



## Appendix D. Measurement Output Power

### 1. GSM/UMTS/LTE Output Power (Unit: dBm)

#### <GSM Conducted Power>

**General Note:**

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (2Tx slots) for GSM850/GSM1900 is considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode, SAR measurement is not required for the secondary mode
4. Power reduction which is triggered by hotspot mode is implemented in GSM850/GSM1900 band, for hotspot mode SAR testing EUT was set in reduced power mode and GPRS 2 Tx slot due to its highest frame-average power.

#### Ant 0/1\_State 1/2

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	128	189		251	128	189	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	33.03	33.16	32.83	34.50	24.03	24.16	23.83	25.50
GPRS 1 Tx slot	33.03	33.20	32.86	34.50	24.03	24.20	23.86	25.50
GPRS 2 Tx slots	32.88	32.96	32.62	34.50	26.88	26.96	26.62	28.50
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	512	661		810	512	661	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.90	30.45	30.30	31.50	20.90	21.45	21.30	22.50
GPRS 1 Tx slot	29.94	30.46	30.35	31.50	20.94	21.46	21.35	22.50
GPRS 2 Tx slots	29.75	30.24	30.12	31.50	23.75	24.24	24.12	25.50
EDGE 1 Tx slot	23.94	23.65	23.77	25.50	14.94	14.65	14.77	16.50
EDGE 2 Tx slots	23.63	23.02	23.11	25.50	17.63	17.02	17.11	19.50

#### Ant 2\_State 1

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	128	189		251	128	189	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	30.79	30.99	30.92	32.00	21.79	21.99	21.92	23.00
GPRS 1 Tx slot	30.82	31.00	30.95	32.00	21.82	22.00	21.95	23.00
GPRS 2 Tx slots	30.46	30.93	30.67	32.00	24.46	24.93	24.67	26.00
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

#### Ant 2\_State 2

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	128	189		251	128	189	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	28.59	28.50	28.30	29.50	19.59	19.50	19.30	20.50
GPRS 1 Tx slot	28.61	28.64	28.37	29.50	19.61	19.64	19.37	20.50
GPRS 2 Tx slots	28.37	28.58	27.94	29.50	22.37	22.58	21.94	23.50
EDGE 1 Tx slot	25.42	25.39	25.19	27.50	16.42	16.39	16.19	18.50
EDGE 2 Tx slots	25.21	25.04	25.31	27.50	19.21	19.04	19.31	21.50



**Ant 2\_State 3**

GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	33.03	33.16	32.83	34.50	24.03	24.16	23.83	25.50
GPRS 1 Tx slot	33.03	33.20	32.86	34.50	24.03	24.20	23.86	25.50
GPRS 2 Tx slots	32.88	32.96	32.62	34.50	26.88	26.96	26.62	28.50
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

**Ant 0\_State 3**

GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	30.79	30.99	30.92	32.00	21.79	21.99	21.92	23.00
GPRS 1 Tx slot	30.82	31.00	30.95	32.00	21.82	22.00	21.95	23.00
GPRS 2 Tx slots	30.46	30.93	30.67	32.00	24.46	24.93	24.67	26.00
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

**Ant 1\_State 3**

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.45	28.97	28.81	29.50	19.45	19.97	19.81	20.50
GPRS 1 Tx slot	28.48	29.01	28.84	29.50	19.48	20.01	19.84	20.50
GPRS 2 Tx slots	28.25	28.71	28.53	29.50	22.25	22.71	22.53	23.50
EDGE 1 Tx slot	24.54	24.40	24.39	25.50	15.54	15.40	15.39	16.50
EDGE 2 Tx slots	23.99	23.78	23.67	25.50	17.99	17.78	17.67	19.50

**Ant 8\_State 3**

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.90	30.45	30.30	31.50	20.90	21.45	21.30	22.50
GPRS 1 Tx slot	29.94	30.46	30.35	31.50	20.94	21.46	21.35	22.50
GPRS 2 Tx slots	29.75	30.24	30.12	31.50	23.75	24.24	24.12	25.50
EDGE 1 Tx slot	23.94	23.65	23.77	25.50	14.94	14.65	14.77	16.50
EDGE 2 Tx slots	23.63	23.02	23.11	25.50	17.63	17.02	17.11	19.50



**Ant 0\_State 4\_ Portrait**

GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	33.03	33.16	32.83	34.50	24.03	24.16	23.83	25.50
GPRS 1 Tx slot	33.03	33.20	32.86	34.50	24.03	24.20	23.86	25.50
GPRS 2 Tx slots	32.88	32.96	32.62	34.50	26.88	26.96	26.62	28.50
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

**Ant 0\_State 5\_ Portrait**

GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	30.79	30.99	30.92	31.50	21.79	21.99	21.92	22.50
GPRS 1 Tx slot	30.82	31.00	30.95	31.50	21.82	22.00	21.95	22.50
GPRS 2 Tx slots	30.46	30.93	30.67	31.50	24.46	24.93	24.67	25.50
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

**Ant 0\_State 5\_ Portrait&Landscape**

GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	30.79	30.99	30.92	31.50	21.79	21.99	21.92	22.50
GPRS 1 Tx slot	30.82	31.00	30.95	31.50	21.82	22.00	21.95	22.50
GPRS 2 Tx slots	30.46	30.93	30.67	31.50	24.46	24.93	24.67	25.50
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

**Ant 2\_State 4/5**

GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		512	661	810	
Frequency (MHz)	824.2	836.4	848.8		1850.2	1880	1909.8	
GSM 1 Tx slot	30.79	30.99	30.92	31.50	21.79	21.99	21.92	22.50
GPRS 1 Tx slot	30.82	31.00	30.95	31.50	21.82	22.00	21.95	22.50
GPRS 2 Tx slots	30.46	30.93	30.67	31.50	24.46	24.93	24.67	25.50
EDGE 1 Tx slot	25.40	25.45	25.27	27.50	16.40	16.45	16.27	18.50
EDGE 2 Tx slots	25.20	25.26	25.04	27.50	19.20	19.26	19.04	21.50

**Ant 1/8\_State 4/5**

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.90	30.45	30.30	31.50	20.90	21.45	21.30	22.50
GPRS 1 Tx slot	29.94	30.46	30.35	31.50	20.94	21.46	21.35	22.50
GPRS 2 Tx slots	29.75	30.24	30.12	31.50	23.75	24.24	24.12	25.50
EDGE 1 Tx slot	23.94	23.65	23.77	25.50	14.94	14.65	14.77	16.50
EDGE 2 Tx slots	23.63	23.02	23.11	25.50	17.63	17.02	17.11	19.50

**<WCDMA Conducted Power>**

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

**HSDPA Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
  - i. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each
  - ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
  - iii. Set RMC 12.2Kbps + HSDPA mode.
  - iv. Set Cell Power = -86 dBm
  - v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
  - vi. Select HSDPA Uplink Parameters
  - vii. Set Delta ACK, Delta NACK and Delta CQI = 8
  - viii. Set Ack-Nack Repetition Factor to 3
  - ix. Set CQI Feedback Cycle (k) to 4 ms
  - x. Set CQI Repetition Factor to 2
  - xi. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

**Table C.10.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH**

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{HS}$ (Note 1, 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:  $\Delta_{ACK}, \Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .

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,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{HS} = 24/15 * \beta_c$ .

Note 3: CM = 1 for  $\beta_c/\beta_d = 12/15, \beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPCCH, DPDCCH 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  $\beta_c/\beta_d$  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  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

**Setup Configuration**

**HSUPA Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting \* :
  - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
  - ii. Set the Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
  - iii. Set Cell Power = -86 dBm
  - iv. Set Channel Type = 12.2k + HSPA
  - v. Set UE Target Power
  - vi. Power Ctrl Mode= Alternating bits
  - vii. Set and observe the E-TFCl
  - viii. Confirm that E-TFCl is equal to the target E-TFCl of 75 for sub-test 1, and other subtest's E-TFCl
- d. The transmitted maximum output power was recorded.

**Table C.11.1.3:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH**

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{HS}$ (Note1)	$\beta_{ec}$	$\beta_{ed}$ (Note 4) (Note 5)	$\beta_{ed}$ (SF)	$\beta_{ed}$ (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCl
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	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	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	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	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,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{hs} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 5/15$  with  $\beta_{hs} = 5/15 * \beta_c$ .

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ . 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  $\beta_c/\beta_d$  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  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

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:  $\beta_{ed}$  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.

**Setup Configuration**

**DC-HSDPA 3GPP release 8 Setup Configuration:**

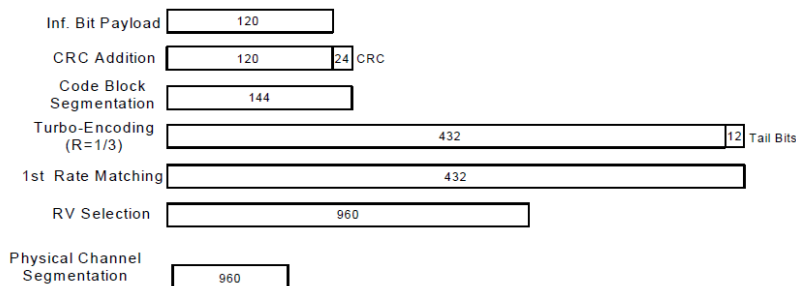
- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
  - i. Set RMC 12.2Kbps + HSDPA mode.
  - ii. Set Cell Power = -25 dBm
  - iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
  - iv. Select HSDPA Uplink Parameters
  - v. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
    - a). Subtest 1:  $\beta_c/\beta_d=2/15$
    - b). Subtest 2:  $\beta_c/\beta_d=12/15$
    - c). Subtest 3:  $\beta_c/\beta_d=15/8$
    - d). Subtest 4:  $\beta_c/\beta_d=15/4$
  - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
  - vii. Set Ack-Nack Repetition Factor to 3
  - viii. Set CQI Feedback Cycle (k) to 4 ms
  - ix. Set CQI Repetition Factor to 2
  - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification. A summary of these settings are illustrated below:

**C.8.1.12 Fixed Reference Channel Definition H-Set 12**

**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.		



**Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)**

**Setup Configuration**



**<WCDMA Conducted Power>**

**General Note:**

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is  $\leq \frac{1}{4}$  dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than  $\frac{1}{4}$  dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

**Ant 1\_State 1/2**

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6	1712.4	1732.6	1752.6		
3GPP Rel 99	AMR 12.2Kbps	23.86	23.79	23.95	25.50	23.91	24.02	23.96	25.50
3GPP Rel 99	RMC 12.2Kbps	23.88	23.82	24.02	25.50	23.99	24.10	24.05	25.50
3GPP Rel 6	HSDPA Subtest-1	22.89	22.84	23.04	24.50	23.00	23.11	23.06	24.50
3GPP Rel 6	HSDPA Subtest-2	22.89	22.87	23.04	24.50	22.99	23.12	23.03	24.50
3GPP Rel 6	HSDPA Subtest-3	22.38	22.36	22.52	24.00	22.51	22.61	22.56	24.00
3GPP Rel 6	HSDPA Subtest-4	22.37	22.37	22.54	24.00	22.51	22.58	22.57	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	22.82	22.82	22.99	24.50	22.90	23.08	22.97	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.81	22.83	23.04	24.50	22.97	23.08	22.93	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.31	22.29	22.45	24.00	22.46	22.51	22.51	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	22.31	22.35	22.48	24.00	22.47	22.55	22.52	24.00
3GPP Rel 6	HSUPA Subtest-1	22.89	22.88	23.02	24.50	23.02	23.09	23.04	24.50
3GPP Rel 6	HSUPA Subtest-2	20.89	20.83	21.04	22.50	20.99	21.05	20.99	22.50
3GPP Rel 6	HSUPA Subtest-3	21.93	21.88	21.95	23.50	21.98	22.09	22.04	23.50
3GPP Rel 6	HSUPA Subtest-4	20.90	20.84	21.05	22.50	21.01	21.10	21.05	22.50
3GPP Rel 6	HSUPA Subtest-5	22.90	22.90	23.00	24.50	23.00	23.10	23.00	24.50

**Ant 0\_State 1/2**

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.80	24.72	24.29	25.50
3GPP Rel 99	RMC 12.2Kbps	23.89	24.73	24.32	25.50
3GPP Rel 6	HSDPA Subtest-1	23.62	23.77	23.28	24.50
3GPP Rel 6	HSDPA Subtest-2	23.73	23.76	23.11	24.50
3GPP Rel 6	HSDPA Subtest-3	23.35	23.29	22.26	24.00
3GPP Rel 6	HSDPA Subtest-4	23.34	23.28	22.61	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	23.53	23.71	23.21	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	23.70	23.70	23.10	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	23.27	23.22	22.26	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	23.30	23.22	22.57	24.00
3GPP Rel 6	HSUPA Subtest-1	23.57	23.78	23.18	24.50
3GPP Rel 6	HSUPA Subtest-2	21.64	21.74	21.19	22.50
3GPP Rel 6	HSUPA Subtest-3	22.59	22.78	22.21	23.50
3GPP Rel 6	HSUPA Subtest-4	21.67	21.69	21.27	22.50
3GPP Rel 6	HSUPA Subtest-5	23.60	23.80	23.20	24.50



**Ant 2\_State 1**

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.80	24.72	24.29	25.00
3GPP Rel 99	RMC 12.2Kbps	23.89	24.73	24.32	25.00
3GPP Rel 6	HSDPA Subtest-1	23.62	23.77	23.28	24.00
3GPP Rel 6	HSDPA Subtest-2	23.73	23.76	23.11	24.00
3GPP Rel 6	HSDPA Subtest-3	23.35	23.29	22.26	23.50
3GPP Rel 6	HSDPA Subtest-4	23.34	23.28	22.61	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.53	23.71	23.21	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.70	23.70	23.10	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	23.27	23.22	22.26	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	23.30	23.22	22.57	23.50
3GPP Rel 6	HSUPA Subtest-1	23.57	23.78	23.18	24.00
3GPP Rel 6	HSUPA Subtest-2	21.64	21.74	21.19	22.00
3GPP Rel 6	HSUPA Subtest-3	22.59	22.78	22.21	23.00
3GPP Rel 6	HSUPA Subtest-4	21.67	21.69	21.27	22.00
3GPP Rel 6	HSUPA Subtest-5	23.60	23.80	23.20	24.00

**Ant 2\_State 2**

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	21.73	21.76	21.65	22.50
3GPP Rel 99	RMC 12.2Kbps	21.74	21.77	21.67	22.50
3GPP Rel 6	HSDPA Subtest-1	20.75	20.82	20.67	21.50
3GPP Rel 6	HSDPA Subtest-2	20.73	20.77	20.66	21.50
3GPP Rel 6	HSDPA Subtest-3	20.25	20.23	20.15	21.00
3GPP Rel 6	HSDPA Subtest-4	20.26	20.30	20.15	21.00
3GPP Rel 8	DC-HSDPA Subtest-1	20.72	20.73	20.64	21.50
3GPP Rel 8	DC-HSDPA Subtest-2	20.63	20.77	20.60	21.50
3GPP Rel 8	DC-HSDPA Subtest-3	20.17	20.17	20.15	21.00
3GPP Rel 8	DC-HSDPA Subtest-4	20.24	20.24	20.08	21.00
3GPP Rel 6	HSUPA Subtest-1	20.71	20.90	20.68	21.50
3GPP Rel 6	HSUPA Subtest-2	18.72	18.77	18.66	19.50
3GPP Rel 6	HSUPA Subtest-3	19.71	19.77	19.64	20.50
3GPP Rel 6	HSUPA Subtest-4	18.73	18.82	18.64	19.50
3GPP Rel 6	HSUPA Subtest-5	20.70	20.80	20.70	21.50





**Ant 1/8\_State 3**

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	AMR 12.2Kbps	22.47	22.27	22.38	23.00	23.91	24.02	23.96	24.50
3GPP Rel 99	RMC 12.2Kbps	22.47	22.29	22.48	23.00	23.99	24.10	24.05	24.50
3GPP Rel 6	HSDPA Subtest-1	21.49	21.30	21.51	22.00	23.00	23.11	23.06	23.50
3GPP Rel 6	HSDPA Subtest-2	21.46	21.30	21.47	22.00	22.99	23.12	23.03	23.50
3GPP Rel 6	HSDPA Subtest-3	20.97	20.44	20.99	21.50	22.51	22.61	22.56	23.00
3GPP Rel 6	HSDPA Subtest-4	20.99	20.74	20.99	21.50	22.51	22.58	22.57	23.00
3GPP Rel 8	DC-HSDPA Subtest-1	21.47	21.24	21.50	22.00	22.90	23.08	22.97	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	21.46	21.29	21.37	22.00	22.97	23.08	22.93	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	20.90	20.39	20.90	21.50	22.46	22.51	22.51	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	20.98	20.67	20.93	21.50	22.47	22.55	22.52	23.00
3GPP Rel 6	HSUPA Subtest-1	21.48	21.26	21.42	22.00	23.02	23.09	23.04	23.50
3GPP Rel 6	HSUPA Subtest-2	19.47	19.32	19.45	20.00	20.99	21.05	20.99	21.50
3GPP Rel 6	HSUPA Subtest-3	20.44	20.27	20.48	21.00	21.98	22.09	22.04	22.50
3GPP Rel 6	HSUPA Subtest-4	19.47	19.27	19.44	20.00	21.01	21.10	21.05	21.50
3GPP Rel 6	HSUPA Subtest-5	21.50	21.20	21.40	22.00	23.00	23.10	23.00	23.50

**Ant 0/2\_State 3**

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.80	24.72	24.29	25.50
3GPP Rel 99	RMC 12.2Kbps	23.89	24.73	24.32	25.50
3GPP Rel 6	HSDPA Subtest-1	23.62	23.77	23.28	24.50
3GPP Rel 6	HSDPA Subtest-2	23.73	23.76	23.11	24.50
3GPP Rel 6	HSDPA Subtest-3	23.35	23.29	22.26	24.00
3GPP Rel 6	HSDPA Subtest-4	23.34	23.28	22.61	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	23.53	23.71	23.21	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	23.70	23.70	23.10	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	23.27	23.22	22.26	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	23.30	23.22	22.57	24.00
3GPP Rel 6	HSUPA Subtest-1	23.57	23.78	23.18	24.50
3GPP Rel 6	HSUPA Subtest-2	21.64	21.74	21.19	22.50
3GPP Rel 6	HSUPA Subtest-3	22.59	22.78	22.21	23.50
3GPP Rel 6	HSUPA Subtest-4	21.67	21.69	21.27	22.50
3GPP Rel 6	HSUPA Subtest-5	23.60	23.80	23.20	24.50



**Ant 1\_State 4**

Band		WCDMA II			Tune-up Limit (dBm)
TX Channel		9262	9400	9538	
Rx Channel		9662	9800	9938	
Frequency (MHz)		1852.4	1880	1907.6	
3GPP Rel 99	AMR 12.2Kbps	23.86	23.79	23.95	25.50
3GPP Rel 99	RMC 12.2Kbps	23.88	23.82	24.02	25.50
3GPP Rel 6	HSDPA Subtest-1	22.89	22.84	23.04	24.50
3GPP Rel 6	HSDPA Subtest-2	22.89	22.87	23.04	24.50
3GPP Rel 6	HSDPA Subtest-3	22.38	22.36	22.52	24.00
3GPP Rel 6	HSDPA Subtest-4	22.37	22.37	22.54	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	22.82	22.82	22.99	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.81	22.83	23.04	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.31	22.29	22.45	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	22.31	22.35	22.48	24.00
3GPP Rel 6	HSUPA Subtest-1	22.89	22.88	23.02	24.50
3GPP Rel 6	HSUPA Subtest-2	20.89	20.83	21.04	22.50
3GPP Rel 6	HSUPA Subtest-3	21.93	21.88	21.95	23.50
3GPP Rel 6	HSUPA Subtest-4	20.90	20.84	21.05	22.50
3GPP Rel 6	HSUPA Subtest-5	22.90	22.90	23.00	24.50

**Ant 1\_State 5**

Band		WCDMA II			Tune-up Limit (dBm)
TX Channel		9262	9400	9538	
Rx Channel		9662	9800	9938	
Frequency (MHz)		1852.4	1880	1907.6	
3GPP Rel 99	AMR 12.2Kbps	23.86	23.79	23.95	25.00
3GPP Rel 99	RMC 12.2Kbps	23.88	23.82	24.02	25.00
3GPP Rel 6	HSDPA Subtest-1	22.89	22.84	23.04	24.00
3GPP Rel 6	HSDPA Subtest-2	22.89	22.87	23.04	24.00
3GPP Rel 6	HSDPA Subtest-3	22.38	22.36	22.52	23.50
3GPP Rel 6	HSDPA Subtest-4	22.37	22.37	22.54	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.82	22.82	22.99	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.81	22.83	23.04	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.31	22.29	22.45	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.31	22.35	22.48	23.50
3GPP Rel 6	HSUPA Subtest-1	22.89	22.88	23.02	24.00
3GPP Rel 6	HSUPA Subtest-2	20.89	20.83	21.04	22.00
3GPP Rel 6	HSUPA Subtest-3	21.93	21.88	21.95	23.00
3GPP Rel 6	HSUPA Subtest-4	20.90	20.84	21.05	22.00
3GPP Rel 6	HSUPA Subtest-5	22.90	22.90	23.00	24.00



**Ant 1\_State 4/5**

Band		WCDMA IV			Tune-up Limit (dBm)
TX Channel		1312	1413	1513	
Rx Channel		1537	1638	1738	
Frequency (MHz)		1712.4	1732.6	1752.6	
3GPP Rel 99	AMR 12.2Kbps	23.91	24.02	23.96	25.00
3GPP Rel 99	RMC 12.2Kbps	23.99	24.10	24.05	25.00
3GPP Rel 6	HSDPA Subtest-1	23.00	23.11	23.06	24.00
3GPP Rel 6	HSDPA Subtest-2	22.99	23.12	23.03	24.00
3GPP Rel 6	HSDPA Subtest-3	22.51	22.61	22.56	23.50
3GPP Rel 6	HSDPA Subtest-4	22.51	22.58	22.57	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.90	23.08	22.97	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.97	23.08	22.93	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.46	22.51	22.51	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.47	22.55	22.52	23.50
3GPP Rel 6	HSUPA Subtest-1	23.02	23.09	23.04	24.00
3GPP Rel 6	HSUPA Subtest-2	20.99	21.05	20.99	22.00
3GPP Rel 6	HSUPA Subtest-3	21.98	22.09	22.04	23.00
3GPP Rel 6	HSUPA Subtest-4	21.01	21.10	21.05	22.00
3GPP Rel 6	HSUPA Subtest-5	23.00	23.10	23.00	24.00

**Ant 8\_State 4/5**

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	AMR 12.2Kbps	23.86	23.79	23.95	25.00	23.91	24.02	23.96	25.50
3GPP Rel 99	RMC 12.2Kbps	23.88	23.82	24.02	25.00	23.99	24.10	24.05	25.50
3GPP Rel 6	HSDPA Subtest-1	22.89	22.84	23.04	24.00	23.00	23.11	23.06	24.50
3GPP Rel 6	HSDPA Subtest-2	22.89	22.87	23.04	24.00	22.99	23.12	23.03	24.50
3GPP Rel 6	HSDPA Subtest-3	22.38	22.36	22.52	23.50	22.51	22.61	22.56	24.00
3GPP Rel 6	HSDPA Subtest-4	22.37	22.37	22.54	23.50	22.51	22.58	22.57	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	22.82	22.82	22.99	24.00	22.90	23.08	22.97	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.81	22.83	23.04	24.00	22.97	23.08	22.93	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.31	22.29	22.45	23.50	22.46	22.51	22.51	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	22.31	22.35	22.48	23.50	22.47	22.55	22.52	24.00
3GPP Rel 6	HSUPA Subtest-1	22.89	22.88	23.02	24.00	23.02	23.09	23.04	24.50
3GPP Rel 6	HSUPA Subtest-2	20.89	20.83	21.04	22.00	20.99	21.05	20.99	22.50
3GPP Rel 6	HSUPA Subtest-3	21.93	21.88	21.95	23.00	21.98	22.09	22.04	23.50
3GPP Rel 6	HSUPA Subtest-4	20.90	20.84	21.05	22.00	21.01	21.10	21.05	22.50
3GPP Rel 6	HSUPA Subtest-5	22.90	22.90	23.00	24.00	23.00	23.10	23.00	24.50



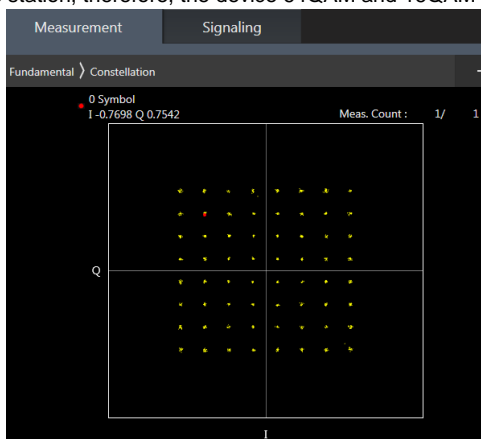
**Ant 0/2\_State 4/5**

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.80	24.72	24.29	25.50
3GPP Rel 99	RMC 12.2Kbps	23.89	24.73	24.32	25.50
3GPP Rel 6	HSDPA Subtest-1	23.62	23.77	23.28	24.50
3GPP Rel 6	HSDPA Subtest-2	23.73	23.76	23.11	24.50
3GPP Rel 6	HSDPA Subtest-3	23.35	23.29	22.26	24.00
3GPP Rel 6	HSDPA Subtest-4	23.34	23.28	22.61	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	23.53	23.71	23.21	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	23.70	23.70	23.10	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	23.27	23.22	22.26	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	23.30	23.22	22.57	24.00
3GPP Rel 6	HSUPA Subtest-1	23.57	23.78	23.18	24.50
3GPP Rel 6	HSUPA Subtest-2	21.64	21.74	21.19	22.50
3GPP Rel 6	HSUPA Subtest-3	22.59	22.78	22.21	23.50
3GPP Rel 6	HSUPA Subtest-4	21.67	21.69	21.27	22.50
3GPP Rel 6	HSUPA Subtest-5	23.60	23.80	23.20	24.50

**<LTE Conducted Power>**

**General Note:**

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4/B5/B12/B17/B26/B38/B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2/4/5/17/38/B42 SAR test was covered by Band 25/66/26/12/41/48; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. the maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion
  - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. LTE band 2/4/5/17/38/B42 output power measurement was covered by Band 25/66/26/12/41/48 due to the maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band, the output power measurement unnecessary.
11. According to 2017 TCB workshop, 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, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



**64QAM**



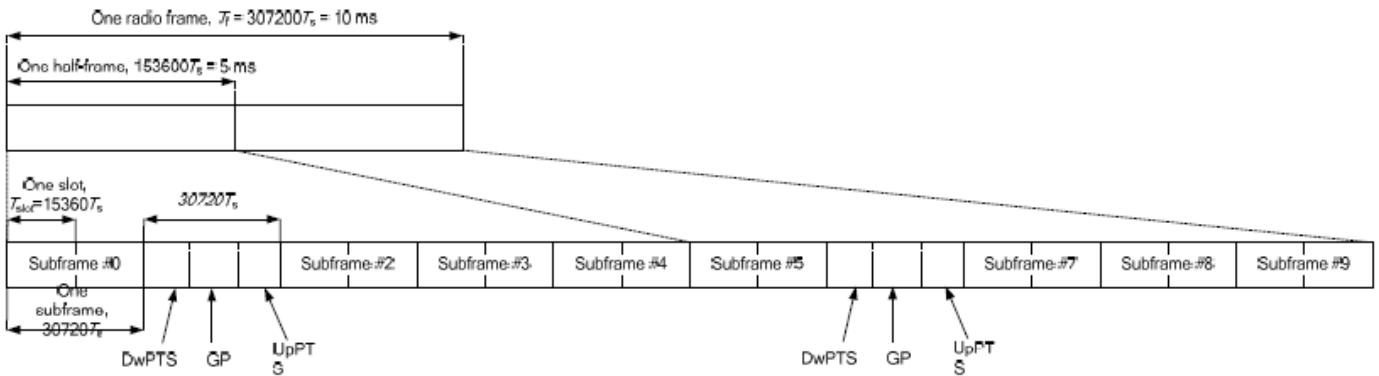
**16QAM**

**<TDD LTE SAR Measurement>**

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

- a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- b. “special subframe S” contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.



**Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).**

**Table 4.2-2: Uplink-downlink configurations.**

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

**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	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
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	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$	-	-	-	-	

<b>Special subframe (30720·T<sub>s</sub>): Normal cyclic prefix in downlink (UpPTS)</b>			
	<b>Special subframe configuration</b>	<b>Normal cyclic prefix in uplink</b>	<b>Extended cyclic prefix in uplink</b>
<b>Uplink duty factor in one special subframe</b>	<b>0~4</b>	7.13%	8.33%
	<b>5~9</b>	14.3%	16.7%

<b>Special subframe(30720·T<sub>s</sub>): Extended cyclic prefix in downlink (UpPTS)</b>			
	<b>Special subframe configuration</b>	<b>Normal cyclic prefix in uplink</b>	<b>Extended cyclic prefix in uplink</b>
<b>Uplink duty factor in one special subframe</b>	<b>0~3</b>	7.13%	8.33%
	<b>4~7</b>	14.3%	16.7%

The highest duty factor is resulted from:

- i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.167)/5 = 63.3\%$
- iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.143)/5 = 62.9\%$
- v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.



<LTE Band 7 Ant1 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.70	24.55	23.56	25.5
20	QPSK	1	49	24.35	24.10	24.03	
20	QPSK	1	99	24.54	23.50	23.52	
20	QPSK	50	0	23.32	23.69	22.92	24.5
20	QPSK	50	24	23.51	23.40	23.15	
20	QPSK	50	50	23.53	22.87	22.88	
20	QPSK	100	0	23.48	23.36	22.90	24.5
20	16QAM	1	0	23.08	23.89	22.68	
20	16QAM	1	49	23.76	23.46	23.36	
20	16QAM	1	99	23.95	22.63	22.72	23.5
20	16QAM	50	0	22.38	22.71	22.00	
20	16QAM	50	24	22.60	22.48	22.25	
20	16QAM	50	50	22.64	22.00	22.03	23.5
20	16QAM	100	0	22.44	22.37	21.96	
20	64QAM	1	0	21.08	22.41	20.81	
20	64QAM	1	49	21.84	21.58	21.46	23.5
20	64QAM	1	99	22.02	20.73	20.95	
20	64QAM	50	0	20.46	20.94	20.11	
20	64QAM	50	24	20.72	20.55	20.37	22.5
20	64QAM	50	50	20.79	20.14	20.19	
20	64QAM	100	0	20.57	20.45	20.06	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.51	24.53	23.62	25.5
15	QPSK	1	37	24.07	23.69	23.53	
15	QPSK	1	74	24.19	23.08	22.88	
15	QPSK	36	0	23.02	23.34	22.86	24.5
15	QPSK	36	20	23.21	22.95	22.67	
15	QPSK	36	39	23.26	22.58	22.33	
15	QPSK	75	0	23.11	22.87	22.54	24.5
15	16QAM	1	0	22.84	23.82	22.88	
15	16QAM	1	37	23.41	23.00	22.88	
15	16QAM	1	74	23.55	22.37	22.24	23.5
15	16QAM	36	0	22.09	22.40	21.93	
15	16QAM	36	20	22.31	22.01	21.78	
15	16QAM	36	39	22.34	21.69	21.45	23.5
15	16QAM	75	0	22.18	22.01	21.67	
15	64QAM	1	0	20.90	22.00	21.02	
15	64QAM	1	37	21.54	21.18	21.09	23.5
15	64QAM	1	74	21.67	20.50	20.50	
15	64QAM	36	0	20.24	20.60	20.10	
15	64QAM	36	20	20.48	20.17	20.00	22.5
15	64QAM	36	39	20.55	19.87	19.66	
15	64QAM	75	0	20.32	20.16	19.83	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.48	24.29	23.60	25.5
10	QPSK	1	25	23.90	23.72	23.15	
10	QPSK	1	49	24.10	23.27	22.72	
10	QPSK	25	0	22.88	23.17	22.56	24.5
10	QPSK	25	12	23.09	22.94	22.38	





10	QPSK	25	25	23.17	22.68	22.12	
10	QPSK	50	0	22.95	22.86	22.30	
10	16QAM	1	0	22.76	23.62	22.93	
10	16QAM	1	25	23.26	23.07	22.53	24.5
10	16QAM	1	49	23.47	22.59	22.11	
10	16QAM	25	0	21.98	22.27	21.69	
10	16QAM	25	12	22.20	22.04	21.52	23.5
10	16QAM	25	25	22.29	21.79	21.24	
10	16QAM	50	0	22.08	21.98	21.42	
10	64QAM	1	0	20.88	21.78	21.04	23.5
10	64QAM	1	25	21.37	21.22	20.73	
10	64QAM	1	49	21.66	20.76	20.50	
10	64QAM	25	0	20.09	20.46	19.89	22.5
10	64QAM	25	12	20.33	20.23	19.71	
10	64QAM	25	25	20.47	19.97	19.50	
10	64QAM	50	0	20.20	20.14	19.61	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.52	24.05	23.19	25.5
5	QPSK	1	12	23.77	23.78	22.92	
5	QPSK	1	24	24.01	23.61	22.75	
5	QPSK	12	0	22.81	23.08	22.21	24.5
5	QPSK	12	7	22.99	23.00	22.11	
5	QPSK	12	13	23.07	22.85	21.99	
5	QPSK	25	0	22.85	22.87	22.06	24.5
5	16QAM	1	0	22.82	23.37	22.51	
5	16QAM	1	12	23.09	23.15	22.28	
5	16QAM	1	24	23.33	22.94	22.10	
5	16QAM	12	0	21.88	22.18	21.33	23.5
5	16QAM	12	7	22.08	22.11	21.27	
5	16QAM	12	13	22.17	21.99	21.15	
5	16QAM	25	0	21.96	22.03	21.19	23.5
5	64QAM	1	0	20.93	21.50	20.67	
5	64QAM	1	12	21.19	21.28	20.64	
5	64QAM	1	24	21.46	21.09	20.50	
5	64QAM	12	0	20.01	20.38	19.55	22.5
5	64QAM	12	7	20.21	20.32	19.50	
5	64QAM	12	13	20.31	20.20	19.51	
5	64QAM	25	0	20.10	20.24	19.50	

**<LTE Band 12/17 Ant 0/2 state 1/2>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	25.08	25.15	24.97	25.5
10	QPSK	1	25	25.01	24.93	24.91	
10	QPSK	1	49	25.02	25.01	24.94	
10	QPSK	25	0	24.23	24.25	24.06	24.5
10	QPSK	25	12	24.16	24.15	24.01	
10	QPSK	25	25	24.10	24.10	24.09	
10	QPSK	50	0	24.14	24.15	24.04	24.5
10	16QAM	1	0	24.49	24.42	24.36	
10	16QAM	1	25	24.43	24.30	24.30	
10	16QAM	1	49	24.40	24.38	24.34	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	16QAM	25	0	23.26	23.14	23.03	23.5
10	16QAM	25	12	23.13	23.13	23.03	
10	16QAM	25	25	23.05	23.09	23.07	
10	16QAM	50	0	23.13	23.12	23.01	
10	64QAM	1	0	23.42	23.30	23.19	23.5
10	64QAM	1	25	23.35	23.25	23.25	
10	64QAM	1	49	23.31	23.27	23.24	
10	64QAM	25	0	22.26	22.18	22.07	22.5
10	64QAM	25	12	22.17	22.18	22.08	
10	64QAM	25	25	22.12	22.13	22.11	
10	64QAM	50	0	22.14	22.15	22.04	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	25.01	25.01	24.94	25.5
5	QPSK	1	12	24.99	24.83	24.88	
5	QPSK	1	24	24.93	24.99	24.90	
5	QPSK	12	0	24.13	24.23	24.01	24.5
5	QPSK	12	7	24.08	24.10	24.01	
5	QPSK	12	13	24.10	24.05	24.06	
5	QPSK	25	0	24.09	24.14	24.04	
5	16QAM	1	0	24.40	24.32	24.32	24.5
5	16QAM	1	12	24.42	24.29	24.28	
5	16QAM	1	24	24.30	24.34	24.34	
5	16QAM	12	0	23.22	23.10	22.99	23.5
5	16QAM	12	7	23.03	23.03	22.99	
5	16QAM	12	13	23.05	23.02	23.07	
5	16QAM	25	0	23.11	23.08	22.97	
5	64QAM	1	0	23.36	23.24	23.18	23.5
5	64QAM	1	12	23.32	23.17	23.20	
5	64QAM	1	24	23.25	23.17	23.17	
5	64QAM	12	0	22.23	22.12	22.04	22.5
5	64QAM	12	7	22.11	22.14	22.08	
5	64QAM	12	13	22.08	22.09	22.06	
5	64QAM	25	0	22.10	22.08	21.94	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	25.04	25.09	24.92	25.5
3	QPSK	1	8	24.91	24.92	24.91	
3	QPSK	1	14	24.99	24.94	24.94	
3	QPSK	8	0	24.17	24.24	24.05	24.5
3	QPSK	8	4	24.13	24.14	24.01	
3	QPSK	8	7	24.08	24.00	24.09	
3	QPSK	15	0	24.14	24.06	24.00	
3	16QAM	1	0	24.49	24.32	24.34	24.5
3	16QAM	1	8	24.33	24.29	24.20	
3	16QAM	1	14	24.36	24.35	24.29	
3	16QAM	8	0	23.16	23.06	23.02	23.5
3	16QAM	8	4	23.11	23.13	22.95	
3	16QAM	8	7	22.99	23.00	23.07	
3	16QAM	15	0	23.06	23.03	22.99	
3	64QAM	1	0	23.32	23.23	23.10	23.5
3	64QAM	1	8	23.31	23.19	23.18	
3	64QAM	1	14	23.29	23.23	23.14	
3	64QAM	8	0	22.18	22.09	22.03	22.5
3	64QAM	8	4	22.09	22.13	22.00	
3	64QAM	8	7	22.09	22.05	22.10	



3	64QAM	15	0	22.14	22.11	21.98	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	25.12	24.94	24.89	25.5
1.4	QPSK	1	3	25.09	24.94	24.89	
1.4	QPSK	1	5	25.09	24.89	24.82	
1.4	QPSK	3	0	25.13	24.93	24.89	
1.4	QPSK	3	1	25.11	25.00	24.93	
1.4	QPSK	3	3	25.13	24.92	24.87	
1.4	QPSK	6	0	24.22	24.01	23.94	24.5
1.4	16QAM	1	0	24.46	24.27	24.21	24.5
1.4	16QAM	1	3	24.50	24.28	24.25	
1.4	16QAM	1	5	24.42	24.23	24.13	
1.4	16QAM	3	0	24.27	24.05	23.98	
1.4	16QAM	3	1	24.32	24.10	24.02	
1.4	16QAM	3	3	24.22	24.01	23.95	
1.4	16QAM	6	0	23.28	23.04	23.02	23.5
1.4	64QAM	1	0	23.38	23.18	23.15	23.5
1.4	64QAM	1	3	23.44	23.22	23.16	
1.4	64QAM	1	5	23.35	23.14	23.09	
1.4	64QAM	3	0	23.39	23.15	23.11	
1.4	64QAM	3	1	23.40	23.20	23.11	
1.4	64QAM	3	3	23.32	23.12	23.07	
1.4	64QAM	6	0	22.21	21.99	21.96	22.5

<LTE Band 13 Ant0 state 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23230			Tune-up limit (dBm)
Frequency (MHz)				782			
10	QPSK	1	0		24.19		25.5
10	QPSK	1	25		24.20		
10	QPSK	1	49		24.25		
10	QPSK	25	0		23.36		24.5
10	QPSK	25	12		23.36		
10	QPSK	25	25		23.43		
10	QPSK	50	0		23.40		24.5
10	16QAM	1	0		23.54		
10	16QAM	1	25		23.62		
10	16QAM	1	49		23.55		23.5
10	16QAM	25	0		22.41		
10	16QAM	25	12		22.40		
10	16QAM	25	25		22.41		23.5
10	16QAM	50	0		22.37		
10	64QAM	1	0		21.87		
10	64QAM	1	25		22.37		23.5
10	64QAM	1	49		21.53		
10	64QAM	25	0		21.16		
10	64QAM	25	12		21.42		22.5
10	64QAM	25	25		21.33		
10	64QAM	50	0		21.09		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	24.19	24.17	24.18	25.5
5	QPSK	1	12	24.23	24.24	24.22	



5	QPSK	1	24	24.23	24.22	24.19	24.5
5	QPSK	12	0	23.28	23.35	23.34	
5	QPSK	12	7	23.40	23.33	23.35	
5	QPSK	12	13	23.43	23.38	23.35	
5	QPSK	25	0	23.40	23.32	23.37	24.5
5	16QAM	1	0	23.53	23.53	23.55	
5	16QAM	1	12	23.52	23.59	23.50	
5	16QAM	1	24	23.61	23.54	23.52	23.5
5	16QAM	12	0	22.38	22.40	22.36	
5	16QAM	12	7	22.45	22.38	22.39	
5	16QAM	12	13	22.45	22.41	22.37	
5	16QAM	25	0	22.44	22.36	22.37	23.5
5	64QAM	1	0	21.84	22.44	22.52	
5	64QAM	1	12	21.79	22.53	22.39	
5	64QAM	1	24	22.60	22.49	22.51	22.5
5	64QAM	12	0	20.50	21.44	21.39	
5	64QAM	12	7	21.35	21.41	21.34	
5	64QAM	12	13	21.45	21.45	21.41	
5	64QAM	25	0	21.29	21.36	21.39	

<LTE Band 13 Ant2 state 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23230			25.5
Frequency (MHz)				782			
10	QPSK	1	0		24.19		24.5
10	QPSK	1	25		24.20		
10	QPSK	1	49		24.25		
10	QPSK	25	0		23.36		24.5
10	QPSK	25	12		23.36		
10	QPSK	25	25		23.43		
10	QPSK	50	0		23.40		24.5
10	16QAM	1	0		23.54		
10	16QAM	1	25		23.62		
10	16QAM	1	49		23.55		23.5
10	16QAM	25	0		22.41		
10	16QAM	25	12		22.40		
10	16QAM	25	25		22.41		23.5
10	16QAM	50	0		22.37		
10	64QAM	1	0		21.87		
10	64QAM	1	25		22.37		23.5
10	64QAM	1	49		21.53		
10	64QAM	25	0		21.16		
10	64QAM	25	12		21.42		22.5
10	64QAM	25	25		21.33		
10	64QAM	50	0		21.09		
Channel				23205	23230	23255	25.5
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	24.19	24.17	24.18	24.5
5	QPSK	1	12	24.23	24.24	24.22	
5	QPSK	1	24	24.23	24.22	24.19	
5	QPSK	12	0	23.28	23.35	23.34	24.5
5	QPSK	12	7	23.40	23.33	23.35	
5	QPSK	12	13	23.43	23.38	23.35	
5	QPSK	25	0	23.40	23.32	23.37	



5	16QAM	1	0	23.53	23.53	23.55	24.5
5	16QAM	1	12	23.52	23.59	23.50	
5	16QAM	1	24	23.61	23.54	23.52	
5	16QAM	12	0	22.38	22.40	22.36	23.5
5	16QAM	12	7	22.45	22.38	22.39	
5	16QAM	12	13	22.45	22.41	22.37	
5	16QAM	25	0	22.44	22.36	22.37	23.5
5	64QAM	1	0	21.84	22.44	22.52	
5	64QAM	1	12	21.79	22.53	22.39	
5	64QAM	1	24	22.60	22.49	22.51	22.5
5	64QAM	12	0	20.50	21.44	21.39	
5	64QAM	12	7	21.35	21.41	21.34	
5	64QAM	12	13	21.45	21.45	21.41	22.5
5	64QAM	25	0	21.29	21.36	21.39	

<LTE Band 13 Ant2 state 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23230			Tune-up limit (dBm)
Frequency (MHz)				782			
10	QPSK	1	0		24.19		25
10	QPSK	1	25		24.20		
10	QPSK	1	49		24.25		
10	QPSK	25	0		23.36		24.5
10	QPSK	25	12		23.36		
10	QPSK	25	25		23.43		
10	QPSK	50	0		23.40		24.5
10	16QAM	1	0		23.54		
10	16QAM	1	25		23.62		
10	16QAM	1	49		23.55		23.5
10	16QAM	25	0		22.41		
10	16QAM	25	12		22.40		
10	16QAM	25	25		22.41		23.5
10	16QAM	50	0		22.37		
10	64QAM	1	0		21.87		
10	64QAM	1	25		22.37		23.5
10	64QAM	1	49		21.53		
10	64QAM	25	0		21.16		
10	64QAM	25	12		21.42		22.5
10	64QAM	25	25		21.33		
10	64QAM	50	0		21.09		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	24.19	24.17	24.18	25
5	QPSK	1	12	24.23	24.24	24.22	
5	QPSK	1	24	24.23	24.22	24.19	
5	QPSK	12	0	23.28	23.35	23.34	24.5
5	QPSK	12	7	23.40	23.33	23.35	
5	QPSK	12	13	23.43	23.38	23.35	
5	QPSK	25	0	23.40	23.32	23.37	24.5
5	16QAM	1	0	23.53	23.53	23.55	
5	16QAM	1	12	23.52	23.59	23.50	
5	16QAM	1	24	23.61	23.54	23.52	23.5
5	16QAM	12	0	22.38	22.40	22.36	
5	16QAM	12	7	22.45	22.38	22.39	
5	16QAM	12	13	22.45	22.41	22.37	



5	16QAM	25	0	22.44	22.36	22.37	
5	64QAM	1	0	21.84	22.44	22.52	23.5
5	64QAM	1	12	21.79	22.53	22.39	
5	64QAM	1	24	22.60	22.49	22.51	
5	64QAM	12	0	20.50	21.44	21.39	22.5
5	64QAM	12	7	21.35	21.41	21.34	
5	64QAM	12	13	21.45	21.45	21.41	
5	64QAM	25	0	21.29	21.36	21.39	

<LTE Band 2/25 Ant1 state1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	24.38	24.16	23.89	25.5
20	QPSK	1	49	23.85	24.15	23.88	
20	QPSK	1	99	23.85	23.98	23.50	
20	QPSK	50	0	23.15	23.41	23.02	24.5
20	QPSK	50	24	23.03	23.48	23.00	
20	QPSK	50	50	23.05	23.42	22.77	
20	QPSK	100	0	23.04	23.46	22.84	24.5
20	16QAM	1	0	23.67	23.50	23.05	
20	16QAM	1	49	23.18	23.64	23.24	
20	16QAM	1	99	23.22	23.32	22.47	23.5
20	16QAM	50	0	22.31	22.42	22.10	
20	16QAM	50	24	22.23	22.49	22.11	
20	16QAM	50	50	22.18	22.44	21.83	23.5
20	16QAM	100	0	22.21	22.39	21.92	
20	64QAM	1	0	21.81	21.57	21.13	
20	64QAM	1	49	21.33	21.81	21.39	23.5
20	64QAM	1	99	21.43	21.36	20.64	
20	64QAM	50	0	20.49	20.61	20.26	
20	64QAM	50	24	20.33	20.62	20.26	22.5
20	64QAM	50	50	20.29	20.47	19.99	
20	64QAM	100	0	20.37	20.35	20.00	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.97	23.88	23.87	25.5
15	QPSK	1	37	23.54	24.05	23.51	
15	QPSK	1	74	23.49	23.81	22.84	
15	QPSK	36	0	22.98	23.21	22.90	24.5
15	QPSK	36	20	22.79	23.29	22.71	
15	QPSK	36	39	22.70	23.19	22.43	
15	QPSK	75	0	22.79	23.13	22.66	24.5
15	16QAM	1	0	23.25	23.16	23.16	
15	16QAM	1	37	22.85	23.42	22.85	
15	16QAM	1	74	22.81	23.21	22.21	23.5
15	16QAM	36	0	22.02	22.31	22.03	
15	16QAM	36	20	21.90	22.39	21.88	
15	16QAM	36	39	21.87	22.29	21.62	23.5
15	16QAM	75	0	21.92	22.26	21.75	
15	64QAM	1	0	21.41	21.35	21.24	
15	64QAM	1	37	21.00	21.56	20.95	23.5
15	64QAM	1	74	21.01	21.33	20.50	
15	64QAM	36	0	20.23	20.50	20.19	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

15	64QAM	36	20	20.06	20.52	20.03	
15	64QAM	36	39	20.06	20.44	19.74	
15	64QAM	75	0	20.09	20.38	19.86	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.81	23.95	23.81	25.5
10	QPSK	1	25	23.75	24.15	23.35	
10	QPSK	1	49	23.41	23.94	22.72	
10	QPSK	25	0	22.99	23.27	22.64	24.5
10	QPSK	25	12	22.91	23.31	22.58	
10	QPSK	25	25	22.74	23.25	22.37	
10	QPSK	50	0	22.85	23.17	22.55	24.5
10	16QAM	1	0	23.12	23.23	23.19	
10	16QAM	1	25	23.09	23.51	22.78	
10	16QAM	1	49	22.89	23.38	22.20	23.5
10	16QAM	25	0	22.10	22.42	21.84	
10	16QAM	25	12	22.09	22.46	21.68	
10	16QAM	25	25	21.96	22.39	21.56	23.5
10	16QAM	50	0	21.98	22.34	21.65	
10	64QAM	1	0	21.10	21.40	21.33	
10	64QAM	1	25	21.22	21.77	20.93	23.5
10	64QAM	1	49	21.02	21.52	20.50	
10	64QAM	25	0	20.30	20.56	19.95	
10	64QAM	25	12	20.23	20.64	19.87	22.5
10	64QAM	25	25	20.10	20.56	19.66	
10	64QAM	50	0	20.18	20.44	19.80	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.94	24.18	23.54	25.5
5	QPSK	1	12	23.90	24.20	23.29	
5	QPSK	1	24	23.77	24.16	22.87	
5	QPSK	12	0	23.13	23.38	22.55	24.5
5	QPSK	12	7	23.11	23.40	22.51	
5	QPSK	12	13	23.01	23.37	22.37	
5	QPSK	25	0	23.03	23.26	22.43	24.5
5	16QAM	1	0	23.30	23.46	22.86	
5	16QAM	1	12	23.33	23.54	22.64	
5	16QAM	1	24	23.19	23.52	22.26	24.5
5	16QAM	12	0	22.28	22.44	21.67	
5	16QAM	12	7	22.30	22.51	21.61	
5	16QAM	12	13	22.18	22.48	21.53	23.5
5	16QAM	25	0	22.21	22.42	21.61	
5	64QAM	1	0	21.39	21.63	21.07	
5	64QAM	1	12	21.42	21.70	20.87	23.5
5	64QAM	1	24	21.32	21.70	20.53	
5	64QAM	12	0	20.41	20.66	19.95	
5	64QAM	12	7	20.44	20.71	19.81	22.5
5	64QAM	12	13	20.37	20.68	19.63	
5	64QAM	25	0	20.35	20.60	19.71	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.06	24.25	23.51	25.5
3	QPSK	1	8	24.10	24.28	23.34	
3	QPSK	1	14	23.99	24.23	23.02	
3	QPSK	8	0	23.22	23.41	22.55	24.5
3	QPSK	8	4	23.25	23.48	22.49	



3	QPSK	8	7	23.20	23.41	22.36	
3	QPSK	15	0	23.24	23.40	22.45	
3	16QAM	1	0	23.43	23.55	22.79	24.5
3	16QAM	1	8	23.49	23.66	22.67	
3	16QAM	1	14	23.37	23.57	22.38	
3	16QAM	8	0	22.39	22.44	21.71	23.5
3	16QAM	8	4	22.42	22.51	21.63	
3	16QAM	8	7	22.37	22.54	21.51	
3	16QAM	15	0	22.35	22.45	21.58	
3	64QAM	1	0	21.58	21.74	20.95	23.5
3	64QAM	1	8	21.67	21.85	20.87	
3	64QAM	1	14	21.55	21.81	20.60	
3	64QAM	8	0	20.56	20.74	19.89	22.5
3	64QAM	8	4	20.60	20.82	19.84	
3	64QAM	8	7	20.53	20.79	19.73	
3	64QAM	15	0	20.50	20.72	19.80	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.02	24.20	23.19	25.5
1.4	QPSK	1	3	24.08	24.26	23.10	
1.4	QPSK	1	5	24.01	24.19	22.93	
1.4	QPSK	3	0	24.15	24.23	23.14	
1.4	QPSK	3	1	24.21	24.24	23.11	
1.4	QPSK	3	3	24.09	24.22	22.96	
1.4	QPSK	6	0	23.22	23.38	22.23	24.5
1.4	16QAM	1	0	23.41	23.50	22.49	24.5
1.4	16QAM	1	3	23.51	23.60	22.46	
1.4	16QAM	1	5	23.42	23.55	22.32	
1.4	16QAM	3	0	23.33	23.32	22.33	
1.4	16QAM	3	1	23.36	23.38	22.34	
1.4	16QAM	3	3	23.28	23.35	22.24	
1.4	16QAM	6	0	22.47	22.45	21.48	23.5
1.4	64QAM	1	0	21.61	21.71	20.73	23.5
1.4	64QAM	1	3	21.67	21.80	20.70	
1.4	64QAM	1	5	21.61	21.74	20.58	
1.4	64QAM	3	0	21.60	21.68	20.68	
1.4	64QAM	3	1	21.59	21.73	20.70	
1.4	64QAM	3	3	21.50	21.69	20.60	
1.4	64QAM	6	0	20.42	20.63	19.62	22.5





<LTE Band 5/26 Ant0 state 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.37	24.34	24.85	25.5
15	QPSK	1	37	24.92	24.50	23.63	
15	QPSK	1	74	23.59	23.94	23.50	
15	QPSK	36	0	23.99	23.34	23.66	24.5
15	QPSK	36	20	24.06	23.63	22.83	
15	QPSK	36	39	23.47	23.52	22.50	
15	QPSK	75	0	23.85	23.75	23.17	24.5
15	16QAM	1	0	23.77	23.75	24.17	
15	16QAM	1	37	24.10	23.70	22.97	
15	16QAM	1	74	22.83	23.16	22.66	23.5
15	16QAM	36	0	23.08	22.35	22.72	
15	16QAM	36	20	23.16	22.69	21.94	
15	16QAM	36	39	22.64	22.94	21.73	23.5
15	16QAM	75	0	22.86	22.67	22.25	
15	64QAM	1	0	21.78	21.77	22.47	
15	64QAM	1	37	21.90	21.76	20.98	23.5
15	64QAM	1	74	20.68	21.20	20.77	
15	64QAM	36	0	21.17	20.42	20.80	
15	64QAM	36	20	21.22	20.75	20.01	22.5
15	64QAM	36	39	20.71	21.03	19.81	
15	64QAM	75	0	20.83	20.70	20.23	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.15	24.26	24.06	25.5
10	QPSK	1	25	24.91	24.48	23.25	
10	QPSK	1	49	24.01	24.47	23.40	
10	QPSK	25	0	23.75	23.24	22.66	24.5
10	QPSK	25	12	24.22	23.49	22.39	
10	QPSK	25	25	24.02	23.74	22.55	
10	QPSK	50	0	23.75	23.58	22.72	24.5
10	16QAM	1	0	23.44	23.56	23.65	
10	16QAM	1	25	24.39	23.90	22.68	
10	16QAM	1	49	23.61	23.87	22.74	23.5
10	16QAM	25	0	22.89	22.39	21.78	
10	16QAM	25	12	23.34	22.63	21.57	
10	16QAM	25	25	23.18	22.87	21.73	23.5
10	16QAM	50	0	22.94	22.62	21.69	
10	64QAM	1	0	21.66	21.36	21.51	
10	64QAM	1	25	22.50	21.84	20.66	23.5
10	64QAM	1	49	21.62	21.68	20.59	
10	64QAM	25	0	20.91	20.45	19.87	
10	64QAM	25	12	21.39	20.62	19.59	22.5
10	64QAM	25	25	21.24	20.92	19.81	
10	64QAM	50	0	20.92	20.66	19.77	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.93	24.21	23.34	25.5
5	QPSK	1	12	24.46	24.28	23.52	
5	QPSK	1	24	24.69	24.39	23.53	
5	QPSK	12	0	23.22	23.29	22.47	24.5
5	QPSK	12	7	23.91	23.52	22.71	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

5	QPSK	12	13	24.31	23.69	22.84	
5	QPSK	25	0	23.66	23.46	22.65	
5	16QAM	1	0	23.33	23.50	22.69	
5	16QAM	1	12	23.86	23.63	22.82	24.5
5	16QAM	1	24	24.16	23.74	22.84	
5	16QAM	12	0	22.37	22.42	21.54	23.5
5	16QAM	12	7	22.97	22.63	21.86	
5	16QAM	12	13	23.33	22.83	21.98	
5	16QAM	25	0	22.76	22.57	21.71	23.5
5	64QAM	1	0	21.41	21.54	20.80	
5	64QAM	1	12	21.81	21.71	20.80	
5	64QAM	1	24	22.10	21.67	20.85	22.5
5	64QAM	12	0	20.35	20.46	19.65	
5	64QAM	12	7	21.01	20.72	19.91	
5	64QAM	12	13	21.35	20.85	20.03	22.5
5	64QAM	25	0	20.76	20.67	19.75	
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.93	24.38	23.67	25.5
3	QPSK	1	8	24.26	24.54	23.99	
3	QPSK	1	14	24.43	24.59	23.76	
3	QPSK	8	0	23.05	23.50	22.94	24.5
3	QPSK	8	4	23.38	23.63	23.09	
3	QPSK	8	7	23.73	23.68	22.89	
3	QPSK	15	0	23.37	23.56	22.93	24.5
3	16QAM	1	0	23.24	23.63	22.97	
3	16QAM	1	8	23.57	23.79	23.30	
3	16QAM	1	14	23.75	23.85	23.04	23.5
3	16QAM	8	0	22.12	22.62	22.02	
3	16QAM	8	4	22.50	22.73	22.16	
3	16QAM	8	7	22.77	22.79	22.06	23.5
3	16QAM	15	0	22.41	22.65	21.98	
3	64QAM	1	0	21.22	21.66	20.99	
3	64QAM	1	8	21.37	21.85	21.30	23.5
3	64QAM	1	14	21.63	21.90	21.10	
3	64QAM	8	0	20.14	20.62	20.03	
3	64QAM	8	4	20.50	20.79	20.23	22.5
3	64QAM	8	7	20.74	20.79	20.17	
3	64QAM	15	0	20.38	20.70	20.03	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.75	24.40	23.81	25.5
1.4	QPSK	1	3	23.85	24.45	23.74	
1.4	QPSK	1	5	23.75	24.42	23.64	
1.4	QPSK	3	0	23.75	24.39	23.68	24.5
1.4	QPSK	3	1	23.85	24.45	23.88	
1.4	QPSK	3	3	23.90	24.51	23.72	
1.4	QPSK	6	0	22.92	23.49	22.76	24.5
1.4	16QAM	1	0	23.02	23.64	23.08	24.5
1.4	16QAM	1	3	23.10	23.74	23.02	
1.4	16QAM	1	5	23.00	23.72	22.98	
1.4	16QAM	3	0	22.90	23.54	22.96	24.5
1.4	16QAM	3	1	22.99	23.61	22.92	
1.4	16QAM	3	3	23.05	23.64	22.93	
1.4	16QAM	6	0	22.01	22.67	21.99	23.5
1.4	64QAM	1	0	20.98	21.77	21.26	23.5



1.4	64QAM	1	3	21.15	21.80	21.09	
1.4	64QAM	1	5	21.05	21.77	21.01	
1.4	64QAM	3	0	20.97	21.73	21.24	
1.4	64QAM	3	1	21.16	21.88	21.30	
1.4	64QAM	3	3	21.15	21.78	21.05	
1.4	64QAM	6	0	19.99	20.66	20.03	22.5

**<LTE Band 5/26 Ant2 state 1>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.37	24.34	24.85	25
15	QPSK	1	37	24.92	24.50	23.63	
15	QPSK	1	74	23.59	23.94	23.50	
15	QPSK	36	0	23.99	23.34	23.66	24.5
15	QPSK	36	20	24.06	23.63	22.83	
15	QPSK	36	39	23.47	23.52	22.50	
15	QPSK	75	0	23.85	23.75	23.17	24.5
15	16QAM	1	0	23.77	23.75	24.17	
15	16QAM	1	37	24.10	23.70	22.97	
15	16QAM	1	74	22.83	23.16	22.66	23.5
15	16QAM	36	0	23.08	22.35	22.72	
15	16QAM	36	20	23.16	22.69	21.94	
15	16QAM	36	39	22.64	22.94	21.73	23.5
15	16QAM	75	0	22.86	22.67	22.25	
15	64QAM	1	0	21.78	21.77	22.47	
15	64QAM	1	37	21.90	21.76	20.98	23.5
15	64QAM	1	74	20.68	21.20	20.77	
15	64QAM	36	0	21.17	20.42	20.80	
15	64QAM	36	20	21.22	20.75	20.01	22.5
15	64QAM	36	39	20.71	21.03	19.81	
15	64QAM	75	0	20.83	20.70	20.23	
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.15	24.26	24.06	25
10	QPSK	1	25	24.91	24.48	23.25	
10	QPSK	1	49	24.01	24.47	23.40	
10	QPSK	25	0	23.75	23.24	22.66	24.5
10	QPSK	25	12	24.22	23.49	22.39	
10	QPSK	25	25	24.02	23.74	22.55	
10	QPSK	50	0	23.75	23.58	22.72	24.5
10	16QAM	1	0	23.44	23.56	23.65	
10	16QAM	1	25	24.39	23.90	22.68	
10	16QAM	1	49	23.61	23.87	22.74	24.5
10	16QAM	25	0	22.89	22.39	21.78	
10	16QAM	25	12	23.34	22.63	21.57	
10	16QAM	25	25	23.18	22.87	21.73	23.5
10	16QAM	50	0	22.94	22.62	21.69	
10	64QAM	1	0	21.66	21.36	21.51	
10	64QAM	1	25	22.50	21.84	20.66	23.5
10	64QAM	1	49	21.62	21.68	20.59	
10	64QAM	25	0	20.91	20.45	19.87	
10	64QAM	25	12	21.39	20.62	19.59	22.5
10	64QAM	25	25	21.24	20.92	19.81	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	64QAM	50	0	20.92	20.66	19.77	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.93	24.21	23.34	25
5	QPSK	1	12	24.46	24.28	23.52	
5	QPSK	1	24	24.69	24.39	23.53	
5	QPSK	12	0	23.22	23.29	22.47	24.5
5	QPSK	12	7	23.91	23.52	22.71	
5	QPSK	12	13	24.31	23.69	22.84	
5	QPSK	25	0	23.66	23.46	22.65	
5	16QAM	1	0	23.33	23.50	22.69	24.5
5	16QAM	1	12	23.86	23.63	22.82	
5	16QAM	1	24	24.16	23.74	22.84	
5	16QAM	12	0	22.37	22.42	21.54	23.5
5	16QAM	12	7	22.97	22.63	21.86	
5	16QAM	12	13	23.33	22.83	21.98	
5	16QAM	25	0	22.76	22.57	21.71	
5	64QAM	1	0	21.41	21.54	20.80	23.5
5	64QAM	1	12	21.81	21.71	20.80	
5	64QAM	1	24	22.10	21.67	20.85	
5	64QAM	12	0	20.35	20.46	19.65	22.5
5	64QAM	12	7	21.01	20.72	19.91	
5	64QAM	12	13	21.35	20.85	20.03	
5	64QAM	25	0	20.76	20.67	19.75	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.93	24.38	23.67	25
3	QPSK	1	8	24.26	24.54	23.99	
3	QPSK	1	14	24.43	24.59	23.76	
3	QPSK	8	0	23.05	23.50	22.94	24.5
3	QPSK	8	4	23.38	23.63	23.09	
3	QPSK	8	7	23.73	23.68	22.89	
3	QPSK	15	0	23.37	23.56	22.93	
3	16QAM	1	0	23.24	23.63	22.97	24.5
3	16QAM	1	8	23.57	23.79	23.30	
3	16QAM	1	14	23.75	23.85	23.04	
3	16QAM	8	0	22.12	22.62	22.02	23.5
3	16QAM	8	4	22.50	22.73	22.16	
3	16QAM	8	7	22.77	22.79	22.06	
3	16QAM	15	0	22.41	22.65	21.98	
3	64QAM	1	0	21.22	21.66	20.99	23.5
3	64QAM	1	8	21.37	21.85	21.30	
3	64QAM	1	14	21.63	21.90	21.10	
3	64QAM	8	0	20.14	20.62	20.03	22.5
3	64QAM	8	4	20.50	20.79	20.23	
3	64QAM	8	7	20.74	20.79	20.17	
3	64QAM	15	0	20.38	20.70	20.03	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.75	24.40	23.81	25
1.4	QPSK	1	3	23.85	24.45	23.74	
1.4	QPSK	1	5	23.75	24.42	23.64	
1.4	QPSK	3	0	23.75	24.39	23.68	
1.4	QPSK	3	1	23.85	24.45	23.88	
1.4	QPSK	3	3	23.90	24.51	23.72	
1.4	QPSK	6	0	22.92	23.49	22.76	24.5



1.4	16QAM	1	0	23.02	23.64	23.08	24.5
1.4	16QAM	1	3	23.10	23.74	23.02	
1.4	16QAM	1	5	23.00	23.72	22.98	
1.4	16QAM	3	0	22.90	23.54	22.96	
1.4	16QAM	3	1	22.99	23.61	22.92	
1.4	16QAM	3	3	23.05	23.64	22.93	
1.4	16QAM	6	0	22.01	22.67	21.99	23.5
1.4	64QAM	1	0	20.98	21.77	21.26	23.5
1.4	64QAM	1	3	21.15	21.80	21.09	
1.4	64QAM	1	5	21.05	21.77	21.01	
1.4	64QAM	3	0	20.97	21.73	21.24	
1.4	64QAM	3	1	21.16	21.88	21.30	
1.4	64QAM	3	3	21.15	21.78	21.05	
1.4	64QAM	6	0	19.99	20.66	20.03	22.5

<LTE Band 5/26 Ant2 state 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	22.21	22.03	21.89	22.5
15	QPSK	1	37	22.11	21.84	21.72	
15	QPSK	1	74	22.02	21.74	21.66	
15	QPSK	36	0	21.22	21.01	20.91	21.5
15	QPSK	36	20	21.23	21.03	20.93	
15	QPSK	36	39	21.16	20.97	20.84	
15	QPSK	75	0	21.21	21.05	20.89	21.5
15	16QAM	1	0	21.50	21.31	21.23	
15	16QAM	1	37	21.39	21.24	21.00	
15	16QAM	1	74	21.23	21.05	20.88	20.5
15	16QAM	36	0	20.40	20.06	19.88	
15	16QAM	36	20	20.25	20.04	19.89	
15	16QAM	36	39	20.15	19.96	19.84	20.5
15	16QAM	75	0	20.22	20.06	19.84	
15	64QAM	1	0	20.38	20.21	20.05	
15	64QAM	1	37	20.33	20.12	19.92	20.5
15	64QAM	1	74	19.85	19.98	19.85	
15	64QAM	36	0	19.33	19.09	18.90	
15	64QAM	36	20	19.29	19.09	18.92	19.5
15	64QAM	36	39	19.17	19.03	18.85	
15	64QAM	75	0	19.22	19.06	18.85	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	22.13	22.01	21.84	22.5
10	QPSK	1	25	22.08	21.80	21.66	
10	QPSK	1	49	22.01	21.69	21.56	
10	QPSK	25	0	21.26	21.03	20.86	21.5
10	QPSK	25	12	21.13	21.00	20.90	
10	QPSK	25	25	21.13	20.95	20.82	
10	QPSK	50	0	21.20	21.03	20.79	21.5
10	16QAM	1	0	21.42	21.27	21.16	
10	16QAM	1	25	21.35	21.15	20.99	
10	16QAM	1	49	21.20	20.98	20.85	20.5
10	16QAM	25	0	20.37	20.04	19.88	
10	16QAM	25	12	20.21	19.95	19.81	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	16QAM	25	25	20.09	19.89	19.78	
10	16QAM	50	0	20.12	20.03	19.84	
10	64QAM	1	0	20.31	20.16	19.99	
10	64QAM	1	25	20.23	20.07	19.88	20.5
10	64QAM	1	49	19.85	19.90	19.75	
10	64QAM	25	0	19.29	19.07	18.87	19.5
10	64QAM	25	12	19.21	19.05	18.90	
10	64QAM	25	25	19.16	18.94	18.77	
10	64QAM	50	0	19.14	18.97	18.78	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	22.14	22.00	21.84	22.5
5	QPSK	1	12	22.11	21.74	21.67	
5	QPSK	1	24	21.93	21.65	21.66	
5	QPSK	12	0	21.28	20.94	20.87	21.5
5	QPSK	12	7	21.20	20.95	20.85	
5	QPSK	12	13	21.16	20.93	20.81	
5	QPSK	25	0	21.14	20.96	20.81	
5	16QAM	1	0	21.50	21.29	21.20	21.5
5	16QAM	1	12	21.29	21.24	20.90	
5	16QAM	1	24	21.15	21.02	20.88	
5	16QAM	12	0	20.33	20.03	19.87	20.5
5	16QAM	12	7	20.21	19.96	19.87	
5	16QAM	12	13	20.10	19.91	19.79	
5	16QAM	25	0	20.15	19.97	19.80	
5	64QAM	1	0	20.31	20.15	19.96	20.5
5	64QAM	1	12	20.31	20.08	19.92	
5	64QAM	1	24	19.83	19.90	19.75	
5	64QAM	12	0	19.33	19.01	18.89	19.5
5	64QAM	12	7	19.19	19.00	18.84	
5	64QAM	12	13	19.15	18.99	18.80	
5	64QAM	25	0	19.22	18.98	18.76	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	22.20	21.97	21.87	22.5
3	QPSK	1	8	22.06	21.79	21.71	
3	QPSK	1	14	21.94	21.74	21.60	
3	QPSK	8	0	21.23	21.01	20.88	21.5
3	QPSK	8	4	21.20	21.03	20.92	
3	QPSK	8	7	21.06	20.88	20.75	
3	QPSK	15	0	21.18	21.01	20.89	
3	16QAM	1	0	21.42	21.22	21.23	21.5
3	16QAM	1	8	21.37	21.20	21.00	
3	16QAM	1	14	21.20	21.03	20.79	
3	16QAM	8	0	20.39	20.05	19.81	20.5
3	16QAM	8	4	20.15	20.03	19.82	
3	16QAM	8	7	20.05	19.88	19.76	
3	16QAM	15	0	20.17	20.04	19.84	
3	64QAM	1	0	20.38	20.13	19.97	20.5
3	64QAM	1	8	20.28	20.03	19.89	
3	64QAM	1	14	19.76	19.94	19.78	
3	64QAM	8	0	19.28	19.00	18.83	19.5
3	64QAM	8	4	19.20	19.04	18.90	
3	64QAM	8	7	19.07	18.95	18.81	
3	64QAM	15	0	19.12	19.04	18.76	
Channel				26697	26865	27033	Tune-up limit



Frequency (MHz)				814.7	831.5	848.3	(dBm)
1.4	QPSK	1	0	22.23	21.92	21.65	22.5
1.4	QPSK	1	3	22.24	21.94	21.70	
1.4	QPSK	1	5	22.14	21.82	21.57	
1.4	QPSK	3	0	22.24	21.95	21.67	
1.4	QPSK	3	1	22.25	21.97	21.72	
1.4	QPSK	3	3	22.17	21.91	21.65	
1.4	QPSK	6	0	21.25	20.94	20.71	21.5
1.4	16QAM	1	0	21.49	21.24	21.00	21.5
1.4	16QAM	1	3	21.50	21.25	21.14	
1.4	16QAM	1	5	21.41	21.18	20.87	
1.4	16QAM	3	0	21.31	21.07	20.71	
1.4	16QAM	3	1	21.34	21.07	20.76	
1.4	16QAM	3	3	21.27	20.98	20.68	
1.4	16QAM	6	0	20.36	20.05	19.80	20.5
1.4	64QAM	1	0	20.43	20.20	19.90	20.5
1.4	64QAM	1	3	20.47	20.23	19.90	
1.4	64QAM	1	5	20.46	20.11	19.88	
1.4	64QAM	3	0	20.38	20.08	19.84	
1.4	64QAM	3	1	20.43	20.13	19.87	
1.4	64QAM	3	3	20.36	20.11	19.83	
1.4	64QAM	6	0	19.27	18.97	18.72	19.5



<LTE Band 30 Ant1 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				27710			
Frequency (MHz)				2310			
10	QPSK	1	0		23.98		25.5
10	QPSK	1	25		23.85		
10	QPSK	1	49		23.87		
10	QPSK	25	0		22.98		24.5
10	QPSK	25	12		23.01		
10	QPSK	25	25		23.02		
10	QPSK	50	0		23.02		24.5
10	16QAM	1	0		23.27		
10	16QAM	1	25		23.26		
10	16QAM	1	49		23.25		23.5
10	16QAM	25	0		21.96		
10	16QAM	25	12		22.01		
10	16QAM	25	25		22.01		23.5
10	16QAM	50	0		22.01		
10	64QAM	1	0		21.69		
10	64QAM	1	25		21.57		23.5
10	64QAM	1	49		21.71		
10	64QAM	25	0		20.51		
10	64QAM	25	12		20.65		22.5
10	64QAM	25	25		20.64		
10	64QAM	50	0		20.50		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	23.91	23.87	23.82	25.5
5	QPSK	1	12	23.91	23.96	23.95	
5	QPSK	1	24	23.89	23.86	23.80	
5	QPSK	12	0	22.99	22.99	22.93	24.5
5	QPSK	12	7	23.04	23.05	22.97	
5	QPSK	12	13	23.04	23.03	22.99	
5	QPSK	25	0	23.02	23.00	22.89	24.5
5	16QAM	1	0	23.22	23.22	22.83	
5	16QAM	1	12	23.23	23.26	23.24	
5	16QAM	1	24	23.28	23.32	23.23	23.5
5	16QAM	12	0	22.01	22.01	21.97	
5	16QAM	12	7	22.05	22.05	22.03	
5	16QAM	12	13	22.05	22.03	22.07	23.5
5	16QAM	25	0	22.03	22.01	21.99	
5	64QAM	1	0	21.56	21.53	22.02	
5	64QAM	1	12	21.53	21.63	21.56	23.5
5	64QAM	1	24	21.51	21.76	21.74	
5	64QAM	12	0	20.53	20.52	20.97	
5	64QAM	12	7	20.54	20.68	20.61	22.5
5	64QAM	12	13	20.53	20.67	20.54	
5	64QAM	25	0	20.46	20.61	20.28	





<LTE Band 38/41 Ant1 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	24.08	24.04	24.10	24.05	23.92	25.5
20	QPSK	1	49	24.09	24.11	24.11	24.08	23.93	
20	QPSK	1	99	24.08	24.08	24.09	24.07	23.87	
20	QPSK	50	0	23.23	23.24	23.09	23.14	23.01	24.5
20	QPSK	50	24	23.23	23.23	23.18	23.22	22.97	
20	QPSK	50	50	23.22	23.23	23.17	23.18	23.00	
20	QPSK	100	0	23.25	23.26	23.17	23.20	22.98	24.5
20	16QAM	1	0	23.27	23.19	23.18	23.20	23.11	
20	16QAM	1	49	23.15	23.19	23.11	23.08	22.92	
20	16QAM	1	99	23.20	23.20	23.21	23.14	23.01	23.5
20	16QAM	50	0	22.28	22.19	22.10	22.16	22.02	
20	16QAM	50	24	22.27	22.27	22.19	22.22	22.01	
20	16QAM	50	50	22.28	22.27	22.20	22.22	22.04	23.5
20	16QAM	100	0	22.27	22.27	22.19	22.24	21.99	
20	64QAM	1	0	21.99	21.90	21.85	21.88	21.78	
20	64QAM	1	49	21.80	21.93	21.85	21.84	21.63	23.5
20	64QAM	1	99	21.93	21.95	21.92	21.87	21.72	
20	64QAM	50	0	21.28	21.20	21.12	21.18	21.06	
20	64QAM	50	24	21.30	21.28	21.20	21.24	21.01	22.5
20	64QAM	50	50	21.27	21.27	21.20	21.22	21.05	
20	64QAM	100	0	21.28	21.27	21.20	21.24	20.99	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	24.04	23.96	24.00	24.03	23.99	25.5
15	QPSK	1	37	24.02	24.06	23.93	23.98	23.78	
15	QPSK	1	74	24.06	24.00	24.09	24.02	23.87	
15	QPSK	36	0	23.26	23.15	23.04	23.07	22.96	24.5
15	QPSK	36	20	23.23	23.19	23.13	23.15	22.94	
15	QPSK	36	39	23.16	23.21	23.08	23.12	22.98	
15	QPSK	75	0	23.21	23.16	23.17	23.16	22.91	24.5
15	16QAM	1	0	23.23	23.17	23.11	23.15	23.11	
15	16QAM	1	37	23.07	23.09	23.08	23.07	22.86	
15	16QAM	1	74	23.12	23.19	23.13	23.12	22.96	23.5
15	16QAM	36	0	22.26	22.09	22.05	22.16	22.02	
15	16QAM	36	20	22.17	22.26	22.12	22.20	21.94	
15	16QAM	36	39	22.20	22.26	22.19	22.14	22.03	23.5
15	16QAM	75	0	22.25	22.18	22.18	22.14	21.91	
15	64QAM	1	0	21.94	21.87	21.76	21.82	21.68	
15	64QAM	1	37	21.77	21.85	21.76	21.82	21.61	23.5
15	64QAM	1	74	21.90	21.93	21.88	21.86	21.67	
15	64QAM	36	0	21.23	21.13	21.09	21.11	21.06	
15	64QAM	36	20	21.28	21.28	21.17	21.15	20.91	22.5
15	64QAM	36	39	21.21	21.25	21.15	21.18	21.03	
15	64QAM	75	0	21.25	21.21	21.13	21.23	20.99	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	24.11	24.00	24.05	24.07	23.99	25.5
10	QPSK	1	25	24.05	24.08	23.95	23.93	23.77	
10	QPSK	1	49	24.01	24.05	24.03	23.97	23.87	
10	QPSK	25	0	23.26	23.07	23.03	23.09	22.92	24.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	25	12	23.17	23.20	23.08	23.21	22.95	
10	QPSK	25	25	23.17	23.17	23.14	23.08	22.94	
10	QPSK	50	0	23.22	23.22	23.12	23.11	22.91	
10	16QAM	1	0	23.18	23.12	23.11	23.19	23.07	24.5
10	16QAM	1	25	23.13	23.13	23.07	23.08	22.84	
10	16QAM	1	49	23.18	23.17	23.15	23.07	22.95	
10	16QAM	25	0	22.27	22.11	22.00	22.07	21.99	23.5
10	16QAM	25	12	22.22	22.21	22.13	22.19	21.98	
10	16QAM	25	25	22.18	22.19	22.13	22.13	21.94	
10	16QAM	50	0	22.24	22.22	22.15	22.18	21.91	23.5
10	64QAM	1	0	21.92	21.88	21.84	21.86	21.74	
10	64QAM	1	25	21.79	21.83	21.83	21.83	21.55	
10	64QAM	1	49	21.92	21.88	21.85	21.81	21.66	22.5
10	64QAM	25	0	21.25	21.15	21.03	21.17	20.97	
10	64QAM	25	12	21.27	21.28	21.18	21.14	21.00	
10	64QAM	25	25	21.17	21.25	21.12	21.12	20.96	22.5
10	64QAM	50	0	21.23	21.27	21.15	21.20	20.89	
Channel				39675	40148	40620	41093	41565	
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	24.10	23.94	24.04	24.07	23.92	25.5
5	QPSK	1	12	24.08	24.00	24.01	23.98	23.81	
5	QPSK	1	24	24.05	24.02	24.06	24.02	23.80	
5	QPSK	12	0	23.24	23.13	23.00	23.04	22.93	24.5
5	QPSK	12	7	23.21	23.23	23.10	23.13	22.87	
5	QPSK	12	13	23.20	23.14	23.13	23.18	22.93	
5	QPSK	25	0	23.19	23.21	23.15	23.12	22.93	24.5
5	16QAM	1	0	23.22	23.10	23.12	23.15	23.06	
5	16QAM	1	12	23.14	23.11	23.03	23.01	22.89	
5	16QAM	1	24	23.13	23.13	23.13	23.12	22.95	23.5
5	16QAM	12	0	22.28	22.16	22.04	22.14	21.98	
5	16QAM	12	7	22.26	22.17	22.18	22.13	22.01	
5	16QAM	12	13	22.20	22.26	22.14	22.17	21.99	23.5
5	16QAM	25	0	22.23	22.23	22.11	22.15	21.98	
5	64QAM	1	0	21.93	21.81	21.80	21.79	21.71	
5	64QAM	1	12	21.71	21.88	21.80	21.78	21.58	23.5
5	64QAM	1	24	21.93	21.85	21.91	21.83	21.64	
5	64QAM	12	0	21.26	21.17	21.10	21.14	21.00	
5	64QAM	12	7	21.27	21.23	21.13	21.20	20.99	22.5
5	64QAM	12	13	21.26	21.17	21.16	21.17	20.99	
5	64QAM	25	0	21.26	21.24	21.18	21.20	20.89	



<LTE Band 42/48 Ant9 State 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	22
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	20.84	20.97	20.92	20.86	22
20	QPSK	1	49	20.78	20.84	20.79	20.74	
20	QPSK	1	99	20.83	20.94	20.87	20.85	
20	QPSK	50	0	19.93	19.98	19.94	19.88	21
20	QPSK	50	24	19.92	19.94	19.94	19.87	
20	QPSK	50	50	19.93	19.95	19.86	19.82	
20	QPSK	100	0	19.93	20.01	19.95	19.90	21
20	16QAM	1	0	20.03	20.08	20.04	19.96	
20	16QAM	1	49	19.92	19.98	19.90	19.84	
20	16QAM	1	99	20.04	20.08	20.02	19.97	20
20	16QAM	50	0	18.97	18.98	18.99	18.92	
20	16QAM	50	24	18.96	19.05	18.98	18.93	
20	16QAM	50	50	18.99	19.04	18.90	18.85	20
20	16QAM	100	0	18.97	19.06	18.98	18.94	
20	64QAM	1	0	18.61	18.69	18.69	18.64	
20	64QAM	1	49	18.56	18.63	18.56	18.52	20
20	64QAM	1	99	18.74	18.79	18.62	18.62	
20	64QAM	50	0	18.03	18.01	18.02	17.97	
20	64QAM	50	24	18.00	18.07	18.00	18.00	19
20	64QAM	50	50	18.00	18.07	17.94	17.90	
20	64QAM	100	0	18.02	18.11	18.04	18.01	
Channel				55315	55820	56160	56665	22
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	20.76	20.96	20.84	20.76	22
15	QPSK	1	37	20.76	20.79	20.73	20.72	
15	QPSK	1	74	20.80	20.85	20.78	20.83	
15	QPSK	36	0	19.93	19.94	19.90	19.79	21
15	QPSK	36	20	19.92	19.97	19.89	19.86	
15	QPSK	36	39	19.85	19.93	19.76	19.81	
15	QPSK	75	0	19.88	20.00	19.87	19.83	21
15	16QAM	1	0	19.94	20.05	19.99	19.91	
15	16QAM	1	37	19.90	19.95	19.90	19.84	
15	16QAM	1	74	20.00	20.04	19.99	19.97	20
15	16QAM	36	0	18.95	18.95	18.97	18.84	
15	16QAM	36	20	18.95	19.05	18.94	18.83	
15	16QAM	36	39	18.96	19.00	18.80	18.85	20
15	16QAM	75	0	18.90	18.97	18.94	18.87	
15	64QAM	1	0	18.59	18.61	18.69	18.60	
15	64QAM	1	37	18.47	18.61	18.54	18.46	20
15	64QAM	1	74	18.65	18.77	18.60	18.54	
15	64QAM	36	0	18.02	17.93	17.95	17.94	
15	64QAM	36	20	17.92	18.01	17.96	17.93	19
15	64QAM	36	39	17.93	17.97	17.92	17.83	
15	64QAM	75	0	17.94	18.02	17.99	17.95	
Channel				55290	55815	56165	56690	22
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	20.82	20.93	20.84	20.86	22
10	QPSK	1	25	20.68	20.81	20.73	20.74	
10	QPSK	1	49	20.84	20.91	20.82	20.80	
10	QPSK	25	0	19.88	19.90	19.86	19.81	21
10	QPSK	25	12	19.92	19.94	19.85	19.84	



10	QPSK	25	25	19.94	19.88	19.82	19.80	
10	QPSK	50	0	19.83	19.97	19.88	19.83	
10	16QAM	1	0	20.03	19.99	19.95	19.92	21
10	16QAM	1	25	19.82	19.91	19.81	19.77	
10	16QAM	1	49	19.95	20.08	19.96	19.97	
10	16QAM	25	0	18.89	18.97	18.91	18.84	20
10	16QAM	25	12	18.87	18.99	18.93	18.93	
10	16QAM	25	25	18.95	18.94	18.83	18.80	
10	16QAM	50	0	18.92	19.04	18.98	18.85	
10	64QAM	1	0	18.56	18.69	18.59	18.55	20
10	64QAM	1	25	18.55	18.60	18.52	18.47	
10	64QAM	1	49	18.69	18.77	18.54	18.61	
10	64QAM	25	0	17.98	17.96	17.99	17.93	19
10	64QAM	25	12	17.97	17.98	17.97	18.00	
10	64QAM	25	25	17.94	17.98	17.92	17.87	
10	64QAM	50	0	17.93	18.08	17.96	17.99	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	20.80	20.93	20.90	20.83	22
5	QPSK	1	12	20.71	20.84	20.74	20.67	
5	QPSK	1	24	20.83	20.92	20.87	20.85	
5	QPSK	12	0	19.87	19.91	19.85	19.79	21
5	QPSK	12	7	19.92	19.94	19.93	19.87	
5	QPSK	12	13	19.91	19.93	19.85	19.81	
5	QPSK	25	0	19.87	19.92	19.85	19.84	
5	16QAM	1	0	19.99	20.04	19.98	19.86	21
5	16QAM	1	12	19.84	19.93	19.82	19.75	
5	16QAM	1	24	19.97	20.05	19.93	19.91	
5	16QAM	12	0	18.93	18.88	18.98	18.84	20
5	16QAM	12	7	18.86	19.03	18.98	18.83	
5	16QAM	12	13	18.89	18.99	18.84	18.80	
5	16QAM	25	0	18.91	19.04	18.89	18.87	
5	64QAM	1	0	18.54	18.62	18.68	18.62	20
5	64QAM	1	12	18.46	18.55	18.54	18.48	
5	64QAM	1	24	18.64	18.78	18.55	18.61	
5	64QAM	12	0	17.96	17.98	17.98	17.92	19
5	64QAM	12	7	17.90	18.02	17.98	17.93	
5	64QAM	12	13	17.96	17.98	17.87	17.85	
5	64QAM	25	0	18.01	18.10	17.98	17.94	

<LTE Band 42/48 Ant9 State 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	19.39	19.44	19.40	19.32	20.5
20	QPSK	1	49	19.30	19.37	19.31	19.25	
20	QPSK	1	99	19.38	19.43	19.37	19.31	
20	QPSK	50	0	18.50	18.51	18.49	18.36	19.5
20	QPSK	50	24	18.49	18.48	18.48	18.35	
20	QPSK	50	50	18.48	18.50	18.41	18.30	
20	QPSK	100	0	18.48	18.54	18.46	18.37	
20	16QAM	1	0	18.47	18.56	18.51	18.47	19.5
20	16QAM	1	49	18.38	18.45	18.40	18.33	
20	16QAM	1	99	18.52	18.58	18.50	18.45	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	16QAM	50	0	17.52	17.50	17.52	17.41	18.5
20	16QAM	50	24	17.52	17.57	17.52	17.42	
20	16QAM	50	50	17.53	17.58	17.46	17.36	
20	16QAM	100	0	17.53	17.58	17.50	17.44	
20	64QAM	1	0	17.07	17.15	17.16	17.11	18.5
20	64QAM	1	49	17.01	17.11	17.01	16.97	
20	64QAM	1	99	17.20	17.25	17.12	17.06	
20	64QAM	50	0	16.52	16.52	16.53	16.48	17.5
20	64QAM	50	24	16.53	16.61	16.55	16.50	
20	64QAM	50	50	16.57	16.57	16.47	16.42	
20	64QAM	100	0	16.55	16.58	16.54	16.49	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	19.31	19.36	19.31	19.31	20.5
15	QPSK	1	37	19.22	19.34	19.23	19.25	
15	QPSK	1	74	19.29	19.42	19.36	19.25	
15	QPSK	36	0	18.41	18.48	18.47	18.35	19.5
15	QPSK	36	20	18.41	18.44	18.40	18.26	
15	QPSK	36	39	18.39	18.50	18.31	18.29	
15	QPSK	75	0	18.38	18.53	18.37	18.36	
15	16QAM	1	0	18.44	18.52	18.41	18.41	19.5
15	16QAM	1	37	18.36	18.36	18.37	18.25	
15	16QAM	1	74	18.44	18.58	18.46	18.42	
15	16QAM	36	0	17.43	17.45	17.48	17.33	18.5
15	16QAM	36	20	17.42	17.50	17.51	17.39	
15	16QAM	36	39	17.52	17.52	17.40	17.29	
15	16QAM	75	0	17.47	17.57	17.41	17.35	
15	64QAM	1	0	17.06	17.10	17.13	17.08	18.5
15	64QAM	1	37	17.00	17.03	17.01	16.93	
15	64QAM	1	74	17.14	17.17	17.11	17.02	
15	64QAM	36	0	16.51	16.45	16.49	16.46	17.5
15	64QAM	36	20	16.46	16.60	16.49	16.47	
15	64QAM	36	39	16.51	16.55	16.40	16.36	
15	64QAM	75	0	16.52	16.50	16.49	16.48	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	19.31	19.35	19.31	19.22	20.5
10	QPSK	1	25	19.21	19.35	19.29	19.19	
10	QPSK	1	49	19.34	19.34	19.33	19.22	
10	QPSK	25	0	18.40	18.48	18.45	18.36	19.5
10	QPSK	25	12	18.45	18.43	18.47	18.35	
10	QPSK	25	25	18.39	18.43	18.41	18.21	
10	QPSK	50	0	18.39	18.50	18.38	18.29	
10	16QAM	1	0	18.40	18.55	18.51	18.42	19.5
10	16QAM	1	25	18.29	18.45	18.40	18.25	
10	16QAM	1	49	18.45	18.52	18.49	18.45	
10	16QAM	25	0	17.47	17.46	17.42	17.31	18.5
10	16QAM	25	12	17.42	17.54	17.51	17.36	
10	16QAM	25	25	17.46	17.56	17.40	17.28	
10	16QAM	50	0	17.44	17.56	17.40	17.41	
10	64QAM	1	0	17.06	17.09	17.12	17.02	18.5
10	64QAM	1	25	16.94	17.09	16.95	16.91	
10	64QAM	1	49	17.18	17.23	17.07	16.97	
10	64QAM	25	0	16.42	16.45	16.49	16.44	17.5
10	64QAM	25	12	16.51	16.59	16.54	16.47	
10	64QAM	25	25	16.48	16.53	16.40	16.39	



10	64QAM	50	0	16.47	16.58	16.48	16.44	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	19.33	19.35	19.37	19.23	20.5
5	QPSK	1	12	19.23	19.37	19.29	19.17	
5	QPSK	1	24	19.37	19.37	19.33	19.25	
5	QPSK	12	0	18.48	18.43	18.46	18.34	19.5
5	QPSK	12	7	18.43	18.39	18.48	18.35	
5	QPSK	12	13	18.46	18.40	18.32	18.23	
5	QPSK	25	0	18.44	18.53	18.41	18.37	
5	16QAM	1	0	18.39	18.50	18.43	18.45	19.5
5	16QAM	1	12	18.36	18.44	18.39	18.32	
5	16QAM	1	24	18.43	18.58	18.43	18.40	
5	16QAM	12	0	17.48	17.47	17.50	17.37	18.5
5	16QAM	12	7	17.42	17.55	17.52	17.37	
5	16QAM	12	13	17.47	17.50	17.45	17.36	
5	16QAM	25	0	17.48	17.48	17.50	17.40	
5	64QAM	1	0	17.01	17.10	17.08	17.04	18.5
5	64QAM	1	12	16.91	17.06	17.01	16.97	
5	64QAM	1	24	17.12	17.20	17.11	17.06	
5	64QAM	12	0	16.47	16.43	16.48	16.48	17.5
5	64QAM	12	7	16.47	16.56	16.50	16.47	
5	64QAM	12	13	16.49	16.49	16.37	16.40	
5	64QAM	25	0	16.51	16.55	16.46	16.41	

**<LTE Band 42/48 Ant11 State 1/2>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	Tune-up limit (dBm)
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	20.84	20.97	20.92	20.86	22
20	QPSK	1	49	20.78	20.84	20.79	20.74	
20	QPSK	1	99	20.83	20.94	20.87	20.85	
20	QPSK	50	0	19.93	19.98	19.94	19.88	21
20	QPSK	50	24	19.92	19.94	19.94	19.87	
20	QPSK	50	50	19.93	19.95	19.86	19.82	
20	QPSK	100	0	19.93	20.01	19.95	19.90	
20	16QAM	1	0	20.03	20.08	20.04	19.96	21
20	16QAM	1	49	19.92	19.98	19.90	19.84	
20	16QAM	1	99	20.04	20.08	20.02	19.97	
20	16QAM	50	0	18.97	18.98	18.99	18.92	20
20	16QAM	50	24	18.96	19.05	18.98	18.93	
20	16QAM	50	50	18.99	19.04	18.90	18.85	
20	16QAM	100	0	18.97	19.06	18.98	18.94	
20	64QAM	1	0	18.61	18.69	18.69	18.64	20
20	64QAM	1	49	18.56	18.63	18.56	18.52	
20	64QAM	1	99	18.74	18.79	18.62	18.62	
20	64QAM	50	0	18.03	18.01	18.02	17.97	19
20	64QAM	50	24	18.00	18.07	18.00	18.00	
20	64QAM	50	50	18.00	18.07	17.94	17.90	
20	64QAM	100	0	18.02	18.11	18.04	18.01	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	20.76	20.96	20.84	20.76	22



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

15	QPSK	1	37	20.76	20.79	20.73	20.72	
15	QPSK	1	74	20.80	20.85	20.78	20.83	
15	QPSK	36	0	19.93	19.94	19.90	19.79	
15	QPSK	36	20	19.92	19.97	19.89	19.86	
15	QPSK	36	39	19.85	19.93	19.76	19.81	
15	QPSK	75	0	19.88	20.00	19.87	19.83	21
15	16QAM	1	0	19.94	20.05	19.99	19.91	
15	16QAM	1	37	19.90	19.95	19.90	19.84	
15	16QAM	1	74	20.00	20.04	19.99	19.97	21
15	16QAM	36	0	18.95	18.95	18.97	18.84	
15	16QAM	36	20	18.95	19.05	18.94	18.83	
15	16QAM	36	39	18.96	19.00	18.80	18.85	20
15	16QAM	75	0	18.90	18.97	18.94	18.87	
15	64QAM	1	0	18.59	18.61	18.69	18.60	
15	64QAM	1	37	18.47	18.61	18.54	18.46	20
15	64QAM	1	74	18.65	18.77	18.60	18.54	
15	64QAM	36	0	18.02	17.93	17.95	17.94	
15	64QAM	36	20	17.92	18.01	17.96	17.93	19
15	64QAM	36	39	17.93	17.97	17.92	17.83	
15	64QAM	75	0	17.94	18.02	17.99	17.95	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	20.82	20.93	20.84	20.86	22
10	QPSK	1	25	20.68	20.81	20.73	20.74	
10	QPSK	1	49	20.84	20.91	20.82	20.80	
10	QPSK	25	0	19.88	19.90	19.86	19.81	21
10	QPSK	25	12	19.92	19.94	19.85	19.84	
10	QPSK	25	25	19.94	19.88	19.82	19.80	
10	QPSK	50	0	19.83	19.97	19.88	19.83	21
10	16QAM	1	0	20.03	19.99	19.95	19.92	
10	16QAM	1	25	19.82	19.91	19.81	19.77	
10	16QAM	1	49	19.95	20.08	19.96	19.97	20
10	16QAM	25	0	18.89	18.97	18.91	18.84	
10	16QAM	25	12	18.87	18.99	18.93	18.93	
10	16QAM	25	25	18.95	18.94	18.83	18.80	20
10	16QAM	50	0	18.92	19.04	18.98	18.85	
10	64QAM	1	0	18.56	18.69	18.59	18.55	
10	64QAM	1	25	18.55	18.60	18.52	18.47	20
10	64QAM	1	49	18.69	18.77	18.54	18.61	
10	64QAM	25	0	17.98	17.96	17.99	17.93	
10	64QAM	25	12	17.97	17.98	17.97	18.00	19
10	64QAM	25	25	17.94	17.98	17.92	17.87	
10	64QAM	50	0	17.93	18.08	17.96	17.99	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	20.80	20.93	20.90	20.83	22
5	QPSK	1	12	20.71	20.84	20.74	20.67	
5	QPSK	1	24	20.83	20.92	20.87	20.85	
5	QPSK	12	0	19.87	19.91	19.85	19.79	21
5	QPSK	12	7	19.92	19.94	19.93	19.87	
5	QPSK	12	13	19.91	19.93	19.85	19.81	
5	QPSK	25	0	19.87	19.92	19.85	19.84	21
5	16QAM	1	0	19.99	20.04	19.98	19.86	
5	16QAM	1	12	19.84	19.93	19.82	19.75	
5	16QAM	1	24	19.97	20.05	19.93	19.91	21
5	16QAM	12	0	18.93	18.88	18.98	18.84	
5	16QAM	12	0	18.93	18.88	18.98	18.84	20



5	16QAM	12	7	18.86	19.03	18.98	18.83	
5	16QAM	12	13	18.89	18.99	18.84	18.80	
5	16QAM	25	0	18.91	19.04	18.89	18.87	
5	64QAM	1	0	18.54	18.62	18.68	18.62	20
5	64QAM	1	12	18.46	18.55	18.54	18.48	
5	64QAM	1	24	18.64	18.78	18.55	18.61	
5	64QAM	12	0	17.96	17.98	17.98	17.92	19
5	64QAM	12	7	17.90	18.02	17.98	17.93	
5	64QAM	12	13	17.96	17.98	17.87	17.85	
5	64QAM	25	0	18.01	18.10	17.98	17.94	

**<LTE Band 66 Ant1 State 1/2>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.61	23.85	23.67	25.5
20	QPSK	1	49	23.60	23.62	23.53	
20	QPSK	1	99	23.58	23.57	23.53	
20	QPSK	50	0	22.82	22.85	22.70	24.5
20	QPSK	50	24	22.81	22.74	22.66	
20	QPSK	50	50	22.81	22.73	22.65	
20	QPSK	100	0	22.83	22.84	22.65	
20	16QAM	1	0	23.00	23.11	23.01	24.5
20	16QAM	1	49	23.06	23.02	22.94	
20	16QAM	1	99	22.97	22.91	22.77	
20	16QAM	50	0	21.85	21.78	21.69	23.5
20	16QAM	50	24	21.90	21.73	21.68	
20	16QAM	50	50	21.82	21.75	21.67	
20	16QAM	100	0	21.88	21.70	21.64	
20	64QAM	1	0	21.02	21.94	21.87	23.5
20	64QAM	1	49	21.93	21.66	21.80	
20	64QAM	1	99	21.85	21.80	21.64	
20	64QAM	50	0	20.44	20.76	20.71	22.5
20	64QAM	50	24	20.84	20.53	20.68	
20	64QAM	50	50	20.84	20.77	20.68	
20	64QAM	100	0	20.89	20.75	20.63	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.80	23.70	23.69	25.5
15	QPSK	1	37	23.75	23.65	23.58	
15	QPSK	1	74	23.68	23.60	23.51	
15	QPSK	36	0	22.92	22.75	22.71	24.5
15	QPSK	36	20	22.94	22.85	22.69	
15	QPSK	36	39	22.86	22.77	22.69	
15	QPSK	75	0	22.90	22.73	22.66	
15	16QAM	1	0	23.07	23.00	23.00	24.5
15	16QAM	1	37	23.08	23.00	22.93	
15	16QAM	1	74	23.01	22.95	22.85	
15	16QAM	36	0	21.93	21.78	21.71	23.5
15	16QAM	36	20	21.94	21.83	21.69	
15	16QAM	36	39	21.87	21.78	21.70	
15	16QAM	75	0	21.90	21.74	21.67	





**FCC SAR TEST REPORT**

**Report No. :FA082114A**

15	64QAM	1	0	21.07	21.88	21.87	23.5
15	64QAM	1	37	21.70	21.69	21.86	
15	64QAM	1	74	21.93	21.85	21.74	
15	64QAM	36	0	20.33	20.79	20.73	22.5
15	64QAM	36	20	20.68	20.67	20.73	
15	64QAM	36	39	20.88	20.79	20.72	
15	64QAM	75	0	20.63	20.75	20.69	Tune-up limit (dBm)
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.53	23.68	23.62	25.5
10	QPSK	1	25	23.75	23.61	23.56	
10	QPSK	1	49	23.70	23.58	23.50	
10	QPSK	25	0	22.88	22.73	22.64	24.5
10	QPSK	25	12	22.89	22.71	22.64	
10	QPSK	25	25	22.85	22.74	22.65	
10	QPSK	50	0	22.89	22.70	22.61	24.5
10	16QAM	1	0	22.92	23.07	22.99	
10	16QAM	1	25	23.15	23.03	22.95	
10	16QAM	1	49	23.09	22.96	22.86	23.5
10	16QAM	25	0	21.91	21.71	21.65	
10	16QAM	25	12	21.90	21.72	21.63	
10	16QAM	25	25	21.82	21.73	21.63	23.5
10	16QAM	50	0	21.88	21.70	21.59	
10	64QAM	1	0	20.50	21.56	21.85	
10	64QAM	1	25	21.50	21.80	21.84	23.5
10	64QAM	1	49	22.01	21.88	21.77	
10	64QAM	25	0	20.13	20.70	20.66	
10	64QAM	25	12	20.26	20.73	20.66	22.5
10	64QAM	25	25	20.50	20.74	20.68	
10	64QAM	50	0	20.16	20.63	20.62	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.53	23.65	23.57	25.5
5	QPSK	1	12	23.54	23.75	23.58	
5	QPSK	1	24	23.77	23.65	23.51	
5	QPSK	12	0	22.86	22.70	22.69	24.5
5	QPSK	12	7	22.92	22.83	22.65	
5	QPSK	12	13	22.87	22.74	22.62	
5	QPSK	25	0	22.85	22.72	22.65	24.5
5	16QAM	1	0	22.72	22.97	22.94	
5	16QAM	1	12	23.06	23.01	22.90	
5	16QAM	1	24	23.07	22.95	22.82	23.5
5	16QAM	12	0	21.95	21.76	21.68	
5	16QAM	12	7	21.96	21.83	21.70	
5	16QAM	12	13	21.89	21.78	21.64	23.5
5	16QAM	25	0	21.88	21.72	21.69	
5	64QAM	1	0	20.86	21.66	21.86	
5	64QAM	1	12	21.21	21.71	21.82	23.5
5	64QAM	1	24	21.43	21.61	21.76	
5	64QAM	12	0	20.06	20.64	20.75	
5	64QAM	12	7	20.21	20.71	20.76	22.5
5	64QAM	12	13	20.24	20.61	20.67	
5	64QAM	25	0	20.08	20.60	20.66	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.60	23.65	23.60	25.5



3	QPSK	1	8	23.75	23.76	23.62	
3	QPSK	1	14	23.82	23.68	23.53	
3	QPSK	8	0	22.92	22.70	22.64	
3	QPSK	8	4	22.96	22.78	22.68	24.5
3	QPSK	8	7	22.92	22.76	22.64	
3	QPSK	15	0	22.93	22.74	22.67	
3	16QAM	1	0	23.03	22.98	22.95	24.5
3	16QAM	1	8	23.21	23.05	23.00	
3	16QAM	1	14	23.15	23.02	22.89	
3	16QAM	8	0	21.98	21.78	21.76	23.5
3	16QAM	8	4	22.00	21.86	21.76	
3	16QAM	8	7	21.95	21.85	21.71	
3	16QAM	15	0	21.97	21.73	21.68	
3	64QAM	1	0	21.22	21.64	21.84	23.5
3	64QAM	1	8	21.49	21.74	21.88	
3	64QAM	1	14	21.51	21.63	21.81	
3	64QAM	8	0	20.31	20.69	20.75	22.5
3	64QAM	8	4	20.35	20.71	20.73	
3	64QAM	8	7	20.25	20.65	20.70	
3	64QAM	15	0	20.11	20.65	20.66	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.77	23.64	23.51	25.5
1.4	QPSK	1	3	23.83	23.71	23.55	
1.4	QPSK	1	5	23.76	23.62	23.50	
1.4	QPSK	3	0	23.81	23.67	23.51	
1.4	QPSK	3	1	23.75	23.70	23.56	
1.4	QPSK	3	3	23.80	23.66	23.52	
1.4	QPSK	6	0	22.85	22.70	22.57	24.5
1.4	16QAM	1	0	23.11	22.95	22.84	24.5
1.4	16QAM	1	3	23.12	23.03	22.91	
1.4	16QAM	1	5	23.09	22.92	22.83	
1.4	16QAM	3	0	22.89	22.74	22.61	
1.4	16QAM	3	1	22.95	22.79	22.68	
1.4	16QAM	3	3	22.87	22.75	22.62	
1.4	16QAM	6	0	21.93	21.80	21.68	23.5
1.4	64QAM	1	0	21.40	21.69	21.79	23.5
1.4	64QAM	1	3	21.52	21.73	21.83	
1.4	64QAM	1	5	21.51	21.66	21.73	
1.4	64QAM	3	0	21.48	21.70	21.73	
1.4	64QAM	3	1	21.61	21.75	21.76	
1.4	64QAM	3	3	21.46	21.62	21.74	
1.4	64QAM	6	0	20.34	20.60	20.64	22.5



<LTE Band 66 Ant8 State 2 when EN-DC active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.14	23.18	23.12	24.5
20	QPSK	1	49	23.07	23.03	23.04	
20	QPSK	1	99	23.03	22.98	22.97	
20	QPSK	50	0	22.24	22.25	22.22	23.5
20	QPSK	50	24	22.22	22.16	22.21	
20	QPSK	50	50	22.21	22.17	22.21	
20	QPSK	100	0	22.25	22.14	22.26	23.5
20	16QAM	1	0	22.50	22.51	22.48	
20	16QAM	1	49	22.44	22.41	22.43	
20	16QAM	1	99	22.34	22.30	22.25	22.5
20	16QAM	50	0	21.29	21.22	21.20	
20	16QAM	50	24	21.29	21.18	21.26	
20	16QAM	50	50	21.21	21.21	21.22	22.5
20	16QAM	100	0	21.23	21.14	21.24	
20	64QAM	1	0	21.29	21.33	21.30	
20	64QAM	1	49	20.79	21.26	21.30	22.5
20	64QAM	1	99	20.99	20.70	20.34	
20	64QAM	50	0	20.24	20.21	20.22	
20	64QAM	50	24	20.04	20.22	20.29	21.5
20	64QAM	50	50	19.88	20.16	19.81	
20	64QAM	100	0	20.08	20.16	20.21	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.10	23.09	23.15	24.5
15	QPSK	1	37	23.09	23.06	23.07	
15	QPSK	1	74	23.04	23.05	22.78	
15	QPSK	36	0	22.18	22.18	22.19	23.5
15	QPSK	36	20	22.27	22.20	22.21	
15	QPSK	36	39	22.23	22.21	22.23	
15	QPSK	75	0	22.24	22.15	22.19	23.5
15	16QAM	1	0	22.45	22.44	22.48	
15	16QAM	1	37	22.44	22.43	22.42	
15	16QAM	1	74	22.32	22.31	22.08	22.5
15	16QAM	36	0	21.19	21.17	21.20	
15	16QAM	36	20	21.27	21.18	21.19	
15	16QAM	36	39	21.21	21.20	21.23	22.5
15	16QAM	75	0	21.25	21.17	21.19	
15	64QAM	1	0	21.24	21.27	21.31	
15	64QAM	1	37	21.01	21.30	20.67	22.5
15	64QAM	1	74	20.71	20.52	20.09	
15	64QAM	36	0	20.20	20.22	20.21	
15	64QAM	36	20	20.15	20.21	20.02	21.5
15	64QAM	36	39	19.85	20.14	19.59	
15	64QAM	75	0	20.10	20.15	20.04	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.10	23.05	23.09	24.5
10	QPSK	1	25	23.03	23.05	23.05	
10	QPSK	1	49	22.99	23.00	23.00	
10	QPSK	25	0	22.22	22.13	22.14	23.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	25	12	22.22	22.14	22.22	
10	QPSK	25	25	22.17	22.17	22.17	
10	QPSK	50	0	22.21	22.11	22.14	
10	16QAM	1	0	22.47	22.47	22.50	23.5
10	16QAM	1	25	22.43	22.43	22.46	
10	16QAM	1	49	22.37	22.40	22.26	
10	16QAM	25	0	21.21	21.11	21.13	22.5
10	16QAM	25	12	21.23	21.13	21.23	
10	16QAM	25	25	21.15	21.17	21.16	
10	16QAM	50	0	21.20	21.11	21.14	
10	64QAM	1	0	20.96	21.30	21.26	22.5
10	64QAM	1	25	21.30	21.38	20.78	
10	64QAM	1	49	20.64	20.91	20.35	
10	64QAM	25	0	20.13	20.17	19.94	21.5
10	64QAM	25	12	20.21	20.18	19.81	
10	64QAM	25	25	20.06	20.19	19.65	
10	64QAM	50	0	20.11	20.16	19.83	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.03	22.95	23.04	24.5
5	QPSK	1	12	23.07	22.95	23.11	
5	QPSK	1	24	23.00	22.98	23.10	
5	QPSK	12	0	22.08	21.99	22.15	23.5
5	QPSK	12	7	22.14	22.08	22.21	
5	QPSK	12	13	22.11	22.07	22.25	
5	QPSK	25	0	22.09	22.01	22.22	
5	16QAM	1	0	22.32	22.27	22.39	23.5
5	16QAM	1	12	22.33	22.27	22.39	
5	16QAM	1	24	22.38	22.27	22.43	
5	16QAM	12	0	21.09	21.04	21.18	22.5
5	16QAM	12	7	21.14	21.07	21.27	
5	16QAM	12	13	21.13	21.13	21.21	
5	16QAM	25	0	21.13	21.08	21.20	
5	64QAM	1	0	21.29	21.19	21.31	22.5
5	64QAM	1	12	21.26	21.20	21.29	
5	64QAM	1	24	21.28	21.21	21.33	
5	64QAM	12	0	20.10	20.08	20.23	21.5
5	64QAM	12	7	20.19	20.17	20.31	
5	64QAM	12	13	20.18	20.19	20.31	
5	64QAM	25	0	20.10	20.09	20.23	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.11	23.11	23.08	24.5
3	QPSK	1	8	23.14	23.16	23.03	
3	QPSK	1	14	23.09	23.08	22.92	
3	QPSK	8	0	22.21	22.18	22.14	23.5
3	QPSK	8	4	22.23	22.24	22.18	
3	QPSK	8	7	22.18	22.20	22.12	
3	QPSK	15	0	22.21	22.19	22.20	
3	16QAM	1	0	22.42	22.40	22.42	23.5
3	16QAM	1	8	22.47	22.47	22.39	
3	16QAM	1	14	22.43	22.41	22.28	
3	16QAM	8	0	21.30	21.28	21.25	22.5
3	16QAM	8	4	21.28	21.29	21.28	
3	16QAM	8	7	21.27	21.20	21.21	
3	16QAM	15	0	21.23	21.24	21.24	



3	64QAM	1	0	20.95	21.32	20.50	22.5
3	64QAM	1	8	21.16	21.37	20.46	
3	64QAM	1	14	21.13	21.29	20.40	
3	64QAM	8	0	20.00	20.25	19.45	21.5
3	64QAM	8	4	20.11	20.26	19.46	
3	64QAM	8	7	20.14	20.25	19.45	
3	64QAM	15	0	20.05	20.24	19.51	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.04	23.05	22.99	24.5
1.4	QPSK	1	3	23.08	23.10	23.01	
1.4	QPSK	1	5	23.05	23.03	22.93	
1.4	QPSK	3	0	23.06	23.03	22.95	
1.4	QPSK	3	1	23.10	23.06	22.97	
1.4	QPSK	3	3	23.06	23.07	22.91	
1.4	QPSK	6	0	22.16	22.12	22.06	23.5
1.4	16QAM	1	0	22.38	22.35	22.26	23.5
1.4	16QAM	1	3	22.45	22.44	22.34	
1.4	16QAM	1	5	22.34	22.37	22.26	
1.4	16QAM	3	0	22.15	22.15	22.14	
1.4	16QAM	3	1	22.20	22.17	22.17	
1.4	16QAM	3	3	22.12	22.13	22.11	
1.4	16QAM	6	0	21.23	21.21	21.24	22.5
1.4	64QAM	1	0	20.87	21.30	20.46	22.5
1.4	64QAM	1	3	21.01	21.35	20.47	
1.4	64QAM	1	5	20.98	21.29	20.43	
1.4	64QAM	3	0	20.92	21.25	20.52	
1.4	64QAM	3	1	21.03	21.30	20.60	
1.4	64QAM	3	3	21.03	21.27	20.54	
1.4	64QAM	6	0	20.00	20.17	19.53	21.5

**<LTE Band 71 Ant0/2 State 1/2>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				133222	133322	133372	Tune-up limit (dBm)
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.96	25.07	25.5
20	QPSK	1	49	24.87	25.11	25.22	
20	QPSK	1	99	25.10	25.35	25.32	
20	QPSK	50	0	24.01	24.17	24.25	24.5
20	QPSK	50	24	24.03	24.26	24.32	
20	QPSK	50	50	24.20	24.38	24.37	
20	QPSK	100	0	24.13	24.31	24.29	24.5
20	16QAM	1	0	24.28	24.34	24.41	
20	16QAM	1	49	24.23	24.44	24.57	
20	16QAM	1	99	24.44	24.64	24.71	23.5
20	16QAM	50	0	23.01	23.19	23.25	
20	16QAM	50	24	23.08	23.22	23.33	
20	16QAM	50	50	23.22	23.35	23.42	23.5
20	16QAM	100	0	23.14	23.22	23.37	
20	64QAM	1	0	23.09	22.99	23.26	
20	64QAM	1	49	22.50	23.29	23.44	23.5
20	64QAM	1	99	23.39	23.29	23.59	
20	64QAM	50	0	22.04	22.20	22.27	22.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	64QAM	50	24	21.95	22.25	22.35	
20	64QAM	50	50	22.23	22.37	22.44	
20	64QAM	100	0	22.16	22.23	22.39	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.92	24.95	25.16	25.5
15	QPSK	1	37	24.83	25.11	25.25	
15	QPSK	1	74	25.02	25.22	25.31	
15	QPSK	36	0	24.02	24.11	24.31	24.5
15	QPSK	36	20	24.04	24.20	24.44	
15	QPSK	36	39	24.06	24.29	24.44	
15	QPSK	75	0	24.07	24.15	24.34	24.5
15	16QAM	1	0	24.26	24.27	24.47	
15	16QAM	1	37	24.20	24.47	24.61	
15	16QAM	1	74	24.34	24.51	24.67	23.5
15	16QAM	36	0	23.01	23.14	23.29	
15	16QAM	36	20	23.06	23.19	23.42	
15	16QAM	36	39	23.08	23.28	23.43	23.5
15	16QAM	75	0	23.09	23.18	23.32	
15	64QAM	1	0	23.12	22.91	23.36	
15	64QAM	1	37	22.94	23.39	23.51	23.5
15	64QAM	1	74	22.94	23.38	23.58	
15	64QAM	36	0	22.03	22.16	22.36	
15	64QAM	36	20	22.02	22.19	22.45	22.5
15	64QAM	36	39	21.88	22.32	22.46	
15	64QAM	75	0	22.06	22.18	22.35	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.93	24.90	25.27	25.5
10	QPSK	1	25	24.75	25.01	25.25	
10	QPSK	1	49	24.87	25.09	25.32	
10	QPSK	25	0	23.97	24.08	24.37	24.5
10	QPSK	25	12	23.99	24.16	24.37	
10	QPSK	25	25	24.03	24.19	24.44	
10	QPSK	50	0	24.01	24.19	24.37	24.5
10	16QAM	1	0	24.30	24.29	24.61	
10	16QAM	1	25	24.18	24.41	24.67	
10	16QAM	1	49	24.27	24.46	24.71	23.5
10	16QAM	25	0	22.96	23.07	23.37	
10	16QAM	25	12	22.99	23.19	23.39	
10	16QAM	25	25	22.99	23.19	23.43	23.5
10	16QAM	50	0	22.98	23.19	23.38	
10	64QAM	1	0	23.13	22.92	23.48	
10	64QAM	1	25	23.09	23.32	23.59	23.5
10	64QAM	1	49	22.32	23.37	23.57	
10	64QAM	25	0	22.03	22.06	22.29	
10	64QAM	25	12	22.02	22.21	22.43	22.5
10	64QAM	25	25	21.93	22.25	22.46	
10	64QAM	50	0	22.01	22.23	22.40	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.95	24.97	25.32	25.5
5	QPSK	1	12	24.90	25.00	25.33	
5	QPSK	1	24	24.85	24.99	25.31	
5	QPSK	12	0	24.09	24.08	24.45	24.5
5	QPSK	12	7	24.03	24.12	24.44	



5	QPSK	12	13	23.98	24.12	24.45	
5	QPSK	25	0	23.99	24.09	24.42	
5	16QAM	1	0	24.31	24.31	24.71	24.5
5	16QAM	1	12	24.24	24.32	24.74	
5	16QAM	1	24	24.16	24.34	24.66	
5	16QAM	12	0	23.14	23.08	23.47	23.5
5	16QAM	12	7	23.06	23.15	23.48	
5	16QAM	12	13	23.00	23.11	23.45	
5	16QAM	25	0	23.03	23.13	23.42	
5	64QAM	1	0	22.85	22.77	23.56	23.5
5	64QAM	1	12	23.17	23.02	23.65	
5	64QAM	1	24	23.11	23.22	23.61	
5	64QAM	12	0	22.18	21.75	22.51	22.5
5	64QAM	12	7	22.08	22.04	22.48	
5	64QAM	12	13	21.99	22.16	22.47	
5	64QAM	25	0	22.00	21.99	22.42	

<LTE Band 7 Ant1 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.85	23.40	23.00	24
20	QPSK	1	49	22.65	22.78	22.73	
20	QPSK	1	99	22.72	22.95	22.84	
20	QPSK	50	0	21.67	21.84	22.21	23
20	QPSK	50	24	21.81	21.98	22.09	
20	QPSK	50	50	21.82	21.99	22.05	
20	QPSK	100	0	21.78	21.97	22.10	23
20	16QAM	1	0	21.94	22.07	22.19	
20	16QAM	1	49	21.97	22.13	22.39	
20	16QAM	1	99	22.05	22.33	22.43	22
20	16QAM	50	0	20.67	20.84	21.05	
20	16QAM	50	24	20.82	20.97	21.10	
20	16QAM	50	50	20.83	20.98	21.21	22
20	16QAM	100	0	20.77	20.95	21.07	
20	64QAM	1	0	20.66	20.89	20.37	
20	64QAM	1	49	20.82	21.04	21.10	22
20	64QAM	1	99	20.97	20.47	20.69	
20	64QAM	50	0	19.70	19.86	19.63	
20	64QAM	50	24	19.82	20.00	20.03	21
20	64QAM	50	50	19.82	19.91	19.97	
20	64QAM	100	0	19.81	19.97	19.70	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.60	22.74	22.99	24
15	QPSK	1	37	22.60	22.77	23.06	
15	QPSK	1	74	22.71	22.91	23.07	
15	QPSK	36	0	21.64	21.82	22.06	23
15	QPSK	36	20	21.81	21.98	22.12	
15	QPSK	36	39	21.76	21.95	22.19	
15	QPSK	75	0	21.75	21.93	22.07	23
15	16QAM	1	0	21.94	22.06	22.28	
15	16QAM	1	37	21.94	22.13	22.41	
15	16QAM	1	74	22.04	22.23	22.38	



15	16QAM	36	0	20.65	20.83	21.08	22
15	16QAM	36	20	20.79	20.93	21.11	
15	16QAM	36	39	20.77	20.97	21.15	
15	16QAM	75	0	20.76	20.94	21.07	
15	64QAM	1	0	20.60	20.93	20.72	22
15	64QAM	1	37	20.87	21.08	21.11	
15	64QAM	1	74	20.92	20.67	20.66	
15	64QAM	36	0	19.68	19.89	19.96	21
15	64QAM	36	20	19.81	19.99	20.12	
15	64QAM	36	39	19.81	20.01	19.85	
15	64QAM	75	0	19.78	19.95	19.80	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.53	22.72	22.87	24
10	QPSK	1	25	22.47	22.72	22.92	
10	QPSK	1	49	22.55	22.80	22.92	
10	QPSK	25	0	21.67	21.79	22.03	23
10	QPSK	25	12	21.72	21.91	22.07	
10	QPSK	25	25	21.73	21.91	22.14	
10	QPSK	50	0	21.71	21.90	22.06	
10	16QAM	1	0	21.91	22.04	22.28	23
10	16QAM	1	25	21.89	22.10	22.31	
10	16QAM	1	49	21.96	22.17	22.30	
10	16QAM	25	0	20.70	20.79	21.03	22
10	16QAM	25	12	20.73	20.93	21.09	
10	16QAM	25	25	20.71	20.90	21.14	
10	16QAM	50	0	20.72	20.91	21.06	
10	64QAM	1	0	20.57	20.90	21.08	22
10	64QAM	1	25	20.83	20.99	20.93	
10	64QAM	1	49	20.89	20.97	20.53	
10	64QAM	25	0	19.71	19.82	20.02	21
10	64QAM	25	12	19.75	19.95	19.92	
10	64QAM	25	25	19.74	19.95	19.68	
10	64QAM	50	0	19.73	19.91	19.76	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.59	22.66	22.94	24
5	QPSK	1	12	22.56	22.79	22.98	
5	QPSK	1	24	22.58	22.79	22.85	
5	QPSK	12	0	21.66	21.80	22.08	23
5	QPSK	12	7	21.69	21.85	22.08	
5	QPSK	12	13	21.68	21.86	22.11	
5	QPSK	25	0	21.67	21.88	22.09	
5	16QAM	1	0	21.89	22.02	22.28	23
5	16QAM	1	12	21.86	22.05	22.23	
5	16QAM	1	24	21.89	22.11	22.20	
5	16QAM	12	0	20.74	20.84	21.10	22
5	16QAM	12	7	20.75	20.86	21.11	
5	16QAM	12	13	20.73	20.90	21.13	
5	16QAM	25	0	20.71	20.87	21.10	
5	64QAM	1	0	20.53	20.94	20.78	22
5	64QAM	1	12	20.76	20.94	20.59	
5	64QAM	1	24	20.84	21.02	20.36	
5	64QAM	12	0	19.57	19.89	19.67	21
5	64QAM	12	7	19.75	19.96	19.64	
5	64QAM	12	13	19.76	19.95	19.49	





5	64QAM	25	0	19.65	19.88	19.52	
---	-------	----	---	-------	-------	-------	--

<LTE Band 7 Ant8 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.85	23.40	23.00	24.5
20	QPSK	1	49	22.65	22.78	22.73	
20	QPSK	1	99	22.72	22.95	22.84	
20	QPSK	50	0	21.67	21.84	22.21	23.5
20	QPSK	50	24	21.81	21.98	22.09	
20	QPSK	50	50	21.82	21.99	22.05	
20	QPSK	100	0	21.78	21.97	22.10	23.5
20	16QAM	1	0	21.94	22.07	22.19	
20	16QAM	1	49	21.97	22.13	22.39	
20	16QAM	1	99	22.05	22.33	22.43	22.5
20	16QAM	50	0	20.67	20.84	21.05	
20	16QAM	50	24	20.82	20.97	21.10	
20	16QAM	50	50	20.83	20.98	21.21	22.5
20	16QAM	100	0	20.77	20.95	21.07	
20	64QAM	1	0	20.66	20.89	20.37	
20	64QAM	1	49	20.82	21.04	21.10	22.5
20	64QAM	1	99	20.97	20.47	20.69	
20	64QAM	50	0	19.70	19.86	19.63	
20	64QAM	50	24	19.82	20.00	20.03	21.5
20	64QAM	50	50	19.82	19.91	19.97	
20	64QAM	100	0	19.81	19.97	19.70	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.60	22.74	22.99	24.5
15	QPSK	1	37	22.60	22.77	23.06	
15	QPSK	1	74	22.71	22.91	23.07	
15	QPSK	36	0	21.64	21.82	22.06	23.5
15	QPSK	36	20	21.81	21.98	22.12	
15	QPSK	36	39	21.76	21.95	22.19	
15	QPSK	75	0	21.75	21.93	22.07	23.5
15	16QAM	1	0	21.94	22.06	22.28	
15	16QAM	1	37	21.94	22.13	22.41	
15	16QAM	1	74	22.04	22.23	22.38	22.5
15	16QAM	36	0	20.65	20.83	21.08	
15	16QAM	36	20	20.79	20.93	21.11	
15	16QAM	36	39	20.77	20.97	21.15	22.5
15	16QAM	75	0	20.76	20.94	21.07	
15	64QAM	1	0	20.60	20.93	20.72	
15	64QAM	1	37	20.87	21.08	21.11	22.5
15	64QAM	1	74	20.92	20.67	20.66	
15	64QAM	36	0	19.68	19.89	19.96	
15	64QAM	36	20	19.81	19.99	20.12	21.5
15	64QAM	36	39	19.81	20.01	19.85	
15	64QAM	75	0	19.78	19.95	19.80	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.53	22.72	22.87	24.5
10	QPSK	1	25	22.47	22.72	22.92	



10	QPSK	1	49	22.55	22.80	22.92	
10	QPSK	25	0	21.67	21.79	22.03	23.5
10	QPSK	25	12	21.72	21.91	22.07	
10	QPSK	25	25	21.73	21.91	22.14	
10	QPSK	50	0	21.71	21.90	22.06	
10	16QAM	1	0	21.91	22.04	22.28	
10	16QAM	1	25	21.89	22.10	22.31	23.5
10	16QAM	1	49	21.96	22.17	22.30	
10	16QAM	25	0	20.70	20.79	21.03	
10	16QAM	25	12	20.73	20.93	21.09	22.5
10	16QAM	25	25	20.71	20.90	21.14	
10	16QAM	50	0	20.72	20.91	21.06	
10	64QAM	1	0	20.57	20.90	21.08	
10	64QAM	1	25	20.83	20.99	20.93	22.5
10	64QAM	1	49	20.89	20.97	20.53	
10	64QAM	25	0	19.71	19.82	20.02	
10	64QAM	25	12	19.75	19.95	19.92	21.5
10	64QAM	25	25	19.74	19.95	19.68	
10	64QAM	50	0	19.73	19.91	19.76	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.59	22.66	22.94	24.5
5	QPSK	1	12	22.56	22.79	22.98	
5	QPSK	1	24	22.58	22.79	22.85	
5	QPSK	12	0	21.66	21.80	22.08	23.5
5	QPSK	12	7	21.69	21.85	22.08	
5	QPSK	12	13	21.68	21.86	22.11	
5	QPSK	25	0	21.67	21.88	22.09	
5	16QAM	1	0	21.89	22.02	22.28	23.5
5	16QAM	1	12	21.86	22.05	22.23	
5	16QAM	1	24	21.89	22.11	22.20	
5	16QAM	12	0	20.74	20.84	21.10	
5	16QAM	12	7	20.75	20.86	21.11	22.5
5	16QAM	12	13	20.73	20.90	21.13	
5	16QAM	25	0	20.71	20.87	21.10	
5	64QAM	1	0	20.53	20.94	20.78	
5	64QAM	1	12	20.76	20.94	20.59	22.5
5	64QAM	1	24	20.84	21.02	20.36	
5	64QAM	12	0	19.57	19.89	19.67	
5	64QAM	12	7	19.75	19.96	19.64	21.5
5	64QAM	12	13	19.76	19.95	19.49	
5	64QAM	25	0	19.65	19.88	19.52	



<LTE Band 12/17 Ant0/2 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	25.08	25.15	24.97	25.5
10	QPSK	1	25	25.01	24.93	24.91	
10	QPSK	1	49	25.02	25.01	24.94	
10	QPSK	25	0	24.23	24.25	24.06	24.5
10	QPSK	25	12	24.16	24.15	24.01	
10	QPSK	25	25	24.10	24.10	24.09	
10	QPSK	50	0	24.14	24.15	24.04	24.5
10	16QAM	1	0	24.49	24.42	24.36	
10	16QAM	1	25	24.43	24.30	24.30	
10	16QAM	1	49	24.40	24.38	24.34	23.5
10	16QAM	25	0	23.26	23.14	23.03	
10	16QAM	25	12	23.13	23.13	23.03	
10	16QAM	25	25	23.05	23.09	23.07	23.5
10	16QAM	50	0	23.13	23.12	23.01	
10	64QAM	1	0	23.42	23.30	23.19	
10	64QAM	1	25	23.35	23.25	23.25	23.5
10	64QAM	1	49	23.31	23.27	23.24	
10	64QAM	25	0	22.26	22.18	22.07	
10	64QAM	25	12	22.17	22.18	22.08	22.5
10	64QAM	25	25	22.12	22.13	22.11	
10	64QAM	50	0	22.14	22.15	22.04	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	25.01	25.01	24.94	25.5
5	QPSK	1	12	24.99	24.83	24.88	
5	QPSK	1	24	24.93	24.99	24.90	
5	QPSK	12	0	24.13	24.23	24.01	24.5
5	QPSK	12	7	24.08	24.10	24.01	
5	QPSK	12	13	24.10	24.05	24.06	
5	QPSK	25	0	24.09	24.14	24.04	24.5
5	16QAM	1	0	24.40	24.32	24.32	
5	16QAM	1	12	24.42	24.29	24.28	
5	16QAM	1	24	24.30	24.34	24.34	23.5
5	16QAM	12	0	23.22	23.10	22.99	
5	16QAM	12	7	23.03	23.03	22.99	
5	16QAM	12	13	23.05	23.02	23.07	23.5
5	16QAM	25	0	23.11	23.08	22.97	
5	64QAM	1	0	23.36	23.24	23.18	
5	64QAM	1	12	23.32	23.17	23.20	23.5
5	64QAM	1	24	23.25	23.17	23.17	
5	64QAM	12	0	22.23	22.12	22.04	
5	64QAM	12	7	22.11	22.14	22.08	22.5
5	64QAM	12	13	22.08	22.09	22.06	
5	64QAM	25	0	22.10	22.08	21.94	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	25.04	25.09	24.92	25.5
3	QPSK	1	8	24.91	24.92	24.91	
3	QPSK	1	14	24.99	24.94	24.94	
3	QPSK	8	0	24.17	24.24	24.05	24.5
3	QPSK	8	4	24.13	24.14	24.01	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

3	QPSK	8	7	24.08	24.00	24.09	
3	QPSK	15	0	24.14	24.06	24.00	
3	16QAM	1	0	24.49	24.32	24.34	24.5
3	16QAM	1	8	24.33	24.29	24.20	
3	16QAM	1	14	24.36	24.35	24.29	
3	16QAM	8	0	23.16	23.06	23.02	23.5
3	16QAM	8	4	23.11	23.13	22.95	
3	16QAM	8	7	22.99	23.00	23.07	
3	16QAM	15	0	23.06	23.03	22.99	
3	64QAM	1	0	23.32	23.23	23.10	23.5
3	64QAM	1	8	23.31	23.19	23.18	
3	64QAM	1	14	23.29	23.23	23.14	
3	64QAM	8	0	22.18	22.09	22.03	22.5
3	64QAM	8	4	22.09	22.13	22.00	
3	64QAM	8	7	22.09	22.05	22.10	
3	64QAM	15	0	22.14	22.11	21.98	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	25.12	24.94	24.89	25.5
1.4	QPSK	1	3	25.09	24.94	24.89	
1.4	QPSK	1	5	25.09	24.89	24.82	
1.4	QPSK	3	0	25.13	24.93	24.89	
1.4	QPSK	3	1	25.11	25.00	24.93	
1.4	QPSK	3	3	25.13	24.92	24.87	
1.4	QPSK	6	0	24.22	24.01	23.94	24.5
1.4	16QAM	1	0	24.46	24.27	24.21	24.5
1.4	16QAM	1	3	24.50	24.28	24.25	
1.4	16QAM	1	5	24.42	24.23	24.13	
1.4	16QAM	3	0	24.27	24.05	23.98	
1.4	16QAM	3	1	24.32	24.10	24.02	
1.4	16QAM	3	3	24.22	24.01	23.95	
1.4	16QAM	6	0	23.28	23.04	23.02	23.5
1.4	64QAM	1	0	23.38	23.18	23.15	23.5
1.4	64QAM	1	3	23.44	23.22	23.16	
1.4	64QAM	1	5	23.35	23.14	23.09	
1.4	64QAM	3	0	23.39	23.15	23.11	
1.4	64QAM	3	1	23.40	23.20	23.11	
1.4	64QAM	3	3	23.32	23.12	23.07	
1.4	64QAM	6	0	22.21	21.99	21.96	22.5



**<LTE Band 13 Ant0/2 State 3>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23230			25.5
Frequency (MHz)				782			
10	QPSK	1	0		24.19		25.5
10	QPSK	1	25		24.20		
10	QPSK	1	49		24.25		
10	QPSK	25	0		23.36		24.5
10	QPSK	25	12		23.36		
10	QPSK	25	25		23.43		
10	QPSK	50	0		23.40		24.5
10	16QAM	1	0		23.54		
10	16QAM	1	25		23.62		
10	16QAM	1	49		23.55		23.5
10	16QAM	25	0		22.41		
10	16QAM	25	12		22.40		
10	16QAM	25	25		22.41		23.5
10	16QAM	50	0		22.37		
10	64QAM	1	0		21.87		
10	64QAM	1	25		22.37		23.5
10	64QAM	1	49		21.53		
10	64QAM	25	0		21.16		
10	64QAM	25	12		21.42		22.5
10	64QAM	25	25		21.33		
10	64QAM	50	0		21.09		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	24.19	24.17	24.18	25.5
5	QPSK	1	12	24.23	24.24	24.22	
5	QPSK	1	24	24.23	24.22	24.19	
5	QPSK	12	0	23.28	23.35	23.34	24.5
5	QPSK	12	7	23.40	23.33	23.35	
5	QPSK	12	13	23.43	23.38	23.35	
5	QPSK	25	0	23.40	23.32	23.37	24.5
5	16QAM	1	0	23.53	23.53	23.55	
5	16QAM	1	12	23.52	23.59	23.50	
5	16QAM	1	24	23.61	23.54	23.52	23.5
5	16QAM	12	0	22.38	22.40	22.36	
5	16QAM	12	7	22.45	22.38	22.39	
5	16QAM	12	13	22.45	22.41	22.37	23.5
5	16QAM	25	0	22.44	22.36	22.37	
5	64QAM	1	0	21.84	22.44	22.52	
5	64QAM	1	12	21.79	22.53	22.39	23.5
5	64QAM	1	24	22.60	22.49	22.51	
5	64QAM	12	0	20.50	21.44	21.39	
5	64QAM	12	7	21.35	21.41	21.34	22.5
5	64QAM	12	13	21.45	21.45	21.41	
5	64QAM	25	0	21.29	21.36	21.39	



<LTE Band 2/25 Ant1 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	22.88	22.81	22.88	23
20	QPSK	1	49	22.78	22.73	22.87	
20	QPSK	1	99	22.79	22.80	22.78	
20	QPSK	50	0	21.88	21.87	21.90	22.5
20	QPSK	50	24	21.98	21.95	21.98	
20	QPSK	50	50	21.96	21.91	21.94	
20	QPSK	100	0	21.94	21.90	21.94	22.5
20	16QAM	1	0	22.16	22.05	22.17	
20	16QAM	1	49	22.17	22.09	22.20	
20	16QAM	1	99	22.10	22.10	22.18	21.5
20	16QAM	50	0	20.91	20.88	20.90	
20	16QAM	50	24	20.99	20.91	21.01	
20	16QAM	50	50	20.91	20.95	21.00	21.5
20	16QAM	100	0	20.97	20.92	20.98	
20	64QAM	1	0	20.97	20.95	21.10	
20	64QAM	1	49	21.00	21.01	21.05	21.5
20	64QAM	1	99	21.05	21.00	20.98	
20	64QAM	50	0	19.91	19.88	19.93	
20	64QAM	50	24	19.99	19.96	20.03	20.5
20	64QAM	50	50	19.94	19.97	19.95	
20	64QAM	100	0	19.95	19.94	20.03	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	22.72	22.74	22.81	23
15	QPSK	1	37	22.71	22.73	22.82	
15	QPSK	1	74	22.69	22.71	22.69	
15	QPSK	36	0	21.81	21.81	21.82	22.5
15	QPSK	36	20	21.90	21.85	21.87	
15	QPSK	36	39	21.93	21.90	21.91	
15	QPSK	75	0	21.92	21.89	21.84	22.5
15	16QAM	1	0	22.15	22.01	22.10	
15	16QAM	1	37	22.12	22.02	22.18	
15	16QAM	1	74	22.06	22.06	22.18	21.5
15	16QAM	36	0	20.90	20.83	20.83	
15	16QAM	36	20	20.93	20.85	20.99	
15	16QAM	36	39	20.84	20.86	20.91	21.5
15	16QAM	75	0	20.95	20.90	20.88	
15	64QAM	1	0	20.88	20.95	21.05	
15	64QAM	1	37	20.95	20.96	21.04	21.5
15	64QAM	1	74	21.04	20.95	20.95	
15	64QAM	36	0	19.89	19.86	19.88	
15	64QAM	36	20	19.93	19.87	20.01	20.5
15	64QAM	36	39	19.89	19.88	19.87	
15	64QAM	75	0	19.85	19.94	19.98	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	22.80	22.73	22.86	23
10	QPSK	1	25	22.72	22.65	22.87	
10	QPSK	1	49	22.70	22.74	22.68	
10	QPSK	25	0	21.79	21.80	21.84	22.5
10	QPSK	25	12	21.97	21.85	21.87	



10	QPSK	25	25	21.93	21.89	21.93	
10	QPSK	50	0	21.86	21.81	21.88	
10	16QAM	1	0	22.09	22.01	22.14	22.5
10	16QAM	1	25	22.17	22.05	22.20	
10	16QAM	1	49	22.05	22.03	22.16	
10	16QAM	25	0	20.89	20.86	20.88	21.5
10	16QAM	25	12	20.95	20.90	21.01	
10	16QAM	25	25	20.86	20.90	20.99	
10	16QAM	50	0	20.87	20.88	20.92	
10	64QAM	1	0	20.89	20.91	21.00	21.5
10	64QAM	1	25	20.99	21.00	21.00	
10	64QAM	1	49	21.01	21.00	20.95	
10	64QAM	25	0	19.82	19.82	19.90	20.5
10	64QAM	25	12	19.99	19.94	20.01	
10	64QAM	25	25	19.94	19.87	19.93	
10	64QAM	50	0	19.88	19.94	20.00	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	22.79	22.77	22.87	23
5	QPSK	1	12	22.70	22.67	22.79	
5	QPSK	1	24	22.71	22.75	22.69	
5	QPSK	12	0	21.81	21.82	21.80	22.5
5	QPSK	12	7	21.89	21.89	21.88	
5	QPSK	12	13	21.91	21.89	21.87	
5	QPSK	25	0	21.86	21.80	21.85	
5	16QAM	1	0	22.06	22.00	22.10	22.5
5	16QAM	1	12	22.12	22.04	22.10	
5	16QAM	1	24	22.08	22.07	22.18	
5	16QAM	12	0	20.88	20.84	20.80	21.5
5	16QAM	12	7	20.95	20.91	21.00	
5	16QAM	12	13	20.91	20.85	20.95	
5	16QAM	25	0	20.89	20.89	20.93	
5	64QAM	1	0	20.94	20.94	21.05	
5	64QAM	1	12	20.93	20.99	21.05	21.5
5	64QAM	1	24	21.03	20.96	20.98	
5	64QAM	12	0	19.83	19.87	19.87	
5	64QAM	12	7	19.99	19.94	19.97	20.5
5	64QAM	12	13	19.91	19.93	19.86	
5	64QAM	25	0	19.91	19.88	20.02	
Channel				26055	26340	26675	
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	22.79	22.72	22.84	23
3	QPSK	1	8	22.77	22.67	22.79	
3	QPSK	1	14	22.79	22.71	22.71	
3	QPSK	8	0	21.83	21.78	21.89	22.5
3	QPSK	8	4	21.94	21.87	21.95	
3	QPSK	8	7	21.96	21.88	21.88	
3	QPSK	15	0	21.95	21.89	21.90	
3	16QAM	1	0	22.13	22.03	22.16	22.5
3	16QAM	1	8	22.08	22.03	22.15	
3	16QAM	1	14	22.08	22.01	22.09	
3	16QAM	8	0	20.85	20.87	20.84	21.5
3	16QAM	8	4	20.93	20.88	20.96	
3	16QAM	8	7	20.84	20.88	20.90	
3	16QAM	15	0	20.91	20.86	20.94	
3	64QAM	1	0	20.92	20.90	21.10	



3	64QAM	1	8	20.92	20.95	21.05	20.5
3	64QAM	1	14	21.03	20.94	20.89	
3	64QAM	8	0	19.82	19.88	19.92	
3	64QAM	8	4	19.90	19.94	20.02	
3	64QAM	8	7	19.87	19.87	19.86	
3	64QAM	15	0	19.89	19.85	19.99	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	22.74	22.70	22.66	23
1.4	QPSK	1	3	22.86	22.78	22.79	
1.4	QPSK	1	5	22.80	22.75	22.77	
1.4	QPSK	3	0	22.80	22.71	22.70	
1.4	QPSK	3	1	22.84	22.76	22.77	
1.4	QPSK	3	3	22.85	22.76	22.74	
1.4	QPSK	6	0	21.87	21.77	21.83	22.5
1.4	16QAM	1	0	22.13	21.97	22.02	22.5
1.4	16QAM	1	3	22.14	22.08	22.09	
1.4	16QAM	1	5	22.10	22.06	22.10	
1.4	16QAM	3	0	21.87	21.75	21.80	
1.4	16QAM	3	1	21.93	21.84	21.83	
1.4	16QAM	3	3	21.85	21.86	21.83	
1.4	16QAM	6	0	20.90	20.91	20.88	21.5
1.4	64QAM	1	0	21.02	20.92	20.93	21.5
1.4	64QAM	1	3	21.11	21.00	21.02	
1.4	64QAM	1	5	21.04	21.01	20.96	
1.4	64QAM	3	0	20.91	20.88	20.92	
1.4	64QAM	3	1	21.07	20.95	20.96	
1.4	64QAM	3	3	21.01	20.96	20.99	
1.4	64QAM	6	0	19.87	19.83	19.84	20

**<LTE Band 25 Ant8 State 3>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	22.88	22.81	22.88	24
20	QPSK	1	49	22.78	22.73	22.87	
20	QPSK	1	99	22.79	22.80	22.78	
20	QPSK	50	0	21.88	21.87	21.90	23.5
20	QPSK	50	24	21.98	21.95	21.98	
20	QPSK	50	50	21.96	21.91	21.94	
20	QPSK	100	0	21.94	21.90	21.94	23.5
20	16QAM	1	0	22.16	22.05	22.17	
20	16QAM	1	49	22.17	22.09	22.20	
20	16QAM	1	99	22.10	22.10	22.18	22.5
20	16QAM	50	0	20.91	20.88	20.90	
20	16QAM	50	24	20.99	20.91	21.01	
20	16QAM	50	50	20.91	20.95	21.00	22.5
20	16QAM	100	0	20.97	20.92	20.98	
20	64QAM	1	0	20.97	20.95	21.10	
20	64QAM	1	49	21.00	21.01	21.05	22.5
20	64QAM	1	99	21.05	21.00	20.98	
20	64QAM	50	0	19.91	19.88	19.93	
20	64QAM	50	24	19.99	19.96	20.03	
20	64QAM	50	50	19.94	19.97	19.95	





**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	64QAM	100	0	19.95	19.94	20.03	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	22.72	22.74	22.81	24
15	QPSK	1	37	22.71	22.73	22.82	
15	QPSK	1	74	22.69	22.71	22.69	
15	QPSK	36	0	21.81	21.81	21.82	23.5
15	QPSK	36	20	21.90	21.85	21.87	
15	QPSK	36	39	21.93	21.90	21.91	
15	QPSK	75	0	21.92	21.89	21.84	
15	16QAM	1	0	22.15	22.01	22.10	23.5
15	16QAM	1	37	22.12	22.02	22.18	
15	16QAM	1	74	22.06	22.06	22.18	
15	16QAM	36	0	20.90	20.83	20.83	22.5
15	16QAM	36	20	20.93	20.85	20.99	
15	16QAM	36	39	20.84	20.86	20.91	
15	16QAM	75	0	20.95	20.90	20.88	
15	64QAM	1	0	20.88	20.95	21.05	22.5
15	64QAM	1	37	20.95	20.96	21.04	
15	64QAM	1	74	21.04	20.95	20.95	
15	64QAM	36	0	19.89	19.86	19.88	21.5
15	64QAM	36	20	19.93	19.87	20.01	
15	64QAM	36	39	19.89	19.88	19.87	
15	64QAM	75	0	19.85	19.94	19.98	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	22.80	22.73	22.86	24
10	QPSK	1	25	22.72	22.65	22.87	
10	QPSK	1	49	22.70	22.74	22.68	
10	QPSK	25	0	21.79	21.80	21.84	23.5
10	QPSK	25	12	21.97	21.85	21.87	
10	QPSK	25	25	21.93	21.89	21.93	
10	QPSK	50	0	21.86	21.81	21.88	
10	16QAM	1	0	22.09	22.01	22.14	23.5
10	16QAM	1	25	22.17	22.05	22.20	
10	16QAM	1	49	22.05	22.03	22.16	
10	16QAM	25	0	20.89	20.86	20.88	22.5
10	16QAM	25	12	20.95	20.90	21.01	
10	16QAM	25	25	20.86	20.90	20.99	
10	16QAM	50	0	20.87	20.88	20.92	
10	64QAM	1	0	20.89	20.91	21.00	22.5
10	64QAM	1	25	20.99	21.00	21.00	
10	64QAM	1	49	21.01	21.00	20.95	
10	64QAM	25	0	19.82	19.82	19.90	
10	64QAM	25	12	19.99	19.94	20.01	21.5
10	64QAM	25	25	19.94	19.87	19.93	
10	64QAM	50	0	19.88	19.94	20.00	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	22.79	22.77	22.87	24
5	QPSK	1	12	22.70	22.67	22.79	
5	QPSK	1	24	22.71	22.75	22.69	
5	QPSK	12	0	21.81	21.82	21.80	23.5
5	QPSK	12	7	21.89	21.89	21.88	
5	QPSK	12	13	21.91	21.89	21.87	
5	QPSK	25	0	21.86	21.80	21.85	



5	16QAM	1	0	22.06	22.00	22.10	23.5
5	16QAM	1	12	22.12	22.04	22.10	
5	16QAM	1	24	22.08	22.07	22.18	
5	16QAM	12	0	20.88	20.84	20.80	22.5
5	16QAM	12	7	20.95	20.91	21.00	
5	16QAM	12	13	20.91	20.85	20.95	
5	16QAM	25	0	20.89	20.89	20.93	22.5
5	64QAM	1	0	20.94	20.94	21.05	
5	64QAM	1	12	20.93	20.99	21.05	
5	64QAM	1	24	21.03	20.96	20.98	21.5
5	64QAM	12	0	19.83	19.87	19.87	
5	64QAM	12	7	19.99	19.94	19.97	
5	64QAM	12	13	19.91	19.93	19.86	21.5
5	64QAM	25	0	19.91	19.88	20.02	
Channel				26055	26340	26675	
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	22.79	22.72	22.84	24
3	QPSK	1	8	22.77	22.67	22.79	
3	QPSK	1	14	22.79	22.71	22.71	
3	QPSK	8	0	21.83	21.78	21.89	23.5
3	QPSK	8	4	21.94	21.87	21.95	
3	QPSK	8	7	21.96	21.88	21.88	
3	QPSK	15	0	21.95	21.89	21.90	23.5
3	16QAM	1	0	22.13	22.03	22.16	
3	16QAM	1	8	22.08	22.03	22.15	
3	16QAM	1	14	22.08	22.01	22.09	22.5
3	16QAM	8	0	20.85	20.87	20.84	
3	16QAM	8	4	20.93	20.88	20.96	
3	16QAM	8	7	20.84	20.88	20.90	22.5
3	16QAM	15	0	20.91	20.86	20.94	
3	64QAM	1	0	20.92	20.90	21.10	
3	64QAM	1	8	20.92	20.95	21.05	22.5
3	64QAM	1	14	21.03	20.94	20.89	
3	64QAM	8	0	19.82	19.88	19.92	
3	64QAM	8	4	19.90	19.94	20.02	21.5
3	64QAM	8	7	19.87	19.87	19.86	
3	64QAM	15	0	19.89	19.85	19.99	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	22.74	22.70	22.66	24
1.4	QPSK	1	3	22.86	22.78	22.79	
1.4	QPSK	1	5	22.80	22.75	22.77	
1.4	QPSK	3	0	22.80	22.71	22.70	
1.4	QPSK	3	1	22.84	22.76	22.77	
1.4	QPSK	3	3	22.85	22.76	22.74	
1.4	QPSK	6	0	21.87	21.77	21.83	23.5
1.4	16QAM	1	0	22.13	21.97	22.02	23.5
1.4	16QAM	1	3	22.14	22.08	22.09	
1.4	16QAM	1	5	22.10	22.06	22.10	
1.4	16QAM	3	0	21.87	21.75	21.80	
1.4	16QAM	3	1	21.93	21.84	21.83	
1.4	16QAM	3	3	21.85	21.86	21.83	
1.4	16QAM	6	0	20.90	20.91	20.88	22.5
1.4	64QAM	1	0	21.02	20.92	20.93	22.5
1.4	64QAM	1	3	21.11	21.00	21.02	
1.4	64QAM	1	5	21.04	21.01	20.96	



1.4	64QAM	3	0	20.91	20.88	20.92	
1.4	64QAM	3	1	21.07	20.95	20.96	
1.4	64QAM	3	3	21.01	20.96	20.99	
1.4	64QAM	6	0	19.87	19.83	19.84	

**<LTE Band 5/26 Ant0/2 State 3>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.37	24.34	24.85	25.5
15	QPSK	1	37	24.92	24.50	23.63	
15	QPSK	1	74	23.59	23.94	23.50	
15	QPSK	36	0	23.99	23.34	23.66	24.5
15	QPSK	36	20	24.06	23.63	22.83	
15	QPSK	36	39	23.47	23.52	22.50	
15	QPSK	75	0	23.85	23.75	23.17	24.5
15	16QAM	1	0	23.77	23.75	24.17	
15	16QAM	1	37	24.10	23.70	22.97	
15	16QAM	1	74	22.83	23.16	22.66	23.5
15	16QAM	36	0	23.08	22.35	22.72	
15	16QAM	36	20	23.16	22.69	21.94	
15	16QAM	36	39	22.64	22.94	21.73	23.5
15	16QAM	75	0	22.86	22.67	22.25	
15	64QAM	1	0	21.78	21.77	22.47	
15	64QAM	1	37	21.90	21.76	20.98	23.5
15	64QAM	1	74	20.68	21.20	20.77	
15	64QAM	36	0	21.17	20.42	20.80	
15	64QAM	36	20	21.22	20.75	20.01	22.5
15	64QAM	36	39	20.71	21.03	19.81	
15	64QAM	75	0	20.83	20.70	20.23	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.15	24.26	24.06	25.5
10	QPSK	1	25	24.91	24.48	23.25	
10	QPSK	1	49	24.01	24.47	23.40	
10	QPSK	25	0	23.75	23.24	22.66	24.5
10	QPSK	25	12	24.22	23.49	22.39	
10	QPSK	25	25	24.02	23.74	22.55	
10	QPSK	50	0	23.75	23.58	22.72	24.5
10	16QAM	1	0	23.44	23.56	23.65	
10	16QAM	1	25	24.39	23.90	22.68	
10	16QAM	1	49	23.61	23.87	22.74	23.5
10	16QAM	25	0	22.89	22.39	21.78	
10	16QAM	25	12	23.34	22.63	21.57	
10	16QAM	25	25	23.18	22.87	21.73	23.5
10	16QAM	50	0	22.94	22.62	21.69	
10	64QAM	1	0	21.66	21.36	21.51	
10	64QAM	1	25	22.50	21.84	20.66	23.5
10	64QAM	1	49	21.62	21.68	20.59	
10	64QAM	25	0	20.91	20.45	19.87	
10	64QAM	25	12	21.39	20.62	19.59	22.5
10	64QAM	25	25	21.24	20.92	19.81	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	64QAM	50	0	20.92	20.66	19.77	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.93	24.21	23.34	25.5
5	QPSK	1	12	24.46	24.28	23.52	
5	QPSK	1	24	24.69	24.39	23.53	
5	QPSK	12	0	23.22	23.29	22.47	24.5
5	QPSK	12	7	23.91	23.52	22.71	
5	QPSK	12	13	24.31	23.69	22.84	
5	QPSK	25	0	23.66	23.46	22.65	
5	16QAM	1	0	23.33	23.50	22.69	24.5
5	16QAM	1	12	23.86	23.63	22.82	
5	16QAM	1	24	24.16	23.74	22.84	
5	16QAM	12	0	22.37	22.42	21.54	23.5
5	16QAM	12	7	22.97	22.63	21.86	
5	16QAM	12	13	23.33	22.83	21.98	
5	16QAM	25	0	22.76	22.57	21.71	
5	64QAM	1	0	21.41	21.54	20.80	23.5
5	64QAM	1	12	21.81	21.71	20.80	
5	64QAM	1	24	22.10	21.67	20.85	
5	64QAM	12	0	20.35	20.46	19.65	22.5
5	64QAM	12	7	21.01	20.72	19.91	
5	64QAM	12	13	21.35	20.85	20.03	
5	64QAM	25	0	20.76	20.67	19.75	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.93	24.38	23.67	25.5
3	QPSK	1	8	24.26	24.54	23.99	
3	QPSK	1	14	24.43	24.59	23.76	
3	QPSK	8	0	23.05	23.50	22.94	24.5
3	QPSK	8	4	23.38	23.63	23.09	
3	QPSK	8	7	23.73	23.68	22.89	
3	QPSK	15	0	23.37	23.56	22.93	
3	16QAM	1	0	23.24	23.63	22.97	24.5
3	16QAM	1	8	23.57	23.79	23.30	
3	16QAM	1	14	23.75	23.85	23.04	
3	16QAM	8	0	22.12	22.62	22.02	23.5
3	16QAM	8	4	22.50	22.73	22.16	
3	16QAM	8	7	22.77	22.79	22.06	
3	16QAM	15	0	22.41	22.65	21.98	
3	64QAM	1	0	21.22	21.66	20.99	23.5
3	64QAM	1	8	21.37	21.85	21.30	
3	64QAM	1	14	21.63	21.90	21.10	
3	64QAM	8	0	20.14	20.62	20.03	22.5
3	64QAM	8	4	20.50	20.79	20.23	
3	64QAM	8	7	20.74	20.79	20.17	
3	64QAM	15	0	20.38	20.70	20.03	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.75	24.40	23.81	25.5
1.4	QPSK	1	3	23.85	24.45	23.74	
1.4	QPSK	1	5	23.75	24.42	23.64	
1.4	QPSK	3	0	23.75	24.39	23.68	
1.4	QPSK	3	1	23.85	24.45	23.88	
1.4	QPSK	3	3	23.90	24.51	23.72	
1.4	QPSK	6	0	22.92	23.49	22.76	24.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

1.4	16QAM	1	0	23.02	23.64	23.08	24.5
1.4	16QAM	1	3	23.10	23.74	23.02	
1.4	16QAM	1	5	23.00	23.72	22.98	
1.4	16QAM	3	0	22.90	23.54	22.96	
1.4	16QAM	3	1	22.99	23.61	22.92	
1.4	16QAM	3	3	23.05	23.64	22.93	
1.4	16QAM	6	0	22.01	22.67	21.99	23.5
1.4	64QAM	1	0	20.98	21.77	21.26	23.5
1.4	64QAM	1	3	21.15	21.80	21.09	
1.4	64QAM	1	5	21.05	21.77	21.01	
1.4	64QAM	3	0	20.97	21.73	21.24	
1.4	64QAM	3	1	21.16	21.88	21.30	
1.4	64QAM	3	3	21.15	21.78	21.05	
1.4	64QAM	6	0	19.99	20.66	20.03	22.5



<LTE Band 30 Ant1 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				27710			
Frequency (MHz)				2310			
10	QPSK	1	0		22.01		23.5
10	QPSK	1	25		21.77		
10	QPSK	1	49		21.82		
10	QPSK	25	0		21.01		22.5
10	QPSK	25	12		21.01		
10	QPSK	25	25		21.02		
10	QPSK	50	0		20.99		22.5
10	16QAM	1	0		21.30		
10	16QAM	1	25		21.23		
10	16QAM	1	49		21.11		21.5
10	16QAM	25	0		20.02		
10	16QAM	25	12		20.03		
10	16QAM	25	25		20.03		21.5
10	16QAM	50	0		20.02		
10	64QAM	1	0		20.32		
10	64QAM	1	25		20.11		21.5
10	64QAM	1	49		20.13		
10	64QAM	25	0		19.04		
10	64QAM	25	12		19.07		20.5
10	64QAM	25	25		19.09		
10	64QAM	50	0		19.01		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	21.94	21.93	21.79	23.5
5	QPSK	1	12	21.96	21.86	21.94	
5	QPSK	1	24	21.97	21.94	21.90	
5	QPSK	12	0	21.05	20.99	20.92	22.5
5	QPSK	12	7	21.01	21.03	20.93	
5	QPSK	12	13	20.96	21.00	21.01	
5	QPSK	25	0	21.00	20.99	20.94	22.5
5	16QAM	1	0	21.26	21.23	21.14	
5	16QAM	1	12	21.28	21.23	21.26	
5	16QAM	1	24	21.21	21.25	21.28	21.5
5	16QAM	12	0	20.03	19.98	19.96	
5	16QAM	12	7	20.00	20.02	19.93	
5	16QAM	12	13	19.95	20.03	20.00	21.5
5	16QAM	25	0	20.05	19.99	19.95	
5	64QAM	1	0	20.23	20.18	20.13	
5	64QAM	1	12	20.18	20.15	20.09	21.5
5	64QAM	1	24	20.29	20.19	20.15	
5	64QAM	12	0	19.12	19.02	18.97	
5	64QAM	12	7	19.06	19.07	19.02	20.5
5	64QAM	12	13	19.03	19.04	19.07	
5	64QAM	25	0	19.02	19.04	18.95	



<LTE Band 30 Ant8 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				27710			25.5
Frequency (MHz)				2310			
10	QPSK	1	0		23.98		25.5
10	QPSK	1	25		23.85		
10	QPSK	1	49		23.87		
10	QPSK	25	0		22.98		24.5
10	QPSK	25	12		23.01		
10	QPSK	25	25		23.02		
10	QPSK	50	0		23.02		24.5
10	16QAM	1	0		23.27		
10	16QAM	1	25		23.26		
10	16QAM	1	49		23.25		24.5
10	16QAM	25	0		21.96		
10	16QAM	25	12		22.01		
10	16QAM	25	25		22.01		23.5
10	16QAM	50	0		22.01		
10	64QAM	1	0		21.69		
10	64QAM	1	25		21.57		23.5
10	64QAM	1	49		21.71		
10	64QAM	25	0		20.51		
10	64QAM	25	12		20.65		22.5
10	64QAM	25	25		20.64		
10	64QAM	50	0		20.50		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	23.91	23.87	23.82	25.5
5	QPSK	1	12	23.91	23.96	23.95	
5	QPSK	1	24	23.89	23.86	23.80	
5	QPSK	12	0	22.99	22.99	22.93	24.5
5	QPSK	12	7	23.04	23.05	22.97	
5	QPSK	12	13	23.04	23.03	22.99	
5	QPSK	25	0	23.02	23.00	22.89	24.5
5	16QAM	1	0	23.22	23.22	22.83	
5	16QAM	1	12	23.23	23.26	23.24	
5	16QAM	1	24	23.28	23.32	23.23	24.5
5	16QAM	12	0	22.01	22.01	21.97	
5	16QAM	12	7	22.05	22.05	22.03	
5	16QAM	12	13	22.05	22.03	22.07	23.5
5	16QAM	25	0	22.03	22.01	21.99	
5	64QAM	1	0	21.56	21.53	22.02	
5	64QAM	1	12	21.53	21.63	21.56	23.5
5	64QAM	1	24	21.51	21.76	21.74	
5	64QAM	12	0	20.53	20.52	20.97	
5	64QAM	12	7	20.54	20.68	20.61	22.5
5	64QAM	12	13	20.53	20.67	20.54	
5	64QAM	25	0	20.46	20.61	20.28	



<LTE Band 38/41 Ant1/8 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	24.08	24.04	24.10	24.05	23.92	25.5
20	QPSK	1	49	24.09	24.11	24.11	24.08	23.93	
20	QPSK	1	99	24.08	24.08	24.09	24.07	23.87	
20	QPSK	50	0	23.23	23.24	23.09	23.14	23.01	24.5
20	QPSK	50	24	23.23	23.23	23.18	23.22	22.97	
20	QPSK	50	50	23.22	23.23	23.17	23.18	23.00	
20	QPSK	100	0	23.25	23.26	23.17	23.20	22.98	24.5
20	16QAM	1	0	23.27	23.19	23.18	23.20	23.11	
20	16QAM	1	49	23.15	23.19	23.11	23.08	22.92	
20	16QAM	1	99	23.20	23.20	23.21	23.14	23.01	23.5
20	16QAM	50	0	22.28	22.19	22.10	22.16	22.02	
20	16QAM	50	24	22.27	22.27	22.19	22.22	22.01	
20	16QAM	50	50	22.28	22.27	22.20	22.22	22.04	23.5
20	16QAM	100	0	22.27	22.27	22.19	22.24	21.99	
20	64QAM	1	0	21.99	21.90	21.85	21.88	21.78	
20	64QAM	1	49	21.80	21.93	21.85	21.84	21.63	23.5
20	64QAM	1	99	21.93	21.95	21.92	21.87	21.72	
20	64QAM	50	0	21.28	21.20	21.12	21.18	21.06	
20	64QAM	50	24	21.30	21.28	21.20	21.24	21.01	22.5
20	64QAM	50	50	21.27	21.27	21.20	21.22	21.05	
20	64QAM	100	0	21.28	21.27	21.20	21.24	20.99	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	24.04	23.96	24.00	24.03	23.99	25.5
15	QPSK	1	37	24.02	24.06	23.93	23.98	23.78	
15	QPSK	1	74	24.06	24.00	24.09	24.02	23.87	
15	QPSK	36	0	23.26	23.15	23.04	23.07	22.96	24.5
15	QPSK	36	20	23.23	23.19	23.13	23.15	22.94	
15	QPSK	36	39	23.16	23.21	23.08	23.12	22.98	
15	QPSK	75	0	23.21	23.16	23.17	23.16	22.91	24.5
15	16QAM	1	0	23.23	23.17	23.11	23.15	23.11	
15	16QAM	1	37	23.07	23.09	23.08	23.07	22.86	
15	16QAM	1	74	23.12	23.19	23.13	23.12	22.96	23.5
15	16QAM	36	0	22.26	22.09	22.05	22.16	22.02	
15	16QAM	36	20	22.17	22.26	22.12	22.20	21.94	
15	16QAM	36	39	22.20	22.26	22.19	22.14	22.03	23.5
15	16QAM	75	0	22.25	22.18	22.18	22.14	21.91	
15	64QAM	1	0	21.94	21.87	21.76	21.82	21.68	
15	64QAM	1	37	21.77	21.85	21.76	21.82	21.61	23.5
15	64QAM	1	74	21.90	21.93	21.88	21.86	21.67	
15	64QAM	36	0	21.23	21.13	21.09	21.11	21.06	
15	64QAM	36	20	21.28	21.28	21.17	21.15	20.91	22.5
15	64QAM	36	39	21.21	21.25	21.15	21.18	21.03	
15	64QAM	75	0	21.25	21.21	21.13	21.23	20.99	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	24.11	24.00	24.05	24.07	23.99	25.5
10	QPSK	1	25	24.05	24.08	23.95	23.93	23.77	
10	QPSK	1	49	24.01	24.05	24.03	23.97	23.87	
10	QPSK	25	0	23.26	23.07	23.03	23.09	22.92	24.5





10	QPSK	25	12	23.17	23.20	23.08	23.21	22.95	
10	QPSK	25	25	23.17	23.17	23.14	23.08	22.94	
10	QPSK	50	0	23.22	23.22	23.12	23.11	22.91	
10	16QAM	1	0	23.18	23.12	23.11	23.19	23.07	24.5
10	16QAM	1	25	23.13	23.13	23.07	23.08	22.84	
10	16QAM	1	49	23.18	23.17	23.15	23.07	22.95	
10	16QAM	25	0	22.27	22.11	22.00	22.07	21.99	23.5
10	16QAM	25	12	22.22	22.21	22.13	22.19	21.98	
10	16QAM	25	25	22.18	22.19	22.13	22.13	21.94	
10	16QAM	50	0	22.24	22.22	22.15	22.18	21.91	
10	64QAM	1	0	21.92	21.88	21.84	21.86	21.74	23.5
10	64QAM	1	25	21.79	21.83	21.83	21.83	21.55	
10	64QAM	1	49	21.92	21.88	21.85	21.81	21.66	
10	64QAM	25	0	21.25	21.15	21.03	21.17	20.97	22.5
10	64QAM	25	12	21.27	21.28	21.18	21.14	21.00	
10	64QAM	25	25	21.17	21.25	21.12	21.12	20.96	
10	64QAM	50	0	21.23	21.27	21.15	21.20	20.89	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	24.10	23.94	24.04	24.07	23.92	25.5
5	QPSK	1	12	24.08	24.00	24.01	23.98	23.81	
5	QPSK	1	24	24.05	24.02	24.06	24.02	23.80	
5	QPSK	12	0	23.24	23.13	23.00	23.04	22.93	24.5
5	QPSK	12	7	23.21	23.23	23.10	23.13	22.87	
5	QPSK	12	13	23.20	23.14	23.13	23.18	22.93	
5	QPSK	25	0	23.19	23.21	23.15	23.12	22.93	
5	16QAM	1	0	23.22	23.10	23.12	23.15	23.06	24.5
5	16QAM	1	12	23.14	23.11	23.03	23.01	22.89	
5	16QAM	1	24	23.13	23.13	23.13	23.12	22.95	
5	16QAM	12	0	22.28	22.16	22.04	22.14	21.98	23.5
5	16QAM	12	7	22.26	22.17	22.18	22.13	22.01	
5	16QAM	12	13	22.20	22.26	22.14	22.17	21.99	
5	16QAM	25	0	22.23	22.23	22.11	22.15	21.98	
5	64QAM	1	0	21.93	21.81	21.80	21.79	21.71	23.5
5	64QAM	1	12	21.71	21.88	21.80	21.78	21.58	
5	64QAM	1	24	21.93	21.85	21.91	21.83	21.64	
5	64QAM	12	0	21.26	21.17	21.10	21.14	21.00	22.5
5	64QAM	12	7	21.27	21.23	21.13	21.20	20.99	
5	64QAM	12	13	21.26	21.17	21.16	21.17	20.99	
5	64QAM	25	0	21.26	21.24	21.18	21.20	20.89	

<LTE Band 42/48 Ant9/11 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	20.84	20.97	20.92	20.86	22
20	QPSK	1	49	20.78	20.84	20.79	20.74	
20	QPSK	1	99	20.83	20.94	20.87	20.85	
20	QPSK	50	0	19.93	19.98	19.94	19.88	21
20	QPSK	50	24	19.92	19.94	19.94	19.87	
20	QPSK	50	50	19.93	19.95	19.86	19.82	
20	QPSK	100	0	19.93	20.01	19.95	19.90	
20	16QAM	1	0	20.03	20.08	20.04	19.96	21
20	16QAM	1	49	19.92	19.98	19.90	19.84	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	16QAM	1	99	20.04	20.08	20.02	19.97	
20	16QAM	50	0	18.97	18.98	18.99	18.92	20
20	16QAM	50	24	18.96	19.05	18.98	18.93	
20	16QAM	50	50	18.99	19.04	18.90	18.85	
20	16QAM	100	0	18.97	19.06	18.98	18.94	
20	64QAM	1	0	18.61	18.69	18.69	18.64	20
20	64QAM	1	49	18.56	18.63	18.56	18.52	
20	64QAM	1	99	18.74	18.79	18.62	18.62	
20	64QAM	50	0	18.03	18.01	18.02	17.97	19
20	64QAM	50	24	18.00	18.07	18.00	18.00	
20	64QAM	50	50	18.00	18.07	17.94	17.90	
20	64QAM	100	0	18.02	18.11	18.04	18.01	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	20.76	20.96	20.84	20.76	22
15	QPSK	1	37	20.76	20.79	20.73	20.72	
15	QPSK	1	74	20.80	20.85	20.78	20.83	
15	QPSK	36	0	19.93	19.94	19.90	19.79	21
15	QPSK	36	20	19.92	19.97	19.89	19.86	
15	QPSK	36	39	19.85	19.93	19.76	19.81	
15	QPSK	75	0	19.88	20.00	19.87	19.83	
15	16QAM	1	0	19.94	20.05	19.99	19.91	21
15	16QAM	1	37	19.90	19.95	19.90	19.84	
15	16QAM	1	74	20.00	20.04	19.99	19.97	
15	16QAM	36	0	18.95	18.95	18.97	18.84	20
15	16QAM	36	20	18.95	19.05	18.94	18.83	
15	16QAM	36	39	18.96	19.00	18.80	18.85	
15	16QAM	75	0	18.90	18.97	18.94	18.87	
15	64QAM	1	0	18.59	18.61	18.69	18.60	20
15	64QAM	1	37	18.47	18.61	18.54	18.46	
15	64QAM	1	74	18.65	18.77	18.60	18.54	
15	64QAM	36	0	18.02	17.93	17.95	17.94	
15	64QAM	36	20	17.92	18.01	17.96	17.93	19
15	64QAM	36	39	17.93	17.97	17.92	17.83	
15	64QAM	75	0	17.94	18.02	17.99	17.95	
Channel				55290	55815	56165	56690	
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	20.82	20.93	20.84	20.86	22
10	QPSK	1	25	20.68	20.81	20.73	20.74	
10	QPSK	1	49	20.84	20.91	20.82	20.80	
10	QPSK	25	0	19.88	19.90	19.86	19.81	21
10	QPSK	25	12	19.92	19.94	19.85	19.84	
10	QPSK	25	25	19.94	19.88	19.82	19.80	
10	QPSK	50	0	19.83	19.97	19.88	19.83	
10	16QAM	1	0	20.03	19.99	19.95	19.92	21
10	16QAM	1	25	19.82	19.91	19.81	19.77	
10	16QAM	1	49	19.95	20.08	19.96	19.97	
10	16QAM	25	0	18.89	18.97	18.91	18.84	20
10	16QAM	25	12	18.87	18.99	18.93	18.93	
10	16QAM	25	25	18.95	18.94	18.83	18.80	
10	16QAM	50	0	18.92	19.04	18.98	18.85	
10	64QAM	1	0	18.56	18.69	18.59	18.55	20
10	64QAM	1	25	18.55	18.60	18.52	18.47	
10	64QAM	1	49	18.69	18.77	18.54	18.61	
10	64QAM	25	0	17.98	17.96	17.99	17.93	19
10	64QAM	25	12	17.97	17.98	17.97	18.00	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	64QAM	25	25	17.94	17.98	17.92	17.87	
10	64QAM	50	0	17.93	18.08	17.96	17.99	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	20.80	20.93	20.90	20.83	22
5	QPSK	1	12	20.71	20.84	20.74	20.67	
5	QPSK	1	24	20.83	20.92	20.87	20.85	
5	QPSK	12	0	19.87	19.91	19.85	19.79	21
5	QPSK	12	7	19.92	19.94	19.93	19.87	
5	QPSK	12	13	19.91	19.93	19.85	19.81	
5	QPSK	25	0	19.87	19.92	19.85	19.84	
5	16QAM	1	0	19.99	20.04	19.98	19.86	21
5	16QAM	1	12	19.84	19.93	19.82	19.75	
5	16QAM	1	24	19.97	20.05	19.93	19.91	
5	16QAM	12	0	18.93	18.88	18.98	18.84	20
5	16QAM	12	7	18.86	19.03	18.98	18.83	
5	16QAM	12	13	18.89	18.99	18.84	18.80	
5	16QAM	25	0	18.91	19.04	18.89	18.87	
5	64QAM	1	0	18.54	18.62	18.68	18.62	20
5	64QAM	1	12	18.46	18.55	18.54	18.48	
5	64QAM	1	24	18.64	18.78	18.55	18.61	
5	64QAM	12	0	17.96	17.98	17.98	17.92	19
5	64QAM	12	7	17.90	18.02	17.98	17.93	
5	64QAM	12	13	17.96	17.98	17.87	17.85	
5	64QAM	25	0	18.01	18.10	17.98	17.94	



<LTE Band 66 Ant8 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.61	23.85	23.67	25
20	QPSK	1	49	23.60	23.62	23.53	
20	QPSK	1	99	23.58	23.57	23.53	
20	QPSK	50	0	22.82	22.85	22.70	24
20	QPSK	50	24	22.81	22.74	22.66	
20	QPSK	50	50	22.81	22.73	22.65	
20	QPSK	100	0	22.83	22.84	22.65	24
20	16QAM	1	0	23.00	23.11	23.01	
20	16QAM	1	49	23.06	23.02	22.94	
20	16QAM	1	99	22.97	22.91	22.77	23
20	16QAM	50	0	21.85	21.78	21.69	
20	16QAM	50	24	21.90	21.73	21.68	
20	16QAM	50	50	21.82	21.75	21.67	23
20	16QAM	100	0	21.88	21.70	21.64	
20	64QAM	1	0	21.02	21.94	21.87	
20	64QAM	1	49	21.93	21.66	21.80	23
20	64QAM	1	99	21.85	21.80	21.64	
20	64QAM	50	0	20.44	20.76	20.71	
20	64QAM	50	24	20.84	20.53	20.68	22
20	64QAM	50	50	20.84	20.77	20.68	
20	64QAM	100	0	20.89	20.75	20.63	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.80	23.70	23.69	25
15	QPSK	1	37	23.75	23.65	23.58	
15	QPSK	1	74	23.68	23.60	23.51	
15	QPSK	36	0	22.92	22.75	22.71	24
15	QPSK	36	20	22.94	22.85	22.69	
15	QPSK	36	39	22.86	22.77	22.69	
15	QPSK	75	0	22.90	22.73	22.66	24
15	16QAM	1	0	23.07	23.00	23.00	
15	16QAM	1	37	23.08	23.00	22.93	
15	16QAM	1	74	23.01	22.95	22.85	23
15	16QAM	36	0	21.93	21.78	21.71	
15	16QAM	36	20	21.94	21.83	21.69	
15	16QAM	36	39	21.87	21.78	21.70	23
15	16QAM	75	0	21.90	21.74	21.67	
15	64QAM	1	0	21.07	21.88	21.87	
15	64QAM	1	37	21.70	21.69	21.86	23
15	64QAM	1	74	21.93	21.85	21.74	
15	64QAM	36	0	20.33	20.79	20.73	
15	64QAM	36	20	20.68	20.67	20.73	22
15	64QAM	36	39	20.88	20.79	20.72	
15	64QAM	75	0	20.63	20.75	20.69	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.53	23.68	23.62	25
10	QPSK	1	25	23.75	23.61	23.56	
10	QPSK	1	49	23.70	23.58	23.50	
10	QPSK	25	0	22.88	22.73	22.64	24



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	25	12	22.89	22.71	22.64	
10	QPSK	25	25	22.85	22.74	22.65	
10	QPSK	50	0	22.89	22.70	22.61	
10	16QAM	1	0	22.92	23.07	22.99	24
10	16QAM	1	25	23.15	23.03	22.95	
10	16QAM	1	49	23.09	22.96	22.86	
10	16QAM	25	0	21.91	21.71	21.65	23
10	16QAM	25	12	21.90	21.72	21.63	
10	16QAM	25	25	21.82	21.73	21.63	
10	16QAM	50	0	21.88	21.70	21.59	23
10	64QAM	1	0	20.50	21.56	21.85	
10	64QAM	1	25	21.50	21.80	21.84	
10	64QAM	1	49	22.01	21.88	21.77	22
10	64QAM	25	0	20.13	20.70	20.66	
10	64QAM	25	12	20.26	20.73	20.66	
10	64QAM	25	25	20.50	20.74	20.68	22
10	64QAM	50	0	20.16	20.63	20.62	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.53	23.65	23.57	25
5	QPSK	1	12	23.54	23.75	23.58	
5	QPSK	1	24	23.77	23.65	23.51	
5	QPSK	12	0	22.86	22.70	22.69	24
5	QPSK	12	7	22.92	22.83	22.65	
5	QPSK	12	13	22.87	22.74	22.62	
5	QPSK	25	0	22.85	22.72	22.65	24
5	16QAM	1	0	22.72	22.97	22.94	
5	16QAM	1	12	23.06	23.01	22.90	
5	16QAM	1	24	23.07	22.95	22.82	23
5	16QAM	12	0	21.95	21.76	21.68	
5	16QAM	12	7	21.96	21.83	21.70	
5	16QAM	12	13	21.89	21.78	21.64	23
5	16QAM	25	0	21.88	21.72	21.69	
5	64QAM	1	0	20.86	21.66	21.86	
5	64QAM	1	12	21.21	21.71	21.82	23
5	64QAM	1	24	21.43	21.61	21.76	
5	64QAM	12	0	20.06	20.64	20.75	
5	64QAM	12	7	20.21	20.71	20.76	22
5	64QAM	12	13	20.24	20.61	20.67	
5	64QAM	25	0	20.08	20.60	20.66	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.60	23.65	23.60	25
3	QPSK	1	8	23.75	23.76	23.62	
3	QPSK	1	14	23.82	23.68	23.53	
3	QPSK	8	0	22.92	22.70	22.64	24
3	QPSK	8	4	22.96	22.78	22.68	
3	QPSK	8	7	22.92	22.76	22.64	
3	QPSK	15	0	22.93	22.74	22.67	24
3	16QAM	1	0	23.03	22.98	22.95	
3	16QAM	1	8	23.21	23.05	23.00	
3	16QAM	1	14	23.15	23.02	22.89	23
3	16QAM	8	0	21.98	21.78	21.76	
3	16QAM	8	4	22.00	21.86	21.76	
3	16QAM	8	7	21.95	21.85	21.71	23
3	16QAM	15	0	21.97	21.73	21.68	



3	64QAM	1	0	21.22	21.64	21.84	23
3	64QAM	1	8	21.49	21.74	21.88	
3	64QAM	1	14	21.51	21.63	21.81	
3	64QAM	8	0	20.31	20.69	20.75	22
3	64QAM	8	4	20.35	20.71	20.73	
3	64QAM	8	7	20.25	20.65	20.70	
3	64QAM	15	0	20.11	20.65	20.66	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.77	23.64	23.51	25
1.4	QPSK	1	3	23.83	23.71	23.55	
1.4	QPSK	1	5	23.76	23.62	23.50	
1.4	QPSK	3	0	23.81	23.67	23.51	
1.4	QPSK	3	1	23.75	23.70	23.56	
1.4	QPSK	3	3	23.80	23.66	23.52	
1.4	QPSK	6	0	22.85	22.70	22.57	24
1.4	16QAM	1	0	23.11	22.95	22.84	24
1.4	16QAM	1	3	23.12	23.03	22.91	
1.4	16QAM	1	5	23.09	22.92	22.83	
1.4	16QAM	3	0	22.89	22.74	22.61	
1.4	16QAM	3	1	22.95	22.79	22.68	
1.4	16QAM	3	3	22.87	22.75	22.62	
1.4	16QAM	6	0	21.93	21.80	21.68	23
1.4	64QAM	1	0	21.40	21.69	21.79	23
1.4	64QAM	1	3	21.52	21.73	21.83	
1.4	64QAM	1	5	21.51	21.66	21.73	
1.4	64QAM	3	0	21.48	21.70	21.73	
1.4	64QAM	3	1	21.61	21.75	21.76	
1.4	64QAM	3	3	21.46	21.62	21.74	
1.4	64QAM	6	0	20.34	20.60	20.64	22

<LTE Band 66 Ant1 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.61	23.85	23.67	25.5
20	QPSK	1	49	23.60	23.62	23.53	
20	QPSK	1	99	23.58	23.57	23.53	
20	QPSK	50	0	22.82	22.85	22.70	24.5
20	QPSK	50	24	22.81	22.74	22.66	
20	QPSK	50	50	22.81	22.73	22.65	
20	QPSK	100	0	22.83	22.84	22.65	
20	16QAM	1	0	23.00	23.11	23.01	24.5
20	16QAM	1	49	23.06	23.02	22.94	
20	16QAM	1	99	22.97	22.91	22.77	
20	16QAM	50	0	21.85	21.78	21.69	23.5
20	16QAM	50	24	21.90	21.73	21.68	
20	16QAM	50	50	21.82	21.75	21.67	
20	16QAM	100	0	21.88	21.70	21.64	
20	64QAM	1	0	21.02	21.94	21.87	23.5
20	64QAM	1	49	21.93	21.66	21.80	
20	64QAM	1	99	21.85	21.80	21.64	
20	64QAM	50	0	20.44	20.76	20.71	22.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	64QAM	50	24	20.84	20.53	20.68	
20	64QAM	50	50	20.84	20.77	20.68	
20	64QAM	100	0	20.89	20.75	20.63	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.80	23.70	23.69	25.5
15	QPSK	1	37	23.75	23.65	23.58	
15	QPSK	1	74	23.68	23.60	23.51	
15	QPSK	36	0	22.92	22.75	22.71	24.5
15	QPSK	36	20	22.94	22.85	22.69	
15	QPSK	36	39	22.86	22.77	22.69	
15	QPSK	75	0	22.90	22.73	22.66	24.5
15	16QAM	1	0	23.07	23.00	23.00	
15	16QAM	1	37	23.08	23.00	22.93	
15	16QAM	1	74	23.01	22.95	22.85	23.5
15	16QAM	36	0	21.93	21.78	21.71	
15	16QAM	36	20	21.94	21.83	21.69	
15	16QAM	36	39	21.87	21.78	21.70	23.5
15	16QAM	75	0	21.90	21.74	21.67	
15	64QAM	1	0	21.07	21.88	21.87	
15	64QAM	1	37	21.70	21.69	21.86	23.5
15	64QAM	1	74	21.93	21.85	21.74	
15	64QAM	36	0	20.33	20.79	20.73	
15	64QAM	36	20	20.68	20.67	20.73	22.5
15	64QAM	36	39	20.88	20.79	20.72	
15	64QAM	75	0	20.63	20.75	20.69	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.53	23.68	23.62	25.5
10	QPSK	1	25	23.75	23.61	23.56	
10	QPSK	1	49	23.70	23.58	23.50	
10	QPSK	25	0	22.88	22.73	22.64	24.5
10	QPSK	25	12	22.89	22.71	22.64	
10	QPSK	25	25	22.85	22.74	22.65	
10	QPSK	50	0	22.89	22.70	22.61	24.5
10	16QAM	1	0	22.92	23.07	22.99	
10	16QAM	1	25	23.15	23.03	22.95	
10	16QAM	1	49	23.09	22.96	22.86	24.5
10	16QAM	25	0	21.91	21.71	21.65	
10	16QAM	25	12	21.90	21.72	21.63	
10	16QAM	25	25	21.82	21.73	21.63	23.5
10	16QAM	50	0	21.88	21.70	21.59	
10	64QAM	1	0	20.50	21.56	21.85	
10	64QAM	1	25	21.50	21.80	21.84	23.5
10	64QAM	1	49	22.01	21.88	21.77	
10	64QAM	25	0	20.13	20.70	20.66	
10	64QAM	25	12	20.26	20.73	20.66	22.5
10	64QAM	25	25	20.50	20.74	20.68	
10	64QAM	50	0	20.16	20.63	20.62	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.53	23.65	23.57	25.5
5	QPSK	1	12	23.54	23.75	23.58	
5	QPSK	1	24	23.77	23.65	23.51	
5	QPSK	12	0	22.86	22.70	22.69	24.5
5	QPSK	12	7	22.92	22.83	22.65	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

5	QPSK	12	13	22.87	22.74	22.62	
5	QPSK	25	0	22.85	22.72	22.65	
5	16QAM	1	0	22.72	22.97	22.94	
5	16QAM	1	12	23.06	23.01	22.90	24.5
5	16QAM	1	24	23.07	22.95	22.82	
5	16QAM	12	0	21.95	21.76	21.68	
5	16QAM	12	7	21.96	21.83	21.70	23.5
5	16QAM	12	13	21.89	21.78	21.64	
5	16QAM	25	0	21.88	21.72	21.69	
5	64QAM	1	0	20.86	21.66	21.86	23.5
5	64QAM	1	12	21.21	21.71	21.82	
5	64QAM	1	24	21.43	21.61	21.76	
5	64QAM	12	0	20.06	20.64	20.75	22.5
5	64QAM	12	7	20.21	20.71	20.76	
5	64QAM	12	13	20.24	20.61	20.67	
5	64QAM	25	0	20.08	20.60	20.66	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.60	23.65	23.60	25.5
3	QPSK	1	8	23.75	23.76	23.62	
3	QPSK	1	14	23.82	23.68	23.53	
3	QPSK	8	0	22.92	22.70	22.64	24.5
3	QPSK	8	4	22.96	22.78	22.68	
3	QPSK	8	7	22.92	22.76	22.64	
3	QPSK	15	0	22.93	22.74	22.67	24.5
3	16QAM	1	0	23.03	22.98	22.95	
3	16QAM	1	8	23.21	23.05	23.00	
3	16QAM	1	14	23.15	23.02	22.89	23.5
3	16QAM	8	0	21.98	21.78	21.76	
3	16QAM	8	4	22.00	21.86	21.76	
3	16QAM	8	7	21.95	21.85	21.71	
3	16QAM	15	0	21.97	21.73	21.68	
3	64QAM	1	0	21.22	21.64	21.84	23.5
3	64QAM	1	8	21.49	21.74	21.88	
3	64QAM	1	14	21.51	21.63	21.81	
3	64QAM	8	0	20.31	20.69	20.75	22.5
3	64QAM	8	4	20.35	20.71	20.73	
3	64QAM	8	7	20.25	20.65	20.70	
3	64QAM	15	0	20.11	20.65	20.66	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.77	23.64	23.51	25.5
1.4	QPSK	1	3	23.83	23.71	23.55	
1.4	QPSK	1	5	23.76	23.62	23.50	
1.4	QPSK	3	0	23.81	23.67	23.51	
1.4	QPSK	3	1	23.75	23.70	23.56	
1.4	QPSK	3	3	23.80	23.66	23.52	
1.4	QPSK	6	0	22.85	22.70	22.57	24.5
1.4	16QAM	1	0	23.11	22.95	22.84	24.5
1.4	16QAM	1	3	23.12	23.03	22.91	
1.4	16QAM	1	5	23.09	22.92	22.83	
1.4	16QAM	3	0	22.89	22.74	22.61	
1.4	16QAM	3	1	22.95	22.79	22.68	
1.4	16QAM	3	3	22.87	22.75	22.62	
1.4	16QAM	6	0	21.93	21.80	21.68	23.5
1.4	64QAM	1	0	21.40	21.69	21.79	23.5





1.4	64QAM	1	3	21.52	21.73	21.83	
1.4	64QAM	1	5	21.51	21.66	21.73	
1.4	64QAM	3	0	21.48	21.70	21.73	
1.4	64QAM	3	1	21.61	21.75	21.76	
1.4	64QAM	3	3	21.46	21.62	21.74	
1.4	64QAM	6	0	20.34	20.60	20.64	22.5

**<LTE Band 66 Ant1 State 3 when EN-DC active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.14	23.18	23.12	24.5
20	QPSK	1	49	23.07	23.03	23.04	
20	QPSK	1	99	23.03	22.98	22.97	
20	QPSK	50	0	22.24	22.25	22.22	23.5
20	QPSK	50	24	22.22	22.16	22.21	
20	QPSK	50	50	22.21	22.17	22.21	
20	QPSK	100	0	22.25	22.14	22.26	23.5
20	16QAM	1	0	22.50	22.51	22.48	
20	16QAM	1	49	22.44	22.41	22.43	
20	16QAM	1	99	22.34	22.30	22.25	22.5
20	16QAM	50	0	21.29	21.22	21.20	
20	16QAM	50	24	21.29	21.18	21.26	
20	16QAM	50	50	21.21	21.21	21.22	21.5
20	16QAM	100	0	21.23	21.14	21.24	
20	64QAM	1	0	21.29	21.33	21.30	
20	64QAM	1	49	20.79	21.26	21.30	22.5
20	64QAM	1	99	20.99	20.70	20.34	
20	64QAM	50	0	20.24	20.21	20.22	
20	64QAM	50	24	20.04	20.22	20.29	21.5
20	64QAM	50	50	19.88	20.16	19.81	
20	64QAM	100	0	20.08	20.16	20.21	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.10	23.09	23.15	24.5
15	QPSK	1	37	23.09	23.06	23.07	
15	QPSK	1	74	23.04	23.05	22.78	
15	QPSK	36	0	22.18	22.18	22.19	23.5
15	QPSK	36	20	22.27	22.20	22.21	
15	QPSK	36	39	22.23	22.21	22.23	
15	QPSK	75	0	22.24	22.15	22.19	23.5
15	16QAM	1	0	22.45	22.44	22.48	
15	16QAM	1	37	22.44	22.43	22.42	
15	16QAM	1	74	22.32	22.31	22.08	22.5
15	16QAM	36	0	21.19	21.17	21.20	
15	16QAM	36	20	21.27	21.18	21.19	
15	16QAM	36	39	21.21	21.20	21.23	22.5
15	16QAM	75	0	21.25	21.17	21.19	
15	64QAM	1	0	21.24	21.27	21.31	
15	64QAM	1	37	21.01	21.30	20.67	22.5
15	64QAM	1	74	20.71	20.52	20.09	
15	64QAM	36	0	20.20	20.22	20.21	
15	64QAM	36	20	20.15	20.21	20.02	21.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

15	64QAM	36	39	19.85	20.14	19.59	
15	64QAM	75	0	20.10	20.15	20.04	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.10	23.05	23.09	24.5
10	QPSK	1	25	23.03	23.05	23.05	
10	QPSK	1	49	22.99	23.00	23.00	
10	QPSK	25	0	22.22	22.13	22.14	23.5
10	QPSK	25	12	22.22	22.14	22.22	
10	QPSK	25	25	22.17	22.17	22.17	
10	QPSK	50	0	22.21	22.11	22.14	
10	16QAM	1	0	22.47	22.47	22.50	23.5
10	16QAM	1	25	22.43	22.43	22.46	
10	16QAM	1	49	22.37	22.40	22.26	
10	16QAM	25	0	21.21	21.11	21.13	22.5
10	16QAM	25	12	21.23	21.13	21.23	
10	16QAM	25	25	21.15	21.17	21.16	
10	16QAM	50	0	21.20	21.11	21.14	
10	64QAM	1	0	20.96	21.30	21.26	22.5
10	64QAM	1	25	21.30	21.38	20.78	
10	64QAM	1	49	20.64	20.91	20.35	
10	64QAM	25	0	20.13	20.17	19.94	21.5
10	64QAM	25	12	20.21	20.18	19.81	
10	64QAM	25	25	20.06	20.19	19.65	
10	64QAM	50	0	20.11	20.16	19.83	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.03	22.95	23.04	24.5
5	QPSK	1	12	23.07	22.95	23.11	
5	QPSK	1	24	23.00	22.98	23.10	
5	QPSK	12	0	22.08	21.99	22.15	23.5
5	QPSK	12	7	22.14	22.08	22.21	
5	QPSK	12	13	22.11	22.07	22.25	
5	QPSK	25	0	22.09	22.01	22.22	
5	16QAM	1	0	22.32	22.27	22.39	23.5
5	16QAM	1	12	22.33	22.27	22.39	
5	16QAM	1	24	22.38	22.27	22.43	
5	16QAM	12	0	21.09	21.04	21.18	22.5
5	16QAM	12	7	21.14	21.07	21.27	
5	16QAM	12	13	21.13	21.13	21.21	
5	16QAM	25	0	21.13	21.08	21.20	
5	64QAM	1	0	21.29	21.19	21.31	22.5
5	64QAM	1	12	21.26	21.20	21.29	
5	64QAM	1	24	21.28	21.21	21.33	
5	64QAM	12	0	20.10	20.08	20.23	21.5
5	64QAM	12	7	20.19	20.17	20.31	
5	64QAM	12	13	20.18	20.19	20.31	
5	64QAM	25	0	20.10	20.09	20.23	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.11	23.11	23.08	24.5
3	QPSK	1	8	23.14	23.16	23.03	
3	QPSK	1	14	23.09	23.08	22.92	
3	QPSK	8	0	22.21	22.18	22.14	23.5
3	QPSK	8	4	22.23	22.24	22.18	
3	QPSK	8	7	22.18	22.20	22.12	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

3	QPSK	15	0	22.21	22.19	22.20	
3	16QAM	1	0	22.42	22.40	22.42	23.5
3	16QAM	1	8	22.47	22.47	22.39	
3	16QAM	1	14	22.43	22.41	22.28	
3	16QAM	8	0	21.30	21.28	21.25	22.5
3	16QAM	8	4	21.28	21.29	21.28	
3	16QAM	8	7	21.27	21.20	21.21	
3	16QAM	15	0	21.23	21.24	21.24	
3	64QAM	1	0	20.95	21.32	20.50	22.5
3	64QAM	1	8	21.16	21.37	20.46	
3	64QAM	1	14	21.13	21.29	20.40	
3	64QAM	8	0	20.00	20.25	19.45	21.5
3	64QAM	8	4	20.11	20.26	19.46	
3	64QAM	8	7	20.14	20.25	19.45	
3	64QAM	15	0	20.05	20.24	19.51	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.04	23.05	22.99	24.5
1.4	QPSK	1	3	23.08	23.10	23.01	
1.4	QPSK	1	5	23.05	23.03	22.93	
1.4	QPSK	3	0	23.06	23.03	22.95	
1.4	QPSK	3	1	23.10	23.06	22.97	
1.4	QPSK	3	3	23.06	23.07	22.91	
1.4	QPSK	6	0	22.16	22.12	22.06	23.5
1.4	16QAM	1	0	22.38	22.35	22.26	23.5
1.4	16QAM	1	3	22.45	22.44	22.34	
1.4	16QAM	1	5	22.34	22.37	22.26	
1.4	16QAM	3	0	22.15	22.15	22.14	
1.4	16QAM	3	1	22.20	22.17	22.17	
1.4	16QAM	3	3	22.12	22.13	22.11	
1.4	16QAM	6	0	21.23	21.21	21.24	22.5
1.4	64QAM	1	0	20.87	21.30	20.46	22.5
1.4	64QAM	1	3	21.01	21.35	20.47	
1.4	64QAM	1	5	20.98	21.29	20.43	
1.4	64QAM	3	0	20.92	21.25	20.52	
1.4	64QAM	3	1	21.03	21.30	20.60	
1.4	64QAM	3	3	21.03	21.27	20.54	
1.4	64QAM	6	0	20.00	20.17	19.53	



<LTE Band 66 Ant8 State 3 when EN-DC active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	18.24	18.25	18.25	20
20	QPSK	1	49	18.18	18.18	18.21	
20	QPSK	1	99	18.14	18.14	18.13	
20	QPSK	50	0	17.32	17.34	17.26	19
20	QPSK	50	24	17.33	17.27	17.31	
20	QPSK	50	50	17.30	17.27	17.29	
20	QPSK	100	0	17.33	17.21	17.35	19
20	16QAM	1	0	17.62	17.66	17.61	
20	16QAM	1	49	17.56	17.56	17.56	
20	16QAM	1	99	17.49	17.47	17.48	19
20	16QAM	50	0	16.39	16.29	16.29	
20	16QAM	50	24	16.38	16.27	16.38	
20	16QAM	50	50	16.30	16.30	16.30	18
20	16QAM	100	0	16.33	16.24	16.34	
20	64QAM	1	0	16.47	16.48	16.42	
20	64QAM	1	49	16.45	16.39	16.43	18
20	64QAM	1	99	16.41	16.40	16.35	
20	64QAM	50	0	15.41	15.30	15.31	
20	64QAM	50	24	15.40	15.30	15.40	17
20	64QAM	50	50	15.33	15.32	15.31	
20	64QAM	100	0	15.36	15.28	15.37	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	18.22	18.24	18.17	20
15	QPSK	1	37	18.09	18.11	18.15	
15	QPSK	1	74	18.13	18.10	18.07	
15	QPSK	36	0	17.30	17.22	17.16	19
15	QPSK	36	20	17.28	17.24	17.34	
15	QPSK	36	39	17.28	17.27	17.26	
15	QPSK	75	0	17.24	17.11	17.30	19
15	16QAM	1	0	17.58	17.60	17.53	
15	16QAM	1	37	17.54	17.48	17.49	
15	16QAM	1	74	17.44	17.37	17.38	18
15	16QAM	36	0	16.32	16.20	16.27	
15	16QAM	36	20	16.30	16.19	16.33	
15	16QAM	36	39	16.27	16.25	16.29	18
15	16QAM	75	0	16.30	16.18	16.33	
15	64QAM	1	0	16.40	16.43	16.42	
15	64QAM	1	37	16.40	16.36	16.37	18
15	64QAM	1	74	16.39	16.36	16.26	
15	64QAM	36	0	15.37	15.30	15.21	
15	64QAM	36	20	15.32	15.25	15.37	17
15	64QAM	36	39	15.25	15.32	15.29	
15	64QAM	75	0	15.33	15.20	15.36	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	18.23	18.24	18.19	20
10	QPSK	1	25	18.08	18.18	18.21	
10	QPSK	1	49	18.09	18.05	18.09	
10	QPSK	25	0	17.30	17.22	17.25	19
10	QPSK	25	12	17.32	17.22	17.31	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	25	25	17.24	17.21	17.29	
10	QPSK	50	0	17.31	17.13	17.32	
10	16QAM	1	0	17.58	17.58	17.59	
10	16QAM	1	25	17.46	17.54	17.53	19
10	16QAM	1	49	17.45	17.44	17.41	
10	16QAM	25	0	16.36	16.29	16.27	
10	16QAM	25	12	16.31	16.18	16.28	18
10	16QAM	25	25	16.25	16.21	16.30	
10	16QAM	50	0	16.25	16.21	16.34	
10	64QAM	1	0	16.38	16.43	16.32	18
10	64QAM	1	25	16.45	16.30	16.39	
10	64QAM	1	49	16.33	16.30	16.35	
10	64QAM	25	0	15.39	15.20	15.21	17
10	64QAM	25	12	15.33	15.30	15.33	
10	64QAM	25	25	15.33	15.24	15.31	
10	64QAM	50	0	15.30	15.26	15.27	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	18.20	18.22	18.21	20
5	QPSK	1	12	18.15	18.11	18.18	
5	QPSK	1	24	18.06	18.13	18.11	
5	QPSK	12	0	17.29	17.21	17.21	19
5	QPSK	12	7	17.25	17.27	17.35	
5	QPSK	12	13	17.23	17.23	17.22	
5	QPSK	25	0	17.30	17.15	17.27	19
5	16QAM	1	0	17.61	17.58	17.59	
5	16QAM	1	12	17.47	17.46	17.48	
5	16QAM	1	24	17.41	17.41	17.40	18
5	16QAM	12	0	16.35	16.19	16.21	
5	16QAM	12	7	16.30	16.25	16.31	
5	16QAM	12	13	16.30	16.22	16.27	18
5	16QAM	25	0	16.30	16.17	16.29	
5	64QAM	1	0	16.46	16.45	16.42	
5	64QAM	1	12	16.42	16.33	16.39	18
5	64QAM	1	24	16.34	16.32	16.34	
5	64QAM	12	0	15.35	15.29	15.22	
5	64QAM	12	7	15.34	15.27	15.39	17
5	64QAM	12	13	15.28	15.23	15.28	
5	64QAM	25	0	15.34	15.25	15.31	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	18.20	18.17	18.16	20
3	QPSK	1	8	18.18	18.15	18.13	
3	QPSK	1	14	18.14	18.04	18.06	
3	QPSK	8	0	17.31	17.19	17.21	19
3	QPSK	8	4	17.23	17.19	17.31	
3	QPSK	8	7	17.22	17.20	17.19	
3	QPSK	15	0	17.33	17.17	17.29	19
3	16QAM	1	0	17.61	17.65	17.57	
3	16QAM	1	8	17.54	17.56	17.51	
3	16QAM	1	14	17.48	17.46	17.39	18
3	16QAM	8	0	16.35	16.21	16.27	
3	16QAM	8	4	16.34	16.26	16.32	
3	16QAM	8	7	16.29	16.29	16.30	18
3	16QAM	15	0	16.26	16.14	16.26	
3	64QAM	1	0	16.42	16.43	16.33	



3	64QAM	1	8	16.41	16.30	16.34	17
3	64QAM	1	14	16.32	16.39	16.28	
3	64QAM	8	0	15.41	15.24	15.25	
3	64QAM	8	4	15.33	15.30	15.33	
3	64QAM	8	7	15.25	15.32	15.31	
3	64QAM	15	0	15.31	15.26	15.31	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	18.14	18.09	18.17	20
1.4	QPSK	1	3	18.20	18.20	18.23	
1.4	QPSK	1	5	18.15	18.12	18.15	
1.4	QPSK	3	0	18.18	18.12	18.17	
1.4	QPSK	3	1	18.21	18.19	18.23	
1.4	QPSK	3	3	18.15	18.12	18.18	
1.4	QPSK	6	0	17.21	17.22	17.23	19
1.4	16QAM	1	0	17.46	17.45	17.50	19
1.4	16QAM	1	3	17.56	17.54	17.61	
1.4	16QAM	1	5	17.48	17.41	17.47	
1.4	16QAM	3	0	17.26	17.23	17.26	
1.4	16QAM	3	1	17.31	17.27	17.30	
1.4	16QAM	3	3	17.25	17.23	17.27	
1.4	16QAM	6	0	16.34	16.30	16.33	18
1.4	64QAM	1	0	16.41	16.38	16.41	18
1.4	64QAM	1	3	16.42	16.40	16.48	
1.4	64QAM	1	5	16.37	16.36	16.39	
1.4	64QAM	3	0	16.38	16.35	16.37	
1.4	64QAM	3	1	16.45	16.42	16.43	
1.4	64QAM	3	3	16.38	16.36	16.37	
1.4	64QAM	6	0	15.22	15.22	15.24	17

<LTE Band 71 Ant0/2 state 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				133222	133322	133372	Tune-up limit (dBm)
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.96	25.07	25.5
20	QPSK	1	49	24.87	25.11	25.22	
20	QPSK	1	99	25.10	25.35	25.32	
20	QPSK	50	0	24.01	24.17	24.25	24.5
20	QPSK	50	24	24.03	24.26	24.32	
20	QPSK	50	50	24.20	24.38	24.37	
20	QPSK	100	0	24.13	24.31	24.29	
20	16QAM	1	0	24.28	24.34	24.41	24.5
20	16QAM	1	49	24.23	24.44	24.57	
20	16QAM	1	99	24.44	24.64	24.71	
20	16QAM	50	0	23.01	23.19	23.25	23.5
20	16QAM	50	24	23.08	23.22	23.33	
20	16QAM	50	50	23.22	23.35	23.42	
20	16QAM	100	0	23.14	23.22	23.37	
20	64QAM	1	0	23.09	22.99	23.26	23.5
20	64QAM	1	49	22.50	23.29	23.44	
20	64QAM	1	99	23.39	23.29	23.59	
20	64QAM	50	0	22.04	22.20	22.27	22.5
20	64QAM	50	24	21.95	22.25	22.35	



20	64QAM	50	50	22.23	22.37	22.44	
20	64QAM	100	0	22.16	22.23	22.39	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.92	24.95	25.16	25.5
15	QPSK	1	37	24.83	25.11	25.25	
15	QPSK	1	74	25.02	25.22	25.31	
15	QPSK	36	0	24.02	24.11	24.31	24.5
15	QPSK	36	20	24.04	24.20	24.44	
15	QPSK	36	39	24.06	24.29	24.44	
15	QPSK	75	0	24.07	24.15	24.34	24.5
15	16QAM	1	0	24.26	24.27	24.47	
15	16QAM	1	37	24.20	24.47	24.61	
15	16QAM	1	74	24.34	24.51	24.67	23.5
15	16QAM	36	0	23.01	23.14	23.29	
15	16QAM	36	20	23.06	23.19	23.42	
15	16QAM	36	39	23.08	23.28	23.43	23.5
15	16QAM	75	0	23.09	23.18	23.32	
15	64QAM	1	0	23.12	22.91	23.36	
15	64QAM	1	37	22.94	23.39	23.51	23.5
15	64QAM	1	74	22.94	23.38	23.58	
15	64QAM	36	0	22.03	22.16	22.36	
15	64QAM	36	20	22.02	22.19	22.45	22.5
15	64QAM	36	39	21.88	22.32	22.46	
15	64QAM	75	0	22.06	22.18	22.35	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.93	24.90	25.27	25.5
10	QPSK	1	25	24.75	25.01	25.25	
10	QPSK	1	49	24.87	25.09	25.32	
10	QPSK	25	0	23.97	24.08	24.37	24.5
10	QPSK	25	12	23.99	24.16	24.37	
10	QPSK	25	25	24.03	24.19	24.44	
10	QPSK	50	0	24.01	24.19	24.37	24.5
10	16QAM	1	0	24.30	24.29	24.61	
10	16QAM	1	25	24.18	24.41	24.67	
10	16QAM	1	49	24.27	24.46	24.71	23.5
10	16QAM	25	0	22.96	23.07	23.37	
10	16QAM	25	12	22.99	23.19	23.39	
10	16QAM	25	25	22.99	23.19	23.43	23.5
10	16QAM	50	0	22.98	23.19	23.38	
10	64QAM	1	0	23.13	22.92	23.48	
10	64QAM	1	25	23.09	23.32	23.59	23.5
10	64QAM	1	49	22.32	23.37	23.57	
10	64QAM	25	0	22.03	22.06	22.29	
10	64QAM	25	12	22.02	22.21	22.43	22.5
10	64QAM	25	25	21.93	22.25	22.46	
10	64QAM	50	0	22.01	22.23	22.40	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.95	24.97	25.32	25.5
5	QPSK	1	12	24.90	25.00	25.33	
5	QPSK	1	24	24.85	24.99	25.31	
5	QPSK	12	0	24.09	24.08	24.45	24.5
5	QPSK	12	7	24.03	24.12	24.44	
5	QPSK	12	13	23.98	24.12	24.45	



5	QPSK	25	0	23.99	24.09	24.42	
5	16QAM	1	0	24.31	24.31	24.71	24.5
5	16QAM	1	12	24.24	24.32	24.74	
5	16QAM	1	24	24.16	24.34	24.66	
5	16QAM	12	0	23.14	23.08	23.47	23.5
5	16QAM	12	7	23.06	23.15	23.48	
5	16QAM	12	13	23.00	23.11	23.45	
5	16QAM	25	0	23.03	23.13	23.42	
5	64QAM	1	0	22.85	22.77	23.56	23.5
5	64QAM	1	12	23.17	23.02	23.65	
5	64QAM	1	24	23.11	23.22	23.61	
5	64QAM	12	0	22.18	21.75	22.51	22.5
5	64QAM	12	7	22.08	22.04	22.48	
5	64QAM	12	13	21.99	22.16	22.47	
5	64QAM	25	0	22.00	21.99	22.42	

<LTE Band 7 Ant1 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.85	23.40	23.00	23.5
20	QPSK	1	49	22.65	22.78	22.73	
20	QPSK	1	99	22.72	22.95	22.84	
20	QPSK	50	0	21.67	21.84	22.21	22.5
20	QPSK	50	24	21.81	21.98	22.09	
20	QPSK	50	50	21.82	21.99	22.05	
20	QPSK	100	0	21.78	21.97	22.10	22.5
20	16QAM	1	0	21.94	22.07	22.19	
20	16QAM	1	49	21.97	22.13	22.39	
20	16QAM	1	99	22.05	22.33	22.43	21.5
20	16QAM	50	0	20.67	20.84	21.05	
20	16QAM	50	24	20.82	20.97	21.10	
20	16QAM	50	50	20.83	20.98	21.21	21.5
20	16QAM	100	0	20.77	20.95	21.07	
20	64QAM	1	0	20.66	20.89	20.37	
20	64QAM	1	49	20.82	21.04	21.10	21.5
20	64QAM	1	99	20.97	20.47	20.69	
20	64QAM	50	0	19.70	19.86	19.63	
20	64QAM	50	24	19.82	20.00	20.03	20.5
20	64QAM	50	50	19.82	19.91	19.97	
20	64QAM	100	0	19.81	19.97	19.70	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.60	22.74	22.99	23.5
15	QPSK	1	37	22.60	22.77	23.06	
15	QPSK	1	74	22.71	22.91	23.07	
15	QPSK	36	0	21.64	21.82	22.06	22.5
15	QPSK	36	20	21.81	21.98	22.12	
15	QPSK	36	39	21.76	21.95	22.19	
15	QPSK	75	0	21.75	21.93	22.07	22.5
15	16QAM	1	0	21.94	22.06	22.28	
15	16QAM	1	37	21.94	22.13	22.41	





**FCC SAR TEST REPORT**

**Report No. :FA082114A**

15	16QAM	1	74	22.04	22.23	22.38		
15	16QAM	36	0	20.65	20.83	21.08	21.5	
15	16QAM	36	20	20.79	20.93	21.11		
15	16QAM	36	39	20.77	20.97	21.15		
15	16QAM	75	0	20.76	20.94	21.07		
15	64QAM	1	0	20.60	20.93	20.72		
15	64QAM	1	37	20.87	21.08	21.11	21.5	
15	64QAM	1	74	20.92	20.67	20.66		
15	64QAM	36	0	19.68	19.89	19.96	20.5	
15	64QAM	36	20	19.81	19.99	20.12		
15	64QAM	36	39	19.81	20.01	19.85		
15	64QAM	75	0	19.78	19.95	19.80		
Channel				20800	21100	21400		Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.53	22.72	22.87	23.5	
10	QPSK	1	25	22.47	22.72	22.92		
10	QPSK	1	49	22.55	22.80	22.92		
10	QPSK	25	0	21.67	21.79	22.03	22.5	
10	QPSK	25	12	21.72	21.91	22.07		
10	QPSK	25	25	21.73	21.91	22.14		
10	QPSK	50	0	21.71	21.90	22.06		
10	16QAM	1	0	21.91	22.04	22.28		
10	16QAM	1	25	21.89	22.10	22.31	22.5	
10	16QAM	1	49	21.96	22.17	22.30		
10	16QAM	25	0	20.70	20.79	21.03	21.5	
10	16QAM	25	12	20.73	20.93	21.09		
10	16QAM	25	25	20.71	20.90	21.14		
10	16QAM	50	0	20.72	20.91	21.06		
10	64QAM	1	0	20.57	20.90	21.08		
10	64QAM	1	25	20.83	20.99	20.93	21.5	
10	64QAM	1	49	20.89	20.97	20.53		
10	64QAM	25	0	19.71	19.82	20.02		
10	64QAM	25	12	19.75	19.95	19.92	20.5	
10	64QAM	25	25	19.74	19.95	19.68		
10	64QAM	50	0	19.73	19.91	19.76		
Channel				20775	21100	21425		Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.59	22.66	22.94	23.5	
5	QPSK	1	12	22.56	22.79	22.98		
5	QPSK	1	24	22.58	22.79	22.85		
5	QPSK	12	0	21.66	21.80	22.08	22.5	
5	QPSK	12	7	21.69	21.85	22.08		
5	QPSK	12	13	21.68	21.86	22.11		
5	QPSK	25	0	21.67	21.88	22.09		
5	16QAM	1	0	21.89	22.02	22.28		
5	16QAM	1	12	21.86	22.05	22.23	22.5	
5	16QAM	1	24	21.89	22.11	22.20		
5	16QAM	12	0	20.74	20.84	21.10	21.5	
5	16QAM	12	7	20.75	20.86	21.11		
5	16QAM	12	13	20.73	20.90	21.13		
5	16QAM	25	0	20.71	20.87	21.10		
5	64QAM	1	0	20.53	20.94	20.78		
5	64QAM	1	12	20.76	20.94	20.59	21.5	
5	64QAM	1	24	20.84	21.02	20.36		
5	64QAM	12	0	19.57	19.89	19.67		
5	64QAM	12	7	19.75	19.96	19.64	20.5	



5	64QAM	12	13	19.76	19.95	19.49	
5	64QAM	25	0	19.65	19.88	19.52	

<LTE Band 7 Ant8 state 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.70	24.55	23.56	25.5
20	QPSK	1	49	24.35	24.10	24.03	
20	QPSK	1	99	24.54	23.50	23.52	
20	QPSK	50	0	23.32	23.69	22.92	24.5
20	QPSK	50	24	23.51	23.40	23.15	
20	QPSK	50	50	23.53	22.87	22.88	
20	QPSK	100	0	23.48	23.36	22.90	24.5
20	16QAM	1	0	23.08	23.89	22.68	
20	16QAM	1	49	23.76	23.46	23.36	
20	16QAM	1	99	23.95	22.63	22.72	23.5
20	16QAM	50	0	22.38	22.71	22.00	
20	16QAM	50	24	22.60	22.48	22.25	
20	16QAM	50	50	22.64	22.00	22.03	23.5
20	16QAM	100	0	22.44	22.37	21.96	
20	64QAM	1	0	21.08	22.41	20.81	
20	64QAM	1	49	21.84	21.58	21.46	23.5
20	64QAM	1	99	22.02	20.73	20.95	
20	64QAM	50	0	20.46	20.94	20.11	
20	64QAM	50	24	20.72	20.55	20.37	22.5
20	64QAM	50	50	20.79	20.14	20.19	
20	64QAM	100	0	20.57	20.45	20.06	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.51	24.53	23.62	25.5
15	QPSK	1	37	24.07	23.69	23.53	
15	QPSK	1	74	24.19	23.08	22.88	
15	QPSK	36	0	23.02	23.34	22.86	24.5
15	QPSK	36	20	23.21	22.95	22.67	
15	QPSK	36	39	23.26	22.58	22.33	
15	QPSK	75	0	23.11	22.87	22.54	24.5
15	16QAM	1	0	22.84	23.82	22.88	
15	16QAM	1	37	23.41	23.00	22.88	
15	16QAM	1	74	23.55	22.37	22.24	23.5
15	16QAM	36	0	22.09	22.40	21.93	
15	16QAM	36	20	22.31	22.01	21.78	
15	16QAM	36	39	22.34	21.69	21.45	23.5
15	16QAM	75	0	22.18	22.01	21.67	
15	64QAM	1	0	20.90	22.00	21.02	
15	64QAM	1	37	21.54	21.18	21.09	23.5
15	64QAM	1	74	21.67	20.50	20.50	
15	64QAM	36	0	20.24	20.60	20.10	
15	64QAM	36	20	20.48	20.17	20.00	22.5
15	64QAM	36	39	20.55	19.87	19.66	
15	64QAM	75	0	20.32	20.16	19.83	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.48	24.29	23.60	25.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	1	25	23.90	23.72	23.15	
10	QPSK	1	49	24.10	23.27	22.72	
10	QPSK	25	0	22.88	23.17	22.56	
10	QPSK	25	12	23.09	22.94	22.38	24.5
10	QPSK	25	25	23.17	22.68	22.12	
10	QPSK	50	0	22.95	22.86	22.30	
10	16QAM	1	0	22.76	23.62	22.93	24.5
10	16QAM	1	25	23.26	23.07	22.53	
10	16QAM	1	49	23.47	22.59	22.11	
10	16QAM	25	0	21.98	22.27	21.69	23.5
10	16QAM	25	12	22.20	22.04	21.52	
10	16QAM	25	25	22.29	21.79	21.24	
10	16QAM	50	0	22.08	21.98	21.42	23.5
10	64QAM	1	0	20.88	21.78	21.04	
10	64QAM	1	25	21.37	21.22	20.73	
10	64QAM	1	49	21.66	20.76	20.50	22.5
10	64QAM	25	0	20.09	20.46	19.89	
10	64QAM	25	12	20.33	20.23	19.71	
10	64QAM	25	25	20.47	19.97	19.50	22.5
10	64QAM	50	0	20.20	20.14	19.61	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.52	24.05	23.19	25.5
5	QPSK	1	12	23.77	23.78	22.92	
5	QPSK	1	24	24.01	23.61	22.75	
5	QPSK	12	0	22.81	23.08	22.21	24.5
5	QPSK	12	7	22.99	23.00	22.11	
5	QPSK	12	13	23.07	22.85	21.99	
5	QPSK	25	0	22.85	22.87	22.06	24.5
5	16QAM	1	0	22.82	23.37	22.51	
5	16QAM	1	12	23.09	23.15	22.28	
5	16QAM	1	24	23.33	22.94	22.10	23.5
5	16QAM	12	0	21.88	22.18	21.33	
5	16QAM	12	7	22.08	22.11	21.27	
5	16QAM	12	13	22.17	21.99	21.15	23.5
5	16QAM	25	0	21.96	22.03	21.19	
5	64QAM	1	0	20.93	21.50	20.67	
5	64QAM	1	12	21.19	21.28	20.64	23.5
5	64QAM	1	24	21.46	21.09	20.50	
5	64QAM	12	0	20.01	20.38	19.55	
5	64QAM	12	7	20.21	20.32	19.50	22.5
5	64QAM	12	13	20.31	20.20	19.51	
5	64QAM	25	0	20.10	20.24	19.50	



<LTE Band 12/17 Ant0/2 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	25.08	25.15	24.97	25.5
10	QPSK	1	25	25.01	24.93	24.91	
10	QPSK	1	49	25.02	25.01	24.94	
10	QPSK	25	0	24.23	24.25	24.06	24.5
10	QPSK	25	12	24.16	24.15	24.01	
10	QPSK	25	25	24.10	24.10	24.09	
10	QPSK	50	0	24.14	24.15	24.04	24.5
10	16QAM	1	0	24.49	24.42	24.36	
10	16QAM	1	25	24.43	24.30	24.30	
10	16QAM	1	49	24.40	24.38	24.34	23.5
10	16QAM	25	0	23.26	23.14	23.03	
10	16QAM	25	12	23.13	23.13	23.03	
10	16QAM	25	25	23.05	23.09	23.07	23.5
10	16QAM	50	0	23.13	23.12	23.01	
10	64QAM	1	0	23.42	23.30	23.19	
10	64QAM	1	25	23.35	23.25	23.25	23.5
10	64QAM	1	49	23.31	23.27	23.24	
10	64QAM	25	0	22.26	22.18	22.07	
10	64QAM	25	12	22.17	22.18	22.08	22.5
10	64QAM	25	25	22.12	22.13	22.11	
10	64QAM	50	0	22.14	22.15	22.04	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	25.01	25.01	24.94	25.5
5	QPSK	1	12	24.99	24.83	24.88	
5	QPSK	1	24	24.93	24.99	24.90	
5	QPSK	12	0	24.13	24.23	24.01	24.5
5	QPSK	12	7	24.08	24.10	24.01	
5	QPSK	12	13	24.10	24.05	24.06	
5	QPSK	25	0	24.09	24.14	24.04	24.5
5	16QAM	1	0	24.40	24.32	24.32	
5	16QAM	1	12	24.42	24.29	24.28	
5	16QAM	1	24	24.30	24.34	24.34	23.5
5	16QAM	12	0	23.22	23.10	22.99	
5	16QAM	12	7	23.03	23.03	22.99	
5	16QAM	12	13	23.05	23.02	23.07	23.5
5	16QAM	25	0	23.11	23.08	22.97	
5	64QAM	1	0	23.36	23.24	23.18	
5	64QAM	1	12	23.32	23.17	23.20	23.5
5	64QAM	1	24	23.25	23.17	23.17	
5	64QAM	12	0	22.23	22.12	22.04	
5	64QAM	12	7	22.11	22.14	22.08	22.5
5	64QAM	12	13	22.08	22.09	22.06	
5	64QAM	25	0	22.10	22.08	21.94	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	25.04	25.09	24.92	25.5
3	QPSK	1	8	24.91	24.92	24.91	
3	QPSK	1	14	24.99	24.94	24.94	
3	QPSK	8	0	24.17	24.24	24.05	24.5
3	QPSK	8	4	24.13	24.14	24.01	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

3	QPSK	8	7	24.08	24.00	24.09	
3	QPSK	15	0	24.14	24.06	24.00	
3	16QAM	1	0	24.49	24.32	24.34	24.5
3	16QAM	1	8	24.33	24.29	24.20	
3	16QAM	1	14	24.36	24.35	24.29	
3	16QAM	8	0	23.16	23.06	23.02	23.5
3	16QAM	8	4	23.11	23.13	22.95	
3	16QAM	8	7	22.99	23.00	23.07	
3	16QAM	15	0	23.06	23.03	22.99	
3	64QAM	1	0	23.32	23.23	23.10	23.5
3	64QAM	1	8	23.31	23.19	23.18	
3	64QAM	1	14	23.29	23.23	23.14	
3	64QAM	8	0	22.18	22.09	22.03	22.5
3	64QAM	8	4	22.09	22.13	22.00	
3	64QAM	8	7	22.09	22.05	22.10	
3	64QAM	15	0	22.14	22.11	21.98	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	25.12	24.94	24.89	25.5
1.4	QPSK	1	3	25.09	24.94	24.89	
1.4	QPSK	1	5	25.09	24.89	24.82	
1.4	QPSK	3	0	25.13	24.93	24.89	
1.4	QPSK	3	1	25.11	25.00	24.93	
1.4	QPSK	3	3	25.13	24.92	24.87	
1.4	QPSK	6	0	24.22	24.01	23.94	24.5
1.4	16QAM	1	0	24.46	24.27	24.21	24.5
1.4	16QAM	1	3	24.50	24.28	24.25	
1.4	16QAM	1	5	24.42	24.23	24.13	
1.4	16QAM	3	0	24.27	24.05	23.98	
1.4	16QAM	3	1	24.32	24.10	24.02	
1.4	16QAM	3	3	24.22	24.01	23.95	
1.4	16QAM	6	0	23.28	23.04	23.02	23.5
1.4	64QAM	1	0	23.38	23.18	23.15	23.5
1.4	64QAM	1	3	23.44	23.22	23.16	
1.4	64QAM	1	5	23.35	23.14	23.09	
1.4	64QAM	3	0	23.39	23.15	23.11	
1.4	64QAM	3	1	23.40	23.20	23.11	
1.4	64QAM	3	3	23.32	23.12	23.07	
1.4	64QAM	6	0	22.21	21.99	21.96	22.5



<LTE Band 13 Ant0/2 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23230			25.5
Frequency (MHz)				782			
10	QPSK	1	0		24.19		25.5
10	QPSK	1	25		24.20		
10	QPSK	1	49		24.25		
10	QPSK	25	0		23.36		24.5
10	QPSK	25	12		23.36		
10	QPSK	25	25		23.43		
10	QPSK	50	0		23.40		24.5
10	16QAM	1	0		23.54		
10	16QAM	1	25		23.62		
10	16QAM	1	49		23.55		23.5
10	16QAM	25	0		22.41		
10	16QAM	25	12		22.40		
10	16QAM	25	25		22.41		23.5
10	16QAM	50	0		22.37		
10	64QAM	1	0		21.87		
10	64QAM	1	25		22.37		23.5
10	64QAM	1	49		21.53		
10	64QAM	25	0		21.16		
10	64QAM	25	12		21.42		22.5
10	64QAM	25	25		21.33		
10	64QAM	50	0		21.09		
Channel				23205	23230	23255	25.5
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	24.19	24.17	24.18	25.5
5	QPSK	1	12	24.23	24.24	24.22	
5	QPSK	1	24	24.23	24.22	24.19	
5	QPSK	12	0	23.28	23.35	23.34	24.5
5	QPSK	12	7	23.40	23.33	23.35	
5	QPSK	12	13	23.43	23.38	23.35	
5	QPSK	25	0	23.40	23.32	23.37	24.5
5	16QAM	1	0	23.53	23.53	23.55	
5	16QAM	1	12	23.52	23.59	23.50	
5	16QAM	1	24	23.61	23.54	23.52	23.5
5	16QAM	12	0	22.38	22.40	22.36	
5	16QAM	12	7	22.45	22.38	22.39	
5	16QAM	12	13	22.45	22.41	22.37	23.5
5	16QAM	25	0	22.44	22.36	22.37	
5	64QAM	1	0	21.84	22.44	22.52	
5	64QAM	1	12	21.79	22.53	22.39	23.5
5	64QAM	1	24	22.60	22.49	22.51	
5	64QAM	12	0	20.50	21.44	21.39	
5	64QAM	12	7	21.35	21.41	21.34	22.5
5	64QAM	12	13	21.45	21.45	21.41	
5	64QAM	25	0	21.29	21.36	21.39	



<LTE Band 2/25 Ant8 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	24.38	24.16	23.89	25.5
20	QPSK	1	49	23.85	24.15	23.88	
20	QPSK	1	99	23.85	23.98	23.50	
20	QPSK	50	0	23.15	23.41	23.02	24.5
20	QPSK	50	24	23.03	23.48	23.00	
20	QPSK	50	50	23.05	23.42	22.77	
20	QPSK	100	0	23.04	23.46	22.84	24.5
20	16QAM	1	0	23.67	23.50	23.05	
20	16QAM	1	49	23.18	23.64	23.24	
20	16QAM	1	99	23.22	23.32	22.47	23.5
20	16QAM	50	0	22.31	22.42	22.10	
20	16QAM	50	24	22.23	22.49	22.11	
20	16QAM	50	50	22.18	22.44	21.83	23.5
20	16QAM	100	0	22.21	22.39	21.92	
20	64QAM	1	0	21.81	21.57	21.13	
20	64QAM	1	49	21.33	21.81	21.39	23.5
20	64QAM	1	99	21.43	21.36	20.64	
20	64QAM	50	0	20.49	20.61	20.26	
20	64QAM	50	24	20.33	20.62	20.26	22.5
20	64QAM	50	50	20.29	20.47	19.99	
20	64QAM	100	0	20.37	20.35	20.00	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.97	23.88	23.87	25.5
15	QPSK	1	37	23.54	24.05	23.51	
15	QPSK	1	74	23.49	23.81	22.84	
15	QPSK	36	0	22.98	23.21	22.90	24.5
15	QPSK	36	20	22.79	23.29	22.71	
15	QPSK	36	39	22.70	23.19	22.43	
15	QPSK	75	0	22.79	23.13	22.66	24.5
15	16QAM	1	0	23.25	23.16	23.16	
15	16QAM	1	37	22.85	23.42	22.85	
15	16QAM	1	74	22.81	23.21	22.21	23.5
15	16QAM	36	0	22.02	22.31	22.03	
15	16QAM	36	20	21.90	22.39	21.88	
15	16QAM	36	39	21.87	22.29	21.62	23.5
15	16QAM	75	0	21.92	22.26	21.75	
15	64QAM	1	0	21.41	21.35	21.24	
15	64QAM	1	37	21.00	21.56	20.95	23.5
15	64QAM	1	74	21.01	21.33	20.50	
15	64QAM	36	0	20.23	20.50	20.19	
15	64QAM	36	20	20.06	20.52	20.03	22.5
15	64QAM	36	39	20.06	20.44	19.74	
15	64QAM	75	0	20.09	20.38	19.86	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.81	23.95	23.81	25.5
10	QPSK	1	25	23.75	24.15	23.35	
10	QPSK	1	49	23.41	23.94	22.72	
10	QPSK	25	0	22.99	23.27	22.64	24.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	25	12	22.91	23.31	22.58	
10	QPSK	25	25	22.74	23.25	22.37	
10	QPSK	50	0	22.85	23.17	22.55	
10	16QAM	1	0	23.12	23.23	23.19	24.5
10	16QAM	1	25	23.09	23.51	22.78	
10	16QAM	1	49	22.89	23.38	22.20	
10	16QAM	25	0	22.10	22.42	21.84	23.5
10	16QAM	25	12	22.09	22.46	21.68	
10	16QAM	25	25	21.96	22.39	21.56	
10	16QAM	50	0	21.98	22.34	21.65	
10	64QAM	1	0	21.10	21.40	21.33	23.5
10	64QAM	1	25	21.22	21.77	20.93	
10	64QAM	1	49	21.02	21.52	20.50	
10	64QAM	25	0	20.30	20.56	19.95	22.5
10	64QAM	25	12	20.23	20.64	19.87	
10	64QAM	25	25	20.10	20.56	19.66	
10	64QAM	50	0	20.18	20.44	19.80	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.94	24.18	23.54	25.5
5	QPSK	1	12	23.90	24.20	23.29	
5	QPSK	1	24	23.77	24.16	22.87	
5	QPSK	12	0	23.13	23.38	22.55	24.5
5	QPSK	12	7	23.11	23.40	22.51	
5	QPSK	12	13	23.01	23.37	22.37	
5	QPSK	25	0	23.03	23.26	22.43	
5	16QAM	1	0	23.30	23.46	22.86	24.5
5	16QAM	1	12	23.33	23.54	22.64	
5	16QAM	1	24	23.19	23.52	22.26	
5	16QAM	12	0	22.28	22.44	21.67	23.5
5	16QAM	12	7	22.30	22.51	21.61	
5	16QAM	12	13	22.18	22.48	21.53	
5	16QAM	25	0	22.21	22.42	21.61	
5	64QAM	1	0	21.39	21.63	21.07	23.5
5	64QAM	1	12	21.42	21.70	20.87	
5	64QAM	1	24	21.32	21.70	20.53	
5	64QAM	12	0	20.41	20.66	19.95	22.5
5	64QAM	12	7	20.44	20.71	19.81	
5	64QAM	12	13	20.37	20.68	19.63	
5	64QAM	25	0	20.35	20.60	19.71	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.06	24.25	23.51	25.5
3	QPSK	1	8	24.10	24.28	23.34	
3	QPSK	1	14	23.99	24.23	23.02	
3	QPSK	8	0	23.22	23.41	22.55	24.5
3	QPSK	8	4	23.25	23.48	22.49	
3	QPSK	8	7	23.20	23.41	22.36	
3	QPSK	15	0	23.24	23.40	22.45	
3	16QAM	1	0	23.43	23.55	22.79	24.5
3	16QAM	1	8	23.49	23.66	22.67	
3	16QAM	1	14	23.37	23.57	22.38	
3	16QAM	8	0	22.39	22.44	21.71	23.5
3	16QAM	8	4	22.42	22.51	21.63	
3	16QAM	8	7	22.37	22.54	21.51	
3	16QAM	15	0	22.35	22.45	21.58	





3	64QAM	1	0	21.58	21.74	20.95	23.5
3	64QAM	1	8	21.67	21.85	20.87	
3	64QAM	1	14	21.55	21.81	20.60	
3	64QAM	8	0	20.56	20.74	19.89	22.5
3	64QAM	8	4	20.60	20.82	19.84	
3	64QAM	8	7	20.53	20.79	19.73	
3	64QAM	15	0	20.50	20.72	19.80	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.02	24.20	23.19	25.5
1.4	QPSK	1	3	24.08	24.26	23.10	
1.4	QPSK	1	5	24.01	24.19	22.93	
1.4	QPSK	3	0	24.15	24.23	23.14	
1.4	QPSK	3	1	24.21	24.24	23.11	
1.4	QPSK	3	3	24.09	24.22	22.96	
1.4	QPSK	6	0	23.22	23.38	22.23	24.5
1.4	16QAM	1	0	23.41	23.50	22.49	24.5
1.4	16QAM	1	3	23.51	23.60	22.46	
1.4	16QAM	1	5	23.42	23.55	22.32	
1.4	16QAM	3	0	23.33	23.32	22.33	
1.4	16QAM	3	1	23.36	23.38	22.34	
1.4	16QAM	3	3	23.28	23.35	22.24	
1.4	16QAM	6	0	22.47	22.45	21.48	23.5
1.4	64QAM	1	0	21.61	21.71	20.73	23.5
1.4	64QAM	1	3	21.67	21.80	20.70	
1.4	64QAM	1	5	21.61	21.74	20.58	
1.4	64QAM	3	0	21.60	21.68	20.68	
1.4	64QAM	3	1	21.59	21.73	20.70	
1.4	64QAM	3	3	21.50	21.69	20.60	
1.4	64QAM	6	0	20.42	20.63	19.62	22.5

**<LTE Band 2/25 Ant1 State 4>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	24.38	24.16	23.89	25.5
20	QPSK	1	49	23.85	24.15	23.88	
20	QPSK	1	99	23.85	23.98	23.50	
20	QPSK	50	0	23.15	23.41	23.02	24.5
20	QPSK	50	24	23.03	23.48	23.00	
20	QPSK	50	50	23.05	23.42	22.77	
20	QPSK	100	0	23.04	23.46	22.84	24.5
20	16QAM	1	0	23.67	23.50	23.05	
20	16QAM	1	49	23.18	23.64	23.24	
20	16QAM	1	99	23.22	23.32	22.47	24.5
20	16QAM	50	0	22.31	22.42	22.10	
20	16QAM	50	24	22.23	22.49	22.11	
20	16QAM	50	50	22.18	22.44	21.83	23.5
20	16QAM	100	0	22.21	22.39	21.92	
20	64QAM	1	0	21.81	21.57	21.13	
20	64QAM	1	49	21.33	21.81	21.39	23.5
20	64QAM	1	99	21.43	21.36	20.64	
20	64QAM	50	0	20.49	20.61	20.26	
20	64QAM	50	24	20.33	20.62	20.26	22.5
20	64QAM	50	50	20.29	20.47	19.99	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	64QAM	100	0	20.37	20.35	20.00	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.97	23.88	23.87	25.5
15	QPSK	1	37	23.54	24.05	23.51	
15	QPSK	1	74	23.49	23.81	22.84	
15	QPSK	36	0	22.98	23.21	22.90	24.5
15	QPSK	36	20	22.79	23.29	22.71	
15	QPSK	36	39	22.70	23.19	22.43	
15	QPSK	75	0	22.79	23.13	22.66	
15	16QAM	1	0	23.25	23.16	23.16	24.5
15	16QAM	1	37	22.85	23.42	22.85	
15	16QAM	1	74	22.81	23.21	22.21	
15	16QAM	36	0	22.02	22.31	22.03	23.5
15	16QAM	36	20	21.90	22.39	21.88	
15	16QAM	36	39	21.87	22.29	21.62	
15	16QAM	75	0	21.92	22.26	21.75	
15	64QAM	1	0	21.41	21.35	21.24	23.5
15	64QAM	1	37	21.00	21.56	20.95	
15	64QAM	1	74	21.01	21.33	20.50	
15	64QAM	36	0	20.23	20.50	20.19	22.5
15	64QAM	36	20	20.06	20.52	20.03	
15	64QAM	36	39	20.06	20.44	19.74	
15	64QAM	75	0	20.09	20.38	19.86	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.81	23.95	23.81	25.5
10	QPSK	1	25	23.75	24.15	23.35	
10	QPSK	1	49	23.41	23.94	22.72	
10	QPSK	25	0	22.99	23.27	22.64	24.5
10	QPSK	25	12	22.91	23.31	22.58	
10	QPSK	25	25	22.74	23.25	22.37	
10	QPSK	50	0	22.85	23.17	22.55	
10	16QAM	1	0	23.12	23.23	23.19	24.5
10	16QAM	1	25	23.09	23.51	22.78	
10	16QAM	1	49	22.89	23.38	22.20	
10	16QAM	25	0	22.10	22.42	21.84	23.5
10	16QAM	25	12	22.09	22.46	21.68	
10	16QAM	25	25	21.96	22.39	21.56	
10	16QAM	50	0	21.98	22.34	21.65	
10	64QAM	1	0	21.10	21.40	21.33	23.5
10	64QAM	1	25	21.22	21.77	20.93	
10	64QAM	1	49	21.02	21.52	20.50	
10	64QAM	25	0	20.30	20.56	19.95	22.5
10	64QAM	25	12	20.23	20.64	19.87	
10	64QAM	25	25	20.10	20.56	19.66	
10	64QAM	50	0	20.18	20.44	19.80	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.94	24.18	23.54	25.5
5	QPSK	1	12	23.90	24.20	23.29	
5	QPSK	1	24	23.77	24.16	22.87	
5	QPSK	12	0	23.13	23.38	22.55	24.5
5	QPSK	12	7	23.11	23.40	22.51	
5	QPSK	12	13	23.01	23.37	22.37	
5	QPSK	25	0	23.03	23.26	22.43	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

5	16QAM	1	0	23.30	23.46	22.86	24.5
5	16QAM	1	12	23.33	23.54	22.64	
5	16QAM	1	24	23.19	23.52	22.26	
5	16QAM	12	0	22.28	22.44	21.67	23.5
5	16QAM	12	7	22.30	22.51	21.61	
5	16QAM	12	13	22.18	22.48	21.53	
5	16QAM	25	0	22.21	22.42	21.61	23.5
5	64QAM	1	0	21.39	21.63	21.07	
5	64QAM	1	12	21.42	21.70	20.87	
5	64QAM	1	24	21.32	21.70	20.53	22.5
5	64QAM	12	0	20.41	20.66	19.95	
5	64QAM	12	7	20.44	20.71	19.81	
5	64QAM	12	13	20.37	20.68	19.63	22.5
5	64QAM	25	0	20.35	20.60	19.71	
Channel				26055	26340	26675	
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.06	24.25	23.51	25.5
3	QPSK	1	8	24.10	24.28	23.34	
3	QPSK	1	14	23.99	24.23	23.02	
3	QPSK	8	0	23.22	23.41	22.55	24.5
3	QPSK	8	4	23.25	23.48	22.49	
3	QPSK	8	7	23.20	23.41	22.36	
3	QPSK	15	0	23.24	23.40	22.45	24.5
3	16QAM	1	0	23.43	23.55	22.79	
3	16QAM	1	8	23.49	23.66	22.67	
3	16QAM	1	14	23.37	23.57	22.38	23.5
3	16QAM	8	0	22.39	22.44	21.71	
3	16QAM	8	4	22.42	22.51	21.63	
3	16QAM	8	7	22.37	22.54	21.51	23.5
3	16QAM	15	0	22.35	22.45	21.58	
3	64QAM	1	0	21.58	21.74	20.95	
3	64QAM	1	8	21.67	21.85	20.87	23.5
3	64QAM	1	14	21.55	21.81	20.60	
3	64QAM	8	0	20.56	20.74	19.89	
3	64QAM	8	4	20.60	20.82	19.84	22.5
3	64QAM	8	7	20.53	20.79	19.73	
3	64QAM	15	0	20.50	20.72	19.80	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.02	24.20	23.19	25.5
1.4	QPSK	1	3	24.08	24.26	23.10	
1.4	QPSK	1	5	24.01	24.19	22.93	
1.4	QPSK	3	0	24.15	24.23	23.14	
1.4	QPSK	3	1	24.21	24.24	23.11	
1.4	QPSK	3	3	24.09	24.22	22.96	
1.4	QPSK	6	0	23.22	23.38	22.23	24.5
1.4	16QAM	1	0	23.41	23.50	22.49	24.5
1.4	16QAM	1	3	23.51	23.60	22.46	
1.4	16QAM	1	5	23.42	23.55	22.32	
1.4	16QAM	3	0	23.33	23.32	22.33	
1.4	16QAM	3	1	23.36	23.38	22.34	
1.4	16QAM	3	3	23.28	23.35	22.24	
1.4	16QAM	6	0	22.47	22.45	21.48	23.5
1.4	64QAM	1	0	21.61	21.71	20.73	23.5
1.4	64QAM	1	3	21.67	21.80	20.70	
1.4	64QAM	1	5	21.61	21.74	20.58	



1.4	64QAM	3	0	21.60	21.68	20.68	
1.4	64QAM	3	1	21.59	21.73	20.70	
1.4	64QAM	3	3	21.50	21.69	20.60	
1.4	64QAM	6	0	20.42	20.63	19.62	22.5

<LTE Band 2/25 Ant1 State 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	24.38	24.16	23.89	25
20	QPSK	1	49	23.85	24.15	23.88	
20	QPSK	1	99	23.85	23.98	23.50	
20	QPSK	50	0	23.15	23.41	23.02	24.5
20	QPSK	50	24	23.03	23.48	23.00	
20	QPSK	50	50	23.05	23.42	22.77	
20	QPSK	100	0	23.04	23.46	22.84	24.5
20	16QAM	1	0	23.67	23.50	23.05	
20	16QAM	1	49	23.18	23.64	23.24	
20	16QAM	1	99	23.22	23.32	22.47	23.5
20	16QAM	50	0	22.31	22.42	22.10	
20	16QAM	50	24	22.23	22.49	22.11	
20	16QAM	50	50	22.18	22.44	21.83	23.5
20	16QAM	100	0	22.21	22.39	21.92	
20	64QAM	1	0	21.81	21.57	21.13	
20	64QAM	1	49	21.33	21.81	21.39	23.5
20	64QAM	1	99	21.43	21.36	20.64	
20	64QAM	50	0	20.49	20.61	20.26	
20	64QAM	50	24	20.33	20.62	20.26	22.5
20	64QAM	50	50	20.29	20.47	19.99	
20	64QAM	100	0	20.37	20.35	20.00	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.97	23.88	23.87	25
15	QPSK	1	37	23.54	24.05	23.51	
15	QPSK	1	74	23.49	23.81	22.84	
15	QPSK	36	0	22.98	23.21	22.90	24.5
15	QPSK	36	20	22.79	23.29	22.71	
15	QPSK	36	39	22.70	23.19	22.43	
15	QPSK	75	0	22.79	23.13	22.66	24.5
15	16QAM	1	0	23.25	23.16	23.16	
15	16QAM	1	37	22.85	23.42	22.85	
15	16QAM	1	74	22.81	23.21	22.21	23.5
15	16QAM	36	0	22.02	22.31	22.03	
15	16QAM	36	20	21.90	22.39	21.88	
15	16QAM	36	39	21.87	22.29	21.62	23.5
15	16QAM	75	0	21.92	22.26	21.75	
15	64QAM	1	0	21.41	21.35	21.24	
15	64QAM	1	37	21.00	21.56	20.95	23.5
15	64QAM	1	74	21.01	21.33	20.50	
15	64QAM	36	0	20.23	20.50	20.19	
15	64QAM	36	20	20.06	20.52	20.03	22.5
15	64QAM	36	39	20.06	20.44	19.74	
15	64QAM	75	0	20.09	20.38	19.86	
Channel				26090	26340	26640	Tune-up limit



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

Frequency (MHz)				1855	1880	1910	(dBm)
10	QPSK	1	0	23.81	23.95	23.81	25
10	QPSK	1	25	23.75	24.15	23.35	
10	QPSK	1	49	23.41	23.94	22.72	
10	QPSK	25	0	22.99	23.27	22.64	24.5
10	QPSK	25	12	22.91	23.31	22.58	
10	QPSK	25	25	22.74	23.25	22.37	
10	QPSK	50	0	22.85	23.17	22.55	24.5
10	16QAM	1	0	23.12	23.23	23.19	
10	16QAM	1	25	23.09	23.51	22.78	
10	16QAM	1	49	22.89	23.38	22.20	23.5
10	16QAM	25	0	22.10	22.42	21.84	
10	16QAM	25	12	22.09	22.46	21.68	
10	16QAM	25	25	21.96	22.39	21.56	23.5
10	16QAM	50	0	21.98	22.34	21.65	
10	64QAM	1	0	21.10	21.40	21.33	
10	64QAM	1	25	21.22	21.77	20.93	23.5
10	64QAM	1	49	21.02	21.52	20.50	
10	64QAM	25	0	20.30	20.56	19.95	
10	64QAM	25	12	20.23	20.64	19.87	22.5
10	64QAM	25	25	20.10	20.56	19.66	
10	64QAM	50	0	20.18	20.44	19.80	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.94	24.18	23.54	25
5	QPSK	1	12	23.90	24.20	23.29	
5	QPSK	1	24	23.77	24.16	22.87	
5	QPSK	12	0	23.13	23.38	22.55	24.5
5	QPSK	12	7	23.11	23.40	22.51	
5	QPSK	12	13	23.01	23.37	22.37	
5	QPSK	25	0	23.03	23.26	22.43	24.5
5	16QAM	1	0	23.30	23.46	22.86	
5	16QAM	1	12	23.33	23.54	22.64	
5	16QAM	1	24	23.19	23.52	22.26	23.5
5	16QAM	12	0	22.28	22.44	21.67	
5	16QAM	12	7	22.30	22.51	21.61	
5	16QAM	12	13	22.18	22.48	21.53	23.5
5	16QAM	25	0	22.21	22.42	21.61	
5	64QAM	1	0	21.39	21.63	21.07	
5	64QAM	1	12	21.42	21.70	20.87	23.5
5	64QAM	1	24	21.32	21.70	20.53	
5	64QAM	12	0	20.41	20.66	19.95	
5	64QAM	12	7	20.44	20.71	19.81	22.5
5	64QAM	12	13	20.37	20.68	19.63	
5	64QAM	25	0	20.35	20.60	19.71	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.06	24.25	23.51	25
3	QPSK	1	8	24.10	24.28	23.34	
3	QPSK	1	14	23.99	24.23	23.02	
3	QPSK	8	0	23.22	23.41	22.55	24.5
3	QPSK	8	4	23.25	23.48	22.49	
3	QPSK	8	7	23.20	23.41	22.36	
3	QPSK	15	0	23.24	23.40	22.45	24.5
3	16QAM	1	0	23.43	23.55	22.79	
3	16QAM	1	8	23.49	23.66	22.67	



3	16QAM	1	14	23.37	23.57	22.38	
3	16QAM	8	0	22.39	22.44	21.71	23.5
3	16QAM	8	4	22.42	22.51	21.63	
3	16QAM	8	7	22.37	22.54	21.51	
3	16QAM	15	0	22.35	22.45	21.58	
3	64QAM	1	0	21.58	21.74	20.95	23.5
3	64QAM	1	8	21.67	21.85	20.87	
3	64QAM	1	14	21.55	21.81	20.60	
3	64QAM	8	0	20.56	20.74	19.89	22.5
3	64QAM	8	4	20.60	20.82	19.84	
3	64QAM	8	7	20.53	20.79	19.73	
3	64QAM	15	0	20.50	20.72	19.80	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.02	24.20	23.19	25
1.4	QPSK	1	3	24.08	24.26	23.10	
1.4	QPSK	1	5	24.01	24.19	22.93	
1.4	QPSK	3	0	24.15	24.23	23.14	
1.4	QPSK	3	1	24.21	24.24	23.11	
1.4	QPSK	3	3	24.09	24.22	22.96	
1.4	QPSK	6	0	23.22	23.38	22.23	24.5
1.4	16QAM	1	0	23.41	23.50	22.49	24.5
1.4	16QAM	1	3	23.51	23.60	22.46	
1.4	16QAM	1	5	23.42	23.55	22.32	
1.4	16QAM	3	0	23.33	23.32	22.33	
1.4	16QAM	3	1	23.36	23.38	22.34	
1.4	16QAM	3	3	23.28	23.35	22.24	
1.4	16QAM	6	0	22.47	22.45	21.48	23.5
1.4	64QAM	1	0	21.61	21.71	20.73	23.5
1.4	64QAM	1	3	21.67	21.80	20.70	
1.4	64QAM	1	5	21.61	21.74	20.58	
1.4	64QAM	3	0	21.60	21.68	20.68	
1.4	64QAM	3	1	21.59	21.73	20.70	
1.4	64QAM	3	3	21.50	21.69	20.60	
1.4	64QAM	6	0	20.42	20.63	19.62	22

**<LTE Band 5/26 Ant2 State 4/5>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	Tune-up limit (dBm)
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.37	24.34	24.85	25.5
15	QPSK	1	37	24.92	24.50	23.63	
15	QPSK	1	74	23.59	23.94	23.50	
15	QPSK	36	0	23.99	23.34	23.66	24.5
15	QPSK	36	20	24.06	23.63	22.83	
15	QPSK	36	39	23.47	23.52	22.50	
15	QPSK	75	0	23.85	23.75	23.17	
15	16QAM	1	0	23.77	23.75	24.17	24.5
15	16QAM	1	37	24.10	23.70	22.97	
15	16QAM	1	74	22.83	23.16	22.66	
15	16QAM	36	0	23.08	22.35	22.72	23.5
15	16QAM	36	20	23.16	22.69	21.94	
15	16QAM	36	39	22.64	22.94	21.73	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

15	16QAM	75	0	22.86	22.67	22.25	
15	64QAM	1	0	21.78	21.77	22.47	23.5
15	64QAM	1	37	21.90	21.76	20.98	
15	64QAM	1	74	20.68	21.20	20.77	
15	64QAM	36	0	21.17	20.42	20.80	22.5
15	64QAM	36	20	21.22	20.75	20.01	
15	64QAM	36	39	20.71	21.03	19.81	
15	64QAM	75	0	20.83	20.70	20.23	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.15	24.26	24.06	25.5
10	QPSK	1	25	24.91	24.48	23.25	
10	QPSK	1	49	24.01	24.47	23.40	
10	QPSK	25	0	23.75	23.24	22.66	24.5
10	QPSK	25	12	24.22	23.49	22.39	
10	QPSK	25	25	24.02	23.74	22.55	
10	QPSK	50	0	23.75	23.58	22.72	
10	16QAM	1	0	23.44	23.56	23.65	24.5
10	16QAM	1	25	24.39	23.90	22.68	
10	16QAM	1	49	23.61	23.87	22.74	
10	16QAM	25	0	22.89	22.39	21.78	23.5
10	16QAM	25	12	23.34	22.63	21.57	
10	16QAM	25	25	23.18	22.87	21.73	
10	16QAM	50	0	22.94	22.62	21.69	
10	64QAM	1	0	21.66	21.36	21.51	23.5
10	64QAM	1	25	22.50	21.84	20.66	
10	64QAM	1	49	21.62	21.68	20.59	
10	64QAM	25	0	20.91	20.45	19.87	22.5
10	64QAM	25	12	21.39	20.62	19.59	
10	64QAM	25	25	21.24	20.92	19.81	
10	64QAM	50	0	20.92	20.66	19.77	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.93	24.21	23.34	25.5
5	QPSK	1	12	24.46	24.28	23.52	
5	QPSK	1	24	24.69	24.39	23.53	
5	QPSK	12	0	23.22	23.29	22.47	24.5
5	QPSK	12	7	23.91	23.52	22.71	
5	QPSK	12	13	24.31	23.69	22.84	
5	QPSK	25	0	23.66	23.46	22.65	
5	16QAM	1	0	23.33	23.50	22.69	24.5
5	16QAM	1	12	23.86	23.63	22.82	
5	16QAM	1	24	24.16	23.74	22.84	
5	16QAM	12	0	22.37	22.42	21.54	23.5
5	16QAM	12	7	22.97	22.63	21.86	
5	16QAM	12	13	23.33	22.83	21.98	
5	16QAM	25	0	22.76	22.57	21.71	
5	64QAM	1	0	21.41	21.54	20.80	23.5
5	64QAM	1	12	21.81	21.71	20.80	
5	64QAM	1	24	22.10	21.67	20.85	
5	64QAM	12	0	20.35	20.46	19.65	22.5
5	64QAM	12	7	21.01	20.72	19.91	
5	64QAM	12	13	21.35	20.85	20.03	
5	64QAM	25	0	20.76	20.67	19.75	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

3	QPSK	1	0	23.93	24.38	23.67	25.5
3	QPSK	1	8	24.26	24.54	23.99	
3	QPSK	1	14	24.43	24.59	23.76	
3	QPSK	8	0	23.05	23.50	22.94	24.5
3	QPSK	8	4	23.38	23.63	23.09	
3	QPSK	8	7	23.73	23.68	22.89	
3	QPSK	15	0	23.37	23.56	22.93	24.5
3	16QAM	1	0	23.24	23.63	22.97	
3	16QAM	1	8	23.57	23.79	23.30	
3	16QAM	1	14	23.75	23.85	23.04	23.5
3	16QAM	8	0	22.12	22.62	22.02	
3	16QAM	8	4	22.50	22.73	22.16	
3	16QAM	8	7	22.77	22.79	22.06	23.5
3	16QAM	15	0	22.41	22.65	21.98	
3	64QAM	1	0	21.22	21.66	20.99	
3	64QAM	1	8	21.37	21.85	21.30	23.5
3	64QAM	1	14	21.63	21.90	21.10	
3	64QAM	8	0	20.14	20.62	20.03	
3	64QAM	8	4	20.50	20.79	20.23	22.5
3	64QAM	8	7	20.74	20.79	20.17	
3	64QAM	15	0	20.38	20.70	20.03	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.75	24.40	23.81	25.5
1.4	QPSK	1	3	23.85	24.45	23.74	
1.4	QPSK	1	5	23.75	24.42	23.64	
1.4	QPSK	3	0	23.75	24.39	23.68	
1.4	QPSK	3	1	23.85	24.45	23.88	
1.4	QPSK	3	3	23.90	24.51	23.72	24.5
1.4	QPSK	6	0	22.92	23.49	22.76	
1.4	16QAM	1	0	23.02	23.64	23.08	24.5
1.4	16QAM	1	3	23.10	23.74	23.02	
1.4	16QAM	1	5	23.00	23.72	22.98	
1.4	16QAM	3	0	22.90	23.54	22.96	
1.4	16QAM	3	1	22.99	23.61	22.92	
1.4	16QAM	3	3	23.05	23.64	22.93	
1.4	16QAM	6	0	22.01	22.67	21.99	23.5
1.4	64QAM	1	0	20.98	21.77	21.26	23.5
1.4	64QAM	1	3	21.15	21.80	21.09	
1.4	64QAM	1	5	21.05	21.77	21.01	
1.4	64QAM	3	0	20.97	21.73	21.24	
1.4	64QAM	3	1	21.16	21.88	21.30	
1.4	64QAM	3	3	21.15	21.78	21.05	
1.4	64QAM	6	0	19.99	20.66	20.03	





<LTE Band 5/26 Ant0 State 4 Portrait>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.37	24.34	24.85	25.5
15	QPSK	1	37	24.92	24.50	23.63	
15	QPSK	1	74	23.59	23.94	23.50	
15	QPSK	36	0	23.99	23.34	23.66	24.5
15	QPSK	36	20	24.06	23.63	22.83	
15	QPSK	36	39	23.47	23.52	22.50	
15	QPSK	75	0	23.85	23.75	23.17	24.5
15	16QAM	1	0	23.77	23.75	24.17	
15	16QAM	1	37	24.10	23.70	22.97	
15	16QAM	1	74	22.83	23.16	22.66	23.5
15	16QAM	36	0	23.08	22.35	22.72	
15	16QAM	36	20	23.16	22.69	21.94	
15	16QAM	36	39	22.64	22.94	21.73	23.5
15	16QAM	75	0	22.86	22.67	22.25	
15	64QAM	1	0	21.78	21.77	22.47	
15	64QAM	1	37	21.90	21.76	20.98	23.5
15	64QAM	1	74	20.68	21.20	20.77	
15	64QAM	36	0	21.17	20.42	20.80	
15	64QAM	36	20	21.22	20.75	20.01	22.5
15	64QAM	36	39	20.71	21.03	19.81	
15	64QAM	75	0	20.83	20.70	20.23	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.15	24.26	24.06	25.5
10	QPSK	1	25	24.91	24.48	23.25	
10	QPSK	1	49	24.01	24.47	23.40	
10	QPSK	25	0	23.75	23.24	22.66	24.5
10	QPSK	25	12	24.22	23.49	22.39	
10	QPSK	25	25	24.02	23.74	22.55	
10	QPSK	50	0	23.75	23.58	22.72	24.5
10	16QAM	1	0	23.44	23.56	23.65	
10	16QAM	1	25	24.39	23.90	22.68	
10	16QAM	1	49	23.61	23.87	22.74	23.5
10	16QAM	25	0	22.89	22.39	21.78	
10	16QAM	25	12	23.34	22.63	21.57	
10	16QAM	25	25	23.18	22.87	21.73	23.5
10	16QAM	50	0	22.94	22.62	21.69	
10	64QAM	1	0	21.66	21.36	21.51	
10	64QAM	1	25	22.50	21.84	20.66	23.5
10	64QAM	1	49	21.62	21.68	20.59	
10	64QAM	25	0	20.91	20.45	19.87	
10	64QAM	25	12	21.39	20.62	19.59	22.5
10	64QAM	25	25	21.24	20.92	19.81	
10	64QAM	50	0	20.92	20.66	19.77	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.93	24.21	23.34	25.5
5	QPSK	1	12	24.46	24.28	23.52	
5	QPSK	1	24	24.69	24.39	23.53	
5	QPSK	12	0	23.22	23.29	22.47	24.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

5	QPSK	12	7	23.91	23.52	22.71	
5	QPSK	12	13	24.31	23.69	22.84	
5	QPSK	25	0	23.66	23.46	22.65	
5	16QAM	1	0	23.33	23.50	22.69	24.5
5	16QAM	1	12	23.86	23.63	22.82	
5	16QAM	1	24	24.16	23.74	22.84	
5	16QAM	12	0	22.37	22.42	21.54	23.5
5	16QAM	12	7	22.97	22.63	21.86	
5	16QAM	12	13	23.33	22.83	21.98	
5	16QAM	25	0	22.76	22.57	21.71	
5	64QAM	1	0	21.41	21.54	20.80	23.5
5	64QAM	1	12	21.81	21.71	20.80	
5	64QAM	1	24	22.10	21.67	20.85	
5	64QAM	12	0	20.35	20.46	19.65	22.5
5	64QAM	12	7	21.01	20.72	19.91	
5	64QAM	12	13	21.35	20.85	20.03	
5	64QAM	25	0	20.76	20.67	19.75	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.93	24.38	23.67	25.5
3	QPSK	1	8	24.26	24.54	23.99	
3	QPSK	1	14	24.43	24.59	23.76	
3	QPSK	8	0	23.05	23.50	22.94	24.5
3	QPSK	8	4	23.38	23.63	23.09	
3	QPSK	8	7	23.73	23.68	22.89	
3	QPSK	15	0	23.37	23.56	22.93	
3	16QAM	1	0	23.24	23.63	22.97	24.5
3	16QAM	1	8	23.57	23.79	23.30	
3	16QAM	1	14	23.75	23.85	23.04	
3	16QAM	8	0	22.12	22.62	22.02	23.5
3	16QAM	8	4	22.50	22.73	22.16	
3	16QAM	8	7	22.77	22.79	22.06	
3	16QAM	15	0	22.41	22.65	21.98	
3	64QAM	1	0	21.22	21.66	20.99	23.5
3	64QAM	1	8	21.37	21.85	21.30	
3	64QAM	1	14	21.63	21.90	21.10	
3	64QAM	8	0	20.14	20.62	20.03	22.5
3	64QAM	8	4	20.50	20.79	20.23	
3	64QAM	8	7	20.74	20.79	20.17	
3	64QAM	15	0	20.38	20.70	20.03	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.75	24.40	23.81	25.5
1.4	QPSK	1	3	23.85	24.45	23.74	
1.4	QPSK	1	5	23.75	24.42	23.64	
1.4	QPSK	3	0	23.75	24.39	23.68	
1.4	QPSK	3	1	23.85	24.45	23.88	
1.4	QPSK	3	3	23.90	24.51	23.72	
1.4	QPSK	6	0	22.92	23.49	22.76	24.5
1.4	16QAM	1	0	23.02	23.64	23.08	24.5
1.4	16QAM	1	3	23.10	23.74	23.02	
1.4	16QAM	1	5	23.00	23.72	22.98	
1.4	16QAM	3	0	22.90	23.54	22.96	
1.4	16QAM	3	1	22.99	23.61	22.92	
1.4	16QAM	3	3	23.05	23.64	22.93	
1.4	16QAM	6	0	22.01	22.67	21.99	23.5



1.4	64QAM	1	0	20.98	21.77	21.26	23.5
1.4	64QAM	1	3	21.15	21.80	21.09	
1.4	64QAM	1	5	21.05	21.77	21.01	
1.4	64QAM	3	0	20.97	21.73	21.24	
1.4	64QAM	3	1	21.16	21.88	21.30	
1.4	64QAM	3	3	21.15	21.78	21.05	
1.4	64QAM	6	0	19.99	20.66	20.03	22.5

**<LTE Band 5/26 Ant0 State 5 Portrait>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	25
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.37	24.34	24.85	25
15	QPSK	1	37	24.92	24.50	23.63	
15	QPSK	1	74	23.59	23.94	23.50	
15	QPSK	36	0	23.99	23.34	23.66	24.5
15	QPSK	36	20	24.06	23.63	22.83	
15	QPSK	36	39	23.47	23.52	22.50	
15	QPSK	75	0	23.85	23.75	23.17	24.5
15	16QAM	1	0	23.77	23.75	24.17	
15	16QAM	1	37	24.10	23.70	22.97	
15	16QAM	1	74	22.83	23.16	22.66	23.5
15	16QAM	36	0	23.08	22.35	22.72	
15	16QAM	36	20	23.16	22.69	21.94	
15	16QAM	36	39	22.64	22.94	21.73	23.5
15	16QAM	75	0	22.86	22.67	22.25	
15	64QAM	1	0	21.78	21.77	22.47	
15	64QAM	1	37	21.90	21.76	20.98	23.5
15	64QAM	1	74	20.68	21.20	20.77	
15	64QAM	36	0	21.17	20.42	20.80	
15	64QAM	36	20	21.22	20.75	20.01	22.5
15	64QAM	36	39	20.71	21.03	19.81	
15	64QAM	75	0	20.83	20.70	20.23	
Channel				26740	26865	26990	25
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.15	24.26	24.06	25
10	QPSK	1	25	24.91	24.48	23.25	
10	QPSK	1	49	24.01	24.47	23.40	
10	QPSK	25	0	23.75	23.24	22.66	24.5
10	QPSK	25	12	24.22	23.49	22.39	
10	QPSK	25	25	24.02	23.74	22.55	
10	QPSK	50	0	23.75	23.58	22.72	24.5
10	16QAM	1	0	23.44	23.56	23.65	
10	16QAM	1	25	24.39	23.90	22.68	
10	16QAM	1	49	23.61	23.87	22.74	23.5
10	16QAM	25	0	22.89	22.39	21.78	
10	16QAM	25	12	23.34	22.63	21.57	
10	16QAM	25	25	23.18	22.87	21.73	23.5
10	16QAM	50	0	22.94	22.62	21.69	
10	64QAM	1	0	21.66	21.36	21.51	
10	64QAM	1	25	22.50	21.84	20.66	23.5
10	64QAM	1	49	21.62	21.68	20.59	
10	64QAM	25	0	20.91	20.45	19.87	
10	64QAM	25	12	21.39	20.62	19.59	22.5
10	64QAM	25	25	21.24	20.92	19.81	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	64QAM	50	0	20.92	20.66	19.77	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.93	24.21	23.34	25
5	QPSK	1	12	24.46	24.28	23.52	
5	QPSK	1	24	24.69	24.39	23.53	
5	QPSK	12	0	23.22	23.29	22.47	24.5
5	QPSK	12	7	23.91	23.52	22.71	
5	QPSK	12	13	24.31	23.69	22.84	
5	QPSK	25	0	23.66	23.46	22.65	
5	16QAM	1	0	23.33	23.50	22.69	24.5
5	16QAM	1	12	23.86	23.63	22.82	
5	16QAM	1	24	24.16	23.74	22.84	
5	16QAM	12	0	22.37	22.42	21.54	23.5
5	16QAM	12	7	22.97	22.63	21.86	
5	16QAM	12	13	23.33	22.83	21.98	
5	16QAM	25	0	22.76	22.57	21.71	
5	64QAM	1	0	21.41	21.54	20.80	23.5
5	64QAM	1	12	21.81	21.71	20.80	
5	64QAM	1	24	22.10	21.67	20.85	
5	64QAM	12	0	20.35	20.46	19.65	22.5
5	64QAM	12	7	21.01	20.72	19.91	
5	64QAM	12	13	21.35	20.85	20.03	
5	64QAM	25	0	20.76	20.67	19.75	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.93	24.38	23.67	25
3	QPSK	1	8	24.26	24.54	23.99	
3	QPSK	1	14	24.43	24.59	23.76	
3	QPSK	8	0	23.05	23.50	22.94	24.5
3	QPSK	8	4	23.38	23.63	23.09	
3	QPSK	8	7	23.73	23.68	22.89	
3	QPSK	15	0	23.37	23.56	22.93	
3	16QAM	1	0	23.24	23.63	22.97	24.5
3	16QAM	1	8	23.57	23.79	23.30	
3	16QAM	1	14	23.75	23.85	23.04	
3	16QAM	8	0	22.12	22.62	22.02	23.5
3	16QAM	8	4	22.50	22.73	22.16	
3	16QAM	8	7	22.77	22.79	22.06	
3	16QAM	15	0	22.41	22.65	21.98	
3	64QAM	1	0	21.22	21.66	20.99	23.5
3	64QAM	1	8	21.37	21.85	21.30	
3	64QAM	1	14	21.63	21.90	21.10	
3	64QAM	8	0	20.14	20.62	20.03	22.5
3	64QAM	8	4	20.50	20.79	20.23	
3	64QAM	8	7	20.74	20.79	20.17	
3	64QAM	15	0	20.38	20.70	20.03	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.75	24.40	23.81	25
1.4	QPSK	1	3	23.85	24.45	23.74	
1.4	QPSK	1	5	23.75	24.42	23.64	
1.4	QPSK	3	0	23.75	24.39	23.68	
1.4	QPSK	3	1	23.85	24.45	23.88	
1.4	QPSK	3	3	23.90	24.51	23.72	
1.4	QPSK	6	0	22.92	23.49	22.76	24.5



1.4	16QAM	1	0	23.02	23.64	23.08	24.5
1.4	16QAM	1	3	23.10	23.74	23.02	
1.4	16QAM	1	5	23.00	23.72	22.98	
1.4	16QAM	3	0	22.90	23.54	22.96	
1.4	16QAM	3	1	22.99	23.61	22.92	
1.4	16QAM	3	3	23.05	23.64	22.93	
1.4	16QAM	6	0	22.01	22.67	21.99	23.5
1.4	64QAM	1	0	20.98	21.77	21.26	23.5
1.4	64QAM	1	3	21.15	21.80	21.09	
1.4	64QAM	1	5	21.05	21.77	21.01	
1.4	64QAM	3	0	20.97	21.73	21.24	
1.4	64QAM	3	1	21.16	21.88	21.30	
1.4	64QAM	3	3	21.15	21.78	21.05	
1.4	64QAM	6	0	19.99	20.66	20.03	22.5

**<LTE Band 5/26 Ant0 State 4/5 Landscape>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	25
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	24.37	24.34	24.85	24.5
15	QPSK	1	37	24.92	24.50	23.63	
15	QPSK	1	74	23.59	23.94	23.50	
15	QPSK	36	0	23.99	23.34	23.66	24.5
15	QPSK	36	20	24.06	23.63	22.83	
15	QPSK	36	39	23.47	23.52	22.50	
15	QPSK	75	0	23.85	23.75	23.17	24.5
15	16QAM	1	0	23.77	23.75	24.17	
15	16QAM	1	37	24.10	23.70	22.97	
15	16QAM	1	74	22.83	23.16	22.66	23.5
15	16QAM	36	0	23.08	22.35	22.72	
15	16QAM	36	20	23.16	22.69	21.94	
15	16QAM	36	39	22.64	22.94	21.73	23.5
15	16QAM	75	0	22.86	22.67	22.25	
15	64QAM	1	0	21.78	21.77	22.47	
15	64QAM	1	37	21.90	21.76	20.98	22.5
15	64QAM	1	74	20.68	21.20	20.77	
15	64QAM	36	0	21.17	20.42	20.80	
15	64QAM	36	20	21.22	20.75	20.01	22.5
15	64QAM	36	39	20.71	21.03	19.81	
15	64QAM	75	0	20.83	20.70	20.23	
Channel				26740	26865	26990	25
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.15	24.26	24.06	24.5
10	QPSK	1	25	24.91	24.48	23.25	
10	QPSK	1	49	24.01	24.47	23.40	
10	QPSK	25	0	23.75	23.24	22.66	24.5
10	QPSK	25	12	24.22	23.49	22.39	
10	QPSK	25	25	24.02	23.74	22.55	
10	QPSK	50	0	23.75	23.58	22.72	24.5
10	16QAM	1	0	23.44	23.56	23.65	
10	16QAM	1	25	24.39	23.90	22.68	
10	16QAM	1	49	23.61	23.87	22.74	24.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	16QAM	25	0	22.89	22.39	21.78	23.5
10	16QAM	25	12	23.34	22.63	21.57	
10	16QAM	25	25	23.18	22.87	21.73	
10	16QAM	50	0	22.94	22.62	21.69	
10	64QAM	1	0	21.66	21.36	21.51	23.5
10	64QAM	1	25	22.50	21.84	20.66	
10	64QAM	1	49	21.62	21.68	20.59	
10	64QAM	25	0	20.91	20.45	19.87	22.5
10	64QAM	25	12	21.39	20.62	19.59	
10	64QAM	25	25	21.24	20.92	19.81	
10	64QAM	50	0	20.92	20.66	19.77	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.93	24.21	23.34	25
5	QPSK	1	12	24.46	24.28	23.52	
5	QPSK	1	24	24.69	24.39	23.53	
5	QPSK	12	0	23.22	23.29	22.47	24.5
5	QPSK	12	7	23.91	23.52	22.71	
5	QPSK	12	13	24.31	23.69	22.84	
5	QPSK	25	0	23.66	23.46	22.65	
5	16QAM	1	0	23.33	23.50	22.69	24.5
5	16QAM	1	12	23.86	23.63	22.82	
5	16QAM	1	24	24.16	23.74	22.84	
5	16QAM	12	0	22.37	22.42	21.54	
5	16QAM	12	7	22.97	22.63	21.86	23.5
5	16QAM	12	13	23.33	22.83	21.98	
5	16QAM	25	0	22.76	22.57	21.71	
5	64QAM	1	0	21.41	21.54	20.80	23.5
5	64QAM	1	12	21.81	21.71	20.80	
5	64QAM	1	24	22.10	21.67	20.85	
5	64QAM	12	0	20.35	20.46	19.65	
5	64QAM	12	7	21.01	20.72	19.91	22.5
5	64QAM	12	13	21.35	20.85	20.03	
5	64QAM	25	0	20.76	20.67	19.75	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.93	24.38	23.67	25
3	QPSK	1	8	24.26	24.54	23.99	
3	QPSK	1	14	24.43	24.59	23.76	
3	QPSK	8	0	23.05	23.50	22.94	24.5
3	QPSK	8	4	23.38	23.63	23.09	
3	QPSK	8	7	23.73	23.68	22.89	
3	QPSK	15	0	23.37	23.56	22.93	
3	16QAM	1	0	23.24	23.63	22.97	24.5
3	16QAM	1	8	23.57	23.79	23.30	
3	16QAM	1	14	23.75	23.85	23.04	
3	16QAM	8	0	22.12	22.62	22.02	
3	16QAM	8	4	22.50	22.73	22.16	23.5
3	16QAM	8	7	22.77	22.79	22.06	
3	16QAM	15	0	22.41	22.65	21.98	
3	64QAM	1	0	21.22	21.66	20.99	23.5
3	64QAM	1	8	21.37	21.85	21.30	
3	64QAM	1	14	21.63	21.90	21.10	
3	64QAM	8	0	20.14	20.62	20.03	
3	64QAM	8	4	20.50	20.79	20.23	22.5
3	64QAM	8	7	20.74	20.79	20.17	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

3	64QAM	15	0	20.38	20.70	20.03	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.75	24.40	23.81	25
1.4	QPSK	1	3	23.85	24.45	23.74	
1.4	QPSK	1	5	23.75	24.42	23.64	
1.4	QPSK	3	0	23.75	24.39	23.68	
1.4	QPSK	3	1	23.85	24.45	23.88	
1.4	QPSK	3	3	23.90	24.51	23.72	
1.4	QPSK	6	0	22.92	23.49	22.76	24.5
1.4	16QAM	1	0	23.02	23.64	23.08	24.5
1.4	16QAM	1	3	23.10	23.74	23.02	
1.4	16QAM	1	5	23.00	23.72	22.98	
1.4	16QAM	3	0	22.90	23.54	22.96	
1.4	16QAM	3	1	22.99	23.61	22.92	
1.4	16QAM	3	3	23.05	23.64	22.93	
1.4	16QAM	6	0	22.01	22.67	21.99	23.5
1.4	64QAM	1	0	20.98	21.77	21.26	23.5
1.4	64QAM	1	3	21.15	21.80	21.09	
1.4	64QAM	1	5	21.05	21.77	21.01	
1.4	64QAM	3	0	20.97	21.73	21.24	
1.4	64QAM	3	1	21.16	21.88	21.30	
1.4	64QAM	3	3	21.15	21.78	21.05	
1.4	64QAM	6	0	19.99	20.66	20.03	22.5



<LTE Band 30 Ant1 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				27710			
Frequency (MHz)				2310			
10	QPSK	1	0		23.98		25
10	QPSK	1	25		23.85		
10	QPSK	1	49		23.87		
10	QPSK	25	0		22.98		24
10	QPSK	25	12		23.01		
10	QPSK	25	25		23.02		
10	QPSK	50	0		23.02		24
10	16QAM	1	0		23.27		
10	16QAM	1	25		23.26		
10	16QAM	1	49		23.25		23
10	16QAM	25	0		21.96		
10	16QAM	25	12		22.01		
10	16QAM	25	25		22.01		23
10	16QAM	50	0		22.01		
10	64QAM	1	0		21.69		
10	64QAM	1	25		21.57		23
10	64QAM	1	49		21.71		
10	64QAM	25	0		20.51		
10	64QAM	25	12		20.65		22
10	64QAM	25	25		20.64		
10	64QAM	50	0		20.50		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	23.91	23.87	23.82	25
5	QPSK	1	12	23.91	23.96	23.95	
5	QPSK	1	24	23.89	23.86	23.80	
5	QPSK	12	0	22.99	22.99	22.93	24
5	QPSK	12	7	23.04	23.05	22.97	
5	QPSK	12	13	23.04	23.03	22.99	
5	QPSK	25	0	23.02	23.00	22.89	24
5	16QAM	1	0	23.22	23.22	22.83	
5	16QAM	1	12	23.23	23.26	23.24	
5	16QAM	1	24	23.28	23.32	23.23	23
5	16QAM	12	0	22.01	22.01	21.97	
5	16QAM	12	7	22.05	22.05	22.03	
5	16QAM	12	13	22.05	22.03	22.07	23
5	16QAM	25	0	22.03	22.01	21.99	
5	64QAM	1	0	21.56	21.53	22.02	
5	64QAM	1	12	21.53	21.63	21.56	23
5	64QAM	1	24	21.51	21.76	21.74	
5	64QAM	12	0	20.53	20.52	20.97	
5	64QAM	12	7	20.54	20.68	20.61	22
5	64QAM	12	13	20.53	20.67	20.54	
5	64QAM	25	0	20.46	20.61	20.28	





<LTE Band 30 Ant8 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				27710			25.5
Frequency (MHz)				2310			
10	QPSK	1	0		23.98		25.5
10	QPSK	1	25		23.85		
10	QPSK	1	49		23.87		
10	QPSK	25	0		22.98		24.5
10	QPSK	25	12		23.01		
10	QPSK	25	25		23.02		
10	QPSK	50	0		23.02		24.5
10	16QAM	1	0		23.27		
10	16QAM	1	25		23.26		
10	16QAM	1	49		23.25		24.5
10	16QAM	25	0		21.96		
10	16QAM	25	12		22.01		
10	16QAM	25	25		22.01		23.5
10	16QAM	50	0		22.01		
10	64QAM	1	0		21.69		
10	64QAM	1	25		21.57		23.5
10	64QAM	1	49		21.71		
10	64QAM	25	0		20.51		
10	64QAM	25	12		20.65		22.5
10	64QAM	25	25		20.64		
10	64QAM	50	0		20.50		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	23.91	23.87	23.82	25.5
5	QPSK	1	12	23.91	23.96	23.95	
5	QPSK	1	24	23.89	23.86	23.80	
5	QPSK	12	0	22.99	22.99	22.93	24.5
5	QPSK	12	7	23.04	23.05	22.97	
5	QPSK	12	13	23.04	23.03	22.99	
5	QPSK	25	0	23.02	23.00	22.89	24.5
5	16QAM	1	0	23.22	23.22	22.83	
5	16QAM	1	12	23.23	23.26	23.24	
5	16QAM	1	24	23.28	23.32	23.23	24.5
5	16QAM	12	0	22.01	22.01	21.97	
5	16QAM	12	7	22.05	22.05	22.03	
5	16QAM	12	13	22.05	22.03	22.07	23.5
5	16QAM	25	0	22.03	22.01	21.99	
5	64QAM	1	0	21.56	21.53	22.02	
5	64QAM	1	12	21.53	21.63	21.56	23.5
5	64QAM	1	24	21.51	21.76	21.74	
5	64QAM	12	0	20.53	20.52	20.97	
5	64QAM	12	7	20.54	20.68	20.61	22.5
5	64QAM	12	13	20.53	20.67	20.54	
5	64QAM	25	0	20.46	20.61	20.28	



<LTE Band 41 Ant1/8 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	24.08	24.04	24.10	24.05	23.92	25.5
20	QPSK	1	49	24.09	24.11	24.11	24.08	23.93	
20	QPSK	1	99	24.08	24.08	24.09	24.07	23.87	
20	QPSK	50	0	23.23	23.24	23.09	23.14	23.01	24.5
20	QPSK	50	24	23.23	23.23	23.18	23.22	22.97	
20	QPSK	50	50	23.22	23.23	23.17	23.18	23.00	
20	QPSK	100	0	23.25	23.26	23.17	23.20	22.98	24.5
20	16QAM	1	0	23.27	23.19	23.18	23.20	23.11	
20	16QAM	1	49	23.15	23.19	23.11	23.08	22.92	
20	16QAM	1	99	23.20	23.20	23.21	23.14	23.01	23.5
20	16QAM	50	0	22.28	22.19	22.10	22.16	22.02	
20	16QAM	50	24	22.27	22.27	22.19	22.22	22.01	
20	16QAM	50	50	22.28	22.27	22.20	22.22	22.04	23.5
20	16QAM	100	0	22.27	22.27	22.19	22.24	21.99	
20	64QAM	1	0	21.99	21.90	21.85	21.88	21.78	
20	64QAM	1	49	21.80	21.93	21.85	21.84	21.63	23.5
20	64QAM	1	99	21.93	21.95	21.92	21.87	21.72	
20	64QAM	50	0	21.28	21.20	21.12	21.18	21.06	
20	64QAM	50	24	21.30	21.28	21.20	21.24	21.01	22.5
20	64QAM	50	50	21.27	21.27	21.20	21.22	21.05	
20	64QAM	100	0	21.28	21.27	21.20	21.24	20.99	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	24.04	23.96	24.00	24.03	23.99	25.5
15	QPSK	1	37	24.02	24.06	23.93	23.98	23.78	
15	QPSK	1	74	24.06	24.00	24.09	24.02	23.87	
15	QPSK	36	0	23.26	23.15	23.04	23.07	22.96	24.5
15	QPSK	36	20	23.23	23.19	23.13	23.15	22.94	
15	QPSK	36	39	23.16	23.21	23.08	23.12	22.98	
15	QPSK	75	0	23.21	23.16	23.17	23.16	22.91	24.5
15	16QAM	1	0	23.23	23.17	23.11	23.15	23.11	
15	16QAM	1	37	23.07	23.09	23.08	23.07	22.86	
15	16QAM	1	74	23.12	23.19	23.13	23.12	22.96	23.5
15	16QAM	36	0	22.26	22.09	22.05	22.16	22.02	
15	16QAM	36	20	22.17	22.26	22.12	22.20	21.94	
15	16QAM	36	39	22.20	22.26	22.19	22.14	22.03	23.5
15	16QAM	75	0	22.25	22.18	22.18	22.14	21.91	
15	64QAM	1	0	21.94	21.87	21.76	21.82	21.68	
15	64QAM	1	37	21.77	21.85	21.76	21.82	21.61	23.5
15	64QAM	1	74	21.90	21.93	21.88	21.86	21.67	
15	64QAM	36	0	21.23	21.13	21.09	21.11	21.06	
15	64QAM	36	20	21.28	21.28	21.17	21.15	20.91	22.5
15	64QAM	36	39	21.21	21.25	21.15	21.18	21.03	
15	64QAM	75	0	21.25	21.21	21.13	21.23	20.99	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	24.11	24.00	24.05	24.07	23.99	25.5
10	QPSK	1	25	24.05	24.08	23.95	23.93	23.77	
10	QPSK	1	49	24.01	24.05	24.03	23.97	23.87	
10	QPSK	25	0	23.26	23.07	23.03	23.09	22.92	24.5



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	25	12	23.17	23.20	23.08	23.21	22.95	
10	QPSK	25	25	23.17	23.17	23.14	23.08	22.94	
10	QPSK	50	0	23.22	23.22	23.12	23.11	22.91	
10	16QAM	1	0	23.18	23.12	23.11	23.19	23.07	24.5
10	16QAM	1	25	23.13	23.13	23.07	23.08	22.84	
10	16QAM	1	49	23.18	23.17	23.15	23.07	22.95	
10	16QAM	25	0	22.27	22.11	22.00	22.07	21.99	23.5
10	16QAM	25	12	22.22	22.21	22.13	22.19	21.98	
10	16QAM	25	25	22.18	22.19	22.13	22.13	21.94	
10	16QAM	50	0	22.24	22.22	22.15	22.18	21.91	23.5
10	64QAM	1	0	21.92	21.88	21.84	21.86	21.74	
10	64QAM	1	25	21.79	21.83	21.83	21.83	21.55	
10	64QAM	1	49	21.92	21.88	21.85	21.81	21.66	22.5
10	64QAM	25	0	21.25	21.15	21.03	21.17	20.97	
10	64QAM	25	12	21.27	21.28	21.18	21.14	21.00	
10	64QAM	25	25	21.17	21.25	21.12	21.12	20.96	22.5
10	64QAM	50	0	21.23	21.27	21.15	21.20	20.89	
Channel				39675	40148	40620	41093	41565	
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	24.10	23.94	24.04	24.07	23.92	25.5
5	QPSK	1	12	24.08	24.00	24.01	23.98	23.81	
5	QPSK	1	24	24.05	24.02	24.06	24.02	23.80	
5	QPSK	12	0	23.24	23.13	23.00	23.04	22.93	24.5
5	QPSK	12	7	23.21	23.23	23.10	23.13	22.87	
5	QPSK	12	13	23.20	23.14	23.13	23.18	22.93	
5	QPSK	25	0	23.19	23.21	23.15	23.12	22.93	24.5
5	16QAM	1	0	23.22	23.10	23.12	23.15	23.06	
5	16QAM	1	12	23.14	23.11	23.03	23.01	22.89	
5	16QAM	1	24	23.13	23.13	23.13	23.12	22.95	23.5
5	16QAM	12	0	22.28	22.16	22.04	22.14	21.98	
5	16QAM	12	7	22.26	22.17	22.18	22.13	22.01	
5	16QAM	12	13	22.20	22.26	22.14	22.17	21.99	23.5
5	16QAM	25	0	22.23	22.23	22.11	22.15	21.98	
5	64QAM	1	0	21.93	21.81	21.80	21.79	21.71	
5	64QAM	1	12	21.71	21.88	21.80	21.78	21.58	23.5
5	64QAM	1	24	21.93	21.85	21.91	21.83	21.64	
5	64QAM	12	0	21.26	21.17	21.10	21.14	21.00	
5	64QAM	12	7	21.27	21.23	21.13	21.20	20.99	22.5
5	64QAM	12	13	21.26	21.17	21.16	21.17	20.99	
5	64QAM	25	0	21.26	21.24	21.18	21.20	20.89	



<LTE Band 42/48 Ant9/11 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	22
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	20.84	20.97	20.92	20.86	22
20	QPSK	1	49	20.78	20.84	20.79	20.74	
20	QPSK	1	99	20.83	20.94	20.87	20.85	
20	QPSK	50	0	19.93	19.98	19.94	19.88	21
20	QPSK	50	24	19.92	19.94	19.94	19.87	
20	QPSK	50	50	19.93	19.95	19.86	19.82	
20	QPSK	100	0	19.93	20.01	19.95	19.90	21
20	16QAM	1	0	20.03	20.08	20.04	19.96	
20	16QAM	1	49	19.92	19.98	19.90	19.84	
20	16QAM	1	99	20.04	20.08	20.02	19.97	20
20	16QAM	50	0	18.97	18.98	18.99	18.92	
20	16QAM	50	24	18.96	19.05	18.98	18.93	
20	16QAM	50	50	18.99	19.04	18.90	18.85	20
20	16QAM	100	0	18.97	19.06	18.98	18.94	
20	64QAM	1	0	18.61	18.69	18.69	18.64	
20	64QAM	1	49	18.56	18.63	18.56	18.52	20
20	64QAM	1	99	18.74	18.79	18.62	18.62	
20	64QAM	50	0	18.03	18.01	18.02	17.97	
20	64QAM	50	24	18.00	18.07	18.00	18.00	19
20	64QAM	50	50	18.00	18.07	17.94	17.90	
20	64QAM	100	0	18.02	18.11	18.04	18.01	
Channel				55315	55820	56160	56665	22
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	20.76	20.96	20.84	20.76	22
15	QPSK	1	37	20.76	20.79	20.73	20.72	
15	QPSK	1	74	20.80	20.85	20.78	20.83	
15	QPSK	36	0	19.93	19.94	19.90	19.79	21
15	QPSK	36	20	19.92	19.97	19.89	19.86	
15	QPSK	36	39	19.85	19.93	19.76	19.81	
15	QPSK	75	0	19.88	20.00	19.87	19.83	21
15	16QAM	1	0	19.94	20.05	19.99	19.91	
15	16QAM	1	37	19.90	19.95	19.90	19.84	
15	16QAM	1	74	20.00	20.04	19.99	19.97	20
15	16QAM	36	0	18.95	18.95	18.97	18.84	
15	16QAM	36	20	18.95	19.05	18.94	18.83	
15	16QAM	36	39	18.96	19.00	18.80	18.85	20
15	16QAM	75	0	18.90	18.97	18.94	18.87	
15	64QAM	1	0	18.59	18.61	18.69	18.60	
15	64QAM	1	37	18.47	18.61	18.54	18.46	20
15	64QAM	1	74	18.65	18.77	18.60	18.54	
15	64QAM	36	0	18.02	17.93	17.95	17.94	
15	64QAM	36	20	17.92	18.01	17.96	17.93	19
15	64QAM	36	39	17.93	17.97	17.92	17.83	
15	64QAM	75	0	17.94	18.02	17.99	17.95	
Channel				55290	55815	56165	56690	22
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	20.82	20.93	20.84	20.86	22
10	QPSK	1	25	20.68	20.81	20.73	20.74	
10	QPSK	1	49	20.84	20.91	20.82	20.80	
10	QPSK	25	0	19.88	19.90	19.86	19.81	21



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

10	QPSK	25	12	19.92	19.94	19.85	19.84	
10	QPSK	25	25	19.94	19.88	19.82	19.80	
10	QPSK	50	0	19.83	19.97	19.88	19.83	
10	16QAM	1	0	20.03	19.99	19.95	19.92	21
10	16QAM	1	25	19.82	19.91	19.81	19.77	
10	16QAM	1	49	19.95	20.08	19.96	19.97	
10	16QAM	25	0	18.89	18.97	18.91	18.84	20
10	16QAM	25	12	18.87	18.99	18.93	18.93	
10	16QAM	25	25	18.95	18.94	18.83	18.80	
10	16QAM	50	0	18.92	19.04	18.98	18.85	
10	64QAM	1	0	18.56	18.69	18.59	18.55	20
10	64QAM	1	25	18.55	18.60	18.52	18.47	
10	64QAM	1	49	18.69	18.77	18.54	18.61	
10	64QAM	25	0	17.98	17.96	17.99	17.93	19
10	64QAM	25	12	17.97	17.98	17.97	18.00	
10	64QAM	25	25	17.94	17.98	17.92	17.87	
10	64QAM	50	0	17.93	18.08	17.96	17.99	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	20.80	20.93	20.90	20.83	22
5	QPSK	1	12	20.71	20.84	20.74	20.67	
5	QPSK	1	24	20.83	20.92	20.87	20.85	
5	QPSK	12	0	19.87	19.91	19.85	19.79	21
5	QPSK	12	7	19.92	19.94	19.93	19.87	
5	QPSK	12	13	19.91	19.93	19.85	19.81	
5	QPSK	25	0	19.87	19.92	19.85	19.84	
5	16QAM	1	0	19.99	20.04	19.98	19.86	21
5	16QAM	1	12	19.84	19.93	19.82	19.75	
5	16QAM	1	24	19.97	20.05	19.93	19.91	
5	16QAM	12	0	18.93	18.88	18.98	18.84	20
5	16QAM	12	7	18.86	19.03	18.98	18.83	
5	16QAM	12	13	18.89	18.99	18.84	18.80	
5	16QAM	25	0	18.91	19.04	18.89	18.87	
5	64QAM	1	0	18.54	18.62	18.68	18.62	20
5	64QAM	1	12	18.46	18.55	18.54	18.48	
5	64QAM	1	24	18.64	18.78	18.55	18.61	
5	64QAM	12	0	17.96	17.98	17.98	17.92	19
5	64QAM	12	7	17.90	18.02	17.98	17.93	
5	64QAM	12	13	17.96	17.98	17.87	17.85	
5	64QAM	25	0	18.01	18.10	17.98	17.94	



<LTE Band 66 Ant1 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.61	23.85	23.67	25.5
20	QPSK	1	49	23.60	23.62	23.53	
20	QPSK	1	99	23.58	23.57	23.53	
20	QPSK	50	0	22.82	22.85	22.70	24.5
20	QPSK	50	24	22.81	22.74	22.66	
20	QPSK	50	50	22.81	22.73	22.65	
20	QPSK	100	0	22.83	22.84	22.65	24.5
20	16QAM	1	0	23.00	23.11	23.01	
20	16QAM	1	49	23.06	23.02	22.94	
20	16QAM	1	99	22.97	22.91	22.77	23.5
20	16QAM	50	0	21.85	21.78	21.69	
20	16QAM	50	24	21.90	21.73	21.68	
20	16QAM	50	50	21.82	21.75	21.67	23.5
20	16QAM	100	0	21.88	21.70	21.64	
20	64QAM	1	0	21.02	21.94	21.87	
20	64QAM	1	49	21.93	21.66	21.80	23.5
20	64QAM	1	99	21.85	21.80	21.64	
20	64QAM	50	0	20.44	20.76	20.71	
20	64QAM	50	24	20.84	20.53	20.68	22.5
20	64QAM	50	50	20.84	20.77	20.68	
20	64QAM	100	0	20.89	20.75	20.63	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.80	23.70	23.69	25.5
15	QPSK	1	37	23.75	23.65	23.58	
15	QPSK	1	74	23.68	23.60	23.51	
15	QPSK	36	0	22.92	22.75	22.71	24.5
15	QPSK	36	20	22.94	22.85	22.69	
15	QPSK	36	39	22.86	22.77	22.69	
15	QPSK	75	0	22.90	22.73	22.66	24.5
15	16QAM	1	0	23.07	23.00	23.00	
15	16QAM	1	37	23.08	23.00	22.93	
15	16QAM	1	74	23.01	22.95	22.85	23.5
15	16QAM	36	0	21.93	21.78	21.71	
15	16QAM	36	20	21.94	21.83	21.69	
15	16QAM	36	39	21.87	21.78	21.70	23.5
15	16QAM	75	0	21.90	21.74	21.67	
15	64QAM	1	0	21.07	21.88	21.87	
15	64QAM	1	37	21.70	21.69	21.86	23.5
15	64QAM	1	74	21.93	21.85	21.74	
15	64QAM	36	0	20.33	20.79	20.73	
15	64QAM	36	20	20.68	20.67	20.73	22.5
15	64QAM	36	39	20.88	20.79	20.72	
15	64QAM	75	0	20.63	20.75	20.69	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.53	23.68	23.62	25.5
10	QPSK	1	25	23.75	23.61	23.56	
10	QPSK	1	49	23.70	23.58	23.50	
10	QPSK	25	0	22.88	22.73	22.64	24.5



10	QPSK	25	12	22.89	22.71	22.64	
10	QPSK	25	25	22.85	22.74	22.65	
10	QPSK	50	0	22.89	22.70	22.61	
10	16QAM	1	0	22.92	23.07	22.99	24.5
10	16QAM	1	25	23.15	23.03	22.95	
10	16QAM	1	49	23.09	22.96	22.86	
10	16QAM	25	0	21.91	21.71	21.65	23.5
10	16QAM	25	12	21.90	21.72	21.63	
10	16QAM	25	25	21.82	21.73	21.63	
10	16QAM	50	0	21.88	21.70	21.59	23.5
10	64QAM	1	0	20.50	21.56	21.85	
10	64QAM	1	25	21.50	21.80	21.84	
10	64QAM	1	49	22.01	21.88	21.77	22.5
10	64QAM	25	0	20.13	20.70	20.66	
10	64QAM	25	12	20.26	20.73	20.66	
10	64QAM	25	25	20.50	20.74	20.68	22.5
10	64QAM	50	0	20.16	20.63	20.62	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.53	23.65	23.57	25.5
5	QPSK	1	12	23.54	23.75	23.58	
5	QPSK	1	24	23.77	23.65	23.51	
5	QPSK	12	0	22.86	22.70	22.69	24.5
5	QPSK	12	7	22.92	22.83	22.65	
5	QPSK	12	13	22.87	22.74	22.62	
5	QPSK	25	0	22.85	22.72	22.65	24.5
5	16QAM	1	0	22.72	22.97	22.94	
5	16QAM	1	12	23.06	23.01	22.90	
5	16QAM	1	24	23.07	22.95	22.82	23.5
5	16QAM	12	0	21.95	21.76	21.68	
5	16QAM	12	7	21.96	21.83	21.70	
5	16QAM	12	13	21.89	21.78	21.64	23.5
5	16QAM	25	0	21.88	21.72	21.69	
5	64QAM	1	0	20.86	21.66	21.86	
5	64QAM	1	12	21.21	21.71	21.82	23.5
5	64QAM	1	24	21.43	21.61	21.76	
5	64QAM	12	0	20.06	20.64	20.75	
5	64QAM	12	7	20.21	20.71	20.76	22.5
5	64QAM	12	13	20.24	20.61	20.67	
5	64QAM	25	0	20.08	20.60	20.66	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.60	23.65	23.60	25.5
3	QPSK	1	8	23.75	23.76	23.62	
3	QPSK	1	14	23.82	23.68	23.53	
3	QPSK	8	0	22.92	22.70	22.64	24.5
3	QPSK	8	4	22.96	22.78	22.68	
3	QPSK	8	7	22.92	22.76	22.64	
3	QPSK	15	0	22.93	22.74	22.67	24.5
3	16QAM	1	0	23.03	22.98	22.95	
3	16QAM	1	8	23.21	23.05	23.00	
3	16QAM	1	14	23.15	23.02	22.89	23.5
3	16QAM	8	0	21.98	21.78	21.76	
3	16QAM	8	4	22.00	21.86	21.76	
3	16QAM	8	7	21.95	21.85	21.71	23.5
3	16QAM	15	0	21.97	21.73	21.68	



3	64QAM	1	0	21.22	21.64	21.84	23.5
3	64QAM	1	8	21.49	21.74	21.88	
3	64QAM	1	14	21.51	21.63	21.81	
3	64QAM	8	0	20.31	20.69	20.75	22.5
3	64QAM	8	4	20.35	20.71	20.73	
3	64QAM	8	7	20.25	20.65	20.70	
3	64QAM	15	0	20.11	20.65	20.66	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.77	23.64	23.51	25.5
1.4	QPSK	1	3	23.83	23.71	23.55	
1.4	QPSK	1	5	23.76	23.62	23.50	
1.4	QPSK	3	0	23.81	23.67	23.51	
1.4	QPSK	3	1	23.75	23.70	23.56	
1.4	QPSK	3	3	23.80	23.66	23.52	
1.4	QPSK	6	0	22.85	22.70	22.57	24.5
1.4	16QAM	1	0	23.11	22.95	22.84	24.5
1.4	16QAM	1	3	23.12	23.03	22.91	
1.4	16QAM	1	5	23.09	22.92	22.83	
1.4	16QAM	3	0	22.89	22.74	22.61	
1.4	16QAM	3	1	22.95	22.79	22.68	
1.4	16QAM	3	3	22.87	22.75	22.62	
1.4	16QAM	6	0	21.93	21.80	21.68	23.5
1.4	64QAM	1	0	21.40	21.69	21.79	23.5
1.4	64QAM	1	3	21.52	21.73	21.83	
1.4	64QAM	1	5	21.51	21.66	21.73	
1.4	64QAM	3	0	21.48	21.70	21.73	
1.4	64QAM	3	1	21.61	21.75	21.76	
1.4	64QAM	3	3	21.46	21.62	21.74	
1.4	64QAM	6	0	20.34	20.60	20.64	22.5

**<LTE Band 66 Ant1 State 3 when EN-DC active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.61	23.85	23.67	24.5
20	QPSK	1	49	23.60	23.62	23.53	
20	QPSK	1	99	23.58	23.57	23.53	
20	QPSK	50	0	22.82	22.85	22.70	23.5
20	QPSK	50	24	22.81	22.74	22.66	
20	QPSK	50	50	22.81	22.73	22.65	
20	QPSK	100	0	22.83	22.84	22.65	
20	16QAM	1	0	23.00	23.11	23.01	23.5
20	16QAM	1	49	23.06	23.02	22.94	
20	16QAM	1	99	22.97	22.91	22.77	
20	16QAM	50	0	21.85	21.78	21.69	22.5
20	16QAM	50	24	21.90	21.73	21.68	
20	16QAM	50	50	21.82	21.75	21.67	
20	16QAM	100	0	21.88	21.70	21.64	
20	64QAM	1	0	21.02	21.94	21.87	22.5
20	64QAM	1	49	21.93	21.66	21.80	
20	64QAM	1	99	21.85	21.80	21.64	
20	64QAM	50	0	20.44	20.76	20.71	21.5
20	64QAM	50	24	20.84	20.53	20.68	
20	64QAM	50	50	20.84	20.77	20.68	





**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	64QAM	100	0	20.89	20.75	20.63	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.80	23.70	23.69	24.5
15	QPSK	1	37	23.75	23.65	23.58	
15	QPSK	1	74	23.68	23.60	23.51	
15	QPSK	36	0	22.92	22.75	22.71	23.5
15	QPSK	36	20	22.94	22.85	22.69	
15	QPSK	36	39	22.86	22.77	22.69	
15	QPSK	75	0	22.90	22.73	22.66	
15	16QAM	1	0	23.07	23.00	23.00	23.5
15	16QAM	1	37	23.08	23.00	22.93	
15	16QAM	1	74	23.01	22.95	22.85	
15	16QAM	36	0	21.93	21.78	21.71	22.5
15	16QAM	36	20	21.94	21.83	21.69	
15	16QAM	36	39	21.87	21.78	21.70	
15	16QAM	75	0	21.90	21.74	21.67	
15	64QAM	1	0	21.07	21.88	21.87	22.5
15	64QAM	1	37	21.70	21.69	21.86	
15	64QAM	1	74	21.93	21.85	21.74	
15	64QAM	36	0	20.33	20.79	20.73	21.5
15	64QAM	36	20	20.68	20.67	20.73	
15	64QAM	36	39	20.88	20.79	20.72	
15	64QAM	75	0	20.63	20.75	20.69	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.53	23.68	23.62	24.5
10	QPSK	1	25	23.75	23.61	23.56	
10	QPSK	1	49	23.70	23.58	23.50	
10	QPSK	25	0	22.88	22.73	22.64	23.5
10	QPSK	25	12	22.89	22.71	22.64	
10	QPSK	25	25	22.85	22.74	22.65	
10	QPSK	50	0	22.89	22.70	22.61	
10	16QAM	1	0	22.92	23.07	22.99	23.5
10	16QAM	1	25	23.15	23.03	22.95	
10	16QAM	1	49	23.09	22.96	22.86	
10	16QAM	25	0	21.91	21.71	21.65	22.5
10	16QAM	25	12	21.90	21.72	21.63	
10	16QAM	25	25	21.82	21.73	21.63	
10	16QAM	50	0	21.88	21.70	21.59	
10	64QAM	1	0	20.50	21.56	21.85	22.5
10	64QAM	1	25	21.50	21.80	21.84	
10	64QAM	1	49	22.01	21.88	21.77	
10	64QAM	25	0	20.13	20.70	20.66	21.5
10	64QAM	25	12	20.26	20.73	20.66	
10	64QAM	25	25	20.50	20.74	20.68	
10	64QAM	50	0	20.16	20.63	20.62	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.53	23.65	23.57	24.5
5	QPSK	1	12	23.54	23.75	23.58	
5	QPSK	1	24	23.77	23.65	23.51	
5	QPSK	12	0	22.86	22.70	22.69	23.5
5	QPSK	12	7	22.92	22.83	22.65	
5	QPSK	12	13	22.87	22.74	22.62	
5	QPSK	25	0	22.85	22.72	22.65	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

5	16QAM	1	0	22.72	22.97	22.94	23.5
5	16QAM	1	12	23.06	23.01	22.90	
5	16QAM	1	24	23.07	22.95	22.82	
5	16QAM	12	0	21.95	21.76	21.68	22.5
5	16QAM	12	7	21.96	21.83	21.70	
5	16QAM	12	13	21.89	21.78	21.64	
5	16QAM	25	0	21.88	21.72	21.69	22.5
5	64QAM	1	0	20.86	21.66	21.86	
5	64QAM	1	12	21.21	21.71	21.82	
5	64QAM	1	24	21.43	21.61	21.76	21.5
5	64QAM	12	0	20.06	20.64	20.75	
5	64QAM	12	7	20.21	20.71	20.76	
5	64QAM	12	13	20.24	20.61	20.67	21.5
5	64QAM	25	0	20.08	20.60	20.66	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.60	23.65	23.60	24.5
3	QPSK	1	8	23.75	23.76	23.62	
3	QPSK	1	14	23.82	23.68	23.53	
3	QPSK	8	0	22.92	22.70	22.64	23.5
3	QPSK	8	4	22.96	22.78	22.68	
3	QPSK	8	7	22.92	22.76	22.64	
3	QPSK	15	0	22.93	22.74	22.67	23.5
3	16QAM	1	0	23.03	22.98	22.95	
3	16QAM	1	8	23.21	23.05	23.00	
3	16QAM	1	14	23.15	23.02	22.89	22.5
3	16QAM	8	0	21.98	21.78	21.76	
3	16QAM	8	4	22.00	21.86	21.76	
3	16QAM	8	7	21.95	21.85	21.71	22.5
3	16QAM	15	0	21.97	21.73	21.68	
3	64QAM	1	0	21.22	21.64	21.84	
3	64QAM	1	8	21.49	21.74	21.88	22.5
3	64QAM	1	14	21.51	21.63	21.81	
3	64QAM	8	0	20.31	20.69	20.75	
3	64QAM	8	4	20.35	20.71	20.73	21.5
3	64QAM	8	7	20.25	20.65	20.70	
3	64QAM	15	0	20.11	20.65	20.66	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.77	23.64	23.51	24.5
1.4	QPSK	1	3	23.83	23.71	23.55	
1.4	QPSK	1	5	23.76	23.62	23.50	
1.4	QPSK	3	0	23.81	23.67	23.51	23.5
1.4	QPSK	3	1	23.75	23.70	23.56	
1.4	QPSK	3	3	23.80	23.66	23.52	
1.4	QPSK	6	0	22.85	22.70	22.57	23.5
1.4	16QAM	1	0	23.11	22.95	22.84	23.5
1.4	16QAM	1	3	23.12	23.03	22.91	
1.4	16QAM	1	5	23.09	22.92	22.83	
1.4	16QAM	3	0	22.89	22.74	22.61	23.5
1.4	16QAM	3	1	22.95	22.79	22.68	
1.4	16QAM	3	3	22.87	22.75	22.62	
1.4	16QAM	6	0	21.93	21.80	21.68	22.5
1.4	64QAM	1	0	21.40	21.69	21.79	22.5
1.4	64QAM	1	3	21.52	21.73	21.83	
1.4	64QAM	1	5	21.51	21.66	21.73	



1.4	64QAM	3	0	21.48	21.70	21.73	
1.4	64QAM	3	1	21.61	21.75	21.76	
1.4	64QAM	3	3	21.46	21.62	21.74	
1.4	64QAM	6	0	20.34	20.60	20.64	21.5

<LTE Band 66 Ant8 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.61	23.85	23.67	24.5
20	QPSK	1	49	23.60	23.62	23.53	
20	QPSK	1	99	23.58	23.57	23.53	
20	QPSK	50	0	22.82	22.85	22.70	23.5
20	QPSK	50	24	22.81	22.74	22.66	
20	QPSK	50	50	22.81	22.73	22.65	
20	QPSK	100	0	22.83	22.84	22.65	23.5
20	16QAM	1	0	23.00	23.11	23.01	
20	16QAM	1	49	23.06	23.02	22.94	
20	16QAM	1	99	22.97	22.91	22.77	22.5
20	16QAM	50	0	21.85	21.78	21.69	
20	16QAM	50	24	21.90	21.73	21.68	
20	16QAM	50	50	21.82	21.75	21.67	22.5
20	16QAM	100	0	21.88	21.70	21.64	
20	64QAM	1	0	21.02	21.94	21.87	
20	64QAM	1	49	21.93	21.66	21.80	22.5
20	64QAM	1	99	21.85	21.80	21.64	
20	64QAM	50	0	20.44	20.76	20.71	
20	64QAM	50	24	20.84	20.53	20.68	21.5
20	64QAM	50	50	20.84	20.77	20.68	
20	64QAM	100	0	20.89	20.75	20.63	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.80	23.70	23.69	24.5
15	QPSK	1	37	23.75	23.65	23.58	
15	QPSK	1	74	23.68	23.60	23.51	
15	QPSK	36	0	22.92	22.75	22.71	23.5
15	QPSK	36	20	22.94	22.85	22.69	
15	QPSK	36	39	22.86	22.77	22.69	
15	QPSK	75	0	22.90	22.73	22.66	23.5
15	16QAM	1	0	23.07	23.00	23.00	
15	16QAM	1	37	23.08	23.00	22.93	
15	16QAM	1	74	23.01	22.95	22.85	23.5
15	16QAM	36	0	21.93	21.78	21.71	
15	16QAM	36	20	21.94	21.83	21.69	
15	16QAM	36	39	21.87	21.78	21.70	22.5
15	16QAM	75	0	21.90	21.74	21.67	
15	64QAM	1	0	21.07	21.88	21.87	
15	64QAM	1	37	21.70	21.69	21.86	22.5
15	64QAM	1	74	21.93	21.85	21.74	
15	64QAM	36	0	20.33	20.79	20.73	
15	64QAM	36	20	20.68	20.67	20.73	21.5
15	64QAM	36	39	20.88	20.79	20.72	
15	64QAM	75	0	20.63	20.75	20.69	



Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.53	23.68	23.62	24.5
10	QPSK	1	25	23.75	23.61	23.56	
10	QPSK	1	49	23.70	23.58	23.50	
10	QPSK	25	0	22.88	22.73	22.64	23.5
10	QPSK	25	12	22.89	22.71	22.64	
10	QPSK	25	25	22.85	22.74	22.65	
10	QPSK	50	0	22.89	22.70	22.61	
10	16QAM	1	0	22.92	23.07	22.99	23.5
10	16QAM	1	25	23.15	23.03	22.95	
10	16QAM	1	49	23.09	22.96	22.86	
10	16QAM	25	0	21.91	21.71	21.65	22.5
10	16QAM	25	12	21.90	21.72	21.63	
10	16QAM	25	25	21.82	21.73	21.63	
10	16QAM	50	0	21.88	21.70	21.59	
10	64QAM	1	0	20.50	21.56	21.85	22.5
10	64QAM	1	25	21.50	21.80	21.84	
10	64QAM	1	49	22.01	21.88	21.77	
10	64QAM	25	0	20.13	20.70	20.66	21.5
10	64QAM	25	12	20.26	20.73	20.66	
10	64QAM	25	25	20.50	20.74	20.68	
10	64QAM	50	0	20.16	20.63	20.62	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.53	23.65	23.57	24.5
5	QPSK	1	12	23.54	23.75	23.58	
5	QPSK	1	24	23.77	23.65	23.51	
5	QPSK	12	0	22.86	22.70	22.69	23.5
5	QPSK	12	7	22.92	22.83	22.65	
5	QPSK	12	13	22.87	22.74	22.62	
5	QPSK	25	0	22.85	22.72	22.65	
5	16QAM	1	0	22.72	22.97	22.94	23.5
5	16QAM	1	12	23.06	23.01	22.90	
5	16QAM	1	24	23.07	22.95	22.82	
5	16QAM	12	0	21.95	21.76	21.68	22.5
5	16QAM	12	7	21.96	21.83	21.70	
5	16QAM	12	13	21.89	21.78	21.64	
5	16QAM	25	0	21.88	21.72	21.69	
5	64QAM	1	0	20.86	21.66	21.86	22.5
5	64QAM	1	12	21.21	21.71	21.82	
5	64QAM	1	24	21.43	21.61	21.76	
5	64QAM	12	0	20.06	20.64	20.75	21.5
5	64QAM	12	7	20.21	20.71	20.76	
5	64QAM	12	13	20.24	20.61	20.67	
5	64QAM	25	0	20.08	20.60	20.66	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.60	23.65	23.60	24.5
3	QPSK	1	8	23.75	23.76	23.62	
3	QPSK	1	14	23.82	23.68	23.53	
3	QPSK	8	0	22.92	22.70	22.64	23.5
3	QPSK	8	4	22.96	22.78	22.68	
3	QPSK	8	7	22.92	22.76	22.64	
3	QPSK	15	0	22.93	22.74	22.67	
3	16QAM	1	0	23.03	22.98	22.95	23.5



3	16QAM	1	8	23.21	23.05	23.00	
3	16QAM	1	14	23.15	23.02	22.89	
3	16QAM	8	0	21.98	21.78	21.76	
3	16QAM	8	4	22.00	21.86	21.76	22.5
3	16QAM	8	7	21.95	21.85	21.71	
3	16QAM	15	0	21.97	21.73	21.68	
3	64QAM	1	0	21.22	21.64	21.84	22.5
3	64QAM	1	8	21.49	21.74	21.88	
3	64QAM	1	14	21.51	21.63	21.81	
3	64QAM	8	0	20.31	20.69	20.75	21.5
3	64QAM	8	4	20.35	20.71	20.73	
3	64QAM	8	7	20.25	20.65	20.70	
3	64QAM	15	0	20.11	20.65	20.66	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.77	23.64	23.51	24.5
1.4	QPSK	1	3	23.83	23.71	23.55	
1.4	QPSK	1	5	23.76	23.62	23.50	
1.4	QPSK	3	0	23.81	23.67	23.51	
1.4	QPSK	3	1	23.75	23.70	23.56	
1.4	QPSK	3	3	23.80	23.66	23.52	
1.4	QPSK	6	0	22.85	22.70	22.57	23.5
1.4	16QAM	1	0	23.11	22.95	22.84	23.5
1.4	16QAM	1	3	23.12	23.03	22.91	
1.4	16QAM	1	5	23.09	22.92	22.83	
1.4	16QAM	3	0	22.89	22.74	22.61	
1.4	16QAM	3	1	22.95	22.79	22.68	
1.4	16QAM	3	3	22.87	22.75	22.62	
1.4	16QAM	6	0	21.93	21.80	21.68	22.5
1.4	64QAM	1	0	21.40	21.69	21.79	22.5
1.4	64QAM	1	3	21.52	21.73	21.83	
1.4	64QAM	1	5	21.51	21.66	21.73	
1.4	64QAM	3	0	21.48	21.70	21.73	
1.4	64QAM	3	1	21.61	21.75	21.76	
1.4	64QAM	3	3	21.46	21.62	21.74	
1.4	64QAM	6	0	20.34	20.60	20.64	

**<LTE Band 66 Ant8 State 3 when EN-DC active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.14	23.18	23.12	24.5
20	QPSK	1	49	23.07	23.03	23.04	
20	QPSK	1	99	23.03	22.98	22.97	
20	QPSK	50	0	22.24	22.25	22.22	23.5
20	QPSK	50	24	22.22	22.16	22.21	
20	QPSK	50	50	22.21	22.17	22.21	
20	QPSK	100	0	22.25	22.14	22.26	
20	16QAM	1	0	22.50	22.51	22.48	23.5
20	16QAM	1	49	22.44	22.41	22.43	
20	16QAM	1	99	22.34	22.30	22.25	
20	16QAM	50	0	21.29	21.22	21.20	22.5
20	16QAM	50	24	21.29	21.18	21.26	



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

20	16QAM	50	50	21.21	21.21	21.22	
20	16QAM	100	0	21.23	21.14	21.24	
20	64QAM	1	0	21.29	21.33	21.30	
20	64QAM	1	49	20.79	21.26	21.30	22.5
20	64QAM	1	99	20.99	20.70	20.34	
20	64QAM	50	0	20.24	20.21	20.22	
20	64QAM	50	24	20.04	20.22	20.29	21.5
20	64QAM	50	50	19.88	20.16	19.81	
20	64QAM	100	0	20.08	20.16	20.21	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.10	23.09	23.15	24.5
15	QPSK	1	37	23.09	23.06	23.07	
15	QPSK	1	74	23.04	23.05	22.78	
15	QPSK	36	0	22.18	22.18	22.19	23.5
15	QPSK	36	20	22.27	22.20	22.21	
15	QPSK	36	39	22.23	22.21	22.23	
15	QPSK	75	0	22.24	22.15	22.19	23.5
15	16QAM	1	0	22.45	22.44	22.48	
15	16QAM	1	37	22.44	22.43	22.42	
15	16QAM	1	74	22.32	22.31	22.08	22.5
15	16QAM	36	0	21.19	21.17	21.20	
15	16QAM	36	20	21.27	21.18	21.19	
15	16QAM	36	39	21.21	21.20	21.23	22.5
15	16QAM	75	0	21.25	21.17	21.19	
15	64QAM	1	0	21.24	21.27	21.31	
15	64QAM	1	37	21.01	21.30	20.67	22.5
15	64QAM	1	74	20.71	20.52	20.09	
15	64QAM	36	0	20.20	20.22	20.21	
15	64QAM	36	20	20.15	20.21	20.02	21.5
15	64QAM	36	39	19.85	20.14	19.59	
15	64QAM	75	0	20.10	20.15	20.04	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.10	23.05	23.09	24.5
10	QPSK	1	25	23.03	23.05	23.05	
10	QPSK	1	49	22.99	23.00	23.00	
10	QPSK	25	0	22.22	22.13	22.14	23.5
10	QPSK	25	12	22.22	22.14	22.22	
10	QPSK	25	25	22.17	22.17	22.17	
10	QPSK	50	0	22.21	22.11	22.14	23.5
10	16QAM	1	0	22.47	22.47	22.50	
10	16QAM	1	25	22.43	22.43	22.46	
10	16QAM	1	49	22.37	22.40	22.26	22.5
10	16QAM	25	0	21.21	21.11	21.13	
10	16QAM	25	12	21.23	21.13	21.23	
10	16QAM	25	25	21.15	21.17	21.16	22.5
10	16QAM	50	0	21.20	21.11	21.14	
10	64QAM	1	0	20.96	21.30	21.26	
10	64QAM	1	25	21.30	21.38	20.78	22.5
10	64QAM	1	49	20.64	20.91	20.35	
10	64QAM	25	0	20.13	20.17	19.94	
10	64QAM	25	12	20.21	20.18	19.81	21.5
10	64QAM	25	25	20.06	20.19	19.65	
10	64QAM	50	0	20.11	20.16	19.83	
Channel				131997	132322	132647	Tune-up limit



Frequency (MHz)				1712.5	1745	1777.5	(dBm)
5	QPSK	1	0	23.03	22.95	23.04	24.5
5	QPSK	1	12	23.07	22.95	23.11	
5	QPSK	1	24	23.00	22.98	23.10	
5	QPSK	12	0	22.08	21.99	22.15	23.5
5	QPSK	12	7	22.14	22.08	22.21	
5	QPSK	12	13	22.11	22.07	22.25	
5	QPSK	25	0	22.09	22.01	22.22	23.5
5	16QAM	1	0	22.32	22.27	22.39	
5	16QAM	1	12	22.33	22.27	22.39	
5	16QAM	1	24	22.38	22.27	22.43	22.5
5	16QAM	12	0	21.09	21.04	21.18	
5	16QAM	12	7	21.14	21.07	21.27	
5	16QAM	12	13	21.13	21.13	21.21	22.5
5	16QAM	25	0	21.13	21.08	21.20	
5	64QAM	1	0	21.29	21.19	21.31	
5	64QAM	1	12	21.26	21.20	21.29	22.5
5	64QAM	1	24	21.28	21.21	21.33	
5	64QAM	12	0	20.10	20.08	20.23	
5	64QAM	12	7	20.19	20.17	20.31	21.5
5	64QAM	12	13	20.18	20.19	20.31	
5	64QAM	25	0	20.10	20.09	20.23	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.11	23.11	23.08	24.5
3	QPSK	1	8	23.14	23.16	23.03	
3	QPSK	1	14	23.09	23.08	22.92	
3	QPSK	8	0	22.21	22.18	22.14	23.5
3	QPSK	8	4	22.23	22.24	22.18	
3	QPSK	8	7	22.18	22.20	22.12	
3	QPSK	15	0	22.21	22.19	22.20	23.5
3	16QAM	1	0	22.42	22.40	22.42	
3	16QAM	1	8	22.47	22.47	22.39	
3	16QAM	1	14	22.43	22.41	22.28	22.5
3	16QAM	8	0	21.30	21.28	21.25	
3	16QAM	8	4	21.28	21.29	21.28	
3	16QAM	8	7	21.27	21.20	21.21	22.5
3	16QAM	15	0	21.23	21.24	21.24	
3	64QAM	1	0	20.95	21.32	20.50	
3	64QAM	1	8	21.16	21.37	20.46	22.5
3	64QAM	1	14	21.13	21.29	20.40	
3	64QAM	8	0	20.00	20.25	19.45	
3	64QAM	8	4	20.11	20.26	19.46	21.5
3	64QAM	8	7	20.14	20.25	19.45	
3	64QAM	15	0	20.05	20.24	19.51	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.04	23.05	22.99	24.5
1.4	QPSK	1	3	23.08	23.10	23.01	
1.4	QPSK	1	5	23.05	23.03	22.93	
1.4	QPSK	3	0	23.06	23.03	22.95	
1.4	QPSK	3	1	23.10	23.06	22.97	
1.4	QPSK	3	3	23.06	23.07	22.91	
1.4	QPSK	6	0	22.16	22.12	22.06	23.5
1.4	16QAM	1	0	22.38	22.35	22.26	23.5
1.4	16QAM	1	3	22.45	22.44	22.34	



1.4	16QAM	1	5	22.34	22.37	22.26	
1.4	16QAM	3	0	22.15	22.15	22.14	
1.4	16QAM	3	1	22.20	22.17	22.17	
1.4	16QAM	3	3	22.12	22.13	22.11	
1.4	16QAM	6	0	21.23	21.21	21.24	22.5
1.4	64QAM	1	0	20.87	21.30	20.46	22.5
1.4	64QAM	1	3	21.01	21.35	20.47	
1.4	64QAM	1	5	20.98	21.29	20.43	
1.4	64QAM	3	0	20.92	21.25	20.52	
1.4	64QAM	3	1	21.03	21.30	20.60	
1.4	64QAM	3	3	21.03	21.27	20.54	
1.4	64QAM	6	0	20.00	20.17	19.53	21.5

<LTE Band 71 Ant0/2 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.96	25.07	25.5
20	QPSK	1	49	24.87	25.11	25.22	
20	QPSK	1	99	25.10	25.35	25.32	
20	QPSK	50	0	24.01	24.17	24.25	24.5
20	QPSK	50	24	24.03	24.26	24.32	
20	QPSK	50	50	24.20	24.38	24.37	
20	QPSK	100	0	24.13	24.31	24.29	24.5
20	16QAM	1	0	24.28	24.34	24.41	
20	16QAM	1	49	24.23	24.44	24.57	
20	16QAM	1	99	24.44	24.64	24.71	24.5
20	16QAM	50	0	23.01	23.19	23.25	
20	16QAM	50	24	23.08	23.22	23.33	
20	16QAM	50	50	23.22	23.35	23.42	23.5
20	16QAM	100	0	23.14	23.22	23.37	
20	64QAM	1	0	23.09	22.99	23.26	
20	64QAM	1	49	22.50	23.29	23.44	23.5
20	64QAM	1	99	23.39	23.29	23.59	
20	64QAM	50	0	22.04	22.20	22.27	
20	64QAM	50	24	21.95	22.25	22.35	22.5
20	64QAM	50	50	22.23	22.37	22.44	
20	64QAM	100	0	22.16	22.23	22.39	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.92	24.95	25.16	25.5
15	QPSK	1	37	24.83	25.11	25.25	
15	QPSK	1	74	25.02	25.22	25.31	
15	QPSK	36	0	24.02	24.11	24.31	24.5
15	QPSK	36	20	24.04	24.20	24.44	
15	QPSK	36	39	24.06	24.29	24.44	
15	QPSK	75	0	24.07	24.15	24.34	24.5
15	16QAM	1	0	24.26	24.27	24.47	
15	16QAM	1	37	24.20	24.47	24.61	
15	16QAM	1	74	24.34	24.51	24.67	24.5
15	16QAM	36	0	23.01	23.14	23.29	
15	16QAM	36	20	23.06	23.19	23.42	
15	16QAM	36	39	23.08	23.28	23.43	23.5





**FCC SAR TEST REPORT**

**Report No. :FA082114A**

15	16QAM	75	0	23.09	23.18	23.32	
15	64QAM	1	0	23.12	22.91	23.36	23.5
15	64QAM	1	37	22.94	23.39	23.51	
15	64QAM	1	74	22.94	23.38	23.58	
15	64QAM	36	0	22.03	22.16	22.36	22.5
15	64QAM	36	20	22.02	22.19	22.45	
15	64QAM	36	39	21.88	22.32	22.46	
15	64QAM	75	0	22.06	22.18	22.35	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.93	24.90	25.27	25.5
10	QPSK	1	25	24.75	25.01	25.25	
10	QPSK	1	49	24.87	25.09	25.32	
10	QPSK	25	0	23.97	24.08	24.37	24.5
10	QPSK	25	12	23.99	24.16	24.37	
10	QPSK	25	25	24.03	24.19	24.44	
10	QPSK	50	0	24.01	24.19	24.37	
10	16QAM	1	0	24.30	24.29	24.61	24.5
10	16QAM	1	25	24.18	24.41	24.67	
10	16QAM	1	49	24.27	24.46	24.71	
10	16QAM	25	0	22.96	23.07	23.37	23.5
10	16QAM	25	12	22.99	23.19	23.39	
10	16QAM	25	25	22.99	23.19	23.43	
10	16QAM	50	0	22.98	23.19	23.38	
10	64QAM	1	0	23.13	22.92	23.48	23.5
10	64QAM	1	25	23.09	23.32	23.59	
10	64QAM	1	49	22.32	23.37	23.57	
10	64QAM	25	0	22.03	22.06	22.29	22.5
10	64QAM	25	12	22.02	22.21	22.43	
10	64QAM	25	25	21.93	22.25	22.46	
10	64QAM	50	0	22.01	22.23	22.40	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.95	24.97	25.32	25.5
5	QPSK	1	12	24.90	25.00	25.33	
5	QPSK	1	24	24.85	24.99	25.31	
5	QPSK	12	0	24.09	24.08	24.45	24.5
5	QPSK	12	7	24.03	24.12	24.44	
5	QPSK	12	13	23.98	24.12	24.45	
5	QPSK	25	0	23.99	24.09	24.42	
5	16QAM	1	0	24.31	24.31	24.71	24.5
5	16QAM	1	12	24.24	24.32	24.74	
5	16QAM	1	24	24.16	24.34	24.66	
5	16QAM	12	0	23.14	23.08	23.47	23.5
5	16QAM	12	7	23.06	23.15	23.48	
5	16QAM	12	13	23.00	23.11	23.45	
5	16QAM	25	0	23.03	23.13	23.42	
5	64QAM	1	0	22.85	22.77	23.56	23.5
5	64QAM	1	12	23.17	23.02	23.65	
5	64QAM	1	24	23.11	23.22	23.61	
5	64QAM	12	0	22.18	21.75	22.51	22.5
5	64QAM	12	7	22.08	22.04	22.48	
5	64QAM	12	13	21.99	22.16	22.47	
5	64QAM	25	0	22.00	21.99	22.42	



<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

DL 2CA				DL 3CA				DL 4CA				DL 5CA			
NO.	Combination	Restriction	Covered by measurement superset	NO.	Combination	Restriction	Covered by measurement superset	NO.	Combination	Restriction	Covered by measurement superset	NO.	Combination	Restriction	Covered by measurement superset
1	CA_2A-2A		3CC-1	1	CA_2A-2A-4A		4CC-5	1	CA 2A-48A-48C		5CC-3	1	CA 2A-48C-48C		5CC-3
2	CA_2C		3CC-1	2	CA_2A-2A-5A		4CC-16	2	CA 2A-48D		5CC-3	2	CA 2A-48A-48D		5CC-3
3	CA_2A-4A		3CC-1	3	CA_2C-5A		3CC-2	3	CA 4A-48D		5CC-4	3	CA 2A-48E		
4	CA_2A-5A		3CC-3	4	CA_2A-2A-12A		4CC-8	4	CA 5A-48D			4	CA 4A-48E		
5	CA_2A-12A		3CC-4	5	CA_2C-12A		3CC-4	5	CA_2A-2A-4A-71A			5	CA 13A-48A-48D		5CC-7
6	CA_2A-13A		3CC-7	6	CA_2A-5B		4CC-7	6	CA_2A-2A-5A-30A		4CC-16	6	CA 13A-48C-48C		5CC-7
7	CA_2A-29A	29 only RX	3CC-8	7	CA_2A-2A-13A		3CC-15	7	CA_2A-2A-5A-66A		4CC-18	7	CA 13A-48E		
8	CA_2A-30A		3CC-9	8	CA_2A-2A-29A	29 only RX	3CC-16	8	CA_2A-2A-12A-30A		4CC-17	8	CA 41D-42C		
9	CA_2A-48A		3CC-25	9	CA_2A-2A-30A		4CC-18	9	CA_2A-2A-12A-66A		4CC-22	9	CA 48A-48D-66A		5CC-12
10	CA_2A-66A		3CC-25	10	CA_2A-2A-66A		4CC-20	10	CA_2A-2A-29A-30A	29 only RX	4CC-24	10	CA 48A-48C-66C		5CC-12
11	CA_2A-71A		3CC-28	11	CA_2A-2A-71A		4CC-5	11	CA_2A-2A-66A-66A		4CC-12	11	CA 48C-48C-66A		5CC-12
12	CA_4A-4A		3CC-32	12	CA_2A-4A-4A		4CC-5	12	CA_2A-2A-66A-71A			12	CA 48E-66A		
13	CA_4A-5A		3CC-13	13	CA_2A-4A-5A		4CC-16	13	CA_2A-2A-66C		4CC-12				
14	CA_4A-12A		3CC-33	14	CA_2A-4A-12A		4CC-14	14	CA_2A-4A-4A-12A		4CC-17				
15	CA_4A-13A		3CC-34	15	CA_2A-4A-13A			15	CA_2A-4A-4A-71A		4CC-5				
16	CA_4A-29A	29 only RX	3CC-36	16	CA_2A-4A-29A	29 only RX		16	CA_2A-4A-5A-30A						
17	CA_4A-30A		3CC-37	17	CA_2A-4A-30A		4CC-17	17	CA_2A-4A-12A-30A						
18	CA 4A-48A		3CC-41	18	CA_2A-4A-71A		4CC-5	18	CA_2A-5A-30A-66A						
19	CA_4A-71A		3CC-35	19	CA_2A-5A-12A			19	CA_2A-5B-30A		4CC-16				
20	CA_5B		3CC-2	20	CA_2A-5A-30A		4CC-18	20	CA_2A-12A-66C		4CC-22				
21	CA_5A-5A		3CC-2	21	CA_2A-12A-30A		4CC-17	21	CA_2A-12A-66A-66A		4CC-22				
22	CA_5A-7A			22	CA_2A-12A-66A		4CC-21	22	CA_2A-12A-30A-66A						
23	CA_5A-25A			23	CA_2A-29A-30A	29 only RX	4CC-24	23	CA_2A-12A-66A-66A		4CC-22				
24	CA_5A-30A		3CC-23	24	CA_2A-30A-66A		4CC-24	24	CA_2A-29A-30A-66A	29 only RX					
25	CA_5A_48A		3CC-46	25	CA_2A_48A_66A			25	CA_2A-66C-71A		4CC-12				
26	CA_5A_66A		3CC-44	26	CA_2A_48A_48A		4CC-2	26	CA_2A-66A-66A-71A		4CC-12				
27	CA_7B		2CC-22	27	CA_2A-66A-66A		4CC-18	27	CA_4A-4A-12A-30A		4CC-17				
28	CA_7C		2CC-22	28	CA_2A-66A-71A		4CC-25	28	CA_4A-4A-5A-30A		4CC-16				
29	CA_7A-7A		2CC-22	29	CA_2A-66C		4CC-25	29	CA_5A-30A-66A-66A		4CC-18				
30	CA_7A-42A			30	CA_2A-48C		4CC-2	30	CA_5B-30A-66A		4CC-18				
31	CA_12A-25A			31	CA_2C-66A		4CC-25	31	CA_5B-66A-66A		4CC-18				
32	CA_12A-30A		3CC-49	32	CA_4A-4A-5A		4CC-16	32	CA_12A-30A-66A-66A		4CC-22				
33	CA_12A-66A		3CC-49	33	CA_4A-4A-12A		4CC-17	33	CA 12A-48D						
34	CA_13A-48A		3CC-52	34	CA_4A-4A-13A		3CC-15	34	CA 13A-48A-48C		5CC-7				
35	CA_13A-66A		3CC-54	35	CA_4A-4A-71A		4CC-5	35	CA 13A-48D		5CC-7				
36	CA_25A-25A		3CC-56	36	CA_4A-4A-29A	29 only RX	3CC-40	36	CA_29A-30A-66A-66A	29 only RX	4CC-24				
37	CA_29A-30A	29 only RX	3CC-57	37	CA_4A-4A-30A		4CC-17	37	CA 41A-41D		5CC-8				
38	CA_29A-66A	29 only RX	4CC-24	38	CA_4A-5A-30A		4CC-16	38	CA 41A-42D		5CC-8				
39	CA_30A-66A		3CC-57	39	CA_4A-12A-30A		4CC-17	39	CA 41C-41C		5CC-8				
40	CA_38C			40	CA_4A-29A-30A	29 only RX		40	CA 41C-42C		5CC-8				
41	CA_41A-41A		3CC-60	41	CA 4A-48C		4CC-4	41	CA 41D-42A		5CC-8				
42	CA_41A-42A		3CC-60	42	CA_5A-5A-66A		4CC-18	42	CA 41E		5CC-8				
43	CA_41A-48A			43	CA_5A-2A-66A		4CC-18	43	CA 42C-42C		5CC-8				
44	CA_41C		3CC-60	44	CA_5A-66A-66A		4CC-18	44	CA 42E		5CC-8				
45	CA_42A-42A		3CC-60	45	CA_5A-30A-66A		4CC-18	45	CA 48C-48C		5CC-12				



**FCC SAR TEST REPORT**

**Report No. :FA082114A**

46	CA_48A-48A		3CC-52	46	CA 5A-48C		5CC-4	46	CA 48A-48D		5CC-12			
47	CA_48A-66A		5CC-12	47	CA_5B-30A		4CC-18	47	CA 48A-48A-66A-66A		5CC-12			
48	CA 48A-71A		3CC-66	48	CA_5B-66A		4CC-18	48	CA 48A-48A-66C		5CC-12			
49	CA_66A-66A		3CC-67	49	CA_12A-30A-66A		4CC-22	49	CA 48A-48C-66A		5CC-12			
50	CA_66B		3CC-67	50	CA_12A-66A-66A		4CC-22	50	CA 48C-66A-66A		5CC-12			
51	CA_66C		3CC-67	51	CA_12A-66C		4CC-22	51	CA 48C-66C		5CC-12			
52	CA_66A-71A		3CC-67	52	CA 13A-48A-48A		5CC-7	52	CA 48D-66A		5CC-12			
53	CA_42C		3CC-60	53	CA 13A-48C		5CC-7	53	CA_48E		5CC-3			
54	CA_48C		3CC-41	54	CA_13A-66A-2A									
				55	CA_13A-66A-66A		3CC-54							
				56	CA_25A-25A-25A									
				57	CA_29A-30A-66A	29 only RX	4CC-24							
				58	CA_30A-66A-66A		4CC-18							
				59	CA_41A-41C		5CC-8							
				60	CA 41A-42C		5CC-8							
				61	CA 41C-42A		5CC-8							
				62	CA_41D		5CC-8							
				63	CA_41A-41A-41A		5CC-8							
				64	CA_42A-42C		5CC-8							
				65	CA_42D		5CC-8							
				66	CA 48A-48A-71A									
				67	CA_66A-66A-71A		4CC-12							
				68	CA_66A-66C		4CC-18							
				69	CA_66C-71A		4CC-12							
				70	CA_48A-48C		4CC-33							
				71	CA_48D		4CC-33							
				72	CA_48A-48A-66A		5CC-12							
				73	CA 48A-66C		5CC-12							
				74	CA_48C-66A		5CC-12							
				75	CA 48C-71A		3CC-66							
				76	CA 48A-66A-66A		5CC-12							
				77	CA_2A-66B		4CC-18							
				78	CA_2A-66C		4CC-18							
				79	CA_5A_66B		4CC-18							
				80	CA_5A_66C		4CC-18							
				81	CA_13A-66B		2CC-82							
				82	CA_13A-66C		3CC-54							



**<Power verification when LTE Carrier Aggregation Active>**

**General Note:**

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- v. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- vi. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lceil \frac{BW_{\text{Channel}(1)} + BW_{\text{Channel}(2)} - 0.1|BW_{\text{Channel}(1)} - BW_{\text{Channel}(2)}|}{0.6} \right\rceil 0.3 \text{ [MHz]}$$

**<Two Carrier power verification>**

Configure		PCC						SCC				Power		
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band		5	10	836.5	20525	QPSK	1	0	7	20	2655	3100	24.87	24.99
		5	10	836.5	20525	QPSK	1	0	25	20	1960	8340	24.85	24.99
		7	20	2535	21100	QPSK	1	0	42	20	2500	42590	24.51	24.55
		12	10	707.5	23095	QPSK	1	0	25	20	1960	8340	25.13	25.15
		41	20	2549.5	40185	QPSK	1	49	48	20	3609	55830	23.92	24.11
Intra-Band	Contiguous	38	20	2595	38000	QPSK	1	49	38	20	2575.20	38198	23.68	23.76

**<Three Carrier power verification>**

Configure		PCC						SCC1				SCC2				Power		
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band		2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	23.82	23.89
		2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	29	10	722.5	9715	23.82	23.89
		2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	12	10	737.5	5095	23.88	23.89
		2	20	1860	18700	QPSK	1	0	48	20	3609	55830	66	20	2155	66886	23.73	23.89
		4	20	1720	20050	QPSK	1	0	29	10	722.5	9715	30	10	2355	9820	23.97	24.17
		2	20	1860	18700	QPSK	1	0	13	10	751	5230	66	20	2155	66886	23.73	23.89
		25	20	1860	26140	QPSK	1	0	25	20	1960	8340	25	20	1960	8340	24.28	24.38
		48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	71	20	687	68786	20.80	20.97



<Four Carrier power verification>

Configure	PCC							SCC1				SCC2				SCC3				Power	
	LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	5	10	836.5	20525	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	24.96	24.99
	2	20	1860	18700	QPSK	1	0	2	5	1932.5	625	4	20	2132.5	2175	71	20	687	68786	23.73	23.89
	2	20	1860	18700	QPSK	1	0	2	5	1932.5	625	66	20	2155	66886	71	20	687	68786	23.70	23.89
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	30	10	2355	9820	23.77	23.89
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	12	10	737.5	5095	30	10	2355	9820	23.88	23.89
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	66	20	2155	66886	23.75	23.89
	2	20	1860	18700	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	66	20	2155	66886	23.76	23.89
	2	20	1860	18700	QPSK	1	0	29	10	722.5	9715	30	10	2355	9820	66	20	2155	66886	23.84	23.89
	12	10	707.5	23095	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	25.14	25.15

<Five Carrier power verification>

Configure	PCC							SCC1				SCC2				SCC3				SCC4				Power	
	LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2	20	1860	18700	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	23.71	23.89
	4	20	1720	20050	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	24.16	24.17
	13	10	782	23230	QPSK	1	49	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	24.12	24.25
	41	20	2549.5	40185	QPSK	1	49	41	20	2569.3	40383	41	20	2589.1	40581	42	20	3570.2	43292	42	20	3590	43490	24.07	24.11
	48	20	3609	55830	QPSK	1	0	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	66	20	2155	66886	20.93	20.97



<LTE Uplink carrier aggregation>

<Intra-band>

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE 5B/7C/38C/41C with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- ii. The device supports uplink carrier aggregation with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.
- iii. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- iv. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- v. Additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

LTE Band 5 Ant0 State 1/2

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.28	25.5
20575	20476	QPSK	1	0	1	49	2	0	24.01	25.5
20600	20501	QPSK	1	0	1	49	2	0	23.54	25.5

LTE Band 5 Ant2 State 1

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.28	25
20575	20476	QPSK	1	0	1	49	2	0	24.01	25
20600	20501	QPSK	1	0	1	49	2	0	23.54	25

LTE Band 5 Ant2 State 2

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	21.70	22.5
20575	20476	QPSK	1	0	1	49	2	0	22.27	22.5
20600	20501	QPSK	1	0	1	49	2	0	22.08	22.5



**LTE Band 5 Ant0/2 State 3**

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.28	25.5
20575	20476	QPSK	1	0	1	49	2	0	24.01	25.5
20600	20501	QPSK	1	0	1	49	2	0	23.54	25.5

**LTE Band 5 Ant2 State 4/5**

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.28	25.5
20575	20476	QPSK	1	0	1	49	2	0	24.01	25.5
20600	20501	QPSK	1	0	1	49	2	0	23.54	25.5

**LTE Band 5 Ant0 State 4 Portrait**

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.28	25.5
20575	20476	QPSK	1	0	1	49	2	0	24.01	25.5
20600	20501	QPSK	1	0	1	49	2	0	23.54	25.5

**LTE Band 5 Ant0 State 5 Portrait**

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.28	25.0
20575	20476	QPSK	1	0	1	49	2	0	24.01	25.0
20600	20501	QPSK	1	0	1	49	2	0	23.54	25.0

**LTE Band 5 Ant0 State 4/5 Landscape**

CA_5B										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.28	25.0
20575	20476	QPSK	1	0	1	49	2	0	24.01	25.0
20600	20501	QPSK	1	0	1	49	2	0	23.54	25.0

**LTE Band 7 Ant1 state 1/2**

CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	99	1	0	2	0	23.56	25.5
21100	20902	QPSK	1	0	1	99	2	0	24.38	25.5
21350	21152	QPSK	1	0	1	99	2	0	23.56	25.5



**LTE Band 7 Ant8 State 3**

CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	22.79	24.5
21100	20902	QPSK	1	0	1	99	2	0	23.50	24.5
21350	21152	QPSK	1	0	1	99	2	0	22.57	24.5

**LTE Band 7 Ant1 State 3**

CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	22.79	24
21100	20902	QPSK	1	0	1	99	2	0	23.50	24
21350	21152	QPSK	1	0	1	99	2	0	22.57	24

**LTE Band 7 Ant1 state 4/5**

CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	22.79	23.5
21100	20902	QPSK	1	0	1	99	2	0	23.50	23.5
21350	21152	QPSK	1	0	1	99	2	0	22.57	23.5

**LTE Band 7 Ant8 state 4/5**

CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	99	1	0	2	0	23.56	25.5
21100	20902	QPSK	1	0	1	99	2	0	24.38	25.5
21350	21152	QPSK	1	0	1	99	2	0	23.56	25.5

**LTE Band 38/41 Ant1/8 state 1/2/3/4/5**

CA_41C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	23.54	25.5
40185	39987	QPSK	1	0	1	99	2	0	24.19	25.5
40620	40422	QPSK	1	0	1	99	2	0	23.58	25.5
41055	40857	QPSK	1	0	1	99	2	0	23.75	25.5
41490	41292	QPSK	1	0	1	99	2	0	23.51	25.5





## 2. 5G NR Output Power (Unit: dBm)

**General Note:**

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
  - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM measurement is unnecessary.
  - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, full measurement on Pi/2 BPSK and QPSK, for 16QAM/64QAM/256QAM spot check 1RB 1offset configuration to ensure the output power will not ½ dB higher than Pi/2 BPSK and QPSK, for smaller bandwidth output power will spot check 1RB 1offset configuration at Pi/2 BPSK to ensure output power will not ½ dB higher than largest supported bandwidth.
  - c. SAR testing start with the largest channel bandwidth and measure SAR for Pi/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
  - d. 50% RB allocation for Pi/2 BPSK SAR testing follows 1RB Pi/2 BPSK allocation procedure
  - e. Pi/2 BPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
  - f. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in Pi/2 BPSK, also reported SAR for the Pi/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
  - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
2. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.

### <3GPP 38.101 MPR for EN-DC>

Table 6.2.2-1 Maximum power reduction (MPR) for power class 3

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5 <sup>1</sup>	≤ 1.2 <sup>1</sup>	≤ 0.2 <sup>1</sup>
		≤ 0.5 <sup>2</sup>	≤ 0.5 <sup>2</sup>	0 <sup>2</sup>
	QPSK		≤ 1	0
	16 QAM		≤ 2	≤ 1
	64 QAM		≤ 2.5	
	256 QAM		≤ 4.5	
CP-OFDM	QPSK		≤ 3	≤ 1.5
	16 QAM		≤ 3	≤ 2
	64 QAM		≤ 3.5	
	256 QAM		≤ 6.5	

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

Table 6.2.2-2 Maximum power reduction (MPR) for power class 2

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5	≤ 0.5	0
	QPSK	≤ 3.5	≤ 1	0
	16 QAM	≤ 3.5	≤ 2	≤ 1
	64 QAM	≤ 3.5	≤ 2.5	
	256 QAM		≤ 4.5	
CP-OFDM	QPSK	≤ 3.5	≤ 3	≤ 1.5
	16 QAM	≤ 3.5	≤ 3	≤ 2
	64 QAM		≤ 3.5	
	256 QAM		≤ 6.5	



<n5 Ant 0 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	23.27	23.10	23.12	24.5
20	PI/2 BPSK	1	53	23.12	23.06	23.05	
20	PI/2 BPSK	1	104	23.02	22.96	22.90	
20	PI/2 BPSK	50	0	22.65	22.55	22.46	24.0
20	PI/2 BPSK	50	28	22.99	23.01	22.98	24.5
20	PI/2 BPSK	50	56	22.48	22.45	22.36	24.0
20	PI/2 BPSK	100	0	22.54	22.52	22.43	
20	QPSK	1	1	23.22	23.18	23.09	24.5
20	QPSK	1	53	23.07	23.01	22.96	
20	QPSK	1	104	22.91	22.90	22.82	
20	QPSK	50	0	22.17	22.10	22.04	23.5
20	QPSK	50	28	23.05	23.04	22.95	24.5
20	QPSK	50	56	21.96	21.93	21.87	23.5
20	QPSK	100	0	22.07	22.05	21.99	
20	16QAM	1	1	22.01	21.98	21.91	23.5
20	64QAM	1	1	20.75	20.68	20.63	22.0
20	256QAM	1	1	18.71	18.65	18.54	20.0
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.24	23.15	23.01	24.5
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.15	22.96	22.92	24.5
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.18	22.98	22.88	24.5

<n5 Ant 2 State 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	23.27	23.10	23.12	24.5
20	PI/2 BPSK	1	53	23.12	23.06	23.05	
20	PI/2 BPSK	1	104	23.02	22.96	22.90	
20	PI/2 BPSK	50	0	22.65	22.55	22.46	24.0
20	PI/2 BPSK	50	28	22.99	23.01	22.98	24.5
20	PI/2 BPSK	50	56	22.48	22.45	22.36	24.0
20	PI/2 BPSK	100	0	22.54	22.52	22.43	
20	QPSK	1	1	23.22	23.18	23.09	24.5
20	QPSK	1	53	23.07	23.01	22.96	
20	QPSK	1	104	22.91	22.90	22.82	
20	QPSK	50	0	22.17	22.10	22.04	23.5
20	QPSK	50	28	23.05	23.04	22.95	24.5
20	QPSK	50	56	21.96	21.93	21.87	23.5
20	QPSK	100	0	22.07	22.05	21.99	
20	16QAM	1	1	22.01	21.98	21.91	23.5
20	64QAM	1	1	20.75	20.68	20.63	22.0
20	256QAM	1	1	18.71	18.65	18.54	20.0
Channel				166300	167300	168300	Tune-up limit



Frequency (MHz)				831.5	836.5	841.5	(dBm)
15	PI/2 BPSK	1	1	23.24	23.15	23.01	24.5
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.15	22.96	22.92	24.5
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.18	22.98	22.88	24.5

**<n5 Ant 2 State 2>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	21.41	21.02	21.04	22.5
20	PI/2 BPSK	1	53	21.22	20.99	21.07	
20	PI/2 BPSK	1	104	21.13	20.85	20.88	
20	PI/2 BPSK	50	0	21.30	20.95	21.00	22.5
20	PI/2 BPSK	50	28	21.24	20.94	20.97	22.5
20	PI/2 BPSK	50	56	21.13	20.90	20.92	22.5
20	PI/2 BPSK	100	0	21.20	21.02	20.93	
20	QPSK	1	1	21.40	21.01	20.98	22.5
20	QPSK	1	53	21.21	21.00	21.02	
20	QPSK	1	104	21.19	20.93	20.94	
20	QPSK	50	0	21.26	20.95	20.99	22.5
20	QPSK	50	28	21.25	21.03	20.94	22.5
20	QPSK	50	56	21.12	20.91	20.98	22.5
20	QPSK	100	0	21.21	21.03	20.97	
20	16QAM	1	1	21.32	20.89	20.92	22.5
20	64QAM	1	1	21.40	20.96	21.01	22.5
20	256QAM	1	1	20.41	20.08	20.09	21.5
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	21.33	21.00	21.07	22.5
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	21.16	20.86	21.12	22.5
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	21.30	21.03	20.87	22.5



<n7 Ant 1 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				505000	507000	509000	Tune-up limit (dBm)
Frequency (MHz)				2525	2535	2545	
50	PI/2 BPSK	1	1	23.30	23.21	23.28	24.5
50	PI/2 BPSK	1	135	23.29	23.35	23.25	
50	PI/2 BPSK	1	268	23.32	23.46	23.26	
50	PI/2 BPSK	135	0	22.74	22.76	22.78	24.0
50	PI/2 BPSK	135	68	23.34	23.41	23.34	24.5
50	PI/2 BPSK	135	135	22.86	22.96	22.80	24.0
50	PI/2 BPSK	270	0	22.52	22.91	22.88	
50	QPSK	1	1	23.32	23.25	23.30	24.5
50	QPSK	1	135	23.31	23.42	23.32	
50	QPSK	1	268	23.35	23.45	23.23	
50	QPSK	135	0	22.42	22.22	22.39	23.5
50	QPSK	135	68	23.45	23.43	23.07	24.5
50	QPSK	135	135	22.25	22.45	22.02	23.5
50	QPSK	270	0	22.10	22.40	22.34	
50	16QAM	1	1	22.41	22.39	22.42	23.5
50	64QAM	1	1	20.71	20.80	20.80	22.0
50	256QAM	1	1	18.76	18.62	18.74	20.0
Channel				504000	507000	510000	Tune-up limit (dBm)
Frequency (MHz)				2520	2535	2550	
40	PI/2 BPSK	1	1	23.21	23.26	23.17	24.5
Channel				503000	507000	511000	Tune-up limit (dBm)
Frequency (MHz)				2515	2535	2555	
30	PI/2 BPSK	1	1	23.25	23.30	23.27	24.5
Channel				502500	507000	511500	Tune-up limit (dBm)
Frequency (MHz)				2512.5	2535	2557.5	
25	PI/2 BPSK	1	1	23.23	23.32	23.24	24.5
Channel				502000	507000	512000	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	PI/2 BPSK	1	1	23.30	23.34	23.23	24.5
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	23.29	23.35	23.32	24.5
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	23.14	23.16	23.09	24.5
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	23.16	23.15	23.10	24.5



<n12 Ant 0/2 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141300	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	23.38	23.21	23.27	24.5
15	PI/2 BPSK	1	40	23.20	23.21	23.17	
15	PI/2 BPSK	1	77	23.06	23.03	22.99	
15	PI/2 BPSK	36	0	22.70	22.58	22.60	24.0
15	PI/2 BPSK	36	22	23.11	23.11	23.02	24.5
15	PI/2 BPSK	36	43	22.55	22.54	22.45	24.0
15	PI/2 BPSK	75	0	22.64	22.62	22.58	
15	QPSK	1	1	23.37	23.30	23.32	24.5
15	QPSK	1	40	23.26	23.28	23.25	
15	QPSK	1	77	23.13	23.13	23.04	
15	QPSK	36	0	22.30	22.20	22.16	23.5
15	QPSK	36	22	23.15	23.15	23.11	24.5
15	QPSK	36	43	22.12	22.05	22.04	23.5
15	QPSK	75	0	22.16	22.17	22.08	
15	16QAM	1	1	22.51	22.37	22.38	23.5
15	64QAM	1	1	21.07	20.92	20.99	22.0
	256QAM	1	1	18.85	18.82	18.79	20.0
Channel				140800	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	PI/2 BPSK	1	1	23.19	23.16	23.14	24.5
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	23.10	23.07	23.02	24.5

<n2/n25 Ant 1 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	PI/2 BPSK	1	1	22.94	23.01	23.02	24.5
40	PI/2 BPSK	1	108	22.80	22.92	22.91	
40	PI/2 BPSK	1	214	23.21	23.12	22.68	
40	PI/2 BPSK	108	0	22.00	22.39	22.46	24.0
40	PI/2 BPSK	108	54	22.93	22.93	22.87	24.5
40	PI/2 BPSK	108	108	22.52	22.50	22.48	24.0
40	PI/2 BPSK	216	0	22.41	22.51	22.52	
40	QPSK	1	1	23.01	22.67	22.78	24.5
40	QPSK	1	108	22.92	22.96	22.87	
40	QPSK	1	214	23.20	22.82	22.50	
40	QPSK	108	0	21.86	21.92	21.99	23.5
40	QPSK	108	54	22.87	22.99	22.85	24.5
40	QPSK	108	108	22.03	21.94	21.98	23.5
40	QPSK	216	0	21.95	22.00	22.04	
40	16QAM	1	1	22.11	21.92	22.05	23.5
40	64QAM	1	1	20.53	20.49	20.62	22.0
40	256QAM	1	1	18.35	18.34	18.42	20.0
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	PI/2 BPSK	1	1	22.99	22.97	22.94	24.5



Channel				372500	376500	380500	Tune-up limit (dBm)
Frequency (MHz)				1862.5	1882.5	1902.5	
25	PI/2 BPSK	1	1	22.86	22.91	22.96	24.5
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	22.91	22.89	22.82	24.5
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	22.95	22.90	22.88	24.5
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	22.72	22.71	22.70	24.5
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	22.75	22.71	22.66	24.5

**<n38 Ant 11 State 1/2>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518004	519000	519996	
Frequency (MHz)				2590.02	2595	2599.98	
40	PI/2 BPSK	1	1	23.71	23.74	23.61	24.5
40	PI/2 BPSK	1	53	23.53	23.62	23.54	
40	PI/2 BPSK	1	104	23.63	23.57	23.54	
40	PI/2 BPSK	50	0	23.18	23.26	23.20	24.5
40	PI/2 BPSK	50	28	23.67	23.72	23.67	
40	PI/2 BPSK	50	56	23.26	23.21	23.18	
40	PI/2 BPSK	100	0	21.11	22.11	21.00	24.0
40	QPSK	1	1	23.72	23.69	23.65	24.5
40	QPSK	1	53	23.65	23.69	23.64	
40	QPSK	1	104	23.72	23.66	23.64	
40	QPSK	50	0	22.65	22.73	22.65	24.5
40	QPSK	50	28	23.62	23.68	23.62	
40	QPSK	50	56	22.74	22.68	22.63	
40	QPSK	100	0	22.72	22.72	22.72	23.5
40	16QAM	1	1	22.96	22.95	22.90	23.5
40	64QAM	1	1	21.36	21.34	21.25	22.0
40	256QAM	1	1	19.23	19.21	19.15	20.0
Channel				517002	519000	520998	Tune-up limit (dBm)
Frequency (MHz)				2585.01	2595	2604.99	
30	PI/2 BPSK	1	1	23.71	23.72	23.53	24.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	23.63	23.70	23.58	24.5



<n38 Ant 9 State 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518004	519000	519996	
Frequency (MHz)				2590.02	2595	2599.98	
40	PI/2 BPSK	1	1	20.57	20.84	20.53	21.5
40	PI/2 BPSK	1	53	20.69	20.37	20.25	
40	PI/2 BPSK	1	104	20.83	20.48	20.47	
40	PI/2 BPSK	50	0	20.39	20.40	20.39	21.5
40	PI/2 BPSK	50	28	20.73	20.83	20.33	
40	PI/2 BPSK	50	56	20.78	20.45	20.44	
40	PI/2 BPSK	100	0	20.42	20.77	20.40	21.5
40	QPSK	1	1	20.83	20.54	20.51	21.5
40	QPSK	1	53	20.66	20.35	20.24	
40	QPSK	1	104	20.80	20.46	20.42	
40	QPSK	50	0	20.78	20.37	20.11	21.5
40	QPSK	50	28	20.69	20.40	20.33	
40	QPSK	50	56	20.75	20.45	20.44	
40	QPSK	100	0	20.55	20.44	20.39	21.5
40	16QAM	1	1	20.21	20.49	20.44	21.5
40	64QAM	1	1	20.78	20.55	20.51	21.5
40	256QAM	1	1	19.43	18.79	18.81	20.0
Channel				517002	519000	520998	Tune-up limit (dBm)
Frequency (MHz)				2585.01	2595	2604.99	
30	PI/2 BPSK	1	1	20.50	20.48	20.49	21.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	19.75	20.26	20.39	21.5

<n38 Ant 9 State 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518004	519000	519996	
Frequency (MHz)				2590.02	2595	2599.98	
40	PI/2 BPSK	1	1	17.79	17.76	17.79	18.0
40	PI/2 BPSK	1	53	17.61	17.64	17.60	
40	PI/2 BPSK	1	104	17.61	17.65	17.64	
40	PI/2 BPSK	50	0	17.60	17.63	17.65	18.0
40	PI/2 BPSK	50	28	17.56	17.62	17.56	18.0
40	PI/2 BPSK	50	56	17.64	17.61	17.54	18.0
40	PI/2 BPSK	100	0	17.59	17.68	17.59	
40	QPSK	1	1	17.78	17.69	17.77	
40	QPSK	1	53	17.52	17.61	17.55	18.0
40	QPSK	1	104	17.61	17.69	17.62	
40	QPSK	50	0	17.62	17.65	17.61	
40	QPSK	50	28	17.53	17.60	17.55	18.0
40	QPSK	50	56	17.74	17.64	17.58	
40	QPSK	100	0	17.60	17.65	17.60	
40	16QAM	1	1	17.82	17.72	17.72	18.0
40	64QAM	1	1	18.03	17.97	17.95	18.0
40	256QAM	1	1	17.57	17.56	17.53	18.0
Channel				517002	519000	520998	Tune-up limit (dBm)
Frequency (MHz)				2585.01	2595	2604.99	



30	PI/2 BPSK	1	1	17.58	17.65	17.67	18.0
Channel				516504	519000	521496	Tune-up limit (dBm)
Frequency (MHz)				2582.52	2595	2607.48	
20	PI/2 BPSK	1	1	17.60	17.61	17.59	18.0

<n41 Ant 11 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.24	23.00	23.24	24.0
100	PI/2 BPSK	1	137	23.23	23.11	23.25	
100	PI/2 BPSK	1	271	22.94	22.99	23.09	
100	PI/2 BPSK	135	0	23.23	23.06	23.19	24.0
100	PI/2 BPSK	135	69	23.15	23.14	23.24	
100	PI/2 BPSK	135	138	23.12	23.08	23.18	
100	PI/2 BPSK	270	0	23.20	23.10	23.20	23.5
100	QPSK	1	1	23.30	23.07	23.27	24.0
100	QPSK	1	137	23.31	23.19	23.30	
100	QPSK	1	271	23.00	23.05	23.07	
100	QPSK	135	0	23.31	23.10	23.19	24.0
100	QPSK	135	69	23.18	23.13	23.23	
100	QPSK	135	138	23.11	23.08	23.17	
100	QPSK	270	0	23.22	23.09	23.20	24.0
100	16QAM	1	1	22.83	23.20	23.33	24.0
100	64QAM	1	1	21.25	22.29	21.87	22.5
100	256QAM	1	1	20.23	21.24	20.83	21.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.27	23.00	23.22	24.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.28	22.98	23.16	24.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.33	22.97	23.16	24.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.26	22.99	23.24	24.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.28	22.92	23.23	24.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.31	22.95	23.17	24.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.33	22.94	23.23	24.0





<n41 Ant 9 State 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	18.74	19.56	19.52	20.0
100	PI/2 BPSK	1	137	19.52	19.60	19.46	
100	PI/2 BPSK	1	271	19.34	19.41	19.36	
100	PI/2 BPSK	135	0	19.52	19.44	19.41	20.0
100	PI/2 BPSK	135	69	19.50	19.56	19.44	
100	PI/2 BPSK	135	138	19.52	19.38	19.42	
100	PI/2 BPSK	270	0	19.47	19.59	19.48	20.0
100	QPSK	1	1	18.62	19.53	19.49	20.0
100	QPSK	1	137	19.57	19.49	19.43	
100	QPSK	1	271	19.43	19.41	19.41	
100	QPSK	135	0	19.59	19.52	19.42	20.0
100	QPSK	135	69	19.55	19.48	19.39	
100	QPSK	135	138	19.47	19.45	19.42	
100	QPSK	270	0	19.58	19.42	19.46	20.0
100	16QAM	1	1	18.31	19.45	19.47	20.0
100	64QAM	1	1	19.48	19.49	19.45	19.5
100	256QAM	1	1	18.78	18.56	18.53	19.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	18.58	19.48	19.51	20.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	18.72	19.53	19.48	20.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	18.70	19.55	19.51	20.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	18.66	19.50	19.51	20.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	18.65	19.55	19.47	20.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	18.64	19.51	19.51	20.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	18.69	19.51	19.42	20.0



<n41 Ant 9 State 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	16.72	16.76	16.92	17.5
100	PI/2 BPSK	1	137	17.04	17.13	17.02	
100	PI/2 BPSK	1	271	16.58	16.72	16.54	
100	PI/2 BPSK	135	0	16.87	16.78	16.82	17.5
100	PI/2 BPSK	135	69	16.82	16.88	16.78	17.5
100	PI/2 BPSK	135	138	16.71	16.79	16.74	17.5
100	PI/2 BPSK	270	0	16.80	16.82	16.75	
100	QPSK	1	1	16.71	16.83	16.95	17.5
100	QPSK	1	137	16.92	16.93	16.88	
100	QPSK	1	271	16.62	16.71	16.54	
100	QPSK	135	0	16.84	16.79	16.81	17.5
100	QPSK	135	69	16.80	16.83	16.78	
100	QPSK	135	138	16.74	16.78	16.76	
100	QPSK	270	0	16.79	16.80	16.73	17.5
100	16QAM	1	1	16.59	16.65	16.71	17.5
100	64QAM	1	1	16.37	16.91	16.99	17.5
100	256QAM	1	1	15.50	16.62	16.24	17.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	16.79	16.80	16.93	17.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	16.82	16.78	16.90	17.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
60	PI/2 BPSK	1	1	16.93	16.89	17.05	17.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
50	PI/2 BPSK	1	1	16.95	17.04	17.01	17.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
40	PI/2 BPSK	1	1	17.11	17.08	17.01	17.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
30	PI/2 BPSK	1	1	17.03	17.11	17.01	17.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
20	PI/2 BPSK	1	1	16.95	17.08	16.88	17.5



<n41 Ant 1 State 1 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	18.46	18.67	18.73	19.5
100	QPSK	1	137	18.64	18.61	18.71	
100	QPSK	1	271	18.51	18.61	18.60	
100	QPSK	135	0	18.52	18.52	18.70	19.5
100	QPSK	135	69	18.64	18.60	18.99	
100	QPSK	135	138	18.55	18.59	18.68	
100	QPSK	270	0	18.51	18.55	18.69	19.5
100	16QAM	1	1	18.46	18.54	18.75	19.5
100	64QAM	1	1	18.50	18.62	18.70	19.5
100	256QAM	1	1	17.94	18.00	18.12	19.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	18.60	18.63	18.85	19.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	18.58	18.57	18.86	19.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	18.80	18.82	18.93	19.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	18.82	18.81	18.96	19.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	18.79	18.82	18.94	19.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	18.76	18.80	18.98	19.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	18.82	18.81	18.96	19.5

<n41 Ant 1 State 2 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	15.48	15.56	15.73	16.0
100	QPSK	1	137	15.53	15.51	15.61	
100	QPSK	1	271	15.32	15.53	15.57	
100	QPSK	135	0	15.46	15.50	15.63	16.0
100	QPSK	135	69	15.57	15.62	15.90	
100	QPSK	135	138	15.28	15.60	15.64	
100	QPSK	270	0	15.48	15.47	15.63	16.0
100	16QAM	1	1	15.39	15.43	15.71	16.0
100	64QAM	1	1	15.43	15.55	15.70	16.0
100	256QAM	1	1	14.90	14.96	15.06	15.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	15.53	15.53	15.83	16.0



Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	15.54	15.52	15.78	16.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	15.77	15.72	15.88	16.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	15.65	15.61	15.88	16.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	15.73	15.75	15.85	16.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	15.60	15.74	15.87	16.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	15.77	15.61	15.88	16.0

<n41 Ant 3 State 1 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	18.46	18.67	18.73	19.5
100	QPSK	1	137	18.64	18.61	18.71	
100	QPSK	1	271	18.51	18.61	18.60	
100	QPSK	135	0	18.52	18.52	18.70	19.5
100	QPSK	135	69	18.64	18.60	18.99	
100	QPSK	135	138	18.55	18.59	18.68	
100	QPSK	270	0	18.51	18.55	18.69	19.5
100	16QAM	1	1	18.46	18.54	18.75	19.5
100	64QAM	1	1	18.50	18.62	18.70	19.5
100	256QAM	1	1	17.94	18.00	18.12	19.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	18.60	18.63	18.85	19.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	18.58	18.57	18.86	19.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	18.80	18.82	18.93	19.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	18.82	18.81	18.96	19.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	18.79	18.82	18.94	19.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	18.76	18.80	18.98	19.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	



20	QPSK	1	1	18.82	18.81	18.96	19.5
----	------	---	---	-------	-------	-------	------

**<n41 Ant 3 State 2 when uplink MIMO is active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	15.48	15.56	15.73	16.0
100	QPSK	1	137	15.53	15.51	15.61	
100	QPSK	1	271	15.32	15.53	15.57	
100	QPSK	135	0	15.46	15.50	15.63	16.0
100	QPSK	135	69	15.57	15.62	15.90	
100	QPSK	135	138	15.28	15.60	15.64	
100	QPSK	270	0	15.48	15.47	15.63	16.0
100	16QAM	1	1	15.39	15.43	15.71	16.0
100	64QAM	1	1	15.43	15.55	15.70	16.0
100	256QAM	1	1	14.90	14.96	15.06	15.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	15.53	15.53	15.83	16.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	15.54	15.52	15.78	16.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	15.77	15.72	15.88	16.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	15.65	15.61	15.88	16.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	15.73	15.75	15.85	16.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	15.60	15.74	15.87	16.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	15.77	15.61	15.88	16.0

**<n41 Ant 9 State 1 when uplink MIMO is active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	18.11	18.50	18.60	19.5
100	QPSK	1	137	18.58	18.44	18.56	
100	QPSK	1	271	18.31	18.43	18.36	
100	QPSK	135	0	18.34	18.47	18.57	19.5
100	QPSK	135	69	18.45	18.44	18.50	
100	QPSK	135	138	18.44	18.41	18.30	
100	QPSK	270	0	18.47	18.40	18.48	19.5
100	16QAM	1	1	17.86	18.00	18.51	19.5
100	64QAM	1	1	18.81	18.75	18.85	19.5
100	256QAM	1	1	17.98	17.92	18.00	19.0



Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	17.50	18.54	18.72	19.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	17.52	18.55	18.56	19.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	17.51	18.75	18.82	19.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	17.56	18.85	18.76	19.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	17.50	18.73	18.76	19.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	17.52	18.89	18.90	19.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	17.51	18.88	18.90	19.5

**<n41 Ant 9 State 2 when uplink MIMO is active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	16.0
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	15.21	15.34	15.35	16.0
100	QPSK	1	137	15.33	15.43	15.26	
100	QPSK	1	271	15.05	15.17	15.02	
100	QPSK	135	0	15.34	15.28	15.25	16.0
100	QPSK	135	69	15.29	15.35	15.24	
100	QPSK	135	138	15.22	15.31	15.25	
100	QPSK	270	0	15.23	15.29	15.21	16.0
100	16QAM	1	1	15.32	15.40	15.50	16.0
100	64QAM	1	1	15.27	15.32	15.39	16.0
100	256QAM	1	1	14.38	14.98	15.08	15.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	15.07	15.18	15.39	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	15.13	15.18	15.30	20.6
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	15.38	15.49	15.52	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	15.42	15.54	15.56	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	15.57	15.59	15.51	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	15.51	15.48	15.53	21.5



Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	15.51	15.53	15.54	21.5

<n41 Ant 11 State 1 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	18.11	18.50	18.60	19.5
100	QPSK	1	137	18.58	18.44	18.56	
100	QPSK	1	271	18.31	18.43	18.36	
100	QPSK	135	0	18.34	18.47	18.57	19.5
100	QPSK	135	69	18.45	18.44	18.50	
100	QPSK	135	138	18.44	18.41	18.30	
100	QPSK	270	0	18.47	18.40	18.48	19.5
100	16QAM	1	1	17.86	18.00	18.51	19.5
100	64QAM	1	1	18.81	18.75	18.85	19.5
100	256QAM	1	1	17.98	17.92	18.00	19.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	17.50	18.54	18.72	19.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	17.52	18.55	18.56	19.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	17.51	18.75	18.82	19.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	17.56	18.85	18.76	19.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	17.50	18.73	18.76	19.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	17.52	18.89	18.90	19.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	17.51	18.88	18.90	19.5

<n41 Ant 11 State 2 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	15.21	15.34	15.35	16.0
100	QPSK	1	137	15.33	15.43	15.26	
100	QPSK	1	271	15.05	15.17	15.02	
100	QPSK	135	0	15.34	15.28	15.25	16.0
100	QPSK	135	69	15.29	15.35	15.24	
100	QPSK	135	138	15.22	15.31	15.25	
100	QPSK	270	0	15.23	15.29	15.21	16.0
100	16QAM	1	1	15.32	15.40	15.50	16.0



100	64QAM	1	1	15.27	15.32	15.39	16.0
100	256QAM	1	1	14.38	14.98	15.08	15.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	15.07	15.18	15.39	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	15.13	15.18	15.30	20.6
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	15.38	15.49	15.52	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	15.42	15.54	15.56	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	15.57	15.59	15.51	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	15.51	15.48	15.53	21.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	15.51	15.53	15.54	21.5

<n66 Ant1 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	23.00	22.97	23.04	24.5
40	PI/2 BPSK	1	108	22.99	23.05	22.95	
40	PI/2 BPSK	1	214	22.89	23.23	23.06	
40	PI/2 BPSK	108	0	22.46	22.43	22.39	24.0
40	PI/2 BPSK	108	54	22.88	22.97	22.89	24.5
40	PI/2 BPSK	108	108	22.46	22.49	22.41	24.0
40	PI/2 BPSK	216	0	22.44	22.53	22.46	
40	QPSK	1	1	23.02	23.02	23.03	24.5
40	QPSK	1	108	22.90	23.11	22.93	
40	QPSK	1	214	22.85	23.05	23.05	
40	QPSK	108	0	21.98	21.95	21.90	23.5
40	QPSK	108	54	22.90	22.96	22.94	24.5
40	QPSK	108	108	21.95	22.04	22.03	23.5
40	QPSK	216	0	21.95	22.01	21.98	
40	16QAM	1	1	22.17	22.04	22.21	23.5
40	64QAM	1	1	20.80	20.58	20.75	22.0
40	256QAM	1	1	18.34	18.40	18.28	20.0
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	PI/2 BPSK	1	1	23.09	23.06	23.03	24.5
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	22.95	22.93	22.95	24.5
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	





15	PI/2 BPSK	1	1	22.85	22.84	22.89	24.5
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	22.83	22.79	22.78	24.5
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	22.81	22.78	22.74	24.5

**<n71 Ant 0/2 State 1/2>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	23.20	23.07	23.19	24.5
20	PI/2 BPSK	1	53	23.01	23.05	23.09	
20	PI/2 BPSK	1	104	23.04	23.06	22.91	
20	PI/2 BPSK	50	0	22.62	22.56	22.52	24.0
20	PI/2 BPSK	50	28	23.04	23.06	23.01	24.5
20	PI/2 BPSK	50	56	22.55	22.54	22.46	24.0
20	PI/2 BPSK	100	0	22.51	22.55	22.47	
20	QPSK	1	1	23.14	23.12	23.12	24.5
20	QPSK	1	53	23.00	23.16	23.17	
20	QPSK	1	104	23.10	23.09	22.95	
20	QPSK	50	0	22.15	22.06	22.08	23.5
20	QPSK	50	28	23.02	23.08	23.10	24.5
20	QPSK	50	56	22.11	22.04	21.94	23.5
20	QPSK	100	0	22.09	22.06	22.00	
20	16QAM	1	1	22.47	22.30	22.30	23.5
20	64QAM	1	1	20.96	20.78	20.81	22.0
20	256QAM	1	1	18.78	18.30	18.59	20.0
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	23.06	23.01	22.95	24.5
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	23.02	22.93	22.88	24.5
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	23.13	23.04	22.99	24.5



<n77/78 Ant 11 State 1/2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	22.0
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	21.43	21.56	21.64	22.0
100	PI/2 BPSK	1	137	21.51	21.73	21.66	
100	PI/2 BPSK	1	271	21.42	21.61	21.57	
100	PI/2 BPSK	135	0	21.43	21.55	21.59	22.0
100	PI/2 BPSK	135	69	21.42	21.68	21.64	
100	PI/2 BPSK	135	138	21.45	21.61	21.58	
100	PI/2 BPSK	270	0	21.55	21.66	21.68	22.0
100	QPSK	1	1	21.29	21.52	21.62	22.0
100	QPSK	1	137	21.43	21.69	21.64	
100	QPSK	1	271	21.38	21.62	21.59	
100	QPSK	135	0	21.44	21.58	21.62	22.0
100	QPSK	135	69	21.37	21.45	21.54	
100	QPSK	135	138	21.39	21.69	21.59	
100	QPSK	270	0	21.37	21.48	21.45	22.0
100	16QAM	1	1	21.28	21.42	21.55	22.0
100	64QAM	1	1	21.45	21.53	21.62	22.0
100	256QAM	1	1	20.72	20.54	20.75	22.0
Channel				649668	656000	662334	22.0
Frequency (MHz)				3745.02	3840	3935.01	
90	PI/2 BPSK	1	1	21.39	21.53	21.61	22.0
Channel				649334	656000	662668	22.0
Frequency (MHz)				3740.01	3840	3940.02	
80	PI/2 BPSK	1	1	21.36	21.44	21.59	22.0
Channel				648668	656000	663334	22.0
Frequency (MHz)				3730.02	3840	3950.01	
60	PI/2 BPSK	1	1	21.35	21.47	21.58	22.0
Channel				648334	656000	663668	22.0
Frequency (MHz)				3725.01	3840	3955.02	
50	PI/2 BPSK	1	1	21.31	21.50	21.58	22.0
Channel				648000	656000	664000	22.0
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	21.30	21.52	21.58	22.0
Channel				647668	656000	664334	22.0
Frequency (MHz)				3715.02	3840	3965.01	
30	PI/2 BPSK	1	1	21.31	21.45	21.52	22.0
Channel				647334	656000	664668	22.0
Frequency (MHz)				3710.01	3840	3970.02	
20	PI/2 BPSK	1	1	21.39	21.47	21.56	22.0



<n77/78 Ant 9 State 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	22.0
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	21.43	21.56	21.64	22.0
100	PI/2 BPSK	1	137	21.51	21.73	21.66	
100	PI/2 BPSK	1	271	21.42	21.61	21.57	
100	PI/2 BPSK	135	0	21.43	21.55	21.59	22.0
100	PI/2 BPSK	135	69	21.42	21.68	21.64	
100	PI/2 BPSK	135	138	21.45	21.61	21.58	
100	PI/2 BPSK	270	0	21.55	21.66	21.68	22.0
100	QPSK	1	1	21.29	21.52	21.62	22.0
100	QPSK	1	137	21.43	21.69	21.64	
100	QPSK	1	271	21.38	21.62	21.59	
100	QPSK	135	0	21.44	21.58	21.62	22.0
100	QPSK	135	69	21.37	21.45	21.54	
100	QPSK	135	138	21.39	21.69	21.59	
100	QPSK	270	0	21.37	21.48	21.45	22.0
100	16QAM	1	1	21.28	21.42	21.55	22.0
100	64QAM	1	1	21.45	21.53	21.62	22.0
100	256QAM	1	1	20.72	20.54	20.75	22.0
Channel				649668	656000	662334	22.0
Frequency (MHz)				3745.02	3840	3935.01	
90	PI/2 BPSK	1	1	21.39	21.53	21.61	22.0
Channel				649334	656000	662668	22.0
Frequency (MHz)				3740.01	3840	3940.02	
80	PI/2 BPSK	1	1	21.36	21.44	21.59	22.0
Channel				648668	656000	663334	22.0
Frequency (MHz)				3730.02	3840	3950.01	
60	PI/2 BPSK	1	1	21.35	21.47	21.58	22.0
Channel				648334	656000	663668	22.0
Frequency (MHz)				3725.01	3840	3955.02	
50	PI/2 BPSK	1	1	21.31	21.50	21.58	22.0
Channel				648000	656000	664000	22.0
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	21.30	21.52	21.58	22.0
Channel				647668	656000	664334	22.0
Frequency (MHz)				3715.02	3840	3965.01	
30	PI/2 BPSK	1	1	21.31	21.45	21.52	22.0
Channel				647334	656000	664668	22.0
Frequency (MHz)				3710.01	3840	3970.02	
20	PI/2 BPSK	1	1	21.39	21.47	21.56	22.0



<n77/78 Ant 9 State 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	20.0
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	19.02	19.27	19.40	20.0
100	PI/2 BPSK	1	137	19.20	19.35	19.51	
100	PI/2 BPSK	1	271	19.25	19.41	19.69	
100	PI/2 BPSK	135	0	19.20	19.33	19.35	20.0
100	PI/2 BPSK	135	69	19.16	19.35	19.44	20.0
100	PI/2 BPSK	135	138	19.21	19.42	19.48	20.0
100	PI/2 BPSK	270	0	19.14	19.40	19.39	
100	QPSK	1	1	19.12	19.17	19.31	
100	QPSK	1	137	19.19	19.28	19.50	20.0
100	QPSK	1	271	19.30	19.34	19.47	
100	QPSK	135	0	19.11	19.22	19.34	
100	QPSK	135	69	19.18	19.17	19.44	20.0
100	QPSK	135	138	19.21	19.31	19.42	
100	QPSK	270	0	19.12	19.23	19.45	
100	16QAM	1	1	18.84	18.97	19.09	20.0
100	64QAM	1	1	19.14	19.20	19.39	20.0
100	256QAM	1	1	18.82	18.86	19.05	20.0
Channel				649668	656000	662334	20.0
Frequency (MHz)				3745.02	3840	3935.01	
90	PI/2 BPSK	1	1	19.30	19.33	19.43	20.0
Channel				649334	656000	662668	20.0
Frequency (MHz)				3740.01	3840	3940.02	
80	PI/2 BPSK	1	1	19.16	19.25	19.39	20.0
Channel				649000	656000	663000	20.0
Frequency (MHz)				3735	3840	3945	
60	PI/2 BPSK	1	1	19.28	19.36	19.48	20.0
Channel				648668	656000	663334	20.0
Frequency (MHz)				3730.02	3840	3950.01	
50	PI/2 BPSK	1	1	19.24	19.57	19.61	20.0
Channel				648334	656000	663668	20.0
Frequency (MHz)				3725.01	3840	3955.02	
40	PI/2 BPSK	1	1	19.52	19.59	19.62	20.0
Channel				648000	656000	664000	20.0
Frequency (MHz)				3720	3840	3960	
30	PI/2 BPSK	1	1	19.67	19.68	19.68	20.0
Channel				647668	656000	664334	20.0
Frequency (MHz)				3715.02	3840	3965.01	
20	PI/2 BPSK	1	1	19.44	19.55	19.66	20.0



<n5 Ant 0/2 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	23.27	23.10	23.12	24.5
20	PI/2 BPSK	1	53	23.12	23.06	23.05	
20	PI/2 BPSK	1	104	23.02	22.96	22.90	
20	PI/2 BPSK	50	0	22.65	22.55	22.46	24.0
20	PI/2 BPSK	50	28	22.99	23.01	22.98	24.5
20	PI/2 BPSK	50	56	22.48	22.45	22.36	24.0
20	PI/2 BPSK	100	0	22.54	22.52	22.43	
20	QPSK	1	1	23.22	23.18	23.09	24.5
20	QPSK	1	53	23.07	23.01	22.96	
20	QPSK	1	104	22.91	22.90	22.82	
20	QPSK	50	0	22.17	22.10	22.04	23.5
20	QPSK	50	28	23.05	23.04	22.95	24.5
20	QPSK	50	56	21.96	21.93	21.87	23.5
20	QPSK	100	0	22.07	22.05	21.99	
20	16QAM	1	1	22.01	21.98	21.91	23.5
20	64QAM	1	1	20.75	20.68	20.63	22.0
20	256QAM	1	1	18.71	18.65	18.54	20.0
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.24	23.15	23.01	24.5
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.15	22.96	22.92	24.5
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.18	22.98	22.88	24.5

<n7 Ant 1 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				505000	507000	509000	
Frequency (MHz)				2525	2535	2545	
50	PI/2 BPSK	1	1	23.30	23.21	23.28	23.5
50	PI/2 BPSK	1	135	23.29	23.35	23.25	
50	PI/2 BPSK	1	268	23.32	23.46	23.26	
50	PI/2 BPSK	135	0	22.74	22.76	22.78	23.5
50	PI/2 BPSK	135	68	23.34	23.41	23.34	23.5
50	PI/2 BPSK	135	135	22.86	22.96	22.80	23.5
50	PI/2 BPSK	270	0	22.52	22.91	22.88	
50	QPSK	1	1	23.32	23.25	23.30	23.5
50	QPSK	1	135	23.31	23.42	23.32	
50	QPSK	1	268	23.35	23.45	23.23	
50	QPSK	135	0	22.42	22.22	22.39	23.5
50	QPSK	135	68	23.45	23.43	23.07	23.5
50	QPSK	135	135	22.25	22.45	22.02	23.5
50	QPSK	270	0	22.10	22.40	22.34	
50	16QAM	1	1	22.41	22.39	22.42	23.5
50	64QAM	1	1	20.71	20.80	20.80	22.0
50	256QAM	1	1	18.76	18.62	18.74	20.0
Channel				504000	507000	510000	Tune-up limit



Frequency (MHz)				2520	2535	2550	(dBm)
40	PI/2 BPSK	1	1	23.21	23.26	23.17	23.5
Channel				503000	507000	511000	Tune-up limit (dBm)
Frequency (MHz)				2515	2535	2555	
30	PI/2 BPSK	1	1	23.25	23.30	23.27	23.5
Channel				502500	507000	511500	Tune-up limit (dBm)
Frequency (MHz)				2512.5	2535	2557.5	
25	PI/2 BPSK	1	1	23.23	23.32	23.24	23.5
Channel				502000	507000	512000	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	PI/2 BPSK	1	1	23.30	23.34	23.23	23.5
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	23.29	23.35	23.32	23.5
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	23.14	23.16	23.09	23.5
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	23.16	23.15	23.10	23.5

**<n7 Ant 8 State 3>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				505000	507000	509000	Tune-up limit (dBm)
Frequency (MHz)				2525	2535	2545	
50	PI/2 BPSK	1	1	23.30	23.21	23.28	24.5
50	PI/2 BPSK	1	135	23.29	23.35	23.25	
50	PI/2 BPSK	1	268	23.32	23.46	23.26	
50	PI/2 BPSK	135	0	22.74	22.76	22.78	24.0
50	PI/2 BPSK	135	68	23.34	23.41	23.34	24.5
50	PI/2 BPSK	135	135	22.86	22.96	22.80	24.0
50	PI/2 BPSK	270	0	22.52	22.91	22.88	
50	QPSK	1	1	23.32	23.25	23.30	24.5
50	QPSK	1	135	23.31	23.42	23.32	
50	QPSK	1	268	23.35	23.45	23.23	
50	QPSK	135	0	22.42	22.22	22.39	23.5
50	QPSK	135	68	23.45	23.43	23.07	24.5
50	QPSK	135	135	22.25	22.45	22.02	23.5
50	QPSK	270	0	22.10	22.40	22.34	
50	16QAM	1	1	22.41	22.39	22.42	23.5
50	64QAM	1	1	20.71	20.80	20.80	22.0
50	256QAM	1	1	18.76	18.62	18.74	20.0
Channel				504000	507000	510000	Tune-up limit (dBm)
Frequency (MHz)				2520	2535	2550	
40	PI/2 BPSK	1	1	23.21	23.26	23.17	24.5
Channel				503000	507000	511000	Tune-up limit (dBm)
Frequency (MHz)				2515	2535	2555	
30	PI/2 BPSK	1	1	23.25	23.30	23.27	24.5
Channel				502500	507000	511500	Tune-up limit (dBm)
Frequency (MHz)				2512.5	2535	2557.5	
25	PI/2 BPSK	1	1	23.23	23.32	23.24	24.5
Channel				502000	507000	512000	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	



20	PI/2 BPSK	1	1	23.30	23.34	23.23	24.5
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	23.29	23.35	23.32	24.5
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	23.14	23.16	23.09	24.5
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	23.16	23.15	23.10	24.5

**<n12 Ant 0/2 State 3>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	23.38	23.21	23.27	24.5
15	PI/2 BPSK	1	40	23.20	23.21	23.17	
15	PI/2 BPSK	1	77	23.06	23.03	22.99	
15	PI/2 BPSK	36	0	22.70	22.58	22.60	24.0
15	PI/2 BPSK	36	22	23.11	23.11	23.02	24.5
15	PI/2 BPSK	36	43	22.55	22.54	22.45	24.0
15	PI/2 BPSK	75	0	22.64	22.62	22.58	
15	QPSK	1	1	23.37	23.30	23.32	24.5
15	QPSK	1	40	23.26	23.28	23.25	
15	QPSK	1	77	23.13	23.13	23.04	
15	QPSK	36	0	22.30	22.20	22.16	23.5
15	QPSK	36	22	23.15	23.15	23.11	24.5
15	QPSK	36	43	22.12	22.05	22.04	23.5
15	QPSK	75	0	22.16	22.17	22.08	
15	16QAM	1	1	22.51	22.37	22.38	23.5
15	64QAM	1	1	21.07	20.92	20.99	22.0
15	256QAM	1	1	18.85	18.82	18.79	20.0
Channel				140800	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	PI/2 BPSK	1	1	23.19	23.16	23.14	24.5
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	23.10	23.07	23.02	24.5



<n2/n25 Ant 1 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				374000	376500	379000	23.5
Frequency (MHz)				1870	1882.5	1895	
40	PI/2 BPSK	1	1	22.94	23.01	23.02	23.5
40	PI/2 BPSK	1	108	22.80	22.92	22.91	
40	PI/2 BPSK	1	214	23.21	23.12	22.68	
40	PI/2 BPSK	108	0	22.00	22.39	22.46	23.5
40	PI/2 BPSK	108	54	22.93	22.93	22.87	23.5
40	PI/2 BPSK	108	108	22.52	22.50	22.48	23.5
40	PI/2 BPSK	216	0	22.41	22.51	22.52	
40	QPSK	1	1	23.01	22.67	22.78	23.5
40	QPSK	1	108	22.92	22.96	22.87	
40	QPSK	1	214	23.20	22.82	22.50	
40	QPSK	108	0	21.86	21.92	21.99	23.5
40	QPSK	108	54	22.87	22.99	22.85	23.5
40	QPSK	108	108	22.03	21.94	21.98	23.5
40	QPSK	216	0	21.95	22.00	22.04	
40	16QAM	1	1	22.11	21.92	22.05	23.5
40	64QAM	1	1	20.53	20.49	20.62	22.0
40	256QAM	1	1	18.35	18.34	18.42	20.0
Channel				373000	376500	380000	23.5
Frequency (MHz)				1865	1882.5	1900	
30	PI/2 BPSK	1	1	22.99	22.97	22.94	23.5
Channel				372500	376500	380500	23.5
Frequency (MHz)				1862.5	1882.5	1902.5	
25	PI/2 BPSK	1	1	22.86	22.91	22.96	23.5
Channel				372000	376500	381000	23.5
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	22.91	22.89	22.82	23.5
Channel				371500	376500	381500	23.5
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	22.95	22.90	22.88	23.5
Channel				371000	376500	382000	23.5
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	22.72	22.71	22.70	23.5
Channel				370500	376500	382500	23.5
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	22.75	22.71	22.66	23.5





<n2/n25 Ant 8 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				374000	376500	379000	24.0
Frequency (MHz)				1870	1882.5	1895	
40	PI/2 BPSK	1	1	22.94	23.01	23.02	24.0
40	PI/2 BPSK	1	108	22.80	22.92	22.91	
40	PI/2 BPSK	1	214	23.21	23.12	22.68	
40	PI/2 BPSK	108	0	22.00	22.39	22.46	24.0
40	PI/2 BPSK	108	54	22.93	22.93	22.87	24.0
40	PI/2 BPSK	108	108	22.52	22.50	22.48	24.0
40	PI/2 BPSK	216	0	22.41	22.51	22.52	
40	QPSK	1	1	23.01	22.67	22.78	24.0
40	QPSK	1	108	22.92	22.96	22.87	
40	QPSK	1	214	23.20	22.82	22.50	
40	QPSK	108	0	21.86	21.92	21.99	23.5
40	QPSK	108	54	22.87	22.99	22.85	24.0
40	QPSK	108	108	22.03	21.94	21.98	23.5
40	QPSK	216	0	21.95	22.00	22.04	
40	16QAM	1	1	22.11	21.92	22.05	23.5
40	64QAM	1	1	20.53	20.49	20.62	22.0
40	256QAM	1	1	18.35	18.34	18.42	20.0
Channel				373000	376500	380000	24.0
Frequency (MHz)				1865	1882.5	1900	
30	PI/2 BPSK	1	1	22.99	22.97	22.94	24.0
Channel				372500	376500	380500	24.0
Frequency (MHz)				1862.5	1882.5	1902.5	
25	PI/2 BPSK	1	1	22.86	22.91	22.96	24.0
Channel				372000	376500	381000	24.0
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	22.91	22.89	22.82	24.0
Channel				371500	376500	381500	24.0
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	22.95	22.90	22.88	24.0
Channel				371000	376500	382000	24.0
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	22.72	22.71	22.70	24.0
Channel				370500	376500	382500	24.0
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	22.75	22.71	22.66	24.0



**<n38 Ant 9 State 3>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518004	519000	519996	
Frequency (MHz)				2590.02	2595	2599.98	
40	PI/2 BPSK	1	1	23.71	23.74	23.61	24.5
40	PI/2 BPSK	1	53	23.53	23.62	23.54	
40	PI/2 BPSK	1	104	23.63	23.57	23.54	
40	PI/2 BPSK	50	0	23.18	23.26	23.20	24.5
40	PI/2 BPSK	50	28	23.67	23.72	23.67	
40	PI/2 BPSK	50	56	23.26	23.21	23.18	
40	PI/2 BPSK	100	0	21.11	22.11	21.00	24.0
40	QPSK	1	1	23.72	23.69	23.65	24.5
40	QPSK	1	53	23.65	23.69	23.64	
40	QPSK	1	104	23.72	23.66	23.64	
40	QPSK	50	0	22.65	22.73	22.65	24.5
40	QPSK	50	28	23.62	23.68	23.62	
40	QPSK	50	56	22.74	22.68	22.63	
40	QPSK	100	0	22.72	22.72	22.72	23.5
40	16QAM	1	1	22.96	22.95	22.90	23.5
40	64QAM	1	1	21.36	21.34	21.25	22.0
40	256QAM	1	1	19.23	19.21	19.15	20.0
Channel				517002	519000	520998	Tune-up limit (dBm)
Frequency (MHz)				2585.01	2595	2604.99	
30	PI/2 BPSK	1	1	23.71	23.72	23.53	24.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	23.63	23.70	23.58	24.5

**<n38 Ant 11 State 3>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518004	519000	519996	
Frequency (MHz)				2590.02	2595	2599.98	
40	PI/2 BPSK	1	1	22.78	22.62	22.62	23.5
40	PI/2 BPSK	1	53	22.52	22.51	22.50	
40	PI/2 BPSK	1	104	22.56	22.49	22.46	
40	PI/2 BPSK	50	0	22.51	22.53	22.52	23.5
40	PI/2 BPSK	50	28	22.49	22.54	22.50	
40	PI/2 BPSK	50	56	22.54	22.49	22.46	
40	PI/2 BPSK	100	0	22.56	22.46	22.55	23.5
40	QPSK	1	1	22.67	22.63	22.56	23.5
40	QPSK	1	53	22.49	22.52	22.48	
40	QPSK	1	104	22.53	22.46	22.44	
40	QPSK	50	0	22.52	22.56	22.53	23.5
40	QPSK	50	28	22.48	22.51	22.47	
40	QPSK	50	56	22.58	22.50	22.46	
40	QPSK	100	0	22.60	22.48	22.53	23.5
40	16QAM	1	1	22.71	22.64	22.63	23.5
40	64QAM	1	1	22.76	22.74	22.70	22.0
40	256QAM	1	1	21.02	20.93	20.93	20.0
Channel				517002	519000	520998	Tune-up limit (dBm)
Frequency (MHz)				2585.01	2595	2604.99	
30	PI/2 BPSK	1	1	22.56	22.51	22.58	23.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	22.48	22.56	22.49	23.5



<n41 Ant 9 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.24	23.00	23.24	24.0
100	PI/2 BPSK	1	137	23.23	23.11	23.25	
100	PI/2 BPSK	1	271	22.94	22.99	23.09	
100	PI/2 BPSK	135	0	23.23	23.06	23.19	24.0
100	PI/2 BPSK	135	69	23.15	23.14	23.24	
100	PI/2 BPSK	135	138	23.12	23.08	23.18	
100	PI/2 BPSK	270	0	23.20	23.10	23.20	23.5
100	QPSK	1	1	23.30	23.07	23.27	24.0
100	QPSK	1	137	23.31	23.19	23.30	
100	QPSK	1	271	23.00	23.05	23.07	
100	QPSK	135	0	23.31	23.10	23.19	24.0
100	QPSK	135	69	23.18	23.13	23.23	
100	QPSK	135	138	23.11	23.08	23.17	
100	QPSK	270	0	23.22	23.09	23.20	24.0
100	16QAM	1	1	22.83	23.20	23.33	24.0
100	64QAM	1	1	21.25	22.29	21.87	22.5
100	256QAM	1	1	20.23	21.24	20.83	21.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.27	23.00	23.22	24.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.28	22.98	23.16	24.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.33	22.97	23.16	24.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.26	22.99	23.24	24.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.28	22.92	23.23	24.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.31	22.95	23.17	24.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.33	22.94	23.23	24.0



<n41 Ant 11 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.24	23.00	23.24	23.5
100	PI/2 BPSK	1	137	23.23	23.11	23.25	
100	PI/2 BPSK	1	271	22.94	22.99	23.09	
100	PI/2 BPSK	135	0	23.23	23.06	23.19	23.5
100	PI/2 BPSK	135	69	23.15	23.14	23.24	
100	PI/2 BPSK	135	138	23.12	23.08	23.18	
100	PI/2 BPSK	270	0	23.20	23.10	23.20	23.5
100	QPSK	1	1	23.30	23.07	23.27	23.5
100	QPSK	1	137	23.31	23.19	23.30	
100	QPSK	1	271	23.00	23.05	23.07	
100	QPSK	135	0	23.31	23.10	23.19	23.5
100	QPSK	135	69	23.18	23.13	23.23	
100	QPSK	135	138	23.11	23.08	23.17	
100	QPSK	270	0	23.22	23.09	23.20	23.5
100	16QAM	1	1	22.83	23.20	23.33	23.5
100	64QAM	1	1	21.25	22.29	21.87	22.0
100	256QAM	1	1	20.23	21.24	20.83	20.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.27	23.00	23.22	23.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.28	22.98	23.16	23.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.33	22.97	23.16	23.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.26	22.99	23.24	23.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.28	22.92	23.23	23.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.31	22.95	23.17	23.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.33	22.94	23.23	23.5



<n41 Ant 1 State 3 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.48	20.65	20.71	21.5
100	QPSK	1	137	20.63	20.65	20.74	
100	QPSK	1	271	20.55	20.70	20.75	
100	QPSK	135	0	20.49	20.55	20.71	21.5
100	QPSK	135	69	20.61	20.85	20.72	
100	QPSK	135	138	20.57	20.70	20.72	
100	QPSK	270	0	20.55	20.67	20.74	21.5
100	16QAM	1	1	20.32	20.51	20.57	21.5
100	64QAM	1	1	20.67	20.70	20.73	21.5
100	256QAM	1	1	19.12	18.82	19.20	20.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.47	20.63	20.63	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.42	20.64	20.66	21.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.44	20.61	20.71	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.41	20.62	20.68	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.45	20.61	20.66	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.41	20.60	20.65	21.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.43	20.55	20.67	21.5



<n41 Ant 3 State 3 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	21.5
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.48	20.65	20.71	21.5
100	QPSK	1	137	20.63	20.65	20.74	
100	QPSK	1	271	20.55	20.70	20.75	
100	QPSK	135	0	20.49	20.55	20.71	21.5
100	QPSK	135	69	20.61	20.85	20.72	
100	QPSK	135	138	20.57	20.70	20.72	
100	QPSK	270	0	20.55	20.67	20.74	21.5
100	16QAM	1	1	20.32	20.51	20.57	21.5
100	64QAM	1	1	20.67	20.70	20.73	21.5
100	256QAM	1	1	19.12	18.82	19.20	20.5
Channel				508200	518598	528996	21.5
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.47	20.63	20.63	21.5
Channel				507204	518598	529998	21.5
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.42	20.64	20.66	21.5
Channel				505200	518598	531996	21.5
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.44	20.61	20.71	21.5
Channel				504204	518598	532998	21.5
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.41	20.62	20.68	21.5
Channel				503202	518598	534000	21.5
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.45	20.61	20.66	21.5
Channel				502200	518598	534996	21.5
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.41	20.60	20.65	21.5
Channel				501204	518598	535998	21.5
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.43	20.55	20.67	21.5



<n41 Ant 8 State 3 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.48	20.65	20.71	21.5
100	QPSK	1	137	20.63	20.65	20.74	
100	QPSK	1	271	20.55	20.70	20.75	
100	QPSK	135	0	20.49	20.55	20.71	21.5
100	QPSK	135	69	20.61	20.85	20.72	
100	QPSK	135	138	20.57	20.70	20.72	
100	QPSK	270	0	20.55	20.67	20.74	21.5
100	16QAM	1	1	20.32	20.51	20.57	21.5
100	64QAM	1	1	20.67	20.70	20.73	21.5
100	256QAM	1	1	19.12	18.82	19.20	20.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.47	20.63	20.63	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.42	20.64	20.66	21.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.44	20.61	20.71	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.41	20.62	20.68	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.45	20.61	20.66	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.41	20.60	20.65	21.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.43	20.55	20.67	21.5



<n41 Ant 9 State 3 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.60	20.60	20.68	21.5
100	QPSK	1	137	20.67	20.54	20.55	
100	QPSK	1	271	20.31	20.44	20.41	
100	QPSK	135	0	20.52	20.36	20.51	21.5
100	QPSK	135	69	20.50	20.37	20.44	
100	QPSK	135	138	20.53	20.67	20.52	
100	QPSK	270	0	20.48	20.32	20.45	21.5
100	16QAM	1	1	20.46	20.37	20.52	21.5
100	64QAM	1	1	20.63	20.58	20.67	21.5
100	256QAM	1	1	19.10	18.97	19.17	20.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.55	20.52	20.63	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.56	20.54	20.50	20.6
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.59	20.59	20.67	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.52	20.60	20.67	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.55	20.60	20.64	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.59	20.55	20.60	21.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.56	20.53	20.67	21.5





<n41 Ant 11 State 3 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.60	20.60	20.68	21.5
100	QPSK	1	137	20.67	20.54	20.55	
100	QPSK	1	271	20.31	20.44	20.41	
100	QPSK	135	0	20.52	20.36	20.51	21.5
100	QPSK	135	69	20.50	20.37	20.44	
100	QPSK	135	138	20.53	20.67	20.52	
100	QPSK	270	0	20.48	20.32	20.45	21.5
100	16QAM	1	1	20.46	20.37	20.52	21.5
100	64QAM	1	1	20.63	20.58	20.67	21.5
100	256QAM	1	1	19.10	18.97	19.17	20.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.55	20.52	20.63	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.56	20.54	20.50	20.6
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.59	20.59	20.67	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.52	20.60	20.67	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.55	20.60	20.64	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.59	20.55	20.60	21.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.56	20.53	20.67	21.5



<n66 Ant 1/8 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	23.00	22.97	23.04	24.5
40	PI/2 BPSK	1	108	22.99	23.05	22.95	
40	PI/2 BPSK	1	214	22.89	23.23	23.06	
40	PI/2 BPSK	108	0	22.46	22.43	22.39	24.0
40	PI/2 BPSK	108	54	22.88	22.97	22.89	24.5
40	PI/2 BPSK	108	108	22.46	22.49	22.41	24.0
40	PI/2 BPSK	216	0	22.44	22.53	22.46	
40	QPSK	1	1	23.02	23.02	23.03	24.5
40	QPSK	1	108	22.90	23.11	22.93	
40	QPSK	1	214	22.85	23.05	23.05	
40	QPSK	108	0	21.98	21.95	21.90	23.5
40	QPSK	108	54	22.90	22.96	22.94	24.5
40	QPSK	108	108	21.95	22.04	22.03	23.5
40	QPSK	216	0	21.95	22.01	21.98	
40	16QAM	1	1	22.17	22.04	22.21	23.5
40	64QAM	1	1	20.80	20.58	20.75	22.0
40	256QAM	1	1	18.34	18.40	18.28	20.0
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	PI/2 BPSK	1	1	23.09	23.06	23.03	24.5
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	22.95	22.93	22.95	24.5
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	22.85	22.84	22.89	24.5
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	22.83	22.79	22.78	24.5
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	22.81	22.78	22.74	24.5



<n71 Ant 0/2 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	23.20	23.07	23.19	24.5
20	PI/2 BPSK	1	53	23.01	23.05	23.09	
20	PI/2 BPSK	1	104	23.04	23.06	22.91	
20	PI/2 BPSK	50	0	22.62	22.56	22.52	24.0
20	PI/2 BPSK	50	28	23.04	23.06	23.01	24.5
20	PI/2 BPSK	50	56	22.55	22.54	22.46	24.0
20	PI/2 BPSK	100	0	22.51	22.55	22.47	
20	QPSK	1	1	23.14	23.12	23.12	24.5
20	QPSK	1	53	23.00	23.16	23.17	
20	QPSK	1	104	23.10	23.09	22.95	
20	QPSK	50	0	22.15	22.06	22.08	23.5
20	QPSK	50	28	23.02	23.08	23.10	24.5
20	QPSK	50	56	22.11	22.04	21.94	23.5
20	QPSK	100	0	22.09	22.06	22.00	
20	16QAM	1	1	22.47	22.30	22.30	23.5
20	64QAM	1	1	20.96	20.78	20.81	22.0
20	256QAM	1	1	18.78	18.30	18.59	20.0
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	23.06	23.01	22.95	24.5
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	23.02	22.93	22.88	24.5
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	23.13	23.04	22.99	24.5



<n77/78 Ant 9/11 State 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	21.43	21.56	21.64	22.0
100	PI/2 BPSK	1	137	21.51	21.73	21.66	
100	PI/2 BPSK	1	271	21.42	21.61	21.57	
100	PI/2 BPSK	135	0	21.43	21.55	21.59	22.0
100	PI/2 BPSK	135	69	21.42	21.68	21.64	
100	PI/2 BPSK	135	138	21.45	21.61	21.58	
100	PI/2 BPSK	270	0	21.55	21.66	21.68	22.0
100	QPSK	1	1	21.29	21.52	21.62	22.0
100	QPSK	1	137	21.43	21.69	21.64	
100	QPSK	1	271	21.38	21.62	21.59	
100	QPSK	135	0	21.44	21.58	21.62	22.0
100	QPSK	135	69	21.37	21.45	21.54	
100	QPSK	135	138	21.39	21.69	21.59	
100	QPSK	270	0	21.37	21.48	21.45	22.0
100	16QAM	1	1	21.28	21.42	21.55	22.0
100	64QAM	1	1	21.45	21.53	21.62	22.0
100	256QAM	1	1	20.72	20.54	20.75	22.0
Channel				649668	656000	662334	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3935.01	
90	PI/2 BPSK	1	1	21.39	21.53	21.61	22.0
Channel				649334	656000	662668	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3940.02	
80	PI/2 BPSK	1	1	21.36	21.44	21.59	22.0
Channel				648668	656000	663334	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3950.01	
60	PI/2 BPSK	1	1	21.35	21.47	21.58	22.0
Channel				648334	656000	663668	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3955.02	
50	PI/2 BPSK	1	1	21.31	21.50	21.58	22.0
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	21.30	21.52	21.58	22.0
Channel				647668	656000	664334	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3965.01	
30	PI/2 BPSK	1	1	21.31	21.45	21.52	22.0
Channel				647334	656000	664668	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3970.02	
20	PI/2 BPSK	1	1	21.39	21.47	21.56	22.0



<n77/78 Ant 9/11 State 3> for IC

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				633334	636668	640000	22.0
Frequency (MHz)				3500.01	3550.02	3600	
100	PI/2 BPSK	1	1	21.23	21.38	21.43	22.0
100	PI/2 BPSK	1	137	21.15	21.32	21.37	
100	PI/2 BPSK	1	271	21.11	21.16	21.29	
100	PI/2 BPSK	135	0	21.10	21.28	21.31	22.0
100	PI/2 BPSK	135	69	21.12	21.21	21.27	
100	PI/2 BPSK	135	138	21.14	21.26	21.22	
100	PI/2 BPSK	270	0	21.15	21.28	21.24	22.0
100	QPSK	1	1	21.15	21.30	21.36	22.0
100	QPSK	1	137	21.11	21.19	21.16	
100	QPSK	1	271	21.01	21.24	21.26	
100	QPSK	135	0	21.08	21.27	21.28	22.0
100	QPSK	135	69	21.14	21.26	21.25	
100	QPSK	135	138	21.07	21.23	21.21	
100	QPSK	270	0	21.13	21.29	21.21	22.0
100	16QAM	1	1	21.16	21.36	21.38	22.0
100	64QAM	1	1	21.13	21.32	21.33	22.0
100	256QAM	1	1	20.94	21.03	20.99	21.5
Channel				633000	636668	640334	22.0
Frequency (MHz)				3495	3550.02	3605.01	
90	PI/2 BPSK	1	1	21.14	21.34	21.41	22.0
Channel				632668	636668	640668	22.0
Frequency (MHz)				3490.02	3550.02	3610.02	
80	PI/2 BPSK	1	1	21.20	21.37	21.39	22.0
Channel				632000	636668	641334	22.0
Frequency (MHz)				3480	3550.02	3620.01	
60	PI/2 BPSK	1	1	21.23	21.32	21.37	22.0
Channel				631668	636668	641668	22.0
Frequency (MHz)				3475.02	3550.02	3625.02	
50	PI/2 BPSK	1	1	21.13	21.29	21.33	22.0
Channel				631334	636668	642000	22.0
Frequency (MHz)				3470.01	3550.02	3630	
40	PI/2 BPSK	1	1	21.15	21.37	21.33	22.0
Channel				631000	636668	642334	22.0
Frequency (MHz)				3465	3550.02	3635.01	
30	PI/2 BPSK	1	1	21.19	21.34	21.40	22.0
Channel				630668	636668	642668	22.0
Frequency (MHz)				3460.02	3550.02	3640.02	
20	PI/2 BPSK	1	1	21.19	21.33	21.41	22.0



<n5 Ant 0/2 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	23.27	23.10	23.12	24.5
20	PI/2 BPSK	1	53	23.12	23.06	23.05	
20	PI/2 BPSK	1	104	23.02	22.96	22.90	
20	PI/2 BPSK	50	0	22.65	22.55	22.46	24.0
20	PI/2 BPSK	50	28	22.99	23.01	22.98	24.5
20	PI/2 BPSK	50	56	22.48	22.45	22.36	24.0
20	PI/2 BPSK	100	0	22.54	22.52	22.43	
20	QPSK	1	1	23.22	23.18	23.09	24.5
20	QPSK	1	53	23.07	23.01	22.96	
20	QPSK	1	104	22.91	22.90	22.82	
20	QPSK	50	0	22.17	22.10	22.04	23.5
20	QPSK	50	28	23.05	23.04	22.95	24.5
20	QPSK	50	56	21.96	21.93	21.87	23.5
20	QPSK	100	0	22.07	22.05	21.99	
20	16QAM	1	1	22.01	21.98	21.91	23.5
20	64QAM	1	1	20.75	20.68	20.63	22.0
20	256QAM	1	1	18.71	18.65	18.54	20.0
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.24	23.15	23.01	24.5
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.15	22.96	22.92	24.5
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.18	22.98	22.88	24.5

<n7 Ant 1/8 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				505000	507000	509000	
Frequency (MHz)				2525	2535	2545	
50	PI/2 BPSK	1	1	23.30	23.21	23.28	24.5
50	PI/2 BPSK	1	135	23.29	23.35	23.25	
50	PI/2 BPSK	1	268	23.32	23.46	23.26	
50	PI/2 BPSK	135	0	22.74	22.76	22.78	24.0
50	PI/2 BPSK	135	68	23.34	23.41	23.34	24.5
50	PI/2 BPSK	135	135	22.86	22.96	22.80	24.0
50	PI/2 BPSK	270	0	22.52	22.91	22.88	
50	QPSK	1	1	23.32	23.25	23.30	24.5
50	QPSK	1	135	23.31	23.42	23.32	
50	QPSK	1	268	23.35	23.45	23.23	
50	QPSK	135	0	22.42	22.22	22.39	23.5
50	QPSK	135	68	23.45	23.43	23.07	24.5
50	QPSK	135	135	22.25	22.45	22.02	23.5
50	QPSK	270	0	22.10	22.40	22.34	
50	16QAM	1	1	22.41	22.39	22.42	23.5
50	64QAM	1	1	20.71	20.80	20.80	22.0
50	256QAM	1	1	18.76	18.62	18.74	20.0
Channel				504000	507000	510000	Tune-up limit



Frequency (MHz)				2520	2535	2550	(dBm)
40	PI/2 BPSK	1	1	23.21	23.26	23.17	24.5
Channel				503000	507000	511000	Tune-up limit (dBm)
Frequency (MHz)				2515	2535	2555	
30	PI/2 BPSK	1	1	23.25	23.30	23.27	24.5
Channel				502500	507000	511500	Tune-up limit (dBm)
Frequency (MHz)				2512.5	2535	2557.5	
25	PI/2 BPSK	1	1	23.23	23.32	23.24	24.5
Channel				502000	507000	512000	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	PI/2 BPSK	1	1	23.30	23.34	23.23	24.5
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	23.29	23.35	23.32	24.5
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	23.14	23.16	23.09	24.5
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	23.16	23.15	23.10	24.5

**<n12 Ant 0/2 State 4/5>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	23.38	23.21	23.27	24.5
15	PI/2 BPSK	1	40	23.20	23.21	23.17	
15	PI/2 BPSK	1	77	23.06	23.03	22.99	
15	PI/2 BPSK	36	0	22.70	22.58	22.60	24.0
15	PI/2 BPSK	36	22	23.11	23.11	23.02	24.5
15	PI/2 BPSK	36	43	22.55	22.54	22.45	24.0
15	PI/2 BPSK	75	0	22.64	22.62	22.58	
15	QPSK	1	1	23.37	23.30	23.32	24.5
15	QPSK	1	40	23.26	23.28	23.25	
15	QPSK	1	77	23.13	23.13	23.04	
15	QPSK	36	0	22.30	22.20	22.16	23.5
15	QPSK	36	22	23.15	23.15	23.11	24.5
15	QPSK	36	43	22.12	22.05	22.04	23.5
15	QPSK	75	0	22.16	22.17	22.08	
15	16QAM	1	1	22.51	22.37	22.38	23.5
15	64QAM	1	1	21.07	20.92	20.99	22.0
	256QAM	1	1	18.85	18.82	18.79	20.0
Channel				140800	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	PI/2 BPSK	1	1	23.19	23.16	23.14	24.5
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	23.10	23.07	23.02	24.5



<n25 Ant 1/8 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				374000	376500	379000	24.5
Frequency (MHz)				1870	1882.5	1895	
40	PI/2 BPSK	1	1	22.94	23.01	23.02	24.5
40	PI/2 BPSK	1	108	22.80	22.92	22.91	
40	PI/2 BPSK	1	214	23.21	23.12	22.68	
40	PI/2 BPSK	108	0	22.00	22.39	22.46	24.0
40	PI/2 BPSK	108	54	22.93	22.93	22.87	24.5
40	PI/2 BPSK	108	108	22.52	22.50	22.48	24.0
40	PI/2 BPSK	216	0	22.41	22.51	22.52	
40	QPSK	1	1	23.01	22.67	22.78	24.5
40	QPSK	1	108	22.92	22.96	22.87	
40	QPSK	1	214	23.20	22.82	22.50	
40	QPSK	108	0	21.86	21.92	21.99	23.5
40	QPSK	108	54	22.87	22.99	22.85	24.5
40	QPSK	108	108	22.03	21.94	21.98	23.5
40	QPSK	216	0	21.95	22.00	22.04	
40	16QAM	1	1	22.11	21.92	22.05	23.5
40	64QAM	1	1	20.53	20.49	20.62	22.0
40	256QAM	1	1	18.35	18.34	18.42	20.0
Channel				373000	376500	380000	24.5
Frequency (MHz)				1865	1882.5	1900	
30	PI/2 BPSK	1	1	22.99	22.97	22.94	24.5
Channel				372500	376500	380500	24.5
Frequency (MHz)				1862.5	1882.5	1902.5	
25	PI/2 BPSK	1	1	22.86	22.91	22.96	24.5
Channel				372000	376500	381000	24.5
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	22.91	22.89	22.82	24.5
Channel				371500	376500	381500	24.5
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	22.95	22.90	22.88	24.5
Channel				371000	376500	382000	24.5
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	22.72	22.71	22.70	24.5
Channel				370500	376500	382500	24.5
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	22.75	22.71	22.66	24.5





**<n38 Ant 9/11 State 4/5>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518004	519000	519996	
Frequency (MHz)				2590.02	2595	2599.98	
40	PI/2 BPSK	1	1	23.71	23.74	23.61	24.5
40	PI/2 BPSK	1	53	23.53	23.62	23.54	
40	PI/2 BPSK	1	104	23.63	23.57	23.54	
40	PI/2 BPSK	50	0	23.18	23.26	23.20	24.5
40	PI/2 BPSK	50	28	23.67	23.72	23.67	
40	PI/2 BPSK	50	56	23.26	23.21	23.18	
40	PI/2 BPSK	100	0	21.11	22.11	21.00	24.0
40	QPSK	1	1	23.72	23.69	23.65	24.5
40	QPSK	1	53	23.65	23.69	23.64	
40	QPSK	1	104	23.72	23.66	23.64	
40	QPSK	50	0	22.65	22.73	22.65	24.5
40	QPSK	50	28	23.62	23.68	23.62	
40	QPSK	50	56	22.74	22.68	22.63	
40	QPSK	100	0	22.72	22.72	22.72	23.5
40	16QAM	1	1	22.96	22.95	22.90	23.5
40	64QAM	1	1	21.36	21.34	21.25	22.0
40	256QAM	1	1	19.23	19.21	19.15	20.0
Channel				517002	519000	520998	Tune-up limit (dBm)
Frequency (MHz)				2585.01	2595	2604.99	
30	PI/2 BPSK	1	1	23.71	23.72	23.53	24.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	23.63	23.70	23.58	24.5

**<n41 Ant 9/11 State 4/5>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.24	23.00	23.24	24.0
100	PI/2 BPSK	1	137	23.23	23.11	23.25	
100	PI/2 BPSK	1	271	22.94	22.99	23.09	
100	PI/2 BPSK	135	0	23.23	23.06	23.19	24.0
100	PI/2 BPSK	135	69	23.15	23.14	23.24	
100	PI/2 BPSK	135	138	23.12	23.08	23.18	
100	PI/2 BPSK	270	0	23.20	23.10	23.20	23.5
100	QPSK	1	1	23.30	23.07	23.27	24.0
100	QPSK	1	137	23.31	23.19	23.30	
100	QPSK	1	271	23.00	23.05	23.07	
100	QPSK	135	0	23.31	23.10	23.19	24.0
100	QPSK	135	69	23.18	23.13	23.23	
100	QPSK	135	138	23.11	23.08	23.17	
100	QPSK	270	0	23.22	23.09	23.20	24.0
100	16QAM	1	1	22.83	23.20	23.33	24.0
100	64QAM	1	1	21.25	22.29	21.87	22.5
100	256QAM	1	1	20.23	21.24	20.83	21.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	



90	PI/2 BPSK	1	1	23.27	23.00	23.22	24.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.28	22.98	23.16	24.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.33	22.97	23.16	24.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.26	22.99	23.24	24.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.28	22.92	23.23	24.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.31	22.95	23.17	24.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.33	22.94	23.23	24.0

**<n41 Ant 1 State 4/5 when uplink MIMO is active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.48	20.65	20.71	21.5
100	QPSK	1	137	20.63	20.65	20.74	
100	QPSK	1	271	20.55	20.70	20.75	
100	QPSK	135	0	20.49	20.55	20.71	21.5
100	QPSK	135	69	20.61	20.85	20.72	
100	QPSK	135	138	20.57	20.70	20.72	
100	QPSK	270	0	20.55	20.67	20.74	21.5
100	16QAM	1	1	20.32	20.51	20.57	21.5
100	64QAM	1	1	20.67	20.70	20.73	21.5
100	256QAM	1	1	19.12	18.82	19.20	20.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.47	20.63	20.63	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.42	20.64	20.66	21.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.44	20.61	20.71	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.41	20.62	20.68	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.45	20.61	20.66	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.41	20.60	20.65	21.5
Channel				501204	518598	535998	Tune-up limit



Frequency (MHz)				2506.02	2592.99	2679.99	(dBm)
20	QPSK	1	1	20.43	20.55	20.67	21.5

**<n41 Ant 3 State 4/5 when uplink MIMO is active>**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	21.5
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.48	20.65	20.71	21.5
100	QPSK	1	137	20.63	20.65	20.74	
100	QPSK	1	271	20.55	20.70	20.75	
100	QPSK	135	0	20.49	20.55	20.71	21.5
100	QPSK	135	69	20.61	20.85	20.72	
100	QPSK	135	138	20.57	20.70	20.72	
100	QPSK	270	0	20.55	20.67	20.74	21.5
100	16QAM	1	1	20.32	20.51	20.57	21.5
100	64QAM	1	1	20.67	20.70	20.73	21.5
100	256QAM	1	1	19.12	18.82	19.20	20.5
Channel				508200	518598	528996	21.5
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.47	20.63	20.63	21.5
Channel				507204	518598	529998	21.5
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.42	20.64	20.66	21.5
Channel				505200	518598	531996	21.5
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.44	20.61	20.71	21.5
Channel				504204	518598	532998	21.5
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.41	20.62	20.68	21.5
Channel				503202	518598	534000	21.5
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.45	20.61	20.66	21.5
Channel				502200	518598	534996	21.5
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.41	20.60	20.65	21.5
Channel				501204	518598	535998	21.5
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.43	20.55	20.67	21.5



<n41 Ant 8 State 4/5 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	21.5
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.48	20.65	20.71	21.5
100	QPSK	1	137	20.63	20.65	20.74	
100	QPSK	1	271	20.55	20.70	20.75	
100	QPSK	135	0	20.49	20.55	20.71	21.5
100	QPSK	135	69	20.61	20.85	20.72	
100	QPSK	135	138	20.57	20.70	20.72	
100	QPSK	270	0	20.55	20.67	20.74	21.5
100	16QAM	1	1	20.32	20.51	20.57	21.5
100	64QAM	1	1	20.67	20.70	20.73	21.5
100	256QAM	1	1	19.12	18.82	19.20	20.5
Channel				508200	518598	528996	21.5
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.47	20.63	20.63	21.5
Channel				507204	518598	529998	21.5
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.42	20.64	20.66	21.5
Channel				505200	518598	531996	21.5
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.44	20.61	20.71	21.5
Channel				504204	518598	532998	21.5
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.41	20.62	20.68	21.5
Channel				503202	518598	534000	21.5
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.45	20.61	20.66	21.5
Channel				502200	518598	534996	21.5
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.41	20.60	20.65	21.5
Channel				501204	518598	535998	21.5
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.43	20.55	20.67	21.5



<n41 Ant 9 State 4/5 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.60	20.60	20.68	21.5
100	QPSK	1	137	20.67	20.54	20.55	
100	QPSK	1	271	20.31	20.44	20.41	
100	QPSK	135	0	20.52	20.36	20.51	21.5
100	QPSK	135	69	20.50	20.37	20.44	
100	QPSK	135	138	20.53	20.67	20.52	
100	QPSK	270	0	20.48	20.32	20.45	21.5
100	16QAM	1	1	20.46	20.37	20.52	21.5
100	64QAM	1	1	20.63	20.58	20.67	21.5
100	256QAM	1	1	19.10	18.97	19.17	20.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.55	20.52	20.63	21.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.56	20.54	20.50	20.6
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.59	20.59	20.67	21.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.52	20.60	20.67	21.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.55	20.60	20.64	21.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.59	20.55	20.60	21.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.56	20.53	20.67	21.5



<n41 Ant 11 State 4/5 when uplink MIMO is active>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	21.5
Frequency (MHz)				2546.01	2592.99	2640	
100	QPSK	1	1	20.60	20.60	20.68	21.5
100	QPSK	1	137	20.67	20.54	20.55	
100	QPSK	1	271	20.31	20.44	20.41	
100	QPSK	135	0	20.52	20.36	20.51	21.5
100	QPSK	135	69	20.50	20.37	20.44	
100	QPSK	135	138	20.53	20.67	20.52	
100	QPSK	270	0	20.48	20.32	20.45	21.5
100	16QAM	1	1	20.46	20.37	20.52	21.5
100	64QAM	1	1	20.63	20.58	20.67	21.5
100	256QAM	1	1	19.10	18.97	19.17	20.0
Channel				508200	518598	528996	21.5
Frequency (MHz)				2541	2592.99	2644.98	
90	QPSK	1	1	20.55	20.52	20.63	21.5
Channel				507204	518598	529998	20.6
Frequency (MHz)				2536.02	2592.99	2649.99	
80	QPSK	1	1	20.56	20.54	20.50	20.6
Channel				505200	518598	531996	21.5
Frequency (MHz)				2526	2592.99	2659.98	
60	QPSK	1	1	20.59	20.59	20.67	21.5
Channel				504204	518598	532998	21.5
Frequency (MHz)				2521.02	2592.99	2664.99	
50	QPSK	1	1	20.52	20.60	20.67	21.5
Channel				503202	518598	534000	21.5
Frequency (MHz)				2516.01	2592.99	2670	
40	QPSK	1	1	20.55	20.60	20.64	21.5
Channel				502200	518598	534996	21.5
Frequency (MHz)				2511	2592.99	2674.98	
30	QPSK	1	1	20.59	20.55	20.60	21.5
Channel				501204	518598	535998	21.5
Frequency (MHz)				2506.02	2592.99	2679.99	
20	QPSK	1	1	20.56	20.53	20.67	21.5



<n66 Ant 1/8 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	23.00	22.97	23.04	24.5
40	PI/2 BPSK	1	108	22.99	23.05	22.95	
40	PI/2 BPSK	1	214	22.89	23.23	23.06	
40	PI/2 BPSK	108	0	22.46	22.43	22.39	24.0
40	PI/2 BPSK	108	54	22.88	22.97	22.89	24.5
40	PI/2 BPSK	108	108	22.46	22.49	22.41	24.0
40	PI/2 BPSK	216	0	22.44	22.53	22.46	
40	QPSK	1	1	23.02	23.02	23.03	24.5
40	QPSK	1	108	22.90	23.11	22.93	
40	QPSK	1	214	22.85	23.05	23.05	
40	QPSK	108	0	21.98	21.95	21.90	23.5
40	QPSK	108	54	22.90	22.96	22.94	24.5
40	QPSK	108	108	21.95	22.04	22.03	23.5
40	QPSK	216	0	21.95	22.01	21.98	
40	16QAM	1	1	22.17	22.04	22.21	23.5
40	64QAM	1	1	20.80	20.58	20.75	22.0
40	256QAM	1	1	18.34	18.40	18.28	20.0
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	PI/2 BPSK	1	1	23.09	23.06	23.03	24.5
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	22.95	22.93	22.95	24.5
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	22.85	22.84	22.89	24.5
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	22.83	22.79	22.78	24.5
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	22.81	22.78	22.74	24.5



<n71 Ant 0/2 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	23.20	23.07	23.19	24.5
20	PI/2 BPSK	1	53	23.01	23.05	23.09	
20	PI/2 BPSK	1	104	23.04	23.06	22.91	
20	PI/2 BPSK	50	0	22.62	22.56	22.52	24.0
20	PI/2 BPSK	50	28	23.04	23.06	23.01	24.5
20	PI/2 BPSK	50	56	22.55	22.54	22.46	24.0
20	PI/2 BPSK	100	0	22.51	22.55	22.47	
20	QPSK	1	1	23.14	23.12	23.12	24.5
20	QPSK	1	53	23.00	23.16	23.17	
20	QPSK	1	104	23.10	23.09	22.95	
20	QPSK	50	0	22.15	22.06	22.08	23.5
20	QPSK	50	28	23.02	23.08	23.10	24.5
20	QPSK	50	56	22.11	22.04	21.94	23.5
20	QPSK	100	0	22.09	22.06	22.00	
20	16QAM	1	1	22.47	22.30	22.30	23.5
20	64QAM	1	1	20.96	20.78	20.81	22.0
20	256QAM	1	1	18.78	18.30	18.59	20.0
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	23.06	23.01	22.95	24.5
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	23.02	22.93	22.88	24.5
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	23.13	23.04	22.99	24.5





<n77/78 Ant 9/11 State 4/5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	21.43	21.56	21.64	22.0
100	PI/2 BPSK	1	137	21.51	21.73	21.66	
100	PI/2 BPSK	1	271	21.42	21.61	21.57	
100	PI/2 BPSK	135	0	21.43	21.55	21.59	22.0
100	PI/2 BPSK	135	69	21.42	21.68	21.64	
100	PI/2 BPSK	135	138	21.45	21.61	21.58	
100	PI/2 BPSK	270	0	21.55	21.66	21.68	22.0
100	QPSK	1	1	21.29	21.52	21.62	22.0
100	QPSK	1	137	21.43	21.69	21.64	
100	QPSK	1	271	21.38	21.62	21.59	
100	QPSK	135	0	21.44	21.58	21.62	22.0
100	QPSK	135	69	21.37	21.45	21.54	
100	QPSK	135	138	21.39	21.69	21.59	
100	QPSK	270	0	21.37	21.48	21.45	22.0
100	16QAM	1	1	21.28	21.42	21.55	22.0
100	64QAM	1	1	21.45	21.53	21.62	22.0
100	256QAM	1	1	20.72	20.54	20.75	22.0
Channel				649668	656000	662334	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3935.01	
90	PI/2 BPSK	1	1	21.39	21.53	21.61	22.0
Channel				649334	656000	662668	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3940.02	
80	PI/2 BPSK	1	1	21.36	21.44	21.59	22.0
Channel				648668	656000	663334	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3950.01	
60	PI/2 BPSK	1	1	21.35	21.47	21.58	22.0
Channel				648334	656000	663668	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3955.02	
50	PI/2 BPSK	1	1	21.31	21.50	21.58	22.0
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	21.30	21.52	21.58	22.0
Channel				647668	656000	664334	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3965.01	
30	PI/2 BPSK	1	1	21.31	21.45	21.52	22.0
Channel				647334	656000	664668	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3970.02	
20	PI/2 BPSK	1	1	21.39	21.47	21.56	22.0



### 3. WiFi/Bluetooth Output Power (Unit: dBm)

#### General Note:

1. For each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is  $< 1.6\text{W/kg}$  and SAR peak to location ratio  $\leq 0.04$ , no additional SAR measurements for MIMO.
3. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band or when MIMO mode was not performed, due to for each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode. Additional output power measurements were not necessary.
4. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
5. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
6. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
7. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures. 18 The initial test position procedure is described in the following:
  - a. When the reported SAR of the initial test position is  $\leq 0.4\text{ W/kg}$ , further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
  - b. When the reported SAR of the test position is  $> 0.4\text{ W/kg}$ , SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closest/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is  $\leq 0.8\text{ W/kg}$  or all required test position are tested.
  - c. For all positions/configurations, when the reported SAR is  $> 0.8\text{ W/kg}$ , SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2\text{ W/kg}$  or all required channels are tested.
8. Per 201904 TCBC workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing. For the table below the 802.11ax maximum power is SU (non-OFDMA), and the SU maximum power also higher than RU (OFDMA)
9. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing
10. For modes with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands
11. When SAR testing for 802.11ax is required
  - a. If the maximum output power is highest for OFDMA scenarios, choose the tone size with the maximum number of tones and the highest maximum output power
  - b. Otherwise, consider the fully allocated channel for SAR testing
  - c. When SAR testing is required on RU sizes less than the fully allocated channel, use the RU number closest to the middle of the channel, choosing the higher RU number when two RUs are equidistant to the middle of the channel



<State 1, 3, 4>

2.4GHz WLAN				Ant 4			Ant 5			Ant 4+5		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %
	802.11b 1Mbps		1	2412	21.40	22.00	98.20	20.60	21.00	98.20	24.18	24.50
		6	2437	19.90	20.00	19.20		19.50	22.77		23.00	
		11	2462	20.60	21.00	19.70		20.00	23.37		23.50	
802.11g 6Mbps		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		22.00			22.00			25.00	
		11	2462		18.50			18.00			21.50	
802.11n-HT20 MCS0		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		22.00			22.00			25.00	
		11	2462		18.50			18.00			21.50	
802.11n-HT40 MCS0		3	2422	Not required	18.00	Not required	Not required	17.00	Not required	Not required	20.50	Not required
		6	2437		22.00			21.50			25.00	
		9	2452		18.00			18.00			21.00	
802.11ac-VHT20 MCS0		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		22.00			22.00			25.00	
		11	2462		18.50			18.00			21.50	
802.11ac-VHT40 MCS0		3	2422	Not required	18.00	Not required	Not required	17.00	Not required	Not required	20.50	Not required
		6	2437		22.00			21.50			25.00	
		9	2452		18.00			18.00			21.00	
802.11ax-HE20 MCS0		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		22.00			22.00			25.00	
		11	2462		18.50			18.00			21.50	
802.11ax-HE40 MCS0		3	2422	Not required	18.00	Not required	Not required	17.00	Not required	Not required	20.50	Not required
		6	2437		22.00			21.50			25.00	
		9	2452		18.00			18.00			21.00	



5.2GHz WLAN				Ant 4			Ant 5			Ant 4+5		
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %
	5.2GHz WLAN	802.11a 6Mbps	36	5180	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50
40			5200	18.50		18.00			21.50			
44			5220	18.50		18.50			21.50			
48			5240	19.00		18.50			22.00			
802.11n-HT20 MCS0		36	5180	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required
		40	5200		18.50			18.00			21.50	
		44	5220		18.50			18.00			21.50	
		48	5240		18.50			18.00			21.50	
802.11n-HT40 MCS0		38	5190	18.60	19.00	99.70	18.00	18.50	99.70	21.47	22.00	100
		46	5230	19.40	19.50		18.80	19.00		22.17	22.50	
802.11ac-VHT20 MCS0		36	5180	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required
		40	5200		18.50			18.00			21.50	
		44	5220		18.50			18.00			21.50	
		48	5240		18.50			18.00			21.50	
802.11ac-VHT40 MCS0		38	5190	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		46	5230		19.50			19.00			22.50	
802.11ac-VHT80 MCS0		42	5210	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
802.11ax-HE20 MCS0		36	5180		18.50			18.00			21.50	
		40	5200		18.50			18.00			21.50	
		44	5220		18.50			18.00			21.50	
	48	5240	18.50	18.00	21.50							
802.11ax-HE40 MCS0	38	5190	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	
	46	5230		19.50			19.00			22.50		
802.11ax-HE80 MCS0	42	5210	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	



5.3GHz WLAN				Ant 4			Ant 5			Ant 4+5			
5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %	
	5.3GHz WLAN	802.11a 6Mbps	52	5260	Not required	19.00	Not required	Not required	18.00	Not required	Not required	21.50	Not required
56			5280	18.50		21.50							
60			5300	18.50		21.50							
64			5320	19.00		21.50							
802.11n-HT20 MCS0		52	5260	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	
		56	5280		18.50			21.50					
		60	5300		19.00			22.00					
		64	5320		18.50			21.50					
802.11n-HT40 MCS0		54	5270	19.20	19.50	99.70	18.60	19.00	99.70	22.08	22.50	100	
		62	5310	19.30	20.00		18.50	18.50		21.93	22.50		
802.11ac-VHT20 MCS0		52	5260	Not required	19.00	Not required	Not required	18.50	Not required	Not required	Not required	22.00	Not required
		56	5280		18.50			21.50					
		60	5300		19.00			22.00					
		64	5320		18.50			21.50					
802.11ac-VHT40 MCS0		54	5270	Not required	19.50	Not required	Not required	18.00	Not required	Not required	22.50	Not required	
		62	5310		20.00			22.50					
802.11ac-VHT80 MCS0		58	5290	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	
802.11ax-HE20 MCS0		52	5260		19.00			22.00					
		56	5280		18.50			21.50					
		60	5300		19.00			22.00					
802.11ax-HE40 MCS0	54	5270	Not required	19.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required		
	62	5310		20.00			22.50						
802.11ax-HE80 MCS0	58	5290	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required		
802.11ax-HE160 MCS0	50	5250		17.50			20.50						



5.5GHz WLAN				Ant 4			Ant 5			Ant 4+5			
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %		
5.5GHz WLAN	802.11a 6Mbps	100	5500	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required	
		116	5580		18.50			18.00			21.50		
		124	5620		18.50			18.00			21.50		
		132	5660		18.50			17.50			21.00		
		140	5700		19.00			17.50			21.50		
	802.11n-HT20 MCS0	100	5500	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required	
		116	5580		18.50			18.00			21.50		
		124	5620		18.50			18.00			21.50		
		132	5660		18.50			17.50			21.00		
		140	5700		19.00			17.50			21.50		
	802.11n-HT40 MCS0	102	5510	19.20	20.00	99.70	Not required	19.00	Not required	Not required	22.11	22.50	100
		110	5550	19.40	20.00			19.50			22.61	23.00	
		126	5630	19.50	20.00			19.00			22.38	22.50	
		134	5670	19.70	20.00			18.50			21.98	22.50	
	802.11ac-VHT20 MCS0	100	5500	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required	
		116	5580		18.50			18.00			21.50		
		124	5620		18.50			18.00			21.50		
		132	5660		18.50			17.50			21.00		
		140	5700		19.00			17.50			21.50		
	802.11ac-VHT40 MCS0	102	5510	Not required	20.00	Not required	Not required	19.00	Not required	Not required	22.50	Not required	
110		5550	20.00		19.50			23.00					
126		5630	20.00		19.00			22.50					
802.11ac-VHT80 MCS0	106	5530	Not required	19.50	Not required	Not required	19.10	99.70	Not required	22.50	Not required		
	122	5610		19.50			19.00			22.50			
802.11ax-HE20 MCS0	100	5500	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required		
	116	5580		18.50			18.00			21.50			
	124	5620		18.50			18.00			21.50			
	132	5660		18.50			17.50			21.00			
	140	5700		19.00			17.50			21.50			
802.11ax-HE40 MCS0	102	5510	Not required	20.00	Not required	Not required	19.00	Not required	Not required	22.50	Not required		
	110	5550		20.00			19.50			23.00			
	126	5630		20.00			19.00			22.50			
	134	5670		20.00			18.50			22.50			
802.11ax-HE80 MCS0	106	5530	Not required	19.50	Not required	Not required	19.50	Not required	Not required	22.50	Not required		
	122	5610		19.50			19.50			22.50			
802.11ax-HE160 MCS0	114	5570	Not required	19.00	Not required	Not required	19.00	Not required	Not required	22.00	Not required		



5.8GHz WLAN				Ant 4			Ant 5			Ant 4+5					
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %			
	802.11a 6Mbps	149	5745	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required		
		157	5785											20.00	23.00
		165	5825											20.00	23.00
	802.11n-HT20 MCS0	149	5745	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required		
		157	5785	20.00										23.00	
		165	5825	20.00										23.00	
	802.11n-HT40 MCS0	151	5755	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required		
		159	5795	20.00										23.00	
	802.11ac-VHT20 MCS0	149	5745	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required		
		157	5785											20.00	23.00
		165	5825											20.00	23.00
	802.11ac-VHT40 MCS0	151	5755	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required		
159		5795	20.00	23.00											
802.11ac-VHT80 MCS0	155	5775	19.70	20.00	99.70	19.40	20.00	99.70	22.61	23.00	23.00	100			
802.11ax-HE20 MCS0	149	5745	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required			
	157	5785											20.00	23.00	
	165	5825											20.00	23.00	
802.11ax-HE40 MCS0	151	5755	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required			
	159	5795	20.00										23.00		
802.11ax-HE80 MCS0	155	5775	20.00	20.00	Not required	20.00	20.00	20.00	20.00	23.00	23.00	Not required			



<State 2>

2.4GHz WLAN				Ant 4			Ant 5			Ant 4+5		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %
	802.11b 1Mbps		1	2412	19.40	19.50	98.20	20.60	21.00	98.20	21.83	22.00
		6	2437	19.00	19.50	19.20		19.50	21.57		22.00	
		11	2462	19.20	19.50	19.70		20.00	21.81		22.00	
802.11g 6Mbps		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		19.50			22.00			21.50	
		11	2462		18.50			18.00			21.50	
802.11n-HT20 MCS0		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		19.50			22.00			21.50	
		11	2462		18.50			18.00			21.50	
802.11n-HT40 MCS0		3	2422	Not required	18.00	Not required	Not required	17.00	Not required	Not required	20.50	Not required
		6	2437		19.50			21.50			22.00	
		9	2452		18.00			18.00			21.00	
802.11ac-VHT20 MCS0		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		19.50			22.00			21.50	
		11	2462		18.50			18.00			21.50	
802.11ac-VHT40 MCS0		3	2422	Not required	18.00	Not required	Not required	17.00	Not required	Not required	20.50	Not required
		6	2437		19.50			21.50			22.00	
		9	2452		18.00			18.00			21.00	
802.11ax-HE20 MCS0		1	2412	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required
		6	2437		19.50			22.00			21.50	
		11	2462		18.50			18.00			21.50	
802.11ax-HE40 MCS0		3	2422	Not required	18.00	Not required	Not required	17.00	Not required	Not required	20.50	Not required
		6	2437		19.50			21.50			22.00	
		9	2452		18.00			18.00			21.00	





5.2GHz WLAN				Ant 4			Ant 5			Ant 4+5		
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %
	5.2GHz WLAN	802.11a 6Mbps	36	5180	Not required	16.50	Not required	Not required	18.00	Not required	Not required	19.50
40			5200	16.50		18.00			19.50			
44			5220	16.50		18.50			19.50			
48			5240	16.50		18.50			19.50			
802.11n-HT20 MCS0		36	5180	16.50		18.00			19.50			
		40	5200	16.50		18.00			19.50			
		44	5220	16.50		18.00			19.50			
		48	5240	16.50		18.00			19.50			
802.11n-HT40 MCS0		38	5190	16.50		18.50			19.50			
		46	5230	16.50		19.00			19.50			
802.11ac-VHT20 MCS0		36	5180	16.50		18.00			19.50			
		40	5200	16.50		18.00			19.50			
		44	5220	16.50		18.00			19.50			
802.11ac-VHT40 MCS0		38	5190	16.50		18.50			19.50			
		46	5230	16.50		19.00			19.50			
802.11ac-VHT80 MCS0		42	5210	16.50		18.50			19.50			
802.11ax-HE20 MCS0		36	5180	16.50		18.00			19.50			
		40	5200	16.50		18.00			19.50			
		44	5220	16.50		18.00			19.50			
		48	5240	16.50		18.00			19.50			
802.11ax-HE40 MCS0	38	5190	16.50	18.50	19.50							
	46	5230	16.50	19.00	19.50							
802.11ax-HE80 MCS0	42	5210	16.50	18.50	19.50							



5.3GHz WLAN				Ant 4			Ant 5			Ant 4+5			
5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %	
	5.3GHz WLAN	802.11a 6Mbps	52	5260	Not required	16.50	Not required	Not required	18.00	Not required	Not required	19.50	Not required
56			5280	16.50		18.00			19.50				
60			5300	16.50		18.00			19.50				
64			5320	16.50		18.00			19.50				
802.11n-HT20 MCS0		52	5260	Not required	16.50	Not required	Not required	18.50	Not required	Not required	19.50	Not required	
		56	5280		16.50			18.00			19.50		
		60	5300		16.50			18.50			19.50		
		64	5320		16.50			18.00			19.50		
802.11n-HT40 MCS0		54	5270	16.40	16.50	99.70	18.60	19.00	99.70	Not required	19.50	Not required	
		62	5310	16.40	16.50	18.50	18.50	19.50					
802.11ac-VHT20 MCS0		52	5260	Not required	16.50	Not required	Not required	18.50	Not required	Not required	Not required	19.50	Not required
		56	5280		16.50			18.00				19.50	
		60	5300		16.50			18.50				19.50	
		64	5320		16.50			18.00				19.50	
802.11ac-VHT40 MCS0		54	5270	Not required	16.50	Not required	Not required	19.00	Not required	Not required	19.50	Not required	
		62	5310		16.50			18.50			19.50		
802.11ac-VHT80 MCS0		58	5290	Not required	16.50	Not required	Not required	18.50	Not required	19.22	19.50	100.00	
802.11ax-HE20 MCS0		52	5260	Not required	16.50	Not required	Not required	18.50	Not required	Not required	Not required	19.50	Not required
		56	5280		16.50			18.00				19.50	
		60	5300		16.50			18.50				19.50	
	64	5320	16.50		18.00			19.50					
802.11ax-HE40 MCS0	54	5270	Not required	16.50	Not required	Not required	19.00	Not required	Not required	19.50	Not required		
	62	5310		16.50			18.50			19.50			
802.11ax-HE80 MCS0	58	5290	Not required	16.50	Not required	Not required	18.50	Not required	Not required	19.50	Not required		
802.11ax-HE160 MCS0	50	5250	Not required	16.00	Not required	Not required	17.00	Not required	Not required	19.00	Not required		



5.5GHz WLAN				Ant 4			Ant 5			Ant 4+5		
5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %
	5.5GHz WLAN	802.11a 6Mbps	100	5500	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50
116			5580	16.50		18.00			20.50			
124			5620	16.50		18.00			20.50			
132			5660	16.50		17.50			20.50			
140			5700	16.50		17.50			20.50			
802.11n-HT20 MCS0		100	5500	16.50		18.00			20.50			
		116	5580	16.50		18.00			20.50			
		124	5620	16.50		18.00			20.50			
		132	5660	16.50		17.50			20.50			
		140	5700	16.50		17.50			20.50			
802.11n-HT40 MCS0		102	5510	16.50		19.00			20.50			
		110	5550	16.50		19.50			20.50			
		126	5630	16.50		19.00			20.50			
802.11ac-VHT20 MCS0		100	5500	16.50		18.00			20.50			
		116	5580	16.50		18.00			20.50			
		124	5620	16.50		18.00			20.50			
		132	5660	16.50		17.50			20.50			
802.11ac-VHT40 MCS0		102	5510	16.50		19.00			20.50			
		110	5550	16.50		19.50			20.50			
		126	5630	16.50		19.00			20.50			
802.11ac-VHT80 MCS0	106	5530	16.20	16.50	19.10	19.50	99.70	20.36	20.50	100.00		
	122	5610	16.30	16.50	19.00	19.50	99.70	20.50	20.50	100.00		
	134	5670	16.50	16.50	18.50	18.50	20.50	20.50	20.50	100.00		
802.11ax-HE20 MCS0	100	5500	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	116	5580		16.50			18.00			20.50		
	124	5620		16.50			18.00			20.50		
	132	5660		16.50			17.50			20.50		
	140	5700		16.50			17.50			20.50		
802.11ax-HE40 MCS0	102	5510		16.50			19.00			20.50		
	110	5550		16.50			19.50			20.50		
	126	5630		16.50			19.00			20.50		
802.11ax-HE80 MCS0	106	5530		16.50			19.50			20.50		
	122	5610		16.50			19.50			20.50		
802.11ax-HE160 MCS0	114	5570		16.00			18.50			20.00		



5.8GHz WLAN				Ant 4			Ant 5			Ant 4+5								
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 4+5	Tune-Up Limit Ant 4+5	Duty Cycle %						
	5.8GHz WLAN	802.11a 6Mbps	149	5745	Not required	18.00	Not required	Not required	20.00	Not required	Not required	21.50	Not required					
157			5785	18.00		20.00			21.50									
165			5825	18.00		20.00			21.50									
802.11n-HT20 MCS0		149	5745	18.00		20.00			21.50									
		157	5785	18.00		20.00			21.50									
		165	5825	18.00		20.00			21.50									
802.11n-HT40 MCS0		151	5755	18.00		20.00			21.50									
		159	5795	18.00		20.00			21.50									
802.11ac-VHT20 MCS0		149	5745	18.00		20.00			21.50									
		157	5785	18.00		20.00			21.50									
		165	5825	18.00		20.00			21.50									
802.11ac-VHT40 MCS0		151	5755	18.00		20.00			21.50									
		159	5795	18.00		20.00			21.50									
802.11ac-VHT80 MCS0		155	5775	17.70		18.00			99.70			19.40		20.00	99.70	21.41	21.50	100.00
802.11ax-HE20 MCS0		149	5745	Not required		18.00			Not required			Not required		20.00	Not required	Not required	21.50	Not required
		157	5785			18.00								20.00			21.50	
		165	5825			18.00								20.00			21.50	
802.11ax-HE40 MCS0		151	5755			18.00								20.00			21.50	
	159	5795	18.00		20.00	21.50												
802.11ax-HE80 MCS0	155	5775	18.00		20.00	21.50												



<State 5>

2.4GHz WLAN				Ant 6			Ant 5			Ant 6+5		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %	
802.11b 1Mbps	1	2412	18.40	18.50	98.20	20.70	21.00	98.20	22.75	23.00	97.94	
	6	2437	18.60	19.00		20.20	20.50		22.67	23.00		
	11	2462	19.30	19.50		20.80	21.00		23.28	23.50		
802.11g 6Mbps	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11n-HT20 MCS0	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11n-HT40 MCS0	3	2422	Not required	15.00	Not required	Not required	16.00	Not required	Not required	18.50	Not required	
	6	2437		19.50			21.50			24.00		
	9	2452		14.00			16.00			18.50		
802.11ac-VHT20 MCS0	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11ac-VHT40 MCS0	3	2422	Not required	15.00	Not required	Not required	16.00	Not required	Not required	18.50	Not required	
	6	2437		19.50			21.50			24.00		
	9	2452		14.00			16.00			18.50		
802.11ax-HE20 MCS0	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11ax-HE40 MCS0	3	2422	Not required	15.00	Not required	Not required	16.00	Not required	Not required	18.50	Not required	
	6	2437		19.50			21.50			24.00		
	9	2452		14.00			16.00			18.50		



5.2GHz WLAN				Ant 6			Ant 5			Ant 6+5					
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %			
	5.2GHz WLAN	802.11a 6Mbps	36	5180	Not required	13.00	Not required	Not required	17.50	Not required	Not required	15.00	Not required		
40			5200	13.00		17.50			15.00						
44			5220	13.00		17.50			15.00						
48			5240	13.00		17.50			15.00						
802.11n-HT20 MCS0		36	5180	13.00		17.50			15.00						
		40	5200	13.00		17.50			15.00						
		44	5220	13.00		17.50			15.00						
		48	5240	13.00		17.50			15.00						
802.11n-HT40 MCS0		38	5190	13.00		16.50			17.00			99.70		17.00	15.00
		46	5230	13.00		17.20			17.50					15.00	
802.11ac-VHT20 MCS0		36	5180	13.00		17.50			15.00						
		40	5200	13.00		17.50			15.00						
		44	5220	13.00		17.50			15.00						
		48	5240	13.00		17.50			15.00						
802.11ac-VHT40 MCS0		38	5190	13.00		17.00			15.00						
		46	5230	13.00		17.50			15.00						
802.11ac-VHT80 MCS0		42	5210	12.70		13.00		99.70	Not required	16.50	Not required	14.61	15.00	100	
802.11ax-HE20 MCS0		36	5180	Not required		13.00		Not required	Not required	17.50	Not required	Not required	15.00	Not required	
		40	5200			13.00				17.50			15.00		
		44	5220			13.00				17.50			15.00		
	48	5240	13.00		17.50	15.00									
802.11ax-HE40 MCS0	38	5190	13.00		17.00	15.00									
	46	5230	13.00		17.50	15.00									
802.11ax-HE80 MCS0	42	5210	13.00		16.50	15.00									



5.8GHz WLAN				Ant 6			Ant 5			Ant 6+5		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %
	802.11a 6Mbps	149	5745	Not required	15.00	Not required	Not required	20.00	Not required	Not required	18.50	Not required
		157	5785		15.00			20.00			18.50	
		165	5825		15.00			20.00			18.50	
	802.11n-HT20 MCS0	149	5745		15.00			20.00			18.50	
		157	5785		15.00			20.00			18.50	
		165	5825		15.00			20.00			18.50	
	802.11n-HT40 MCS0	151	5755		15.00			20.00			18.50	
		159	5795		15.00			20.00			18.50	
	802.11ac-VHT20 MCS0	149	5745		15.00			20.00			18.50	
		157	5785	15.00	20.00	18.50						
		165	5825	15.00	20.00	18.50						
	802.11ac-VHT40 MCS0	151	5755	15.00	20.00	18.50						
159		5795	15.00	20.00	18.50							
802.11ac-VHT80 MCS0	155	5775	14.90	15.00	99.70	19.00	20.00	99.70	18.12	18.50	100	
802.11ax-HE20 MCS0	149	5745	Not required	15.00	Not required	Not required	20.00	Not required	Not required	18.50	Not required	
	157	5785		15.00			20.00			18.50		
	165	5825		15.00			20.00			18.50		
802.11ax-HE40 MCS0	151	5755		15.00			20.00			18.50		
	159	5795		15.00			20.00			18.50		
802.11ax-HE80 MCS0	155	5775		15.00			20.00			18.50		



<State 6>

2.4GHz WLAN				Ant 6			Ant 5			Ant 6+5		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %
	802.11b 1Mbps	1	2412	18.40	18.50	98.20	20.70	21.00	98.20	22.75	23.00	97.94
6		2437	18.60	19.00	20.20		20.50	22.67		23.00		
11		2462	19.30	19.50	20.80		21.00	23.28		23.50		
802.11g 6Mbps	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11n-HT20 MCS0	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11n-HT40 MCS0	3	2422	Not required	15.00	Not required	Not required	16.00	Not required	Not required	18.50	Not required	
	6	2437		19.50			21.50			24.00		
	9	2452		14.00			16.00			18.50		
802.11ac-VHT20 MCS0	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11ac-VHT40 MCS0	3	2422	Not required	15.00	Not required	Not required	16.00	Not required	Not required	18.50	Not required	
	6	2437		19.50			21.50			24.00		
	9	2452		14.00			16.00			18.50		
802.11ax-HE20 MCS0	1	2412	Not required	16.50	Not required	Not required	18.00	Not required	Not required	20.50	Not required	
	6	2437		19.00			22.00			24.00		
	11	2462		15.50			16.50			19.00		
802.11ax-HE40 MCS0	3	2422	Not required	15.00	Not required	Not required	16.00	Not required	Not required	18.50	Not required	
	6	2437		19.50			21.50			24.00		
	9	2452		14.00			16.00			18.50		





5.2GHz WLAN				Ant 6			Ant 5			Ant 6+5		
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %
	5.2GHz WLAN	802.11a 6Mbps	36	5180	Not required	20.00	Not required	Not required	19.00	Not required	Not required	22.50
40			5200	20.00		19.00			22.50			
44			5220	20.00		19.00			22.50			
48			5240	20.00		19.00			22.50			
802.11n-HT20 MCS0		36	5180	19.50		18.50			22.00			
		40	5200	19.50		18.50			22.00			
		44	5220	20.00		19.00			22.50			
		48	5240	20.00		19.00			22.50			
802.11n-HT40 MCS0		38	5190	18.00		17.00			20.50			
		46	5230	19.50		18.50			22.00			
802.11ac-VHT20 MCS0		36	5180	19.50		18.50			22.00			
		40	5200	19.50		18.50			22.00			
		44	5220	20.00		19.00			22.50			
802.11ac-VHT40 MCS0		38	5190	18.00		17.00			20.50			
		46	5230	19.50		18.50			22.00			
802.11ac-VHT80 MCS0		42	5210	18.00		16.50			20.50			
802.11ax-HE20 MCS0		36	5180	19.50		18.50			22.00			
		40	5200	19.50		18.50			22.00			
		44	5220	20.00		19.00			22.50			
		48	5240	20.00		19.00			22.50			
802.11ax-HE40 MCS0	38	5190	18.00	17.00	20.50							
	46	5230	19.50	18.50	22.00							
802.11ax-HE80 MCS0	42	5210	18.00	16.50	20.50							



5.3GHz WLAN				Ant 6			Ant 5			Ant 6+5								
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %							
802.11a 6Mbps	52	5260	19.10	19.50	99.10	Not required	18.50	Not required	22.00	22.00	99.05							
	56	5280	19.30	19.50					21.75	22.00								
	60	5300	19.40	19.50					22.00	22.00								
	64	5320	19.20	19.50					21.65	22.00								
802.11n-HT20 MCS0	52	5260	Not required	19.50	Not required	18.50	Not required	Not required	22.00	Not required	Not required							
	56	5280		19.50					22.00									
	60	5300		19.00					21.50									
	64	5320		19.00					21.50									
802.11n-HT40 MCS0	54	5270	19.60	20.00	99.70	18.50	19.00	99.70	22.30	22.50	100							
	62	5310	18.50	19.00		17.00	17.50		20.82	21.50								
802.11ac-VHT20 MCS0	52	5260	Not required	19.50	Not required	Not required	18.50	Not required	Not required	22.00	Not required							
	56	5280		19.50						22.00								
	60	5300		19.00						21.50								
	64	5320		19.00						21.50								
802.11ac-VHT40 MCS0	54	5270		20.00						19.00		22.50						
	62	5310		19.00						17.50		21.50						
802.11ac-VHT80 MCS0	58	5290		17.50						16.00		20.00						
802.11ax-HE20 MCS0	52	5260		19.50						18.50		Not required	Not required	18.50	Not required	Not required	22.00	Not required
	56	5280		19.50						18.50							22.00	
	60	5300		19.00						18.00							21.50	
	64	5320		19.00						18.00							21.50	
802.11ax-HE40 MCS0	54	5270		20.00						19.00		22.50						
	62	5310	19.00	17.50	21.50													
802.11ax-HE80 MCS0	58	5290	17.50	16.00	20.00													
802.11ax-HE160 MCS0	50	5250	17.5	16.5	20.00													



5.5GHz WLAN				Ant 6			Ant 5			Ant 6+5		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %	
802.11a 6Mbps	100	5500	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	
	116	5580		19.00			18.50			22.00		
	124	5620		19.00			18.00			21.50		
	132	5660		19.00			18.00			21.50		
	140	5700		19.00			18.00			21.50		
802.11n-HT20 MCS0	100	5500	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required	
	116	5580		18.50			18.00			21.50		
	124	5620		18.50			18.00			21.50		
	132	5660		18.50			16.50			21.00		
	140	5700		18.50			16.50			21.00		
802.11n-HT40 MCS0	102	5510	19.10	19.50	99.70	18.40	19.00	99.70	21.77	22.50	100	
	110	5550	19.80	20.00		19.20	19.50		22.57	23.00		
	126	5630	19.50	20.00		18.20	18.50		21.78	22.50		
	134	5670	19.50	20.00		17.80	18.00		21.80	22.50		
802.11ac-VHT20 MCS0	100	5500	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required	
	116	5580		18.50			18.00			21.50		
	124	5620		18.50			18.00			21.50		
	132	5660		18.50			16.50			21.00		
	140	5700		18.50			16.50			21.00		
802.11ac-VHT40 MCS0	102	5510	Not required	19.50	Not required	Not required	19.00	Not required	Not required	22.50	Not required	
	110	5550		20.00			19.50			23.00		
	126	5630		20.00			18.50			22.50		
	134	5670		20.00			18.00			22.50		
802.11ac-VHT80 MCS0	106	5530	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	
	122	5610		19.00			18.50			22.00		
802.11ax-HE20 MCS0	100	5500	Not required	18.50	Not required	Not required	18.00	Not required	Not required	21.50	Not required	
	116	5580		18.50			18.00			21.50		
	124	5620		18.50			18.00			21.50		
	132	5660		18.50			17.00			21.00		
	140	5700		18.50			17.00			21.00		
802.11ax-HE40 MCS0	102	5510	Not required	19.50	Not required	Not required	19.00	Not required	Not required	22.50	Not required	
	110	5550		20.00			19.50			23.00		
	126	5630		20.00			18.50			22.50		
	134	5670		20.00			18.00			22.50		
802.11ax-HE80 MCS0	106	5530	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	
	122	5610		19.00			18.50			22.00		
802.11ax-HE160 MCS0	114	5570	Not required	19.00	Not required	Not required	18.50	Not required	Not required	22.00	Not required	



5.8GHz WLAN				Ant 6			Ant 5			Ant 6+5			
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) Ant 6+5	Tune-Up Limit Ant 6+5	Duty Cycle %	
	802.11a 6Mbps	149	5745	Not required	20.00	Not required	Not required	20.00	20.00	Not required	Not required	23.00	Not required
		157	5785									23.00	
		165	5825									23.00	
	802.11n-HT20 MCS0	149	5745	Not required	20.00	Not required	Not required	20.00	20.00	Not required	Not required	23.00	Not required
		157	5785									23.00	
		165	5825									23.00	
	802.11n-HT40 MCS0	151	5755	19.70	20.00	99.70	Not required	20.00	Not required	22.11	23.00	100	
		159	5795	19.40	20.00								
	802.11ac-VHT20 MCS0	149	5745	Not required	20.00	Not required	Not required	20.00	20.00	Not required	Not required	23.00	Not required
157		5785	23.00										
165		5825	23.00										
802.11ac-VHT40 MCS0	151	5755	Not required	20.00	Not required	Not required	20.00	20.00	Not required	Not required	23.00	Not required	
	159	5795									23.00		
802.11ac-VHT80 MCS0	155	5775	19.70	20.00	99.70	19.00	20.00	99.70	22.61	23.00	100		
802.11ax-HE20 MCS0	149	5745	Not required	20.00	Not required	Not required	20.00	20.00	Not required	Not required	23.00	Not required	
	157	5785									23.00		
	165	5825									23.00		
802.11ax-HE40 MCS0	151	5755	Not required	20.00	Not required	Not required	20.00	20.00	Not required	Not required	23.00	Not required	
	159	5795									23.00		
802.11ax-HE80 MCS0	155	5775	Not required	20.00	Not required	Not required	20.00	Not required	Not required	23.00	Not required		



**General Note:**

- For 2.4GHz Bluetooth SAR testing was selected 1Mbps due to its highest average power and duty cycle is 76.83% considered in SAR testing, and the duty cycle would be scaled to theoretical 83.3% in reported SAR calculation.

**<2.4GHz Bluetooth>**

**<Ant 4 State 1,4>**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	17.47	14.24	14.30
	CH 39	2441	19.26	15.88	15.98
	CH 78	2480	17.82	14.93	15.01
Tune-up Limit			19.4	16	16

**<Ant 5 State 1,4>**

Mode	Channel	Frequency (MHz)	Average power (dBm)					
			1Mbps	Tune-up Limit	2Mbps	Tune-up Limit	3Mbps	Tune-up Limit
BR / EDR	CH 00	2402	16.08	17.50	14.19	15.00	14.27	15.00
	CH 39	2441	18.36	18.50	16.18	16.50	16.28	16.50
	CH 78	2480	17.07	17.50	14.88	15.00	14.93	15.00

**<Ant 4 State 1,4>**

Mode	Channel	Frequency (MHz)	Average power (dBm)			
			1Mbps	Tune-up Limit	2Mbps	Tune-up Limit
LE	CH 00	2402	8.20	8.50	8.10	8.50
	CH 19	2440	9.50	10.00	9.40	10.00
	CH 39	2480	7.30	8.50	7.20	8.50

**<Ant 5 State 1,4>**

Mode	Channel	Frequency (MHz)	Average power (dBm)			
			1Mbps	Tune-up Limit	1Mbps	Tune-up Limit
LE	CH 00	2402	9.20	9.50	9.10	9.50
	CH 19	2440	10.70	11.00	10.60	11.00
	CH 39	2480	8.60	9.50	8.50	9.50

**<Ant 4 State 2>**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	12.22	12.68	12.77
	CH 39	2441	13.69	13.98	13.99
	CH 78	2480	12.19	12.70	12.71
Tune-up Limit			14	14	14



**<Ant 4 State 3>**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	15.68	12.51	12.52
	CH 39	2441	16.99	14.08	14.20
	CH 78	2480	15.52	12.90	12.99
Tune-up Limit			17	15	15

**<Ant 5 State 3>**

Mode	Channel	Frequency (MHz)	Average power (dBm)					
			1Mbps	Tune-up Limit	2Mbps	Tune-up Limit	3Mbps	Tune-up Limit
BR / EDR	CH 00	2402	13.06	13.50	13.06	13.50	12.49	13.50
	CH 39	2441	15.10	15.50	15.09	15.50	14.58	15.50
	CH 78	2480	13.42	13.50	13.42	13.50	12.94	13.50





Ant 5

