band 12/17									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				23060 (704.0 MHz)		23095 (707.5 MHz)		23130 (711.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	21.95	0.157	22.01	0.159	21.91	0.155
		1	25	<b>22.05</b>	<b>0.160</b>	21.90	0.155	21.90	0.155
		1	49	22.00	0.158	21.94	0.156	21.96	0.157
		25	0	20.99	0.126	21.04	0.127	20.93	0.124
		25	12	20.99	0.126	21.02	0.126	20.99	0.126
		25	25	21.02	0.126	21.04	0.127	21.04	0.127
		50	0	20.99	0.126	20.89	0.123	20.99	0.126
	16QAM	1	0	<b>21.06</b>	<b>0.128</b>	20.90	0.123	20.99	0.126
		1	25	21.02	0.126	20.97	0.125	20.97	0.125
		1	49	21.03	0.127	20.99	0.126	20.89	0.123
		25	0	20.04	0.101	19.97	0.099	20.04	0.101
		25	12	20.04	0.101	20.05	0.101	19.91	0.098
		25	25	19.95	0.099	20.03	0.101	19.93	0.098
		50	0	20.00	0.100	19.93	0.098	19.92	0.098

LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26797 (824.7 MHz)		26915 (836.5 MHz)		27033 (848.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	21.80	0.151	<b>21.88</b>	<b>0.154</b>	21.84	0.153
		1	2	21.63	0.146	21.63	0.146	21.80	0.151
		1	5	21.75	0.150	21.81	0.152	21.82	0.152
		3	0	20.76	0.119	20.88	0.122	20.67	0.117
		3	2	20.81	0.121	20.68	0.117	20.75	0.119
		3	3	20.83	0.121	20.84	0.121	20.61	0.115
		6	0	20.62	0.115	20.75	0.119	20.95	0.124
	16QAM	1	0	20.74	0.119	20.84	0.121	20.78	0.120
		1	3	<b>20.96</b>	<b>0.125</b>	20.84	0.121	20.62	0.115
		1	5	20.92	0.124	20.81	0.121	20.79	0.120
		3	0	19.91	0.098	19.95	0.099	19.89	0.097
		3	2	19.71	0.094	19.82	0.096	19.93	0.098
		3	3	19.74	0.094	19.64	0.092	19.92	0.098
		6	0	19.85	0.097	19.92	0.098	19.66	0.092

LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26805 (825.5 MHz)		26915 (836.5 MHz)		27025 (847.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	21.95	0.157	<b>21.97</b>	<b>0.157</b>	21.79	0.151
		1	7	21.75	0.150	21.73	0.149	21.94	0.156
		1	14	21.83	0.152	21.78	0.151	21.92	0.156
		8	0	20.69	0.117	20.89	0.123	20.93	0.124
		8	4	20.62	0.115	20.71	0.118	20.94	0.124
		8	7	20.83	0.121	20.63	0.116	20.67	0.117
		15	0	20.66	0.116	20.76	0.119	20.96	0.125
	16QAM	1	0	20.83	0.121	20.91	0.123	20.70	0.117
		1	7	20.91	0.123	20.85	0.122	20.66	0.116
		1	14	<b>20.96</b>	<b>0.125</b>	20.83	0.121	20.84	0.121
		8	0	19.92	0.098	19.96	0.099	19.70	0.093
		8	4	19.86	0.097	19.93	0.098	19.90	0.098
		8	7	19.64	0.092	19.83	0.096	19.75	0.094
		15	0	19.86	0.097	19.95	0.099	19.76	0.095



LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26815 (826.5 MHz)		26915 (836.5 MHz)		27015 (846.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	21.69	0.148	21.73	0.149	21.64	0.146
		1	12	21.71	0.148	21.82	0.152	21.85	0.153
		1	24	21.72	0.149	21.80	0.151	<b>21.92</b>	<b>0.156</b>
		12	0	20.84	0.121	20.64	0.116	20.64	0.116
		12	6	20.83	0.121	20.68	0.117	20.88	0.122
		12	13	20.70	0.117	20.93	0.124	20.66	0.116
		25	0	20.70	0.117	20.84	0.121	20.72	0.118
	16QAM	1	0	20.71	0.118	20.87	0.122	20.82	0.121
		1	12	20.81	0.121	20.94	0.124	20.69	0.117
		1	24	<b>20.95</b>	<b>0.124</b>	20.67	0.117	20.93	0.124
		12	0	19.65	0.092	19.84	0.096	19.66	0.092
		12	6	19.81	0.096	19.88	0.097	19.83	0.096
		12	13	19.88	0.097	19.83	0.096	19.96	0.099
		25	0	19.78	0.095	19.65	0.092	19.79	0.095

LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26840 (829.0 MHz)		26915 (836.5 MHz)		26990 (844.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	21.69	0.148	21.90	0.155	21.70	0.148
		1	25	21.91	0.155	21.78	0.151	21.80	0.151
		1	49	<b>21.93</b>	<b>0.156</b>	21.70	0.148	21.61	0.145
		25	0	20.72	0.118	20.72	0.118	20.92	0.124
		25	12	20.74	0.119	20.86	0.122	20.95	0.124
		25	25	20.62	0.115	20.75	0.119	20.93	0.124
		50	0	20.64	0.116	20.62	0.115	20.71	0.118
	16QAM	1	0	20.76	0.119	20.85	0.122	20.66	0.116
		1	25	20.68	0.117	20.69	0.117	20.68	0.117
		1	49	20.86	0.122	<b>20.87</b>	<b>0.122</b>	20.64	0.116
		25	0	19.75	0.094	19.64	0.092	19.70	0.093
		25	12	19.61	0.091	19.74	0.094	19.80	0.095
		25	25	19.62	0.092	19.88	0.097	19.74	0.094
		50	0	19.72	0.094	19.67	0.093	19.93	0.098

LTE Band 26_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26865 (831.5 MHz)		-		26965 (841.5 MHz)	
				(dB m)	(W)	-	-	(dB m)	(W)
15	QPSK	1	0	21.85	0.153	-	-	21.79	0.151
		1	36	21.92	0.156	-	-	21.67	0.147
		1	74	<b>21.94</b>	<b>0.156</b>	-	-	21.69	0.148
		36	0	20.95	0.124	-	-	20.83	0.121
		36	18	20.81	0.121	-	-	20.73	0.118
		36	37	20.90	0.123	-	-	20.79	0.120
		75	0	20.61	0.115	-	-	20.72	0.118
	16QAM	1	0	20.70	0.117	-	-	20.82	0.121
		1	36	<b>20.93</b>	<b>0.124</b>	-	-	20.72	0.118
		1	74	20.79	0.120	-	-	20.71	0.118
		36	0	19.71	0.094	-	-	19.80	0.095
		36	18	19.85	0.097	-	-	19.74	0.094
		36	37	19.90	0.098	-	-	19.80	0.095
		75	0	19.79	0.095	-	-	19.73	0.094

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26697 (814.7 MHz)		26740 (819.0 MHz)		26783 (823.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	21.62	0.145	21.69	0.148	<b>21.74</b>	<b>0.149</b>
		1	2	21.68	0.147	21.63	0.146	21.73	0.149
		1	5	21.61	0.145	21.72	0.149	21.66	0.147
		3	0	20.76	0.119	20.78	0.120	20.70	0.117
		3	2	20.72	0.118	20.61	0.115	20.70	0.117
		3	3	20.74	0.119	20.65	0.116	20.63	0.116
		6	0	20.75	0.119	20.72	0.118	20.63	0.116
	16QAM	1	0	20.60	0.115	20.59	0.115	<b>20.76</b>	<b>0.119</b>
		1	2	20.73	0.118	20.73	0.118	20.72	0.118
		1	5	20.69	0.117	20.64	0.116	20.73	0.118
		3	0	19.70	0.093	19.78	0.095	19.76	0.095
		3	2	19.71	0.094	19.59	0.091	19.70	0.093
		3	3	19.61	0.091	19.76	0.095	19.61	0.091
		6	0	19.65	0.092	19.61	0.091	19.76	0.095

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26705 (815.5 MHz)		26740 (819.0 MHz)		26775 (822.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	21.63	0.146	21.62	0.145	<b>21.79</b>	<b>0.151</b>
		1	7	21.76	0.150	21.66	0.147	21.71	0.148
		1	14	21.73	0.149	21.61	0.145	21.71	0.148
		8	0	20.75	0.119	20.70	0.117	20.75	0.119
		8	4	20.62	0.115	20.64	0.116	20.70	0.117
		8	7	20.59	0.115	20.62	0.115	20.61	0.115
		15	0	20.77	0.119	20.77	0.119	20.71	0.118
	16QAM	1	0	20.72	0.118	20.73	0.118	20.75	0.119
		1	7	20.67	0.117	20.71	0.118	<b>20.77</b>	<b>0.119</b>
		1	14	20.66	0.116	20.76	0.119	20.68	0.117
		8	0	19.63	0.092	19.65	0.092	19.68	0.093
		8	4	19.73	0.094	19.72	0.094	19.75	0.094
		8	7	19.72	0.094	19.74	0.094	19.70	0.093
		15	0	19.69	0.093	19.68	0.093	19.72	0.094

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26715 (816.5 MHz)		26740 (819.0 MHz)		26765 (821.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	21.66	0.147	21.73	0.149	21.74	0.149
		1	12	21.70	0.148	21.61	0.145	21.75	0.150
		1	24	<b>21.77</b>	<b>0.150</b>	21.76	0.150	21.61	0.145
		12	0	20.63	0.116	20.71	0.118	20.65	0.116
		12	6	20.78	0.120	20.65	0.116	20.75	0.119
		12	13	20.69	0.117	20.76	0.119	20.76	0.119
		25	0	20.75	0.119	20.72	0.118	20.72	0.118
	16QAM	1	0	20.67	0.117	20.67	0.117	20.64	0.116
		1	12	20.60	0.115	<b>20.78</b>	<b>0.120</b>	20.71	0.118
		1	24	20.69	0.117	20.77	0.119	20.73	0.118
		12	0	19.59	0.091	19.62	0.092	19.64	0.092
		12	6	19.62	0.092	19.71	0.094	19.73	0.094
		12	13	19.67	0.093	19.77	0.095	19.64	0.092
		25	0	19.70	0.093	19.69	0.093	19.71	0.094

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26740 (819.0 MHz)					
						(dB m)	(W)		
10	QPSK	1	0	-	-	21.63	0.146	-	-
		1	25	-	-	21.62	0.145	-	-
		1	49	-	-	<b>21.73</b>	<b>0.149</b>	-	-
		25	0	-	-	20.61	0.115	-	-
		25	12	-	-	20.69	0.117	-	-
		25	25	-	-	20.61	0.115	-	-
		50	0	-	-	20.61	0.115	-	-
	16QAM	1	0	-	-	20.74	0.119	-	-
		1	25	-	-	<b>20.76</b>	<b>0.119</b>	-	-
		1	49	-	-	20.68	0.117	-	-
		25	0	-	-	19.77	0.095	-	-
		25	12	-	-	19.69	0.093	-	-
		25	25	-	-	19.60	0.091	-	-
		50	0	-	-	19.69	0.093	-	-

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26765 (821.5 MHz)					
						(dB m)	(W)		
15	QPSK	1	0	-	-	21.62	0.145	-	-
		1	36	-	-	<b>21.74</b>	<b>0.149</b>	-	-
		1	74	-	-	21.70	0.148	-	-
		36	0	-	-	20.59	0.115	-	-
		36	18	-	-	20.78	0.120	-	-
		36	37	-	-	20.65	0.116	-	-
		75	0	-	-	20.75	0.119	-	-
	16QAM	1	0	-	-	<b>20.76</b>	<b>0.119</b>	-	-
		1	36	-	-	20.71	0.118	-	-
		1	74	-	-	20.67	0.117	-	-
		36	0	-	-	19.72	0.094	-	-
		36	18	-	-	19.62	0.092	-	-
		36	37	-	-	19.63	0.092	-	-
		75	0	-	-	19.78	0.095	-	-

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39675 (2 498.5 MHz)		40620 (2 593.0 MHz)		41565 (2 687.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	23.96	0.249	23.92	0.247	23.99	0.251
		1	12	23.94	0.248	23.96	0.249	23.89	0.245
		1	24	<b>24.01</b>	<b>0.252</b>	24.00	0.251	24.00	0.251
		12	0	22.94	0.197	22.92	0.196	22.87	0.194
		12	6	23.01	0.200	22.94	0.197	22.87	0.194
		12	13	22.91	0.195	22.92	0.196	22.87	0.194
		25	0	22.95	0.197	22.90	0.195	22.88	0.194
	16QAM	1	0	22.94	0.197	22.93	0.196	22.90	0.195
		1	12	22.95	0.197	22.98	0.199	22.91	0.195
		1	24	22.98	0.199	22.89	0.195	<b>22.99</b>	<b>0.199</b>
		12	0	21.98	0.158	21.87	0.154	21.96	0.157
		12	6	21.92	0.156	21.99	0.158	21.96	0.157
		12	13	22.01	0.159	21.98	0.158	21.93	0.156
		25	0	21.90	0.155	21.97	0.157	21.96	0.157

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39700 (2 501.0 MHz)		40620 (2 593.0 MHz)		41540 (2 685.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	23.86	0.243	<b>24.02</b>	<b>0.252</b>	23.89	0.245
		1	25	23.89	0.245	23.88	0.244	23.94	0.248
		1	49	23.93	0.247	23.86	0.243	23.91	0.246
		25	0	22.96	0.198	23.01	0.200	22.88	0.194
		25	12	22.86	0.193	22.92	0.196	22.87	0.194
		25	25	22.94	0.197	22.88	0.194	22.86	0.193
		50	0	22.98	0.199	22.86	0.193	22.89	0.195
	16QAM	1	0	22.98	0.199	22.96	0.198	<b>23.01</b>	<b>0.200</b>
		1	25	22.92	0.196	23.00	0.200	22.95	0.197
		1	49	22.93	0.196	22.91	0.195	23.00	0.200
		25	0	21.91	0.155	21.89	0.155	21.97	0.157
		25	12	21.92	0.156	21.98	0.158	21.98	0.158
		25	25	21.97	0.157	21.88	0.154	21.99	0.158
		50	0	21.98	0.158	21.97	0.157	22.00	0.158

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39725 (2 503.5 MHz)		40620 (2 593.0 MHz)		41515 (2 682.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	23.92	0.247	23.96	0.249	23.91	0.246
		1	36	<b>24.01</b>	<b>0.252</b>	24.00	0.251	23.99	0.251
		1	74	23.97	0.249	23.91	0.246	23.96	0.249
		36	0	22.88	0.194	22.88	0.194	22.96	0.198
		36	18	22.92	0.196	22.94	0.197	23.00	0.200
		36	37	22.89	0.195	22.95	0.197	22.86	0.193
		75	0	22.90	0.195	22.93	0.196	22.91	0.195
	16QAM	1	0	22.99	0.199	22.88	0.194	22.94	0.197
		1	36	22.94	0.197	22.91	0.195	22.97	0.198
		1	74	22.93	0.196	22.94	0.197	<b>23.00</b>	<b>0.200</b>
		36	0	21.99	0.158	21.86	0.153	21.89	0.155
		36	18	21.99	0.158	21.90	0.155	21.89	0.155
		36	37	21.90	0.155	21.90	0.155	22.01	0.159
		75	0	21.86	0.153	21.89	0.155	22.00	0.158

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39750 (2 506.0 MHz)		40620 (2 593.0 MHz)		41490 (2 680.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	23.96	0.249	<b>24.01</b>	<b>0.252</b>	23.96	0.249
		1	50	23.88	0.244	23.90	0.245	24.00	0.251
		1	99	23.98	0.250	23.94	0.248	23.87	0.244
		50	0	22.93	0.196	22.98	0.199	22.95	0.197
		50	25	22.97	0.198	22.97	0.198	22.87	0.194
		50	13	22.90	0.195	22.90	0.195	22.87	0.194
		100	0	22.99	0.199	23.00	0.200	22.97	0.198
	16QAM	1	0	22.90	0.195	22.92	0.196	22.97	0.198
		1	50	22.94	0.197	<b>22.98</b>	<b>0.199</b>	22.86	0.193
		1	99	22.88	0.194	22.95	0.197	22.97	0.198
		50	0	22.01	0.159	21.87	0.154	21.89	0.155
		50	25	21.99	0.158	21.99	0.158	21.97	0.157
		50	50	21.96	0.157	21.96	0.157	21.93	0.156
		100	0	22.00	0.158	21.93	0.156	22.00	0.158

**SIM 2**

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18607 (1 850.7 MHz)		18900 (1 880.0 MHz)		19193 (1 909.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	22.77	0.189	22.70	0.186	22.70	0.186
		1	3	<b>22.87</b>	<b>0.194</b>	22.75	0.188	22.85	0.193
		1	5	22.72	0.187	22.62	0.183	22.66	0.185
		3	0	21.85	0.153	21.89	0.155	21.76	0.150
		3	2	21.83	0.152	21.89	0.155	21.86	0.153
		3	3	21.87	0.154	21.63	0.146	21.87	0.154
		6	0	21.90	0.155	21.73	0.149	21.89	0.155
	16QAM	1	0	21.88	0.154	21.68	0.147	21.64	0.146
		1	3	<b>21.90</b>	<b>0.155</b>	21.73	0.149	21.61	0.145
		1	5	21.76	0.150	21.71	0.148	21.84	0.153
		3	0	20.74	0.119	20.75	0.119	20.68	0.117
		3	2	20.76	0.119	20.76	0.119	20.84	0.121
		3	3	20.73	0.118	20.85	0.122	20.68	0.117
		6	0	20.84	0.121	20.63	0.116	20.64	0.116

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18615 (1 851.5 MHz)		18900 (1 880.0 MHz)		19185 (1 908.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	<b>22.91</b>	<b>0.195</b>	22.63	0.183	22.65	0.184
		1	7	22.79	0.190	22.61	0.182	22.74	0.188
		1	14	22.68	0.185	22.86	0.193	22.84	0.192
		8	0	21.70	0.148	21.82	0.152	21.63	0.146
		8	4	21.74	0.149	21.63	0.146	21.65	0.146
		8	7	21.90	0.155	21.73	0.149	21.66	0.147
		15	0	21.83	0.152	21.84	0.153	21.85	0.153
	16QAM	1	0	<b>21.90</b>	<b>0.155</b>	21.74	0.149	21.81	0.152
		1	7	21.75	0.150	21.71	0.148	21.72	0.149
		1	14	21.89	0.155	21.89	0.155	21.76	0.150
		8	0	20.79	0.120	20.84	0.121	20.87	0.122
		8	4	20.89	0.123	20.71	0.118	20.64	0.116
		8	7	20.79	0.120	20.84	0.121	20.62	0.115
		15	0	20.64	0.116	20.73	0.118	20.64	0.116

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18625 (1 852.5 MHz)		18900 (1 880.0 MHz)		19175 (1 907.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	<b>22.88</b>	<b>0.194</b>	22.82	0.191	22.70	0.186
		1	12	22.62	0.183	22.86	0.193	22.81	0.191
		1	24	22.84	0.192	22.66	0.185	22.74	0.188
		12	0	21.64	0.146	21.82	0.152	21.85	0.153
		12	6	21.69	0.148	21.75	0.150	21.75	0.150
		12	13	21.89	0.155	21.90	0.155	21.65	0.146
		25	0	21.71	0.148	21.86	0.153	21.64	0.146
	16QAM	1	0	21.77	0.150	21.62	0.145	<b>21.85</b>	<b>0.153</b>
		1	12	21.84	0.153	21.71	0.148	21.70	0.148
		1	24	21.82	0.152	21.70	0.148	21.65	0.146
		12	0	20.80	0.120	20.69	0.117	20.86	0.122
		12	6	20.74	0.119	20.72	0.118	20.89	0.123
		12	13	20.72	0.118	20.79	0.120	20.64	0.116
		25	0	20.78	0.120	20.75	0.119	20.73	0.118

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18650 (1 855.0 MHz)		18900 (1 880.0 MHz)		19150 (1 905.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	<b>22.77</b>	<b>0.189</b>	22.76	0.189	22.76	0.189
		1	25	22.66	0.185	22.76	0.189	22.72	0.187
		1	49	22.75	0.188	22.61	0.182	22.73	0.187
		25	0	21.70	0.148	21.90	0.155	21.62	0.145
		25	12	21.85	0.153	21.72	0.149	21.73	0.149
		25	25	21.83	0.152	21.74	0.149	21.63	0.146
		50	0	21.87	0.154	21.83	0.152	21.63	0.146
	16QAM	1	0	21.81	0.152	21.77	0.150	21.73	0.149
		1	25	21.84	0.153	21.63	0.146	21.77	0.150
		1	49	<b>21.86</b>	<b>0.153</b>	21.67	0.147	21.64	0.146
		25	0	20.77	0.119	20.73	0.118	20.86	0.122
		25	12	20.86	0.122	20.88	0.122	20.79	0.120
		25	25	20.61	0.115	20.77	0.119	20.70	0.117
		50	0	20.88	0.122	20.64	0.116	20.87	0.122

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18675 (1 857.5 MHz)		18900 (1 880.0 MHz)		19125 (1 902.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	22.76	0.189	22.79	0.190	22.83	0.192
		1	36	22.72	0.187	22.82	0.191	22.62	0.183
		1	74	<b>22.87</b>	<b>0.194</b>	22.81	0.191	22.61	0.182
		36	0	21.62	0.145	21.62	0.145	21.75	0.150
		36	18	21.62	0.145	21.62	0.145	21.67	0.147
		36	37	21.69	0.148	21.69	0.148	21.64	0.146
		75	0	21.80	0.151	21.81	0.152	21.66	0.147
	16QAM	1	0	21.75	0.150	21.89	0.155	21.65	0.146
		1	36	21.86	0.153	21.78	0.151	21.61	0.145
		1	74	21.66	0.147	<b>21.90</b>	<b>0.155</b>	21.63	0.146
		36	0	20.68	0.117	20.61	0.115	20.76	0.119
		36	18	20.90	0.123	20.72	0.118	20.84	0.121
		36	37	20.62	0.115	20.73	0.118	20.78	0.120
		75	0	20.76	0.119	20.78	0.120	20.76	0.119

LTE Band 2									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				18700 (1 860.0 MHz)		18900 (1 880.0 MHz)		19100 (1 900.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	22.73	0.187	22.82	0.191	22.64	0.184
		1	50	22.67	0.185	22.79	0.190	<b>22.88</b>	<b>0.194</b>
		1	99	22.76	0.189	22.65	0.184	22.80	0.191
		50	0	21.83	0.152	21.83	0.152	21.63	0.146
		50	25	21.89	0.155	21.76	0.150	21.89	0.155
		50	13	21.70	0.148	21.81	0.152	21.75	0.150
		100	0	21.84	0.153	21.69	0.148	21.75	0.150
	16QAM	1	0	21.73	0.149	<b>21.80</b>	<b>0.151</b>	21.70	0.148
		1	50	21.71	0.148	21.62	0.145	21.76	0.150
		1	99	21.77	0.150	21.72	0.149	21.74	0.149
		50	0	20.82	0.121	20.77	0.119	20.89	0.123
		50	25	20.75	0.119	20.70	0.117	20.76	0.119
		50	50	20.78	0.120	20.71	0.118	20.75	0.119
		100	0	20.80	0.120	20.77	0.119	20.64	0.116

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				19957 (1 710.7 MHz)		20175 (1 732.5 MHz)		20393 (1 754.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	22.83	0.192	<b>22.91</b>	<b>0.195</b>	21.50	0.141
		1	3	22.75	0.188	22.77	0.189	21.53	0.142
		1	5	22.90	0.195	22.82	0.191	21.61	0.145
		3	0	21.90	0.155	21.75	0.150	20.62	0.115
		3	2	21.75	0.150	21.79	0.151	20.58	0.114
		3	3	21.85	0.153	21.80	0.151	20.62	0.115
		6	0	21.87	0.154	21.81	0.152	20.65	0.116
	16QAM	1	0	<b>21.82</b>	<b>0.152</b>	21.80	0.151	20.54	0.113
		1	3	21.79	0.151	21.81	0.152	20.52	0.113
		1	5	21.77	0.150	21.75	0.150	20.60	0.115
		3	0	20.74	0.119	20.79	0.120	19.55	0.090
		3	2	20.87	0.122	20.82	0.121	19.50	0.089
		3	3	20.74	0.119	20.77	0.119	19.57	0.091
		6	0	20.77	0.119	20.88	0.122	19.55	0.090

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				19965 (1 711.5 MHz)		20175 (1 732.5 MHz)		20385 (1 753.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	22.85	0.193	22.83	0.192	<b>22.92</b>	<b>0.196</b>
		1	7	22.80	0.191	22.79	0.190	22.80	0.191
		1	14	22.86	0.193	22.86	0.193	22.76	0.189
		8	0	21.91	0.155	21.76	0.150	21.90	0.155
		8	4	21.80	0.151	21.90	0.155	21.90	0.155
		8	7	21.79	0.151	21.84	0.153	21.81	0.152
		15	0	21.84	0.153	21.77	0.150	21.79	0.151
	16QAM	1	0	21.82	0.152	21.77	0.150	21.81	0.152
		1	7	<b>21.90</b>	<b>0.155</b>	21.85	0.153	21.87	0.154
		1	14	21.87	0.154	21.77	0.150	21.77	0.150
		8	0	20.88	0.122	20.88	0.122	20.74	0.119
		8	4	20.91	0.123	20.80	0.120	20.91	0.123
		8	7	20.84	0.121	20.84	0.121	20.91	0.123
		15	0	20.76	0.119	20.79	0.120	20.87	0.122

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				19975 (1 712.5 MHz)		20175 (1 732.5 MHz)		20375 (1 752.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	22.74	0.188	22.86	0.193	22.85	0.193
		1	12	22.83	0.192	22.85	0.193	<b>22.90</b>	<b>0.195</b>
		1	24	22.87	0.194	22.78	0.190	22.89	0.195
		12	0	21.81	0.152	21.85	0.153	21.76	0.150
		12	6	21.86	0.153	21.87	0.154	21.84	0.153
		12	13	21.86	0.153	21.78	0.151	21.85	0.153
		25	0	21.75	0.150	21.89	0.155	21.83	0.152
	16QAM	1	0	<b>21.80</b>	<b>0.151</b>	21.79	0.151	21.76	0.150
		1	12	21.74	0.149	21.74	0.149	21.78	0.151
		1	24	21.79	0.151	21.79	0.151	21.78	0.151
		12	0	20.81	0.121	20.86	0.122	20.91	0.123
		12	6	20.77	0.119	20.85	0.122	20.87	0.122
		12	13	20.84	0.121	20.80	0.120	20.78	0.120
		25	0	20.75	0.119	20.79	0.120	20.79	0.120

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20000 (1 715.0 MHz)		20175 (1 732.5 MHz)		20350 (1 750.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	22.76	0.189	22.75	0.188	22.78	0.190
		1	25	22.74	0.188	22.81	0.191	22.78	0.190
		1	49	<b>22.83</b>	<b>0.192</b>	22.79	0.190	22.76	0.189
		25	0	21.77	0.150	21.89	0.155	21.88	0.154
		25	12	21.91	0.155	21.77	0.150	21.83	0.152
		25	25	21.82	0.152	21.82	0.152	21.82	0.152
		50	0	21.79	0.151	21.81	0.152	21.85	0.153
	16QAM	1	0	21.76	0.150	21.89	0.155	21.90	0.155
		1	25	21.83	0.152	21.74	0.149	21.90	0.155
		1	49	21.74	0.149	<b>21.91</b>	<b>0.155</b>	21.88	0.154
		25	0	20.83	0.121	20.87	0.122	20.84	0.121
		25	12	20.89	0.123	20.85	0.122	20.79	0.120
		25	25	20.74	0.119	20.79	0.120	20.88	0.122
		50	0	20.75	0.119	20.80	0.120	20.77	0.119



LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20025 (1 717.5 MHz)		20175 (1 732.5 MHz)		20325 (1 747.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	22.78	0.190	22.82	0.191	22.85	0.193
		1	36	22.76	0.189	<b>22.91</b>	<b>0.195</b>	22.82	0.191
		1	74	22.77	0.189	22.88	0.194	22.90	0.195
		36	0	21.84	0.153	21.87	0.154	21.83	0.152
		36	18	21.80	0.151	21.84	0.153	21.86	0.153
		36	37	21.77	0.150	21.86	0.153	21.85	0.153
		75	0	21.76	0.150	21.76	0.150	21.84	0.153
	16QAM	1	0	21.84	0.153	21.81	0.152	<b>21.90</b>	<b>0.155</b>
		1	36	21.79	0.151	21.89	0.155	21.77	0.150
		1	74	21.74	0.149	21.79	0.151	21.88	0.154
		36	0	20.91	0.123	20.75	0.119	20.89	0.123
		36	18	20.74	0.119	20.91	0.123	20.86	0.122
		36	37	20.89	0.123	20.85	0.122	20.85	0.122
		75	0	20.76	0.119	20.75	0.119	20.76	0.119

LTE Band 4									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20050 (1 720.0 MHz)		20175 (1 732.5 MHz)		20300 (1 745.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	22.88	0.194	<b>22.91</b>	<b>0.195</b>	22.84	0.192
		1	50	22.74	0.188	22.81	0.191	22.88	0.194
		1	99	22.85	0.193	22.76	0.189	22.90	0.195
		50	0	21.76	0.150	21.87	0.154	21.75	0.150
		50	25	21.84	0.153	21.90	0.155	21.91	0.155
		50	13	21.74	0.149	21.90	0.155	21.90	0.155
		100	0	21.85	0.153	21.81	0.152	21.86	0.153
	16QAM	1	0	21.80	0.151	21.88	0.154	21.82	0.152
		1	50	21.77	0.150	<b>21.89</b>	<b>0.155</b>	21.80	0.151
		1	99	21.81	0.152	21.76	0.150	21.75	0.150
		50	0	20.86	0.122	20.80	0.120	20.91	0.123
		50	25	20.85	0.122	20.85	0.122	20.78	0.120
		50	50	20.91	0.123	20.87	0.122	20.78	0.120
		100	0	20.89	0.123	20.79	0.120	20.88	0.122

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20775 (2 502.5 MHz)		21100 (2 535.0 MHz)		21425 (2 567.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	22.91	0.195	22.96	0.198	22.88	0.194
		1	12	22.87	0.194	22.91	0.195	22.99	0.199
		1	24	22.91	0.195	22.88	0.194	<b>23.01</b>	<b>0.200</b>
		12	0	21.86	0.153	21.87	0.154	22.02	0.159
		12	6	21.93	0.156	21.88	0.154	21.98	0.158
		12	13	21.88	0.154	21.97	0.157	21.85	0.153
		25	0	21.85	0.153	22.02	0.159	21.89	0.155
	16QAM	1	0	21.93	0.156	21.93	0.156	21.93	0.156
		1	12	21.91	0.155	21.92	0.156	21.91	0.155
		1	24	<b>21.96</b>	<b>0.157</b>	21.90	0.155	21.86	0.153
		12	0	21.01	0.126	21.02	0.126	21.01	0.126
		12	6	20.99	0.126	21.00	0.126	20.91	0.123
		12	13	20.87	0.122	21.00	0.126	20.88	0.122
		25	0	20.85	0.122	21.00	0.126	20.89	0.123

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20800 (2 505.0 MHz)		21100 (2 535.0 MHz)		21400 (2 565.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	22.88	0.194	22.88	0.194	<b>23.02</b>	<b>0.200</b>
		1	25	22.92	0.196	22.89	0.195	23.00	0.200
		1	49	22.98	0.199	23.01	0.200	22.85	0.193
		25	0	22.01	0.159	21.97	0.157	21.95	0.157
		25	12	21.90	0.155	21.98	0.158	21.89	0.155
		25	25	21.85	0.153	21.87	0.154	21.87	0.154
		50	0	21.93	0.156	21.92	0.156	21.91	0.155
	16QAM	1	0	21.95	0.157	21.95	0.157	21.86	0.153
		1	25	21.92	0.156	21.97	0.157	21.92	0.156
		1	49	21.86	0.153	21.96	0.157	<b>21.98</b>	<b>0.158</b>
		25	0	20.93	0.124	20.86	0.122	20.94	0.124
		25	12	20.90	0.123	20.95	0.124	20.93	0.124
		25	25	20.96	0.125	20.96	0.125	20.94	0.124
		50	0	21.02	0.126	20.93	0.124	20.95	0.124

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20825 (2 507.5 MHz)		21100 (2 535.0 MHz)		21375 (2 562.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	22.90	0.195	23.00	0.200	<b>23.02</b>	<b>0.200</b>
		1	36	22.95	0.197	22.92	0.196	22.91	0.195
		1	74	22.92	0.196	22.93	0.196	22.95	0.197
		36	0	21.96	0.157	21.86	0.153	21.86	0.153
		36	18	21.95	0.157	21.94	0.156	21.98	0.158
		36	37	21.97	0.157	21.97	0.157	21.89	0.155
		75	0	21.97	0.157	21.87	0.154	21.95	0.157
	16QAM	1	0	21.89	0.155	21.97	0.157	21.88	0.154
		1	36	21.95	0.157	21.97	0.157	21.90	0.155
		1	74	21.97	0.157	<b>22.00</b>	<b>0.158</b>	21.88	0.154
		36	0	21.01	0.126	20.87	0.122	20.99	0.126
		36	18	20.96	0.125	20.98	0.125	20.99	0.126
		36	37	20.86	0.122	20.96	0.125	20.88	0.122
		75	0	20.89	0.123	20.93	0.124	20.91	0.123

LTE Band 7									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				20850 (2 510.0 MHz)		21100 (2 535.0 MHz)		21350 (2 560.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	22.95	0.197	22.96	0.198	22.96	0.198
		1	50	22.85	0.193	22.98	0.199	22.95	0.197
		1	99	22.93	0.196	<b>23.00</b>	<b>0.200</b>	22.93	0.196
		50	0	22.02	0.159	21.94	0.156	21.96	0.157
		50	25	22.00	0.158	21.89	0.155	21.88	0.154
		50	50	21.88	0.154	21.95	0.157	21.96	0.157
		100	0	21.96	0.157	21.97	0.157	21.87	0.154
	16QAM	1	0	21.86	0.153	21.97	0.157	21.85	0.153
		1	50	21.94	0.156	<b>22.02</b>	<b>0.159</b>	21.91	0.155
		1	99	21.99	0.158	21.89	0.155	21.98	0.158
		50	0	20.94	0.124	20.98	0.125	20.97	0.125
		50	25	20.88	0.122	21.02	0.126	20.90	0.123
		50	50	20.94	0.124	21.00	0.126	21.00	0.126
		100	0	20.88	0.122	20.97	0.125	20.85	0.122

LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26797 (824.7 MHz)		26915 (836.5 MHz)		27033 (848.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	22.74	0.188	22.76	0.189	22.71	0.187
		1	2	22.75	0.188	<b>22.77</b>	<b>0.189</b>	22.71	0.187
		1	5	22.73	0.187	22.71	0.187	22.68	0.185
		3	0	21.76	0.150	21.68	0.147	21.64	0.146
		3	2	21.67	0.147	21.65	0.146	21.79	0.151
		3	3	21.67	0.147	21.66	0.147	21.75	0.150
		6	0	21.64	0.146	21.64	0.146	21.79	0.151
	16QAM	1	0	21.68	0.147	21.71	0.148	21.70	0.148
		1	3	21.70	0.148	21.71	0.148	21.72	0.149
		1	5	<b>21.80</b>	<b>0.151</b>	21.69	0.148	21.79	0.151
		3	0	20.74	0.119	20.73	0.118	20.76	0.119
		3	2	20.65	0.116	20.76	0.119	20.72	0.118
		3	3	20.79	0.120	20.65	0.116	20.76	0.119
		6	0	20.65	0.116	20.66	0.116	20.71	0.118

LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26805 (825.5 MHz)		26915 (836.5 MHz)		27025 (847.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	22.70	0.186	<b>22.81</b>	<b>0.191</b>	22.65	0.184
		1	7	22.80	0.191	22.76	0.189	22.63	0.183
		1	14	22.75	0.188	22.67	0.185	22.68	0.185
		8	0	21.78	0.151	21.68	0.147	21.63	0.146
		8	4	21.63	0.146	21.69	0.148	21.76	0.150
		8	7	21.71	0.148	21.73	0.149	21.78	0.151
		15	0	21.75	0.150	21.63	0.146	21.74	0.149
	16QAM	1	0	21.73	0.149	21.73	0.149	21.74	0.149
		1	7	21.68	0.147	21.69	0.148	<b>21.80</b>	<b>0.151</b>
		1	14	21.68	0.147	21.68	0.147	21.78	0.151
		8	0	20.65	0.116	20.63	0.116	20.72	0.118
		8	4	20.66	0.116	20.71	0.118	20.78	0.120
		8	7	20.79	0.120	20.71	0.118	20.65	0.116
		15	0	20.66	0.116	20.66	0.116	20.77	0.119

LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26815 (826.5 MHz)		26915 (836.5 MHz)		27015 (846.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	22.66	0.185	<b>22.79</b>	<b>0.190</b>	22.66	0.185
		1	12	22.78	0.190	22.77	0.189	22.77	0.189
		1	24	22.63	0.183	22.70	0.186	22.67	0.185
		12	0	21.64	0.146	21.69	0.148	21.68	0.147
		12	6	21.78	0.151	21.80	0.151	21.74	0.149
		12	13	21.70	0.148	21.72	0.149	21.78	0.151
		25	0	21.68	0.147	21.73	0.149	21.71	0.148
	16QAM	1	0	21.65	0.146	21.68	0.147	<b>21.79</b>	<b>0.151</b>
		1	12	21.64	0.146	21.65	0.146	21.64	0.146
		1	24	21.65	0.146	21.73	0.149	21.68	0.147
		12	0	20.63	0.116	20.70	0.117	20.64	0.116
		12	6	20.73	0.118	20.80	0.120	20.68	0.117
		12	13	20.66	0.116	20.65	0.116	20.67	0.117
		25	0	20.79	0.120	20.70	0.117	20.67	0.117

LTE Band 26/5_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26840 (829.0 MHz)		26915 (836.5 MHz)		26990 (844.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	22.75	0.188	22.69	0.186	22.69	0.186
		1	25	22.66	0.185	22.78	0.190	<b>22.80</b>	<b>0.191</b>
		1	49	22.66	0.185	22.67	0.185	22.74	0.188
		25	0	21.73	0.149	21.66	0.147	21.64	0.146
		25	12	21.68	0.147	21.75	0.150	21.69	0.148
		25	25	21.73	0.149	21.73	0.149	21.69	0.148
		50	0	21.64	0.146	21.73	0.149	21.75	0.150
	16QAM	1	0	21.68	0.147	21.65	0.146	<b>21.80</b>	<b>0.151</b>
		1	25	21.67	0.147	21.66	0.147	21.67	0.147
		1	49	21.69	0.148	21.68	0.147	21.73	0.149
		25	0	20.76	0.119	20.80	0.120	20.71	0.118
		25	12	20.65	0.116	20.77	0.119	20.72	0.118
		25	25	20.71	0.118	20.71	0.118	20.68	0.117
		50	0	20.69	0.117	20.63	0.116	20.79	0.120

LTE Band 26_part 22									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26865 (831.5 MHz)		-		26965 (841.5 MHz)	
				(dB m)	(W)	-	-	(dB m)	(W)
15	QPSK	1	0	22.65	0.184	-	-	<b>22.73</b>	<b>0.187</b>
		1	36	22.71	0.187	-	-	22.72	0.187
		1	74	22.64	0.184	-	-	22.67	0.185
		36	0	21.72	0.149	-	-	21.80	0.151
		36	18	21.79	0.151	-	-	21.65	0.146
		36	37	21.70	0.148	-	-	21.70	0.148
		75	0	21.69	0.148	-	-	21.76	0.150
	16QAM	1	0	21.66	0.147	-	-	<b>21.79</b>	<b>0.151</b>
		1	36	21.67	0.147	-	-	21.76	0.150
		1	74	21.73	0.149	-	-	21.75	0.150
		36	0	20.69	0.117	-	-	20.74	0.119
		36	18	20.76	0.119	-	-	20.73	0.118
		36	37	20.63	0.116	-	-	20.65	0.116
		75	0	20.69	0.117	-	-	20.69	0.117

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26697 (814.7 MHz)		26740 (819.0 MHz)		26783 (823.3 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
1.4	QPSK	1	0	22.61	0.182	22.50	0.178	22.56	0.180
		1	2	22.57	0.181	22.69	0.186	22.53	0.179
		1	5	22.61	0.182	22.70	0.186	<b>22.72</b>	<b>0.187</b>
		3	0	21.64	0.146	21.67	0.147	21.60	0.145
		3	2	21.59	0.144	21.53	0.142	21.60	0.145
		3	3	21.58	0.144	21.72	0.149	21.53	0.142
		6	0	21.52	0.142	21.69	0.148	21.69	0.148
	16QAM	1	0	21.67	0.147	21.63	0.146	21.67	0.147
		1	2	<b>21.74</b>	<b>0.149</b>	21.73	0.149	21.54	0.143
		1	5	21.73	0.149	21.64	0.146	21.52	0.142
		3	0	20.68	0.117	20.59	0.115	20.52	0.113
		3	2	20.66	0.116	20.53	0.113	20.73	0.118
		3	3	20.73	0.118	20.71	0.118	20.60	0.115
		6	0	20.53	0.113	20.58	0.114	20.50	0.112

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26705 (815.5 MHz)		26740 (819.0 MHz)		26775 (822.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
3	QPSK	1	0	<b>22.75</b>	<b>0.188</b>	22.60	0.182	22.66	0.185
		1	7	22.57	0.181	22.52	0.179	22.68	0.185
		1	14	22.69	0.186	22.60	0.182	22.52	0.179
		8	0	21.71	0.148	21.61	0.145	21.51	0.142
		8	4	21.66	0.147	21.59	0.144	21.74	0.149
		8	7	21.53	0.142	21.54	0.143	21.63	0.146
		15	0	21.64	0.146	21.71	0.148	21.50	0.141
	16QAM	1	0	21.54	0.143	21.57	0.144	<b>21.70</b>	<b>0.148</b>
		1	7	21.58	0.144	21.60	0.145	21.57	0.144
		1	14	21.61	0.145	21.50	0.141	21.62	0.145
		8	0	20.62	0.115	20.67	0.117	20.74	0.119
		8	4	20.74	0.119	20.64	0.116	20.72	0.118
		8	7	20.63	0.116	20.71	0.118	20.65	0.116
		15	0	20.74	0.119	20.52	0.113	20.64	0.116

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26715 (816.5 MHz)		26740 (819.0 MHz)		26765 (821.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	22.71	0.187	22.64	0.184	<b>22.74</b>	<b>0.188</b>
		1	12	22.55	0.180	22.57	0.181	22.65	0.184
		1	24	22.52	0.179	22.61	0.182	22.52	0.179
		12	0	21.57	0.144	21.58	0.144	21.56	0.143
		12	6	21.70	0.148	21.63	0.146	21.61	0.145
		12	13	21.56	0.143	21.61	0.145	21.60	0.145
		25	0	21.65	0.146	21.65	0.146	21.56	0.143
	16QAM	1	0	21.50	0.141	21.61	0.145	21.59	0.144
		1	12	21.60	0.145	<b>21.70</b>	<b>0.148</b>	21.63	0.146
		1	24	21.57	0.144	21.50	0.141	21.58	0.144
		12	0	20.69	0.117	20.63	0.116	20.68	0.117
		12	6	20.54	0.113	20.71	0.118	20.63	0.116
		12	13	20.57	0.114	20.70	0.117	20.73	0.118
		25	0	20.72	0.118	20.62	0.115	20.62	0.115

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26740 (819.0 MHz)					
				(dB m)	(W)				
10	QPSK	1	0	-	-	<b>22.72</b>	<b>0.187</b>	-	-
		1	25	-	-	22.56	0.180	-	-
		1	49	-	-	22.66	0.185	-	-
		25	0	-	-	21.52	0.142	-	-
		25	12	-	-	21.71	0.148	-	-
		25	25	-	-	21.62	0.145	-	-
		50	0	-	-	21.60	0.145	-	-
	16QAM	1	0	-	-	21.51	0.142	-	-
		1	25	-	-	<b>21.65</b>	<b>0.146</b>	-	-
		1	49	-	-	21.58	0.144	-	-
		25	0	-	-	20.64	0.116	-	-
		25	12	-	-	20.65	0.116	-	-
		25	25	-	-	20.58	0.114	-	-
		50	0	-	-	20.68	0.117	-	-

LTE Band 26_part 90									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				26765 (821.5 MHz)					
15	QPSK	1	0	-	-	<b>22.58</b>	<b>0.181</b>	-	-
		1	36	-	-	22.51	0.178	-	-
		1	74	-	-	22.52	0.179	-	-
		36	0	-	-	21.69	0.148	-	-
		36	18	-	-	21.57	0.144	-	-
		36	37	-	-	21.71	0.148	-	-
		75	0	-	-	21.72	0.149	-	-
	16QAM	1	0	-	-	<b>21.71</b>	<b>0.148</b>	-	-
		1	36	-	-	21.70	0.148	-	-
		1	74	-	-	21.63	0.146	-	-
		36	0	-	-	20.60	0.115	-	-
		36	18	-	-	20.69	0.117	-	-
		36	37	-	-	20.62	0.115	-	-
		75	0	-	-	20.70	0.117	-	-

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39675 (2 498.5 MHz)		40620 (2 593.0 MHz)		41565 (2 687.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
5	QPSK	1	0	25.42	0.348	<b>25.55</b>	<b>0.359</b>	25.50	0.355
		1	12	25.44	0.350	25.39	0.346	25.48	0.353
		1	24	25.43	0.349	25.44	0.350	25.40	0.347
		12	0	24.36	0.273	24.54	0.284	24.47	0.280
		12	6	24.54	0.284	24.53	0.284	24.54	0.284
		12	13	24.35	0.272	24.45	0.279	24.39	0.275
		25	0	24.43	0.277	24.45	0.279	24.49	0.281
	16QAM	1	0	24.52	0.283	24.45	0.279	<b>24.54</b>	<b>0.284</b>
		1	12	24.43	0.277	24.53	0.284	24.45	0.279
		1	24	24.52	0.283	24.50	0.282	24.35	0.272
		12	0	23.42	0.220	23.50	0.224	23.44	0.221
		12	6	23.39	0.218	23.42	0.220	23.38	0.218
		12	13	23.46	0.222	23.41	0.219	23.36	0.217
		25	0	23.42	0.220	23.52	0.225	23.42	0.220

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39700 (2 501.0 MHz)		40620 (2 593.0 MHz)		41540 (2 685.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
10	QPSK	1	0	<b>25.56</b>	<b>0.360</b>	25.53	0.357	25.44	0.350
		1	25	25.39	0.346	25.48	0.353	25.36	0.344
		1	49	25.35	0.343	25.40	0.347	25.55	0.359
		25	0	24.46	0.279	24.39	0.275	24.44	0.278
		25	12	24.49	0.281	24.35	0.272	24.36	0.273
		25	25	24.49	0.281	24.51	0.282	24.39	0.275
		50	0	24.53	0.284	24.44	0.278	24.51	0.282
	16QAM	1	0	24.44	0.278	<b>24.55</b>	<b>0.285</b>	24.54	0.284
		1	25	24.45	0.279	24.49	0.281	24.52	0.283
		1	49	24.53	0.284	24.44	0.278	24.50	0.282
		25	0	23.43	0.220	23.44	0.221	23.49	0.223
		25	12	23.49	0.223	23.52	0.225	23.52	0.225
		25	25	23.55	0.226	23.41	0.219	23.53	0.225
		50	0	23.38	0.218	23.38	0.218	23.36	0.217

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39725 (2 503.5 MHz)		40620 (2 593.0 MHz)		41515 (2 682.5 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
15	QPSK	1	0	25.40	0.347	25.48	0.353	25.52	0.356
		1	36	25.40	0.347	25.36	0.344	25.50	0.355
		1	74	25.50	0.355	25.41	0.348	<b>25.54</b>	<b>0.358</b>
		36	0	24.50	0.282	24.36	0.273	24.35	0.272
		36	18	24.50	0.282	24.38	0.274	24.38	0.274
		36	37	24.35	0.272	24.36	0.273	24.40	0.275
		75	0	24.44	0.278	24.53	0.284	24.37	0.274
	16QAM	1	0	24.39	0.275	24.35	0.272	24.43	0.277
		1	36	24.53	0.284	24.52	0.283	24.44	0.278
		1	74	<b>24.55</b>	<b>0.285</b>	24.51	0.282	24.49	0.281
		36	0	23.48	0.223	23.40	0.219	23.35	0.216
		36	18	23.55	0.226	23.46	0.222	23.53	0.225
		36	37	23.52	0.225	23.38	0.218	23.44	0.221
		75	0	23.40	0.219	23.36	0.217	23.38	0.218

LTE Band 41									
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
				39750 (2 506.0 MHz)		40620 (2 593.0 MHz)		41490 (2 680.0 MHz)	
				(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	QPSK	1	0	25.48	0.353	25.37	0.344	25.39	0.346
		1	50	<b>25.54</b>	<b>0.358</b>	25.35	0.343	25.49	0.354
		1	99	25.49	0.354	25.50	0.355	25.35	0.343
		50	0	24.45	0.279	24.38	0.274	24.53	0.284
		50	25	24.45	0.279	24.55	0.285	24.53	0.284
		50	13	24.42	0.277	24.55	0.285	24.51	0.282
		100	0	24.46	0.279	24.50	0.282	24.55	0.285
	16QAM	1	0	24.42	0.277	24.39	0.275	24.40	0.275
		1	50	24.46	0.279	<b>24.55</b>	<b>0.285</b>	24.50	0.282
		1	99	24.53	0.284	24.38	0.274	24.37	0.274
		50	0	23.52	0.225	23.43	0.220	23.46	0.222
		50	25	23.44	0.221	23.44	0.221	23.39	0.218
		50	50	23.39	0.218	23.53	0.225	23.41	0.219
		100	0	23.54	0.226	23.41	0.219	23.54	0.226

## 4. Occupied Bandwidth

### 4.1. Limit

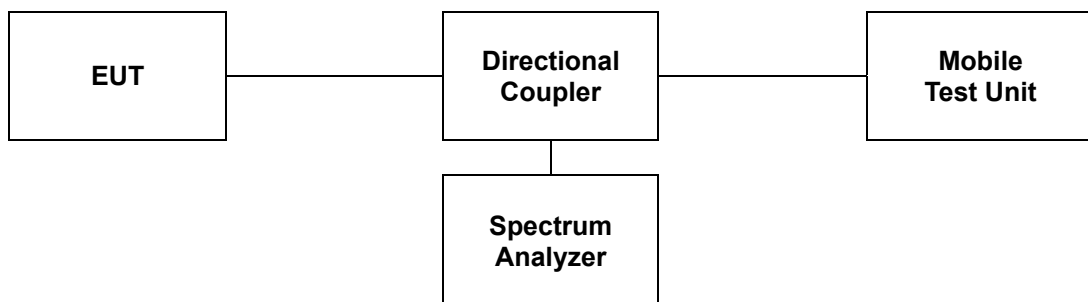
CFR 47, Section FCC §2.1049.

### 4.2. Test Procedure

The test follows section 5.4.4 of ANSI C63.26-2015.

- a. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation. Products including the emission skirts (typically a span of  $1.5 \times \text{OBW}$  is sufficient).
- b. The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1 % to 5 % of the anticipated OBW, and the VBW shall be set  $\geq 3 \times \text{RBW}$ .
- c. Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- d. Set the detection mode to peak, and the trace mode to max-hold.
- e. If the instrument does not have a 99 % OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5 % of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5 % of the total is reached and record that frequency as the upper OBW frequency. The 99 % power OBW can be determined by computing the difference these two frequencies.
- f. The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

For the 99 % emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99 % emission bandwidth).





### 4.3 Test Results

Ambient temperature : (23 ± 1) °C  
 Relative humidity : 47 % R.H.

#### SIM 1

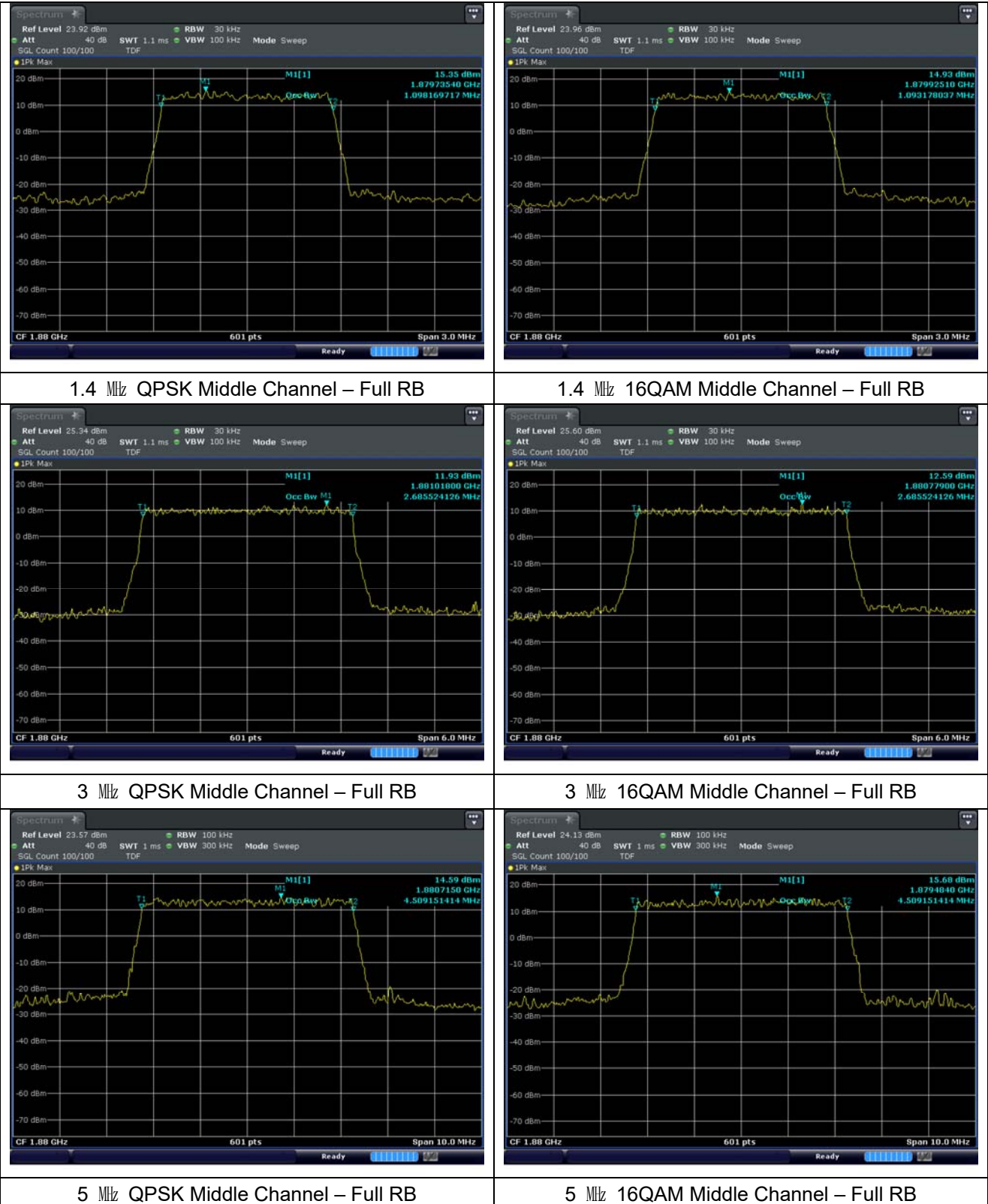
Band	Bandwidth (MHz)	Frequency (MHz)	Occupied Bandwidth (MHz)		
			QPSK	16QAM	
2	1.4	1 880	1.098	1.093	
	3		2.686	2.686	
	5		4.509	4.509	
	10		8.952	8.952	
	15		13.527	13.478	
	20		17.903	17.903	
4	1.4	1 732.5	1.098	1.098	
	3		2.676	2.686	
	5		4.509	4.493	
	10		8.918	8.918	
	15		13.478	13.478	
	20		17.903	17.903	
7	5	2 535	4.509	4.509	
	10		8.952	8.918	
	15		13.478	13.478	
	20		17.903	17.903	
12	1.4	707.5	1.088	1.088	
	3		2.676	2.686	
12/17	5		4.493	4.493	
	10		8.885	8.952	
26/5 Part 22	1.4		836.5	1.088	1.098
	3			2.676	2.686
	5	4.493		4.493	
	10	8.952		8.918	
26 Part 22	15	831.5	13.478	13.478	
26 Part 90	1.4	819	1.093	1.093	
	3		2.676	2.686	
	5		4.476	4.509	
	10		8.952	8.918	
	15	821.5	13.478	13.478	
41	5	2 593	4.493	4.476	
	10		8.952	8.918	
	15		13.428	13.478	
	20		17.903	17.903	

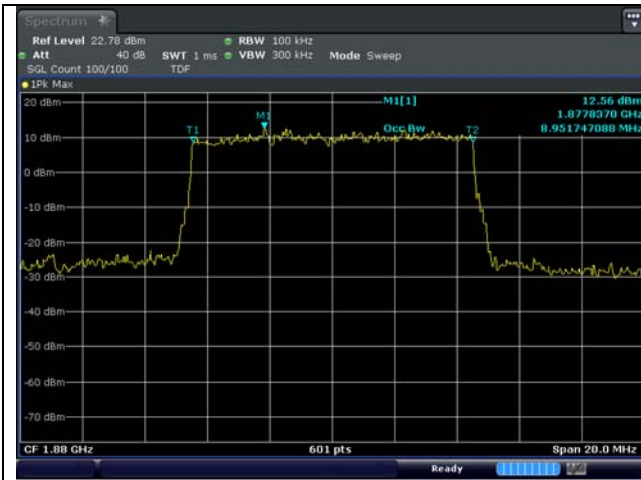
**SIM 2**

Band	Bandwidth (MHz)	Frequency (MHz)	Occupied Bandwidth (MHz)	
			QPSK	16QAM
2	1.4	1 880	1.088	1.093
	3		2.686	2.696
	5		4.493	4.509
	10		8.952	8.952
	15		13.478	13.478
	20		17.903	17.903
4	1.4	1 732.5	1.098	1.098
	3		2.676	2.686
	5		4.493	4.493
	10		8.952	8.918
	15		13.428	13.478
	20		17.903	17.903
7	5	2 535	4.493	4.493
	10		8.952	8.952
	15		13.527	13.478
	20		17.903	17.903
26/5 Part 22	1.4	836.5	1.093	1.093
	3		2.676	2.686
	5		4.493	4.493
	10		8.952	8.918
26 Part 22	15	831.5	13.478	13.527
26 Part 90	1.4	819	1.093	1.098
	3		2.676	2.676
	5		4.493	4.509
	10		8.918	8.952
	15	821.5	13.478	13.478
41	5	2 593	4.509	4.509
	10		8.918	8.918
	15		13.527	13.428
	20		17.903	17.837

- Test plots

**SIM 1**  
**LTE band 2**

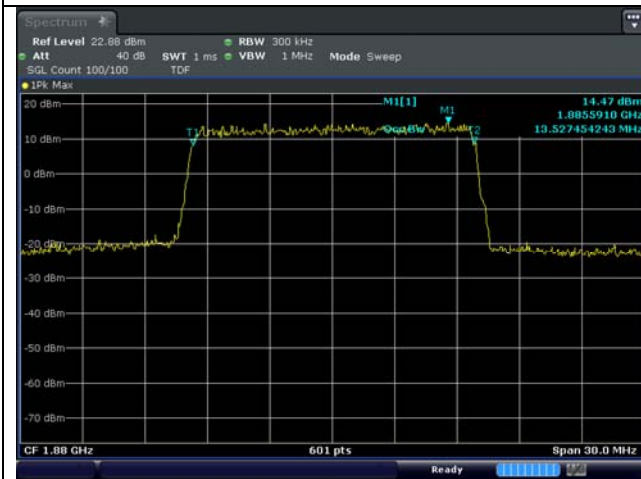




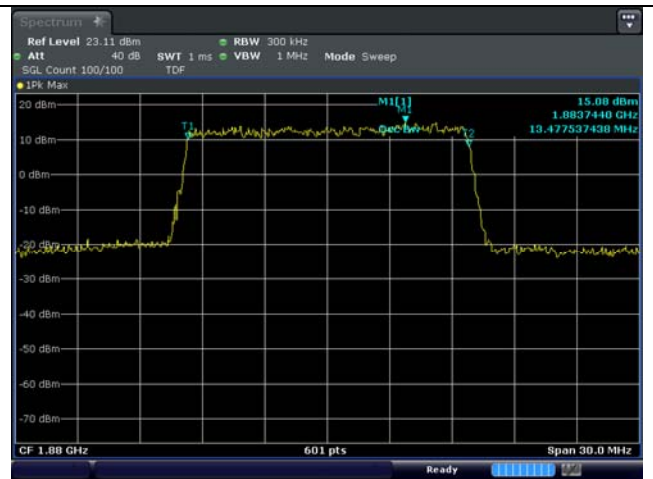
10 MHz QPSK Middle Channel – Full RB



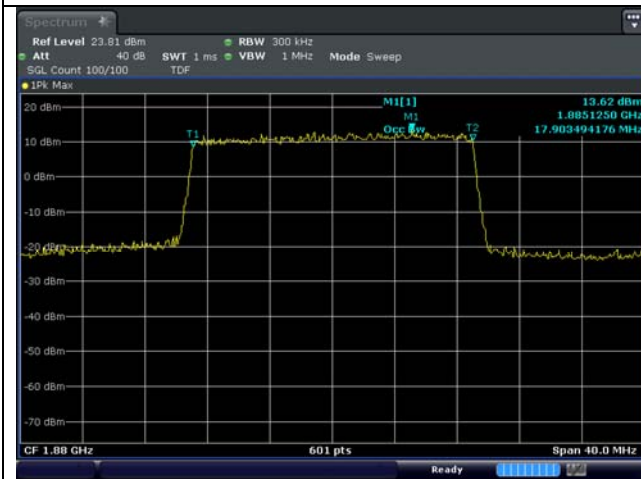
10 MHz 16QAM Middle Channel – Full RB



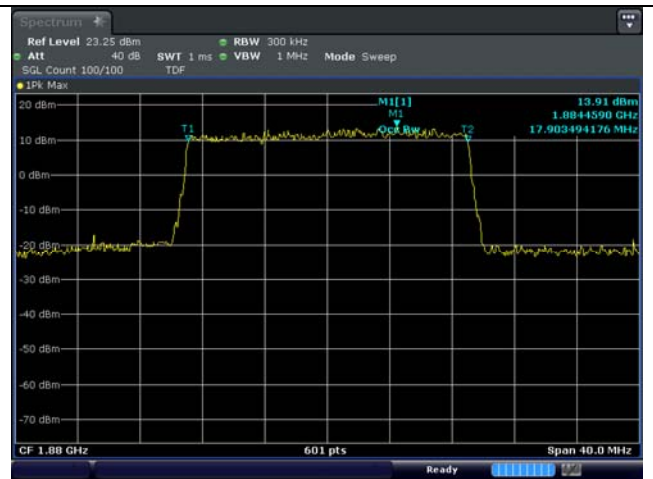
15 MHz QPSK Middle Channel – Full RB



15 MHz 16QAM Middle Channel – Full RB

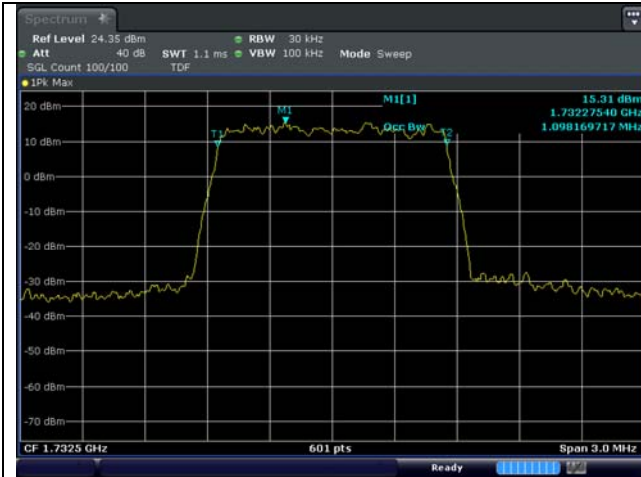


20 MHz QPSK Middle Channel – Full RB

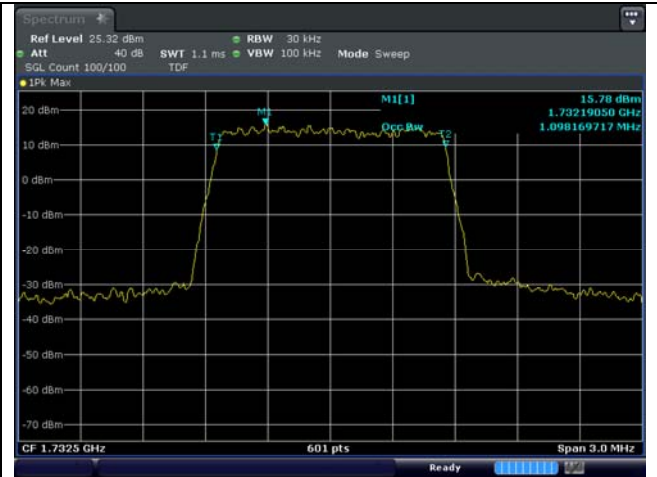


20 MHz 16QAM Middle Channel – Full RB

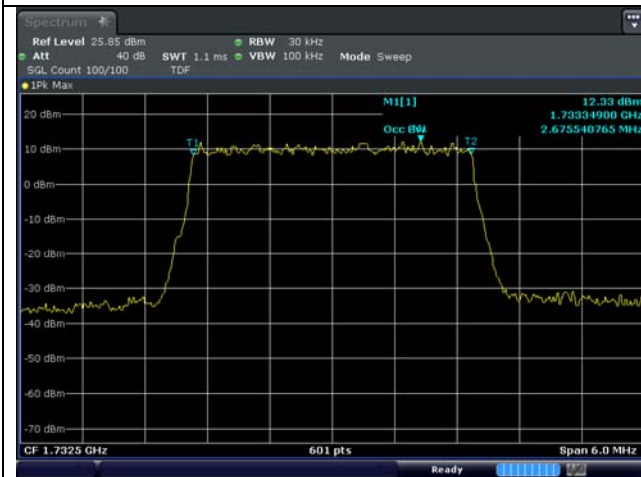
**LTE band 4**



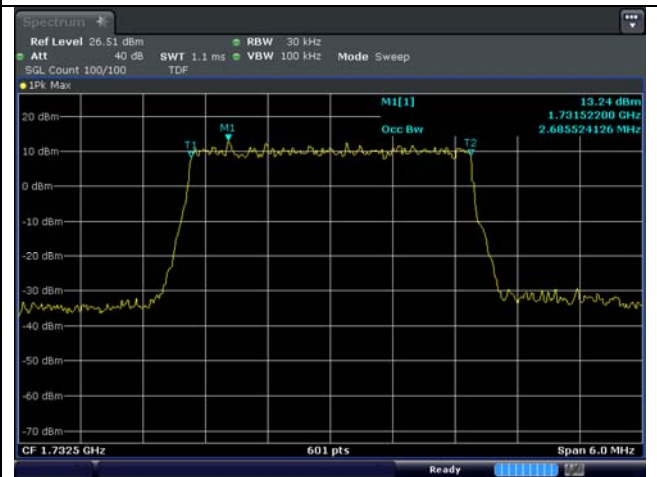
1.4 MHz QPSK Middle Channel – Full RB



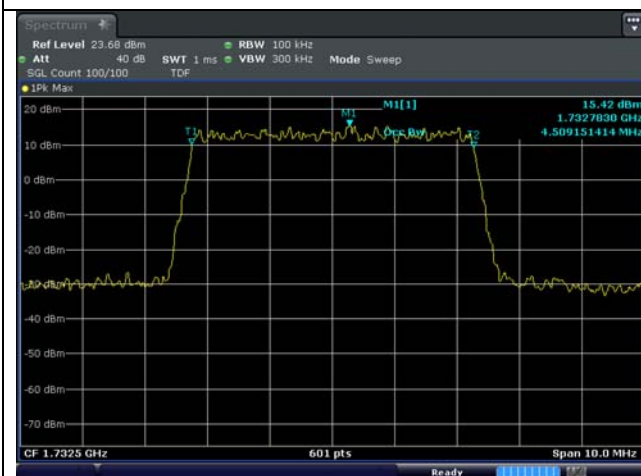
1.4 MHz 16QAM Middle Channel – Full RB



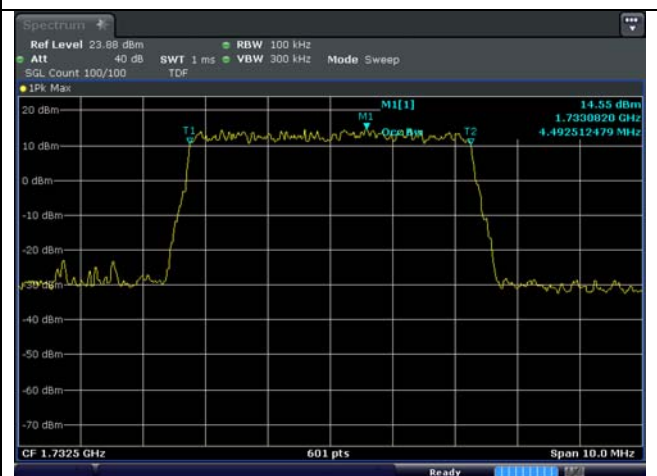
3 MHz QPSK Middle Channel – Full RB



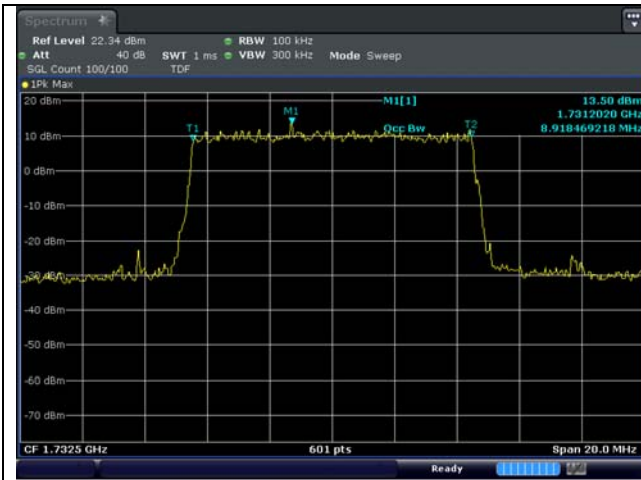
3 MHz 16QAM Middle Channel – Full RB



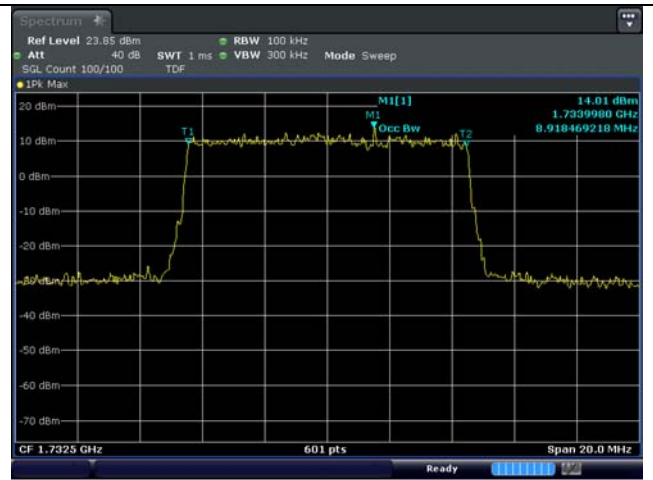
5 MHz QPSK Middle Channel – Full RB



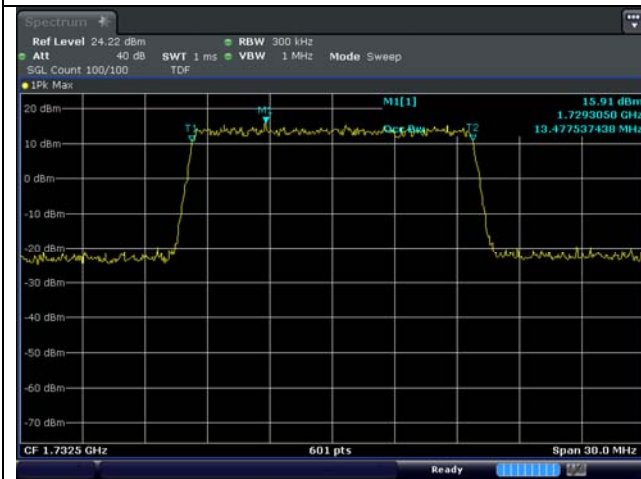
5 MHz 16QAM Middle Channel – Full RB



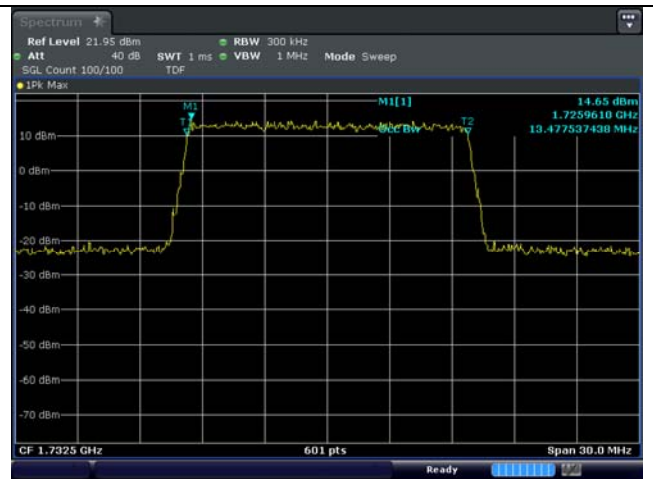
10 MHz QPSK Middle Channel – Full RB



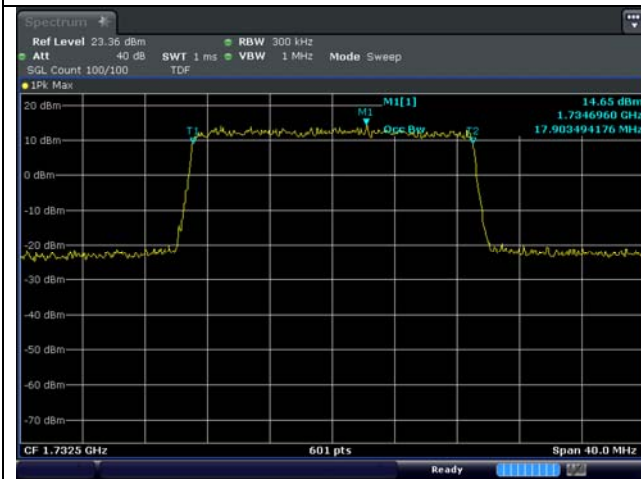
10 MHz 16QAM Middle Channel – Full RB



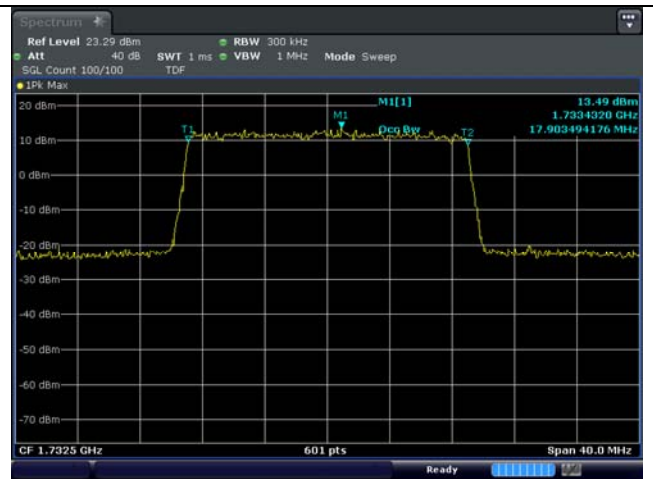
15 MHz QPSK Middle Channel – Full RB



15 MHz 16QAM Middle Channel – Full RB

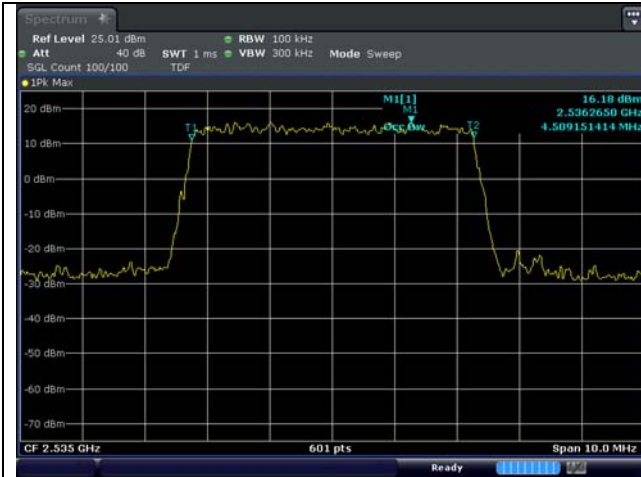


20 MHz QPSK Middle Channel – Full RB

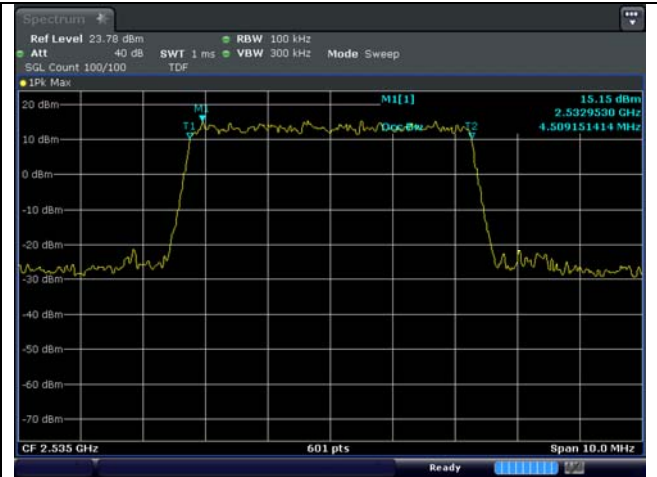


20 MHz 16QAM Middle Channel – Full RB

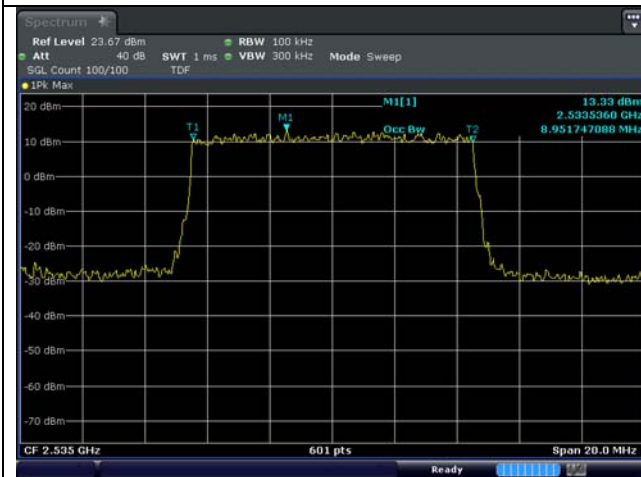
**LTE band 7**



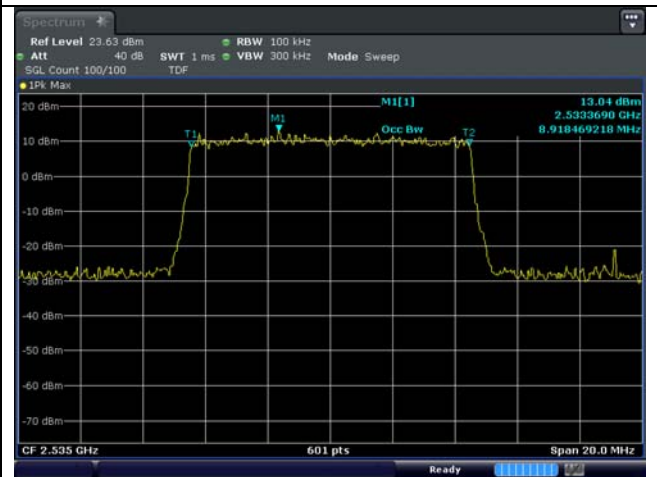
5 MHz QPSK Middle Channel – Full RB



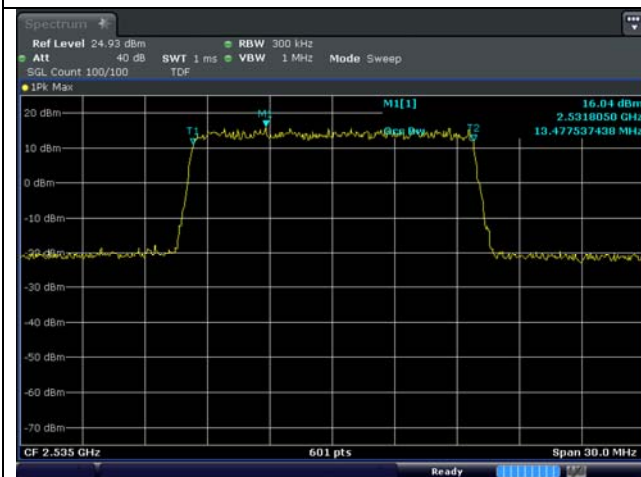
5 MHz 16QAM Middle Channel – Full RB



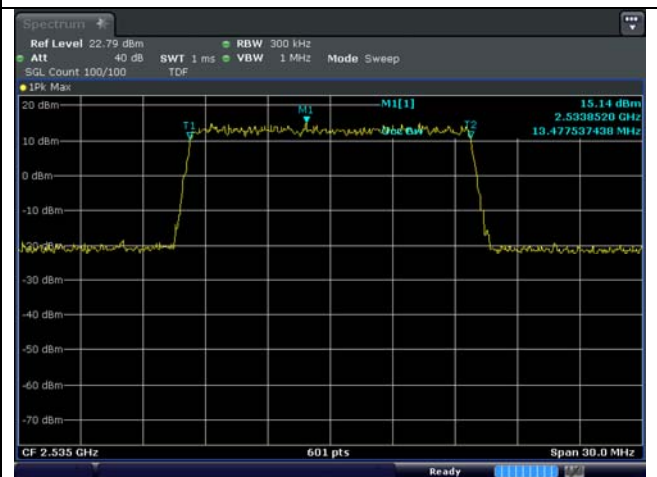
10 MHz QPSK Middle Channel – Full RB



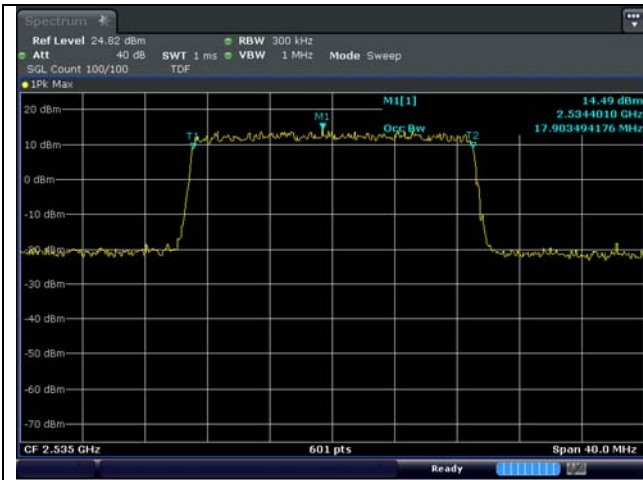
10 MHz 16QAM Middle Channel – Full RB



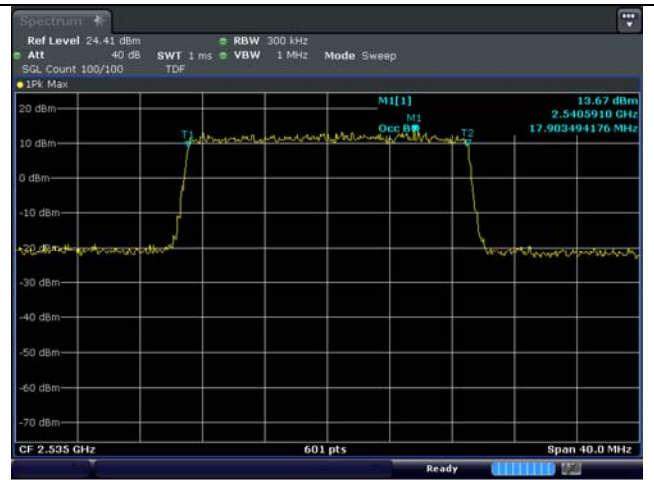
15 MHz QPSK Middle Channel – Full RB



15 MHz 16QAM Middle Channel – Full RB

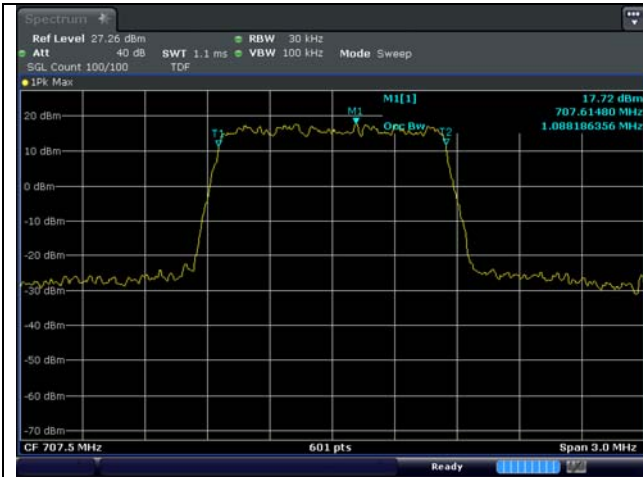


20 MHz QPSK Middle Channel – Full RB



20 MHz 16QAM Middle Channel – Full RB

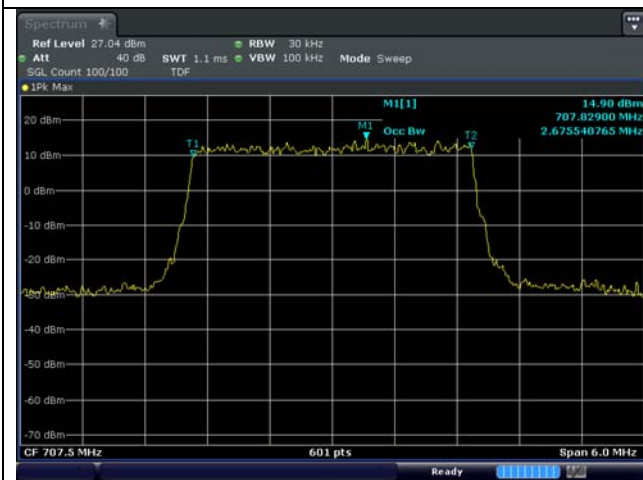
**LTE band 12**



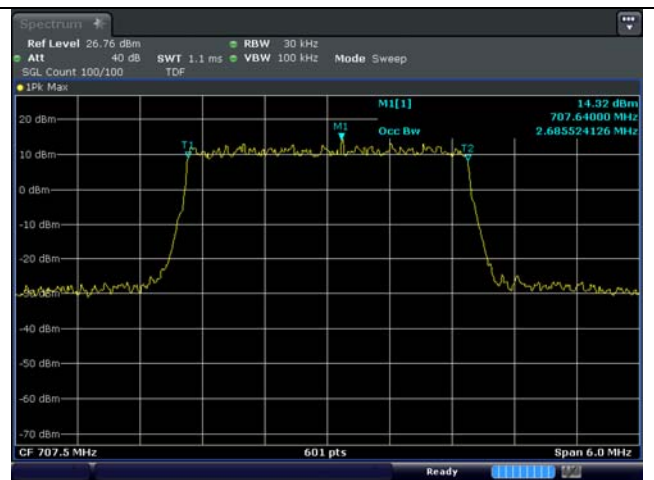
1.4 MHz QPSK Middle Channel – Full RB



1.4 MHz 16QAM Middle Channel – Full RB



3 MHz QPSK Middle Channel – Full RB



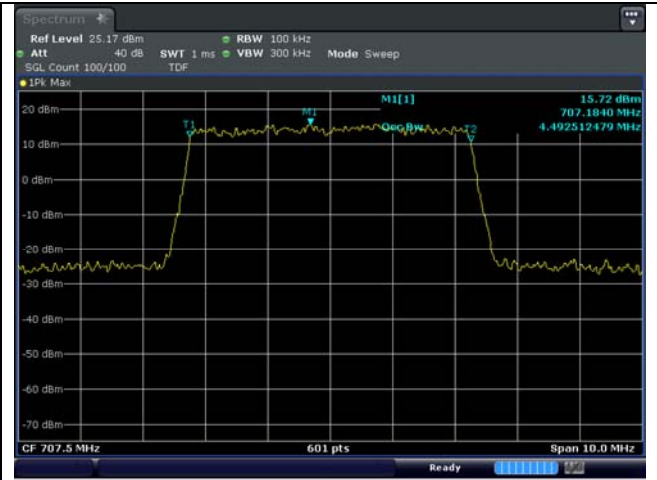
3 MHz 16QAM Middle Channel – Full RB



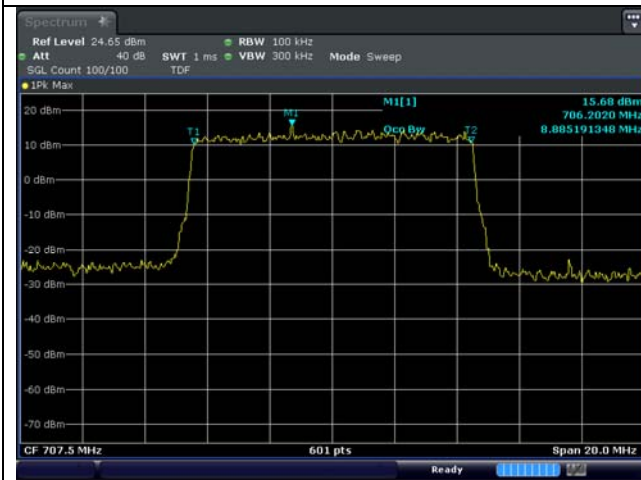
**LTE band 12/17**



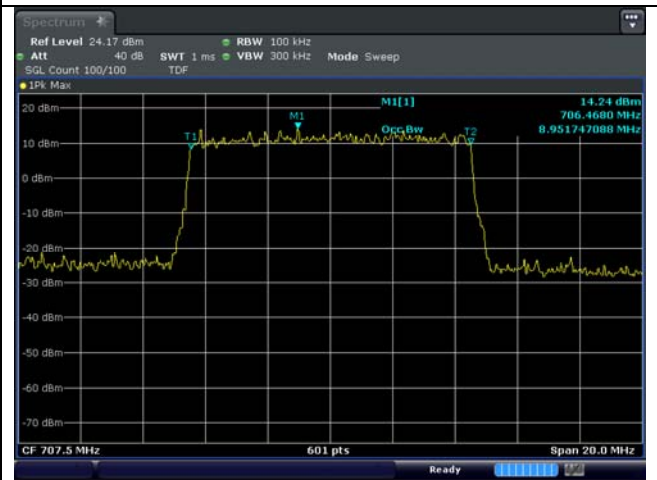
5 MHz QPSK Middle Channel – Full RB



5 MHz 16QAM Middle Channel – Full RB

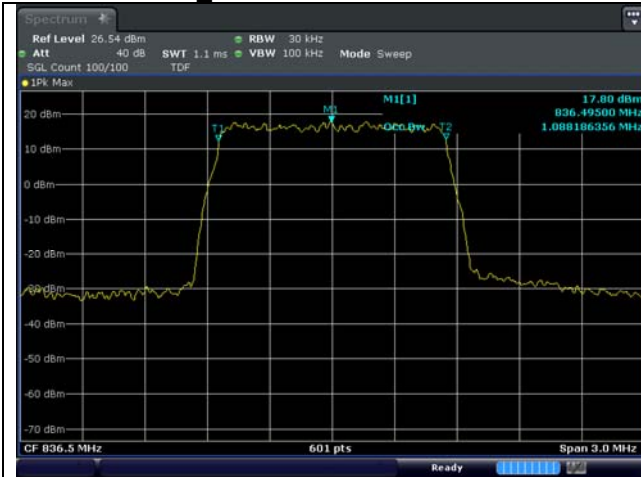


10 MHz QPSK Middle Channel – Full RB

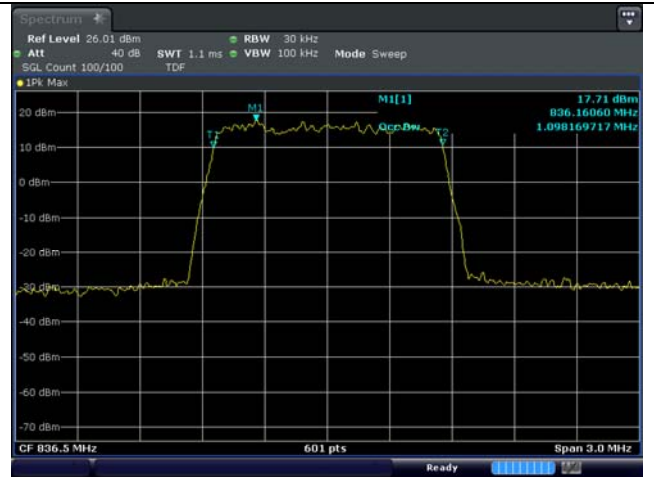


10 MHz 16QAM Middle Channel – Full RB

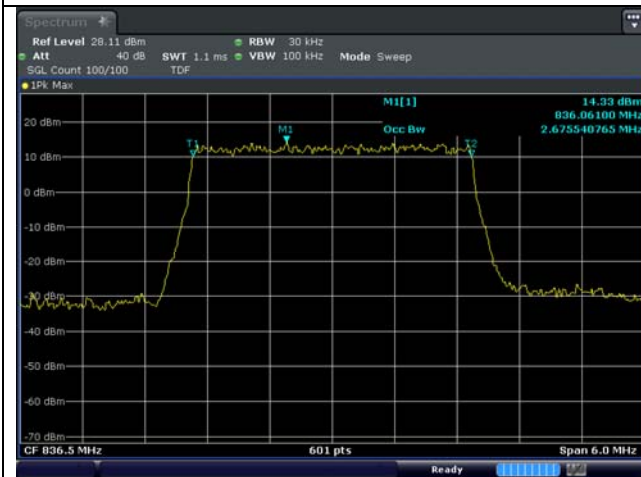
**LTE band 26/5 Part 22**



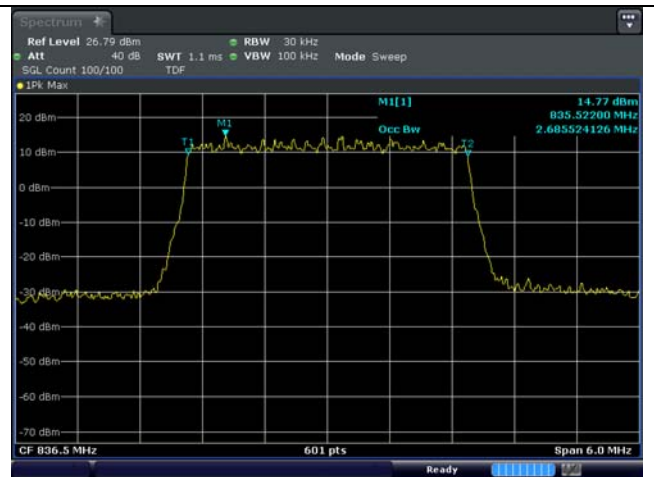
1.4 MHz QPSK Middle Channel – Full RB



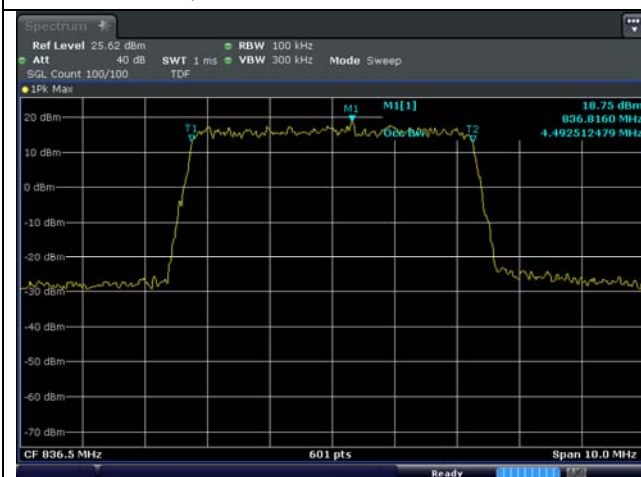
1.4 MHz 16QAM Middle Channel – Full RB



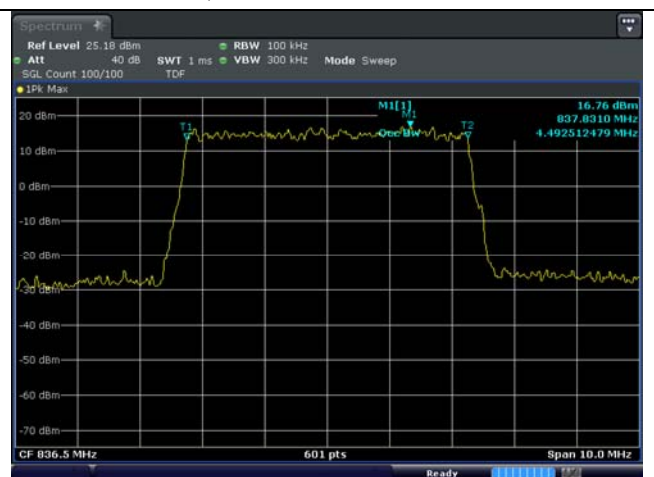
3 MHz QPSK Middle Channel – Full RB



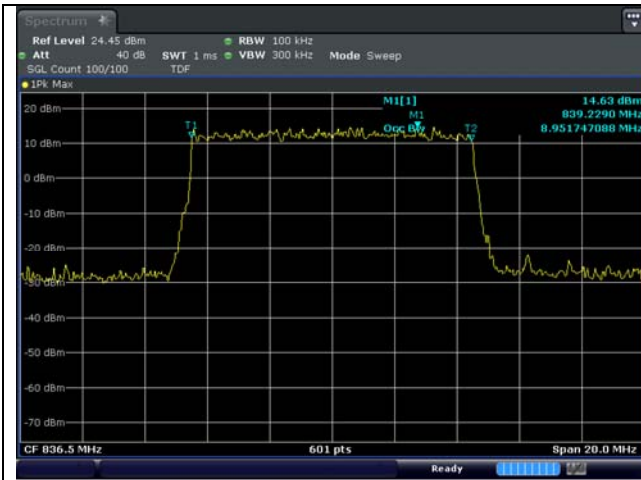
3 MHz 16QAM Middle Channel – Full RB



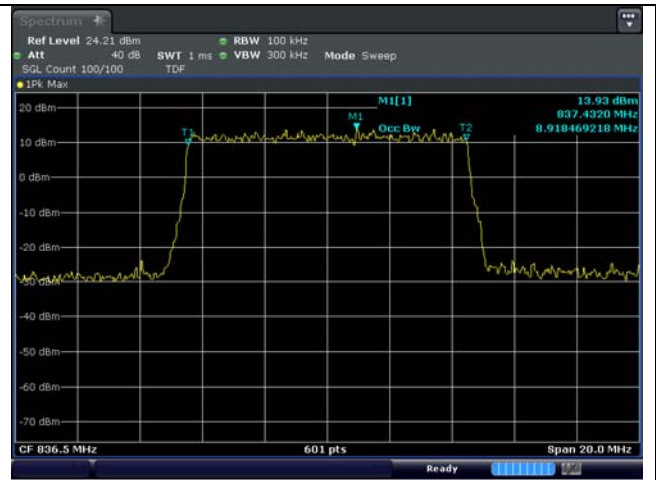
5 MHz QPSK Middle Channel – Full RB



5 MHz 16QAM Middle Channel – Full RB

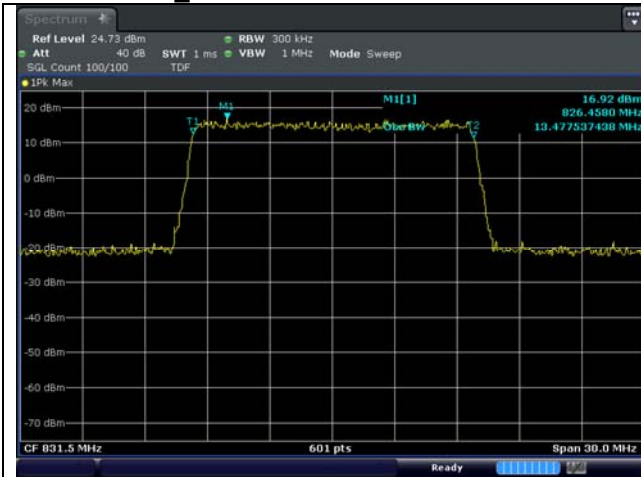


10 MHz QPSK Middle Channel – Full RB

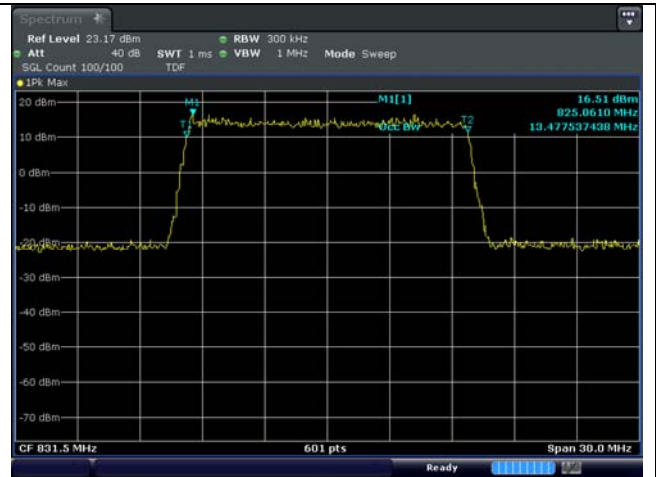


10 MHz 16QAM Middle Channel – Full RB

**LTE band 26\_Part 22**

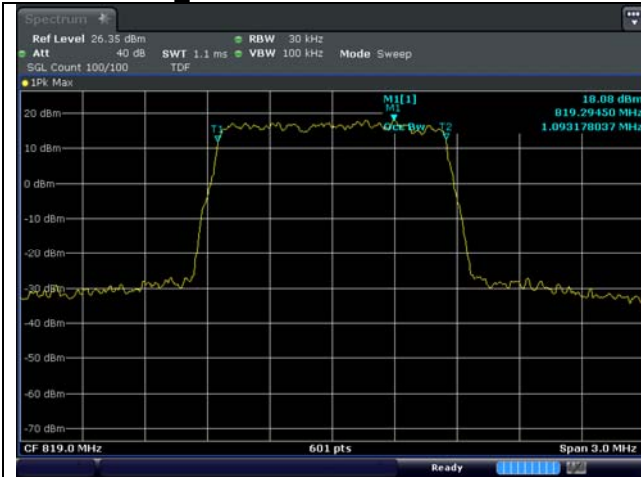


15 MHz QPSK Low Channel – Full RB



15 MHz 16QAM Low Channel – Full RB

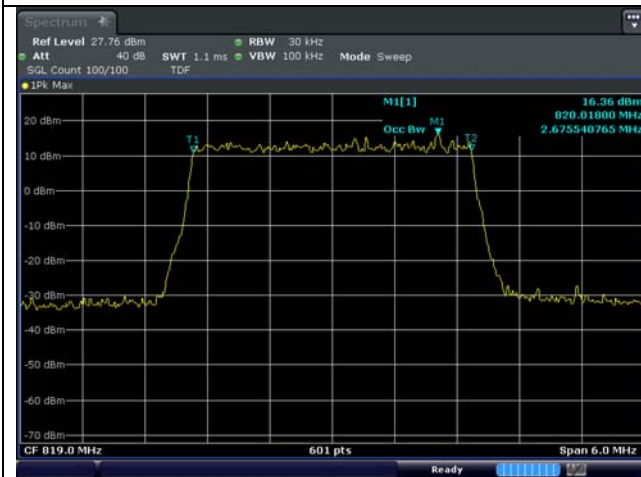
**LTE band 26 Part 90**



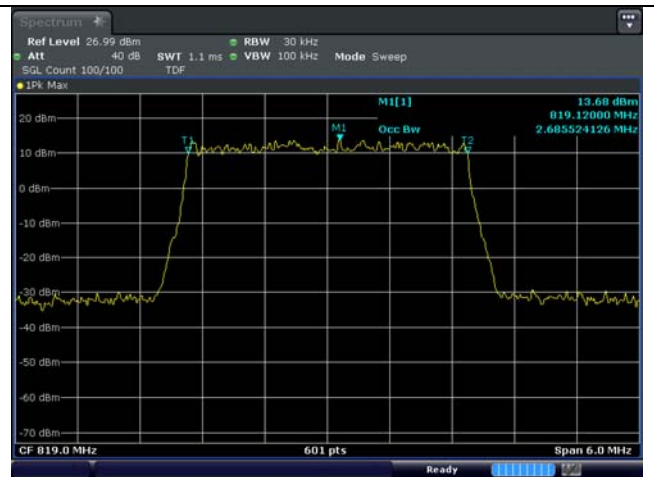
1.4 MHz QPSK Middle Channel – Full RB



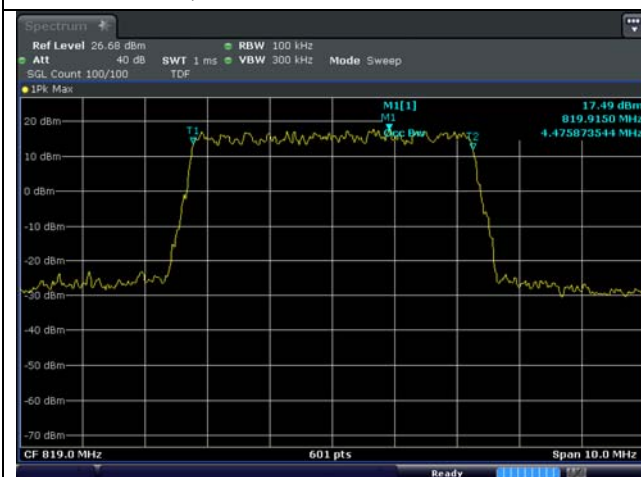
1.4 MHz 16QAM Middle Channel – Full RB



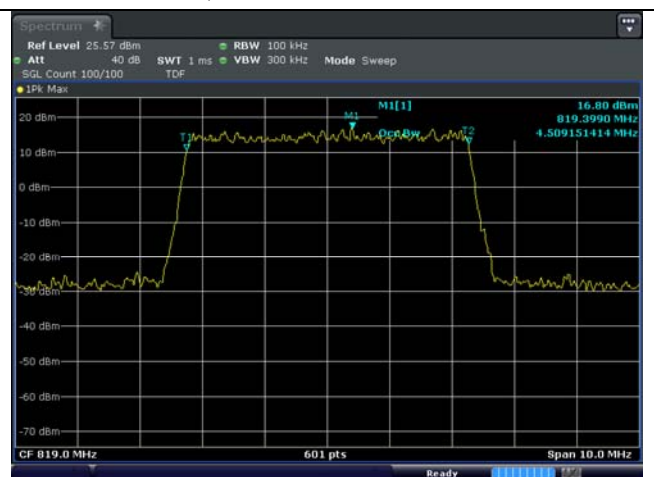
3 MHz QPSK Middle Channel – Full RB



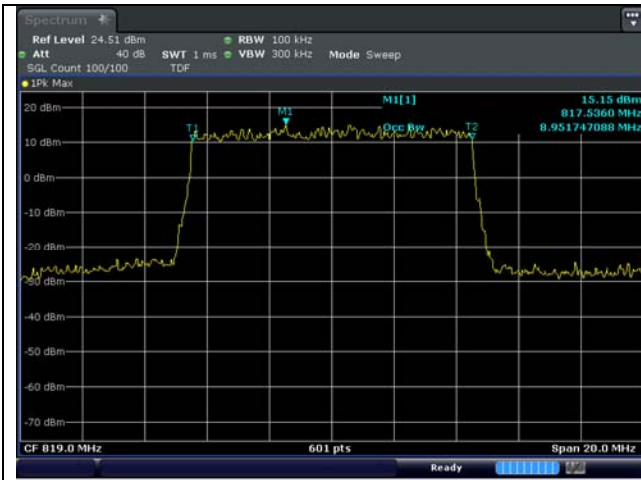
3 MHz 16QAM Middle Channel – Full RB



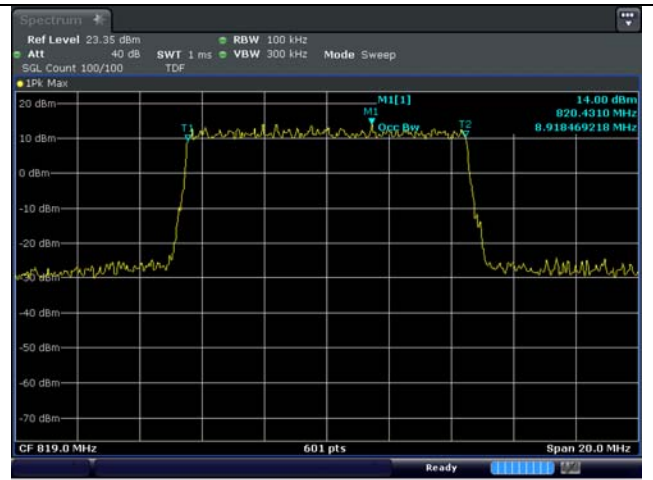
5 MHz QPSK Middle Channel – Full RB



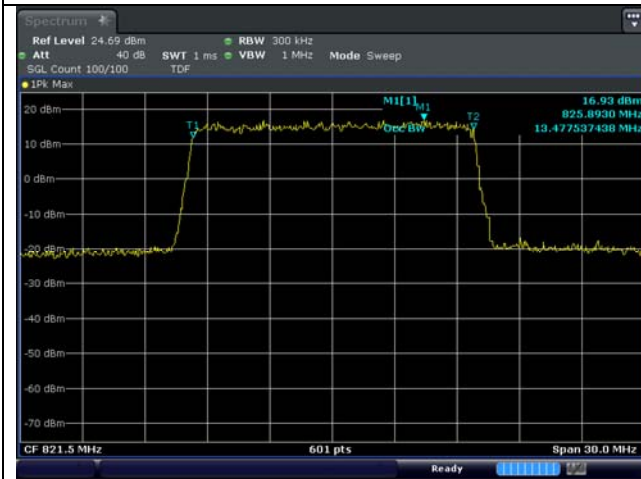
5 MHz 16QAM Middle Channel – Full RB



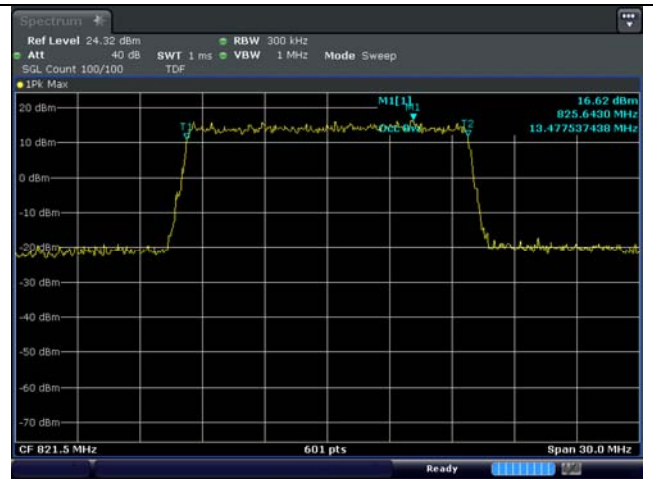
10 MHz QPSK Middle Channel – Full RB



10 MHz 16QAM Middle Channel – Full RB

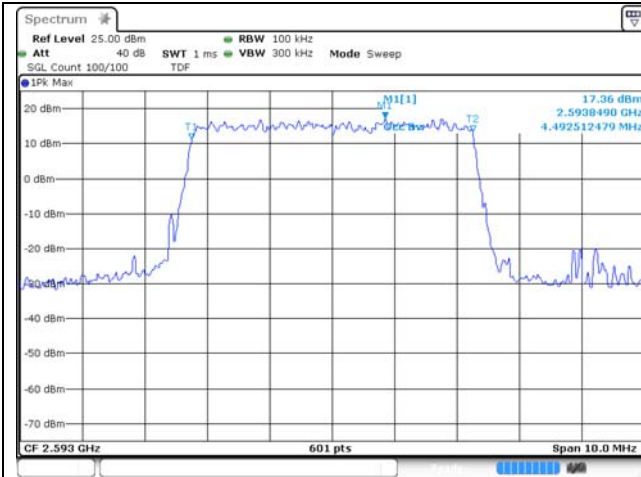


15 MHz QPSK Low Channel – Full RB

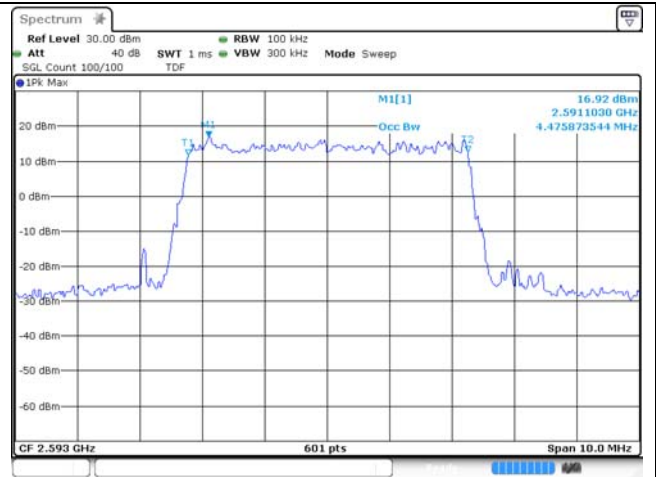


15 MHz 16QAM Low Channel – Full RB

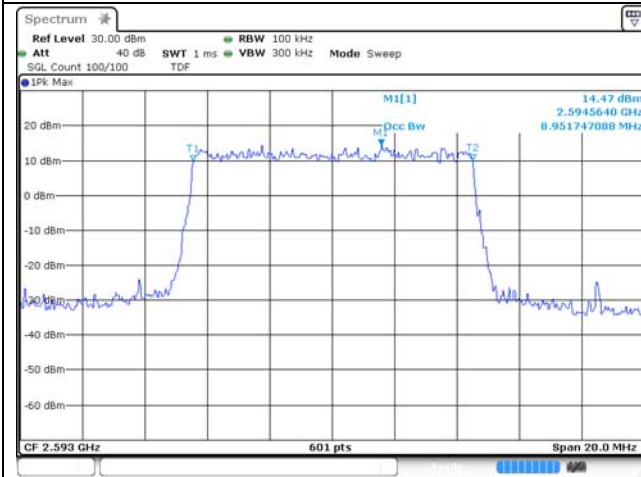
**LTE band 41**



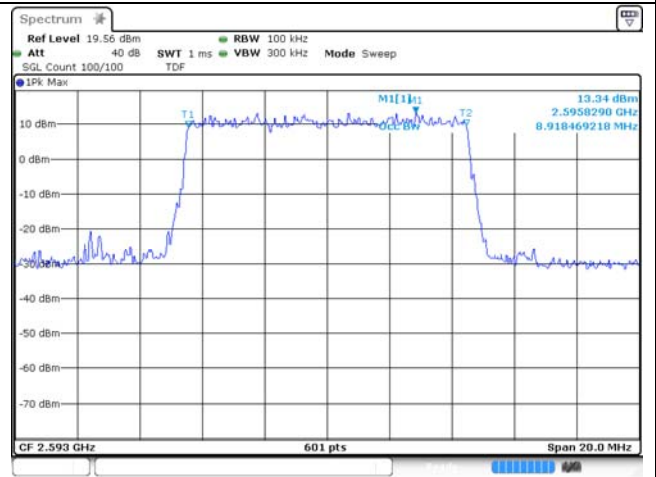
5 MHz QPSK Middle Channel – Full RB



5 MHz 16QAM Middle Channel – Full RB



10 MHz QPSK Middle Channel – Full RB



10 MHz 16QAM Middle Channel – Full RB