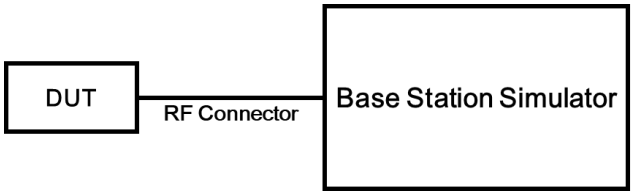
Appendix A - Conducted Power Measurements

UMTS Conducted Power



Power Measurement Setup

WCDMA

Maximum output power is verified on the high, middle and low channels according to procedures described in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all "1's" for WCDMA/HSDPA or by applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active

Rel. 5 HSDPA

Maximum output power is verified on the high, middle and low channels according to Release 5 procedures described in section 5.2 of 3GPP TS 34.121, using an FRC with H-set 1 and a 12.2 kbps RMC with TPC set to all "1's". When HSDPA is active, output power is measured according to requirements for HS-DPCCH Sub-test 1 - 4.

The following table specified in 3GPP TS 34.121 is applicable for tests on Transmitter Characteristics with HSDPA:

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d *(SF)*	β_c/β_d	β_{HS} *(Note1, Note 2)*	CM (dB) *(Note 3)*	MPR (dB) *(Note 3)*
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 *(Note 4)*	15/15 *(Note 4)*	64	12/15 *(Note 4)*	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and Δ_{NACK} = 30/15 with β_{hs} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{hs} = 24/15 * β_c.

Note 3: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

Rel. 6 HSPA (HSDPA/HSUPA)

Maximum output power is verified on the high, middle and low channels according to Release 6 procedures in section 5.2 of 3GPP TS 34.121, using the appropriate RMC, FRC and E-DCH configurations. When E-DCH is not active, TPC is set to all "1's"; otherwise, inner loop power control with power control algorithm 2 is required to maintain E-TFCI requirements. When HSPA is active output power for the applicable HSPA modes should be measured for E-DCH Sub-test 1-5.

The following table specified in 3GPP TS 34.121 is applicable for tests on Transmitter Characteristics with HS-DPCCH and E-DCH:

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d *(SF)*	β_c/β_d	β_{HS} *(Note1)*	β_{ec}	β_{ed} *(Note 4)(Note 5)*	β_{ed} *(SF)*	β_{ed} *(Codes)*	CM *(dB)* *(Note 2)*	MPR *(dB)* *(Note 2)(Note 6)*	*AG Index* *(Note 5)*	*E-TFCI*
1	11/15 *(Note 3)*	15/15 *(Note 3)*	64	11/15 *(Note 3)*	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5 (Rel.8)	15/15	15/15	64	15/15	30/15	24/15	134/15	4	1	1.0	0.0	21	81
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with β_{hs} = 5/15 * β_c.

Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

Rel. 8 DC-HSDPA

Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction.

The following table specified in 3GPP TS 34.121 is applicable for tests on Transmitter Characteristics with DC-HSPDA:

Table C.8.1.12: Fixed Reference Channel H-Set 12

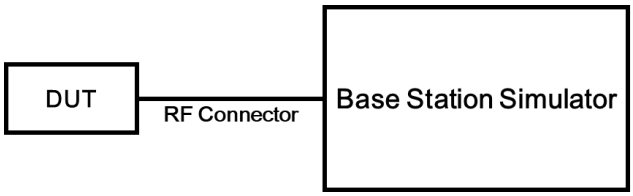
Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.

Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

LTE Conducted Power

The following test were implemented according to KDB 941225 D05, 3GPP TS36.101 and 3Gpp TS36.521-1 specification. All the LTE measurements were performed using the Anritsu MT8820C. A closed loop power control setting allowed the UE to transmit at the maximum output power during the SAR measurements. The parameter of frequency band, channel bandwidth, RB allocation configuration and power control were set up in base station for LTE tests according to the 3GPP 36.521-1.



Power Measurement Setup

<Maximum power reduction (MPR) >

MPR is enabled for this device, according to the following table specified in 3GPP TS36.101:

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR(dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥1						≤ 5

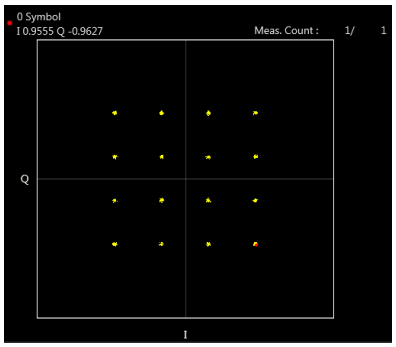
<Additional MPR (A-MPR)>

According to KDB 941225 D05, Additional MPR (A-MPR) was disabled for all SAR tests.

<Spectrum plots for RB configurations>

According to KDB 941225 D05, when a properly configured base station simulator is used for the SAR or power measurements, spectrum plots for each RB allocation and offset configuration are not required.

According to TCB workshop May.2017, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation. The 16 QAM signal modulation were verified as follows:



16 QAM

<TDD Consideration >

According to KDB 941225 D05, for TDD test configurations, SAR were measured with a fixed periodic duty factor corresponding to the highest transmission duty factor implemented for the device according to the UL-DL configurations defined by 3GPP.

The support configurations described in 3GPP TS36.211 are as follows:

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	(1+X)·2192·T_s	(1+X)·2560·T_s	$7680 \cdot T_s$	(1+X)·2192·T_s	(1+X)·2560·T_s
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	(2+X)·2192·T_s	(2+X)·2560·T_s
5	$6592 \cdot T_s$	(2+X)·2192·T_s	(2+X)·2560·T_s	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-
10	$13168 \cdot T_s$	$13168 \cdot T_s$	$13168 \cdot T_s$	-	-	-

Table 4.2.2 : Uplink-downlink configurations

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number										Duty Cycle
		0	1	2	3	4	5	6	7	8	9	
0	5ms	D	S	U	U	U	D	S	U	U	U	63.3%
1	5ms	D	S	U	U	D	D	S	U	U	D	43.3%
2	5ms	D	S	U	D	D	D	S	U	D	D	23.3%
3	10ms	D	S	U	U	U	D	D	D	D	D	31.7%
4	10ms	D	S	U	U	D	D	D	D	D	D	21.7%
5	10ms	D	S	U	D	D	D	D	D	D	D	11.7%
6	5ms	D	S	U	U	U	D	S	U	U	D	53.3%

Calculated Duty Cycle = Extended cyclic prefix in uplink * (Ts) * (the number of S) + (the number of U) / period

Where

T_s = 1/ (15000*2048) seconds

S = special subframe

U = uplink subframe

This device supports Uplink-downlink configuration 0-6. The SAR test were performed at maximum output power and worst-case duty factor in extended cyclic prefix: configuration 0 at 63.3% duty cycle for power class 3; configuration 1 at 43.3% duty cycle for power class 2.

Conducted Power Measurements

	Uplink Channel	9262	9400	9538	Tune up (dBm)
	Uplink Frequency	1852.4	1880.0	1907.6	
WCDMA II	RMC_12.2Kbps	23.24	23.34	23.29	24.5
	HSDPA_Subtest 1	23.17	23.25	23.2	24.5
	HSDPA_Subtest 2	23.1	23.11	23.1	24.5
	HSDPA_Subtest 3	22.6	22.65	22.59	24
	HSDPA_Subtest 4	22.5	22.57	22.57	24
	HSUPA _Subtest 1	22.96	23.04	23.03	24.5
	HSUPA _Subtest 2	21.32	21.32	21.3	22.5
	HSUPA _Subtest 3	22.31	22.34	22.25	23.5
	HSUPA _Subtest 4	21.15	21.21	21.12	22.5
	HSUPA _Subtest 5	22.95	22.98	22.96	24.5

	Uplink Channel	1312	1413	1513	Tune up (dBm)
	Uplink Frequency	1712.4	1732.6	1752.6	
WCDMA IV	RMC_12.2Kbps	23.26	23.34	23.3	24.5
	HSDPA_Subtest 1	23.13	23.23	23.22	24.5
	HSDPA_Subtest 2	23.05	23.1	23.05	24.5
	HSDPA_Subtest 3	22.61	22.65	22.57	24
	HSDPA_Subtest 4	22.53	22.56	22.51	24
	HSUPA _Subtest 1	23.08	23.08	22.99	24.5
	HSUPA _Subtest 2	21.31	21.32	21.23	22.5
	HSUPA _Subtest 3	22.35	22.36	22.35	23.5
	HSUPA _Subtest 4	21.1	21.19	21.13	22.5
	HSUPA _Subtest 5	22.99	23.02	22.97	24.5

	Uplink Channel	4132	4182	4233	Tune up (dBm)
	Uplink Frequency	826.4	836.4	846.6	
WCDMA V	RMC_12.2Kbps	23.14	23.41	23.15	24.5
	HSDPA_Subtest 1	22.66	22.82	22.65	24.5
	HSDPA_Subtest 2	22.67	22.57	22.65	24.5
	HSDPA_Subtest 3	22.19	22.17	22.22	24
	HSDPA_Subtest 4	22.05	22.12	22.05	24
	HSUPA _Subtest 1	22.51	22.62	22.56	24.5
	HSUPA _Subtest 2	20.87	20.87	20.77	22.5
	HSUPA _Subtest 3	21.76	21.94	21.87	23.5
	HSUPA _Subtest 4	20.68	20.76	20.59	22.5
	HSUPA _Subtest 5	22.63	22.58	22.53	24.5

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18700	18900	19100	Channel				
1860	1880	1900	Freq. (MHz)				
22.48	22.58	22.52	24	QPSK	20MHz	1	0
22.17	22.41	22.46	24	QPSK	20MHz	1	49
22.29	22.39	22.33	24	QPSK	20MHz	1	99
21.46	21.56	21.50	23	QPSK	20MHz	50	0
21.39	21.49	21.43	23	QPSK	20MHz	50	25
21.30	21.40	21.34	23	QPSK	20MHz	50	50
21.49	21.59	21.53	23	QPSK	20MHz	100	0
21.71	21.81	21.75	23	16QAM	20MHz	1	0
21.73	21.83	21.77	23	16QAM	20MHz	1	49
21.63	21.73	21.67	23	16QAM	20MHz	1	99
20.51	20.61	20.55	22	16QAM	20MHz	50	0
20.47	20.57	20.51	22	16QAM	20MHz	50	25
20.40	20.50	20.44	22	16QAM	20MHz	50	50
20.57	20.67	20.61	22	16QAM	20MHz	100	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18675	18900	19125	Channel				
1857.5	1880	1902.5	Freq. (MHz)				
22.47	22.56	22.51	24	QPSK	15MHz	1	0
22.08	22.38	22.41	24	QPSK	15MHz	1	37
22.29	22.37	22.26	24	QPSK	15MHz	1	74
21.39	21.55	21.45	23	QPSK	15MHz	36	0
21.37	21.46	21.41	23	QPSK	15MHz	36	19
21.29	21.40	21.33	23	QPSK	15MHz	36	39
21.46	21.57	21.47	23	QPSK	15MHz	75	0
21.69	21.78	21.70	23	16QAM	15MHz	1	0
21.72	21.83	21.77	23	16QAM	15MHz	1	37
21.57	21.69	21.60	23	16QAM	15MHz	1	74
20.43	20.54	20.51	22	16QAM	15MHz	36	0
20.39	20.55	20.47	22	16QAM	15MHz	36	19
20.30	20.41	20.38	22	16QAM	15MHz	36	39
20.56	20.62	20.57	22	16QAM	15MHz	75	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18650	18900	19150	Channel				
1855	1880	1905	Freq. (MHz)				
22.41	22.39	22.36	24	QPSK	10MHz	1	0
22.09	22.24	22.31	24	QPSK	10MHz	1	24
22.13	22.37	22.23	24	QPSK	10MHz	1	49
21.27	21.32	21.34	23	QPSK	10MHz	25	0
21.31	21.43	21.29	23	QPSK	10MHz	25	12
21.14	21.24	21.24	23	QPSK	10MHz	25	25
21.34	21.49	21.36	23	QPSK	10MHz	50	0
21.59	21.74	21.64	23	16QAM	10MHz	1	0
21.57	21.72	21.69	23	16QAM	10MHz	1	24
21.46	21.58	21.49	23	16QAM	10MHz	1	49
20.31	20.55	20.33	22	16QAM	10MHz	25	0
20.41	20.43	20.39	22	16QAM	10MHz	25	12
20.35	20.39	20.32	22	16QAM	10MHz	25	25
20.43	20.54	20.58	22	16QAM	10MHz	50	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18625	18900	19175	Channel				
1852.5	1880	1907.5	Freq. (MHz)				
22.40	22.44	22.35	24	QPSK	5MHz	1	0
22.03	22.23	22.18	24	QPSK	5MHz	1	12
22.17	22.24	22.20	24	QPSK	5MHz	1	24
21.32	21.46	21.29	23	QPSK	5MHz	12	0
21.23	21.30	21.15	23	QPSK	5MHz	12	6
21.14	21.25	21.18	23	QPSK	5MHz	12	13
21.44	21.46	21.31	23	QPSK	5MHz	25	0
21.52	21.68	21.64	23	16QAM	5MHz	1	0
21.67	21.75	21.58	23	16QAM	5MHz	1	12
21.50	21.64	21.64	23	16QAM	5MHz	1	24
20.34	20.59	20.37	22	16QAM	5MHz	12	0
20.38	20.38	20.33	22	16QAM	5MHz	12	6
20.25	20.37	20.28	22	16QAM	5MHz	12	13
20.45	20.58	20.42	22	16QAM	5MHz	25	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18615	18900	19185	Channel				
1851.5	1880	1908.5	Freq. (MHz)				
22.28	22.40	22.46	24	QPSK	3MHz	1	0
22.12	22.27	22.26	24	QPSK	3MHz	1	7
22.25	22.28	22.17	24	QPSK	3MHz	1	14
21.25	21.37	21.42	23	QPSK	3MHz	8	0
21.31	21.38	21.32	23	QPSK	3MHz	8	3
21.16	21.30	21.22	23	QPSK	3MHz	8	7
21.40	21.46	21.41	23	QPSK	3MHz	15	0
21.63	21.68	21.66	23	16QAM	3MHz	1	0
21.62	21.66	21.57	23	16QAM	3MHz	1	7
21.56	21.53	21.53	23	16QAM	3MHz	1	14
20.39	20.49	20.46	22	16QAM	3MHz	8	0
20.26	20.49	20.37	22	16QAM	3MHz	8	3
20.31	20.40	20.38	22	16QAM	3MHz	8	7
20.43	20.44	20.52	22	16QAM	3MHz	15	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18607	18900	19193	Channel				
1850.7	1880	1909.3	Freq. (MHz)				
22.31	22.48	22.35	24	QPSK	1.4MHz	1	0
22.08	22.25	22.36	24	QPSK	1.4MHz	1	2
22.24	22.31	22.28	24	QPSK	1.4MHz	1	5
22.32	22.34	22.35	24	QPSK	1.4MHz	3	0
22.21	22.32	22.26	24	QPSK	1.4MHz	3	1
22.15	22.21	22.18	24	QPSK	1.4MHz	3	3
21.46	21.42	21.42	23	QPSK	1.4MHz	6	0
21.59	21.74	21.59	23	16QAM	1.4MHz	1	0
21.68	21.77	21.64	23	16QAM	1.4MHz	1	2
21.52	21.57	21.62	23	16QAM	1.4MHz	1	5
21.38	21.51	21.38	23	16QAM	1.4MHz	3	0
21.36	21.36	21.40	23	16QAM	1.4MHz	3	1
21.29	21.38	21.22	23	16QAM	1.4MHz	3	3
20.42	20.43	20.56	22	16QAM	1.4MHz	6	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20050	20175	20300	Channel				
1720	1732.5	1745	Freq. (MHz)				
22.87	23.05	22.69	24	QPSK	20MHz	1	0
22.64	22.96	22.60	24	QPSK	20MHz	1	49
22.47	22.64	22.66	24	QPSK	20MHz	1	99
21.74	21.92	21.78	23	QPSK	20MHz	50	0
21.69	21.87	21.73	23	QPSK	20MHz	50	25
21.52	21.70	21.56	23	QPSK	20MHz	50	50
21.76	21.94	21.80	23	QPSK	20MHz	100	0
22.12	22.30	22.16	23	16QAM	20MHz	1	0
22.01	22.19	22.05	23	16QAM	20MHz	1	49
21.73	21.91	21.77	23	16QAM	20MHz	1	99
20.87	21.05	20.91	22	16QAM	20MHz	50	0
20.77	20.95	20.81	22	16QAM	20MHz	50	25
20.62	20.80	20.66	22	16QAM	20MHz	50	50
20.83	21.01	20.87	22	16QAM	20MHz	100	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20025	20175	20325	Channel				
1717.5	1732.5	1747.5	Freq. (MHz)				
22.84	23.02	22.60	24	QPSK	15MHz	1	0
22.55	22.91	22.54	24	QPSK	15MHz	1	37
22.45	22.60	22.59	24	QPSK	15MHz	1	74
21.72	21.82	21.78	23	QPSK	15MHz	36	0
21.63	21.83	21.66	23	QPSK	15MHz	36	19
21.52	21.64	21.49	23	QPSK	15MHz	36	39
21.74	21.85	21.73	23	QPSK	15MHz	75	0
22.02	22.28	22.06	23	16QAM	15MHz	1	0
21.94	22.11	21.97	23	16QAM	15MHz	1	37
21.63	21.83	21.68	23	16QAM	15MHz	1	74
20.83	20.97	20.90	22	16QAM	15MHz	36	0
20.77	20.88	20.76	22	16QAM	15MHz	36	19
20.61	20.77	20.56	22	16QAM	15MHz	36	39
20.79	20.93	20.79	22	16QAM	15MHz	75	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20000	20175	20350	Channel				
1715	1732.5	1750	Freq. (MHz)				
22.69	23.02	22.51	24	QPSK	10MHz	1	0
22.49	22.87	22.46	24	QPSK	10MHz	1	24
22.27	22.53	22.56	24	QPSK	10MHz	1	49
21.69	21.76	21.73	23	QPSK	10MHz	25	0
21.66	21.77	21.54	23	QPSK	10MHz	25	12
21.36	21.47	21.47	23	QPSK	10MHz	25	25
21.63	21.87	21.59	23	QPSK	10MHz	50	0
22.07	22.13	22.06	23	16QAM	10MHz	1	0
21.92	22.02	21.95	23	16QAM	10MHz	1	24
21.61	21.70	21.64	23	16QAM	10MHz	1	49
20.74	21.01	20.69	22	16QAM	10MHz	25	0
20.54	20.87	20.60	22	16QAM	10MHz	25	12
20.43	20.70	20.48	22	16QAM	10MHz	25	25
20.75	20.86	20.71	22	16QAM	10MHz	50	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
19975	20175	20375	Channel				
1712.5	1732.5	1752.5	Freq. (MHz)				
22.75	23.00	22.54	24	QPSK	5MHz	1	0
22.49	22.81	22.32	24	QPSK	5MHz	1	12
22.33	22.49	22.47	24	QPSK	5MHz	1	24
21.61	21.78	21.59	23	QPSK	5MHz	12	0
21.51	21.77	21.39	23	QPSK	5MHz	12	6
21.40	21.64	21.35	23	QPSK	5MHz	12	13
21.54	21.71	21.68	23	QPSK	5MHz	25	0
21.94	22.20	21.92	23	16QAM	5MHz	1	0
21.84	22.08	21.92	23	16QAM	5MHz	1	12
21.69	21.72	21.69	23	16QAM	5MHz	1	24
20.72	20.89	20.73	22	16QAM	5MHz	12	0
20.64	20.85	20.56	22	16QAM	5MHz	12	6
20.49	20.67	20.52	22	16QAM	5MHz	12	13
20.73	20.91	20.69	22	16QAM	5MHz	25	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
19965	20175	20385	Channel				
1711.5	1732.5	1753.5	Freq. (MHz)				
22.79	22.84	22.58	24	QPSK	3MHz	1	0
22.44	22.90	22.56	24	QPSK	3MHz	1	7
22.36	22.54	22.41	24	QPSK	3MHz	1	14
21.73	21.71	21.59	23	QPSK	3MHz	8	0
21.60	21.72	21.58	23	QPSK	3MHz	8	3
21.39	21.60	21.48	23	QPSK	3MHz	8	7
21.59	21.84	21.74	23	QPSK	3MHz	15	0
22.08	22.19	21.93	23	16QAM	3MHz	1	0
21.94	22.05	21.83	23	16QAM	3MHz	1	7
21.60	21.75	21.61	23	16QAM	3MHz	1	14
20.81	20.85	20.83	22	16QAM	3MHz	8	0
20.61	20.79	20.62	22	16QAM	3MHz	8	3
20.45	20.71	20.58	22	16QAM	3MHz	8	7
20.76	20.84	20.71	22	16QAM	3MHz	15	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
19957	20175	20393	Channel				
1710.7	1732.5	1754.3	Freq. (MHz)				
22.68	22.92	22.50	24	QPSK	1.4MHz	1	0
22.48	22.74	22.44	24	QPSK	1.4MHz	1	2
22.40	22.55	22.49	24	QPSK	1.4MHz	1	5
22.63	22.86	22.71	24	QPSK	1.4MHz	3	0
22.61	22.66	22.71	24	QPSK	1.4MHz	3	1
22.44	22.61	22.51	24	QPSK	1.4MHz	3	3
21.53	21.82	21.71	23	QPSK	1.4MHz	6	0
22.05	22.23	22.00	23	16QAM	1.4MHz	1	0
21.94	22.10	21.81	23	16QAM	1.4MHz	1	2
21.55	21.72	21.65	23	16QAM	1.4MHz	1	5
21.78	21.85	21.74	23	16QAM	1.4MHz	3	0
21.59	21.75	21.66	23	16QAM	1.4MHz	3	1
21.39	21.71	21.52	23	16QAM	1.4MHz	3	3
20.81	20.89	20.76	22	16QAM	1.4MHz	6	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20450	20525	20600	Channel				
829	836.5	844	Freq. (MHz)				
22.47	22.57	22.29	24	QPSK	10MHz	1	0
22.10	22.14	22.22	24	QPSK	10MHz	1	24
22.12	22.19	22.13	24	QPSK	10MHz	1	49
21.26	21.33	21.27	23	QPSK	10MHz	25	0
21.10	21.17	21.11	23	QPSK	10MHz	25	12
21.09	21.16	21.10	23	QPSK	10MHz	25	25
21.13	21.20	21.14	23	QPSK	10MHz	50	0
21.63	21.70	21.64	23	16QAM	10MHz	1	0
21.36	21.38	21.32	23	16QAM	10MHz	1	24
21.34	21.41	21.58	23	16QAM	10MHz	1	49
20.32	20.39	20.30	22	16QAM	10MHz	25	0
20.15	20.22	20.28	22	16QAM	10MHz	25	12
20.23	20.30	20.34	22	16QAM	10MHz	25	25
20.23	20.25	20.32	22	16QAM	10MHz	50	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20425	20525	20625	Channel				
826.5	836.5	846.5	Freq. (MHz)				
22.47	22.54	22.20	24	QPSK	5MHz	1	0
22.10	22.06	22.16	24	QPSK	5MHz	1	12
22.08	22.14	22.09	24	QPSK	5MHz	1	24
21.18	21.28	21.21	23	QPSK	5MHz	12	0
21.02	21.08	21.03	23	QPSK	5MHz	12	6
21.03	21.14	21.03	23	QPSK	5MHz	12	13
21.06	21.12	21.14	23	QPSK	5MHz	25	0
21.55	21.66	21.62	23	16QAM	5MHz	1	0
21.35	21.30	21.25	23	16QAM	5MHz	1	12
21.26	21.38	21.49	23	16QAM	5MHz	1	24
20.26	20.34	20.28	22	16QAM	5MHz	12	0
20.09	20.21	20.24	22	16QAM	5MHz	12	6
20.16	20.27	20.33	22	16QAM	5MHz	12	13
20.23	20.21	20.22	22	16QAM	5MHz	25	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20415	20525	20635	Channel				
825.5	836.5	847.5	Freq. (MHz)				
22.47	22.51	22.20	24	QPSK	3MHz	1	0
22.08	22.09	22.22	24	QPSK	3MHz	1	7
22.11	22.17	22.07	24	QPSK	3MHz	1	14
21.23	21.23	21.26	23	QPSK	3MHz	8	0
21.08	21.10	21.07	23	QPSK	3MHz	8	3
21.09	21.11	21.10	23	QPSK	3MHz	8	7
21.06	21.20	21.05	23	QPSK	3MHz	15	0
21.53	21.65	21.64	23	16QAM	3MHz	1	0
21.32	21.37	21.28	23	16QAM	3MHz	1	7
21.31	21.39	21.56	23	16QAM	3MHz	1	14
20.22	20.33	20.30	22	16QAM	3MHz	8	0
20.15	20.19	20.28	22	16QAM	3MHz	8	3
20.18	20.27	20.24	22	16QAM	3MHz	8	7
20.17	20.21	20.32	22	16QAM	3MHz	15	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20407	20525	20643	Channel				
824.7	836.5	848.3	Freq. (MHz)				
22.36	22.47	22.22	24	QPSK	1.4MHz	1	0
22.02	22.02	22.11	24	QPSK	1.4MHz	1	2
22.02	22.10	22.01	24	QPSK	1.4MHz	1	5
22.18	22.13	22.16	24	QPSK	1.4MHz	3	0
22.01	22.11	22.01	24	QPSK	1.4MHz	3	1
22.03	22.04	22.08	24	QPSK	1.4MHz	3	3
21.07	21.07	21.03	23	QPSK	1.4MHz	6	0
21.50	21.60	21.47	23	16QAM	1.4MHz	1	0
21.34	21.32	21.22	23	16QAM	1.4MHz	1	2
21.19	21.34	21.35	23	16QAM	1.4MHz	1	5
21.13	21.30	21.07	23	16QAM	1.4MHz	3	0
21.10	21.14	21.10	23	16QAM	1.4MHz	3	1
21.21	21.17	21.13	23	16QAM	1.4MHz	3	3
20.17	20.06	20.21	22	16QAM	1.4MHz	6	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20850	21100	21350	Channel				
2510	2535	2560	Freq. (MHz)				
22.82	22.83	22.75	24	QPSK	20MHz	1	0
22.41	22.55	22.48	24	QPSK	20MHz	1	49
22.48	22.31	22.43	24	QPSK	20MHz	1	99
21.56	21.70	21.63	23	QPSK	20MHz	50	0
21.49	21.63	21.56	23	QPSK	20MHz	50	25
21.40	21.54	21.47	23	QPSK	20MHz	50	50
21.59	21.73	21.66	23	QPSK	20MHz	100	0
21.78	21.67	21.79	23	16QAM	20MHz	1	0
21.71	21.85	21.78	23	16QAM	20MHz	1	49
21.72	21.61	21.72	23	16QAM	20MHz	1	99
20.64	20.78	20.71	22	16QAM	20MHz	50	0
20.61	20.75	20.68	22	16QAM	20MHz	50	25
20.55	20.69	20.62	22	16QAM	20MHz	50	50
20.67	20.81	20.74	22	16QAM	20MHz	100	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20825	21100	21375	Channel				
2507.5	2535	2562.5	Freq. (MHz)				
22.75	22.80	22.67	24	QPSK	15MHz	1	0
22.35	22.45	22.44	24	QPSK	15MHz	1	37
22.38	22.29	22.42	24	QPSK	15MHz	1	74
21.50	21.70	21.57	23	QPSK	15MHz	36	0
21.49	21.60	21.48	23	QPSK	15MHz	36	19
21.39	21.49	21.46	23	QPSK	15MHz	36	39
21.53	21.68	21.57	23	QPSK	15MHz	75	0
21.73	21.57	21.69	23	16QAM	15MHz	1	0
21.61	21.79	21.68	23	16QAM	15MHz	1	37
21.72	21.56	21.72	23	16QAM	15MHz	1	74
20.64	20.78	20.65	22	16QAM	15MHz	36	0
20.54	20.68	20.61	22	16QAM	15MHz	36	19
20.53	20.67	20.57	22	16QAM	15MHz	36	39
20.60	20.81	20.65	22	16QAM	15MHz	75	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20800	21100	21400	Channel				
2505	2535	2565	Freq. (MHz)				
22.65	22.64	22.65	24	QPSK	10MHz	1	0
22.21	22.45	22.41	24	QPSK	10MHz	1	24
22.42	22.09	22.34	24	QPSK	10MHz	1	49
21.34	21.54	21.49	23	QPSK	10MHz	25	0
21.41	21.51	21.40	23	QPSK	10MHz	25	12
21.27	21.54	21.28	23	QPSK	10MHz	25	25
21.34	21.63	21.56	23	QPSK	10MHz	50	0
21.68	21.44	21.70	23	16QAM	10MHz	1	0
21.68	21.74	21.72	23	16QAM	10MHz	1	24
21.51	21.50	21.62	23	16QAM	10MHz	1	49
20.55	20.67	20.63	22	16QAM	10MHz	25	0
20.54	20.69	20.54	22	16QAM	10MHz	25	12
20.42	20.51	20.56	22	16QAM	10MHz	25	25
20.53	20.60	20.65	22	16QAM	10MHz	50	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20775	21100	21425	Channel				
2502.5	2535	2567.5	Freq. (MHz)				
22.69	22.68	22.52	24	QPSK	5MHz	1	0
22.26	22.49	22.10	24	QPSK	5MHz	1	12
22.37	22.17	22.26	24	QPSK	5MHz	1	24
21.48	21.51	21.45	23	QPSK	5MHz	12	0
21.39	21.51	21.32	23	QPSK	5MHz	12	6
21.35	21.38	21.33	23	QPSK	5MHz	12	13
21.51	21.60	21.46	23	QPSK	5MHz	25	0
21.57	21.54	21.71	23	16QAM	5MHz	1	0
21.70	21.67	21.68	23	16QAM	5MHz	1	12
21.56	21.43	21.48	23	16QAM	5MHz	1	24
20.58	20.62	20.60	22	16QAM	5MHz	12	0
20.53	20.57	20.47	22	16QAM	5MHz	12	6
20.37	20.55	20.51	22	16QAM	5MHz	12	13
20.54	20.61	20.57	22	16QAM	5MHz	25	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23060	23095	23130	Channel				
704	707.5	711	Freq. (MHz)				
22.49	22.61	22.42	24	QPSK	10MHz	1	0
22.37	22.49	22.30	24	QPSK	10MHz	1	24
22.42	22.54	22.35	24	QPSK	10MHz	1	49
21.50	21.65	21.43	23	QPSK	10MHz	25	0
21.48	21.60	21.41	23	QPSK	10MHz	25	12
21.44	21.62	21.39	23	QPSK	10MHz	25	25
21.56	21.63	21.49	23	QPSK	10MHz	50	0
21.89	22.01	21.82	23	16QAM	10MHz	1	0
21.74	21.86	21.67	23	16QAM	10MHz	1	24
21.86	21.98	21.79	23	16QAM	10MHz	1	49
20.64	20.76	20.57	22	16QAM	10MHz	25	0
20.56	20.68	20.49	22	16QAM	10MHz	25	12
20.62	20.74	20.55	22	16QAM	10MHz	25	25
20.59	20.71	20.52	22	16QAM	10MHz	50	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23035	23095	23155	Channel				
701.5	707.5	713.5	Freq. (MHz)				
22.41	22.59	22.39	24	QPSK	5MHz	1	0
22.28	22.40	22.25	24	QPSK	5MHz	1	12
22.35	22.52	22.35	24	QPSK	5MHz	1	24
21.44	21.60	21.41	23	QPSK	5MHz	12	0
21.46	21.58	21.33	23	QPSK	5MHz	12	6
21.49	21.63	21.34	23	QPSK	5MHz	12	13
21.56	21.59	21.39	23	QPSK	5MHz	25	0
21.81	22.00	21.75	23	16QAM	5MHz	1	0
21.73	21.78	21.59	23	16QAM	5MHz	1	12
21.80	21.90	21.75	23	16QAM	5MHz	1	24
20.58	20.72	20.53	22	16QAM	5MHz	12	0
20.47	20.67	20.49	22	16QAM	5MHz	12	6
20.53	20.64	20.49	22	16QAM	5MHz	12	13
20.54	20.62	20.46	22	16QAM	5MHz	25	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23025	23095	23165	Channel				
700.5	707.5	714.5	Freq. (MHz)				
22.29	22.39	22.26	24	QPSK	3MHz	1	0
22.26	22.42	22.28	24	QPSK	3MHz	1	7
22.26	22.45	22.23	24	QPSK	3MHz	1	14
21.42	21.52	21.32	23	QPSK	3MHz	8	0
21.36	21.48	21.33	23	QPSK	3MHz	8	3
21.39	21.65	21.24	23	QPSK	3MHz	8	7
21.38	21.48	21.32	23	QPSK	3MHz	15	0
21.68	21.92	21.63	23	16QAM	3MHz	1	0
21.63	21.75	21.50	23	16QAM	3MHz	1	7
21.81	21.96	21.65	23	16QAM	3MHz	1	14
20.47	20.63	20.52	22	16QAM	3MHz	8	0
20.36	20.52	20.47	22	16QAM	3MHz	8	3
20.54	20.69	20.45	22	16QAM	3MHz	8	7
20.45	20.67	20.35	22	16QAM	3MHz	15	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23017	23095	23173	Channel				
699.7	707.5	715.3	Freq. (MHz)				
22.48	22.43	22.33	24	QPSK	1.4MHz	1	0
22.25	22.42	22.24	24	QPSK	1.4MHz	1	2
22.38	22.42	22.31	24	QPSK	1.4MHz	1	5
22.47	22.57	22.34	24	QPSK	1.4MHz	3	0
22.29	22.50	22.20	24	QPSK	1.4MHz	3	1
22.34	22.50	22.38	24	QPSK	1.4MHz	3	3
21.39	21.56	21.28	23	QPSK	1.4MHz	6	0
21.79	21.87	21.67	23	16QAM	1.4MHz	1	0
21.63	21.77	21.43	23	16QAM	1.4MHz	1	2
21.84	21.79	21.59	23	16QAM	1.4MHz	1	5
21.53	21.60	21.41	23	16QAM	1.4MHz	3	0
21.40	21.50	21.30	23	16QAM	1.4MHz	3	1
21.45	21.70	21.46	23	16QAM	1.4MHz	3	3
20.45	20.63	20.43	22	16QAM	1.4MHz	6	0

LTE Band 13					
Maximum Average Power (dBm)	Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23230	Channel				
782	Freq. (MHz)				
22.78	24	QPSK	10MHz	1	0
22.75	24	QPSK	10MHz	1	24
22.72	24	QPSK	10MHz	1	49
21.91	23	QPSK	10MHz	25	0
21.82	23	QPSK	10MHz	25	12
21.84	23	QPSK	10MHz	25	25
21.92	23	QPSK	10MHz	50	0
22.09	23	16QAM	10MHz	1	0
22.04	23	16QAM	10MHz	1	24
22.02	23	16QAM	10MHz	1	49
20.99	22	16QAM	10MHz	25	0
20.91	22	16QAM	10MHz	25	12
20.96	22	16QAM	10MHz	25	25
20.95	22	16QAM	10MHz	50	0

LTE Band 13							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23205	23230	23255	Channel				
779.5	782	784.5	Freq. (MHz)				
22.62	22.70	22.63	24	QPSK	5MHz	1	0
22.60	22.60	22.55	24	QPSK	5MHz	1	12
22.56	22.60	22.52	24	QPSK	5MHz	1	24
21.76	21.77	21.78	23	QPSK	5MHz	12	0
21.70	21.61	21.69	23	QPSK	5MHz	12	6
21.73	21.65	21.69	23	QPSK	5MHz	12	13
21.83	21.73	21.78	23	QPSK	5MHz	25	0
21.84	21.91	21.92	23	16QAM	5MHz	1	0
21.96	21.84	21.85	23	16QAM	5MHz	1	12
21.83	21.80	21.81	23	16QAM	5MHz	1	24
20.81	20.81	20.93	22	16QAM	5MHz	12	0
20.86	20.71	20.83	22	16QAM	5MHz	12	6
20.84	20.70	20.80	22	16QAM	5MHz	12	13
20.79	20.77	20.79	22	16QAM	5MHz	25	0

LTE Band 17							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23780	23790	23800	Channel				
709	710	711	Freq. (MHz)				
22.54	22.61	22.56	24	QPSK	10MHz	1	0
22.48	22.55	22.50	24	QPSK	10MHz	1	24
22.50	22.57	22.52	24	QPSK	10MHz	1	49
21.59	21.66	21.61	23	QPSK	10MHz	25	0
21.54	21.61	21.56	23	QPSK	10MHz	25	12
21.56	21.63	21.58	23	QPSK	10MHz	25	25
21.66	21.73	21.68	23	QPSK	10MHz	50	0
21.84	21.90	21.86	23	16QAM	10MHz	1	0
21.75	21.82	21.77	23	16QAM	10MHz	1	24
21.78	21.85	21.80	23	16QAM	10MHz	1	49
20.67	20.74	20.69	22	16QAM	10MHz	25	0
20.70	20.77	20.72	22	16QAM	10MHz	25	12
20.68	20.75	20.70	22	16QAM	10MHz	25	25
20.73	20.80	20.75	22	16QAM	10MHz	50	0

LTE Band 17							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23755	23790	23825	Channel				
706.5	710	713.5	Freq. (MHz)				
22.45	22.58	22.53	24	QPSK	5MHz	1	0
22.47	22.45	22.41	24	QPSK	5MHz	1	12
22.50	22.55	22.46	24	QPSK	5MHz	1	24
21.51	21.63	21.61	23	QPSK	5MHz	12	0
21.48	21.59	21.52	23	QPSK	5MHz	12	6
21.48	21.60	21.50	23	QPSK	5MHz	12	13
21.61	21.67	21.67	23	QPSK	5MHz	25	0
21.82	21.86	21.80	23	16QAM	5MHz	1	0
21.73	21.76	21.72	23	16QAM	5MHz	1	12
21.72	21.75	21.76	23	16QAM	5MHz	1	24
20.62	20.67	20.69	22	16QAM	5MHz	12	0
20.60	20.67	20.65	22	16QAM	5MHz	12	6
20.65	20.65	20.63	22	16QAM	5MHz	12	13
20.64	20.74	20.75	22	16QAM	5MHz	25	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26765	26865	26965	Channel				
821.5	831.5	841.5	Freq. (MHz)				
22.44	22.60	22.31	24	QPSK	15MHz	1	0
22.33	22.45	22.20	24	QPSK	15MHz	1	37
22.26	22.28	22.23	24	QPSK	15MHz	1	74
21.47	21.59	21.34	23	QPSK	15MHz	36	0
21.34	21.46	21.21	23	QPSK	15MHz	36	19
21.14	21.26	21.01	23	QPSK	15MHz	36	39
21.44	21.56	21.31	23	QPSK	15MHz	75	0
21.69	21.81	21.57	23	16QAM	15MHz	1	0
21.61	21.72	21.48	23	16QAM	15MHz	1	37
21.29	21.41	21.16	23	16QAM	15MHz	1	74
20.57	20.69	20.44	22	16QAM	15MHz	36	0
20.44	20.56	20.31	22	16QAM	15MHz	36	19
20.26	20.38	20.13	22	16QAM	15MHz	36	39
20.65	20.77	20.52	22	16QAM	15MHz	75	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26740	26865	26990	Channel				
819	831.5	844	Freq. (MHz)				
22.38	22.59	22.25	24	QPSK	10MHz	1	0
22.25	22.37	22.17	24	QPSK	10MHz	1	24
22.25	22.23	22.23	24	QPSK	10MHz	1	49
21.38	21.59	21.33	23	QPSK	10MHz	25	0
21.25	21.43	21.20	23	QPSK	10MHz	25	12
21.04	21.22	20.99	23	QPSK	10MHz	25	25
21.39	21.51	21.27	23	QPSK	10MHz	50	0
21.67	21.81	21.55	23	16QAM	10MHz	1	0
21.54	21.66	21.46	23	16QAM	10MHz	1	24
21.19	21.39	21.07	23	16QAM	10MHz	1	49
20.47	20.62	20.39	22	16QAM	10MHz	25	0
20.38	20.55	20.31	22	16QAM	10MHz	25	12
20.20	20.38	20.12	22	16QAM	10MHz	25	25
20.63	20.70	20.43	22	16QAM	10MHz	50	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26715	26865	27015	Channel				
816.5	831.5	846.5	Freq. (MHz)				
22.39	22.59	22.31	24	QPSK	5MHz	1	0
22.27	22.42	22.20	24	QPSK	5MHz	1	12
22.17	22.19	22.14	24	QPSK	5MHz	1	24
21.45	21.51	21.25	23	QPSK	5MHz	12	0
21.26	21.44	21.13	23	QPSK	5MHz	12	6
21.11	21.24	21.00	23	QPSK	5MHz	12	13
21.38	21.52	21.28	23	QPSK	5MHz	25	0
21.69	21.76	21.50	23	16QAM	5MHz	1	0
21.52	21.62	21.44	23	16QAM	5MHz	1	12
21.21	21.36	21.09	23	16QAM	5MHz	1	24
20.54	20.60	20.34	22	16QAM	5MHz	12	0
20.43	20.48	20.23	22	16QAM	5MHz	12	6
20.26	20.30	20.08	22	16QAM	5MHz	12	13
20.65	20.69	20.52	22	16QAM	5MHz	25	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26705	26865	27025	Channel				
815.5	831.5	847.5	Freq. (MHz)				
22.38	22.57	22.29	24	QPSK	3MHz	1	0
22.32	22.39	22.11	24	QPSK	3MHz	1	7
22.19	22.18	22.18	24	QPSK	3MHz	1	14
21.46	21.55	21.32	23	QPSK	3MHz	8	0
21.30	21.46	21.13	23	QPSK	3MHz	8	3
21.11	21.20	21.01	23	QPSK	3MHz	8	7
21.35	21.46	21.29	23	QPSK	3MHz	15	0
21.59	21.80	21.55	23	16QAM	3MHz	1	0
21.54	21.67	21.40	23	16QAM	3MHz	1	7
21.22	21.39	21.15	23	16QAM	3MHz	1	14
20.50	20.69	20.41	22	16QAM	3MHz	8	0
20.44	20.49	20.22	22	16QAM	3MHz	8	3
20.18	20.34	20.06	22	16QAM	3MHz	8	7
20.62	20.74	20.42	22	16QAM	3MHz	15	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26697	26865	27033	Channel				
814.7	831.5	848.3	Freq. (MHz)				
22.23	22.50	22.16	24	QPSK	1.4MHz	1	0
22.26	22.31	22.07	24	QPSK	1.4MHz	1	2
22.18	22.09	22.02	24	QPSK	1.4MHz	1	5
22.34	22.50	22.11	24	QPSK	1.4MHz	3	0
22.19	22.26	22.15	24	QPSK	1.4MHz	3	1
22.11	22.16	22.10	24	QPSK	1.4MHz	3	3
21.28	21.44	21.08	23	QPSK	1.4MHz	6	0
21.57	21.73	21.36	23	16QAM	1.4MHz	1	0
21.49	21.55	21.33	23	16QAM	1.4MHz	1	2
21.24	21.18	21.01	23	16QAM	1.4MHz	1	5
21.41	21.47	21.23	23	16QAM	1.4MHz	3	0
21.27	21.47	21.24	23	16QAM	1.4MHz	3	1
21.18	21.36	21.02	23	16QAM	1.4MHz	3	3
20.50	20.60	20.32	22	16QAM	1.4MHz	6	0

LTE Band 30					
Maximum Average Power (dBm)	Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
27710	Channel				
2310	Freq. (MHz)				
22.42	24	QPSK	10MHz	1	0
22.18	24	QPSK	10MHz	1	24
22.22	24	QPSK	10MHz	1	49
21.30	23	QPSK	10MHz	25	0
21.19	23	QPSK	10MHz	25	12
21.25	23	QPSK	10MHz	25	25
21.27	23	QPSK	10MHz	50	0
21.55	23	16QAM	10MHz	1	0
21.46	23	16QAM	10MHz	1	24
21.49	23	16QAM	10MHz	1	49
20.26	22	16QAM	10MHz	25	0
20.23	22	16QAM	10MHz	25	12
20.34	22	16QAM	10MHz	25	25
20.29	22	16QAM	10MHz	50	0

LTE Band 30							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
27685	27710	27735	Channel				
2307.5	2310	2312.5	Freq. (MHz)				
22.25	22.39	22.34	24	QPSK	5MHz	1	0
22.08	22.09	22.07	24	QPSK	5MHz	1	12
22.21	22.13	22.08	24	QPSK	5MHz	1	24
21.18	21.13	21.06	23	QPSK	5MHz	12	0
21.03	21.05	21.09	23	QPSK	5MHz	12	6
21.21	21.23	21.23	23	QPSK	5MHz	12	13
21.09	21.22	21.22	23	QPSK	5MHz	25	0
21.41	21.44	21.44	23	16QAM	5MHz	1	0
21.30	21.40	21.40	23	16QAM	5MHz	1	12
21.44	21.41	21.33	23	16QAM	5MHz	1	24
20.08	20.08	20.20	22	16QAM	5MHz	12	0
20.10	20.13	20.17	22	16QAM	5MHz	12	6
20.20	20.16	20.22	22	16QAM	5MHz	12	13
20.13	20.19	20.17	22	16QAM	5MHz	25	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37850	38000	38150	Channel				
2580	2595	2610	Freq. (MHz)				
22.72	22.85	22.74	24	QPSK	20MHz	1	0
22.17	22.31	22.20	24	QPSK	20MHz	1	49
22.58	22.67	22.58	24	QPSK	20MHz	1	99
21.09	21.23	21.15	23	QPSK	20MHz	50	0
21.07	21.21	21.14	23	QPSK	20MHz	50	25
21.06	21.21	21.00	23	QPSK	20MHz	50	50
21.17	21.24	21.17	23	QPSK	20MHz	100	0
21.54	21.63	21.56	23	16QAM	20MHz	1	0
21.23	21.43	21.30	23	16QAM	20MHz	1	49
21.45	21.56	21.49	23	16QAM	20MHz	1	99
20.12	20.19	20.08	22	16QAM	20MHz	50	0
20.13	20.25	20.08	22	16QAM	20MHz	50	25
20.14	20.22	20.16	22	16QAM	20MHz	50	50
20.13	20.34	20.22	22	16QAM	20MHz	100	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37825	38000	38175	Channel				
2577.5	2595	2612.5	Freq. (MHz)				
22.66	22.78	22.66	24	QPSK	15MHz	1	0
22.14	22.23	22.18	24	QPSK	15MHz	1	37
22.52	22.66	22.56	24	QPSK	15MHz	1	74
21.05	21.17	21.14	23	QPSK	15MHz	36	0
21.02	21.19	21.06	23	QPSK	15MHz	36	19
21.06	21.12	21.00	23	QPSK	15MHz	36	39
21.15	21.23	21.08	23	QPSK	15MHz	75	0
21.44	21.61	21.46	23	16QAM	15MHz	1	0
21.19	21.33	21.29	23	16QAM	15MHz	1	37
21.43	21.51	21.49	23	16QAM	15MHz	1	74
20.07	20.09	20.07	22	16QAM	15MHz	36	0
20.13	20.25	20.04	22	16QAM	15MHz	36	19
20.04	20.21	20.14	22	16QAM	15MHz	36	39
20.12	20.33	20.16	22	16QAM	15MHz	75	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37800	38000	38200	Channel				
2575	2595	2615	Freq. (MHz)				
22.72	22.83	22.71	24	QPSK	10MHz	1	0
22.12	22.25	22.16	24	QPSK	10MHz	1	24
22.50	22.66	22.52	24	QPSK	10MHz	1	49
21.02	21.21	21.13	23	QPSK	10MHz	25	0
21.04	21.15	21.05	23	QPSK	10MHz	25	12
21.05	21.14	21.10	23	QPSK	10MHz	25	25
21.07	21.19	21.16	23	QPSK	10MHz	50	0
21.53	21.54	21.54	23	16QAM	10MHz	1	0
21.22	21.36	21.23	23	16QAM	10MHz	1	24
21.36	21.54	21.39	23	16QAM	10MHz	1	49
20.07	20.15	20.01	22	16QAM	10MHz	25	0
20.03	20.16	20.08	22	16QAM	10MHz	25	12
20.14	20.21	20.13	22	16QAM	10MHz	25	25
20.11	20.25	20.15	22	16QAM	10MHz	50	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37775	38000	38225	Channel				
2572.5	2595	2617.5	Freq. (MHz)				
22.71	22.81	22.68	24	QPSK	5MHz	1	0
22.12	22.30	22.19	24	QPSK	5MHz	1	12
22.55	22.57	22.58	24	QPSK	5MHz	1	24
21.08	21.18	21.11	23	QPSK	5MHz	12	0
21.08	21.11	21.11	23	QPSK	5MHz	12	6
21.01	21.21	21.09	23	QPSK	5MHz	12	13
21.11	21.19	21.12	23	QPSK	5MHz	25	0
21.45	21.53	21.48	23	16QAM	5MHz	1	0
21.17	21.36	21.30	23	16QAM	5MHz	1	12
21.44	21.49	21.41	23	16QAM	5MHz	1	24
20.11	20.18	20.07	22	16QAM	5MHz	12	0
20.07	20.21	20.00	22	16QAM	5MHz	12	6
20.13	20.20	20.10	22	16QAM	5MHz	12	13
20.06	20.28	20.13	22	16QAM	5MHz	25	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39750	40185	40620	41055	41490	Channel				
2506	2549.5	2593	2636.5	2680	Freq. (MHz)				
22.62	22.67	22.64	22.65	22.53	24	QPSK	20MHz	1	0
22.43	22.58	22.47	22.42	22.32	24	QPSK	20MHz	1	49
22.45	22.57	22.53	22.47	22.41	24	QPSK	20MHz	1	99
21.49	21.54	21.51	21.49	21.43	23	QPSK	20MHz	50	0
21.44	21.50	21.45	21.40	21.28	23	QPSK	20MHz	50	25
21.45	21.52	21.46	21.48	21.39	23	QPSK	20MHz	50	50
21.44	21.49	21.45	21.47	21.36	23	QPSK	20MHz	100	0
21.69	21.76	21.71	21.69	21.63	23	16QAM	20MHz	1	0
21.61	21.70	21.72	21.68	21.52	23	16QAM	20MHz	1	49
21.67	21.68	21.68	21.62	21.53	23	16QAM	20MHz	1	99
20.34	20.41	20.41	20.36	20.24	22	16QAM	20MHz	50	0
20.33	20.49	20.39	20.44	20.32	22	16QAM	20MHz	50	25
20.35	20.45	20.35	20.34	20.27	22	16QAM	20MHz	50	50
20.46	20.50	20.47	20.42	20.39	22	16QAM	20MHz	100	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39725	40173	40620	41068	41515	Channel				
2503.5	2548.3	2593	2637.8	2682.5	Freq. (MHz)				
22.56	22.63	22.62	22.60	22.53	24	QPSK	15MHz	1	0
22.43	22.49	22.45	22.33	22.22	24	QPSK	15MHz	1	37
22.45	22.56	22.51	22.37	22.39	24	QPSK	15MHz	1	74
21.46	21.47	21.44	21.46	21.33	23	QPSK	15MHz	36	0
21.37	21.50	21.42	21.37	21.20	23	QPSK	15MHz	36	19
21.37	21.49	21.39	21.41	21.35	23	QPSK	15MHz	36	39
21.40	21.47	21.40	21.38	21.28	23	QPSK	15MHz	75	0
21.68	21.71	21.63	21.59	21.51	23	16QAM	15MHz	1	0
21.61	21.70	21.66	21.64	21.25	23	16QAM	15MHz	1	37
21.63	21.66	21.61	21.58	21.38	23	16QAM	15MHz	1	74
20.31	20.32	20.41	20.36	20.37	22	16QAM	15MHz	36	0
20.23	20.48	20.29	20.44	20.26	22	16QAM	15MHz	36	19
20.33	20.42	20.29	20.31	20.30	22	16QAM	15MHz	36	39
20.37	20.45	20.37	20.32	20.34	22	16QAM	15MHz	75	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39700	40160	40620	41080	41540	Channel				
2501	2547	2593	2639	2685	Freq. (MHz)				
22.49	22.57	22.54	22.63	22.48	24	QPSK	10MHz	1	0
22.32	22.47	22.37	22.30	22.24	24	QPSK	10MHz	1	24
22.32	22.45	22.43	22.36	22.31	24	QPSK	10MHz	1	49
21.34	21.43	21.41	21.44	21.35	23	QPSK	10MHz	25	0
21.35	21.40	21.35	21.33	21.14	23	QPSK	10MHz	25	12
21.31	21.41	21.44	21.44	21.22	23	QPSK	10MHz	25	25
21.27	21.35	21.40	21.33	21.18	23	QPSK	10MHz	50	0
21.59	21.61	21.50	21.62	21.43	23	16QAM	10MHz	1	0
21.23	21.45	21.41	21.31	21.27	23	16QAM	10MHz	1	24
21.28	21.47	21.39	21.36	21.36	23	16QAM	10MHz	1	49
20.34	20.39	20.41	20.37	20.28	22	16QAM	10MHz	25	0
20.32	20.45	20.30	20.34	20.21	22	16QAM	10MHz	25	12
20.38	20.40	20.38	20.42	20.22	22	16QAM	10MHz	25	25
20.31	20.41	20.42	20.38	20.23	22	16QAM	10MHz	50	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39675	40148	40620	41093	41565	Channel				
2498.5	2545.8	2593	2640.3	2687.5	Freq. (MHz)				
22.48	22.56	22.58	22.55	22.48	24	QPSK	5MHz	1	0
22.24	22.49	22.38	22.34	22.26	24	QPSK	5MHz	1	12
22.39	22.40	22.42	22.35	22.30	24	QPSK	5MHz	1	24
21.39	21.45	21.44	21.47	21.31	23	QPSK	5MHz	12	0
21.30	21.42	21.44	21.26	21.21	23	QPSK	5MHz	12	6
21.35	21.42	21.38	21.35	21.27	23	QPSK	5MHz	12	13
21.33	21.45	21.32	21.35	21.20	23	QPSK	5MHz	25	0
21.50	21.55	21.60	21.51	21.50	23	16QAM	5MHz	1	0
21.29	21.52	21.37	21.34	21.22	23	16QAM	5MHz	1	12
21.41	21.43	21.41	21.30	21.30	23	16QAM	5MHz	1	24
20.33	20.54	20.42	20.40	20.29	22	16QAM	5MHz	12	0
20.37	20.50	20.40	20.31	20.26	22	16QAM	5MHz	12	6
20.31	20.43	20.29	20.36	20.33	22	16QAM	5MHz	12	13
20.29	20.45	20.29	20.39	20.29	22	16QAM	5MHz	25	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
132072	132322	132572	Channel				
1720	1745	1770	Freq. (MHz)				
22.83	23.02	22.77	24	QPSK	20MHz	1	0
22.84	23.00	22.77	24	QPSK	20MHz	1	49
22.77	22.93	22.70	24	QPSK	20MHz	1	99
21.93	22.05	21.86	23	QPSK	20MHz	50	0
21.87	22.03	21.80	23	QPSK	20MHz	50	25
21.84	22.09	21.77	23	QPSK	20MHz	50	50
22.01	22.17	21.94	23	QPSK	20MHz	100	0
22.12	22.28	22.04	23	16QAM	20MHz	1	0
22.08	22.24	22.01	23	16QAM	20MHz	1	49
22.06	22.22	21.99	23	16QAM	20MHz	1	99
20.84	21.00	20.77	22	16QAM	20MHz	50	0
20.80	20.96	20.73	22	16QAM	20MHz	50	25
20.72	20.88	20.65	22	16QAM	20MHz	50	50
20.98	21.14	20.91	22	16QAM	20MHz	100	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
132047	132322	132597	Channel				
1717.5	1745	1772.5	Freq. (MHz)				
22.77	22.95	22.69	24	QPSK	15MHz	1	0
22.75	22.92	22.70	24	QPSK	15MHz	1	37
22.69	22.83	22.64	24	QPSK	15MHz	1	74
21.85	22.03	21.77	23	QPSK	15MHz	36	0
21.79	22.01	21.75	23	QPSK	15MHz	36	19
21.75	22.00	21.74	23	QPSK	15MHz	36	39
21.92	22.16	21.89	23	QPSK	15MHz	75	0
22.08	22.27	22.01	23	16QAM	15MHz	1	0
22.06	22.14	21.98	23	16QAM	15MHz	1	37
22.01	22.16	21.91	23	16QAM	15MHz	1	74
20.78	21.00	20.67	22	16QAM	15MHz	36	0
20.70	20.89	20.69	22	16QAM	15MHz	36	19
20.66	20.84	20.55	22	16QAM	15MHz	36	39
20.91	21.14	20.82	22	16QAM	15MHz	75	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
132022	132322	132622	Channel				
1715	1745	1775	Freq. (MHz)				
22.80	22.92	22.76	24	QPSK	10MHz	1	0
22.82	22.95	22.77	24	QPSK	10MHz	1	24
22.71	22.87	22.67	24	QPSK	10MHz	1	49
21.84	21.98	21.83	23	QPSK	10MHz	25	0
21.84	22.01	21.76	23	QPSK	10MHz	25	12
21.77	22.08	21.69	23	QPSK	10MHz	25	25
21.94	22.07	21.92	23	QPSK	10MHz	50	0
22.04	22.27	21.95	23	16QAM	10MHz	1	0
22.02	22.20	22.01	23	16QAM	10MHz	1	24
21.99	22.22	21.95	23	16QAM	10MHz	1	49
20.79	20.98	20.68	22	16QAM	10MHz	25	0
20.79	20.87	20.68	22	16QAM	10MHz	25	12
20.62	20.88	20.60	22	16QAM	10MHz	25	25
20.92	21.09	20.85	22	16QAM	10MHz	50	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
131997	132322	132647	Channel				
1712.5	1745	1777.5	Freq. (MHz)				
22.82	22.98	22.69	24	QPSK	5MHz	1	0
22.79	22.92	22.77	24	QPSK	5MHz	1	12
22.73	22.89	22.69	24	QPSK	5MHz	1	24
21.87	22.01	21.86	23	QPSK	5MHz	12	0
21.87	21.96	21.77	23	QPSK	5MHz	12	6
21.76	22.06	21.67	23	QPSK	5MHz	12	13
21.97	22.09	21.89	23	QPSK	5MHz	25	0
22.07	22.26	22.01	23	16QAM	5MHz	1	0
22.04	22.22	21.99	23	16QAM	5MHz	1	12
22.02	22.15	21.95	23	16QAM	5MHz	1	24
20.79	20.94	20.69	22	16QAM	5MHz	12	0
20.73	20.89	20.68	22	16QAM	5MHz	12	6
20.69	20.82	20.56	22	16QAM	5MHz	12	13
20.91	21.09	20.91	22	16QAM	5MHz	25	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
131987	132322	132657	Channel				
1711.5	1745	1778.5	Freq. (MHz)				
22.73	22.94	22.69	24	QPSK	3MHz	1	0
22.80	22.94	22.73	24	QPSK	3MHz	1	7
22.67	22.92	22.69	24	QPSK	3MHz	1	14
21.93	22.00	21.78	23	QPSK	3MHz	8	0
21.80	22.00	21.71	23	QPSK	3MHz	8	3
21.74	22.08	21.76	23	QPSK	3MHz	8	7
21.97	22.08	21.86	23	QPSK	3MHz	15	0
22.02	22.28	22.04	23	16QAM	3MHz	1	0
22.04	22.14	21.95	23	16QAM	3MHz	1	7
22.04	22.19	21.98	23	16QAM	3MHz	1	14
20.79	20.98	20.75	22	16QAM	3MHz	8	0
20.80	20.88	20.69	22	16QAM	3MHz	8	3
20.67	20.88	20.57	22	16QAM	3MHz	8	7
20.96	21.10	20.84	22	16QAM	3MHz	15	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
131979	132322	132665	Channel				
1710.7	1745	1779.3	Freq. (MHz)				
22.64	22.96	22.63	24	QPSK	1.4MHz	1	0
22.68	22.99	22.68	24	QPSK	1.4MHz	1	2
22.73	22.87	22.66	24	QPSK	1.4MHz	1	5
22.76	23.01	22.62	24	QPSK	1.4MHz	3	0
22.71	22.98	22.66	24	QPSK	1.4MHz	3	1
22.63	23.01	22.68	24	QPSK	1.4MHz	3	3
21.92	22.03	21.82	23	QPSK	1.4MHz	6	0
21.94	22.11	21.90	23	16QAM	1.4MHz	1	0
21.94	22.13	21.91	23	16QAM	1.4MHz	1	2
21.86	22.13	21.83	23	16QAM	1.4MHz	1	5
21.74	21.85	21.72	23	16QAM	1.4MHz	3	0
21.67	21.85	21.59	23	16QAM	1.4MHz	3	1
21.63	21.83	21.50	23	16QAM	1.4MHz	3	3
20.88	20.98	20.75	22	16QAM	1.4MHz	6	0

Power Reduction

	Uplink Channel	9262	9400	9538	Tune up (dBm)
	Uplink Frequency	1852.4	1880.0	1907.6	
WCDMA II	RMC_12.2Kbps	17.39	17.41	17.37	17.5
	HSDPA_Subtest 1	17.19	17.29	17.23	17.5
	HSDPA_Subtest 2	17.24	17.22	17.27	17.5
	HSDPA_Subtest 3	16.73	16.67	16.72	17
	HSDPA_Subtest 4	16.62	16.59	16.57	17
	HSUPA _Subtest 1	17.05	17.03	16.97	17.5
	HSUPA _Subtest 2	14.99	14.91	14.93	15.5
	HSUPA _Subtest 3	15.6	15.69	15.63	16.5
	HSUPA _Subtest 4	14.72	14.81	14.88	15.5
	HSUPA _Subtest 5	16.78	16.74	16.76	17.5

	Uplink Channel	1312	1413	1513	Tune up (dBm)
	Uplink Frequency	1712.4	1732.6	1752.6	
WCDMA IV	RMC_12.2Kbps	16.39	16.42	16.28	16.5
	HSDPA_Subtest 1	16.28	16.32	16.25	16.5
	HSDPA_Subtest 2	16.24	16.2	16.1	16.5
	HSDPA_Subtest 3	15.63	15.66	15.75	16
	HSDPA_Subtest 4	15.56	15.6	15.64	16
	HSUPA _Subtest 1	16.01	15.94	15.92	16.5
	HSUPA _Subtest 2	13.79	13.87	13.85	14.5
	HSUPA _Subtest 3	14.84	14.75	14.73	15.5
	HSUPA _Subtest 4	13.76	13.82	13.78	14.5
	HSUPA _Subtest 5	15.92	15.9	15.81	16.5

	Uplink Channel	4132	4182	4233	Tune up (dBm)
	Uplink Frequency	826.4	836.4	846.6	
WCDMA V	RMC_12.2Kbps	18.47	19.44	18.28	19.5
	HSDPA_Subtest 1	18.26	19.22	18.35	19.5
	HSDPA_Subtest 2	18.15	19.13	18.23	19.5
	HSDPA_Subtest 3	17.63	18.65	17.55	19
	HSDPA_Subtest 4	17.57	18.54	17.5	19
	HSUPA _Subtest 1	17.91	18.93	17.97	19.5
	HSUPA _Subtest 2	16.01	16.98	16.03	17.5
	HSUPA _Subtest 3	17.02	17.89	17	18.5
	HSUPA _Subtest 4	15.89	16.85	15.83	17.5
	HSUPA _Subtest 5	18.19	18.67	18.11	19.5

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18700	18900	19100	Channel				
1860	1880	1900	Freq. (MHz)				
18.83	18.89	18.86	19	QPSK	20MHz	1	0
18.81	18.86	18.84	19	QPSK	20MHz	1	49
18.73	18.78	18.76	19	QPSK	20MHz	1	99
17.81	17.86	17.84	18	QPSK	20MHz	50	0
17.76	17.81	17.79	18	QPSK	20MHz	50	25
17.74	17.79	17.77	18	QPSK	20MHz	50	50
17.86	17.91	17.89	18	QPSK	20MHz	100	0
17.86	17.91	17.89	18	16QAM	20MHz	1	0
17.84	17.89	17.87	18	16QAM	20MHz	1	49
17.81	17.86	17.84	18	16QAM	20MHz	1	99
16.86	16.91	16.89	17	16QAM	20MHz	50	0
16.85	16.90	16.88	17	16QAM	20MHz	50	25
16.80	16.85	16.83	17	16QAM	20MHz	50	50
16.86	16.91	16.89	17	16QAM	20MHz	100	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18675	18900	19125	Channel				
1857.5	1880	1902.5	Freq. (MHz)				
18.74	18.83	18.80	19	QPSK	15MHz	1	0
18.77	18.76	18.83	19	QPSK	15MHz	1	37
18.63	18.68	18.71	19	QPSK	15MHz	1	74
17.81	17.81	17.77	18	QPSK	15MHz	36	0
17.66	17.78	17.79	18	QPSK	15MHz	36	19
17.72	17.74	17.67	18	QPSK	15MHz	36	39
17.77	17.83	17.86	18	QPSK	15MHz	75	0
17.76	17.84	17.89	18	16QAM	15MHz	1	0
17.81	17.81	17.77	18	16QAM	15MHz	1	37
17.79	17.82	17.82	18	16QAM	15MHz	1	74
16.86	16.88	16.89	17	16QAM	15MHz	36	0
16.84	16.89	16.86	17	16QAM	15MHz	36	19
16.79	16.83	16.83	17	16QAM	15MHz	36	39
16.77	16.82	16.83	17	16QAM	15MHz	75	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18650	18900	19150	Channel				
1855	1880	1905	Freq. (MHz)				
18.64	18.72	18.65	19	QPSK	10MHz	1	0
18.57	18.67	18.69	19	QPSK	10MHz	1	24
18.61	18.61	18.52	19	QPSK	10MHz	1	49
17.61	17.71	17.61	18	QPSK	10MHz	25	0
17.54	17.60	17.60	18	QPSK	10MHz	25	12
17.61	17.78	17.73	18	QPSK	10MHz	25	25
17.77	17.76	17.75	18	QPSK	10MHz	50	0
17.78	17.76	17.82	18	16QAM	10MHz	1	0
17.59	17.80	17.79	18	16QAM	10MHz	1	24
17.69	17.64	17.73	18	16QAM	10MHz	1	49
16.74	16.73	16.78	17	16QAM	10MHz	25	0
16.78	16.77	16.70	17	16QAM	10MHz	25	12
16.57	16.69	16.83	17	16QAM	10MHz	25	25
16.77	16.88	16.73	17	16QAM	10MHz	50	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18625	18900	19175	Channel				
1852.5	1880	1907.5	Freq. (MHz)				
18.67	18.82	18.77	19	QPSK	5MHz	1	0
18.60	18.78	18.62	19	QPSK	5MHz	1	12
18.56	18.60	18.62	19	QPSK	5MHz	1	24
17.68	17.63	17.60	18	QPSK	5MHz	12	0
17.71	17.63	17.72	18	QPSK	5MHz	12	6
17.69	17.63	17.54	18	QPSK	5MHz	12	13
17.70	17.80	17.77	18	QPSK	5MHz	25	0
17.77	17.83	17.75	18	16QAM	5MHz	1	0
17.77	17.81	17.67	18	16QAM	5MHz	1	12
17.75	17.69	17.65	18	16QAM	5MHz	1	24
16.66	16.77	16.75	17	16QAM	5MHz	12	0
16.80	16.72	16.80	17	16QAM	5MHz	12	6
16.70	16.69	16.68	17	16QAM	5MHz	12	13
16.70	16.89	16.74	17	16QAM	5MHz	25	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18615	18900	19185	Channel				
1851.5	1880	1908.5	Freq. (MHz)				
18.66	18.85	18.83	19	QPSK	3MHz	1	0
18.78	18.81	18.64	19	QPSK	3MHz	1	7
18.49	18.64	18.67	19	QPSK	3MHz	1	14
17.60	17.84	17.72	18	QPSK	3MHz	8	0
17.66	17.59	17.66	18	QPSK	3MHz	8	3
17.61	17.68	17.61	18	QPSK	3MHz	8	7
17.74	17.82	17.82	18	QPSK	3MHz	15	0
17.73	17.76	17.65	18	16QAM	3MHz	1	0
17.70	17.79	17.67	18	16QAM	3MHz	1	7
17.70	17.63	17.74	18	16QAM	3MHz	1	14
16.67	16.68	16.69	17	16QAM	3MHz	8	0
16.65	16.86	16.73	17	16QAM	3MHz	8	3
16.71	16.80	16.73	17	16QAM	3MHz	8	7
16.83	16.74	16.70	17	16QAM	3MHz	15	0

LTE Band 2							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
18607	18900	19193	Channel				
1850.7	1880	1909.3	Freq. (MHz)				
18.67	18.79	18.74	19	QPSK	1.4MHz	1	0
18.61	18.64	18.73	19	QPSK	1.4MHz	1	2
18.63	18.58	18.60	19	QPSK	1.4MHz	1	5
18.66	18.75	18.75	19	QPSK	1.4MHz	3	0
18.71	18.74	18.69	19	QPSK	1.4MHz	3	1
18.61	18.64	18.52	19	QPSK	1.4MHz	3	3
17.70	17.82	17.73	18	QPSK	1.4MHz	6	0
17.82	17.82	17.76	18	16QAM	1.4MHz	1	0
17.65	17.67	17.76	18	16QAM	1.4MHz	1	2
17.66	17.73	17.65	18	16QAM	1.4MHz	1	5
17.74	17.69	17.82	18	16QAM	1.4MHz	3	0
17.72	17.81	17.73	18	16QAM	1.4MHz	3	1
17.73	17.71	17.77	18	16QAM	1.4MHz	3	3
16.71	16.70	16.80	17	16QAM	1.4MHz	6	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20050	20175	20300	Channel				
1720	1732.5	1745	Freq. (MHz)				
16.66	16.70	16.64	17.5	QPSK	20MHz	1	0
16.63	16.69	16.56	17.5	QPSK	20MHz	1	49
16.58	16.67	16.51	17.5	QPSK	20MHz	1	99
15.56	15.60	15.44	16.5	QPSK	20MHz	50	0
15.47	15.51	15.35	16.5	QPSK	20MHz	50	25
15.34	15.38	15.22	16.5	QPSK	20MHz	50	50
15.59	15.62	15.47	16.5	QPSK	20MHz	100	0
15.83	15.87	15.71	16.5	16QAM	20MHz	1	0
15.67	15.71	15.56	16.5	16QAM	20MHz	1	49
15.38	15.42	15.26	16.5	16QAM	20MHz	1	99
14.59	14.63	14.47	15.5	16QAM	20MHz	50	0
14.48	14.52	14.36	15.5	16QAM	20MHz	50	25
14.35	14.39	14.24	15.5	16QAM	20MHz	50	50
14.58	14.62	14.46	15.5	16QAM	20MHz	100	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20025	20175	20325	Channel				
1717.5	1732.5	1747.5	Freq. (MHz)				
16.54	16.62	16.46	17.5	QPSK	15MHz	1	0
16.45	16.44	16.34	17.5	QPSK	15MHz	1	37
16.13	16.22	16.06	17.5	QPSK	15MHz	1	74
15.47	15.60	15.44	16.5	QPSK	15MHz	36	0
15.41	15.51	15.25	16.5	QPSK	15MHz	36	19
15.33	15.34	15.22	16.5	QPSK	15MHz	36	39
15.52	15.60	15.40	16.5	QPSK	15MHz	75	0
15.80	15.78	15.66	16.5	16QAM	15MHz	1	0
15.60	15.61	15.56	16.5	16QAM	15MHz	1	37
15.35	15.38	15.17	16.5	16QAM	15MHz	1	74
14.53	14.57	14.38	15.5	16QAM	15MHz	36	0
14.47	14.49	14.27	15.5	16QAM	15MHz	36	19
14.25	14.32	14.22	15.5	16QAM	15MHz	36	39
14.51	14.53	14.42	15.5	16QAM	15MHz	75	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20000	20175	20350	Channel				
1715	1732.5	1750	Freq. (MHz)				
16.50	16.61	16.43	17.5	QPSK	10MHz	1	0
16.36	16.37	16.27	17.5	QPSK	10MHz	1	24
15.99	16.06	15.95	17.5	QPSK	10MHz	1	49
15.39	15.41	15.27	16.5	QPSK	10MHz	25	0
15.44	15.37	15.20	16.5	QPSK	10MHz	25	12
15.12	15.27	15.12	16.5	QPSK	10MHz	25	25
15.50	15.51	15.38	16.5	QPSK	10MHz	50	0
15.69	15.71	15.57	16.5	16QAM	10MHz	1	0
15.62	15.54	15.46	16.5	16QAM	10MHz	1	24
15.34	15.37	15.09	16.5	16QAM	10MHz	1	49
14.41	14.50	14.42	15.5	16QAM	10MHz	25	0
14.45	14.44	14.24	15.5	16QAM	10MHz	25	12
14.18	14.32	14.08	15.5	16QAM	10MHz	25	25
14.38	14.51	14.41	15.5	16QAM	10MHz	50	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
19975	20175	20375	Channel				
1712.5	1732.5	1752.5	Freq. (MHz)				
16.52	16.53	16.42	17.5	QPSK	5MHz	1	0
16.37	16.34	16.19	17.5	QPSK	5MHz	1	12
16.07	16.14	15.88	17.5	QPSK	5MHz	1	24
15.36	15.45	15.27	16.5	QPSK	5MHz	12	0
15.43	15.37	15.17	16.5	QPSK	5MHz	12	6
15.23	15.26	15.08	16.5	QPSK	5MHz	12	13
15.58	15.50	15.32	16.5	QPSK	5MHz	25	0
15.75	15.67	15.67	16.5	16QAM	5MHz	1	0
15.47	15.64	15.41	16.5	16QAM	5MHz	1	12
15.22	15.37	15.26	16.5	16QAM	5MHz	1	24
14.50	14.56	14.33	15.5	16QAM	5MHz	12	0
14.35	14.43	14.22	15.5	16QAM	5MHz	12	6
14.24	14.23	14.02	15.5	16QAM	5MHz	12	13
14.41	14.48	14.35	15.5	16QAM	5MHz	25	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
19965	20175	20385	Channel				
1711.5	1732.5	1753.5	Freq. (MHz)				
16.51	16.52	16.33	17.5	QPSK	3MHz	1	0
16.26	16.41	16.19	17.5	QPSK	3MHz	1	7
16.04	16.17	15.84	17.5	QPSK	3MHz	1	14
15.52	15.49	15.28	16.5	QPSK	3MHz	8	0
15.43	15.38	15.21	16.5	QPSK	3MHz	8	3
15.24	15.27	15.10	16.5	QPSK	3MHz	8	7
15.42	15.49	15.27	16.5	QPSK	3MHz	15	0
15.69	15.82	15.57	16.5	16QAM	3MHz	1	0
15.59	15.62	15.43	16.5	16QAM	3MHz	1	7
15.31	15.29	15.04	16.5	16QAM	3MHz	1	14
14.53	14.58	14.33	15.5	16QAM	3MHz	8	0
14.36	14.37	14.30	15.5	16QAM	3MHz	8	3
14.26	14.34	14.09	15.5	16QAM	3MHz	8	7
14.39	14.60	14.28	15.5	16QAM	3MHz	15	0

LTE Band 4							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
19957	20175	20393	Channel				
1710.7	1732.5	1754.3	Freq. (MHz)				
16.61	16.62	16.46	17.5	QPSK	1.4MHz	1	0
16.32	16.37	16.15	17.5	QPSK	1.4MHz	1	2
16.17	16.11	15.94	17.5	QPSK	1.4MHz	1	5
16.42	16.52	16.23	17.5	QPSK	1.4MHz	3	0
16.36	16.45	16.10	17.5	QPSK	1.4MHz	3	1
16.12	16.33	16.06	17.5	QPSK	1.4MHz	3	3
15.41	15.55	15.38	16.5	QPSK	1.4MHz	6	0
15.80	15.71	15.66	16.5	16QAM	1.4MHz	1	0
15.56	15.64	15.36	16.5	16QAM	1.4MHz	1	2
15.29	15.28	15.08	16.5	16QAM	1.4MHz	1	5
15.39	15.45	15.25	16.5	16QAM	1.4MHz	3	0
15.35	15.46	15.19	16.5	16QAM	1.4MHz	3	1
15.16	15.32	15.11	16.5	16QAM	1.4MHz	3	3
14.41	14.49	14.28	15.5	16QAM	1.4MHz	6	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20450	20525	20600	Channel				
829	836.5	844	Freq. (MHz)				
18.85	18.88	18.70	19.5	QPSK	10MHz	1	0
18.59	18.64	18.34	19.5	QPSK	10MHz	1	24
18.58	18.63	18.33	19.5	QPSK	10MHz	1	49
17.69	17.74	17.44	18.5	QPSK	10MHz	25	0
17.52	17.57	17.27	18.5	QPSK	10MHz	25	12
17.50	17.55	17.25	18.5	QPSK	10MHz	25	25
17.55	17.60	17.30	18.5	QPSK	10MHz	50	0
18.15	18.20	17.90	18.5	16QAM	10MHz	1	0
17.81	17.86	17.56	18.5	16QAM	10MHz	1	24
17.79	17.84	17.54	18.5	16QAM	10MHz	1	49
16.82	16.87	16.57	17.5	16QAM	10MHz	25	0
16.67	16.72	16.42	17.5	16QAM	10MHz	25	12
16.65	16.70	16.40	17.5	16QAM	10MHz	25	25
16.59	16.64	16.34	17.5	16QAM	10MHz	50	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20425	20525	20625	Channel				
826.5	836.5	846.5	Freq. (MHz)				
18.62	18.69	18.49	19.5	QPSK	5MHz	1	0
18.54	18.44	18.13	19.5	QPSK	5MHz	1	12
18.47	18.57	18.10	19.5	QPSK	5MHz	1	24
17.59	17.73	17.24	18.5	QPSK	5MHz	12	0
17.36	17.51	17.15	18.5	QPSK	5MHz	12	6
17.36	17.38	17.03	18.5	QPSK	5MHz	12	13
17.36	17.42	17.05	18.5	QPSK	5MHz	25	0
18.05	18.05	17.77	18.5	16QAM	5MHz	1	0
17.67	17.77	17.47	18.5	16QAM	5MHz	1	12
17.76	17.76	17.50	18.5	16QAM	5MHz	1	24
16.71	16.84	16.47	17.5	16QAM	5MHz	12	0
16.60	16.66	16.24	17.5	16QAM	5MHz	12	6
16.41	16.51	16.18	17.5	16QAM	5MHz	12	13
16.50	16.54	16.19	17.5	16QAM	5MHz	25	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20415	20525	20635	Channel				
825.5	836.5	847.5	Freq. (MHz)				
18.76	18.81	18.68	19.5	QPSK	3MHz	1	0
18.43	18.56	18.17	19.5	QPSK	3MHz	1	7
18.46	18.44	18.21	19.5	QPSK	3MHz	1	14
17.64	17.53	17.31	18.5	QPSK	3MHz	8	0
17.32	17.51	17.14	18.5	QPSK	3MHz	8	3
17.37	17.44	17.03	18.5	QPSK	3MHz	8	7
17.43	17.54	17.18	18.5	QPSK	3MHz	15	0
18.13	18.07	17.78	18.5	16QAM	3MHz	1	0
17.61	17.77	17.47	18.5	16QAM	3MHz	1	7
17.65	17.65	17.38	18.5	16QAM	3MHz	1	14
16.68	16.66	16.49	17.5	16QAM	3MHz	8	0
16.55	16.61	16.33	17.5	16QAM	3MHz	8	3
16.53	16.61	16.22	17.5	16QAM	3MHz	8	7
16.56	16.58	16.21	17.5	16QAM	3MHz	15	0

LTE Band 5							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20407	20525	20643	Channel				
824.7	836.5	848.3	Freq. (MHz)				
18.63	18.70	18.57	19.5	QPSK	1.4MHz	1	0
18.55	18.59	18.14	19.5	QPSK	1.4MHz	1	2
18.40	18.45	18.16	19.5	QPSK	1.4MHz	1	5
18.57	18.61	18.33	19.5	QPSK	1.4MHz	3	0
18.45	18.50	18.18	19.5	QPSK	1.4MHz	3	1
18.39	18.47	18.15	19.5	QPSK	1.4MHz	3	3
17.45	17.38	17.28	18.5	QPSK	1.4MHz	6	0
18.04	18.12	17.76	18.5	16QAM	1.4MHz	1	0
17.67	17.64	17.41	18.5	16QAM	1.4MHz	1	2
17.72	17.82	17.42	18.5	16QAM	1.4MHz	1	5
17.66	17.71	17.44	18.5	16QAM	1.4MHz	3	0
17.54	17.65	17.33	18.5	16QAM	1.4MHz	3	1
17.59	17.61	17.28	18.5	16QAM	1.4MHz	3	3
16.50	16.52	16.24	17.5	16QAM	1.4MHz	6	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20850	21100	21350	Channel				
2510	2535	2560	Freq. (MHz)				
14.84	15.06	14.94	15.5	QPSK	20MHz	1	0
14.71	14.94	14.81	15.5	QPSK	20MHz	1	49
14.64	14.87	14.74	15.5	QPSK	20MHz	1	99
13.92	14.15	14.02	14.5	QPSK	20MHz	50	0
13.72	13.95	13.82	14.5	QPSK	20MHz	50	25
13.66	13.89	13.76	14.5	QPSK	20MHz	50	50
14.13	14.36	14.23	14.5	QPSK	20MHz	100	0
14.00	14.07	14.06	14.5	16QAM	20MHz	1	0
13.93	14.16	14.03	14.5	16QAM	20MHz	1	49
13.79	14.02	13.89	14.5	16QAM	20MHz	1	99
12.95	13.18	13.05	13.5	16QAM	20MHz	50	0
12.87	13.10	12.97	13.5	16QAM	20MHz	50	25
12.83	13.06	12.93	13.5	16QAM	20MHz	50	50
13.12	13.35	13.22	13.5	16QAM	20MHz	100	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20825	21100	21375	Channel				
2507.5	2535	2562.5	Freq. (MHz)				
14.79	14.99	14.92	15.5	QPSK	15MHz	1	0
14.62	14.88	14.80	15.5	QPSK	15MHz	1	37
14.57	14.84	14.66	15.5	QPSK	15MHz	1	74
13.84	14.08	13.93	14.5	QPSK	15MHz	36	0
13.63	13.90	13.75	14.5	QPSK	15MHz	36	19
13.63	13.86	13.67	14.5	QPSK	15MHz	36	39
14.13	14.31	14.22	14.5	QPSK	15MHz	75	0
13.97	14.05	13.96	14.5	16QAM	15MHz	1	0
13.88	14.08	13.97	14.5	16QAM	15MHz	1	37
13.79	14.01	13.89	14.5	16QAM	15MHz	1	74
12.92	13.12	13.03	13.5	16QAM	15MHz	36	0
12.82	13.07	12.96	13.5	16QAM	15MHz	36	19
12.81	12.96	12.91	13.5	16QAM	15MHz	36	39
13.02	13.25	13.14	13.5	16QAM	15MHz	75	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20800	21100	21400	Channel				
2505	2535	2565	Freq. (MHz)				
14.70	14.94	14.87	15.5	QPSK	10MHz	1	0
14.54	14.85	14.63	15.5	QPSK	10MHz	1	24
14.49	14.85	14.49	15.5	QPSK	10MHz	1	49
13.69	14.10	13.90	14.5	QPSK	10MHz	25	0
13.58	13.82	13.64	14.5	QPSK	10MHz	25	12
13.52	13.82	13.55	14.5	QPSK	10MHz	25	25
14.04	14.26	14.21	14.5	QPSK	10MHz	50	0
13.78	13.91	13.85	14.5	16QAM	10MHz	1	0
13.80	13.99	13.89	14.5	16QAM	10MHz	1	24
13.59	13.85	13.77	14.5	16QAM	10MHz	1	49
12.86	13.06	12.95	13.5	16QAM	10MHz	25	0
12.76	12.95	12.84	13.5	16QAM	10MHz	25	12
12.77	12.95	12.80	13.5	16QAM	10MHz	25	25
12.96	13.29	13.14	13.5	16QAM	10MHz	50	0

LTE Band 7							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20775	21100	21425	Channel				
2502.5	2535	2567.5	Freq. (MHz)				
14.62	14.92	14.87	15.5	QPSK	5MHz	1	0
14.58	14.90	14.77	15.5	QPSK	5MHz	1	12
14.48	14.78	14.63	15.5	QPSK	5MHz	1	24
13.73	14.04	13.86	14.5	QPSK	5MHz	12	0
13.60	13.84	13.51	14.5	QPSK	5MHz	12	6
13.46	13.68	13.58	14.5	QPSK	5MHz	12	13
14.01	14.23	14.01	14.5	QPSK	5MHz	25	0
13.78	13.96	13.90	14.5	16QAM	5MHz	1	0
13.81	14.01	13.89	14.5	16QAM	5MHz	1	12
13.63	13.90	13.67	14.5	16QAM	5MHz	1	24
12.83	12.95	12.85	13.5	16QAM	5MHz	12	0
12.72	12.93	12.84	13.5	16QAM	5MHz	12	6
12.66	13.01	12.78	13.5	16QAM	5MHz	12	13
12.94	13.29	13.07	13.5	16QAM	5MHz	25	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23060	23095	23130	Channel				
704	707.5	711	Freq. (MHz)				
21.17	21.34	21.12	22	QPSK	10MHz	1	0
21.19	21.16	21.14	22	QPSK	10MHz	1	24
21.30	21.14	21.32	22	QPSK	10MHz	1	49
20.19	20.20	20.14	21	QPSK	10MHz	25	0
20.23	20.20	20.18	21	QPSK	10MHz	25	12
20.46	20.43	20.41	21	QPSK	10MHz	25	25
20.24	20.27	20.22	21	QPSK	10MHz	50	0
20.39	20.40	20.38	21	16QAM	10MHz	1	0
20.42	20.38	20.41	21	16QAM	10MHz	1	24
20.57	20.54	20.52	21	16QAM	10MHz	1	49
19.27	19.24	19.22	20	16QAM	10MHz	25	0
19.28	19.25	19.23	20	16QAM	10MHz	25	12
19.42	19.39	19.37	20	16QAM	10MHz	25	25
19.32	19.29	19.27	20	16QAM	10MHz	50	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23035	23095	23155	Channel				
701.5	707.5	713.5	Freq. (MHz)				
21.08	21.26	20.95	22	QPSK	5MHz	1	0
21.14	21.00	20.89	22	QPSK	5MHz	1	12
21.21	20.95	21.14	22	QPSK	5MHz	1	24
20.11	20.17	19.91	21	QPSK	5MHz	12	0
20.15	20.13	19.97	21	QPSK	5MHz	12	6
20.27	20.38	20.10	21	QPSK	5MHz	12	13
20.18	20.17	20.06	21	QPSK	5MHz	25	0
20.38	20.27	20.32	21	16QAM	5MHz	1	0
20.34	20.34	20.26	21	16QAM	5MHz	1	12
20.38	20.42	20.33	21	16QAM	5MHz	1	24
19.19	19.05	19.15	20	16QAM	5MHz	12	0
19.12	19.14	19.05	20	16QAM	5MHz	12	6
19.35	19.26	19.28	20	16QAM	5MHz	12	13
19.16	19.13	19.13	20	16QAM	5MHz	25	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23025	23095	23165	Channel				
700.5	707.5	714.5	Freq. (MHz)				
20.99	21.26	20.90	22	QPSK	3MHz	1	0
21.08	21.05	20.98	22	QPSK	3MHz	1	7
21.14	20.99	21.24	22	QPSK	3MHz	1	14
19.98	20.02	19.91	21	QPSK	3MHz	8	0
19.99	20.00	20.07	21	QPSK	3MHz	8	3
20.34	20.24	20.18	21	QPSK	3MHz	8	7
20.10	20.12	20.13	21	QPSK	3MHz	15	0
20.28	20.21	20.22	21	16QAM	3MHz	1	0
20.27	20.21	20.35	21	16QAM	3MHz	1	7
20.38	20.47	20.45	21	16QAM	3MHz	1	14
19.15	19.14	19.06	20	16QAM	3MHz	8	0
19.19	19.16	19.18	20	16QAM	3MHz	8	3
19.18	19.25	19.26	20	16QAM	3MHz	8	7
19.21	19.26	19.12	20	16QAM	3MHz	15	0

LTE Band 12							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23017	23095	23173	Channel				
699.7	707.5	715.3	Freq. (MHz)				
21.10	21.32	21.00	22	QPSK	1.4MHz	1	0
21.02	21.00	21.09	22	QPSK	1.4MHz	1	2
21.10	21.01	21.08	22	QPSK	1.4MHz	1	5
21.01	21.06	20.97	22	QPSK	1.4MHz	3	0
21.09	21.13	21.14	22	QPSK	1.4MHz	3	1
21.28	21.31	21.24	22	QPSK	1.4MHz	3	3
20.10	20.16	20.14	21	QPSK	1.4MHz	6	0
20.37	20.32	20.26	21	16QAM	1.4MHz	1	0
20.37	20.24	20.31	21	16QAM	1.4MHz	1	2
20.49	20.33	20.46	21	16QAM	1.4MHz	1	5
20.13	20.07	20.21	21	16QAM	1.4MHz	3	0
20.12	20.21	20.12	21	16QAM	1.4MHz	3	1
20.20	20.28	20.20	21	16QAM	1.4MHz	3	3
19.21	19.19	19.17	20	16QAM	1.4MHz	6	0

LTE Band 13					
Maximum Average Power (dBm)	Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23230	Channel				
782	Freq. (MHz)				
20.18	20.5	QPSK	10MHz	1	0
20.11	20.5	QPSK	10MHz	1	24
20.10	20.5	QPSK	10MHz	1	49
19.12	19.5	QPSK	10MHz	25	0
19.06	19.5	QPSK	10MHz	25	12
19.05	19.5	QPSK	10MHz	25	25
19.04	19.5	QPSK	10MHz	50	0
19.28	19.5	16QAM	10MHz	1	0
19.20	19.5	16QAM	10MHz	1	24
19.19	19.5	16QAM	10MHz	1	49
18.16	18.5	16QAM	10MHz	25	0
18.11	18.5	16QAM	10MHz	25	12
18.10	18.5	16QAM	10MHz	25	25
18.03	18.5	16QAM	10MHz	50	0

LTE Band 13							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23205	23230	23255	Channel				
779.5	782	784.5	Freq. (MHz)				
19.83	19.99	19.78	20.5	QPSK	5MHz	1	0
19.83	19.91	19.74	20.5	QPSK	5MHz	1	12
19.87	19.82	19.95	20.5	QPSK	5MHz	1	24
19.02	18.86	18.90	19.5	QPSK	5MHz	12	0
18.82	18.84	18.83	19.5	QPSK	5MHz	12	6
18.88	18.85	18.63	19.5	QPSK	5MHz	12	13
18.81	18.70	18.75	19.5	QPSK	5MHz	25	0
18.95	19.10	19.01	19.5	16QAM	5MHz	1	0
19.07	19.12	18.87	19.5	16QAM	5MHz	1	12
18.90	18.94	19.14	19.5	16QAM	5MHz	1	24
18.01	17.94	17.89	18.5	16QAM	5MHz	12	0
17.70	17.93	17.94	18.5	16QAM	5MHz	12	6
17.78	17.90	17.78	18.5	16QAM	5MHz	12	13
17.78	17.73	17.93	18.5	16QAM	5MHz	25	0

LTE Band 17							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23780	23790	23800	Channel				
709	710	711	Freq. (MHz)				
21.18	21.22	21.16	21.5	QPSK	10MHz	1	0
21.13	21.17	21.11	21.5	QPSK	10MHz	1	24
21.12	21.16	21.10	21.5	QPSK	10MHz	1	49
20.24	20.28	20.22	20.5	QPSK	10MHz	25	0
20.21	20.25	20.19	20.5	QPSK	10MHz	25	12
20.18	20.22	20.16	20.5	QPSK	10MHz	25	25
20.16	20.20	20.14	20.5	QPSK	10MHz	50	0
20.41	20.45	20.39	20.5	16QAM	10MHz	1	0
20.39	20.43	20.37	20.5	16QAM	10MHz	1	24
20.38	20.42	20.36	20.5	16QAM	10MHz	1	49
19.28	19.32	19.26	19.5	16QAM	10MHz	25	0
19.21	19.25	19.19	19.5	16QAM	10MHz	25	12
19.16	19.20	19.14	19.5	16QAM	10MHz	25	25
19.11	19.15	19.09	19.5	16QAM	10MHz	50	0

LTE Band 17							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23755	23790	23825	Channel				
706.5	710	713.5	Freq. (MHz)				
20.99	21.09	21.01	21.5	QPSK	5MHz	1	0
21.02	21.05	20.81	21.5	QPSK	5MHz	1	12
20.93	20.98	21.01	21.5	QPSK	5MHz	1	24
20.01	20.09	20.02	20.5	QPSK	5MHz	12	0
20.09	20.13	19.99	20.5	QPSK	5MHz	12	6
20.13	20.18	20.16	20.5	QPSK	5MHz	12	13
19.98	20.09	20.06	20.5	QPSK	5MHz	25	0
20.22	20.39	20.32	20.5	16QAM	5MHz	1	0
20.31	20.33	20.31	20.5	16QAM	5MHz	1	12
20.33	20.30	20.23	20.5	16QAM	5MHz	1	24
19.10	19.21	19.10	19.5	16QAM	5MHz	12	0
19.15	19.04	19.16	19.5	16QAM	5MHz	12	6
19.08	18.96	19.06	19.5	16QAM	5MHz	12	13
18.92	19.10	18.93	19.5	16QAM	5MHz	25	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26765	26865	26965	Channel				
821.5	831.5	841.5	Freq. (MHz)				
19.26	19.49	19.19	20	QPSK	15MHz	1	0
19.40	19.47	19.33	20	QPSK	15MHz	1	37
19.31	19.38	19.24	20	QPSK	15MHz	1	74
18.28	18.35	18.21	19	QPSK	15MHz	36	0
18.35	18.41	18.28	19	QPSK	15MHz	36	19
18.31	18.37	18.24	19	QPSK	15MHz	36	39
18.24	18.31	18.17	19	QPSK	15MHz	75	0
18.43	18.50	18.37	19	16QAM	15MHz	1	0
18.52	18.59	18.45	19	16QAM	15MHz	1	37
18.47	18.54	18.40	19	16QAM	15MHz	1	74
17.40	17.47	17.33	18	16QAM	15MHz	36	0
17.48	17.55	17.41	18	16QAM	15MHz	36	19
17.45	17.52	17.38	18	16QAM	15MHz	36	39
17.57	17.63	17.50	18	16QAM	15MHz	75	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26740	26865	26990	Channel				
819	831.5	844	Freq. (MHz)				
19.09	19.42	19.01	20	QPSK	10MHz	1	0
19.16	19.38	19.13	20	QPSK	10MHz	1	24
19.27	19.27	19.11	20	QPSK	10MHz	1	49
18.13	18.26	18.06	19	QPSK	10MHz	25	0
18.30	18.35	18.11	19	QPSK	10MHz	25	12
18.29	18.29	18.16	19	QPSK	10MHz	25	25
18.11	18.20	18.06	19	QPSK	10MHz	50	0
18.31	18.34	18.28	19	16QAM	10MHz	1	0
18.42	18.40	18.33	19	16QAM	10MHz	1	24
18.30	18.42	18.27	19	16QAM	10MHz	1	49
17.30	17.42	17.13	18	16QAM	10MHz	25	0
17.40	17.54	17.38	18	16QAM	10MHz	25	12
17.38	17.35	17.28	18	16QAM	10MHz	25	25
17.42	17.54	17.29	18	16QAM	10MHz	50	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26715	26865	27015	Channel				
816.5	831.5	846.5	Freq. (MHz)				
19.02	19.38	19.03	20	QPSK	5MHz	1	0
19.22	19.36	19.04	20	QPSK	5MHz	1	12
19.17	19.24	19.08	20	QPSK	5MHz	1	24
18.04	18.19	17.93	19	QPSK	5MHz	12	0
18.30	18.24	18.03	19	QPSK	5MHz	12	6
18.22	18.36	18.10	19	QPSK	5MHz	12	13
18.13	18.12	18.14	19	QPSK	5MHz	25	0
18.26	18.27	18.24	19	16QAM	5MHz	1	0
18.35	18.43	18.35	19	16QAM	5MHz	1	12
18.35	18.45	18.36	19	16QAM	5MHz	1	24
17.26	17.32	17.18	18	16QAM	5MHz	12	0
17.34	17.40	17.28	18	16QAM	5MHz	12	6
17.29	17.38	17.25	18	16QAM	5MHz	12	13
17.44	17.49	17.39	18	16QAM	5MHz	25	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26705	26865	27025	Channel				
815.5	831.5	847.5	Freq. (MHz)				
19.08	19.32	19.06	20	QPSK	3MHz	1	0
19.31	19.24	19.17	20	QPSK	3MHz	1	7
19.27	19.26	19.13	20	QPSK	3MHz	1	14
18.10	18.18	18.03	19	QPSK	3MHz	8	0
18.25	18.33	18.19	19	QPSK	3MHz	8	3
18.22	18.17	18.07	19	QPSK	3MHz	8	7
18.10	18.18	17.98	19	QPSK	3MHz	15	0
18.26	18.44	18.23	19	16QAM	3MHz	1	0
18.41	18.49	18.36	19	16QAM	3MHz	1	7
18.40	18.42	18.27	19	16QAM	3MHz	1	14
17.24	17.41	17.27	18	16QAM	3MHz	8	0
17.41	17.44	17.30	18	16QAM	3MHz	8	3
17.34	17.30	17.21	18	16QAM	3MHz	8	7
17.42	17.53	17.39	18	16QAM	3MHz	15	0

LTE Band 26							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
26697	26865	27033	Channel				
814.7	831.5	848.3	Freq. (MHz)				
19.12	19.35	19.08	20	QPSK	1.4MHz	1	0
19.17	19.30	19.16	20	QPSK	1.4MHz	1	2
19.26	19.18	18.99	20	QPSK	1.4MHz	1	5
19.12	19.28	19.10	20	QPSK	1.4MHz	3	0
19.23	19.16	19.14	20	QPSK	1.4MHz	3	1
19.21	19.28	19.04	20	QPSK	1.4MHz	3	3
18.20	18.22	18.04	19	QPSK	1.4MHz	6	0
18.33	18.41	18.31	19	16QAM	1.4MHz	1	0
18.38	18.43	18.40	19	16QAM	1.4MHz	1	2
18.30	18.48	18.31	19	16QAM	1.4MHz	1	5
18.22	18.35	18.25	19	16QAM	1.4MHz	3	0
18.43	18.36	18.37	19	16QAM	1.4MHz	3	1
18.37	18.30	18.34	19	16QAM	1.4MHz	3	3
17.53	17.49	17.29	18	16QAM	1.4MHz	6	0

LTE Band 30					
Maximum Average Power (dBm)	Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
27710	Channel				
2310	Freq. (MHz)				
19.78	20	QPSK	10MHz	1	0
19.59	20	QPSK	10MHz	1	24
19.64	20	QPSK	10MHz	1	49
18.75	19	QPSK	10MHz	25	0
18.66	19	QPSK	10MHz	25	12
18.71	19	QPSK	10MHz	25	25
18.64	19	QPSK	10MHz	50	0
18.85	19	16QAM	10MHz	1	0
18.80	19	16QAM	10MHz	1	24
18.82	19	16QAM	10MHz	1	49
17.64	18	16QAM	10MHz	25	0
17.58	18	16QAM	10MHz	25	12
17.62	18	16QAM	10MHz	25	25
17.65	18	16QAM	10MHz	50	0

LTE Band 30							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
27685	27710	27735	Channel				
2307.5	2310	2312.5	Freq. (MHz)				
19.71	19.73	19.54	20	QPSK	5MHz	1	0
19.42	19.48	19.42	20	QPSK	5MHz	1	12
19.65	19.51	19.38	20	QPSK	5MHz	1	24
18.66	18.71	18.55	19	QPSK	5MHz	12	0
18.65	18.54	18.57	19	QPSK	5MHz	12	6
18.60	18.67	18.64	19	QPSK	5MHz	12	13
18.59	18.62	18.56	19	QPSK	5MHz	25	0
18.85	18.76	18.87	19	16QAM	5MHz	1	0
18.80	18.78	18.72	19	16QAM	5MHz	1	12
18.85	18.83	18.77	19	16QAM	5MHz	1	24
17.55	17.58	17.59	18	16QAM	5MHz	12	0
17.56	17.63	17.59	18	16QAM	5MHz	12	6
17.45	17.64	17.60	18	16QAM	5MHz	12	13
17.60	17.70	17.57	18	16QAM	5MHz	25	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37850	38000	38150	Channel				
2580	2595	2610	Freq. (MHz)				
16.51	16.63	16.49	17	QPSK	20MHz	1	0
16.55	16.57	16.53	17	QPSK	20MHz	1	49
16.61	16.53	16.59	17	QPSK	20MHz	1	99
15.43	15.45	15.41	16	QPSK	20MHz	50	0
15.44	15.46	15.42	16	QPSK	20MHz	50	25
15.46	15.48	15.44	16	QPSK	20MHz	50	50
15.39	15.41	15.37	16	QPSK	20MHz	100	0
15.54	15.56	15.52	16	16QAM	20MHz	1	0
15.56	15.58	15.54	16	16QAM	20MHz	1	49
15.59	15.61	15.57	16	16QAM	20MHz	1	99
14.43	14.45	14.41	15	16QAM	20MHz	50	0
14.45	14.47	14.43	15	16QAM	20MHz	50	25
14.46	14.48	14.44	15	16QAM	20MHz	50	50
14.47	14.49	14.45	15	16QAM	20MHz	100	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37825	38000	38175	Channel				
2577.5	2595	2612.5	Freq. (MHz)				
16.49	16.57	16.44	17	QPSK	15MHz	1	0
16.45	16.56	16.51	17	QPSK	15MHz	1	37
16.51	16.43	16.52	17	QPSK	15MHz	1	74
15.40	15.41	15.35	16	QPSK	15MHz	36	0
15.38	15.40	15.37	16	QPSK	15MHz	36	19
15.40	15.47	15.35	16	QPSK	15MHz	36	39
15.35	15.38	15.35	16	QPSK	15MHz	75	0
15.49	15.50	15.49	16	16QAM	15MHz	1	0
15.46	15.48	15.47	16	16QAM	15MHz	1	37
15.52	15.55	15.57	16	16QAM	15MHz	1	74
14.43	14.39	14.38	15	16QAM	15MHz	36	0
14.37	14.39	14.34	15	16QAM	15MHz	36	19
14.46	14.47	14.41	15	16QAM	15MHz	36	39
14.47	14.43	14.38	15	16QAM	15MHz	75	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37800	38000	38200	Channel				
2575	2595	2615	Freq. (MHz)				
16.29	16.49	16.38	17	QPSK	10MHz	1	0
16.43	16.46	16.37	17	QPSK	10MHz	1	24
16.43	16.36	16.43	17	QPSK	10MHz	1	49
15.37	15.29	15.29	16	QPSK	10MHz	25	0
15.40	15.30	15.18	16	QPSK	10MHz	25	12
15.32	15.46	15.43	16	QPSK	10MHz	25	25
15.25	15.20	15.21	16	QPSK	10MHz	50	0
15.39	15.44	15.32	16	16QAM	10MHz	1	0
15.43	15.39	15.45	16	16QAM	10MHz	1	24
15.37	15.57	15.38	16	16QAM	10MHz	1	49
14.34	14.36	14.38	15	16QAM	10MHz	25	0
14.27	14.33	14.24	15	16QAM	10MHz	25	12
14.24	14.45	14.38	15	16QAM	10MHz	25	25
14.32	14.47	14.30	15	16QAM	10MHz	50	0

LTE Band 38							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
37775	38000	38225	Channel				
2572.5	2595	2617.5	Freq. (MHz)				
16.40	16.44	16.30	17	QPSK	5MHz	1	0
16.30	16.39	16.20	17	QPSK	5MHz	1	12
16.43	16.35	16.42	17	QPSK	5MHz	1	24
15.27	15.32	15.24	16	QPSK	5MHz	12	0
15.42	15.22	15.23	16	QPSK	5MHz	12	6
15.24	15.32	15.15	16	QPSK	5MHz	12	13
15.26	15.24	15.22	16	QPSK	5MHz	25	0
15.35	15.40	15.31	16	16QAM	5MHz	1	0
15.49	15.34	15.42	16	16QAM	5MHz	1	12
15.45	15.48	15.47	16	16QAM	5MHz	1	24
14.31	14.31	14.31	15	16QAM	5MHz	12	0
14.29	14.26	14.25	15	16QAM	5MHz	12	6
14.29	14.30	14.35	15	16QAM	5MHz	12	13
14.40	14.38	14.25	15	16QAM	5MHz	25	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39750	40185	40620	41055	41490	Channel				
2506	2549.5	2593	2636.5	2680	Freq. (MHz)				
16.70	16.71	16.76	16.68	16.67	17	QPSK	20MHz	1	0
15.65	15.66	15.71	15.63	15.74	17	QPSK	20MHz	1	49
15.64	15.65	15.70	15.62	15.73	17	QPSK	20MHz	1	99
15.68	15.69	15.74	15.66	15.73	16	QPSK	20MHz	50	0
15.62	15.63	15.68	15.60	15.71	16	QPSK	20MHz	50	25
15.60	15.61	15.66	15.58	15.69	16	QPSK	20MHz	50	50
15.59	15.60	15.65	15.57	15.64	16	QPSK	20MHz	100	0
15.62	15.63	15.68	15.60	15.71	16	16QAM	20MHz	1	0
15.57	15.58	15.63	15.55	15.66	16	16QAM	20MHz	1	49
15.54	15.55	15.60	15.52	15.63	16	16QAM	20MHz	1	99
14.41	14.42	14.47	14.39	14.50	15	16QAM	20MHz	50	0
14.37	14.38	14.43	14.35	14.46	15	16QAM	20MHz	50	25
14.35	14.36	14.41	14.33	14.44	15	16QAM	20MHz	50	50
14.33	14.34	14.39	14.31	14.42	15	16QAM	20MHz	100	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39725	40173	40620	41068	41515	Channel				
2503.5	2548.3	2593	2637.8	2682.5	Freq. (MHz)				
16.64	16.63	16.74	16.66	16.65	17	QPSK	15MHz	1	0
15.60	15.60	15.65	15.61	15.65	17	QPSK	15MHz	1	37
15.59	15.60	15.60	15.59	15.68	17	QPSK	15MHz	1	74
15.63	15.60	15.64	15.59	15.67	16	QPSK	15MHz	36	0
15.59	15.60	15.59	15.53	15.64	16	QPSK	15MHz	36	19
15.58	15.55	15.61	15.48	15.66	16	QPSK	15MHz	36	39
15.56	15.60	15.63	15.56	15.56	16	QPSK	15MHz	75	0
15.54	15.61	15.63	15.58	15.60	16	16QAM	15MHz	1	0
15.50	15.56	15.62	15.46	14.69	16	16QAM	15MHz	1	37
15.47	15.52	15.50	15.52	14.71	16	16QAM	15MHz	1	74
14.36	14.40	14.42	14.33	14.71	15	16QAM	15MHz	36	0
14.37	14.32	14.40	14.29	14.65	15	16QAM	15MHz	36	19
14.29	14.34	14.32	14.30	14.64	15	16QAM	15MHz	36	39
14.23	14.27	14.29	14.29	14.62	15	16QAM	15MHz	75	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39700	40160	40620	41080	41540	Channel				
2501	2547	2593	2639	2685	Freq. (MHz)				
16.65	16.51	16.67	16.49	16.61	17	QPSK	10MHz	1	0
15.57	15.62	15.62	15.49	15.61	17	QPSK	10MHz	1	24
15.54	15.58	15.55	15.57	15.54	17	QPSK	10MHz	1	49
15.57	15.63	15.64	15.55	15.57	16	QPSK	10MHz	25	0
15.49	15.60	15.52	15.51	15.62	16	QPSK	10MHz	25	12
15.54	15.61	15.63	15.43	15.57	16	QPSK	10MHz	25	25
15.52	15.43	15.54	15.48	15.49	16	QPSK	10MHz	50	0
15.66	15.56	15.63	15.51	15.58	16	16QAM	10MHz	1	0
14.57	14.59	14.58	14.49	14.71	16	16QAM	10MHz	1	24
14.51	14.54	14.58	14.57	14.59	16	16QAM	10MHz	1	49
14.58	14.58	14.64	14.49	14.56	15	16QAM	10MHz	25	0
14.54	14.51	14.54	14.48	14.65	15	16QAM	10MHz	25	12
14.49	14.55	14.56	14.44	14.51	15	16QAM	10MHz	25	25
14.49	14.50	14.56	14.48	14.54	15	16QAM	10MHz	50	0

LTE Band 41									
Maximum Average Power (dBm)					Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
39675	40148	40620	41093	41565	Channel				
2498.5	2545.8	2593	2640.3	2687.5	Freq. (MHz)				
16.61	16.64	16.66	16.58	16.54	17	QPSK	5MHz	1	0
15.53	15.51	15.63	15.55	15.64	17	QPSK	5MHz	1	12
15.55	15.56	15.56	15.58	15.57	17	QPSK	5MHz	1	24
15.60	15.68	15.70	15.51	15.59	16	QPSK	5MHz	12	0
15.54	15.47	15.56	15.44	15.55	16	QPSK	5MHz	12	6
15.45	15.51	15.60	15.57	15.58	16	QPSK	5MHz	12	13
15.43	15.45	15.58	15.52	15.53	16	QPSK	5MHz	25	0
15.60	15.62	15.60	15.58	15.60	16	16QAM	5MHz	1	0
14.63	14.56	14.61	14.49	14.66	16	16QAM	5MHz	1	12
14.53	14.56	14.61	14.56	14.58	16	16QAM	5MHz	1	24
14.61	14.67	14.65	14.53	14.62	15	16QAM	5MHz	12	0
14.46	14.55	14.62	14.45	14.65	15	16QAM	5MHz	12	6
14.47	14.54	14.54	14.56	14.63	15	16QAM	5MHz	12	13
14.45	14.42	14.58	14.49	14.49	15	16QAM	5MHz	25	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
132072	132322	132572	Channel				
1720	1745	1770	Freq. (MHz)				
17.07	17.16	16.93	17.5	QPSK	20MHz	1	0
17.09	17.11	16.95	17.5	QPSK	20MHz	1	49
17.14	17.07	17.00	17.5	QPSK	20MHz	1	99
15.99	16.01	15.85	16.5	QPSK	20MHz	50	0
15.94	15.96	15.80	16.5	QPSK	20MHz	50	25
16.07	16.09	15.93	16.5	QPSK	20MHz	50	50
15.92	15.94	15.78	16.5	QPSK	20MHz	100	0
16.01	16.03	15.87	16.5	16QAM	20MHz	1	0
16.03	16.05	15.89	16.5	16QAM	20MHz	1	49
16.10	16.12	15.96	16.5	16QAM	20MHz	1	99
15.08	15.10	14.94	15.5	16QAM	20MHz	50	0
15.12	15.14	14.98	15.5	16QAM	20MHz	50	25
15.13	15.15	14.99	15.5	16QAM	20MHz	50	50
15.00	15.02	14.86	15.5	16QAM	20MHz	100	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
132047	132322	132597	Channel				
1717.5	1745	1772.5	Freq. (MHz)				
17.04	17.12	16.84	17.5	QPSK	15MHz	1	0
17.06	17.10	16.88	17.5	QPSK	15MHz	1	37
17.10	17.02	16.95	17.5	QPSK	15MHz	1	74
15.91	15.92	15.78	16.5	QPSK	15MHz	36	0
15.94	15.90	15.78	16.5	QPSK	15MHz	36	19
16.00	16.03	15.90	16.5	QPSK	15MHz	36	39
15.84	15.88	15.76	16.5	QPSK	15MHz	75	0
15.99	15.97	15.83	16.5	16QAM	15MHz	1	0
16.00	15.98	15.88	16.5	16QAM	15MHz	1	37
16.00	16.07	15.86	16.5	16QAM	15MHz	1	74
15.02	15.00	14.89	15.5	16QAM	15MHz	36	0
15.02	15.06	14.98	15.5	16QAM	15MHz	36	19
15.03	15.15	14.94	15.5	16QAM	15MHz	36	39
14.96	14.92	14.79	15.5	16QAM	15MHz	75	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
132022	132322	132622	Channel				
1715	1745	1775	Freq. (MHz)				
16.87	17.07	16.80	17.5	QPSK	10MHz	1	0
16.98	16.95	16.86	17.5	QPSK	10MHz	1	24
16.95	16.86	16.87	17.5	QPSK	10MHz	1	49
15.94	15.98	15.81	16.5	QPSK	10MHz	25	0
15.83	15.75	15.73	16.5	QPSK	10MHz	25	12
16.07	15.92	15.78	16.5	QPSK	10MHz	25	25
15.82	15.75	15.65	16.5	QPSK	10MHz	50	0
15.78	15.86	15.77	16.5	16QAM	10MHz	1	0
15.85	15.93	15.86	16.5	16QAM	10MHz	1	24
15.99	16.01	15.88	16.5	16QAM	10MHz	1	49
14.90	14.96	14.77	15.5	16QAM	10MHz	25	0
14.89	15.07	14.84	15.5	16QAM	10MHz	25	12
14.99	14.95	14.87	15.5	16QAM	10MHz	25	25
14.88	14.96	14.70	15.5	16QAM	10MHz	50	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
131997	132322	132647	Channel				
1712.5	1745	1777.5	Freq. (MHz)				
16.97	17.09	16.67	17.5	QPSK	5MHz	1	0
17.08	16.91	16.76	17.5	QPSK	5MHz	1	12
17.02	17.00	16.95	17.5	QPSK	5MHz	1	24
15.89	15.97	15.55	16.5	QPSK	5MHz	12	0
15.84	15.89	15.59	16.5	QPSK	5MHz	12	6
15.92	15.95	15.74	16.5	QPSK	5MHz	12	13
15.77	15.85	15.69	16.5	QPSK	5MHz	25	0
15.82	15.89	15.73	16.5	16QAM	5MHz	1	0
15.88	15.97	15.83	16.5	16QAM	5MHz	1	12
16.00	16.04	15.82	16.5	16QAM	5MHz	1	24
15.00	14.97	14.87	15.5	16QAM	5MHz	12	0
14.95	15.06	14.89	15.5	16QAM	5MHz	12	6
14.96	15.01	14.80	15.5	16QAM	5MHz	12	13
14.92	14.97	14.70	15.5	16QAM	5MHz	25	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
131987	132322	132657	Channel				
1711.5	1745	1778.5	Freq. (MHz)				
16.87	17.08	16.84	17.5	QPSK	3MHz	1	0
16.89	17.05	16.88	17.5	QPSK	3MHz	1	7
16.95	17.01	16.99	17.5	QPSK	3MHz	1	14
15.76	15.85	15.68	16.5	QPSK	3MHz	8	0
15.83	15.86	15.67	16.5	QPSK	3MHz	8	3
15.92	16.04	15.74	16.5	QPSK	3MHz	8	7
15.76	15.80	15.66	16.5	QPSK	3MHz	15	0
15.79	15.85	15.73	16.5	16QAM	3MHz	1	0
15.86	16.02	15.77	16.5	16QAM	3MHz	1	7
15.94	16.01	15.88	16.5	16QAM	3MHz	1	14
14.92	15.01	14.80	15.5	16QAM	3MHz	8	0
15.07	15.01	14.80	15.5	16QAM	3MHz	8	3
15.03	15.03	14.89	15.5	16QAM	3MHz	8	7
14.86	14.91	14.70	15.5	16QAM	3MHz	15	0

LTE Band 66							
Maximum Average Power (dBm)			Tune up (dBm)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
131979	132322	132665	Channel				
1710.7	1745	1779.3	Freq. (MHz)				
17.00	17.05	16.86	17.5	QPSK	1.4MHz	1	0
17.01	16.99	16.78	17.5	QPSK	1.4MHz	1	2
17.00	17.02	16.91	17.5	QPSK	1.4MHz	1	5
16.91	16.95	16.71	17.5	QPSK	1.4MHz	3	0
16.89	16.81	16.61	17.5	QPSK	1.4MHz	3	1
16.89	16.94	16.74	17.5	QPSK	1.4MHz	3	3
15.87	15.92	15.71	16.5	QPSK	1.4MHz	6	0
15.83	15.89	15.67	16.5	16QAM	1.4MHz	1	0
15.96	15.83	15.78	16.5	16QAM	1.4MHz	1	2
15.99	16.04	15.86	16.5	16QAM	1.4MHz	1	5
15.93	15.91	15.84	16.5	16QAM	1.4MHz	3	0
16.10	16.04	15.84	16.5	16QAM	1.4MHz	3	1
15.97	16.04	15.89	16.5	16QAM	1.4MHz	3	3
14.84	14.79	14.72	15.5	16QAM	1.4MHz	6	0