TESTING CERT #3478.01

TEST REPORT

EUT Description	**GSM, W-CDMA and LTE Cellular adapter card**
Brand Name	**Intel**
Model Name	**7262M2WW**
Serial Number	**IMEI: 004402523022105 / 004402523021818 / 004402523022303** (see section 4)
FCC/IC ID	**FCC ID: PD97262WW / IC ID: 1000M-7262WW**
Antenna type	**Dipole, Pulse, Part Number SPDA24700/2700**
Hardware/Software Version	**HW PR2.0, SW 1445**
Date of Sample Receipt	**2014-11-25**
Date of Test	**2014-12-01**
Features	**2G: GSM/GPRS/EDGE 850 / 1900** **3G: WCDMA/HSPA/DC-HSDPA FDD II / IV / V** **4G: LTE-FDD 2, 4, 5, 17** (see section 5)

Applicant	**Intel Mobile Communication**
Address	**"Le Navigator" BatB** **505 route des Lucioles** **06560 Valbonne – Sophia Antipolis** **France**
Contact Person	**Wilfrid D'Angelo**
Telephone/Fax/ Email	**wilfrid.dangelo@intel.com**

Reference Standards	**FCC CFR Title 47 Part 2, 22, 24, 27** **RSS 132 issue 3, RSS 133 issue 6, RSS 139 issue 2** (see section 0)

Test Report number	**14112501.TR02**
Revision Control	**Rev. 01**

The test results relate only to the samples tested.
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Table of Contents

1. Standards, reference documents and applicable test methods

1. FCC 47 CFR part 2 - Subpart J - EQUIPMENT AUTHORIZATION PROCEDURES.
2. FCC 47 CFR part 22 - Subpart H - Cellular Radiotelephone Service.
3. FCC 47 CFR part 24 – Subpart E - Broadband PCS.
4. FCC 47 CFR part 27 – Subpart L - 1695-1710, 1710-1755 MHz, 1755-1780 MHz, 2110-2155 MHz, 2155-2180 MHz, 2180-2200 MHz Bands.
5. FCC OET KDB 971168 D01 v02r02 Measurement guidance for certification of licensed digital transmitters.
6. RSS130 issue 1 - Mobile Broadband Services (MBS) Equipment Operating in the Frequency Bands 698-756 MHz and 777-787 MHz
7. RSS 132 issue 3 - Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz.
8. RSS 133 issue 6 - 2 GHz Personal Communications Services.
9. RSS 139 issue 2 - Advanced Wireless Services Equipment Operating in the Bands 1710–1755 MHz and 2110–2155 MHz.
10. TIA 603 - D June 2010 Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.
11. ANSI C63.4-2009 - American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

2. General conditions, competences and guarantees

- ✓ Intel Mobile Communications Wireless RF Lab (Intel WRF Lab) is a testing laboratory accredited by the American Association for Laboratory Accreditation (A2LA).
- ✓ Intel Mobile Communications Wireless RF Lab (Intel WRF Lab) is an Accredited Test Firm listed by the FCC, with Designation Number FR0011.
- ✓ Intel Mobile Communications Wireless RF Lab (Intel WRF Lab) is a Registered Test Site listed by IC, with IC Assigned Code 1000Y.
- ✓ Intel WRF Lab only provides testing services and is committed to providing reliable, unbiased test results and interpretations.
- ✓ Intel WRF Lab is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.
- ✓ Intel WRF Lab has developed calibration and proficiency programs for its measurement equipment to ensure correlated and reliable results to its customers.
- ✓ This report is only referred to the item that has undergone the test.
- ✓ This report does not imply an approval of the product by the Certification Bodies or competent Authorities.
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3. Environmental Conditions

- ✓ At the site where the measurements were performed the following limits were not exceeded during the tests:
- ✓

Temperature	22ºC ± 2ºC
Humidity	45% ± 2%

4. Test samples

Sample	Control #	Description	Model	Serial #	Date of reception	Note
#02	14112501.S02	Module	7262M2WW	004402523022105	2014-11-25	Used for conducted tests
	14112401.S09	Extender	NGFF Carrier board Rev 2.0	NA	2014-11-25	
#03	14112401.S03	Module	7262M2WW	004402523021818	2014-11-24	Used for radiated tests
	14112401.S07	Antenna	Pulse SPDA24700/2700	NA	2014-11-24	
	14112401.S08	Antenna	Pulse SPDA24700/2700	NA	2014-11-24	
	14112401.S06	Extender	NGFF Carrier board Rev 2.0	NA	2014-11-24	
#04		Module	7262M2WW	004402523022303		Used for subcontracted results (Frequency stability)
		Extender	NGFF Carrier board Rev 2.0	NA		

NA: Not Applicable

5. EUT features

These are the detailed bands and modes supported by the Equipment Under Test:

GSM / GPRS / EDGE	GSM 850 (824.0 – 849.0 MHz) PCS 1900 (1850.0 – 1910.0 MHz)
WCDMA / HSPA+	FDD II (1850.0 – 1910.0 MHz) FDD IV (1710.0 – 1755.0 MHz) FDD V (824.0 – 849.0 MHz)
LTE FDD	Band 2 (1850.0 – 1910.0 MHz) Band 4 (1710.0 – 1755.0 MHz) Band 5 (824.0 – 849.0 MHz) Band 17 (704.0 – 716.0 MHz)

Emission designator for IC cert:

LTE emission designator

Band	Type of modulation	
	QPSK	16QAM
LTE Band II, Bandwidth 1.4MHz	1M11G7D	1M11W7D
LTE Band II, Bandwidth 3MHz	2M73G7D	2M74W7D
LTE Band II, Bandwidth 5MHz	4M52G7D	4M52W7D
LTE Band II, Bandwidth 10MHz	9M04G7D	9M04W7D
LTE Band II, Bandwidth 15MHz	13M5G7D	13M5W7D
LTE Band II, Bandwidth 20MHz	17M92G7D	17M91W7D
LTE Band IV, Bandwidth 1.4MHz	1M11G7D	1M11W7D
LTE Band IV, Bandwidth 3MHz	2M73G7D	2M72W7D
LTE Band IV, Bandwidth 5MHz	4M53G7D	4M51W7D
LTE Band IV, Bandwidth 10MHz	9M04G7D	9M02W7D
LTE Band IV, Bandwidth 15MHz	13M57G7D	13M51W7D
LTE Band IV, Bandwidth 20MHz	17M87G7D	17M9W7D
LTE Band V, Bandwidth 1.4MHz	1M1G7D	1M1W7D
LTE Band V, Bandwidth 3MHz	2M74G7D	2M73W7D
LTE Band V, Bandwidth 5MHz	4M51G7D	4M51W7D
LTE Band V, Bandwidth 10MHz	9M04G7D	9M03W7D
LTE Band VII, Bandwidth 5MHz	4M52G7D	4M54W7D
LTE Band VII, Bandwidth 10MHz	9M05G7D	9M02W7D

6. Remarks and comments

1. The frequency stability test results, detailed in Annex C, were performed at AT4 wireless S.A., PTA – C/ Severo Ochoa 2, 29590, Málaga, SPAIN.

7. Test Verdicts summary

Mode	Band	FCC part	RSS part	Test name	Verdict
LTE	2	2.1046	-	Conducted output power	P
		24.238	-	Emission bandwidth 26dB	P
		24.232	133-ch6.4	Equivalent isotropic radiated power	P
		2.1049		Occupied bandwidth 99%	P
		24.232	133-ch6.4	Peak to average ratio	P
		24.235, 2.1055	133-ch.6.3	Frequency Stability	P
		24.238	133-ch.6.5.1	Conducted band-edge	P
		24.238	133-ch.6.5.1	Conducted spurious emission	P
		24.238	133-ch.6.5.1	Radiated spurious emission	P
LTE	4	2.1046	-	Conducted output power	P
		27.53	139-ch2.3	Emission bandwidth 26dB	P
		27.50	139-ch.6.4	Equivalent isotropic radiated power	P
		2.1049		Occupied bandwidth 99%	P
			139-ch.6.4	Peak to average ratio	P
		27.54, 2.1055	139-ch.6.3	Frequency Stability	P
		27.53, 2.1051	139-ch.6.5	Conducted band-edge	P
		27.53	139-ch.6.5,	Conducted spurious emission	P
		27.53, 2.1053	139-ch.6.5	Radiated spurious emission	P
LTE	5	2.1046	-	Conducted output power	P
		2.1049	-	Occupied bandwidth (99%)	P
		22.917	-	Occupied bandwidth (26dB)	P
		22.355, 2.1055	RSS-132-ch.5.3	Frequency Stability	P
		22.917, 2.1051	RSS-132-ch.5.5	Band Edge conducted emission	P
		22.917, 2.1051	RSS-132-ch.5.5	Spurious emission	P
		22.913	RSS-132-ch.5.4	Effective radiated power	P
		22.917, 2.1053	RSS.132-ch.5.5	Radiated spurious emission	P
			RSS-132-ch.5.4	Peak-to-average power ratio	P
		2.1046	RSS-132-ch.5.3	Conducted output power	P

P: Pass
F: Fail
NM: Not Measured
NA: Not Applicable

Mode	Band	FCC part	RSS part	Test name	Verdict
LTE	17	2.1046	-	Conducted output power	P
		27.53	-	Emission bandwidth 26dB	P
		27.50	130-ch.4.4	Equivalent isotropic radiated power	P
		2.1049	-	Occupied bandwidth 99%	P
		-	130-ch.4.4	Peak to average ratio	P
		27.54, 2.1055	130-ch.4.3	Frequency Stability	P
		27.53, 2.1051	130-ch.4.6	Conducted band-edge	P
		27.53	130-ch.4.6,	Conducted spurious emission	P
		27.53, 2.1053	130-ch.4.6	Radiated spurious emission	P

P: Pass
F: Fail
NM: Not Measured
NA: Not Applicable

8. Document Revision History

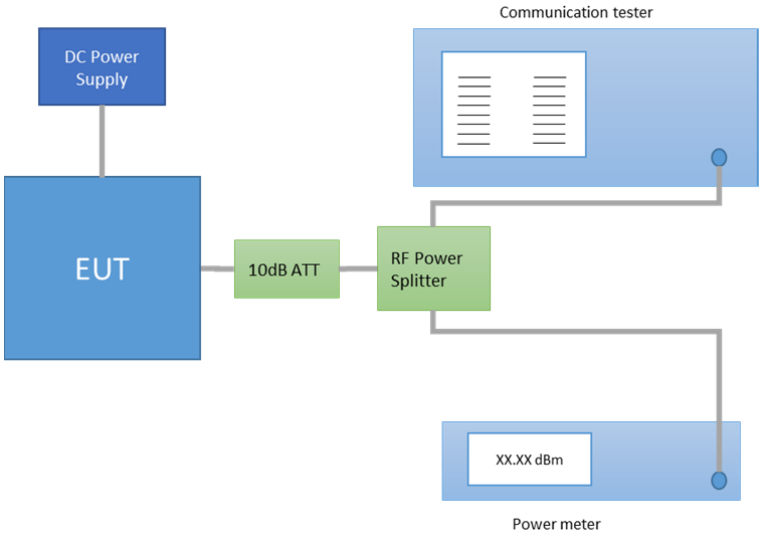
Revision #	Date	Modified by	Details
Rev. 01	2015-02-25	O. Fargant	• Highlight of max and min values of Conducted Output Power according to TCB comments. • Highlight of max values of Occupied Bandwidth according to TCB comments. • Typos correction
Rev. 00	2015-02-17	O. Fargant	First Issue

Annex A. Test & System Description

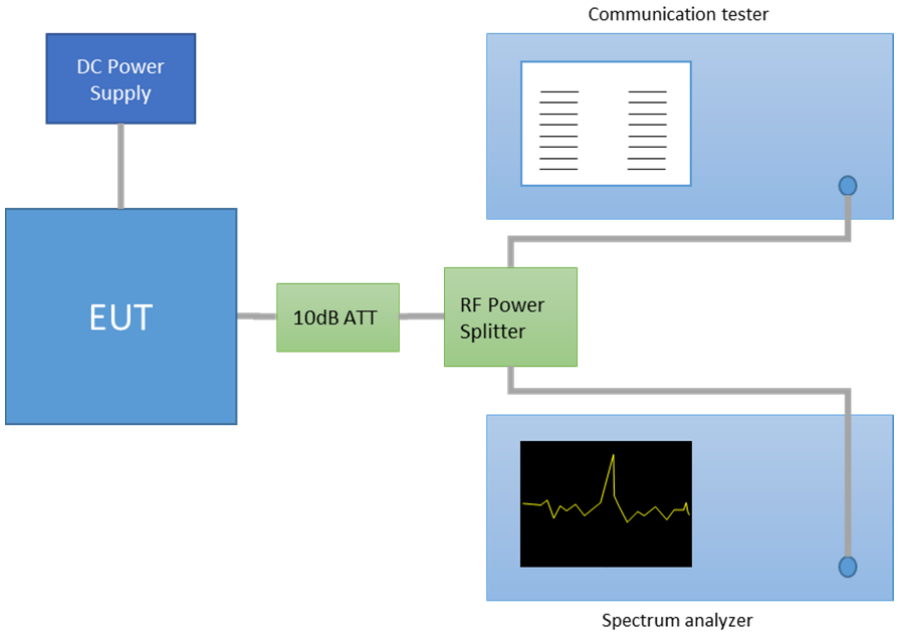
A.1 Measurement system

Measurements were performed using the following setups. A communication tester was used to establish a communication link with the EUT and the communication tester parameters were set to get the maximum output power from the EUT.

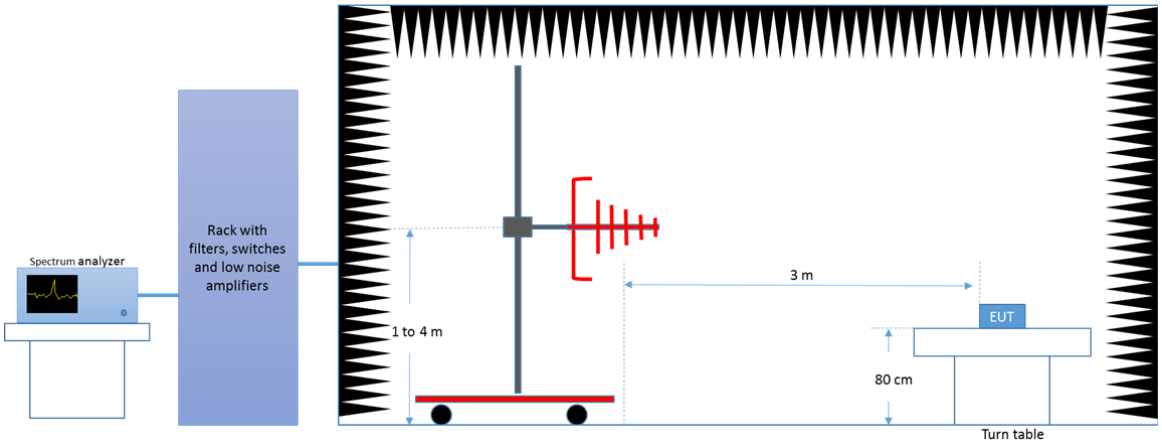
Conducted Setup 1



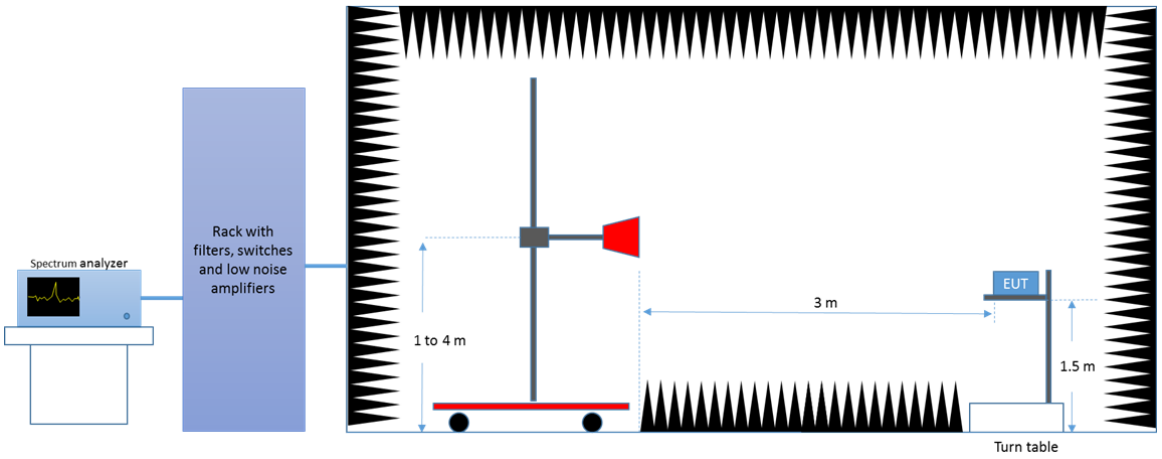
Conducted Setup 2



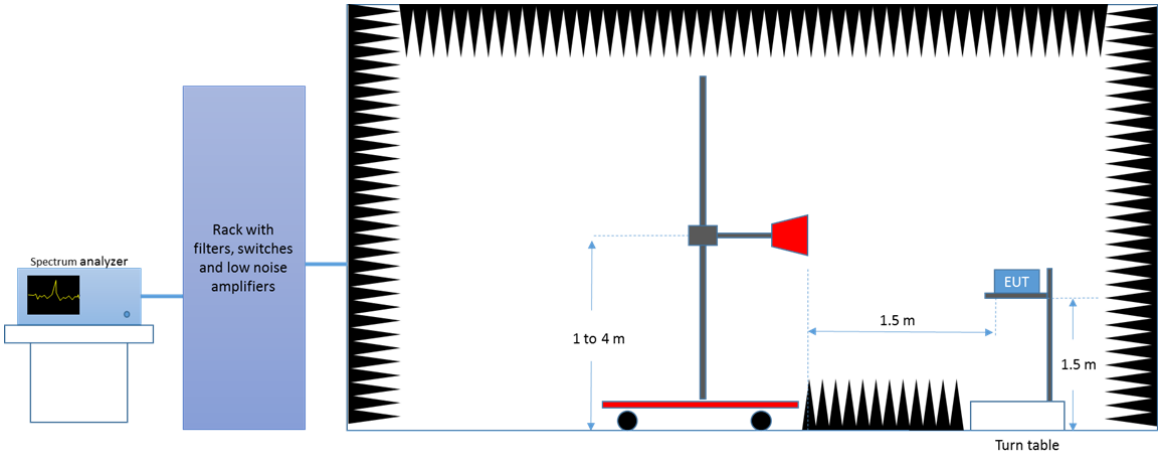
Radiated Setup < 1GHz



Radiated Setup Frequency range 1 GHz to 18 GHz



Radiated Setup > 18GHz



A.2 Test Equipment List

Conducted Setup

ID Number	Device	Type/Model	Serial Number	Manufacturer	Calibration Date	Calibration Due Date
0100	Communication tester	CMW500	129337	Rohde & Schwarz	2013-11-07	2015-11-07
0033	Spectrum analyzer	FSV40	101072	Rohde & Schwarz	2014-01-30	2016-01-30
0046	Power splitter	11667B	MY51360447	Agilent	NA	NA
0098	USB Power sensor	NRP-Z81	102278	Rohde & Schwarz	2013-07-17	2015-07-17
NA	10 dB attenuator	NA	4882640	-	NA	NA

Radiated Setup

ID Number	Device	Type/Model	Serial Number	Manufacturer	Calibration Date	Calibration Due Date
0210	Communication tester	CMW500	147712	Rohde & Schwarz	NA	NA
0133	Spectrum analyzer	FSV40	101358	Rohde & Schwarz	2014-05-03	2016-05-03
0137	Log antenna 30 MHz – 1 GHz	3142E	00156946	ETS Lindgren	2014-05-03	2016-05-03
0138	Hors antenna 1 GHz – 18 GHz	3117	00152266	ETS Lindgren	2014-03-04	2016-03-04
0141	Horn Antenna + Pre-Amplifier 1 GHz – 18 GHz	3117P	00157736	ETS Lindgren	2014-06-03	2016-06-03
0139	Horn Antenna 18 GHz – 26 GHz	114514	00167100	ETS Lindgren	2014-04-25	2016-04-25
0135	Anechoic chamber	FACT 3	RFD_FA_100	ETS Lindgren	NA	NA

A.3 Measurement Uncertainty Evaluation

The system uncertainty evaluation is shown in the below table:

Measurement type	Uncertainty [±dB]
Conducted Power (power meter)	± 1.0
Conducted spurious emission	± 2.9
Radiated test < 1GHz	± 3.8
Radiated test 1GHz - 26 GHz	± 4.7

Annex B. Test Results

B.1 Test Conditions

For cellular transmission modes LTE, the device was put into operation by using an R&S CMW 500 as base station simulator.

The output power of the device was set to transmit at maximum power for all tests.

B.2 Test results

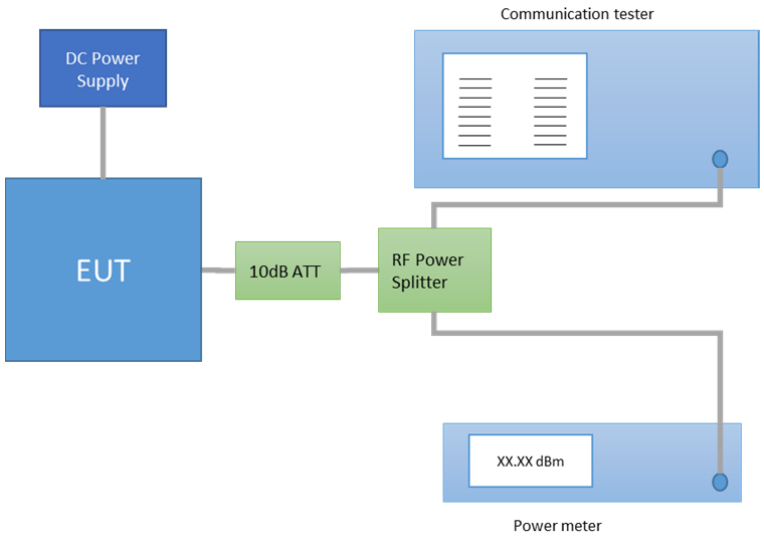
B.2.1 Conducted RF output power

Test limits

BAND	FCC part	RSS part	Power Limits [Watts]	Max Antenna Gain [dBi]	Power Limit at antenna terminal [dBm]
LTE 2	2.1046, 24.232	133-ch6.4	< 2 watts EIRP	2.0	< 31.0
LTE 4	2.1046, 27.50	139-ch.6.4	< 3 watts ERP	2.0	< 34.9
LTE 5	2.1046, 22.913	132-ch.5.4	ERP max 7 watts	2.0	< 38.6
LTE 17	2.1046, 27.50	130-ch.4.4	< 3 watts ERP	2.0	< 34.9

Test procedure

The setup below was used to measure the conducted output power. The antenna terminal of the EUT is connected to the power meter and the communication tester through an attenuator and a power splitter. The power meter reading is compensated to include the RF. This test was performed according to the KDB 971168 D01 § 5.2.



Results tables

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 2	Low	18607	1850.7	1.4	QPSK	1	0	22.40	27.06
							2	22.02	27.11
							5	22.38	27.26
						3	0	22.31	27.32
							1	22.10	27.32
							2	22.17	27.38
						6	0	21.24	27.30
					16QAM	1	0	**21.52**	27.02
							2	21.09	27.07
							5	21.47	26.94
						3	0	21.34	27.42
							1	21.21	27.47
							2	21.20	27.50
						6	0	20.38	27.27
	Mid	18900	1880.0		QPSK	1	0	**22.40**	26.75
							2	21.92	26.75
							5	22.37	26.80
						3	0	22.24	27.08
							1	22.08	27.07
							2	22.07	27.04
						6	0	21.15	26.78
					16QAM	1	0	21.43	26.46
							2	21.00	26.43
							5	21.42	26.53
						3	0	21.25	26.94
							1	21.16	26.93
							2	21.08	26.91
						6	0	20.38	26.75
	High	19193	1909.3		QPSK	1	0	22.06	25.25
							2	21.65	25.48
							5	22.06	25.19
						3	0	21.93	25.72
							1	21.79	25.75
							2	21.74	25.62
						6	0	**20.87**	25.26
					16QAM	1	0	21.15	25.23
							2	20.73	25.15
							5	21.12	25.16
						3	0	20.95	25.84
							1	20.81	25.82
							2	20.79	25.80
						6	0	**19.94**	25.39

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 2	Low	18615	1851.5	3	QPSK	1	0	22.32	26.93
							7	**22.49**	27.12
							14	22.25	26.98
						8	0	21.26	27.34
							4	21.29	27.48
							7	21.28	27.38
						15	0	21.28	27.47
					16QAM	1	0	21.47	27.11
							7	**21.60**	27.11
							14	21.42	27.26
						8	0	20.46	27.51
							4	20.46	27.38
							7	20.43	27.34
						15	0	20.36	27.47
	Mid	18900	1880.0		QPSK	1	0	22.27	26.83
							7	22.29	26.73
							14	22.23	26.86
						8	0	21.20	26.67
							4	21.27	26.61
							7	21.28	26.68
						15	0	21.29	26.75
					16QAM	1	0	21.30	26.66
							7	21.47	26.57
							14	21.37	26.79
						8	0	20.44	26.84
							4	20.45	26.82
							7	20.45	26.84
						15	0	20.38	26.88
	High	19185	1908.5		QPSK	1	0	22.04	25.46
							7	22.11	25.34
							14	21.98	25.25
						8	0	21.02	25.58
							4	**20.96**	25.52
							7	21.00	25.53
						15	0	21.03	25.62
					16QAM	1	0	21.20	25.81
							7	21.36	25.78
							14	21.07	25.76
						8	0	20.20	25.66
							4	20.15	25.63
							7	20.18	25.67
						15	0	**20.14**	25.77

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 2	Low	18625	1852.5	5	QPSK	1	0	22.06	27.29
							12	**22.13**	27.28
							24	22.02	27.17
						12	0	21.22	27.47
							6	21.14	27.43
							11	21.16	27.39
						25	0	21.17	27.66
					16QAM	1	0	21.31	27.31
							12	**21.38**	27.49
							24	21.24	27.26
						12	0	20.33	27.62
							6	20.30	27.55
							11	20.29	27.55
						25	0	20.26	27.57
	Mid	18900	1880.0		QPSK	1	0	22.11	26.86
							12	22.08	26.72
							24	22.03	26.80
						12	0	21.19	26.86
							6	21.13	26.84
							11	21.14	26.85
						25	0	21.14	27.00
					16QAM	1	0	21.30	26.76
							12	21.28	26.76
							24	21.22	26.84
						12	0	20.30	26.76
							6	20.29	26.73
							11	20.29	26.80
						25	0	20.26	26.72
	High	19175	1907.5		QPSK	1	0	21.71	25.40
							12	21.81	25.48
							24	21.64	25.28
						12	0	20.92	25.60
							6	20.87	25.52
							11	**20.86**	25.55
						25	0	20.91	25.58
					16QAM	1	0	20.99	25.61
							12	21.08	25.60
							24	20.88	25.48
						12	0	20.05	25.61
							6	**20.00**	25.62
							11	20.02	25.57
						25	0	20.01	25.61

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 2	Low	18650	1855.0	10	QPSK	1	0	22.24	26.88
							24	22.22	26.81
							49	22.07	26.64
						25	0	21.22	27.45
							12	21.18	27.42
							24	21.15	27.34
						50	0	21.18	27.38
					16QAM	1	0	**21.45**	26.95
							24	21.40	26.90
							49	21.29	26.77
						25	0	20.31	27.54
							12	20.33	27.49
							24	20.28	27.38
						50	0	20.29	27.40
	Mid	18900	1880.0		QPSK	1	0	**22.30**	26.55
							24	22.15	26.74
							49	22.11	26.94
						25	0	21.26	26.66
							12	21.15	26.69
							24	21.19	26.87
						50	0	21.24	26.81
					16QAM	1	0	21.43	26.51
							24	21.34	26.63
							49	21.27	26.81
						25	0	20.40	26.83
							12	20.32	26.85
							24	20.29	26.91
						50	0	20.30	26.93
	High	19150	1905.0		QPSK	1	0	22.12	25.50
							24	21.98	25.34
							49	21.82	25.27
						25	0	21.02	25.49
							12	20.88	25.45
							24	**20.87**	25.54
						50	0	20.98	25.69
					16QAM	1	0	21.20	25.63
							24	21.07	25.47
							49	20.95	25.56
						25	0	20.17	25.52
							12	20.09	25.54
							24	**20.03**	25.61
						50	0	20.07	25.85

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 2	Low	18675	1857.5	15	QPSK	1	0	22.13	26.97
							37	22.04	26.79
							74	21.90	26.46
						36	0	21.30	27.41
							16	21.15	27.30
							35	21.22	27.13
						75	0	21.25	27.33
					16QAM	1	0	**21.24**	26.97
							37	21.24	26.72
							74	21.02	26.36
						36	0	20.44	27.50
							16	20.27	27.38
							35	20.32	27.18
						75	0	20.32	27.48
	Mid	18900	1880.0		QPSK	1	0	22.11	26.47
							37	**22.15**	26.69
							74	21.85	26.89
						36	0	21.33	26.76
							16	21.15	26.84
							35	21.18	27.03
						75	0	21.24	26.93
					16QAM	1	0	21.23	26.26
							37	21.07	26.34
							74	20.97	26.50
						36	0	20.36	26.63
							16	20.22	26.75
							35	20.23	26.81
						75	0	20.29	26.87
	High	19125	1902.5		QPSK	1	0	21.92	25.76
							37	21.75	25.23
							74	21.51	25.27
						36	0	21.14	25.67
							16	**20.89**	25.44
							35	20.91	25.47
						75	0	20.99	26.13
					16QAM	1	0	21.18	26.01
							37	20.97	25.38
							74	20.76	25.44
						36	0	20.21	25.72
							16	20.00	25.51
							35	**19.99**	25.50
						75	0	20.08	26.11

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 2	Low	18700	1860.0	20	QPSK	1	0	21.86	26.85
							49	22.02	26.59
							99	21.48	26.07
						50	0	21.35	27.27
							24	21.17	27.14
							49	21.18	26.84
						100	0	21.22	27.10
					16QAM	1	0	20.94	26.90
							49	21.06	26.68
							99	20.55	26.33
						50	0	20.48	27.33
							24	20.32	27.07
							49	20.29	26.87
						100	0	20.34	27.34
	Mid	18900	1880.0		QPSK	1	0	**22.06**	26.51
							49	22.07	26.67
							99	21.66	26.67
						50	0	21.43	26.63
							24	21.22	26.77
							49	21.26	26.88
						100	0	21.34	26.79
					16QAM	1	0	20.89	26.23
							49	**21.12**	26.57
							99	20.48	26.48
						50	0	20.42	26.61
							24	20.23	26.72
							49	20.22	26.77
						100	0	20.29	26.79
	High	19100	1900.0		QPSK	1	0	21.89	26.40
							49	21.89	25.52
							99	21.37	25.40
						50	0	21.21	26.08
							24	21.04	25.78
							49	**20.98**	25.74
						100	0	21.12	26.48
					16QAM	1	0	21.01	26.13
							49	21.07	25.28
							99	20.43	25.11
						50	0	20.30	26.06
							24	20.06	25.59
							49	**20.02**	25.67
						100	0	20.18	26.43

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 4	Low	19957	1710.7	1.4	QPSK	1	0	22.46	27.28
							2	22.02	27.25
							5	22.44	27.31
						3	0	22.30	27.65
							1	22.17	27.71
							2	22.20	27.72
						6	0	21.43	27.42
					16QAM	1	0	21.64	27.20
							2	21.23	27.19
							5	21.65	27.21
						3	0	21.47	27.60
							1	21.29	27.68
							2	21.33	27.57
						6	0	**20.52**	27.40
	Mid	20175	1732.5		QPSK	1	0	**22.55**	27.17
							2	22.11	27.08
							5	22.54	27.20
						3	0	22.42	27.79
							1	22.30	27.78
							2	22.25	27.80
						6	0	21.57	27.24
					16QAM	1	0	21.76	27.16
							2	21.30	26.99
							5	**21.77**	27.16
						3	0	21.53	27.76
							1	21.41	27.75
							2	21.41	27.73
						6	0	20.53	27.38
	High	20393	1754.3		QPSK	1	0	22.48	26.86
							2	22.03	26.88
							5	22.45	26.94
						3	0	22.38	27.32
							1	22.20	27.39
							2	22.21	27.30
						6	0	**21.39**	26.93
					16QAM	1	0	21.67	26.88
							2	21.30	26.89
							5	21.64	26.86
						3	0	21.51	27.20
							1	21.39	27.21
							2	21.38	27.18
						6	0	20.56	26.66

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 4	Low	19965	1711.5	3	QPSK	1	0	22.29	27.28
							7	22.38	27.27
							14	22.29	27.30
						8	0	21.49	27.31
							4	21.44	27.27
							7	21.48	27.33
						15	0	21.44	27.42
					16QAM	1	0	21.64	27.37
							7	21.68	27.59
							14	21.62	27.57
						8	0	20.56	27.26
							4	20.58	27.22
							7	20.56	27.35
						15	0	**20.49**	27.42
	Mid	20175	1732.5		QPSK	1	0	22.40	27.35
							7	**22.52**	27.40
							14	22.39	27.41
						8	0	21.53	27.14
							4	21.49	27.19
							7	21.51	27.23
						15	0	21.50	27.26
					16QAM	1	0	21.60	27.27
							7	21.71	27.30
							14	21.55	27.38
						8	0	20.59	27.26
							4	20.63	27.27
							7	20.63	27.32
						15	0	20.60	27.37
	High	20385	1753.5		QPSK	1	0	22.43	26.74
							7	22.54	26.70
							14	22.34	26.56
						8	0	21.51	26.84
							4	**21.43**	26.74
							7	21.45	26.78
						15	0	21.49	26.88
					16QAM	1	0	21.70	26.91
							7	**21.81**	26.97
							14	21.59	26.60
						8	0	20.60	26.83
							4	20.54	26.74
							7	20.59	26.69
						15	0	20.59	26.79

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 4	Low	19975	1712.5	5	QPSK	1	0	22.07	27.10
							12	22.09	27.04
							24	22.03	27.16
						12	0	21.36	27.50
							6	21.33	27.49
							11	21.33	27.45
						25	0	**21.32**	27.61
					16QAM	1	0	**21.49**	27.50
							12	21.47	27.50
							24	21.43	27.48
						12	0	20.45	27.26
							6	20.40	27.26
							11	20.38	27.30
						25	0	**20.35**	27.21
	Mid	20175	1732.5		QPSK	1	0	22.10	27.10
							12	**22.17**	27.08
							24	22.10	27.05
						12	0	21.44	27.33
							6	21.40	27.30
							11	21.40	27.32
						25	0	21.38	27.30
					16QAM	1	0	21.45	27.35
							12	21.40	27.35
							24	21.40	27.41
						12	0	20.52	27.40
							6	20.45	27.39
							11	20.44	27.35
						25	0	20.45	27.42
	High	20375	1752.5		QPSK	1	0	22.15	27.28
							12	22.07	26.99
							24	21.99	26.86
						12	0	21.40	26.91
							6	21.34	26.81
							11	21.35	26.81
						25	0	21.39	26.85
					16QAM	1	0	21.35	26.86
							12	21.40	26.79
							24	21.22	26.67
						12	0	20.48	26.91
							6	20.43	26.81
							11	20.43	26.84
						25	0	20.42	26.79

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 4	Low	20000	1715.0	10	QPSK	1	0	22.24	27.27
							24	22.28	27.31
							49	22.13	27.23
						25	0	21.49	27.39
							12	21.43	27.32
							24	21.42	27.42
						50	0	21.45	27.42
					16QAM	1	0	21.45	27.15
							24	21.42	27.22
							49	21.30	27.24
						25	0	20.49	27.24
							12	20.46	27.19
							24	**20.40**	27.27
						50	0	20.43	27.33
	Mid	20175	1732.5		QPSK	1	0	22.34	27.04
							24	22.30	27.00
							49	22.19	27.05
						25	0	21.47	27.21
							12	21.43	27.22
							24	21.44	27.33
						50	0	21.46	27.52
					16QAM	1	0	21.57	27.05
							24	21.57	27.03
							49	21.42	27.00
						25	0	20.53	27.53
							12	20.48	27.47
							24	20.44	27.56
						50	0	20.45	27.30
	High	20350	1750.0		QPSK	1	0	**22.32**	27.23
							24	22.25	26.88
							49	22.13	26.70
						25	0	21.50	27.28
							12	21.44	27.04
							24	**21.40**	26.92
						50	0	21.44	27.12
					16QAM	1	0	**21.71**	27.49
							24	21.59	27.12
							49	21.46	26.90
						25	0	20.54	27.02
							12	20.46	26.91
							24	20.42	26.71
						50	0	20.44	26.98

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 4	Low	20025	1717.5	15	QPSK	1	0	22.10	27.19
							37	21.98	27.07
							74	21.81	27.00
						36	0	21.44	27.41
							16	**21.29**	27.40
							35	21.33	27.29
						75	0	21.39	27.46
					16QAM	1	0	21.23	27.09
							37	21.21	27.07
							74	21.02	26.97
						36	0	20.48	27.37
							16	20.39	27.43
							35	20.44	27.39
						75	0	20.45	27.63
	Mid	20175	1732.5		QPSK	1	0	**22.31**	27.29
							37	21.96	27.10
							74	22.01	27.26
						36	0	21.50	27.40
							16	21.34	27.45
							35	21.41	27.57
						75	0	21.44	27.48
					16QAM	1	0	21.36	27.00
							37	**21.48**	27.08
							74	21.15	26.99
						36	0	20.48	27.27
							16	20.41	27.28
							35	20.44	27.33
						75	0	20.50	27.35
	High	20325	1747.5		QPSK	1	0	22.26	27.30
							37	22.15	26.87
							74	21.81	26.59
						36	0	21.55	27.35
							16	21.39	27.18
							35	21.37	26.94
						75	0	21.45	27.09
					16QAM	1	0	21.32	27.25
							37	21.23	26.86
							74	20.92	26.52
						36	0	20.54	27.37
							16	**20.39**	20.41
							35	20.49	26.98
						75	0	20.49	27.08

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 4	Low	20050	1720.0	20	QPSK	1	0	21.76	27.00
							49	**22.07**	27.07
							99	21.46	26.81
						50	0	21.47	27.53
							24	21.36	27.24
							49	**21.37**	27.23
						100	0	21.41	27.38
					16QAM	1	0	21.08	27.39
							49	21.25	27.21
							99	20.78	27.17
						50	0	20.49	27.26
							24	**20.30**	27.12
							49	20.34	27.05
						100	0	20.38	27.55
	Mid	20175	1732.5		QPSK	1	0	21.76	27.08
							49	22.08	27.20
							99	21.53	27.02
						50	0	21.52	27.25
							24	21.39	27.24
							49	21.36	27.31
						100	0	21.43	27.52
					16QAM	1	0	21.02	27.15
							49	21.28	27.32
							99	20.90	27.22
						50	0	20.57	27.21
							24	20.41	27.21
							49	20.50	27.33
						100	0	20.57	27.44
	High	20300	1745.0		QPSK	1	0	22.05	27.13
							49	22.08	27.14
							99	21.70	26.56
						50	0	21.64	27.42
							24	21.43	27.33
							49	21.47	27.03
						100	0	21.42	27.22
					16QAM	1	0	21.20	26.60
							49	**21.47**	26.76
							99	20.87	26.17
						50	0	20.69	27.43
							24	20.49	27.23
							49	20.52	26.88
						100	0	20.60	27.41

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 5	Low	20407	824.7	1.4	QPSK	1	0	22.41	28.04
							2	21.96	27.68
							5	22.38	27.86
						3	0	22.25	27.88
							1	22.10	27.92
							2	22.10	27.93
						6	0	21.30	27.44
					16QAM	1	0	21.66	28.06
							2	21.26	27.66
							5	**21.68**	27.90
						3	0	21.42	27.72
							1	21.28	27.71
							2	21.29	27.74
						6	0	20.55	27.21
	Mid	20525	836.5		QPSK	1	0	**22.46**	26.27
							2	22.06	26.27
							5	22.44	26.38
						3	0	22.28	26.21
							1	22.14	26.22
							2	22.16	26.35
						6	0	21.28	25.70
					16QAM	1	0	21.51	26.29
							2	21.55	26.31
							5	21.56	26.45
						3	0	21.37	26.30
							1	21.21	26.32
							2	21.22	26.39
						6	0	20.50	25.72
	High	20643	848.3		QPSK	1	0	22.28	25.79
							2	21.83	25.57
							5	22.20	25.73
						3	0	22.08	25.61
							1	21.88	25.65
							2	21.88	25.57
						6	0	**21.03**	24.93
					16QAM	1	0	21.38	25.68
							2	20.97	25.56
							5	21.37	25.64
						3	0	21.17	25.70
							1	21.01	25.73
							2	21.00	25.73
						6	0	**20.18**	25.06

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 5	Low	20415	825.5	3	QPSK	1	0	22.31	27.89
							7	22.37	27.64
							14	22.25	27.47
						8	0	21.35	26.99
							4	21.34	26.88
							7	21.36	26.84
						15	0	21.37	26.96
					16QAM	1	0	21.47	27.99
							7	21.56	27.74
							14	21.45	27.63
						8	0	20.52	27.11
							4	20.52	27.00
							7	20.57	6.96
						15	0	20.53	27.30
	Mid	20525	836.5		QPSK	1	0	22.38	26.12
							7	**22.47**	26.26
							14	22.31	26.54
						8	0	21.32	25.52
							4	21.38	25.63
							7	21.37	25.77
						15	0	21.39	25.70
					16QAM	1	0	21.53	26.07
							7	**21.61**	26.21
							14	21.50	26.55
						8	0	20.54	25.57
							4	20.51	25.65
							7	20.50	25.71
						15	0	20.46	25.71
	High	20635	847.5		QPSK	1	0	22.22	26.45
							7	22.16	25.91
							14	22.06	25.86
						8	0	21.19	25.44
							4	21.20	25.18
							7	**21.19**	25.11
						15	0	21.21	25.38
					16QAM	1	0	21.45	26.43
							7	21.41	25.95
							14	21.24	25.84
						8	0	20.40	25.45
							4	20.39	25.18
							7	20.39	25.17
						15	0	**20.35**	25.46

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 5	Low	20425	826.5	5	QPSK	1	0	22.07	27.88
							12	22.13	27.57
							24	22.02	26.95
						12	0	21.27	27.11
							6	21.24	26.91
							11	21.23	26.70
						25	0	21.23	26.94
					16QAM	1	0	21.21	27.66
							12	21.29	27.63
							24	21.18	26.84
						12	0	20.39	27.16
							6	20.40	27.00
							11	20.43	26.80
						25	0	20.36	27.10
	Mid	20525	836.5		QPSK	1	0	22.10	26.05
							12	**22.19**	26.18
							24	22.13	26.81
						12	0	21.25	25.59
							6	21.24	25.74
							11	21.25	25.91
						25	0	21.23	25.85
					16QAM	1	0	21.30	25.90
							12	**21.44**	26.06
							24	21.29	26.54
						12	0	20.41	25.59
							6	20.37	25.70
							11	20.39	25.88
						25	0	20.34	25.78
	High	20625	846.5		QPSK	1	0	22.00	27.15
							12	21.98	26.11
							24	22.01	25.80
						12	0	21.17	26.22
							6	21.09	25.65
							11	**21.07**	25.35
						25	0	21.09	26.10
					16QAM	1	0	21.28	27.11
							12	21.36	26.15
							24	21.14	25.77
						12	0	20.32	26.30
							6	20.22	25.76
							11	**20.20**	25.39
						25	0	20.24	26.11

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 5	Low	20450	829.0	10	QPSK	1	0	22.29	27.81
							24	22.21	26.73
							49	22.13	26.14
						25	0	21.31	26.87
							12	21.26	26.32
							24	21.23	25.78
						50	0	21.31	26.52
					16QAM	1	0	21.36	27.79
							24	21.36	26.83
							49	21.15	26.14
						25	0	20.44	26.86
							12	20.43	26.31
							24	20.39	25.75
						50	0	20.37	26.36
	Mid	20525	836.5		QPSK	1	0	22.27	26.14
							24	22.30	26.20
							49	22.29	27.49
						25	0	21.36	25.46
							12	21.32	25.75
							24	21.34	26.33
						50	0	21.28	26.27
					16QAM	1	0	**21.49**	26.46
							24	21.40	26.40
							49	21.42	27.73
						25	0	20.41	25.49
							12	20.39	25.67
							24	20.39	26.22
						50	0	20.42	26.27
	High	20600	844.0		QPSK	1	0	**22.35**	27.22
							24	22.16	27.40
							49	22.03	25.78
						25	0	21.29	26.82
							12	21.19	26.68
							24	**21.13**	26.18
						50	0	21.21	26.60
					16QAM	1	0	21.38	27.16
							24	21.25	27.42
							49	21.09	25.80
						25	0	20.43	26.97
							12	20.36	26.72
							24	**20.36**	26.22
						50	0	20.39	26.81

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 17	Low	23755	706.5	5	QPSK	1	0	22.37	26.85
							12	**22.50**	27.24
							24	22.29	27.41
						12	0	21.50	26.66
							6	21.48	27.00
							11	21.49	27.08
						25	0	21.51	26.84
					16QAM	1	0	21.62	26.56
							12	21.66	26.91
							24	21.57	27.10
						12	0	20.56	26.61
							6	20.51	26.94
							11	20.53	26.99
						25	0	20.50	26.75
	Mid	23790	710.0		QPSK	1	0	22.35	27.37
							12	22.31	27.04
							24	22.24	26.44
						12	0	21.50	26.88
							6	21.46	26.67
							11	21.48	26.41
						25	0	21.49	26.49
					16QAM	1	0	21.60	27.39
							12	**21.69**	27.10
							24	21.55	26.41
						12	0	20.47	26.76
							6	**20.42**	26.59
							11	20.45	26.28
						25	0	20.46	26.60
	High	23825	713.5		QPSK	1	0	22.26	26.89
							12	22.31	26.15
							24	22.23	26.40
						12	0	21.46	25.82
							6	**21.38**	25.52
							11	21.41	25.45
						25	0	21.45	26.07
					16QAM	1	0	21.38	26.74
							12	21.46	26.06
							24	21.30	26.28
						12	0	20.44	25.86
							6	20.45	25.44
							11	20.50	25.47
						25	0	20.50	26.00

Min Values
Max Values

Band	Channel	Channel Number	Frequency [MHz]	BW [MHz]	Modulation	#RB	RB position	Avg [dBm]	Peak [dBm]
LTE 17	Low	23780	709.0	10	QPSK	1	0	22.41	27.02
							24	**22.52**	27.55
							49	22.29	26.25
						25	0	21.56	26.85
							12	21.57	26.89
							24	21.48	26.21
						50	0	21.52	26.62
					16QAM	1	0	21.70	26.98
							24	**21.72**	27.49
							49	21.53	26.17
						25	0	20.60	26.71
							12	20.54	26.97
							24	20.52	26.38
						50	0	20.55	26.77
	Mid	23790	710.0		QPSK	1	0	22.52	27.21
							24	22.48	27.25
							49	22.34	26.15
						25	0	21.56	26.80
							12	21.52	26.54
							24	21.47	26.10
						50	0	21.55	26.59
					16QAM	1	0	21.62	27.24
							24	21.61	27.25
							49	21.45	26.14
						25	0	20.56	26.78
							12	20.55	26.52
							24	**20.50**	25.99
						50	0	20.54	26.57
	High	23800	711.0		QPSK	1	0	22.49	27.26
							24	22.50	26.81
							49	22.38	26.24
						25	0	21.54	26.75
							12	21.49	26.19
							24	**21.44**	25.99
						50	0	21.57	26.75
					16QAM	1	0	21.67	27.44
							24	21.67	26.93
							49	21.56	26.28
						25	0	20.57	26.86
							12	20.55	26.24
							24	20.51	26.01
						50	0	20.50	26.62

Min Values
Max Values