

## Measurement Conditions

DASY system configuration, as far as not given on page 1.

|                              |  |                                  |
|------------------------------|--|----------------------------------|
| DASY Version                 | DASY5  | V52.10.2                         |
| Extrapolation                | Advanced Extrapolation                                   |                                  |
| Phantom                      | Modular Flat Phantom V5.0                                |                                  |
| Distance Dipole Center - TSL | 10 mm  | with Spacer                      |
| Zoom Scan Resolution         | dx, dy = 4.0 mm, dz = 1.4 mm                             | Graded Ratio = 1.4 (Z direction) |
| Frequency                    | 5250 MHz ± 1 MHz<br>5600 MHz ± 1 MHz<br>5750 MHz ± 1 MHz |                                  |

## Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

|   | Temperature     | Permittivity | Conductivity     |
|---|-----------------|--------------|------------------|
| Nominal Head TSL parameters             | 22.0 °C         | 35.9         | 4.71 mho/m       |
| Measured Head TSL parameters            | (22.0 ± 0.2) °C | 35.1 ± 6 %   | 4.53 mho/m ± 6 % |
| Head TSL temperature change during test | < 0.5 °C        | ---          | ---              |

## SAR result with Head TSL at 5250 MHz

| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                                 |
|---|--------------------|---------------------------------|
| SAR measured  | 100 mW input power | 8.09 W/kg                       |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | <b>80.5 W/kg ± 19.9 % (k=2)</b> |

| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                                 |
|---|--------------------|---------------------------------|
| SAR measured  | 100 mW input power | 2.33 W/kg                       |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | <b>23.1 W/kg ± 19.5 % (k=2)</b> |

## Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

|   | Temperature     | Permittivity | Conductivity     |
|---|-----------------|--------------|------------------|
| Nominal Head TSL parameters             | 22.0 °C         | 35.5         | 5.07 mho/m       |
| Measured Head TSL parameters            | (22.0 ± 0.2) °C | 34.6 ± 6 %   | 4.88 mho/m ± 6 % |
| Head TSL temperature change during test | < 0.5 °C        | ---          | ---              |

## SAR result with Head TSL at 5600 MHz

| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                                 |
|---|--------------------|---------------------------------|
| SAR measured  | 100 mW input power | 8.40 W/kg                       |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | <b>83.4 W/kg ± 19.9 % (k=2)</b> |

| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                                 |
|---|--------------------|---------------------------------|
| SAR measured  | 100 mW input power | 2.40 W/kg                       |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | <b>23.8 W/kg ± 19.5 % (k=2)</b> |

## Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

|   | Temperature     | Permittivity | Conductivity     |
|---|-----------------|--------------|------------------|
| Nominal Head TSL parameters             | 22.0 °C         | 35.4         | 5.22 mho/m       |
| Measured Head TSL parameters            | (22.0 ± 0.2) °C | 34.4 ± 6 %   | 5.03 mho/m ± 6 % |
| Head TSL temperature change during test | < 0.5 °C        | ----         | ----             |

## SAR result with Head TSL at 5750 MHz

| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                                 |
|---|--------------------|---------------------------------|
| SAR measured  | 100 mW input power | 8.06 W/kg                       |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | <b>80.0 W/kg ± 19.9 % (k=2)</b> |

| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                                 |
|---|--------------------|---------------------------------|
| SAR measured  | 100 mW input power | 2.30 W/kg                       |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | <b>22.8 W/kg ± 19.5 % (k=2)</b> |

## Appendix (Additional assessments outside the scope of SCS 0108)

### Antenna Parameters with Head TSL at 5250 MHz

|                                      |                               |
|--------------------------------------|-------------------------------|
| Impedance, transformed to feed point | 51.7 $\Omega$ - 6.2 $j\Omega$ |
| Return Loss                          | - 24.0 dB                     |

### Antenna Parameters with Head TSL at 5600 MHz

|                                      |                               |
|--------------------------------------|-------------------------------|
| Impedance, transformed to feed point | 56.0 $\Omega$ - 2.7 $j\Omega$ |
| Return Loss                          | - 24.1 dB                     |

### Antenna Parameters with Head TSL at 5750 MHz

|                                      |                               |
|--------------------------------------|-------------------------------|
| Impedance, transformed to feed point | 56.7 $\Omega$ - 1.0 $j\Omega$ |
| Return Loss                          | - 23.9 dB                     |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.195 ns |
|----------------------------------|----------|

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

|                 |       |
|-----------------|-------|
| Manufactured by | SPEAG |
|-----------------|-------|

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1113**

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz,  
Frequency: 5750 MHz

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.53$  S/m;  $\epsilon_r = 35.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>,

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 4.88$  S/m;  $\epsilon_r = 34.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>,

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.03$  S/m;  $\epsilon_r = 34.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.4, 5.4, 5.4) @ 5250 MHz, ConvF(4.95, 4.95, 4.95) @ 5600 MHz, ConvF(4.98, 4.98, 4.98) @ 5750 MHz; Calibrated: 25.03.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2019
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1504); SEMCAD X 14.6.12(7470)

## **Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan,**

**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 78.54 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 27.9 W/kg

**SAR(1 g) = 8.09 W/kg; SAR(10 g) = 2.33 W/kg**

Maximum value of SAR (measured) = 18.1 W/kg

## **Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan,**

**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 78.00 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 31.1 W/kg

**SAR(1 g) = 8.40 W/kg; SAR(10 g) = 2.40 W/kg**

Maximum value of SAR (measured) = 19.4 W/kg

## **Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan,**

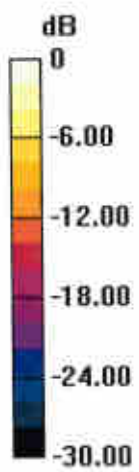
**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 75.13 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 31.8 W/kg

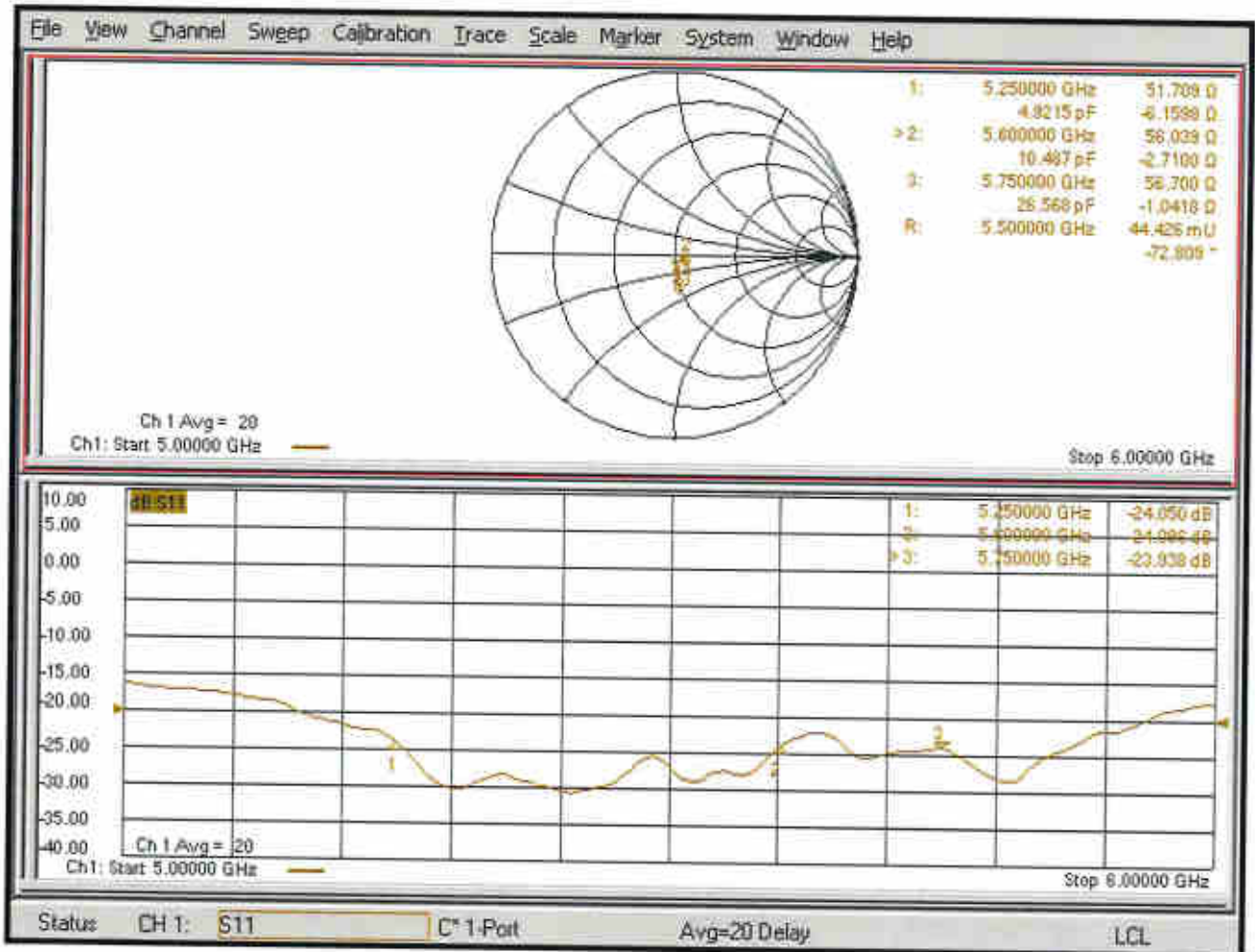
**SAR(1 g) = 8.06 W/kg; SAR(10 g) = 2.30 W/kg**

Maximum value of SAR (measured) = 19.0 W/kg



0 dB = 18.1 W/kg = 12.58 dBW/kg

# Impedance Measurement Plot for Head TSL







In Collaboration with  
**s p e a g**  
CALIBRATION LABORATORY



中国认可  
国际互认  
校准  
CALIBRATION  
CNAS L0570

Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504  
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

Client : **INNOWAVE**

Certificate No: **Z19-60223**

## CALIBRATION CERTIFICATE

Object: **DAE4 - SN: 871**

Calibration Procedure(s): **FF-Z11-002-01**  
Calibration Procedure for the Data Acquisition Electronics (DAEx)

Calibration date: **June 27, 2019**

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements(SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature(22±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards      | ID #    | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
|------------------------|---------|--|-----------------------|
| Process Calibrator 753 | 1971018 | 24-Jun-19 (CTTL, No.J19X05126)           | Jun-20                |

|                | Name        | Function           |
|----------------|-------------|--------------------|
| Calibrated by: | Yu Zongying | SAR Test Engineer  |
| Reviewed by:   | Zhao Jing   | SAR Test Engineer  |
| Approved by:   | Qi Dianyuan | SAR Project Leader |



Issued: June 29, 2019

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504  
E-mail: cttl@chinattl.com Http://www.chinattl.cn

### **Glossary:**

DAE data acquisition electronics  
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

### **Methods Applied and Interpretation of Parameters:**

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.





Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504  
E-mail: cttl@chinattl.com Http://www.chinattl.cn

### DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 $\mu$ V, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| Calibration Factors | X                         | Y                         | Z                         |
|---------------------|---------------------------|---------------------------|---------------------------|
| High Range          | 404.719 $\pm$ 0.15% (k=2) | 404.706 $\pm$ 0.15% (k=2) | 405.146 $\pm$ 0.15% (k=2) |
| Low Range           | 3.98180 $\pm$ 0.7% (k=2)  | 3.93711 $\pm$ 0.7% (k=2)  | 3.96917 $\pm$ 0.7% (k=2)  |

### Connector Angle

|   |              |
|---|--------------|
| Connector Angle to be used in DASY system | 90° $\pm$ 1° |
|---|--------------|



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Client **Sporton-CN (Auden)**

Certificate No: **DAE4-1210\_Jul19**

## CALIBRATION CERTIFICATE

Object **DAE4 - SD 000 D04 BM - SN: 1210**

Calibration procedure(s) **QA CAL-06.v29  
Calibration procedure for the data acquisition electronics (DAE)**

Calibration date: **July 23, 2019**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards             | ID #               | Cal Date (Certificate No.) | Scheduled Calibration  |
|-------------------------------|--------------------|----------------------------|------------------------|
| Keithley Multimeter Type 2001 | SN: 0810278        | 03-Sep-18 (No:23488)       | Sep-19                 |
| Secondary Standards           | ID #               | Check Date (in house)      | Scheduled Check        |
| Auto DAE Calibration Unit     | SE UWS 053 AA 1001 | 07-Jan-19 (in house check) | In house check: Jan-20 |
| Calibrator Box V2.1           | SE UMS 006 AA 1002 | 07-Jan-19 (in house check) | In house check: Jan-20 |

Calibrated by: **Name** Adrian Gehring **Function** Laboratory Technician

**Signature**

Approved by: **Name** Sven Kühn **Function** Deputy Manager

Issued: July 23, 2019

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

## Glossary

|                 |   |
|-----------------|---|
| DAE             | data acquisition electronics  |
| Connector angle | information used in DASY system to align probe sensor X to the robot coordinate system. |

## Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement*: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity*: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity*: Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation*: Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted*: Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current*: Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance*: Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage*: Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption*: Typical value for information. Supply currents in various operating modes.

## DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 $\mu$ V, full range = -100...+300 mV  
Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| Calibration Factors | X                         | Y                         | Z                         |
|---------------------|---------------------------|---------------------------|---------------------------|
| High Range          | 404.166 $\pm$ 0.02% (k=2) | 404.988 $\pm$ 0.02% (k=2) | 405.096 $\pm$ 0.02% (k=2) |
| Low Range           | 3.99856 $\pm$ 1.50% (k=2) | 3.98348 $\pm$ 1.50% (k=2) | 3.99912 $\pm$ 1.50% (k=2) |

## Connector Angle

|   |                                     |
|---|-------------------------------------|
| Connector Angle to be used in DASY system | 345.5 $^{\circ}$ $\pm$ 1 $^{\circ}$ |
|---|-------------------------------------|



## Appendix (Additional assessments outside the scope of SCS0108)

### 1. DC Voltage Linearity

| High Range |         | Reading ( $\mu\text{V}$ ) | Difference ( $\mu\text{V}$ ) | Error (%) |
|------------|---------|---------------------------|------------------------------|-----------|
| Channel X  | + Input | 199994.14                 | -1.58                        | -0.00     |
| Channel X  | + Input | 20003.24                  | 1.63                         | 0.01      |
| Channel X  | - Input | -19999.69                 | 2.15                         | -0.01     |
| Channel Y  | + Input | 199994.24                 | -1.47                        | -0.00     |
| Channel Y  | + Input | 19999.92                  | -1.59                        | -0.01     |
| Channel Y  | - Input | -20002.36                 | -0.45                        | 0.00      |
| Channel Z  | + Input | 199993.01                 | -3.18                        | -0.00     |
| Channel Z  | + Input | 20001.72                  | 0.33                         | 0.00      |
| Channel Z  | - Input | -20001.83                 | 0.22                         | -0.00     |

| Low Range |         | Reading ( $\mu\text{V}$ ) | Difference ( $\mu\text{V}$ ) | Error (%) |
|-----------|---------|---------------------------|------------------------------|-----------|
| Channel X | + Input | 2000.95                   | 0.12                         | 0.01      |
| Channel X | + Input | 201.39                    | 0.23                         | 0.11      |
| Channel X | - Input | -198.00                   | 0.76                         | -0.38     |
| Channel Y | + Input | 2000.37                   | -0.36                        | -0.02     |
| Channel Y | + Input | 200.27                    | -0.81                        | -0.40     |
| Channel Y | - Input | -199.65                   | -0.81                        | 0.41      |
| Channel Z | + Input | 2000.08                   | -0.54                        | -0.03     |
| Channel Z | + Input | 200.54                    | -0.42                        | -0.21     |
| Channel Z | - Input | -199.83                   | -0.88                        | 0.44      |

### 2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

|           | Common mode Input Voltage (mV) | High Range Average Reading ( $\mu\text{V}$ ) | Low Range Average Reading ( $\mu\text{V}$ ) |
|-----------|--------------------------------|--|---|
| Channel X | 200                            | -6.17  | -7.94                                       |
|           | - 200                          | 9.53   | 7.51  |
| Channel Y | 200                            | -9.87  | -9.68                                       |
|           | - 200                          | 8.28   | 8.02  |
| Channel Z | 200                            | 12.52  | 12.54                                       |
|           | - 200                          | -13.97                                       | -14.14                                      |

### 3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

|           | Input Voltage (mV) | Channel X ( $\mu\text{V}$ ) | Channel Y ( $\mu\text{V}$ ) | Channel Z ( $\mu\text{V}$ ) |
|-----------|--------------------|-----------------------------|-----------------------------|-----------------------------|
| Channel X | 200                | -                           | 2.17                        | -3.57                       |
| Channel Y | 200                | 8.43                        | -                           | 2.81                        |
| Channel Z | 200                | 9.90                        | 6.07                        | -                           |



#### 4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

|           | High Range (LSB) | Low Range (LSB) |
|-----------|------------------|-----------------|
| Channel X | 15961            | 16608           |
| Channel Y | 15954            | 15680           |
| Channel Z | 15869            | 16574           |

#### 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M $\Omega$

|           | Average ( $\mu$ V) | min. Offset ( $\mu$ V) | max. Offset ( $\mu$ V) | Std. Deviation ( $\mu$ V) |
|-----------|--------------------|------------------------|------------------------|---------------------------|
| Channel X | -0.75              | -1.83                  | 0.18                   | 0.39                      |
| Channel Y | 0.12               | -0.92                  | 0.78                   | 0.38                      |
| Channel Z | 1.30               | -0.57                  | 3.07                   | 0.63                      |

#### 6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

#### 7. Input Resistance (Typical values for information)

|           | Zeroing (kOhm) | Measuring (MOhm) |
|-----------|----------------|------------------|
| Channel X | 200            | 200              |
| Channel Y | 200            | 200              |
| Channel Z | 200            | 200              |

#### 8. Low Battery Alarm Voltage (Typical values for information)

| Typical values | Alarm Level (VDC) |
|----------------|-------------------|
| Supply (+ Vcc) | +7.9              |
| Supply (- Vcc) | -7.6              |

#### 9. Power Consumption (Typical values for information)

| Typical values | Switched off (mA) | Stand by (mA) | Transmitting (mA) |
|----------------|-------------------|---------------|-------------------|
| Supply (+ Vcc) | +0.01             | +6            | +14               |
| Supply (- Vcc) | -0.01             | -8            | -9                |



Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **ES3-3293\_Nov19**

## CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3293**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v7  
Calibration procedure for dosimetric E-field probes**

Calibration date: **November 25, 2019**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 03-Apr-19 (No. 217-02892/02893)   | Apr-20                 |
| Power sensor NRP-Z91       | SN: 103244       | 03-Apr-19 (No. 217-02892)         | Apr-20                 |
| Power sensor NRP-Z91       | SN: 103245       | 03-Apr-19 (No. 217-02893)         | Apr-20                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-19 (No. 217-02894)         | Apr-20                 |
| DAE4                       | SN: 660          | 07-Oct-19 (No. DAE4-660_Oct19)    | Oct-20                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-18 (No. ES3-3013_Dec18)    | Dec-19                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-18) | In house check: Jun-20 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-19) | In house check: Oct-20 |

|                | Name          | Function              | Signature |
|----------------|---------------|-----------------------|-----------|
| Calibrated by: | Leif Klysner  | Laboratory Technician |           |
| Approved by:   | Katja Pokovic | Technical Manager     |           |

Issued: November 26, 2019

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

### Glossary:

|                          |   |
|--------------------------|---|
| TSL                      | tissue simulating liquid  |
| NORM <sub>x,y,z</sub>    | sensitivity in free space   |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>  |
| DCP                      | diode compression point   |
| CF                       | crest factor (1/duty_cycle) of the RF signal  |
| A, B, C, D               | modulation dependent linearization parameters   |
| Polarization $\varphi$   | $\varphi$ rotation around probe axis  |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).



## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3293

### Basic Calibration Parameters

|   | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|---|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 1.09     | 0.90     | 0.71     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 105.6    | 104.0    | 109.8    |               |

### Calibration Results for Modulation Response

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Max<br>dev.  | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|--------------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 197.9    | $\pm 3.5 \%$ | $\pm 4.7 \%$              |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 199.0    |              |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 206.6    |              |                           |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Page 5).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3293

### Other Probe Parameters

|   |            |
|---|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | -4.6       |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 10 mm      |
| Tip Diameter                                  | 4 mm       |
| Probe Tip to Sensor X Calibration Point       | 2 mm       |
| Probe Tip to Sensor Y Calibration Point       | 2 mm       |
| Probe Tip to Sensor Z Calibration Point       | 2 mm       |
| Recommended Measurement Distance from Surface | 3 mm       |



## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3293

### Calibration Parameter Determined in Head Tissue Simulating Media

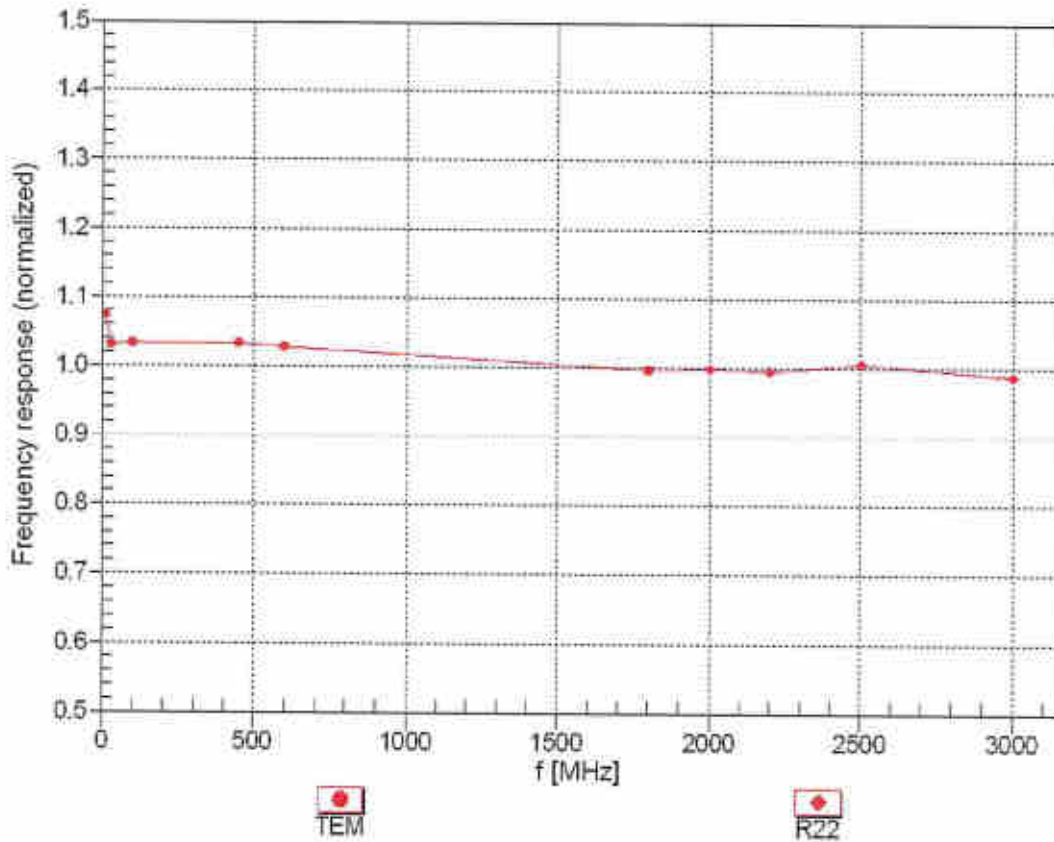
| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>H</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 6.56    | 6.56    | 6.56    | 0.80               | 1.23                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 6.39    | 6.39    | 6.39    | 0.80               | 1.26                    | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 6.23    | 6.23    | 6.23    | 0.72               | 1.30                    | ± 12.0 %  |
| 1450                 | 40.5                               | 1.20                            | 5.89    | 5.89    | 5.89    | 0.48               | 1.49                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 5.53    | 5.53    | 5.53    | 0.55               | 1.38                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 5.32    | 5.32    | 5.32    | 0.67               | 1.30                    | ± 12.0 %  |
| 2000                 | 40.0                               | 1.40                            | 5.25    | 5.25    | 5.25    | 0.50               | 1.55                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 4.89    | 4.89    | 4.89    | 0.63               | 1.42                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 4.60    | 4.60    | 4.60    | 0.80               | 1.33                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 4.39    | 4.39    | 4.39    | 0.75               | 1.41                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-8 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>H</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

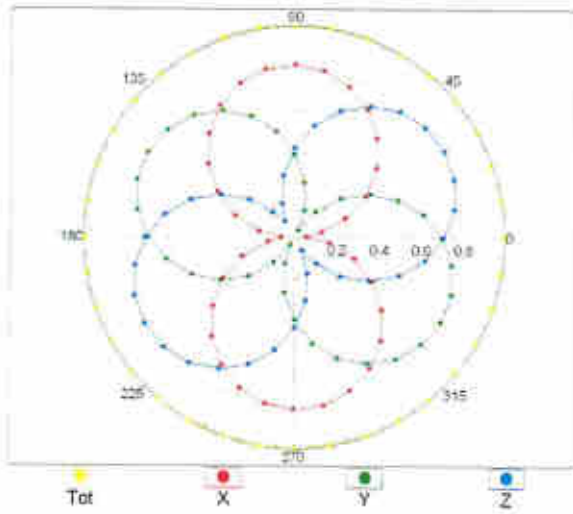
### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



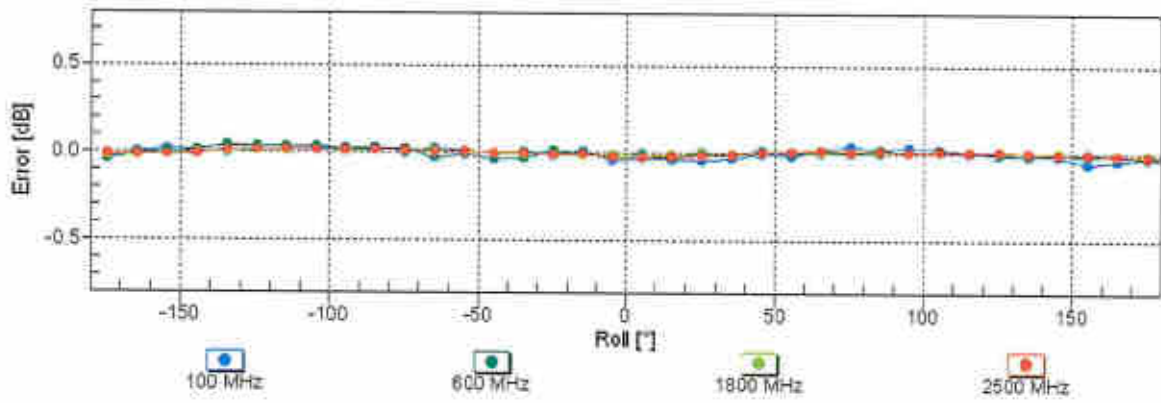
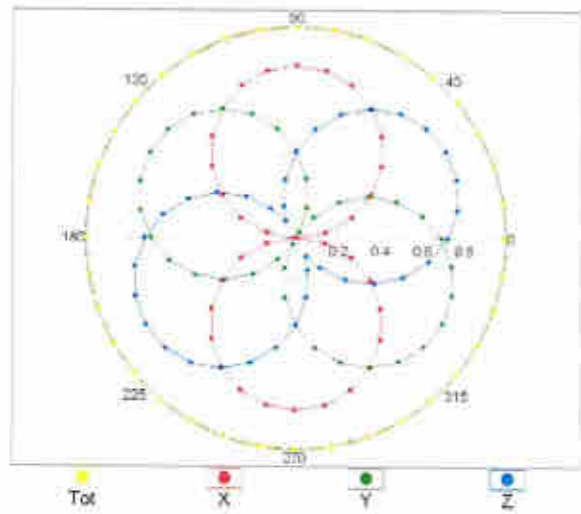
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz,TEM

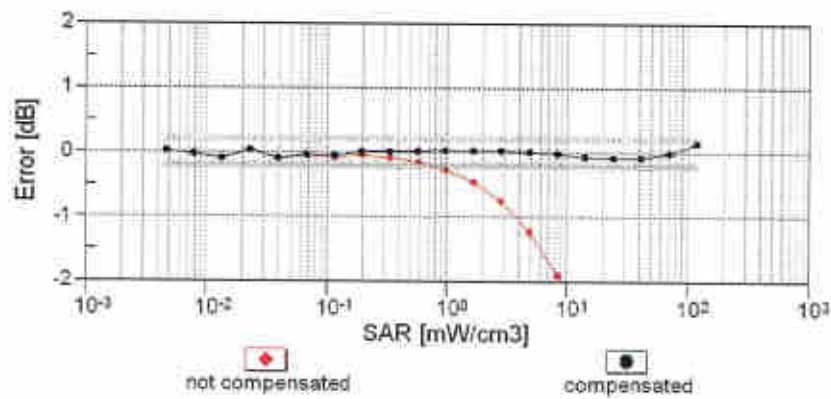
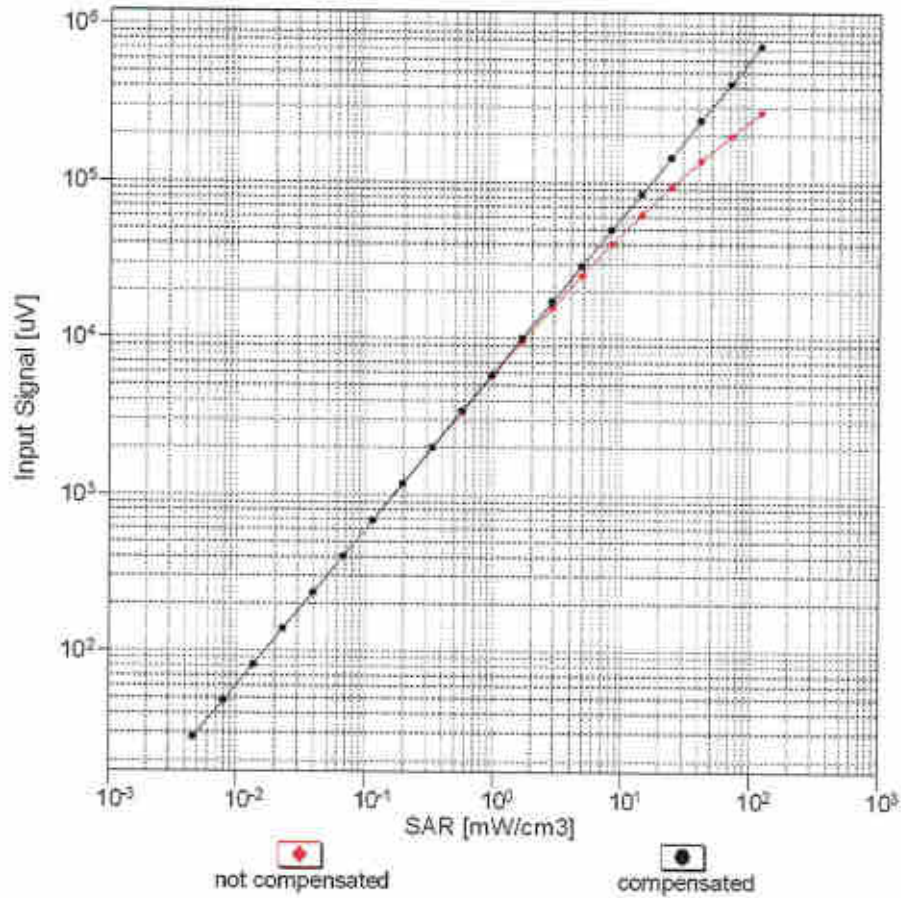


f=1800 MHz,R22



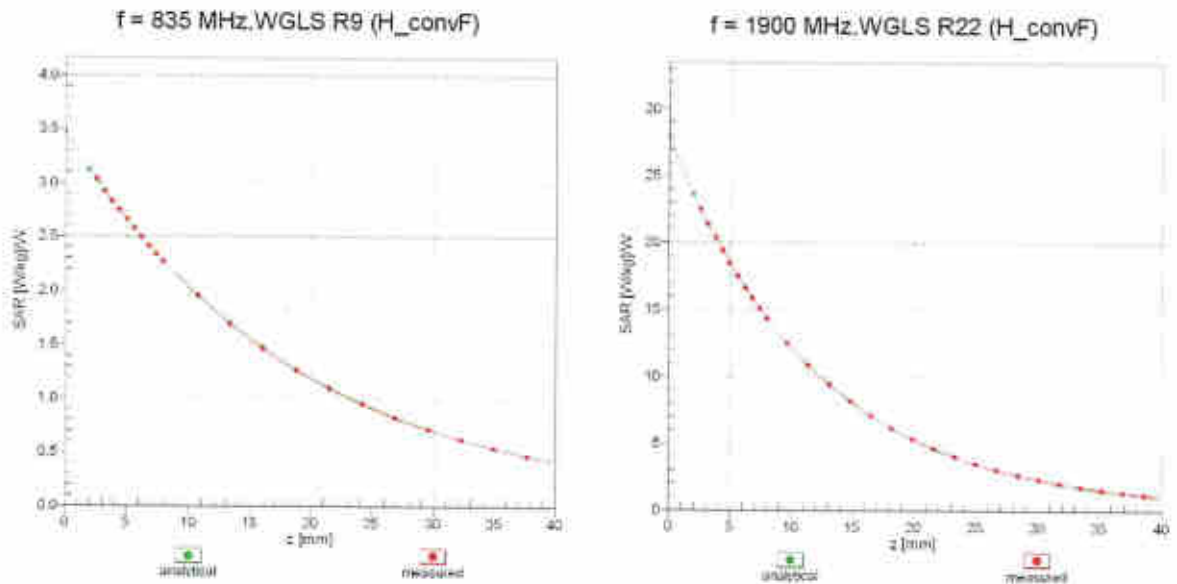
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

### Dynamic Range f(SAR<sub>head</sub>) (TEM cell , f<sub>eval</sub>= 1900 MHz)

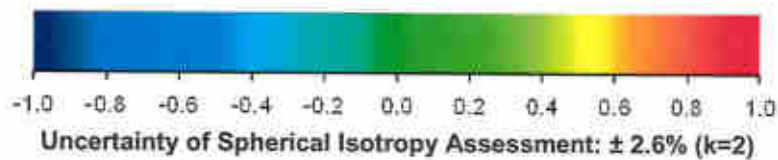
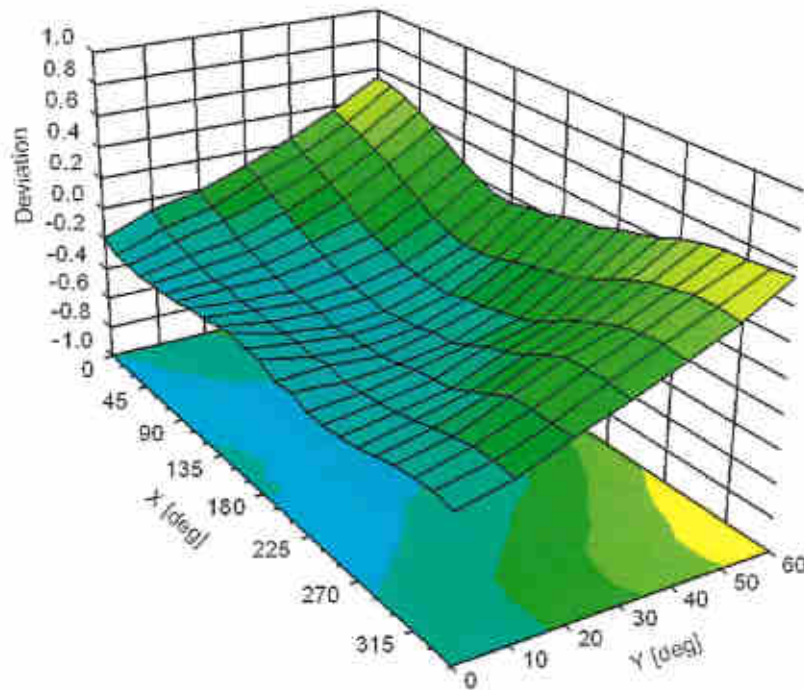


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

### Conversion Factor Assessment



### Deviation from Isotropy in Liquid Error ( $\phi, \theta$ ), f = 900 MHz







Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **EX3-3857\_May19**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3857**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7  
Calibration procedure for dosimetric E-field probes**

Calibration date: **May 27, 2019**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 03-Apr-19 (No. 217-02892/02893)   | Apr-20                 |
| Power sensor NRP-Z91       | SN: 103244       | 03-Apr-19 (No. 217-02892)         | Apr-20                 |
| Power sensor NRP-Z91       | SN: 103245       | 03-Apr-19 (No. 217-02893)         | Apr-20                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-19 (No. 217-02894)         | Apr-20                 |
| DAE4                       | SN: 660          | 19-Dec-18 (No. DAE4-660 Dec18)    | Dec-19                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-18 (No. ES3-3013 Dec18)    | Dec-19                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-20 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-20 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-20 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-20 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-18) | In house check: Oct-19 |

|   | Name                  | Function              | Signature            |
|---|-----------------------|-----------------------|----------------------|
| Calibrated by:  | <b>Jeton Kastrati</b> | Laboratory Technician |                      |
| Approved by:  | <b>Katja Pokovic</b>  | Technical Manager     |                      |
|   |                       |                       | Issued: May 28, 2019 |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                       |                       |                      |



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

### Glossary:

|                          |   |
|--------------------------|---|
| TSL                      | tissue simulating liquid  |
| NORM <sub>x,y,z</sub>    | sensitivity in free space   |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>  |
| DCP                      | diode compression point   |
| CF                       | crest factor (1/duty_cycle) of the RF signal  |
| A, B, C, D               | modulation dependent linearization parameters   |
| Polarization $\varphi$   | $\varphi$ rotation around probe axis  |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).



## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3857

### Basic Calibration Parameters

|   | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|---|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.17     | 0.43     | 0.45     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 102.0    | 100.4    | 103.0    |               |

### Calibration Results for Modulation Response

| UID       | Communication System Name   |   | A<br>dB | B<br>dB $\mu\text{V}$ | C     | D<br>dB | VR<br>mV | Max<br>dev.  | Max<br>Unc <sup>E</sup><br>(k=2) |
|-----------|-----------------------------|---|---------|-----------------------|-------|---------|----------|--------------|----------------------------------|
| 0         | CW                          | X | 0.00    | 0.00                  | 1.00  | 0.00    | 149.1    | $\pm 3.5 \%$ | $\pm 4.7 \%$                     |
|           |                             | Y | 0.00    | 0.00                  | 1.00  |         | 142.5    |              |                                  |
|           |                             | Z | 0.00    | 0.00                  | 1.00  |         | 128.7    |              |                                  |
| 10352-AAA | Pulse Waveform (200Hz, 10%) | X | 5.02    | 71.79                 | 14.46 | 10.00   | 60.0     | $\pm 3.0 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 15.00   | 85.65                 | 19.05 |         | 60.0     |              |                                  |
|           |                             | Z | 15.00   | 87.33                 | 19.76 |         | 60.0     |              |                                  |
| 10353-AAA | Pulse Waveform (200Hz, 20%) | X | 4.88    | 73.94                 | 13.94 | 6.99    | 80.0     | $\pm 1.7 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 15.00   | 86.82                 | 18.12 |         | 80.0     |              |                                  |
|           |                             | Z | 15.00   | 88.67                 | 19.12 |         | 80.0     |              |                                  |
| 10354-AAA | Pulse Waveform (200Hz, 40%) | X | 7.38    | 78.94                 | 13.73 | 3.98    | 95.0     | $\pm 1.4 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 15.00   | 86.36                 | 16.11 |         | 95.0     |              |                                  |
|           |                             | Z | 15.00   | 93.83                 | 20.13 |         | 95.0     |              |                                  |
| 10355-AAA | Pulse Waveform (200Hz, 60%) | X | 0.64    | 63.16                 | 6.75  | 2.22    | 120.0    | $\pm 1.5 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 13.05   | 81.68                 | 12.64 |         | 120.0    |              |                                  |
|           |                             | Z | 15.00   | 101.47                | 22.26 |         | 120.0    |              |                                  |
| 10387-AAA | QPSK Waveform, 1 MHz        | X | 1.68    | 72.66                 | 15.43 | 0.00    | 150.0    | $\pm 2.7 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 0.57    | 60.00                 | 7.58  |         | 150.0    |              |                                  |
|           |                             | Z | 0.99    | 66.12                 | 11.92 |         | 150.0    |              |                                  |
| 10388-AAA | QPSK Waveform, 10 MHz       | X | 3.08    | 73.93                 | 18.74 | 0.00    | 150.0    | $\pm 1.2 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 2.07    | 67.07                 | 15.14 |         | 150.0    |              |                                  |
|           |                             | Z | 2.60    | 71.16                 | 17.43 |         | 150.0    |              |                                  |
| 10396-AAA | 64-QAM Waveform, 100 kHz    | X | 3.51    | 72.69                 | 19.87 | 3.01    | 150.0    | $\pm 1.6 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 2.69    | 68.94                 | 18.38 |         | 150.0    |              |                                  |
|           |                             | Z | 3.62    | 74.43                 | 20.55 |         | 150.0    |              |                                  |
| 10399-AAA | 64-QAM Waveform, 40 MHz     | X | 3.84    | 69.00                 | 17.04 | 0.00    | 150.0    | $\pm 2.3 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 3.40    | 66.62                 | 15.52 |         | 150.0    |              |                                  |
|           |                             | Z | 3.68    | 68.33                 | 16.53 |         | 150.0    |              |                                  |
| 10414-AAA | WLAN CCDF, 64-QAM, 40MHz    | X | 5.12    | 66.37                 | 16.23 | 0.00    | 150.0    | $\pm 4.3 \%$ | $\pm 9.6 \%$                     |
|           |                             | Y | 4.79    | 65.33                 | 15.44 |         | 150.0    |              |                                  |
|           |                             | Z | 4.99    | 66.28                 | 15.97 |         | 150.0    |              |                                  |

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Page 5).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3857

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>V <sup>-1</sup> | T1<br>ms.V <sup>-3</sup> | T2<br>ms.V <sup>-1</sup> | T3<br>ms | T4<br>V <sup>-2</sup> | T5<br>V <sup>-1</sup> | T6   |
|---|----------|----------|-----------------------------|--------------------------|--------------------------|----------|-----------------------|-----------------------|------|
| X | 59.0     | 455.93   | 38.07                       | 9.66                     | 1.32                     | 5.00     | 0.00                  | 0.69                  | 1.01 |
| Y | 45.9     | 356.07   | 37.98                       | 10.21                    | 0.83                     | 5.05     | 0.00                  | 0.48                  | 1.01 |
| Z | 48.1     | 356.44   | 35.21                       | 11.94                    | 0.51                     | 5.06     | 1.47                  | 0.28                  | 1.01 |

### Other Probe Parameters

|   |            |
|---|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | -43.5      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3857

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 9.77    | 9.77    | 9.77    | 0.42               | 0.99                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 9.48    | 9.48    | 9.48    | 0.46               | 0.80                    | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 9.34    | 9.34    | 9.34    | 0.29               | 1.12                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.46    | 8.46    | 8.46    | 0.34               | 0.80                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.10    | 8.10    | 8.10    | 0.34               | 0.80                    | ± 12.0 %  |
| 2000                 | 40.0                               | 1.40                            | 8.04    | 8.04    | 8.04    | 0.26               | 0.88                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.88    | 7.88    | 7.88    | 0.33               | 0.90                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.50    | 7.50    | 7.50    | 0.37               | 0.93                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.31    | 7.31    | 7.31    | 0.35               | 0.93                    | ± 12.0 %  |
| 3300                 | 38.2                               | 2.71                            | 6.96    | 6.96    | 6.96    | 0.30               | 1.25                    | ± 14.0 %  |
| 3500                 | 37.9                               | 2.91                            | 6.92    | 6.92    | 6.92    | 0.30               | 1.25                    | ± 14.0 %  |
| 3700                 | 37.7                               | 3.12                            | 6.65    | 6.65    | 6.65    | 0.30               | 1.25                    | ± 14.0 %  |
| 3900                 | 37.5                               | 3.32                            | 6.60    | 6.60    | 6.60    | 0.40               | 1.60                    | ± 14.0 %  |
| 4100                 | 37.2                               | 3.53                            | 5.99    | 5.99    | 5.99    | 0.40               | 1.60                    | ± 14.0 %  |
| 4200                 | 37.1                               | 3.63                            | 5.98    | 5.98    | 5.98    | 0.40               | 1.70                    | ± 14.0 %  |
| 4400                 | 36.9                               | 3.84                            | 5.86    | 5.86    | 5.86    | 0.45               | 1.75                    | ± 14.0 %  |
| 4600                 | 36.7                               | 4.04                            | 5.83    | 5.83    | 5.83    | 0.45               | 1.75                    | ± 14.0 %  |
| 4800                 | 36.4                               | 4.25                            | 5.73    | 5.73    | 5.73    | 0.45               | 1.75                    | ± 14.0 %  |
| 4950                 | 36.3                               | 4.40                            | 5.53    | 5.53    | 5.53    | 0.40               | 1.80                    | ± 14.0 %  |
| 5250                 | 35.9                               | 4.71                            | 5.19    | 5.19    | 5.19    | 0.40               | 1.80                    | ± 14.0 %  |
| 5600                 | 35.5                               | 5.07                            | 4.92    | 4.92    | 4.92    | 0.40               | 1.80                    | ± 14.0 %  |
| 5750                 | 35.4                               | 5.22                            | 5.17    | 5.17    | 5.17    | 0.40               | 1.80                    | ± 14.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

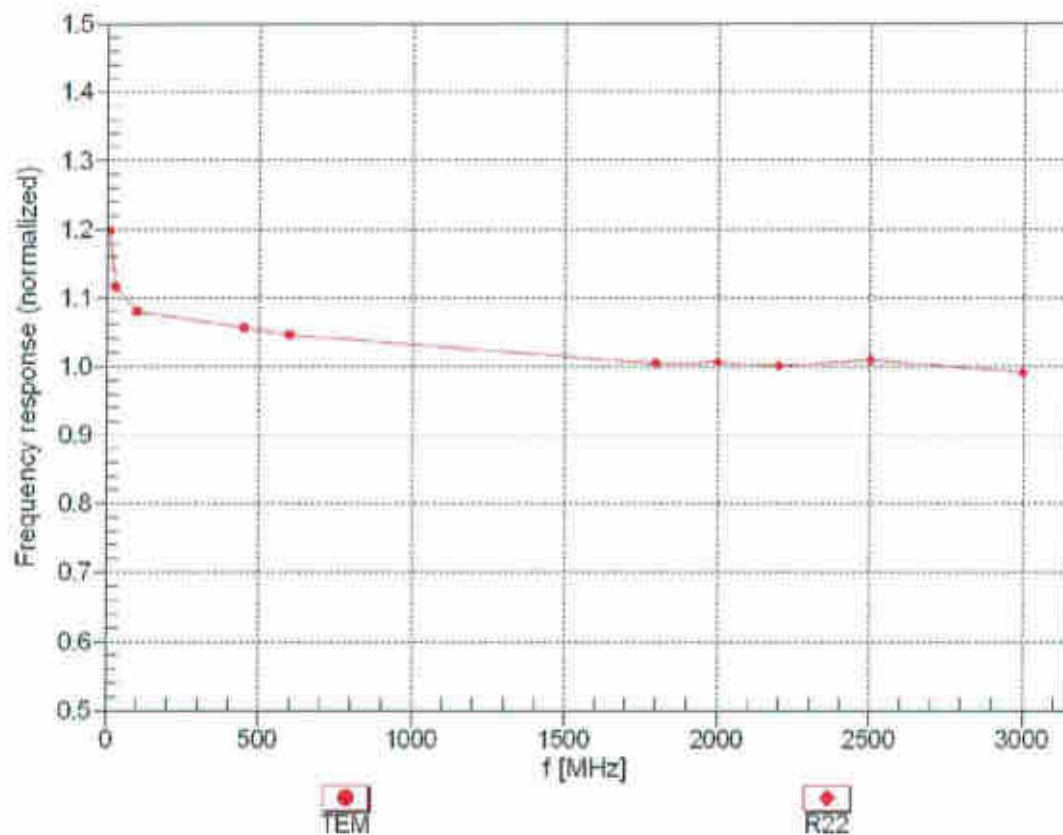
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



## Frequency Response of E-Field

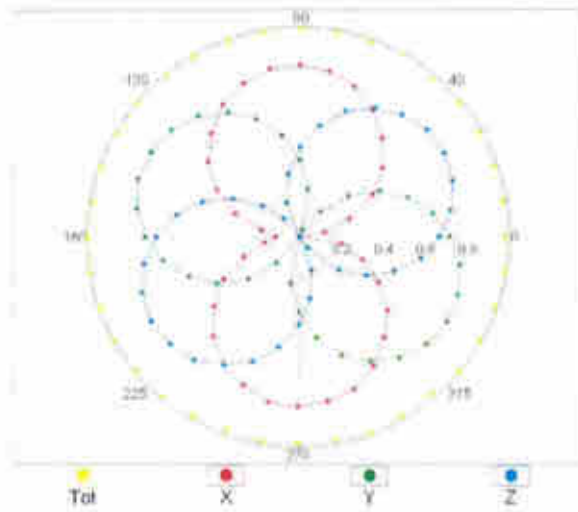
(TEM-Cell:ifi110 EXX, Waveguide: R22)



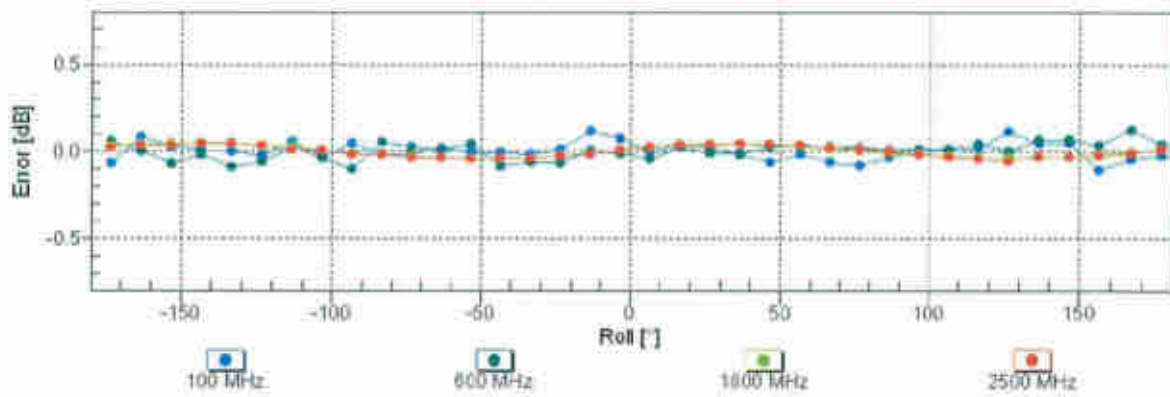
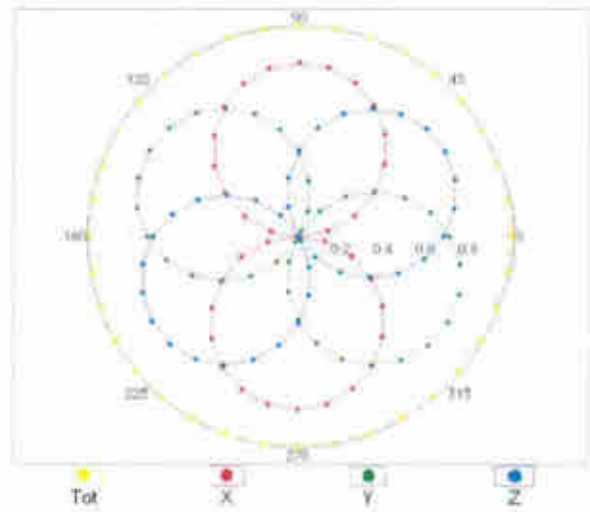
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz,TEM

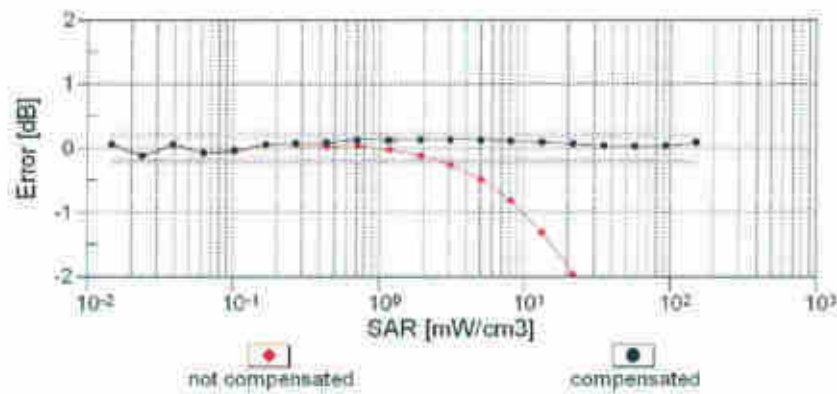
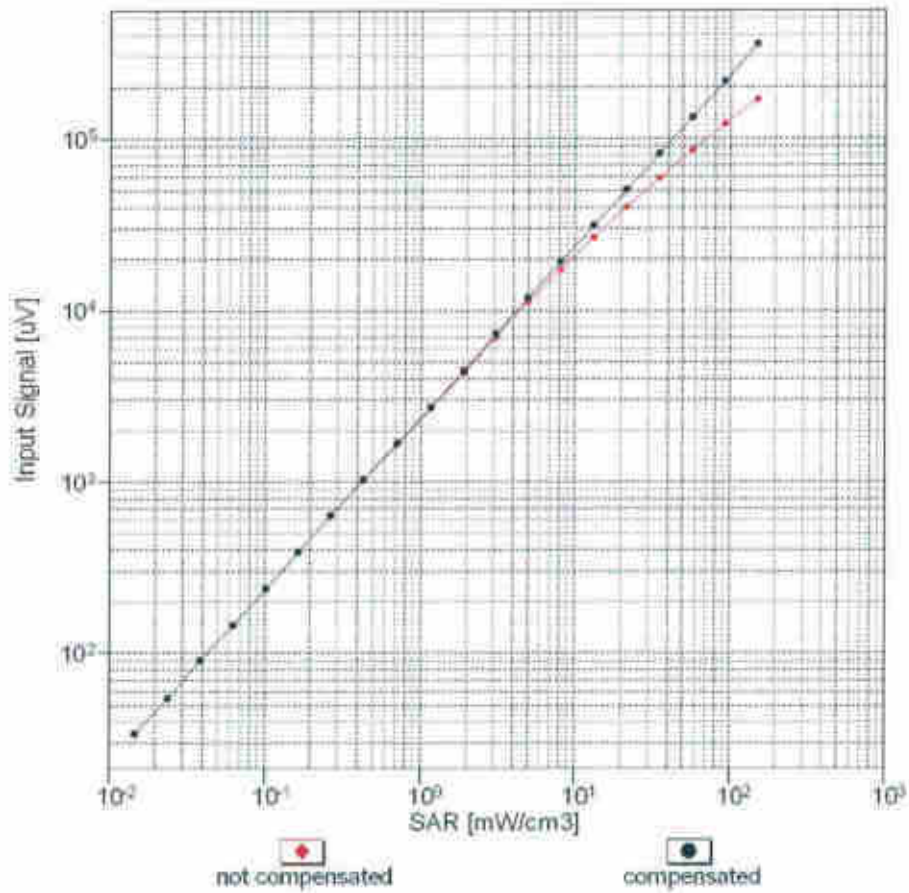


f=1800 MHz,R22



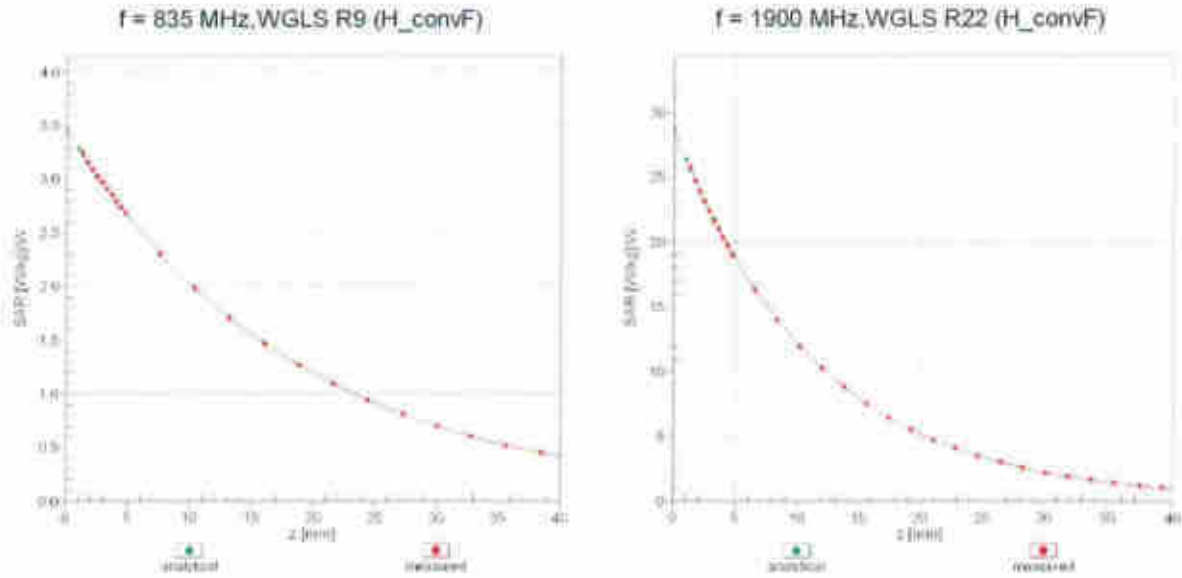
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

## Dynamic Range f(SAR<sub>head</sub>) (TEM cell , f<sub>eval</sub>= 1900 MHz)



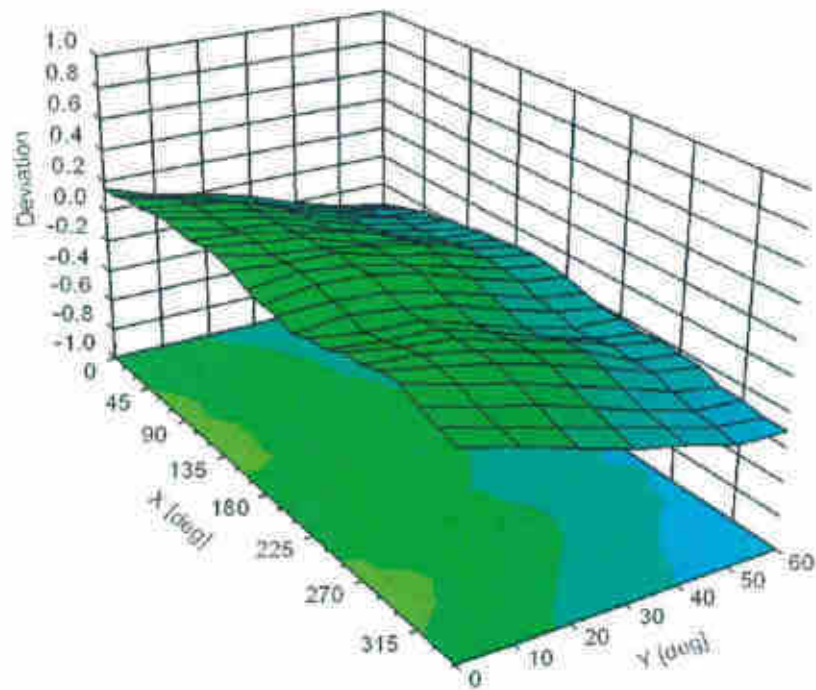
**Uncertainty of Linearity Assessment: ± 0.6% (k=2)**

### Conversion Factor Assessment



### Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment:  $\pm 2.6\%$  (k=2)



## Appendix: Modulation Calibration Parameters

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>F</sup> (k=2) |
|-------|-----|---|-----------|----------|------------------------|
| 0     |     | CW  | CW        | 0.00     | ± 4.7 %                |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00    | ± 9.6 %                |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ± 9.6 %                |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ± 9.6 %                |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ± 9.6 %                |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ± 9.6 %                |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ± 9.6 %                |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ± 9.6 %                |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ± 9.6 %                |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ± 9.6 %                |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ± 9.6 %                |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ± 9.6 %                |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ± 9.6 %                |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ± 9.6 %                |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ± 9.6 %                |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ± 9.6 %                |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74     | ± 9.6 %                |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53     | ± 9.6 %                |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83     | ± 9.6 %                |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (B-DPSK, DH1)               | Bluetooth | 8.01     | ± 9.6 %                |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (B-DPSK, DH3)               | Bluetooth | 4.77     | ± 9.6 %                |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (B-DPSK, DH5)               | Bluetooth | 4.10     | ± 9.6 %                |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ± 9.6 %                |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      | 7.78     | ± 9.6 %                |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ± 9.6 %                |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ± 9.6 %                |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ± 9.6 %                |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ± 9.6 %                |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ± 9.6 %                |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12     | ± 9.6 %                |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83     | ± 9.6 %                |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ± 9.6 %                |
| 10062 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68     | ± 9.6 %                |
| 10063 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63     | ± 9.6 %                |
| 10064 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ± 9.6 %                |
| 10065 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ± 9.6 %                |
| 10066 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ± 9.6 %                |
| 10067 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ± 9.6 %                |
| 10068 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ± 9.6 %                |
| 10069 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ± 9.6 %                |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ± 9.6 %                |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ± 9.6 %                |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ± 9.6 %                |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ± 9.6 %                |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ± 9.6 %                |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ± 9.6 %                |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ± 9.6 %                |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ± 9.6 %                |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77     | ± 9.6 %                |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ± 9.6 %                |
| 10097 | CAB | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ± 9.6 %                |
| 10098 | CAB | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ± 9.6 %                |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55     | ± 9.6 %                |
| 10100 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-FDD   | 5.67     | ± 9.6 %                |
| 10101 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-FDD   | 6.42     | ± 9.6 %                |
| 10102 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-FDD   | 6.60     | ± 9.6 %                |
| 10103 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-TDD   | 9.29     | ± 9.6 %                |
| 10104 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-TDD   | 9.97     | ± 9.6 %                |
| 10105 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-TDD   | 10.01    | ± 9.6 %                |
| 10108 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | LTE-FDD   | 5.80     | ± 9.6 %                |



|       |     |  |         |       |       |
|-------|-----|--|---------|-------|-------|
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ±9.6% |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ±9.6% |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ±9.6% |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ±9.6% |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62  | ±9.6% |
| 10114 | CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10  | ±9.6% |
| 10115 | CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46  | ±9.6% |
| 10116 | CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15  | ±9.6% |
| 10117 | CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07  | ±9.6% |
| 10118 | CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59  | ±9.6% |
| 10119 | CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | ±9.6% |
| 10140 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ±9.6% |
| 10141 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ±9.6% |
| 10142 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ±9.6% |
| 10143 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ±9.6% |
| 10144 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ±9.6% |
| 10145 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ±9.6% |
| 10146 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ±9.6% |
| 10147 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ±9.6% |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ±9.6% |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ±9.6% |
| 10151 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ±9.6% |
| 10152 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ±9.6% |
| 10153 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ±9.6% |
| 10154 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ±9.6% |
| 10155 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ±9.6% |
| 10156 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ±9.6% |
| 10157 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ±9.6% |
| 10158 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ±9.6% |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ±9.6% |
| 10160 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ±9.6% |
| 10161 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ±9.6% |
| 10162 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ±9.6% |
| 10166 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ±9.6% |
| 10167 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ±9.6% |
| 10168 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ±9.6% |
| 10169 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ±9.6% |
| 10170 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ±9.6% |
| 10171 | AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  | ±9.6% |
| 10172 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ±9.6% |
| 10173 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48  | ±9.6% |
| 10174 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ±9.6% |
| 10175 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ±9.6% |
| 10176 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52  | ±9.6% |
| 10177 | CAI | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73  | ±9.6% |
| 10178 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52  | ±9.6% |
| 10179 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ±9.6% |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50  | ±9.6% |
| 10181 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)          | LTE-FDD | 5.72  | ±9.6% |
| 10182 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)        | LTE-FDD | 6.52  | ±9.6% |
| 10183 | AAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)        | LTE-FDD | 6.50  | ±9.6% |
| 10184 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)           | LTE-FDD | 5.73  | ±9.6% |
| 10185 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)         | LTE-FDD | 6.51  | ±9.6% |
| 10186 | AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         | LTE-FDD | 6.50  | ±9.6% |
| 10187 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)         | LTE-FDD | 5.73  | ±9.6% |
| 10188 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)       | LTE-FDD | 6.52  | ±9.6% |
| 10189 | AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)       | LTE-FDD | 6.50  | ±9.6% |
| 10193 | CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   | WLAN    | 8.09  | ±9.6% |
| 10194 | CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)  | WLAN    | 8.12  | ±9.6% |
| 10195 | CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)  | WLAN    | 8.21  | ±9.6% |
| 10196 | CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)        | WLAN    | 8.10  | ±9.6% |
| 10197 | CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)       | WLAN    | 8.13  | ±9.6% |
| 10198 | CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)       | WLAN    | 8.27  | ±9.6% |
| 10219 | CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)        | WLAN    | 8.03  | ±9.6% |



|       |     |   |          |       |        |
|-------|-----|---|----------|-------|--------|
| 10220 | CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)  | WLAN     | 8.13  | ±9.6 % |
| 10221 | CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)  | WLAN     | 8.27  | ±9.6 % |
| 10222 | CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)      | WLAN     | 8.06  | ±9.6 % |
| 10223 | CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)    | WLAN     | 8.48  | ±9.6 % |
| 10224 | CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)   | WLAN     | 8.08  | ±9.6 % |
| 10225 | CAB | UMTS-FDD (HSPA+)                            | WCDMA    | 5.97  | ±9.6 % |
| 10226 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)    | LTE-TDD  | 9.49  | ±9.6 % |
| 10227 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)    | LTE-TDD  | 10.26 | ±9.6 % |
| 10228 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)      | LTE-TDD  | 9.22  | ±9.6 % |
| 10229 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ±9.6 % |
| 10230 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ±9.6 % |
| 10231 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)        | LTE-TDD  | 9.19  | ±9.6 % |
| 10232 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ±9.6 % |
| 10233 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ±9.6 % |
| 10234 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)        | LTE-TDD  | 9.21  | ±9.6 % |
| 10235 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ±9.6 % |
| 10236 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ±9.6 % |
| 10237 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)       | LTE-TDD  | 9.21  | ±9.6 % |
| 10238 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ±9.6 % |
| 10239 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ±9.6 % |
| 10240 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)       | LTE-TDD  | 9.21  | ±9.6 % |
| 10241 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)  | LTE-TDD  | 9.82  | ±9.6 % |
| 10242 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)  | LTE-TDD  | 9.86  | ±9.6 % |
| 10243 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)    | LTE-TDD  | 9.46  | ±9.6 % |
| 10244 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-TDD  | 10.06 | ±9.6 % |
| 10245 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)    | LTE-TDD  | 10.06 | ±9.6 % |
| 10246 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-TDD  | 9.30  | ±9.6 % |
| 10247 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)    | LTE-TDD  | 9.91  | ±9.6 % |
| 10248 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)    | LTE-TDD  | 10.09 | ±9.6 % |
| 10249 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)      | LTE-TDD  | 9.29  | ±9.6 % |
| 10250 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   | LTE-TDD  | 9.81  | ±9.6 % |
| 10251 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)   | LTE-TDD  | 10.17 | ±9.6 % |
| 10252 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)     | LTE-TDD  | 9.24  | ±9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   | LTE-TDD  | 9.90  | ±9.6 % |
| 10254 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)   | LTE-TDD  | 10.14 | ±9.6 % |
| 10255 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | LTE-TDD  | 9.20  | ±9.6 % |
| 10256 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | LTE-TDD  | 9.96  | ±9.6 % |
| 10257 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | LTE-TDD  | 10.08 | ±9.6 % |
| 10258 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | LTE-TDD  | 9.34  | ±9.6 % |
| 10259 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | LTE-TDD  | 9.98  | ±9.6 % |
| 10260 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | LTE-TDD  | 9.97  | ±9.6 % |
| 10261 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | LTE-TDD  | 9.24  | ±9.6 % |
| 10262 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | LTE-TDD  | 9.83  | ±9.6 % |
| 10263 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | LTE-TDD  | 10.16 | ±9.6 % |
| 10264 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | LTE-TDD  | 9.23  | ±9.6 % |
| 10265 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | LTE-TDD  | 9.92  | ±9.6 % |
| 10266 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | LTE-TDD  | 10.07 | ±9.6 % |
| 10267 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | LTE-TDD  | 9.30  | ±9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | LTE-TDD  | 10.06 | ±9.6 % |
| 10269 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | LTE-TDD  | 10.13 | ±9.6 % |
| 10270 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | LTE-TDD  | 9.58  | ±9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)   | WCDMA    | 4.87  | ±9.6 % |
| 10275 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)    | WCDMA    | 3.96  | ±9.6 % |
| 10277 | CAA | PHS (QPSK)                                  | PHS      | 11.81 | ±9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)          | PHS      | 11.81 | ±9.6 % |
| 10279 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)         | PHS      | 12.18 | ±9.6 % |
| 10290 | AAB | CDMA2000, RC1, SO55, Full Rate              | CDMA2000 | 3.91  | ±9.6 % |
| 10291 | AAB | CDMA2000, RC3, SO55, Full Rate              | CDMA2000 | 3.46  | ±9.6 % |
| 10292 | AAB | CDMA2000, RC3, SO32, Full Rate              | CDMA2000 | 3.39  | ±9.6 % |
| 10293 | AAB | CDMA2000, RC3, SO3, Full Rate               | CDMA2000 | 3.50  | ±9.6 % |
| 10295 | AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.       | CDMA2000 | 12.49 | ±9.6 % |
| 10297 | AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)     | LTE-FDD  | 5.81  | ±9.6 % |
| 10298 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-FDD  | 5.72  | ±9.6 % |
| 10299 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-FDD  | 6.39  | ±9.6 % |



|       |     |  |          |       |         |
|-------|-----|--|----------|-------|---------|
| 10300 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   | LTE-FDD  | 6.60  | ± 9.6 % |
| 10301 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                               | WiMAX    | 12.03 | ± 9.6 % |
| 10302 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)               | WiMAX    | 12.57 | ± 9.6 % |
| 10303 | AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                              | WiMAX    | 12.52 | ± 9.6 % |
| 10304 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                              | WiMAX    | 11.86 | ± 9.6 % |
| 10305 | AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)                 | WiMAX    | 15.24 | ± 9.6 % |
| 10306 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)                 | WiMAX    | 14.67 | ± 9.6 % |
| 10307 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)                  | WiMAX    | 14.49 | ± 9.6 % |
| 10308 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                             | WiMAX    | 14.46 | ± 9.6 % |
| 10309 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)              | WiMAX    | 14.58 | ± 9.6 % |
| 10310 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)               | WiMAX    | 14.57 | ± 9.6 % |
| 10311 | AAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)   | LTE-FDD  | 6.06  | ± 9.6 % |
| 10313 | AAA | iDEN 1:3   | iDEN     | 10.51 | ± 9.6 % |
| 10314 | AAA | iDEN 1:6   | iDEN     | 13.48 | ± 9.6 % |
| 10315 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)                        | WLAN     | 1.71  | ± 9.6 % |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)                    | WLAN     | 8.36  | ± 9.6 % |
| 10317 | AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)                          | WLAN     | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)  | Generic  | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)  | Generic  | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)  | Generic  | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)  | Generic  | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)  | Generic  | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz   | Generic  | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz  | Generic  | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz   | Generic  | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz  | Generic  | 6.27  | ± 9.6 % |
| 10400 | AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                              | WLAN     | 8.37  | ± 9.6 % |
| 10401 | AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                              | WLAN     | 8.60  | ± 9.6 % |
| 10402 | AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                              | WLAN     | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)   | CDMA2000 | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)   | CDMA2000 | 3.77  | ± 9.6 % |
| 10406 | AAB | CDMA2000, RC3, SO32, SCH0, Full Rate   | CDMA2000 | 5.22  | ± 9.6 % |
| 10410 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL, Subframe=2,3,4,7,8,9, Subframe Conf=4) | LTE-TDD  | 7.82  | ± 9.6 % |
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz   | Generic  | 8.54  | ± 9.6 % |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                        | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                    | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAB | IEEE 802.11a/n WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                        | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)    | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)   | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                     | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                  | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                  | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                      | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                    | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                                   | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)   | LTE-FDD  | 8.28  | ± 9.6 % |
| 10431 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)  | LTE-FDD  | 8.38  | ± 9.6 % |
| 10432 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)  | LTE-FDD  | 8.34  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)  | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAA | W-CDMA (BS Test Model 1, 64 DPCH)  | WCDMA    | 8.60  | ± 9.6 % |
| 10435 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL, Subframe=2,3,4,7,8,9)                  | LTE-TDD  | 7.82  | ± 9.6 % |
| 10447 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                                   | LTE-FDD  | 7.56  | ± 9.6 % |
| 10448 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                                  | LTE-FDD  | 7.53  | ± 9.6 % |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                                  | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                                  | LTE-FDD  | 7.48  | ± 9.6 % |



|       |     |  |          |      |         |
|-------|-----|--|----------|------|---------|
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                        | WCDMA    | 7.59 | ± 9.6 % |
| 10456 | AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)                   | WLAN     | 8.63 | ± 9.6 % |
| 10457 | AAA | UMTS-FDD (DC-HSDPA)  | WCDMA    | 6.62 | ± 9.6 % |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                                 | CDMA2000 | 6.55 | ± 9.6 % |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                                 | CDMA2000 | 8.25 | ± 9.6 % |
| 10460 | AAA | UMTS-FDD (WCDMA, AMR)  | WCDMA    | 2.39 | ± 9.6 % |
| 10461 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.82 | ± 9.6 % |
| 10462 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.30 | ± 9.6 % |
| 10463 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.56 | ± 9.6 % |
| 10464 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10465 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10466 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.57 | ± 9.6 % |
| 10467 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10468 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10469 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.56 | ± 9.6 % |
| 10470 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10471 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10472 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10473 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10474 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10475 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10477 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10478 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10479 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 7.74 | ± 9.6 % |
| 10480 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.18 | ± 9.6 % |
| 10481 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.45 | ± 9.6 % |
| 10482 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.71 | ± 9.6 % |
| 10483 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.39 | ± 9.6 % |
| 10484 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.47 | ± 9.6 % |
| 10485 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.59 | ± 9.6 % |
| 10486 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.38 | ± 9.6 % |
| 10487 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.60 | ± 9.6 % |
| 10488 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.70 | ± 9.6 % |
| 10489 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.31 | ± 9.6 % |
| 10490 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.54 | ± 9.6 % |
| 10491 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.74 | ± 9.6 % |



|       |     |  |         |      |         |
|-------|-----|--|---------|------|---------|
| 10492 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.41 | ± 9.6 % |
| 10493 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.55 | ± 9.6 % |
| 10494 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10495 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.37 | ± 9.6 % |
| 10496 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10497 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 7.67 | ± 9.6 % |
| 10498 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.40 | ± 9.6 % |
| 10499 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.68 | ± 9.6 % |
| 10500 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.67 | ± 9.6 % |
| 10501 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.44 | ± 9.6 % |
| 10502 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.52 | ± 9.6 % |
| 10503 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.72 | ± 9.6 % |
| 10504 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10505 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10506 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10507 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.36 | ± 9.6 % |
| 10508 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.55 | ± 9.6 % |
| 10509 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.99 | ± 9.6 % |
| 10510 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.49 | ± 9.6 % |
| 10511 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.51 | ± 9.6 % |
| 10512 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10513 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.42 | ± 9.6 % |
| 10514 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10515 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)            | WLAN    | 1.58 | ± 9.6 % |
| 10516 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)          | WLAN    | 1.57 | ± 9.6 % |
| 10517 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)           | WLAN    | 1.58 | ± 9.6 % |
| 10518 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)            | WLAN    | 8.23 | ± 9.6 % |
| 10519 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)           | WLAN    | 8.39 | ± 9.6 % |
| 10520 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)           | WLAN    | 8.12 | ± 9.6 % |
| 10521 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)           | WLAN    | 7.97 | ± 9.6 % |
| 10522 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)           | WLAN    | 8.45 | ± 9.6 % |
| 10523 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)           | WLAN    | 8.08 | ± 9.6 % |
| 10524 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)           | WLAN    | 8.27 | ± 9.6 % |
| 10525 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10526 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)                    | WLAN    | 8.42 | ± 9.6 % |
| 10527 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)                    | WLAN    | 8.21 | ± 9.6 % |
| 10528 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10529 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10531 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)                    | WLAN    | 8.43 | ± 9.6 % |
| 10532 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)                    | WLAN    | 8.29 | ± 9.6 % |
| 10533 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)                    | WLAN    | 8.38 | ± 9.6 % |
| 10534 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)                    | WLAN    | 8.45 | ± 9.6 % |



|       |     |   |      |      |       |
|-------|-----|---|------|------|-------|
| 10535 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)               | WLAN | 8.45 | ±9.6% |
| 10536 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)               | WLAN | 8.32 | ±9.6% |
| 10537 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)               | WLAN | 8.44 | ±9.6% |
| 10538 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)               | WLAN | 8.54 | ±9.6% |
| 10540 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)               | WLAN | 8.39 | ±9.6% |
| 10541 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)               | WLAN | 8.48 | ±9.6% |
| 10542 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)               | WLAN | 8.65 | ±9.6% |
| 10543 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)               | WLAN | 8.65 | ±9.6% |
| 10544 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)               | WLAN | 8.47 | ±9.6% |
| 10545 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)               | WLAN | 8.55 | ±9.6% |
| 10546 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)               | WLAN | 8.35 | ±9.6% |
| 10547 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)               | WLAN | 8.49 | ±9.6% |
| 10548 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)               | WLAN | 8.37 | ±9.6% |
| 10550 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)               | WLAN | 8.38 | ±9.6% |
| 10551 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)               | WLAN | 8.50 | ±9.6% |
| 10552 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)               | WLAN | 8.42 | ±9.6% |
| 10553 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)               | WLAN | 8.45 | ±9.6% |
| 10554 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)              | WLAN | 8.48 | ±9.6% |
| 10555 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)              | WLAN | 8.47 | ±9.6% |
| 10556 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)              | WLAN | 8.50 | ±9.6% |
| 10557 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)              | WLAN | 8.52 | ±9.6% |
| 10558 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | WLAN | 8.61 | ±9.6% |
| 10560 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | WLAN | 8.73 | ±9.6% |
| 10561 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | WLAN | 8.56 | ±9.6% |
| 10562 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | WLAN | 8.69 | ±9.6% |
| 10563 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | WLAN | 8.77 | ±9.6% |
| 10564 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | WLAN | 8.25 | ±9.6% |
| 10565 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | WLAN | 8.45 | ±9.6% |
| 10566 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | WLAN | 8.13 | ±9.6% |
| 10567 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | WLAN | 8.00 | ±9.6% |
| 10568 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | WLAN | 8.37 | ±9.6% |
| 10569 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | WLAN | 8.10 | ±9.6% |
| 10570 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | WLAN | 8.30 | ±9.6% |
| 10571 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ±9.6% |
| 10572 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ±9.6% |
| 10573 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | WLAN | 1.98 | ±9.6% |
| 10574 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | WLAN | 1.98 | ±9.6% |
| 10575 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | WLAN | 8.59 | ±9.6% |
| 10576 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | WLAN | 8.60 | ±9.6% |
| 10577 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | WLAN | 8.70 | ±9.6% |
| 10578 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | WLAN | 8.49 | ±9.6% |
| 10579 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | WLAN | 8.36 | ±9.6% |
| 10580 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | WLAN | 8.76 | ±9.6% |
| 10581 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | WLAN | 8.35 | ±9.6% |
| 10582 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | WLAN | 8.67 | ±9.6% |
| 10583 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | WLAN | 8.59 | ±9.6% |
| 10584 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | WLAN | 8.60 | ±9.6% |
| 10585 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | WLAN | 8.70 | ±9.6% |
| 10586 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | WLAN | 8.49 | ±9.6% |
| 10587 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | WLAN | 8.36 | ±9.6% |



|       |     |  |          |       |       |
|-------|-----|--|----------|-------|-------|
| 10588 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle) | WLAN     | 8.76  | ±9.6% |
| 10589 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle) | WLAN     | 8.35  | ±9.6% |
| 10590 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle) | WLAN     | 8.67  | ±9.6% |
| 10591 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.63  | ±9.6% |
| 10592 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.79  | ±9.6% |
| 10593 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.64  | ±9.6% |
| 10594 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.74  | ±9.6% |
| 10595 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)      | WLAN     | 8.74  | ±9.6% |
| 10596 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.71  | ±9.6% |
| 10597 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.72  | ±9.6% |
| 10598 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.50  | ±9.6% |
| 10599 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.79  | ±9.6% |
| 10600 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.88  | ±9.6% |
| 10601 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.82  | ±9.6% |
| 10602 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.94  | ±9.6% |
| 10603 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)      | WLAN     | 9.03  | ±9.6% |
| 10604 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.76  | ±9.6% |
| 10605 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.97  | ±9.6% |
| 10606 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.82  | ±9.6% |
| 10607 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.64  | ±9.6% |
| 10608 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.77  | ±9.6% |
| 10609 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.57  | ±9.6% |
| 10610 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.78  | ±9.6% |
| 10611 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.70  | ±9.6% |
| 10612 | AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ±9.6% |
| 10613 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.94  | ±9.6% |
| 10614 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.59  | ±9.6% |
| 10615 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.82  | ±9.6% |
| 10616 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.82  | ±9.6% |
| 10617 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.81  | ±9.6% |
| 10618 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.58  | ±9.6% |
| 10619 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.86  | ±9.6% |
| 10620 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.87  | ±9.6% |
| 10621 | AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ±9.6% |
| 10622 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.68  | ±9.6% |
| 10623 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.82  | ±9.6% |
| 10624 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.96  | ±9.6% |
| 10625 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.96  | ±9.6% |
| 10626 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.83  | ±9.6% |
| 10627 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.88  | ±9.6% |
| 10628 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.71  | ±9.6% |
| 10629 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.85  | ±9.6% |
| 10630 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.72  | ±9.6% |
| 10631 | AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.81  | ±9.6% |
| 10632 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.74  | ±9.6% |
| 10633 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.83  | ±9.6% |
| 10634 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.80  | ±9.6% |
| 10635 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.81  | ±9.6% |
| 10636 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)         | WLAN     | 8.83  | ±9.6% |
| 10637 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)         | WLAN     | 8.79  | ±9.6% |
| 10638 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)         | WLAN     | 8.86  | ±9.6% |
| 10639 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)         | WLAN     | 8.85  | ±9.6% |
| 10640 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)         | WLAN     | 8.98  | ±9.6% |
| 10641 | AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)         | WLAN     | 9.06  | ±9.6% |
| 10642 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)         | WLAN     | 9.06  | ±9.6% |
| 10643 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)         | WLAN     | 8.89  | ±9.6% |
| 10644 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)         | WLAN     | 9.05  | ±9.6% |
| 10645 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)         | WLAN     | 9.11  | ±9.6% |
| 10646 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)      | LTE-TDD  | 11.96 | ±9.6% |
| 10647 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)     | LTE-TDD  | 11.96 | ±9.6% |
| 10648 | AAA | CDMA2000 (1x Advanced)                                     | CDMA2000 | 3.45  | ±9.6% |
| 10652 | AAD | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-TDD  | 6.91  | ±9.6% |
| 10653 | AAD | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 7.42  | ±9.6% |
| 10654 | AAD | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 6.96  | ±9.6% |



|       |     |   |           |       |        |
|-------|-----|---|-----------|-------|--------|
| 10655 | AAE | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD   | 7.21  | ±9.6 % |
| 10658 | AAA | Pulse Waveform (200Hz, 10%)                     | Test      | 10.00 | ±9.6 % |
| 10659 | AAA | Pulse Waveform (200Hz, 20%)                     | Test      | 6.99  | ±9.6 % |
| 10660 | AAA | Pulse Waveform (200Hz, 40%)                     | Test      | 3.98  | ±9.6 % |
| 10661 | AAA | Pulse Waveform (200Hz, 60%)                     | Test      | 2.22  | ±9.6 % |
| 10662 | AAA | Pulse Waveform (200Hz, 80%)                     | Test      | 0.97  | ±9.6 % |
| 10670 | AAA | Bluetooth Low Energy                            | Bluetooth | 2.19  | ±9.6 % |
| 10671 | AAA | IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)    | WLAN      | 9.09  | ±9.6 % |
| 10672 | AAA | IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)    | WLAN      | 8.57  | ±9.6 % |
| 10673 | AAA | IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)    | WLAN      | 8.78  | ±9.6 % |
| 10674 | AAA | IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)    | WLAN      | 8.74  | ±9.6 % |
| 10675 | AAA | IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)    | WLAN      | 8.90  | ±9.6 % |
| 10676 | AAA | IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)    | WLAN      | 8.77  | ±9.6 % |
| 10677 | AAA | IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)    | WLAN      | 8.73  | ±9.6 % |
| 10678 | AAA | IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)    | WLAN      | 8.78  | ±9.6 % |
| 10679 | AAA | IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)    | WLAN      | 8.89  | ±9.6 % |
| 10680 | AAA | IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)    | WLAN      | 8.80  | ±9.6 % |
| 10681 | AAA | IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)   | WLAN      | 8.62  | ±9.6 % |
| 10682 | AAA | IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)   | WLAN      | 8.83  | ±9.6 % |
| 10683 | AAA | IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)    | WLAN      | 8.42  | ±9.6 % |
| 10684 | AAA | IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)    | WLAN      | 8.26  | ±9.6 % |
| 10685 | AAA | IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)    | WLAN      | 8.33  | ±9.6 % |
| 10686 | AAA | IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)    | WLAN      | 8.28  | ±9.6 % |
| 10687 | AAA | IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)    | WLAN      | 8.45  | ±9.6 % |
| 10688 | AAA | IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)    | WLAN      | 8.29  | ±9.6 % |
| 10689 | AAA | IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)    | WLAN      | 8.55  | ±9.6 % |
| 10690 | AAA | IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)    | WLAN      | 8.29  | ±9.6 % |
| 10691 | AAA | IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)    | WLAN      | 8.25  | ±9.6 % |
| 10692 | AAA | IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)    | WLAN      | 8.29  | ±9.6 % |
| 10693 | AAA | IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)   | WLAN      | 8.25  | ±9.6 % |
| 10694 | AAA | IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)   | WLAN      | 8.57  | ±9.6 % |
| 10695 | AAA | IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle)    | WLAN      | 8.78  | ±9.6 % |
| 10696 | AAA | IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)    | WLAN      | 8.91  | ±9.6 % |
| 10697 | AAA | IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)    | WLAN      | 8.61  | ±9.6 % |
| 10698 | AAA | IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)    | WLAN      | 8.89  | ±9.6 % |
| 10699 | AAA | IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)    | WLAN      | 8.82  | ±9.6 % |
| 10700 | AAA | IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)    | WLAN      | 8.73  | ±9.6 % |
| 10701 | AAA | IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)    | WLAN      | 8.86  | ±9.6 % |
| 10702 | AAA | IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)    | WLAN      | 8.70  | ±9.6 % |
| 10703 | AAA | IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)    | WLAN      | 8.82  | ±9.6 % |
| 10704 | AAA | IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)    | WLAN      | 8.56  | ±9.6 % |
| 10705 | AAA | IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)   | WLAN      | 8.69  | ±9.6 % |
| 10706 | AAA | IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)   | WLAN      | 8.66  | ±9.6 % |
| 10707 | AAA | IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)    | WLAN      | 8.32  | ±9.6 % |
| 10708 | AAA | IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)    | WLAN      | 8.55  | ±9.6 % |
| 10709 | AAA | IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)    | WLAN      | 8.33  | ±9.6 % |
| 10710 | AAA | IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)    | WLAN      | 8.29  | ±9.6 % |
| 10711 | AAA | IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)    | WLAN      | 8.39  | ±9.6 % |
| 10712 | AAA | IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)    | WLAN      | 8.67  | ±9.6 % |
| 10713 | AAA | IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)    | WLAN      | 8.33  | ±9.6 % |
| 10714 | AAA | IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)    | WLAN      | 8.26  | ±9.6 % |
| 10715 | AAA | IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)    | WLAN      | 8.45  | ±9.6 % |
| 10716 | AAA | IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)    | WLAN      | 8.30  | ±9.6 % |
| 10717 | AAA | IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)   | WLAN      | 8.48  | ±9.6 % |
| 10718 | AAA | IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)   | WLAN      | 8.24  | ±9.6 % |
| 10719 | AAA | IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)    | WLAN      | 8.81  | ±9.6 % |
| 10720 | AAA | IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)    | WLAN      | 8.87  | ±9.6 % |
| 10721 | AAA | IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)    | WLAN      | 8.76  | ±9.6 % |
| 10722 | AAA | IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)    | WLAN      | 8.55  | ±9.6 % |
| 10723 | AAA | IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)    | WLAN      | 8.70  | ±9.6 % |
| 10724 | AAA | IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)    | WLAN      | 8.90  | ±9.6 % |
| 10725 | AAA | IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)    | WLAN      | 8.74  | ±9.6 % |
| 10726 | AAA | IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)    | WLAN      | 8.72  | ±9.6 % |
| 10727 | AAA | IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)    | WLAN      | 8.66  | ±9.6 % |



|       |     |  |      |      |         |
|-------|-----|--|------|------|---------|
| 10728 | AAA | IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)   | WLAN | 8.65 | ± 9.6 % |
| 10729 | AAA | IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)  | WLAN | 8.64 | ± 9.6 % |
| 10730 | AAA | IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)  | WLAN | 8.67 | ± 9.6 % |
| 10731 | AAA | IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)   | WLAN | 8.42 | ± 9.6 % |
| 10732 | AAA | IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)   | WLAN | 8.46 | ± 9.6 % |
| 10733 | AAA | IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)   | WLAN | 8.40 | ± 9.6 % |
| 10734 | AAA | IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)   | WLAN | 8.25 | ± 9.6 % |
| 10735 | AAA | IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)   | WLAN | 8.33 | ± 9.6 % |
| 10736 | AAA | IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)   | WLAN | 8.27 | ± 9.6 % |
| 10737 | AAA | IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)   | WLAN | 8.36 | ± 9.6 % |
| 10738 | AAA | IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)   | WLAN | 8.42 | ± 9.6 % |
| 10739 | AAA | IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)   | WLAN | 8.29 | ± 9.6 % |
| 10740 | AAA | IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)   | WLAN | 8.48 | ± 9.6 % |
| 10741 | AAA | IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)  | WLAN | 8.40 | ± 9.6 % |
| 10742 | AAA | IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)  | WLAN | 8.43 | ± 9.6 % |
| 10743 | AAA | IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)  | WLAN | 8.94 | ± 9.6 % |
| 10744 | AAA | IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)  | WLAN | 9.16 | ± 9.6 % |
| 10745 | AAA | IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)  | WLAN | 8.93 | ± 9.6 % |
| 10746 | AAA | IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)  | WLAN | 9.11 | ± 9.6 % |
| 10747 | AAA | IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)  | WLAN | 9.04 | ± 9.6 % |
| 10748 | AAA | IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)  | WLAN | 8.93 | ± 9.6 % |
| 10749 | AAA | IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)  | WLAN | 8.90 | ± 9.6 % |
| 10750 | AAA | IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)  | WLAN | 8.79 | ± 9.6 % |
| 10751 | AAA | IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)  | WLAN | 8.82 | ± 9.6 % |
| 10752 | AAA | IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)  | WLAN | 8.81 | ± 9.6 % |
| 10753 | AAA | IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle) | WLAN | 9.00 | ± 9.6 % |
| 10754 | AAA | IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle) | WLAN | 8.94 | ± 9.6 % |
| 10755 | AAA | IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)  | WLAN | 8.64 | ± 9.6 % |
| 10756 | AAA | IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)  | WLAN | 8.77 | ± 9.6 % |
| 10757 | AAA | IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)  | WLAN | 8.77 | ± 9.6 % |
| 10758 | AAA | IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)  | WLAN | 8.69 | ± 9.6 % |
| 10759 | AAA | IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)  | WLAN | 8.58 | ± 9.6 % |
| 10760 | AAA | IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)  | WLAN | 8.49 | ± 9.6 % |
| 10761 | AAA | IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)  | WLAN | 8.58 | ± 9.6 % |
| 10762 | AAA | IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)  | WLAN | 8.49 | ± 9.6 % |
| 10763 | AAA | IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)  | WLAN | 8.53 | ± 9.6 % |
| 10764 | AAA | IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)  | WLAN | 8.54 | ± 9.6 % |
| 10765 | AAA | IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle) | WLAN | 8.54 | ± 9.6 % |
| 10766 | AAA | IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle) | WLAN | 8.51 | ± 9.6 % |

<sup>8</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.





**Appendix E. Conducted RF Output Power Table**

The detailed power table are shown as follows.



### Full Power

| GSM850<br>TX Channel | Burst Average Power (dBm) |       |       | Tune-up<br>Limit<br>(dBm) | Frame Average Power (dBm) |       |       | Tune-up<br>Limit<br>(dBm) |
|----------------------|---------------------------|-------|-------|---------------------------|---------------------------|-------|-------|---------------------------|
|                      | 128                       | 189   | 251   |                           | 128                       | 189   | 251   |                           |
| Frequency (MHz)      | 624.2                     | 636.4 | 648.8 | 624.2                     | 636.4                     | 648.8 |       |                           |
| GSM 1 Tx slot        | 32.82                     | 33.00 | 32.85 | 33.50                     | 23.82                     | 24.00 | 23.85 | 24.50                     |
| GPRS 1 Tx slot       | 32.81                     | 32.99 | 32.83 | 33.50                     | 23.81                     | 23.99 | 23.83 | 24.50                     |
| GPRS 2 Tx slots      | 32.14                     | 31.91 | 31.93 | 32.50                     | 23.14                     | 23.91 | 23.93 | 26.50                     |
| GPRS 3 Tx slots      | 30.43                     | 30.29 | 30.26 | 31.50                     | 26.17                     | 26.03 | 26.00 | 27.24                     |
| GPRS 4 Tx slots      | 28.83                     | 28.74 | 28.42 | 29.50                     | 25.53                     | 25.74 | 25.42 | 26.50                     |
| EDGE 1 Tx slot       | 26.78                     | 26.70 | 26.53 | 27.50                     | 17.78                     | 17.70 | 17.53 | 18.50                     |
| EDGE 2 Tx slots      | 25.67                     | 25.62 | 25.42 | 26.50                     | 18.67                     | 19.62 | 19.42 | 20.50                     |
| EDGE 3 Tx slots      | 24.04                     | 24.00 | 23.77 | 25.00                     | 19.78                     | 19.74 | 18.51 | 20.74                     |
| EDGE 4 Tx slots      | 22.44                     | 22.40 | 22.27 | 23.50                     | 18.44                     | 19.40 | 19.27 | 20.50                     |

| GSM1900<br>TX Channel | Burst Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) | Frame Average Power (dBm) |        |       | Tune-up<br>Limit<br>(dBm) |
|-----------------------|---------------------------|-------|--------|---------------------------|---------------------------|--------|-------|---------------------------|
|                       | 512                       | 661   | 810    |                           | 512                       | 661    | 810   |                           |
| Frequency (MHz)       | 1527.2                    | 1553  | 1579.2 | 1527.2                    | 1553                      | 1579.2 |       |                           |
| GSM 1 Tx slot         | 29.81                     | 29.82 | 29.70  | 30.50                     | 20.81                     | 20.82  | 20.70 | 21.50                     |
| GPRS 1 Tx slot        | 26.79                     | 26.81 | 26.66  | 30.50                     | 20.79                     | 20.81  | 20.69 | 21.50                     |
| GPRS 2 Tx slots       | 28.73                     | 28.76 | 28.74  | 29.50                     | 22.73                     | 22.76  | 22.74 | 23.50                     |
| GPRS 3 Tx slots       | 27.08                     | 27.19 | 27.26  | 28.00                     | 22.82                     | 22.93  | 23.00 | 23.74                     |
| GPRS 4 Tx slots       | 25.43                     | 25.50 | 25.62  | 26.50                     | 22.43                     | 22.50  | 22.62 | 23.50                     |
| EDGE 1 Tx slot        | 25.48                     | 25.54 | 25.57  | 26.50                     | 16.48                     | 16.54  | 16.57 | 17.50                     |
| EDGE 2 Tx slots       | 24.45                     | 24.41 | 24.25  | 25.50                     | 18.45                     | 18.41  | 18.55 | 19.50                     |
| EDGE 3 Tx slots       | 22.83                     | 22.88 | 22.90  | 23.50                     | 18.57                     | 18.62  | 18.64 | 19.24                     |
| EDGE 4 Tx slots       | 21.18                     | 21.27 | 21.24  | 22.50                     | 18.18                     | 18.27  | 18.24 | 19.50                     |



| Band            | WCDMA II           |       |        |        | Tune-up Limit (dBm) | WCDMA IV |       |       | Tune-up Limit (dBm) | WCDMA V |       |       | Tune-up Limit (dBm) |
|-----------------|--------------------|-------|--------|--------|---------------------|----------|-------|-------|---------------------|---------|-------|-------|---------------------|
|                 | Tx Channel         | 9262  | 9400   | 9538   |                     | 1312     | 1413  | 1513  |                     | 4132    | 4162  | 4233  |                     |
|                 | Rx Channel         | 9662  | 9800   | 9938   |                     | 1537     | 1638  | 1738  |                     | 4357    | 4407  | 4468  |                     |
| Frequency (MHz) | 1852.4             | 1880  | 1907.6 | 1712.4 | 1732.6              | 1752.6   | 826.4 | 836.4 | 846.6               |         |       |       |                     |
| 3GPP Rel 99     | AMR 12.2Kbps       | 23.28 | 23.21  | 23.25  | 24.00               | 22.96    | 23.12 | 23.20 | 24.00               | 23.64   | 23.55 | 23.23 | 24.00               |
| 3GPP Rel 99     | AMR 12.7Kbps       | 23.29 | 23.22  | 23.27  | 24.00               | 22.97    | 23.14 | 23.22 | 24.00               | 23.65   | 23.56 | 23.24 | 24.00               |
| 3GPP Rel 6      | HSDPA Subtest-1    | 22.90 | 22.18  | 22.22  | 23.00               | 21.94    | 22.43 | 22.21 | 23.00               | 22.80   | 22.69 | 22.37 | 23.00               |
| 3GPP Rel 6      | HSDPA Subtest-2    | 22.28 | 22.21  | 22.24  | 23.00               | 21.99    | 22.12 | 22.20 | 23.00               | 22.80   | 22.74 | 22.45 | 23.00               |
| 3GPP Rel 6      | HSDPA Subtest-3    | 21.72 | 21.67  | 21.73  | 22.50               | 21.52    | 21.56 | 21.68 | 22.50               | 22.32   | 22.16 | 21.85 | 22.50               |
| 3GPP Rel 6      | HSDPA Subtest-4    | 21.73 | 21.64  | 21.68  | 22.50               | 21.28    | 21.52 | 21.64 | 22.50               | 22.33   | 22.27 | 21.86 | 22.50               |
| 3GPP Rel 8      | DC-HSDPA Subtest-1 | 22.29 | 22.17  | 22.21  | 23.00               | 21.88    | 22.37 | 22.19 | 23.00               | 22.79   | 22.63 | 22.35 | 23.00               |
| 3GPP Rel 8      | DC-HSDPA Subtest-2 | 22.28 | 22.19  | 22.13  | 23.00               | 21.90    | 22.11 | 22.15 | 23.00               | 22.65   | 22.70 | 22.42 | 23.00               |
| 3GPP Rel 8      | DC-HSDPA Subtest-3 | 21.71 | 21.68  | 21.71  | 22.50               | 21.50    | 21.48 | 21.60 | 22.50               | 22.30   | 22.13 | 21.80 | 22.50               |
| 3GPP Rel 8      | DC-HSDPA Subtest-4 | 21.70 | 21.63  | 21.69  | 22.50               | 21.22    | 21.50 | 21.57 | 22.50               | 22.24   | 22.24 | 21.83 | 22.50               |
| 3GPP Rel 6      | HSUPA Subtest-1    | 22.10 | 22.05  | 22.05  | 23.00               | 22.01    | 22.27 | 22.16 | 23.00               | 22.81   | 22.72 | 22.88 | 23.00               |
| 3GPP Rel 6      | HSUPA Subtest-2    | 20.10 | 20.09  | 20.07  | 21.00               | 20.06    | 20.18 | 20.07 | 21.00               | 20.74   | 20.82 | 20.32 | 21.00               |
| 3GPP Rel 6      | HSUPA Subtest-3    | 21.17 | 21.04  | 21.05  | 22.00               | 21.10    | 21.22 | 21.06 | 22.00               | 21.79   | 21.75 | 21.75 | 22.00               |
| 3GPP Rel 6      | HSUPA Subtest-4    | 20.15 | 20.07  | 20.03  | 21.00               | 20.00    | 20.09 | 20.13 | 21.00               | 20.82   | 20.66 | 20.73 | 21.00               |
| 3GPP Rel 6      | HSUPA Subtest-5    | 22.20 | 22.00  | 22.10  | 23.00               | 21.96    | 22.17 | 22.19 | 23.00               | 22.80   | 22.70 | 22.35 | 23.00               |

| Band             | CDMA BC9        |       |        | Tune-up Limit (dBm) | CDMA BC1 |         |       | Tune-up Limit (dBm) | CDMA BC10 |       |       | Tune-up Limit (dBm) |
|------------------|-----------------|-------|--------|---------------------|----------|---------|-------|---------------------|-----------|-------|-------|---------------------|
|                  | 1013            | 884   | 777    |                     | 25       | 890     | 1175  |                     | 476       | 568   | 684   |                     |
|                  | Frequency (MHz) | 824.7 | 836.52 |                     | 848.31   | 1851.25 | 1880  |                     | 1906.75   | 817.9 | 820.5 |                     |
| RC1 SO55         | 24.41           | 24.33 | 24.03  | 25.00               | 24.03    | 24.10   | 24.08 | 25.00               | 24.43     | 24.40 | 24.27 | 25.00               |
| RC1 SO55         | 24.42           | 24.34 | 24.04  | 25.00               | 24.04    | 24.10   | 24.16 | 25.00               | 24.43     | 24.40 | 24.28 | 25.00               |
| RC1 SO52 (F-SCH) | 24.38           | 24.38 | 24.03  | 25.00               | 24.08    | 24.08   | 24.11 | 25.00               | 24.44     | 24.46 | 24.28 | 25.00               |
| RC1 SO52 (F-SCH) | 24.38           | 24.39 | 24.04  | 25.00               | 24.10    | 24.07   | 24.12 | 25.00               | 24.45     | 24.48 | 24.27 | 25.00               |
| RTAP 163 8Kbps   | 24.41           | 24.41 | 24.40  | 25.00               | 24.05    | 24.02   | 24.15 | 25.00               | 24.43     | 24.44 | 24.28 | 25.00               |
| RETAP 4596Bts    | 24.39           | 24.40 | 24.01  | 25.00               | 24.07    | 24.03   | 24.13 | 25.00               | 24.44     | 24.43 | 24.28 | 25.00               |







LTE Band 7

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 20              | QPSK       | 1       | 0         | 22.68                 | 22.71                    | 23.07                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 22.60                 | 22.61                    | 22.95                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.60                 | 22.62                    | 22.92                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.82                 | 21.84                    | 22.04                  | 23                  | 1        |
| 20              | QPSK       | 50      | 24        | 21.76                 | 21.76                    | 22.00                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.65                 | 21.72                    | 21.99                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.75                 | 21.77                    | 22.05                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 0         | 21.52                 | 21.52                    | 22.25                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 21.88                 | 21.83                    | 22.18                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.88                 | 21.87                    | 22.18                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 0         | 20.88                 | 20.89                    | 21.11                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 20.84                 | 20.85                    | 21.08                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.76                 | 20.81                    | 21.03                  | 22                  | 2        |
| 20              | 16QAM      | 100     | 0         | 20.78                 | 20.84                    | 21.04                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.88                 | 20.85                    | 21.28                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.85                 | 20.86                    | 21.10                  | 21                  | 3        |
| 20              | 64QAM      | 1       | 99        | 20.72                 | 20.88                    | 21.04                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.90                 | 19.92                    | 20.09                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.84                 | 19.87                    | 20.12                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 50        | 19.77                 | 19.81                    | 20.03                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.84                 | 19.88                    | 20.05                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 15              | QPSK       | 1       | 0         | 22.70                 | 22.78                    | 23.08                  | 24                  | 0        |
| 15              | QPSK       | 1       | 37        | 22.81                 | 22.88                    | 22.94                  |                     |          |
| 15              | QPSK       | 1       | 74        | 22.63                 | 22.68                    | 22.93                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.78                 | 21.81                    | 22.02                  | 23                  | 1        |
| 15              | QPSK       | 36      | 20        | 21.81                 | 21.76                    | 22.01                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.73                 | 21.73                    | 21.98                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.74                 | 21.81                    | 22.01                  | 23                  | 1        |
| 15              | 16QAM      | 1       | 0         | 21.79                 | 22.01                    | 22.29                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 21.79                 | 21.82                    | 22.27                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 21.80                 | 21.85                    | 22.28                  | 22                  | 2        |
| 15              | 16QAM      | 36      | 0         | 20.80                 | 20.86                    | 21.07                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.82                 | 20.82                    | 21.05                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.72                 | 20.75                    | 21.04                  | 22                  | 2        |
| 15              | 16QAM      | 75      | 0         | 20.84                 | 20.88                    | 21.07                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 20.85                 | 20.96                    | 21.18                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.71                 | 20.86                    | 21.11                  | 22                  | 2        |
| 15              | 64QAM      | 1       | 74        | 20.76                 | 20.86                    | 21.05                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.83                 | 19.80                    | 20.13                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.80                 | 19.87                    | 20.15                  | 21                  | 3        |
| 15              | 64QAM      | 36      | 39        | 19.79                 | 19.79                    | 20.08                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.84                 | 19.82                    | 20.09                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 10              | QPSK       | 1       | 0         | 22.79                 | 22.77                    | 23.04                  | 24                  | 0        |
| 10              | QPSK       | 1       | 25        | 22.68                 | 22.71                    | 23.03                  |                     |          |
| 10              | QPSK       | 1       | 49        | 22.65                 | 22.69                    | 22.96                  |                     |          |
| 10              | QPSK       | 25      | 0         | 21.72                 | 21.82                    | 22.06                  | 23                  | 1        |
| 10              | QPSK       | 25      | 12        | 21.75                 | 21.79                    | 22.07                  |                     |          |
| 10              | QPSK       | 25      | 25        | 21.75                 | 21.79                    | 22.00                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.79                 | 21.81                    | 22.04                  | 23                  | 1        |
| 10              | 16QAM      | 1       | 0         | 21.92                 | 22.06                    | 22.34                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 21.88                 | 21.94                    | 22.24                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 21.89                 | 21.96                    | 22.21                  | 23                  | 1        |
| 10              | 16QAM      | 25      | 0         | 20.76                 | 20.87                    | 21.11                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.83                 | 20.87                    | 21.10                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 20.81                 | 20.82                    | 21.04                  | 22                  | 2        |
| 10              | 16QAM      | 50      | 0         | 20.87                 | 20.83                    | 21.11                  |                     |          |
| 10              | 64QAM      | 1       | 0         | 20.88                 | 20.90                    | 21.19                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 20.80                 | 20.84                    | 21.16                  | 22                  | 2        |
| 10              | 64QAM      | 1       | 49        | 20.88                 | 20.85                    | 21.18                  |                     |          |
| 10              | 64QAM      | 25      | 0         | 19.79                 | 19.86                    | 20.10                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 19.82                 | 19.87                    | 20.13                  | 21                  | 3        |
| 10              | 64QAM      | 25      | 25        | 19.78                 | 19.82                    | 20.09                  |                     |          |
| 10              | 64QAM      | 50      | 0         | 19.87                 | 19.83                    | 20.08                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 5               | QPSK       | 1       | 0         | 22.70                 | 22.74                    | 23.00                  | 24                  | 0        |
| 5               | QPSK       | 1       | 12        | 22.70                 | 22.79                    | 23.08                  |                     |          |
| 5               | QPSK       | 1       | 24        | 22.70                 | 22.73                    | 23.04                  |                     |          |
| 5               | QPSK       | 12      | 0         | 21.79                 | 21.77                    | 22.06                  | 23                  | 1        |
| 5               | QPSK       | 12      | 7         | 21.80                 | 21.79                    | 22.12                  |                     |          |
| 5               | QPSK       | 12      | 13        | 21.76                 | 21.80                    | 22.04                  |                     |          |
| 5               | QPSK       | 25      | 0         | 21.81                 | 21.82                    | 22.09                  | 23                  | 1        |
| 5               | 16QAM      | 1       | 0         | 21.89                 | 21.95                    | 22.25                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 21.95                 | 22.00                    | 22.24                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 21.88                 | 21.90                    | 22.10                  | 23                  | 1        |
| 5               | 16QAM      | 12      | 0         | 20.78                 | 20.84                    | 21.12                  |                     |          |
| 5               | 16QAM      | 12      | 7         | 20.78                 | 20.88                    | 21.17                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 20.76                 | 20.83                    | 21.14                  | 22                  | 2        |
| 5               | 16QAM      | 25      | 0         | 20.77                 | 20.84                    | 21.13                  |                     |          |
| 5               | 64QAM      | 1       | 0         | 20.88                 | 20.93                    | 21.28                  |                     |          |
| 5               | 64QAM      | 1       | 12        | 20.83                 | 20.90                    | 21.21                  | 22                  | 2        |
| 5               | 64QAM      | 1       | 24        | 20.80                 | 20.86                    | 21.18                  |                     |          |
| 5               | 64QAM      | 12      | 0         | 19.90                 | 19.86                    | 20.18                  |                     |          |
| 5               | 64QAM      | 12      | 7         | 19.84                 | 19.91                    | 20.18                  | 21                  | 3        |
| 5               | 64QAM      | 12      | 13        | 19.86                 | 19.87                    | 20.15                  |                     |          |
| 5               | 64QAM      | 25      | 0         | 19.84                 | 19.84                    | 20.16                  |                     |          |

LTE Band 12

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 10              | QPSK       | 1       | 0         | 22.92                 | 23.09                    | 23.04                  | 24                  | 0        |
| 10              | QPSK       | 1       | 25        | 22.82                 | 23.00                    | 22.94                  |                     |          |
| 10              | QPSK       | 1       | 49        | 22.79                 | 22.91                    | 22.93                  |                     |          |
| 10              | QPSK       | 25      | 0         | 22.02                 | 22.08                    | 22.06                  | 23                  | 1        |
| 10              | QPSK       | 25      | 12        | 22.06                 | 22.04                    | 22.01                  |                     |          |
| 10              | QPSK       | 25      | 25        | 22.02                 | 22.00                    | 22.00                  |                     |          |
| 10              | QPSK       | 50      | 0         | 22.07                 | 22.06                    | 22.01                  | 23                  | 1        |
| 10              | 16QAM      | 1       | 0         | 22.21                 | 22.27                    | 22.40                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 22.24                 | 22.25                    | 22.20                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.18                 | 22.28                    | 22.23                  | 22                  | 2        |
| 10              | 16QAM      | 25      | 0         | 21.17                 | 21.20                    | 21.13                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 21.18                 | 21.17                    | 21.17                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 21.11                 | 21.07                    | 21.07                  | 22                  | 2        |
| 10              | 16QAM      | 50      | 0         | 21.15                 | 21.11                    | 21.13                  |                     |          |
| 10              | 64QAM      | 1       | 0         | 21.25                 | 21.28                    | 21.40                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 21.30                 | 21.28                    | 21.25                  | 22                  | 2        |
| 10              | 64QAM      | 1       | 49        | 21.19                 | 21.22                    | 21.13                  |                     |          |
| 10              | 64QAM      | 25      | 0         | 20.19                 | 20.17                    | 20.17                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 20.19                 | 20.15                    | 20.14                  | 21                  | 3        |
| 10              | 64QAM      | 25      | 25        | 20.12                 | 20.05                    | 20.08                  |                     |          |
| 10              | 64QAM      | 50      | 0         | 20.18                 | 20.14                    | 20.12                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 5               | QPSK       | 1       | 0         | 23.08                 | 22.98                    | 23.02                  | 24                  | 0        |
| 5               | QPSK       | 1       | 12        | 22.99                 | 23.00                    | 22.97                  |                     |          |
| 5               | QPSK       | 1       | 24        | 22.97                 | 22.95                    | 22.91                  |                     |          |
| 5               | QPSK       | 12      | 0         | 22.06                 | 22.07                    | 22.02                  | 23                  | 1        |
| 5               | QPSK       | 12      | 7         | 22.03                 | 22.07                    | 22.02                  |                     |          |
| 5               | QPSK       | 12      | 13        | 22.00                 | 22.02                    | 21.99                  |                     |          |
| 5               | QPSK       | 25      | 0         | 22.04                 | 22.05                    | 21.97                  | 23                  | 1        |
| 5               | 16QAM      | 1       | 0         | 22.35                 | 22.32                    | 22.33                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 22.35                 | 22.28                    | 22.26                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 22.27                 | 22.31                    | 22.26                  | 22                  | 2        |
| 5               | 16QAM      | 12      | 0         | 21.11                 | 21.16                    | 21.09                  |                     |          |
| 5               | 16QAM      | 12      | 7         | 21.18                 | 21.12                    | 21.12                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 21.12                 | 21.09                    | 21.05                  | 22                  | 2        |
| 5               | 16QAM      | 25      | 0         | 21.11                 | 21.13                    | 21.08                  |                     |          |
| 5               | 64QAM      | 1       | 0         | 21.29                 | 21.24                    | 21.22                  |                     |          |
| 5               | 64QAM      | 1       | 12        | 21.29                 | 21.22                    | 21.27                  | 22                  | 2        |
| 5               | 64QAM      | 1       | 24        | 21.16                 | 21.17                    | 21.09                  |                     |          |
| 5               | 64QAM      | 12      | 0         | 20.13                 | 20.17                    | 20.14                  |                     |          |
| 5               | 64QAM      | 12      | 7         | 20.22                 | 20.20                    | 20.12                  | 21                  | 3        |
| 5               | 64QAM      | 12      | 13        | 20.11                 | 20.13                    | 20.10                  |                     |          |
| 5               | 64QAM      | 25      | 0         | 20.10                 | 20.11                    | 20.08                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 3               | QPSK       | 1       | 0         | 23.05                 | 23.06                    | 23.00                  | 24                  | 0        |
| 3               | QPSK       | 1       | 8         | 23.04                 | 23.00                    | 22.95                  |                     |          |
| 3               | QPSK       | 1       | 14        | 23.01                 | 22.99                    | 22.95                  |                     |          |
| 3               | QPSK       | 8       | 0         | 22.08                 | 22.05                    | 21.98                  | 23                  | 1        |
| 3               | QPSK       | 8       | 4         | 22.07                 | 22.06                    | 21.96                  |                     |          |
| 3               | QPSK       | 8       | 7         | 22.02                 | 22.05                    | 21.97                  |                     |          |
| 3               | QPSK       | 15      | 0         | 22.07                 | 22.04                    | 22.00                  | 23                  | 1        |
| 3               | 16QAM      | 1       | 0         | 22.28                 | 22.27                    | 22.32                  |                     |          |
| 3               | 16QAM      | 1       | 8         | 22.29                 | 22.26                    | 22.28                  |                     |          |
| 3               | 16QAM      | 1       | 14        | 22.22                 | 22.31                    | 22.14                  | 22                  | 2        |
| 3               | 16QAM      | 8       | 0         | 21.16                 | 21.19                    | 21.14                  |                     |          |
| 3               | 16QAM      | 8       | 4         | 21.16                 | 21.17                    | 21.12                  |                     |          |
| 3               | 16QAM      | 8       | 7         | 21.14                 | 21.14                    | 21.09                  | 22                  | 2        |
| 3               | 16QAM      | 15      | 0         | 21.14                 | 21.13                    | 21.10                  |                     |          |
| 3               | 64QAM      | 1       | 0         | 21.28                 | 21.26                    | 21.27                  |                     |          |
| 3               | 64QAM      | 1       | 8         | 21.27                 | 21.30                    | 21.21                  | 22                  | 2        |
| 3               | 64QAM      | 1       | 14        | 21.32                 | 21.23                    | 21.17                  |                     |          |
| 3               | 64QAM      | 8       | 0         | 20.12                 | 20.23                    | 20.08                  |                     |          |
| 3               | 64QAM      | 8       | 4         | 20.19                 | 20.19                    | 20.16                  | 21                  | 3        |
| 3               | 64QAM      | 8       | 7         | 20.18                 | 20.16                    | 20.09                  |                     |          |
| 3               | 64QAM      | 15      | 0         | 20.15                 | 20.17                    | 20.08                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 1.4             | QPSK       | 1       | 0         |                       |                          |                        |                     |          |



LTE Band 14

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 793             |            |         |           |                       |                          |                        |                     |          |
| 10              | QPSK       | 1       | 0         | 23.11                 |                          |                        | 24                  | 0        |
| 10              | QPSK       | 1       | 25        | 23.10                 |                          |                        |                     |          |
| 10              | QPSK       | 1       | 49        | 23.02                 |                          |                        |                     |          |
| 10              | QPSK       | 25      | 0         | 22.10                 |                          |                        | 23                  | 1        |
| 10              | QPSK       | 25      | 12        | 22.01                 |                          |                        |                     |          |
| 10              | QPSK       | 50      | 0         | 22.09                 |                          |                        |                     |          |
| 10              | 16QAM      | 1       | 0         | 21.53                 |                          |                        | 23                  | 1        |
| 10              | 16QAM      | 1       | 25        | 22.34                 |                          |                        |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.18                 |                          |                        |                     |          |
| 10              | 16QAM      | 25      | 0         | 21.08                 |                          |                        | 22                  | 2        |
| 10              | 16QAM      | 25      | 12        | 21.17                 |                          |                        |                     |          |
| 10              | 16QAM      | 25      | 25        | 21.13                 |                          |                        |                     |          |
| 10              | 16QAM      | 50      | 0         | 21.17                 |                          |                        | 22                  | 2        |
| 10              | 16QAM      | 50      | 0         | 20.98                 |                          |                        |                     |          |
| 10              | 16QAM      | 50      | 0         | 21.25                 |                          |                        |                     |          |
| 10              | 16QAM      | 1       | 25        | 21.32                 |                          |                        | 21                  | 3        |
| 10              | 16QAM      | 1       | 49        | 21.32                 |                          |                        |                     |          |
| 10              | 16QAM      | 25      | 0         | 20.05                 |                          |                        |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.18                 |                          |                        | 21                  | 3        |
| 10              | 16QAM      | 25      | 25        | 20.12                 |                          |                        |                     |          |
| 10              | 16QAM      | 50      | 0         | 20.15                 |                          |                        |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 2355            |            |         |           |                       |                          |                        |                     |          |
| 5               | QPSK       | 1       | 0         | 22.81                 | 22.91                    | 23.08                  | 24                  | 0        |
| 5               | QPSK       | 1       | 12        | 22.90                 | 22.93                    | 23.10                  |                     |          |
| 5               | QPSK       | 1       | 24        | 23.06                 | 23.06                    | 23.05                  |                     |          |
| 5               | QPSK       | 12      | 0         | 21.88                 | 22.03                    | 22.07                  | 23                  | 1        |
| 5               | QPSK       | 12      | 7         | 22.07                 | 22.09                    | 22.07                  |                     |          |
| 5               | QPSK       | 12      | 13        | 21.92                 | 22.02                    | 22.12                  |                     |          |
| 5               | QPSK       | 25      | 0         | 22.06                 | 22.05                    | 22.03                  | 23                  | 1        |
| 5               | 16QAM      | 1       | 0         | 21.92                 | 22.13                    | 22.26                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 22.13                 | 22.31                    | 22.38                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 22.29                 | 22.32                    | 22.17                  | 22                  | 2        |
| 5               | 16QAM      | 12      | 0         | 20.87                 | 21.11                    | 21.09                  |                     |          |
| 5               | 16QAM      | 12      | 7         | 21.03                 | 21.08                    | 21.12                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 20.96                 | 21.06                    | 21.20                  | 22                  | 2        |
| 5               | 16QAM      | 25      | 0         | 20.99                 | 21.13                    | 21.10                  |                     |          |
| 5               | 16QAM      | 25      | 0         | 20.91                 | 21.07                    | 21.30                  |                     |          |
| 5               | 16QAM      | 1       | 0         | 21.12                 | 21.27                    | 21.35                  | 22                  | 2        |
| 5               | 16QAM      | 1       | 12        | 21.12                 | 21.27                    | 21.35                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 21.23                 | 21.30                    | 21.24                  |                     |          |
| 5               | 16QAM      | 12      | 0         | 19.86                 | 20.17                    | 20.16                  | 21                  | 3        |
| 5               | 16QAM      | 12      | 7         | 20.06                 | 20.10                    | 20.22                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 20.10                 | 20.16                    | 20.25                  |                     |          |
| 5               | 16QAM      | 25      | 0         | 20.04                 | 20.12                    | 20.15                  | 21                  | 3        |
| 5               | 16QAM      | 25      | 0         | 20.04                 | 20.12                    | 20.15                  |                     |          |
| 5               | 16QAM      | 25      | 0         | 20.04                 | 20.12                    | 20.15                  |                     |          |

LTE Band 17

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 709             |            |         |           |                       |                          |                        |                     |          |
| 10              | QPSK       | 1       | 0         | 23.14                 | 23.11                    | 23.11                  | 24                  | 0        |
| 10              | QPSK       | 1       | 25        | 23.05                 | 23.01                    | 22.85                  |                     |          |
| 10              | QPSK       | 1       | 49        | 22.79                 | 22.81                    | 22.77                  |                     |          |
| 10              | QPSK       | 25      | 0         | 22.14                 | 22.10                    | 22.07                  | 23                  | 1        |
| 10              | QPSK       | 25      | 12        | 22.09                 | 22.10                    | 22.09                  |                     |          |
| 10              | QPSK       | 25      | 25        | 22.00                 | 22.03                    | 21.92                  |                     |          |
| 10              | QPSK       | 50      | 0         | 22.11                 | 22.09                    | 22.07                  | 23                  | 1        |
| 10              | 16QAM      | 1       | 0         | 22.52                 | 22.39                    | 22.38                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 22.31                 | 22.36                    | 22.16                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.15                 | 22.21                    | 22.05                  | 22                  | 2        |
| 10              | 16QAM      | 25      | 0         | 21.18                 | 21.20                    | 21.17                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 21.19                 | 21.13                    | 21.17                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 21.11                 | 21.08                    | 20.98                  | 22                  | 2        |
| 10              | 16QAM      | 50      | 0         | 21.16                 | 21.15                    | 21.13                  |                     |          |
| 10              | 16QAM      | 50      | 0         | 21.44                 | 21.27                    | 21.42                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 21.23                 | 21.34                    | 21.10                  | 22                  | 2        |
| 10              | 16QAM      | 1       | 49        | 21.15                 | 21.08                    | 21.02                  |                     |          |
| 10              | 16QAM      | 25      | 0         | 20.21                 | 20.19                    | 20.17                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.15                 | 20.20                    | 20.16                  | 21                  | 3        |
| 10              | 16QAM      | 25      | 25        | 20.13                 | 20.15                    | 20.03                  |                     |          |
| 10              | 16QAM      | 50      | 0         | 20.16                 | 20.19                    | 20.14                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 2375            |            |         |           |                       |                          |                        |                     |          |
| 5               | QPSK       | 1       | 0         | 23.12                 | 23.07                    | 22.85                  | 24                  | 0        |
| 5               | QPSK       | 1       | 12        | 23.07                 | 22.99                    | 22.91                  |                     |          |
| 5               | QPSK       | 1       | 24        | 23.05                 | 22.98                    | 22.83                  |                     |          |
| 5               | QPSK       | 12      | 0         | 22.15                 | 22.07                    | 21.92                  | 23                  | 1        |
| 5               | QPSK       | 12      | 7         | 22.10                 | 22.05                    | 21.90                  |                     |          |
| 5               | QPSK       | 12      | 13        | 22.03                 | 22.01                    | 21.89                  |                     |          |
| 5               | QPSK       | 25      | 0         | 22.06                 | 22.05                    | 21.88                  | 23                  | 1        |
| 5               | 16QAM      | 1       | 0         | 22.55                 | 22.42                    | 22.21                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 22.43                 | 22.37                    | 22.20                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 22.36                 | 22.20                    | 22.14                  | 22                  | 2        |
| 5               | 16QAM      | 12      | 0         | 21.20                 | 21.14                    | 21.08                  |                     |          |
| 5               | 16QAM      | 12      | 7         | 21.19                 | 21.12                    | 21.05                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 21.16                 | 21.14                    | 21.00                  | 22                  | 2        |
| 5               | 16QAM      | 25      | 0         | 21.20                 | 21.14                    | 21.01                  |                     |          |
| 5               | 16QAM      | 25      | 0         | 21.49                 | 21.36                    | 21.10                  |                     |          |
| 5               | 16QAM      | 1       | 0         | 21.29                 | 21.23                    | 21.14                  | 22                  | 2        |
| 5               | 16QAM      | 1       | 12        | 21.29                 | 21.23                    | 21.14                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 21.23                 | 21.10                    | 21.02                  |                     |          |
| 5               | 16QAM      | 12      | 0         | 20.27                 | 20.22                    | 20.04                  | 21                  | 3        |
| 5               | 16QAM      | 12      | 7         | 20.25                 | 20.22                    | 20.06                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 20.19                 | 20.15                    | 20.01                  |                     |          |
| 5               | 16QAM      | 25      | 0         | 20.18                 | 20.12                    | 19.99                  | 21                  | 3        |
| 5               | 16QAM      | 25      | 0         | 20.18                 | 20.12                    | 19.99                  |                     |          |
| 5               | 16QAM      | 25      | 0         | 20.18                 | 20.12                    | 19.99                  |                     |          |

LTE Band 25

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 1800            |            |         |           |                       |                          |                        |                     |          |
| 20              | QPSK       | 1       | 0         | 23.15                 | 23.09                    | 22.90                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 22.90                 | 22.90                    | 22.86                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.89                 | 22.96                    | 22.88                  |                     |          |
| 20              | QPSK       | 50      | 0         | 22.07                 | 22.02                    | 21.93                  | 23                  | 1        |
| 20              | QPSK       | 50      | 24        | 21.97                 | 21.96                    | 21.97                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.94                 | 21.89                    | 21.82                  |                     |          |
| 20              | QPSK       | 100     | 0         | 22.03                 | 22.01                    | 21.98                  | 22                  | 2        |
| 20              | 16QAM      | 1       | 0         | 22.56                 | 22.49                    | 22.18                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 22.32                 | 22.19                    | 22.23                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.41                 | 22.40                    | 22.20                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 0         | 21.15                 | 21.15                    | 21.00                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 21.11                 | 21.09                    | 21.09                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 21.02                 | 21.02                    | 21.03                  | 22                  | 2        |
| 20              | 16QAM      | 100     | 0         | 21.08                 | 21.04                    | 21.01                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 21.52                 | 21.41                    | 21.13                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 21.24                 | 21.20                    | 21.23                  | 22                  | 2        |
| 20              | 16QAM      | 1       | 99        | 21.39                 | 21.30                    | 21.20                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.16                 | 20.10                    | 20.02                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 20.07                 | 20.05                    | 20.05                  | 21                  | 3        |
| 20              | 16QAM      | 50      | 50        | 20.05                 | 19.97                    | 20.08                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.07                 | 20.08                    | 20.01                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 2615            |            |         |           |                       |                          |                        |                     |          |
| 15              | QPSK       | 1       | 0         | 23.02                 | 22.89                    | 22.97                  | 24                  | 0        |
| 15              | QPSK       | 1       | 37        | 22.93                 | 22.80                    | 22.86                  |                     |          |
| 15              | QPSK       | 1       | 74        | 22.88                 | 22.85                    | 22.83                  |                     |          |
| 15              | QPSK       | 36      | 0         | 22.08                 | 22.00                    | 21.88                  | 23                  | 1        |
| 15              | QPSK       | 36      | 20        | 22.02                 | 21.99                    | 21.91                  |                     |          |
| 15              | QPSK       | 36      | 39        | 22.00                 | 21.91                    | 21.92                  |                     |          |
| 15              | QPSK       | 75      | 0         | 22.00                 | 21.93                    | 21.95                  | 23                  | 1        |
| 15              | 16QAM      | 1       | 0         | 22.34                 | 22.33                    | 22.35                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 22.29                 | 22.19                    | 22.17                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 22.15                 | 22.00                    | 22.25                  | 22                  | 2        |
| 15              | 16QAM      | 36      | 0         | 21.19                 | 21.10                    | 21.07                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 21.14                 | 21.03                    | 21.03                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 21.13                 | 21.04                    | 21.03                  | 22                  | 2        |
| 15              | 16QAM      | 75      | 0         | 21.12                 | 21.05                    | 21.07                  |                     |          |
| 15              | 16QAM      | 1       | 0         | 21.31                 | 21.27                    | 21.38                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 21.26                 | 21.09                    | 21.15                  | 22                  | 2        |
| 15              | 16QAM      | 1       | 74        | 21.18                 | 21.15                    | 21.20                  |                     |          |
| 15              | 16QAM      | 36      | 0         | 20.21                 | 20.12                    | 20.13                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.18                 | 20.12                    | 20.08                  | 21                  | 3        |
| 15              | 16QAM      | 36      | 39        | 20.14                 | 20.03                    | 20.03                  |                     |          |
| 15              | 16QAM      | 75      | 0         | 20.12                 | 20.02                    | 20.04                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 2690            |            |         |           |                       |                          |                        |                     |          |
| 10              | QPSK       | 1       | 0         | 23.16                 | 23.05                    | 22.87                  | 24                  | 0        |
| 10              | QPSK       | 1       | 25        | 22.93                 | 22.82                    | 22.82                  |                     |          |
| 10              | QPSK       | 1       | 49        | 23.09                 | 23.00                    | 22.89                  |                     |          |
| 10              | QPSK       | 25      | 0         | 22.01                 | 21.94                    | 21.83                  | 23                  | 1        |
| 10              | QPSK       | 25      | 12        | 21.96                 | 21.95                    | 21.85                  |                     |          |
| 10              | QPSK       | 25      | 25        | 21.93                 | 21.91                    | 21.79                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.95                 | 21.92                    | 21.82                  | 23                  | 1        |
| 10              | 16QAM      | 1       | 0         | 22.55                 | 22.40                    | 22.08                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 22.25                 | 22.19                    | 22.07                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.49                 | 22.41                    | 22.10                  | 22                  | 2        |
| 10              | 16QAM      | 25      | 0         | 21.13                 | 21.07                    | 20.96                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 21.09                 | 21.01                    | 20.88                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 21.05                 | 20.97                    | 20.94                  | 22                  | 2        |
| 10              | 16QAM      | 50      | 0         | 21.10                 | 21.07                    | 20.96                  |                     |          |
| 10              | 16QAM      | 5       |           |                       |                          |                        |                     |          |



| LTE Band 26     |            |         |           |                     |                        |                      |                     |          |  |
|-----------------|------------|---------|-----------|---------------------|------------------------|----------------------|---------------------|----------|--|
| BW (MHz)        | Modulation | RB Size | RB Offset | Power Low Ch./Freq. | Power Middle Ch./Freq. | Power High Ch./Freq. | Tune-up limit (dBm) | MPR (dB) |  |
| Channel         |            |         |           | 26765               | 26865                  | 26965                |                     |          |  |
| Frequency (MHz) |            |         |           | 831.5               | 831.5                  | 841.5                |                     |          |  |
| 15              | QPSK       | 1       | 0         | 23.17               | 23.30                  | 23.20                | 24                  | 0        |  |
| 15              | QPSK       | 1       | 37        | 23.20               | 23.05                  | 22.96                |                     |          |  |
| 15              | QPSK       | 1       | 74        | 22.92               | 23.04                  | 22.82                |                     |          |  |
| 15              | QPSK       | 36      | 0         | 22.25               | 22.28                  | 22.19                | 23                  | 1        |  |
| 15              | QPSK       | 36      | 20        | 22.26               | 22.26                  | 22.07                |                     |          |  |
| 15              | QPSK       | 36      | 39        | 22.12               | 22.15                  | 21.95                |                     |          |  |
| 15              | QPSK       | 75      | 0         | 22.21               | 22.29                  | 22.17                | 23                  | 1        |  |
| 15              | 16QAM      | 1       | 0         | 22.38               | 22.52                  | 22.45                |                     |          |  |
| 15              | 16QAM      | 1       | 37        | 22.52               | 22.42                  | 22.28                |                     |          |  |
| 15              | 16QAM      | 1       | 74        | 22.27               | 22.29                  | 22.09                | 22                  | 2        |  |
| 15              | 16QAM      | 36      | 0         | 21.33               | 21.25                  | 21.32                |                     |          |  |
| 15              | 16QAM      | 36      | 20        | 21.35               | 21.35                  | 21.13                |                     |          |  |
| 15              | 16QAM      | 36      | 39        | 21.27               | 21.21                  | 21.02                | 22                  | 2        |  |
| 15              | 16QAM      | 75      | 0         | 21.29               | 21.35                  | 21.20                |                     |          |  |
| 15              | 64QAM      | 1       | 0         | 21.36               | 21.47                  | 21.48                |                     |          |  |
| 15              | 64QAM      | 1       | 37        | 21.51               | 21.41                  | 21.24                | 21                  | 3        |  |
| 15              | 64QAM      | 1       | 74        | 21.22               | 21.31                  | 21.07                |                     |          |  |
| 15              | 64QAM      | 36      | 0         | 20.41               | 20.32                  | 20.33                |                     |          |  |
| 15              | 64QAM      | 36      | 20        | 20.39               | 20.43                  | 20.14                | 21                  | 3        |  |
| 15              | 64QAM      | 36      | 39        | 20.29               | 20.27                  | 20.08                |                     |          |  |
| 15              | 64QAM      | 75      | 0         | 20.33               | 20.32                  | 20.22                |                     |          |  |
| Channel         |            |         |           | 26740               | 26865                  | 26990                |                     |          |  |
| Frequency (MHz) |            |         |           | 819                 | 831.5                  | 844                  |                     |          |  |
| 10              | QPSK       | 1       | 0         | 23.15               | 23.11                  | 22.97                | 24                  | 0        |  |
| 10              | QPSK       | 1       | 25        | 23.09               | 23.17                  | 22.89                |                     |          |  |
| 10              | QPSK       | 1       | 49        | 23.08               | 23.00                  | 22.80                |                     |          |  |
| 10              | QPSK       | 25      | 0         | 22.20               | 22.27                  | 22.01                | 23                  | 1        |  |
| 10              | QPSK       | 25      | 12        | 22.19               | 22.25                  | 21.99                |                     |          |  |
| 10              | QPSK       | 25      | 25        | 22.22               | 22.21                  | 21.91                |                     |          |  |
| 10              | QPSK       | 50      | 0         | 22.24               | 22.23                  | 21.98                | 23                  | 1        |  |
| 10              | 16QAM      | 1       | 0         | 22.53               | 22.45                  | 22.21                |                     |          |  |
| 10              | 16QAM      | 1       | 25        | 22.34               | 22.55                  | 22.31                |                     |          |  |
| 10              | 16QAM      | 1       | 49        | 22.31               | 22.35                  | 22.08                | 22                  | 2        |  |
| 10              | 16QAM      | 25      | 0         | 21.28               | 21.32                  | 21.13                |                     |          |  |
| 10              | 16QAM      | 25      | 12        | 21.25               | 21.35                  | 21.08                |                     |          |  |
| 10              | 16QAM      | 25      | 25        | 21.28               | 21.30                  | 21.03                | 22                  | 2        |  |
| 10              | 16QAM      | 50      | 0         | 21.30               | 21.29                  | 21.07                |                     |          |  |
| 10              | 64QAM      | 1       | 0         | 21.41               | 21.36                  | 21.28                |                     |          |  |
| 10              | 64QAM      | 1       | 25        | 21.31               | 21.50                  | 21.17                | 22                  | 2        |  |
| 10              | 64QAM      | 1       | 49        | 21.38               | 21.41                  | 21.03                |                     |          |  |
| 10              | 64QAM      | 25      | 0         | 20.28               | 20.37                  | 20.15                |                     |          |  |
| 10              | 64QAM      | 25      | 12        | 20.24               | 20.32                  | 20.13                | 21                  | 3        |  |
| 10              | 64QAM      | 25      | 25        | 20.27               | 20.26                  | 20.04                |                     |          |  |
| 10              | 64QAM      | 50      | 0         | 20.34               | 20.34                  | 20.09                |                     |          |  |
| Channel         |            |         |           | 26715               | 26865                  | 27015                |                     |          |  |
| Frequency (MHz) |            |         |           | 816.5               | 831.5                  | 846.5                |                     |          |  |
| 5               | QPSK       | 1       | 0         | 23.18               | 23.22                  | 22.96                | 24                  | 0        |  |
| 5               | QPSK       | 1       | 12        | 23.13               | 23.21                  | 22.84                |                     |          |  |
| 5               | QPSK       | 1       | 24        | 23.08               | 23.15                  | 22.83                |                     |          |  |
| 5               | QPSK       | 12      | 0         | 22.19               | 22.19                  | 21.93                | 23                  | 1        |  |
| 5               | QPSK       | 12      | 7         | 22.22               | 22.23                  | 21.99                |                     |          |  |
| 5               | QPSK       | 12      | 13        | 22.16               | 22.19                  | 21.93                |                     |          |  |
| 5               | QPSK       | 25      | 0         | 22.17               | 22.23                  | 21.89                | 23                  | 1        |  |
| 5               | 16QAM      | 1       | 0         | 22.38               | 22.58                  | 22.19                |                     |          |  |
| 5               | 16QAM      | 1       | 12        | 22.46               | 22.45                  | 22.24                |                     |          |  |
| 5               | 16QAM      | 1       | 24        | 22.45               | 22.41                  | 22.08                | 22                  | 2        |  |
| 5               | 16QAM      | 12      | 0         | 21.23               | 21.34                  | 21.04                |                     |          |  |
| 5               | 16QAM      | 12      | 7         | 21.29               | 21.33                  | 21.03                |                     |          |  |
| 5               | 16QAM      | 12      | 13        | 21.22               | 21.30                  | 21.02                | 22                  | 2        |  |
| 5               | 16QAM      | 25      | 0         | 21.23               | 21.32                  | 21.04                |                     |          |  |
| 5               | 64QAM      | 1       | 0         | 21.45               | 21.53                  | 21.18                |                     |          |  |
| 5               | 64QAM      | 1       | 12        | 21.37               | 21.62                  | 21.18                | 22                  | 2        |  |
| 5               | 64QAM      | 1       | 24        | 21.36               | 21.54                  | 21.11                |                     |          |  |
| 5               | 64QAM      | 12      | 0         | 20.34               | 20.35                  | 20.10                |                     |          |  |
| 5               | 64QAM      | 12      | 7         | 20.33               | 20.41                  | 20.16                | 21                  | 3        |  |
| 5               | 64QAM      | 12      | 13        | 20.24               | 20.31                  | 20.08                |                     |          |  |
| 5               | 64QAM      | 25      | 0         | 20.24               | 20.35                  | 20.01                |                     |          |  |
| Channel         |            |         |           | 26715               | 26865                  | 27015                |                     |          |  |
| Frequency (MHz) |            |         |           | 815.5               | 831.5                  | 847.5                |                     |          |  |
| 3               | QPSK       | 1       | 0         | 23.26               | 23.29                  | 22.99                | 24                  | 0        |  |
| 3               | QPSK       | 1       | 8         | 23.24               | 23.26                  | 22.82                |                     |          |  |
| 3               | QPSK       | 1       | 14        | 23.19               | 23.23                  | 22.83                |                     |          |  |
| 3               | QPSK       | 8       | 0         | 22.26               | 22.32                  | 22.01                | 23                  | 1        |  |
| 3               | QPSK       | 8       | 4         | 22.27               | 22.32                  | 22.00                |                     |          |  |
| 3               | QPSK       | 8       | 7         | 22.27               | 22.26                  | 21.99                |                     |          |  |
| 3               | QPSK       | 15      | 0         | 22.27               | 22.31                  | 22.03                | 23                  | 1        |  |
| 3               | 16QAM      | 1       | 0         | 22.42               | 22.65                  | 22.35                |                     |          |  |
| 3               | 16QAM      | 1       | 8         | 22.50               | 22.60                  | 22.30                |                     |          |  |
| 3               | 16QAM      | 1       | 14        | 22.41               | 22.57                  | 22.18                | 22                  | 2        |  |
| 3               | 16QAM      | 8       | 0         | 21.37               | 21.47                  | 21.13                |                     |          |  |
| 3               | 16QAM      | 8       | 4         | 21.36               | 21.47                  | 21.17                |                     |          |  |
| 3               | 16QAM      | 8       | 7         | 21.39               | 21.46                  | 21.14                | 22                  | 2        |  |
| 3               | 16QAM      | 15      | 0         | 21.40               | 21.40                  | 21.12                |                     |          |  |
| 3               | 64QAM      | 1       | 0         | 21.51               | 21.54                  | 21.28                |                     |          |  |
| 3               | 64QAM      | 1       | 8         | 21.51               | 21.54                  | 21.23                | 22                  | 2        |  |
| 3               | 64QAM      | 1       | 14        | 21.51               | 21.45                  | 21.25                |                     |          |  |
| 3               | 64QAM      | 8       | 0         | 20.39               | 20.45                  | 20.19                |                     |          |  |
| 3               | 64QAM      | 8       | 4         | 20.39               | 20.50                  | 20.16                | 21                  | 3        |  |
| 3               | 64QAM      | 8       | 7         | 20.39               | 20.41                  | 20.11                |                     |          |  |
| 3               | 64QAM      | 15      | 0         | 20.37               | 20.39                  | 20.07                |                     |          |  |
| Channel         |            |         |           | 26697               | 26865                  | 27033                |                     |          |  |
| Frequency (MHz) |            |         |           | 814.7               | 831.5                  | 848.3                |                     |          |  |
| 1.4             | QPSK       | 1       | 0         | 23.11               | 23.12                  | 22.83                | 24                  | 0        |  |
| 1.4             | QPSK       | 1       | 3         | 23.20               | 23.22                  | 22.91                |                     |          |  |
| 1.4             | QPSK       | 1       | 5         | 23.12               | 23.15                  | 22.82                |                     |          |  |
| 1.4             | QPSK       | 3       | 0         | 23.20               | 23.22                  | 22.88                | 23                  | 1        |  |
| 1.4             | QPSK       | 3       | 1         | 23.20               | 23.26                  | 22.90                |                     |          |  |
| 1.4             | QPSK       | 3       | 3         | 23.16               | 23.21                  | 22.85                |                     |          |  |
| 1.4             | QPSK       | 6       | 0         | 22.21               | 22.25                  | 21.86                | 23                  | 1        |  |
| 1.4             | 16QAM      | 1       | 0         | 22.48               | 22.46                  | 22.10                |                     |          |  |
| 1.4             | 16QAM      | 1       | 3         | 22.52               | 22.51                  | 22.21                |                     |          |  |
| 1.4             | 16QAM      | 1       | 5         | 22.33               | 22.53                  | 22.06                | 23                  | 1        |  |
| 1.4             | 16QAM      | 3       | 0         | 22.22               | 22.25                  | 22.03                |                     |          |  |
| 1.4             | 16QAM      | 3       | 1         | 22.23               | 22.29                  | 22.03                |                     |          |  |
| 1.4             | 16QAM      | 3       | 3         | 22.17               | 22.24                  | 21.92                | 22                  | 2        |  |
| 1.4             | 16QAM      | 6       | 0         | 21.31               | 21.34                  | 21.09                |                     |          |  |
| 1.4             | 64QAM      | 1       | 0         | 21.31               | 21.50                  | 21.17                |                     |          |  |
| 1.4             | 64QAM      | 1       | 3         | 21.39               | 21.49                  | 21.15                | 22                  | 2        |  |
| 1.4             | 64QAM      | 1       | 5         | 21.37               | 21.48                  | 21.13                |                     |          |  |
| 1.4             | 64QAM      | 3       | 0         | 21.35               | 21.46                  | 21.15                |                     |          |  |
| 1.4             | 64QAM      | 3       | 1         | 21.37               | 21.51                  | 21.14                | 22                  | 2        |  |
| 1.4             | 64QAM      | 3       | 3         | 21.33               | 21.36                  | 21.02                |                     |          |  |
| 1.4             | 64QAM      | 6       | 0         | 20.24               | 20.31                  | 19.97                |                     |          |  |

| LTE Band 30     |            |         |           |                     |                        |                      |                     |          |  |
|-----------------|------------|---------|-----------|---------------------|------------------------|----------------------|---------------------|----------|--|
| BW (MHz)        | Modulation | RB Size | RB Offset | Power Low Ch./Freq. | Power Middle Ch./Freq. | Power High Ch./Freq. | Tune-up limit (dBm) | MPR (dB) |  |
| Channel         |            |         |           | 27770               | 27770                  | 27770                |                     |          |  |
| Frequency (MHz) |            |         |           | 2310                | 2310                   | 2310                 |                     |          |  |
| 10              | QPSK       | 1       | 0         | 23.31               |                        |                      | 24                  | 0        |  |
| 10              | QPSK       | 1       | 25        | 23.26               |                        |                      |                     |          |  |
| 10              | QPSK       | 1       | 49        | 23.30               |                        |                      |                     |          |  |
| 10              | QPSK       | 25      | 0         | 22.32               |                        |                      | 23                  | 1        |  |
| 10              | QPSK       | 25      | 12        | 22.31               |                        |                      |                     |          |  |
| 10              | QPSK       | 25      | 25        | 22.26               |                        |                      |                     |          |  |
| 10              | QPSK       | 50      | 0         | 22.31               |                        |                      | 23                  | 1        |  |
| 10              | 16QAM      | 1       | 0         | 22.65               |                        |                      |                     |          |  |
| 10              | 16QAM      | 1       | 25        | 22.60               |                        |                      |                     |          |  |
| 10              | 16QAM      | 1       | 49        | 22.57               |                        |                      | 22                  | 2        |  |
| 10              | 16QAM      | 25      | 0         | 21.47               |                        |                      |                     |          |  |
| 10              | 16QAM      | 25      | 12        | 21.47               |                        |                      |                     |          |  |
| 10              | 16QAM      | 25      | 25        | 21.46               |                        |                      | 22                  | 2        |  |
| 10              | 16QAM      | 50      | 0         | 21.40               |                        |                      |                     |          |  |
| 10              | 64QAM      | 1       | 0         | 21.54               |                        |                      |                     |          |  |
| 10              | 64QAM      | 1       | 25        | 21.54               |                        |                      | 22                  | 2        |  |
| 10              | 64QAM      | 1       | 49        | 21.45               |                        |                      |                     |          |  |
| 10              | 64QAM      | 25      | 0         | 20.45               |                        |                      |                     |          |  |
| 10              | 64QAM      | 25      | 12        | 20.50               |                        |                      | 21                  | 3        |  |
| 10              | 64QAM      | 25      | 25        | 20.41               |                        |                      |                     |          |  |
| 10              | 64QAM      | 50      | 0         | 20.39               |                        |                      |                     |          |  |
| Channel         |            |         |           | 27685               | 27710                  | 27735                |                     |          |  |
| Frequency (MHz) |            |         |           | 2307.5              | 2310                   | 2312.5               |                     |          |  |
| 5               | QPSK       | 1       | 0         | 23.30               | 23.23                  | 23.28                | 24                  | 0        |  |
| 5               | QPSK       | 1       | 12        | 23.20               | 23.19                  | 23.14                |                     |          |  |
| 5               | QPSK       | 1       | 24        | 23.23               | 23.16                  | 23.17                |                     |          |  |
| 5               | QPSK       | 12      | 0         | 22.18               | 22.25                  | 22.21                | 23                  | 1        |  |
| 5               | QPSK       | 12      | 7         | 22.22               | 22.19                  | 22.18                |                     |          |  |
| 5               | QPSK       | 12      | 13        | 22.17               | 22.16                  | 22.20                |                     |          |  |
| 5               | QPSK       | 25      | 0         | 22.24               | 22.23                  | 22.17                | 23                  | 1        |  |
| 5               | 16QAM      | 1       | 0         | 22.60               | 22.51                  | 22.56                |                     |          |  |
| 5               | 16QAM      | 1       | 12        | 22.44               | 22.50                  | 22.58                |                     |          |  |
| 5               | 16QAM      | 1       | 24        | 22.42               | 22.48                  | 22.59                | 22                  | 2        |  |
| 5               | 16QAM      | 12      | 0         | 21.33               | 21.31                  | 21.29                |                     |          |  |
| 5               | 16QAM      | 12      | 7         | 21.30               | 21.27                  | 21.28                |                     |          |  |
| 5               | 16QAM      | 12      | 13        | 21.28               | 21.24                  | 21.29                | 22                  | 2        |  |
| 5               | 16QAM      | 25      | 0         | 21.28               | 21.28                  | 21.27                |                     |          |  |
| 5               |            |         |           |                     |                        |                      |                     |          |  |



LTE Band 66

| BW (MHz)        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 20              | QPSK       | 1       | 0         | 23.05                 | 22.93                    | 23.00                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 22.83                 | 22.77                    | 22.85                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.82                 | 22.77                    | 22.86                  |                     |          |
| 20              | QPSK       | 50      | 0         | 22.01                 | 21.87                    | 21.94                  | 23                  | 1        |
| 20              | QPSK       | 50      | 24        | 21.91                 | 21.85                    | 21.96                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.89                 | 21.85                    | 21.87                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.97                 | 21.95                    | 21.96                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 0         | 22.45                 | 22.32                    | 22.43                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 22.18                 | 22.10                    | 22.23                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.24                 | 22.09                    | 22.24                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 0         | 21.02                 | 21.00                    | 21.12                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 21.03                 | 20.97                    | 21.05                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 21.00                 | 20.92                    | 21.00                  | 22                  | 2        |
| 20              | 16QAM      | 100     | 0         | 21.02                 | 20.91                    | 21.04                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 21.30                 | 21.10                    | 21.32                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 21.11                 | 20.99                    | 21.12                  | 21                  | 3        |
| 20              | 64QAM      | 1       | 99        | 21.11                 | 21.03                    | 21.16                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 20.03                 | 20.02                    | 19.98                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 20.04                 | 19.92                    | 20.05                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 50        | 19.95                 | 19.93                    | 19.98                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.98                 | 19.92                    | 19.91                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 15              | QPSK       | 1       | 0         | 22.96                 | 22.86                    | 22.93                  | 24                  | 0        |
| 15              | QPSK       | 1       | 37        | 22.87                 | 22.72                    | 22.91                  |                     |          |
| 15              | QPSK       | 1       | 74        | 22.77                 | 22.60                    | 22.85                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.95                 | 21.81                    | 21.90                  | 23                  | 1        |
| 15              | QPSK       | 36      | 20        | 21.90                 | 21.78                    | 21.90                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.87                 | 21.76                    | 21.87                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.87                 | 21.85                    | 21.88                  | 23                  | 1        |
| 15              | 16QAM      | 1       | 0         | 22.37                 | 22.18                    | 22.22                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 22.18                 | 22.08                    | 22.07                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 22.07                 | 22.13                    | 22.14                  | 22                  | 2        |
| 15              | 16QAM      | 36      | 0         | 21.03                 | 20.93                    | 21.03                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.99                 | 20.87                    | 20.94                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.96                 | 20.86                    | 20.93                  | 22                  | 2        |
| 15              | 16QAM      | 75      | 0         | 20.98                 | 20.87                    | 20.98                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 21.23                 | 21.12                    | 21.16                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.94                 | 20.98                    | 20.93                  | 21                  | 3        |
| 15              | 64QAM      | 1       | 74        | 20.97                 | 20.88                    | 20.94                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 20.01                 | 19.91                    | 19.97                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.98                 | 19.90                    | 19.97                  | 21                  | 3        |
| 15              | 64QAM      | 36      | 39        | 19.92                 | 19.85                    | 19.94                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.99                 | 19.96                    | 19.97                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 10              | QPSK       | 1       | 0         | 22.92                 | 22.81                    | 22.91                  | 24                  | 0        |
| 10              | QPSK       | 1       | 25        | 22.84                 | 22.75                    | 22.87                  |                     |          |
| 10              | QPSK       | 1       | 49        | 22.81                 | 22.76                    | 22.83                  |                     |          |
| 10              | QPSK       | 25      | 0         | 21.97                 | 21.88                    | 21.91                  | 23                  | 1        |
| 10              | QPSK       | 25      | 12        | 21.87                 | 21.85                    | 21.88                  |                     |          |
| 10              | QPSK       | 25      | 25        | 21.90                 | 21.84                    | 21.85                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.94                 | 21.81                    | 21.88                  | 23                  | 1        |
| 10              | 16QAM      | 1       | 0         | 22.23                 | 22.20                    | 22.21                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 22.14                 | 22.08                    | 22.12                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.16                 | 22.10                    | 22.18                  | 22                  | 2        |
| 10              | 16QAM      | 25      | 0         | 20.99                 | 20.91                    | 20.98                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.98                 | 20.89                    | 21.00                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 20.95                 | 20.87                    | 20.97                  | 22                  | 2        |
| 10              | 64QAM      | 50      | 0         | 21.02                 | 21.02                    | 21.00                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 21.06                 | 21.00                    | 20.95                  |                     |          |
| 10              | 64QAM      | 1       | 49        | 21.14                 | 21.03                    | 21.00                  | 21                  | 3        |
| 10              | 64QAM      | 25      | 0         | 20.00                 | 19.78                    | 19.95                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 20.01                 | 19.89                    | 19.97                  |                     |          |
| 10              | 64QAM      | 25      | 25        | 19.92                 | 19.86                    | 19.94                  | 21                  | 3        |
| 10              | 64QAM      | 50      | 0         | 19.97                 | 19.90                    | 19.90                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 5               | QPSK       | 1       | 0         | 22.90                 | 22.79                    | 22.87                  | 24                  | 0        |
| 5               | QPSK       | 1       | 12        | 22.85                 | 22.75                    | 22.79                  |                     |          |
| 5               | QPSK       | 1       | 24        | 22.87                 | 22.74                    | 22.81                  |                     |          |
| 5               | QPSK       | 12      | 0         | 21.91                 | 21.81                    | 21.87                  | 23                  | 1        |
| 5               | QPSK       | 12      | 7         | 21.89                 | 21.77                    | 21.84                  |                     |          |
| 5               | QPSK       | 12      | 13        | 21.93                 | 21.81                    | 21.83                  |                     |          |
| 5               | QPSK       | 25      | 0         | 21.93                 | 21.80                    | 21.83                  | 23                  | 1        |
| 5               | 16QAM      | 1       | 0         | 22.20                 | 22.09                    | 22.13                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 22.24                 | 22.04                    | 22.20                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 22.16                 | 22.08                    | 22.17                  | 22                  | 2        |
| 5               | 16QAM      | 12      | 0         | 21.02                 | 20.93                    | 20.99                  |                     |          |
| 5               | 16QAM      | 12      | 7         | 21.00                 | 20.89                    | 20.99                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 20.93                 | 20.87                    | 20.96                  | 22                  | 2        |
| 5               | 16QAM      | 25      | 0         | 20.95                 | 20.86                    | 20.93                  |                     |          |
| 5               | 64QAM      | 1       | 0         | 21.18                 | 20.97                    | 21.10                  |                     |          |
| 5               | 64QAM      | 1       | 12        | 21.24                 | 20.97                    | 21.05                  | 22                  | 2        |
| 5               | 64QAM      | 1       | 24        | 21.14                 | 20.97                    | 21.09                  |                     |          |
| 5               | 64QAM      | 12      | 0         | 20.00                 | 19.90                    | 20.00                  |                     |          |
| 5               | 64QAM      | 12      | 7         | 20.07                 | 19.98                    | 19.98                  | 21                  | 3        |
| 5               | 64QAM      | 12      | 13        | 20.01                 | 19.90                    | 20.02                  |                     |          |
| 5               | 64QAM      | 25      | 0         | 19.98                 | 19.87                    | 19.98                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 3               | QPSK       | 1       | 0         | 22.84                 | 22.75                    | 22.78                  | 24                  | 0        |
| 3               | QPSK       | 1       | 8         | 22.87                 | 22.76                    | 22.83                  |                     |          |
| 3               | QPSK       | 1       | 14        | 22.81                 | 22.70                    | 22.75                  |                     |          |
| 3               | QPSK       | 8       | 0         | 21.85                 | 21.75                    | 21.81                  | 23                  | 1        |
| 3               | QPSK       | 8       | 4         | 21.88                 | 21.79                    | 21.88                  |                     |          |
| 3               | QPSK       | 8       | 7         | 21.91                 | 21.81                    | 21.82                  |                     |          |
| 3               | QPSK       | 15      | 0         | 21.93                 | 21.77                    | 21.81                  | 23                  | 1        |
| 3               | 16QAM      | 1       | 0         | 22.29                 | 22.05                    | 22.11                  |                     |          |
| 3               | 16QAM      | 1       | 8         | 22.14                 | 21.98                    | 22.23                  |                     |          |
| 3               | 16QAM      | 1       | 14        | 22.19                 | 22.02                    | 22.17                  | 22                  | 2        |
| 3               | 16QAM      | 8       | 0         | 21.03                 | 20.90                    | 20.98                  |                     |          |
| 3               | 16QAM      | 8       | 4         | 21.03                 | 20.96                    | 20.97                  |                     |          |
| 3               | 16QAM      | 8       | 7         | 20.96                 | 20.80                    | 20.93                  | 22                  | 2        |
| 3               | 16QAM      | 15      | 0         | 21.01                 | 20.87                    | 20.96                  |                     |          |
| 3               | 64QAM      | 1       | 0         | 21.08                 | 21.04                    | 21.04                  |                     |          |
| 3               | 64QAM      | 1       | 8         | 21.18                 | 21.02                    | 21.09                  | 22                  | 2        |
| 3               | 64QAM      | 1       | 14        | 21.14                 | 21.00                    | 20.99                  |                     |          |
| 3               | 64QAM      | 8       | 0         | 20.02                 | 19.77                    | 19.94                  |                     |          |
| 3               | 64QAM      | 8       | 4         | 19.99                 | 19.89                    | 19.94                  | 21                  | 3        |
| 3               | 64QAM      | 8       | 7         | 20.02                 | 19.77                    | 19.90                  |                     |          |
| 3               | 64QAM      | 15      | 0         | 19.95                 | 19.82                    | 19.87                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 1.4             | QPSK       | 1       | 0         | 22.70                 | 22.59                    | 22.65                  | 24                  | 0        |
| 1.4             | QPSK       | 1       | 3         | 22.79                 | 22.67                    | 22.73                  |                     |          |
| 1.4             | QPSK       | 1       | 5         | 22.73                 | 22.62                    | 22.61                  |                     |          |
| 1.4             | QPSK       | 3       | 0         | 22.78                 | 22.64                    | 22.69                  | 23                  | 1        |
| 1.4             | QPSK       | 3       | 1         | 22.82                 | 22.65                    | 22.77                  |                     |          |
| 1.4             | QPSK       | 3       | 3         | 22.78                 | 22.67                    | 22.69                  |                     |          |
| 1.4             | QPSK       | 8       | 0         | 21.75                 | 21.59                    | 21.71                  | 23                  | 1        |
| 1.4             | 16QAM      | 1       | 0         | 21.97                 | 21.95                    | 21.95                  |                     |          |
| 1.4             | 16QAM      | 1       | 3         | 22.14                 | 21.96                    | 22.05                  |                     |          |
| 1.4             | 16QAM      | 1       | 5         | 21.99                 | 21.94                    | 21.89                  | 23                  | 1        |
| 1.4             | 16QAM      | 3       | 0         | 21.86                 | 21.72                    | 21.79                  |                     |          |
| 1.4             | 16QAM      | 3       | 1         | 21.83                 | 21.74                    | 21.85                  |                     |          |
| 1.4             | 16QAM      | 3       | 3         | 21.85                 | 21.70                    | 21.79                  | 22                  | 2        |
| 1.4             | 16QAM      | 8       | 0         | 20.91                 | 20.77                    | 20.89                  |                     |          |
| 1.4             | 64QAM      | 1       | 0         | 20.98                 | 20.87                    | 20.94                  |                     |          |
| 1.4             | 64QAM      | 1       | 3         | 20.93                 | 20.87                    | 20.97                  | 22                  | 2        |
| 1.4             | 64QAM      | 1       | 5         | 21.00                 | 20.82                    | 20.70                  |                     |          |
| 1.4             | 64QAM      | 3       | 0         | 20.81                 | 20.79                    | 20.80                  |                     |          |
| 1.4             | 64QAM      | 3       | 1         | 20.76                 | 20.80                    | 20.82                  | 21                  | 3        |
| 1.4             | 64QAM      | 3       | 3         | 20.93                 | 20.76                    | 20.79                  |                     |          |
| 1.4             | 64QAM      | 6       | 0         | 19.85                 | 19.74                    | 19.80                  |                     |          |

LTE Band 71

| BW (MHz)        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 20              | QPSK       | 1       | 0         | 23.12                 | 22.99                    | 23.03                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 22.90                 | 22.81                    | 22.85                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.66                 | 22.69                    | 22.64                  |                     |          |
| 20              | QPSK       | 50      | 0         | 22.07                 | 22.04                    | 21.94                  | 23                  | 1        |
| 20              | QPSK       | 50      | 24        | 22.00                 | 21.94                    | 21.84                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.96                 | 21.83                    | 21.78                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.98                 | 21.96                    | 21.93                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 0         | 22.46                 | 22.31                    | 22.21                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 22.13                 | 22.14                    | 22.13                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.02                 | 22.00                    | 21.98                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 0         | 21.15                 | 21.05                    | 21.00                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 21.05                 | 20.98                    | 20.89                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 21.03                 | 20.84                    | 20.83                  | 22                  | 2        |
| 20              | 16QAM      | 100     | 0         | 20.98                 | 20.91                    | 20.86                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 21.38                 | 21.16                    | 21.33                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 21.18                 | 21.07                    | 20.97                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 99        | 21.01                 | 20.94                    | 20.94                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 20.16                 | 20.11                    | 19.97                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 20.05                 | 19.96                    | 19.87                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 50        | 20.05                 | 19.85                    | 19.85                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 20.04                 | 19.97                    | 19.85                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           |                       |                          |                        |                     |          |
| 15              | QPSK       | 1       | 0         | 23.06                 | 22.97                    | 22.86                  | 24                  |          |





**LTE Band 38**

| BW (MHz)        | Modulation | RB Size | RB Offset | Power           |                    |                  | Tune-up limit (dBm) | MPR (dB) |    |   |
|-----------------|------------|---------|-----------|-----------------|--------------------|------------------|---------------------|----------|----|---|
|                 |            |         |           | Low Ch. / Freq. | Middle Ch. / Freq. | High Ch. / Freq. |                     |          |    |   |
| Channel         |            |         |           | 37850           | 38000              | 38150            |                     |          |    |   |
| Frequency (MHz) |            |         |           | 2580            | 2595               | 2610             |                     |          |    |   |
| 20              | QPSK       | 1       | 0         | 22.82           | 22.87              | 22.77            | 24                  | 0        |    |   |
| 20              | QPSK       | 1       | 49        | 22.68           | 22.68              | 22.53            |                     |          |    |   |
| 20              | QPSK       | 1       | 99        | 22.68           | 22.52              | 22.59            |                     |          |    |   |
| 20              | QPSK       | 50      | 0         | 21.84           | 21.84              | 21.66            |                     |          |    |   |
| 20              | QPSK       | 50      | 24        | 21.73           | 21.75              | 21.58            | 23                  | 1        |    |   |
| 20              | QPSK       | 50      | 50        | 21.75           | 21.95              | 21.53            |                     |          |    |   |
| 20              | QPSK       | 100     | 0         | 21.73           | 21.73              | 21.59            |                     |          |    |   |
| 20              | 16QAM      | 1       | 0         | 21.96           | 21.98              | 21.87            |                     |          |    |   |
| 20              | 16QAM      | 1       | 49        | 21.81           | 21.81              | 21.66            | 23                  | 1        |    |   |
| 20              | 16QAM      | 1       | 99        | 21.82           | 21.68              | 21.55            |                     |          |    |   |
| 20              | 16QAM      | 50      | 0         | 20.93           | 20.94              | 20.76            |                     |          |    |   |
| 20              | 16QAM      | 50      | 24        | 20.85           | 20.86              | 20.71            |                     |          |    |   |
| 20              | 16QAM      | 50      | 50        | 20.87           | 20.81              | 20.64            | 22                  | 2        |    |   |
| 20              | 16QAM      | 100     | 0         | 20.83           | 20.85              | 20.71            |                     |          |    |   |
| 20              | 84QAM      | 1       | 0         | 20.54           | 20.60              | 20.53            |                     |          |    |   |
| 20              | 84QAM      | 1       | 49        | 20.43           | 20.42              | 20.30            |                     |          |    |   |
| 20              | 84QAM      | 1       | 99        | 20.45           | 20.30              | 20.15            | 22                  | 2        |    |   |
| 20              | 84QAM      | 50      | 0         | 19.92           | 19.94              | 19.77            |                     |          |    |   |
| 20              | 84QAM      | 50      | 24        | 19.83           | 19.85              | 19.69            |                     |          |    |   |
| 20              | 84QAM      | 50      | 50        | 19.84           | 19.78              | 19.63            |                     |          |    |   |
| 20              | 84QAM      | 100     | 0         | 19.81           | 19.86              | 19.68            | 21                  | 3        |    |   |
| Channel         |            |         |           | 37825           | 38000              | 38175            |                     |          |    |   |
| Frequency (MHz) |            |         |           | 2577.5          | 2595               | 2612.5           |                     |          |    |   |
| 15              | QPSK       | 1       | 0         | 22.78           | 22.78              | 22.74            |                     |          | 24 | 0 |
| 15              | QPSK       | 1       | 37        | 22.71           | 22.70              | 22.57            |                     |          |    |   |
| 15              | QPSK       | 1       | 74        | 22.67           | 22.58              | 22.43            |                     |          |    |   |
| 15              | QPSK       | 38      | 0         | 21.78           | 21.77              | 21.63            |                     |          |    |   |
| 15              | QPSK       | 38      | 20        | 21.72           | 21.72              | 21.62            | 23                  | 1        |    |   |
| 15              | QPSK       | 38      | 39        | 21.61           | 21.62              | 21.62            |                     |          |    |   |
| 15              | QPSK       | 75      | 0         | 21.74           | 21.70              | 21.56            |                     |          |    |   |
| 15              | 16QAM      | 1       | 0         | 21.88           | 22.02              | 21.89            |                     |          |    |   |
| 15              | 16QAM      | 1       | 37        | 21.82           | 21.85              | 21.74            | 23                  | 1        |    |   |
| 15              | 16QAM      | 1       | 74        | 21.79           | 21.68              | 21.59            |                     |          |    |   |
| 15              | 16QAM      | 38      | 0         | 20.82           | 20.86              | 20.72            |                     |          |    |   |
| 15              | 16QAM      | 38      | 20        | 20.80           | 20.82              | 20.68            |                     |          |    |   |
| 15              | 16QAM      | 38      | 39        | 20.71           | 20.73              | 20.63            | 22                  | 2        |    |   |
| 15              | 16QAM      | 75      | 0         | 20.83           | 20.85              | 20.68            |                     |          |    |   |
| 15              | 84QAM      | 1       | 0         | 20.55           | 20.62              | 20.48            |                     |          |    |   |
| 15              | 84QAM      | 1       | 37        | 20.48           | 20.45              | 20.39            |                     |          |    |   |
| 15              | 84QAM      | 1       | 74        | 20.40           | 20.32              | 20.21            | 22                  | 2        |    |   |
| 15              | 84QAM      | 38      | 0         | 19.88           | 19.87              | 19.71            |                     |          |    |   |
| 15              | 84QAM      | 38      | 20        | 19.82           | 19.82              | 19.69            |                     |          |    |   |
| 15              | 84QAM      | 38      | 39        | 19.74           | 19.76              | 19.61            |                     |          |    |   |
| 15              | 84QAM      | 75      | 0         | 19.85           | 19.85              | 19.70            | 21                  | 3        |    |   |
| Channel         |            |         |           | 37800           | 38000              | 38200            |                     |          |    |   |
| Frequency (MHz) |            |         |           | 2574            | 2595               | 2615             |                     |          |    |   |
| 10              | QPSK       | 1       | 0         | 22.68           | 22.79              | 22.84            |                     |          | 24 | 0 |
| 10              | QPSK       | 1       | 25        | 22.64           | 22.68              | 22.49            |                     |          |    |   |
| 10              | QPSK       | 1       | 49        | 22.68           | 22.65              | 22.44            |                     |          |    |   |
| 10              | QPSK       | 25      | 0         | 21.64           | 21.72              | 21.59            |                     |          |    |   |
| 10              | QPSK       | 25      | 12        | 21.73           | 21.71              | 21.59            | 23                  | 1        |    |   |
| 10              | QPSK       | 25      | 25        | 21.67           | 21.64              | 21.42            |                     |          |    |   |
| 10              | QPSK       | 50      | 0         | 21.73           | 21.72              | 21.59            |                     |          |    |   |
| 10              | 16QAM      | 1       | 0         | 21.84           | 21.80              | 21.80            |                     |          |    |   |
| 10              | 16QAM      | 1       | 25        | 21.78           | 21.85              | 21.81            | 23                  | 1        |    |   |
| 10              | 16QAM      | 1       | 49        | 21.75           | 21.78              | 21.53            |                     |          |    |   |
| 10              | 16QAM      | 25      | 0         | 20.75           | 20.85              | 20.71            |                     |          |    |   |
| 10              | 16QAM      | 25      | 12        | 20.84           | 20.82              | 20.73            |                     |          |    |   |
| 10              | 16QAM      | 25      | 25        | 20.77           | 20.75              | 20.54            | 22                  | 2        |    |   |
| 10              | 16QAM      | 50      | 0         | 20.85           | 20.84              | 20.73            |                     |          |    |   |
| 10              | 84QAM      | 1       | 0         | 20.49           | 20.57              | 20.42            |                     |          |    |   |
| 10              | 84QAM      | 1       | 25        | 20.38           | 20.44              | 20.29            |                     |          |    |   |
| 10              | 84QAM      | 1       | 49        | 20.40           | 20.39              | 20.21            | 22                  | 2        |    |   |
| 10              | 84QAM      | 25      | 0         | 19.81           | 19.86              | 19.72            |                     |          |    |   |
| 10              | 84QAM      | 25      | 12        | 19.92           | 19.87              | 19.75            |                     |          |    |   |
| 10              | 84QAM      | 25      | 25        | 19.83           | 19.81              | 19.60            |                     |          |    |   |
| 10              | 84QAM      | 50      | 0         | 19.85           | 19.82              | 19.68            | 21                  | 3        |    |   |
| Channel         |            |         |           | 37775           | 38000              | 38225            |                     |          |    |   |
| Frequency (MHz) |            |         |           | 2572.5          | 2595               | 2617.5           |                     |          |    |   |
| 5               | QPSK       | 1       | 0         | 22.67           | 22.73              | 22.49            |                     |          | 24 | 0 |
| 5               | QPSK       | 1       | 12        | 22.63           | 22.72              | 22.48            |                     |          |    |   |
| 5               | QPSK       | 1       | 24        | 22.58           | 22.61              | 22.40            |                     |          |    |   |
| 5               | QPSK       | 12      | 0         | 21.68           | 21.71              | 21.49            |                     |          |    |   |
| 5               | QPSK       | 12      | 7         | 21.67           | 21.73              | 21.50            | 23                  | 1        |    |   |
| 5               | QPSK       | 12      | 13        | 21.61           | 21.70              | 21.49            |                     |          |    |   |
| 5               | QPSK       | 25      | 0         | 21.61           | 21.68              | 21.44            |                     |          |    |   |
| 5               | 16QAM      | 1       | 0         | 21.78           | 21.84              | 21.62            |                     |          |    |   |
| 5               | 16QAM      | 1       | 12        | 21.75           | 21.81              | 21.63            | 23                  | 1        |    |   |
| 5               | 16QAM      | 1       | 24        | 21.71           | 21.79              | 21.59            |                     |          |    |   |
| 5               | 16QAM      | 12      | 0         | 20.70           | 20.79              | 20.54            |                     |          |    |   |
| 5               | 16QAM      | 12      | 7         | 20.72           | 20.77              | 20.58            |                     |          |    |   |
| 5               | 16QAM      | 12      | 13        | 20.70           | 20.75              | 20.55            | 22                  | 2        |    |   |
| 5               | 16QAM      | 25      | 0         | 20.72           | 20.80              | 20.57            |                     |          |    |   |
| 5               | 84QAM      | 1       | 0         | 20.44           | 20.47              | 20.28            |                     |          |    |   |
| 5               | 84QAM      | 1       | 12        | 20.39           | 20.46              | 20.26            |                     |          |    |   |
| 5               | 84QAM      | 1       | 24        | 20.38           | 20.44              | 20.23            | 22                  | 2        |    |   |
| 5               | 84QAM      | 12      | 0         | 19.81           | 19.85              | 19.65            |                     |          |    |   |
| 5               | 84QAM      | 12      | 7         | 19.81           | 19.88              | 19.65            |                     |          |    |   |
| 5               | 84QAM      | 12      | 13        | 19.77           | 19.86              | 19.61            |                     |          |    |   |
| 5               | 84QAM      | 25      | 0         | 19.79           | 19.85              | 19.64            | 21                  | 3        |    |   |

**LTE Band 41**

| BW (MHz)        | Modulation | RB Size | RB Offset | Power           |                    |                  | Tune-up limit (dBm) | MPR (dB) |    |   |
|-----------------|------------|---------|-----------|-----------------|--------------------|------------------|---------------------|----------|----|---|
|                 |            |         |           | Low Ch. / Freq. | Middle Ch. / Freq. | High Ch. / Freq. |                     |          |    |   |
| Channel         |            |         |           | 39750           | 40185              | 40620            |                     |          |    |   |
| Frequency (MHz) |            |         |           | 2506            | 2549.5             | 2593             |                     |          |    |   |
| 20              | QPSK       | 1       | 0         | 22.87           | 22.86              | 22.82            | 24                  | 0        |    |   |
| 20              | QPSK       | 1       | 49        | 22.50           | 22.60              | 22.67            |                     |          |    |   |
| 20              | QPSK       | 1       | 99        | 22.81           | 22.58              | 22.71            |                     |          |    |   |
| 20              | QPSK       | 50      | 0         | 21.57           | 21.79              | 21.83            |                     |          |    |   |
| 20              | QPSK       | 50      | 24        | 21.63           | 21.70              | 21.76            | 23                  | 1        |    |   |
| 20              | QPSK       | 50      | 50        | 21.62           | 21.58              | 21.71            |                     |          |    |   |
| 20              | QPSK       | 100     | 0         | 21.65           | 21.69              | 21.76            |                     |          |    |   |
| 20              | 16QAM      | 1       | 0         | 21.73           | 22.02              | 22.01            |                     |          |    |   |
| 20              | 16QAM      | 1       | 49        | 21.70           | 21.82              | 21.79            | 23                  | 1        |    |   |
| 20              | 16QAM      | 1       | 99        | 21.77           | 21.75              | 21.87            |                     |          |    |   |
| 20              | 16QAM      | 50      | 0         | 20.73           | 20.94              | 20.92            |                     |          |    |   |
| 20              | 16QAM      | 50      | 24        | 20.78           | 20.82              | 20.85            |                     |          |    |   |
| 20              | 16QAM      | 50      | 50        | 20.76           | 20.70              | 20.81            | 22                  | 2        |    |   |
| 20              | 16QAM      | 100     | 0         | 20.77           | 20.81              | 20.77            |                     |          |    |   |
| 20              | 84QAM      | 1       | 0         | 20.50           | 20.81              | 20.72            |                     |          |    |   |
| 20              | 84QAM      | 1       | 49        | 20.38           | 20.55              | 20.54            |                     |          |    |   |
| 20              | 84QAM      | 1       | 99        | 20.47           | 20.51              | 20.56            | 22                  | 2        |    |   |
| 20              | 84QAM      | 50      | 0         | 19.66           | 19.87              | 19.90            |                     |          |    |   |
| 20              | 84QAM      | 50      | 24        | 19.73           | 19.79              | 19.80            |                     |          |    |   |
| 20              | 84QAM      | 50      | 50        | 19.74           | 19.69              | 19.73            |                     |          |    |   |
| 20              | 84QAM      | 100     | 0         | 19.81           | 19.86              | 19.88            | 21                  | 3        |    |   |
| Channel         |            |         |           | 39725           | 40173              | 40620            |                     |          |    |   |
| Frequency (MHz) |            |         |           | 2503.5          | 2548.3             | 2593             |                     |          |    |   |
| 15              | QPSK       | 1       | 0         | 22.51           | 22.81              | 22.79            |                     |          | 24 | 0 |
| 15              | QPSK       | 1       | 37        | 22.49           | 22.63              | 22.69            |                     |          |    |   |
| 15              | QPSK       | 1       | 74        | 22.60           | 22.84              | 22.74            |                     |          |    |   |
| 15              | QPSK       | 38      | 0         | 21.50           | 21.74              | 21.74            |                     |          |    |   |
| 15              | QPSK       | 38      | 20        | 21.49           | 21.66              | 21.71            | 23                  | 1        |    |   |
| 15              | QPSK       | 38      | 39        | 21.54           | 21.60              | 21.62            |                     |          |    |   |
| 15              | QPSK       | 75      | 0         | 21.57           | 21.67              | 21.70            |                     |          |    |   |
| 15              | 16QAM      | 1       | 0         | 21.71           | 22.01              | 21.93            |                     |          |    |   |
| 15              | 16QAM      | 1       | 37        | 21.64           | 21.83              | 21.79            | 23                  | 1        |    |   |
| 15              | 16QAM      | 1       | 74        | 21.73           | 21.81              | 21.82            |                     |          |    |   |
| 15              | 16QAM      | 38      | 0         | 20.54           | 20.81              | 20.81            |                     |          |    |   |
| 15              | 16QAM      | 38      | 20        | 20.59           | 20.75              | 20.70            |                     |          |    |   |
| 15              | 16QAM      | 38      | 39        | 20.63           | 20.71              | 20.69            | 22                  | 2        |    |   |
| 15              | 16QAM      | 75      | 0         | 20.69           | 20.81              | 20.76            |                     |          |    |   |
| 15              | 84QAM      | 1       | 0         | 20.41           | 20.68              | 20.67            |                     |          |    |   |
| 15              | 84QAM      | 1       | 37        | 20.33           | 20.51              | 20.49            |                     |          |    |   |
| 15              | 84QAM      | 1       | 74        | 20.47           | 20.50              | 20.59            | 22                  | 2        |    |   |
| 15              | 84QAM      | 38      | 0         | 19.60           | 19.88              | 19.79            |                     |          |    |   |
| 15              | 84QAM      | 38      | 20        | 19.60           | 19.79              | 19.77            |                     |          |    |   |
| 15              | 84QAM      | 38      | 39        | 19.69           | 19.70              | 19.72            |                     |          |    |   |
| 15              | 84QAM      | 75      | 0         | 19.70           | 19.78              | 19.80            | 21                  | 3        |    |   |
| Channel         |            |         |           | 39700           | 40160              | 40620            |                     |          |    |   |
| Frequency (MHz) |            |         |           | 2501            | 2547               | 2593             |                     |          |    |   |
| 10              | QPSK       | 1       | 0         | 22.50           | 22.68              | 22.70            |                     |          | 24 | 0 |
| 10              | QPSK       | 1       | 25        | 22.45           | 22.64              | 22.68            |                     |          |    |   |
| 10              | QPSK       | 1       | 49        | 22.47           | 22.55              | 22.67            |                     |          |    |   |
| 10              | QPSK       | 25      | 0         | 21.48           | 21.67              | 21.72            |                     |          |    |   |
| 10              | QPSK       | 25      | 12        | 21.48           | 21.61              | 21.69            | 23                  | 1        |    |   |
| 10              | QPSK       | 25      | 25        | 21.44           | 21.57              | 21.64            |                     |          |    |   |
| 10              | QPSK       | 50      | 0         | 21.44           | 21.63              | 21.72            |                     |          |    |   |
| 10              | 16QAM      | 1       | 0         | 21.66           | 21.86              | 21.88            |                     |          |    |   |
| 10              | 16QAM      | 1       | 25        | 21.61           | 21.79              | 21.84            | 23                  | 1        |    |   |
| 10              | 16QAM      | 1       | 49        | 21.57           | 21.69              | 21.74            |                     |          |    |   |
| 10              | 16QAM      | 25      | 0         | 20.58           | 20.81              | 20.84            |                     |          |    |   |
| 10              | 16QAM      | 25      | 12        | 20.58           | 20.78              | 20.73            |                     |          |    |   |
| 10              | 16QAM      | 25      | 25        | 20.53           | 20.71              | 20.76            | 22                  | 2        |    |   |
| 10              | 16QAM      | 50      | 0         | 20.59           | 20.78              | 20.83            |                     |          |    |   |
| 10              | 84QAM      | 1       |           |                 |                    |                  |                     |          |    |   |



LTE Band 41 HPUe

| 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) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 3975.0                | 4018.5                       | 4062.0                   | 4105.5                        | 4149.0                 |                     |          |
| Frequency (MHz) |            |         |           | 2505                  | 2548.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 25.57                 | 25.64                        | 25.71                    | 25.75                         | 25.55                  | 27                  | 0        |
| 20              | QPSK       | 1       | 49        | 25.55                 | 25.50                        | 25.50                    | 25.57                         | 25.53                  |                     |          |
| 20              | QPSK       | 1       | 99        | 25.43                 | 25.50                        | 25.70                    | 25.56                         | 25.44                  |                     |          |
| 20              | QPSK       | 50      | 0         | 24.46                 | 24.47                        | 24.63                    | 24.89                         | 24.73                  | 26                  | 1        |
| 20              | QPSK       | 50      | 24        | 24.40                 | 24.46                        | 24.62                    | 24.48                         | 24.73                  |                     |          |
| 20              | QPSK       | 50      | 50        | 24.57                 | 24.45                        | 24.86                    | 24.40                         | 24.73                  |                     |          |
| 20              | QPSK       | 100     | 0         | 24.43                 | 24.74                        | 24.91                    | 24.52                         | 24.58                  | 26                  | 1        |
| 20              | 19QAM      | 1       | 0         | 24.58                 | 24.77                        | 24.91                    | 24.81                         | 24.73                  |                     |          |
| 20              | 19QAM      | 1       | 49        | 24.42                 | 24.76                        | 24.84                    | 24.90                         | 24.68                  |                     |          |
| 20              | 19QAM      | 1       | 99        | 24.76                 | 24.83                        | 24.76                    | 24.60                         | 24.86                  | 25                  | 2        |
| 20              | 19QAM      | 50      | 0         | 23.39                 | 23.68                        | 23.65                    | 23.88                         | 23.61                  |                     |          |
| 20              | 19QAM      | 50      | 24        | 23.50                 | 23.57                        | 23.83                    | 23.76                         | 23.62                  |                     |          |
| 20              | 19QAM      | 50      | 50        | 23.51                 | 23.59                        | 23.81                    | 23.78                         | 23.63                  | 25                  | 2        |
| 20              | 19QAM      | 100     | 0         | 23.45                 | 23.62                        | 23.93                    | 23.75                         | 23.77                  |                     |          |
| 20              | 84QAM      | 1       | 0         | 23.80                 | 24.08                        | 23.87                    | 23.96                         | 23.78                  |                     |          |
| 20              | 84QAM      | 1       | 49        | 23.84                 | 23.59                        | 23.96                    | 23.94                         | 23.71                  | 24                  | 3        |
| 20              | 84QAM      | 1       | 99        | 23.77                 | 23.78                        | 24.06                    | 23.72                         | 23.88                  |                     |          |
| 20              | 84QAM      | 50      | 0         | 22.48                 | 22.64                        | 22.85                    | 22.87                         | 22.79                  |                     |          |
| 20              | 84QAM      | 50      | 24        | 22.59                 | 22.64                        | 22.72                    | 22.82                         | 22.69                  | 24                  | 3        |
| 20              | 84QAM      | 50      | 50        | 22.58                 | 22.65                        | 22.70                    | 22.66                         | 22.70                  |                     |          |
| 20              | 84QAM      | 100     | 0         | 22.81                 | 22.79                        | 22.92                    | 22.73                         | 22.83                  |                     |          |
| Channel         |            |         |           | 3972.5                | 4017.3                       | 4062.0                   | 4105.8                        | 4151.5                 |                     |          |
| Frequency (MHz) |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 25.48                 | 25.49                        | 25.42                    | 25.38                         | 25.67                  | 27                  | 0        |
| 15              | QPSK       | 1       | 37        | 25.20                 | 25.70                        | 25.56                    | 25.68                         | 25.40                  |                     |          |
| 15              | QPSK       | 1       | 74        | 25.36                 | 25.83                        | 25.62                    | 25.46                         | 25.64                  |                     |          |
| 15              | QPSK       | 36      | 0         | 24.22                 | 24.69                        | 24.58                    | 24.57                         | 24.50                  | 26                  | 1        |
| 15              | QPSK       | 36      | 20        | 24.31                 | 24.68                        | 24.54                    | 24.59                         | 24.51                  |                     |          |
| 15              | QPSK       | 36      | 39        | 24.35                 | 24.40                        | 24.54                    | 24.45                         | 24.67                  |                     |          |
| 15              | QPSK       | 75      | 0         | 24.40                 | 24.40                        | 24.67                    | 24.71                         | 24.55                  | 26                  | 1        |
| 15              | 19QAM      | 1       | 0         | 24.79                 | 24.78                        | 24.90                    | 24.86                         | 24.70                  |                     |          |
| 15              | 19QAM      | 1       | 37        | 24.50                 | 24.65                        | 24.94                    | 24.93                         | 24.85                  |                     |          |
| 15              | 19QAM      | 1       | 74        | 24.53                 | 24.78                        | 24.91                    | 24.83                         | 24.82                  | 25                  | 2        |
| 15              | 19QAM      | 36      | 0         | 23.63                 | 23.75                        | 23.66                    | 23.89                         | 23.61                  |                     |          |
| 15              | 19QAM      | 36      | 20        | 23.80                 | 23.84                        | 23.63                    | 23.83                         | 23.63                  |                     |          |
| 15              | 19QAM      | 36      | 39        | 23.62                 | 23.51                        | 23.81                    | 23.79                         | 23.61                  | 25                  | 2        |
| 15              | 19QAM      | 75      | 0         | 23.42                 | 23.60                        | 23.88                    | 23.80                         | 23.61                  |                     |          |
| 15              | 84QAM      | 1       | 0         | 23.82                 | 23.79                        | 23.76                    | 23.91                         | 23.82                  |                     |          |
| 15              | 84QAM      | 1       | 37        | 23.44                 | 23.74                        | 23.79                    | 23.79                         | 23.68                  | 24                  | 3        |
| 15              | 84QAM      | 1       | 74        | 23.54                 | 23.75                        | 23.93                    | 23.67                         | 23.94                  |                     |          |
| 15              | 84QAM      | 36      | 0         | 22.72                 | 22.72                        | 22.79                    | 22.84                         | 22.96                  |                     |          |
| 15              | 84QAM      | 36      | 20        | 22.76                 | 22.71                        | 22.95                    | 22.68                         | 22.79                  | 24                  | 3        |
| 15              | 84QAM      | 36      | 39        | 22.48                 | 22.98                        | 22.68                    | 22.73                         | 22.95                  |                     |          |
| 15              | 84QAM      | 75      | 0         | 22.74                 | 22.93                        | 22.91                    | 22.91                         | 22.92                  |                     |          |
| Channel         |            |         |           | 3970.0                | 4016.0                       | 4062.0                   | 4109.0                        | 4154.0                 |                     |          |
| Frequency (MHz) |            |         |           | 2501                  | 2547                         | 2593                     | 2638                          | 2683                   |                     |          |
| 10              | QPSK       | 1       | 0         | 25.41                 | 25.25                        | 25.68                    | 25.46                         | 25.47                  | 27                  | 0        |
| 10              | QPSK       | 1       | 25        | 25.43                 | 25.29                        | 25.61                    | 25.60                         | 25.48                  |                     |          |
| 10              | QPSK       | 1       | 49        | 25.18                 | 25.25                        | 25.53                    | 25.42                         | 25.50                  |                     |          |
| 10              | QPSK       | 25      | 0         | 24.33                 | 24.37                        | 24.70                    | 24.73                         | 24.88                  | 26                  | 1        |
| 10              | QPSK       | 25      | 12        | 24.33                 | 24.73                        | 24.66                    | 24.68                         | 24.52                  |                     |          |
| 10              | QPSK       | 25      | 25        | 24.24                 | 24.34                        | 24.69                    | 24.54                         | 24.50                  |                     |          |
| 10              | QPSK       | 50      | 0         | 24.25                 | 24.37                        | 24.61                    | 24.53                         | 24.67                  | 26                  | 1        |
| 10              | 19QAM      | 1       | 0         | 24.59                 | 24.70                        | 24.78                    | 24.96                         | 24.84                  |                     |          |
| 10              | 19QAM      | 1       | 25        | 24.46                 | 24.59                        | 24.86                    | 24.76                         | 24.61                  |                     |          |
| 10              | 19QAM      | 1       | 49        | 24.60                 | 24.65                        | 24.77                    | 24.65                         | 24.69                  | 25                  | 2        |
| 10              | 19QAM      | 25      | 0         | 23.55                 | 23.59                        | 23.76                    | 23.77                         | 23.79                  |                     |          |
| 10              | 19QAM      | 25      | 12        | 23.45                 | 23.57                        | 23.81                    | 23.80                         | 23.62                  |                     |          |
| 10              | 19QAM      | 25      | 25        | 23.55                 | 23.77                        | 23.74                    | 23.58                         | 23.80                  | 25                  | 2        |
| 10              | 19QAM      | 50      | 0         | 23.36                 | 23.79                        | 23.75                    | 23.81                         | 23.67                  |                     |          |
| 10              | 84QAM      | 1       | 0         | 23.58                 | 24.02                        | 23.90                    | 23.92                         | 23.78                  |                     |          |
| 10              | 84QAM      | 1       | 25        | 23.74                 | 23.57                        | 23.82                    | 23.87                         | 23.80                  | 24                  | 3        |
| 10              | 84QAM      | 1       | 49        | 23.79                 | 23.62                        | 23.97                    | 23.76                         | 23.82                  |                     |          |
| 10              | 84QAM      | 25      | 0         | 22.61                 | 22.67                        | 22.83                    | 22.83                         | 22.73                  |                     |          |
| 10              | 84QAM      | 25      | 12        | 22.62                 | 22.84                        | 22.86                    | 22.66                         | 22.75                  | 24                  | 3        |
| 10              | 84QAM      | 25      | 25        | 22.82                 | 22.84                        | 22.82                    | 22.83                         | 22.65                  |                     |          |
| 10              | 84QAM      | 50      | 0         | 22.52                 | 22.64                        | 22.83                    | 22.59                         | 22.90                  |                     |          |
| Channel         |            |         |           | 3975.5                | 4014.8                       | 4062.0                   | 4109.3                        | 4155.5                 |                     |          |
| Frequency (MHz) |            |         |           | 2498.5                | 2545.8                       | 2593                     | 2640.30                       | 2687.5                 |                     |          |
| 5               | QPSK       | 1       | 0         | 25.55                 | 25.64                        | 25.53                    | 25.46                         | 25.42                  | 27                  | 0        |
| 5               | QPSK       | 1       | 12        | 25.23                 | 25.23                        | 25.63                    | 25.47                         | 25.45                  |                     |          |
| 5               | QPSK       | 1       | 24        | 25.19                 | 25.24                        | 25.42                    | 25.36                         | 25.55                  |                     |          |
| 5               | QPSK       | 12      | 0         | 24.34                 | 24.39                        | 24.68                    | 24.56                         | 24.67                  | 26                  | 1        |
| 5               | QPSK       | 12      | 7         | 24.53                 | 24.44                        | 24.61                    | 24.53                         | 24.69                  |                     |          |
| 5               | QPSK       | 12      | 13        | 24.27                 | 24.45                        | 24.63                    | 24.65                         | 24.65                  |                     |          |
| 5               | QPSK       | 25      | 0         | 24.25                 | 24.38                        | 24.68                    | 24.56                         | 24.52                  | 26                  | 1        |
| 5               | 19QAM      | 1       | 0         | 24.47                 | 24.66                        | 24.80                    | 24.81                         | 24.68                  |                     |          |
| 5               | 19QAM      | 1       | 12        | 24.45                 | 24.65                        | 24.79                    | 24.82                         | 24.76                  |                     |          |
| 5               | 19QAM      | 1       | 24        | 24.64                 | 24.67                        | 24.68                    | 24.72                         | 24.80                  | 25                  | 2        |
| 5               | 19QAM      | 12      | 0         | 23.58                 | 23.80                        | 23.71                    | 23.75                         | 23.67                  |                     |          |
| 5               | 19QAM      | 12      | 7         | 23.39                 | 23.86                        | 23.74                    | 23.82                         | 23.78                  |                     |          |
| 5               | 19QAM      | 12      | 13        | 23.61                 | 23.78                        | 23.85                    | 23.76                         | 23.85                  | 25                  | 2        |
| 5               | 19QAM      | 25      | 0         | 23.42                 | 23.80                        | 23.72                    | 23.69                         | 23.83                  |                     |          |
| 5               | 84QAM      | 1       | 0         | 23.69                 | 23.98                        | 23.94                    | 23.97                         | 23.91                  |                     |          |
| 5               | 84QAM      | 1       | 12        | 23.75                 | 23.63                        | 23.83                    | 23.69                         | 23.71                  | 24                  | 3        |
| 5               | 84QAM      | 1       | 24        | 23.51                 | 23.65                        | 23.72                    | 23.87                         | 23.75                  |                     |          |
| 5               | 84QAM      | 12      | 0         | 22.46                 | 22.88                        | 22.82                    | 22.84                         | 22.76                  |                     |          |
| 5               | 84QAM      | 12      | 7         | 22.48                 | 22.75                        | 22.76                    | 22.73                         | 22.69                  | 24                  | 3        |
| 5               | 84QAM      | 12      | 13        | 22.50                 | 22.65                        | 22.94                    | 22.67                         | 22.75                  |                     |          |
| 5               | 84QAM      | 25      | 0         | 22.58                 | 22.87                        | 22.80                    | 22.85                         | 22.72                  |                     |          |



### Reduced Power Mode for P-Sensor On

| GSM1900         | Burst Average Power (dBm) |       |        | Tune-up Limit (dBm) | Frame Average Power (dBm) |       |        | Tune-up Limit (dBm) |
|-----------------|---------------------------|-------|--------|---------------------|---------------------------|-------|--------|---------------------|
|                 | 512                       | 661   | 810    |                     | 512                       | 661   | 810    |                     |
|                 | 1850.2                    | 1880  | 1909.8 |                     | 1850.2                    | 1880  | 1909.8 |                     |
| TX Channel      | 512                       | 661   | 810    |                     | 512                       | 661   | 810    |                     |
| Frequency (MHz) | 1850.2                    | 1880  | 1909.8 |                     | 1850.2                    | 1880  | 1909.8 |                     |
| GSM 1 Tx slot   | 25.26                     | 25.41 | 25.46  | 26                  | 16.26                     | 16.41 | 16.46  | 17                  |
| GPRS 1 Tx slot  | 25.25                     | 25.39 | 25.45  | 26                  | 16.25                     | 16.39 | 16.45  | 17                  |
| GPRS 2 Tx slots | 24.16                     | 24.22 | 24.3   | 25                  | 16.16                     | 16.22 | 16.3   | 16                  |
| GPRS 3 Tx slots | 22.68                     | 22.8  | 22.89  | 23.5                | 14.42                     | 14.54 | 14.63  | 15.24               |
| GPRS 4 Tx slots | 21.02                     | 21.09 | 21.22  | 22                  | 13.02                     | 13.09 | 13.22  | 13                  |
| EDGE 1 Tx slot  | 20.7                      | 20.71 | 20.77  | 22                  | 11.7                      | 11.71 | 11.77  | 13                  |
| EDGE 2 Tx slots | 20.03                     | 20.05 | 20.1   | 21                  | 14.03                     | 14.05 | 14.1   | 15                  |
| EDGE 3 Tx slots | 18.42                     | 18.15 | 18.52  | 19                  | 14.16                     | 13.89 | 14.26  | 14.74               |
| EDGE 4 Tx slots | 16.9                      | 17    | 17.04  | 18                  | 13.9                      | 14    | 14.04  | 15                  |

| Band                          | WCDMA II |       |        | Tune-up Limit (dBm) | WCDMA IV |        |        | Tune-up Limit (dBm) |
|-------------------------------|----------|-------|--------|---------------------|----------|--------|--------|---------------------|
|                               | 9282     | 9400  | 9538   |                     | 1312     | 1413   | 1513   |                     |
|                               | 9682     | 9800  | 9938   |                     | 1537     | 1633   | 1738   |                     |
| Rx Channel                    | 9282     | 9400  | 9538   |                     | 1312     | 1413   | 1513   |                     |
| Frequency (MHz)               | 1652.4   | 1659  | 1670.6 |                     | 1772.4   | 1782.2 | 1792.3 |                     |
| 3GPP Rel 99 AMR 12.2Kbps      | 15.74    | 15.72 | 15.74  | 16.5                | 17.01    | 17.16  | 17.23  | 18.5                |
| 3GPP Rel 99 RMC 12.2Kbps      | 15.76    | 15.74 | 15.75  | 16.5                | 17.02    | 17.2   | 17.25  | 18.5                |
| 3GPP Rel 6 HSDPA Subtest-1    | 14.7     | 14.54 | 14.51  | 15.5                | 15.94    | 16.06  | 16.14  | 17                  |
| 3GPP Rel 6 HSDPA Subtest-2    | 14.67    | 14.52 | 14.55  | 15.5                | 15.96    | 16.11  | 16.1   | 17                  |
| 3GPP Rel 6 HSDPA Subtest-3    | 14.23    | 14.07 | 14.03  | 15                  | 15.46    | 15.56  | 15.64  | 16.5                |
| 3GPP Rel 6 HSDPA Subtest-4    | 14.16    | 14.09 | 14.03  | 15                  | 15.37    | 15.57  | 15.6   | 16.5                |
| 3GPP Rel 8 DC-HSDPA Subtest-1 | 14.68    | 14.53 | 14.47  | 15.5                | 15.92    | 16.04  | 16.12  | 17                  |
| 3GPP Rel 8 DC-HSDPA Subtest-2 | 14.65    | 14.51 | 14.53  | 15.5                | 15.94    | 16.08  | 16.11  | 17                  |
| 3GPP Rel 8 DC-HSDPA Subtest-3 | 14.2     | 14.08 | 14.01  | 15                  | 15.45    | 15.55  | 15.63  | 16.5                |
| 3GPP Rel 8 DC-HSDPA Subtest-4 | 14.15    | 14.1  | 14.02  | 15                  | 15.39    | 15.58  | 15.61  | 16.5                |
| 3GPP Rel 6 HSUPA Subtest-1    | 14.75    | 14.6  | 14.51  | 15.5                | 15.89    | 15.99  | 16.05  | 17                  |
| 3GPP Rel 6 HSUPA Subtest-2    | 12.77    | 12.58 | 12.51  | 13.5                | 13.94    | 13.99  | 14.09  | 15                  |
| 3GPP Rel 6 HSUPA Subtest-3    | 13.74    | 13.6  | 13.52  | 14.5                | 14.89    | 14.97  | 15.05  | 16                  |
| 3GPP Rel 6 HSUPA Subtest-4    | 12.73    | 12.54 | 12.49  | 13.5                | 13.9     | 14.01  | 14.13  | 15                  |
| 3GPP Rel 6 HSUPA Subtest-5    | 14.8     | 14.6  | 14.5   | 15.5                | 15.9     | 16     | 16.04  | 17                  |



| Band             | CDMA BC1 |       |         | Tune-up Limit (dBm) |
|------------------|----------|-------|---------|---------------------|
|                  | 25       | 600   | 1175    |                     |
| TX Channel       | 1851.25  | 1880  | 1908.75 |                     |
| Frequency (MHz)  | 18.64    | 18.61 | 18.65   | 17                  |
| RC1 S055         | 18.6     | 18.64 | 18.67   | 17                  |
| RC3 S05 (F-SICH) | 18.64    | 18.65 | 18.66   | 17                  |
| RC3 S02 (S-SICH) | 18.32    | 18.32 | 18.35   | 17                  |
| RTAP 153.8kbps   | 18.62    | 18.66 | 18.64   | 17                  |





LTE Band 2

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Contains multiple channel frequency blocks for QPSK, 16QAM, and 64QAM.

LTE Band 4

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Contains multiple channel frequency blocks for QPSK, 16QAM, and 64QAM.

LTE Band 7

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Contains multiple channel frequency blocks for QPSK, 16QAM, and 64QAM.



LTE Band 25

| BW (MHz)        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Time-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           | 1860                  | 1880                     | 1906                   |                     |          |
| 20              | QPSK       | 1       | 0         | 16.56                 | 16.18                    | 16.45                  | 17.5                | 0        |
| 20              | QPSK       | 1       | 49        | 16.34                 | 16.21                    | 16.23                  |                     |          |
| 20              | QPSK       | 1       | 99        | 16.43                 | 16.23                    | 16.21                  |                     |          |
| 20              | QPSK       | 50      | 0         | 16.06                 | 16.05                    | 15.95                  | 17.5                | 0        |
| 20              | QPSK       | 50      | 24        | 15.96                 | 15.94                    | 16.01                  |                     |          |
| 20              | QPSK       | 50      | 49        | 15.91                 | 15.92                    | 15.95                  |                     |          |
| 20              | QPSK       | 100     | 0         | 15.988                | 15.97                    | 15.92                  | 17.5                | 0        |
| 20              | 16QAM      | 1       | 0         | 16.49                 | 16.48                    | 16.29                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 16.17                 | 16.19                    | 16.19                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 16.21                 | 16.19                    | 16.24                  | 17.5                | 0        |
| 20              | 16QAM      | 50      | 0         | 16.12                 | 16.13                    | 16.03                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 16.01                 | 16.03                    | 16.06                  |                     |          |
| 20              | 16QAM      | 50      | 49        | 15.98                 | 15.97                    | 16                     | 17.5                | 0        |
| 20              | 16QAM      | 100     | 0         | 15.96                 | 16.05                    | 15.97                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 16.41                 | 16.36                    | 16.18                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 16.1                  | 16.06                    | 16.1                   | 17.5                | 0        |
| 20              | 64QAM      | 1       | 99        | 16.11                 | 16.11                    | 16.09                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 16.11                 | 16.12                    | 15.99                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 16.06                 | 16.02                    | 16.04                  | 17.5                | 0        |
| 20              | 64QAM      | 50      | 49        | 15.96                 | 15.92                    | 15.99                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 16.01                 | 16.03                    | 15.97                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           | 2011.5                | 20340                    | 20615                  |                     |          |
| 15              | QPSK       | 1       | 0         | 16.09                 | 15.97                    | 16.04                  | 17.5                | 0        |
| 15              | QPSK       | 1       | 37        | 15.85                 | 15.87                    | 15.88                  |                     |          |
| 15              | QPSK       | 1       | 74        | 15.85                 | 15.82                    | 15.88                  |                     |          |
| 15              | QPSK       | 36      | 0         | 16.03                 | 16                       | 16.02                  | 17.5                | 0        |
| 15              | QPSK       | 36      | 20        | 15.94                 | 15.92                    | 15.98                  |                     |          |
| 15              | QPSK       | 36      | 39        | 15.9                  | 15.88                    | 15.92                  |                     |          |
| 15              | QPSK       | 75      | 0         | 15.97                 | 15.95                    | 15.95                  | 17.5                | 0        |
| 15              | 16QAM      | 1       | 0         | 16.33                 | 16.28                    | 16.36                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 16.17                 | 16.14                    | 16.15                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 16.12                 | 16.12                    | 16.25                  | 17.5                | 0        |
| 15              | 16QAM      | 36      | 0         | 16.07                 | 16.09                    | 16.09                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 15.96                 | 16.01                    | 15.98                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 15.94                 | 15.92                    | 15.97                  | 17.5                | 0        |
| 15              | 16QAM      | 75      | 0         | 16.01                 | 16.01                    | 16.03                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 16.25                 | 16.14                    | 16.34                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 16.06                 | 16.03                    | 16.08                  | 17.5                | 0        |
| 15              | 64QAM      | 1       | 74        | 16.03                 | 15.99                    | 16.11                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 16.07                 | 16.07                    | 16.09                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 15.97                 | 16.02                    | 15.98                  | 17.5                | 0        |
| 15              | 64QAM      | 36      | 39        | 15.94                 | 15.94                    | 15.95                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 16.01                 | 16.02                    | 16                     |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           | 2090                  | 20340                    | 20640                  |                     |          |
| 10              | QPSK       | 1       | 0         | 16.21                 | 16.05                    | 15.96                  | 17.5                | 0        |
| 10              | QPSK       | 1       | 25        | 15.88                 | 15.85                    | 15.87                  |                     |          |
| 10              | QPSK       | 1       | 49        | 16.01                 | 16.02                    | 15.82                  |                     |          |
| 10              | QPSK       | 25      | 0         | 15.96                 | 15.97                    | 15.88                  | 17.5                | 0        |
| 10              | QPSK       | 25      | 12        | 15.96                 | 15.93                    | 15.84                  |                     |          |
| 10              | QPSK       | 25      | 25        | 15.91                 | 15.9                     | 15.88                  |                     |          |
| 10              | QPSK       | 50      | 0         | 15.97                 | 15.96                    | 15.92                  | 17.5                | 0        |
| 10              | 16QAM      | 1       | 0         | 16.48                 | 16.38                    | 16.25                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 16.16                 | 16.15                    | 16.14                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 16.34                 | 16.28                    | 16.13                  | 17.5                | 0        |
| 10              | 16QAM      | 25      | 0         | 16.04                 | 16.02                    | 16.01                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 15.98                 | 16                       | 15.99                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 15.94                 | 15.93                    | 15.94                  | 17.5                | 0        |
| 10              | 16QAM      | 50      | 0         | 15.99                 | 15.98                    | 16.04                  |                     |          |
| 10              | 64QAM      | 1       | 0         | 16.35                 | 16.27                    | 16.12                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 16.02                 | 16.04                    | 16.09                  | 17.5                | 0        |
| 10              | 64QAM      | 1       | 49        | 16.17                 | 16.2                     | 16.05                  |                     |          |
| 10              | 64QAM      | 25      | 0         | 16.02                 | 16.05                    | 16.01                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 15.96                 | 15.9                     | 15.88                  | 17.5                | 0        |
| 10              | 64QAM      | 25      | 25        | 15.94                 | 15.94                    | 15.94                  |                     |          |
| 10              | 64QAM      | 50      | 0         | 15.99                 | 15.99                    | 16.01                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           | 2090.5                | 20340                    | 20640.5                |                     |          |
| 5               | QPSK       | 1       | 0         | 15.96                 | 15.83                    | 15.91                  | 17.5                | 0        |
| 5               | QPSK       | 1       | 12        | 15.9                  | 15.85                    | 15.81                  |                     |          |
| 5               | QPSK       | 1       | 24        | 15.89                 | 15.84                    | 15.79                  |                     |          |
| 5               | QPSK       | 12      | 0         | 15.96                 | 15.9                     | 15.87                  | 17.5                | 0        |
| 5               | QPSK       | 12      | 7         | 15.92                 | 15.9                     | 15.9                   |                     |          |
| 5               | QPSK       | 12      | 13        | 15.9                  | 15.85                    | 15.88                  |                     |          |
| 5               | QPSK       | 25      | 0         | 15.93                 | 15.9                     | 15.89                  | 17.5                | 0        |
| 5               | 16QAM      | 1       | 0         | 16.22                 | 16.1                     | 16.17                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 16.15                 | 16.09                    | 16.15                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 16.18                 | 16.11                    | 16.14                  | 17.5                | 0        |
| 5               | 16QAM      | 12      | 0         | 15.96                 | 16                       | 15.98                  |                     |          |
| 5               | 16QAM      | 12      | 7         | 15.97                 | 15.96                    | 15.96                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 15.93                 | 15.94                    | 15.91                  | 17.5                | 0        |
| 5               | 16QAM      | 25      | 0         | 15.97                 | 15.94                    | 15.92                  |                     |          |
| 5               | 64QAM      | 1       | 0         | 16.11                 | 16.01                    | 16.06                  |                     |          |
| 5               | 64QAM      | 1       | 12        | 16.05                 | 16.02                    | 16.05                  | 17.5                | 0        |
| 5               | 64QAM      | 1       | 24        | 16.08                 | 16                       | 16.05                  |                     |          |
| 5               | 64QAM      | 12      | 0         | 15.96                 | 15.9                     | 15.85                  |                     |          |
| 5               | 64QAM      | 12      | 7         | 15.95                 | 15.94                    | 15.95                  | 17.5                | 0        |
| 5               | 64QAM      | 12      | 13        | 15.93                 | 15.9                     | 15.91                  |                     |          |
| 5               | 64QAM      | 25      | 0         | 15.98                 | 15.92                    | 15.94                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           | 2090.5                | 20340                    | 20640.5                |                     |          |
| 3               | QPSK       | 1       | 0         | 15.89                 | 15.75                    | 15.81                  | 17.5                | 0        |
| 3               | QPSK       | 1       | 8         | 15.91                 | 15.85                    | 15.79                  |                     |          |
| 3               | QPSK       | 1       | 16        | 15.87                 | 15.81                    | 15.75                  |                     |          |
| 3               | QPSK       | 8       | 0         | 15.93                 | 15.9                     | 15.82                  | 17.5                | 0        |
| 3               | QPSK       | 8       | 4         | 15.98                 | 15.91                    | 15.88                  |                     |          |
| 3               | QPSK       | 8       | 7         | 15.91                 | 15.84                    | 15.85                  |                     |          |
| 3               | QPSK       | 15      | 0         | 15.9                  | 15.86                    | 15.83                  | 17.5                | 0        |
| 3               | 16QAM      | 1       | 0         | 16.19                 | 16.04                    | 16.15                  |                     |          |
| 3               | 16QAM      | 1       | 8         | 16.14                 | 16.13                    | 16.17                  |                     |          |
| 3               | 16QAM      | 1       | 16        | 16.1                  | 16.09                    | 16.15                  | 17.5                | 0        |
| 3               | 16QAM      | 8       | 0         | 15.98                 | 15.96                    | 15.96                  |                     |          |
| 3               | 16QAM      | 8       | 4         | 16.01                 | 16                       | 16.01                  |                     |          |
| 3               | 16QAM      | 8       | 7         | 15.97                 | 15.96                    | 15.96                  | 17.5                | 0        |
| 3               | 16QAM      | 15      | 0         | 15.96                 | 15.95                    | 15.93                  |                     |          |
| 3               | 64QAM      | 1       | 0         | 16.07                 | 15.93                    | 16.02                  |                     |          |
| 3               | 64QAM      | 1       | 8         | 16.02                 | 16.03                    | 16.01                  | 17.5                | 0        |
| 3               | 64QAM      | 1       | 16        | 16.04                 | 15.98                    | 16.05                  |                     |          |
| 3               | 64QAM      | 1       | 0         | 15.95                 | 15.9                     | 15.9                   |                     |          |
| 3               | 64QAM      | 8       | 4         | 15.98                 | 15.96                    | 15.96                  | 17.5                | 0        |
| 3               | 64QAM      | 8       | 7         | 15.92                 | 15.93                    | 15.9                   |                     |          |
| 3               | 64QAM      | 15      | 0         | 15.95                 | 15.95                    | 15.89                  |                     |          |
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           | 2094.7                | 20340                    | 20683                  |                     |          |
| 1.4             | QPSK       | 1       | 0         | 15.79                 | 15.73                    | 15.65                  | 17.5                | 0        |
| 1.4             | QPSK       | 1       | 3         | 15.84                 | 15.78                    | 15.72                  |                     |          |
| 1.4             | QPSK       | 1       | 5         | 15.76                 | 15.71                    | 15.64                  |                     |          |
| 1.4             | QPSK       | 3       | 0         | 15.8                  | 15.78                    | 15.69                  | 17.5                | 0        |
| 1.4             | QPSK       | 3       | 1         | 15.84                 | 15.81                    | 15.74                  |                     |          |
| 1.4             | QPSK       | 3       | 3         | 15.81                 | 15.75                    | 15.72                  |                     |          |
| 1.4             | QPSK       | 6       | 0         | 15.82                 | 15.77                    | 15.69                  | 17.5                | 0        |
| 1.4             | 16QAM      | 1       | 0         | 16.04                 | 16.05                    | 16.06                  |                     |          |
| 1.4             | 16QAM      | 1       | 3         | 16.09                 | 16.03                    | 16.1                   |                     |          |
| 1.4             | 16QAM      | 1       | 5         | 16.02                 | 15.96                    | 15.98                  | 17.5                | 0        |
| 1.4             | 16QAM      | 3       | 0         | 15.85                 | 15.8                     | 15.79                  |                     |          |
| 1.4             | 16QAM      | 3       | 1         | 15.9                  | 15.87                    | 15.82                  |                     |          |
| 1.4             | 16QAM      | 3       | 3         | 15.85                 | 15.79                    | 15.81                  | 17.5                | 0        |
| 1.4             | 16QAM      | 6       | 0         | 15.93                 | 15.86                    | 15.85                  |                     |          |
| 1.4             | 64QAM      | 1       | 0         | 15.95                 | 15.91                    | 15.89                  |                     |          |
| 1.4             | 64QAM      | 1       | 3         | 16.02                 | 15.97                    | 15.98                  | 17.5                | 0        |
| 1.4             | 64QAM      | 1       | 5         | 15.93                 | 15.89                    | 15.81                  |                     |          |
| 1.4             | 64QAM      | 3       | 0         | 15.89                 | 15.85                    | 15.81                  |                     |          |
| 1.4             | 64QAM      | 3       | 1         | 15.93                 | 15.9                     | 15.85                  | 17.5                | 0        |
| 1.4             | 64QAM      | 3       | 3         | 15.87                 | 15.86                    | 15.84                  |                     |          |
| 1.4             | 64QAM      | 6       | 0         | 15.85                 | 15.81                    | 15.81                  |                     |          |

LTE Band 30

| BW (MHz)        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Time-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           |                       |                          |                        |                     |          |
| Frequency (MHz) |            |         |           | 2310                  |                          |                        |                     |          |
| 10              | QPSK       | 1       | 0         | 22.44                 |                          |                        | 23                  | 0        |
| 10              | QPSK       | 1       | 25        | 22.09                 |                          |                        |                     |          |
| 10              | QPSK       | 1       | 49        | 22.1                  |                          |                        |                     |          |
| 10              | QPSK       | 25      | 0         | 22.25                 |                          |                        | 23                  | 0        |
| 10              | QPSK       | 25      | 12        | 22.16                 |                          |                        |                     |          |
| 10              | QPSK       | 25      | 25        | 22.15                 |                          |                        |                     |          |
| 10              | QPSK       | 50      | 0         | 22.18                 |                          |                        | 23                  | 0        |
| 10              | 16QAM      | 1       | 0         | 22.23                 |                          |                        |                     |          |
| 10              | 16QAM      | 1       | 25        | 22.42                 |                          |                        |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.23                 |                          |                        | 23                  | 0        |
| 10              | 16QAM      | 25      | 0         | 21.3                  |                          |                        |                     |          |
| 10              | 16QAM      | 25      | 12        | 21.25                 |                          |                        |                     |          |
| 10              | 16QAM      | 25      | 25        | 21.23                 |                          |                        | 22                  | 1        |
| 10              | 16QAM      | 50      | 0         | 21.2                  |                          |                        |                     |          |
| 10              | 64QAM      | 1       | 0         | 21.57                 |                          |                        |                     |          |
| 10              | 64QAM      | 1       | 25        | 21.42                 |                          |                        | 22                  | 1        |
| 10              | 64QAM      | 1       | 49        | 21.43                 |                          |                        |                     |          |
| 10              | 64QAM      | 25      | 0         | 20.39                 |                          |                        |                     |          |
| 10              | 64QAM      | 25      | 12        | 20.37                 |                          |                        | 21                  | 2        |
| 10              | 64QAM      | 25      | 25        | 20.34                 |                          |                        |                     |          |
| 10              | 64QAM      | 50      | 0         | 20.34                 |                          | </                     |                     |          |



LTE Band 38

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 37850                 | 38000                    | 38150                  |                     |          |
| Frequency (MHz) |            |         |           | 2580                  | 2595                     | 2610                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.13                 | 22.2                     | 22.18                  | 22.5                | 0        |
| 20              | QPSK       | 1       | 49        | 22.1                  | 22.15                    | 22.11                  |                     |          |
| 20              | QPSK       | 1       | 99        | 21.93                 | 22.13                    | 22.02                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.67                 | 21.73                    | 21.56                  | 22.5                | 0        |
| 20              | QPSK       | 30      | 24        | 21.6                  | 21.69                    | 21.59                  |                     |          |
| 20              | QPSK       | 30      | 50        | 21.88                 | 21.86                    | 21.54                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.6                  | 21.66                    | 21.59                  | 22.5                | 0        |
| 20              | 16QAM      | 1       | 0         | 21.67                 | 21.6                     | 21.75                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 21.65                 | 21.7                     | 21.66                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.79                 | 21.68                    | 21.64                  | 22                  | 0.5      |
| 20              | 16QAM      | 50      | 0         | 20.73                 | 20.81                    | 20.71                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 20.73                 | 20.77                    | 20.66                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.81                 | 20.74                    | 20.68                  | 22                  | 0.5      |
| 20              | 16QAM      | 100     | 0         | 20.7                  | 20.76                    | 20.69                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 20.7                  | 20.77                    | 20.75                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.68                 | 20.69                    | 20.65                  | 22                  | 0.5      |
| 20              | 64QAM      | 1       | 99        | 20.77                 | 20.69                    | 20.61                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.94                 | 19.95                    | 19.87                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.91                 | 19.95                    | 19.87                  | 21                  | 1.5      |
| 20              | 64QAM      | 50      | 50        | 20                    | 19.93                    | 19.86                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.98                 | 20.04                    | 19.96                  |                     |          |
| Channel         |            |         |           | 37925                 | 38000                    | 38175                  |                     |          |
| Frequency (MHz) |            |         |           | 2577.5                | 2595                     | 2612.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 22.02                 | 22.11                    | 22.11                  | 22.5                | 0        |
| 15              | QPSK       | 1       | 37        | 21.99                 | 22.06                    | 22.04                  |                     |          |
| 15              | QPSK       | 1       | 74        | 21.82                 | 22.04                    | 21.95                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.56                 | 21.64                    | 21.49                  | 22.5                | 0        |
| 15              | QPSK       | 36      | 20        | 21.49                 | 21.6                     | 21.52                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.57                 | 21.57                    | 21.47                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.49                 | 21.57                    | 21.52                  | 22.5                | 0        |
| 15              | 16QAM      | 1       | 0         | 21.56                 | 21.71                    | 21.68                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 21.54                 | 21.61                    | 21.59                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 21.68                 | 21.59                    | 21.57                  | 22                  | 0.5      |
| 15              | 16QAM      | 36      | 0         | 20.62                 | 20.72                    | 20.84                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.62                 | 20.68                    | 20.59                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.7                  | 20.65                    | 20.61                  | 22                  | 0.5      |
| 15              | 16QAM      | 75      | 0         | 20.59                 | 20.67                    | 20.62                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 20.59                 | 20.68                    | 20.68                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.57                 | 20.6                     | 20.58                  | 22                  | 0.5      |
| 15              | 64QAM      | 1       | 74        | 20.66                 | 20.6                     | 20.54                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.83                 | 19.86                    | 19.8                   |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.8                  | 19.86                    | 19.8                   | 21                  | 1.5      |
| 15              | 64QAM      | 36      | 39        | 19.89                 | 19.84                    | 19.79                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.87                 | 19.95                    | 19.89                  |                     |          |
| Channel         |            |         |           | 37800                 | 38000                    | 38200                  |                     |          |
| Frequency (MHz) |            |         |           | 2575                  | 2595                     | 2615                   |                     |          |
| 10              | QPSK       | 1       | 0         | 22.09                 | 21.71                    | 22.14                  | 22.5                | 0        |
| 10              | QPSK       | 1       | 25        | 22.05                 | 22.18                    | 22.01                  |                     |          |
| 10              | QPSK       | 1       | 49        | 22.14                 | 22.18                    | 22.01                  |                     |          |
| 10              | QPSK       | 25      | 0         | 21.49                 | 21.64                    | 21.53                  | 22.5                | 0        |
| 10              | QPSK       | 25      | 12        | 21.6                  | 21.66                    | 21.58                  |                     |          |
| 10              | QPSK       | 25      | 25        | 21.55                 | 21.59                    | 21.45                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.6                  | 21.67                    | 21.58                  | 22.5                | 0        |
| 10              | 16QAM      | 1       | 0         | 21.66                 | 21.91                    | 21.72                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 21.59                 | 21.74                    | 21.59                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 21.68                 | 21.71                    | 21.53                  | 22                  | 0.5      |
| 10              | 16QAM      | 25      | 0         | 20.63                 | 20.74                    | 20.67                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.72                 | 20.75                    | 20.68                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 20.7                  | 20.72                    | 20.55                  | 22                  | 0.5      |
| 10              | 16QAM      | 50      | 0         | 20.72                 | 20.74                    | 20.7                   |                     |          |
| 10              | 64QAM      | 1       | 0         | 20.64                 | 20.77                    | 20.69                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 20.56                 | 20.74                    | 20.56                  | 22                  | 0.5      |
| 10              | 64QAM      | 1       | 49        | 20.65                 | 20.73                    | 20.55                  |                     |          |
| 10              | 64QAM      | 25      | 0         | 19.78                 | 19.94                    | 19.87                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 19.9                  | 19.95                    | 19.87                  | 21                  | 1.5      |
| 10              | 64QAM      | 25      | 25        | 19.88                 | 19.9                     | 19.74                  |                     |          |
| 10              | 64QAM      | 50      | 0         | 19.9                  | 19.92                    | 19.82                  |                     |          |
| Channel         |            |         |           | 37775                 | 38000                    | 38225                  |                     |          |
| Frequency (MHz) |            |         |           | 2572.5                | 2595                     | 2617.5                 |                     |          |
| 5               | QPSK       | 1       | 0         | 21.98                 | 21.62                    | 22.07                  | 22.5                | 0        |
| 5               | QPSK       | 1       | 12        | 21.94                 | 22.09                    | 21.94                  |                     |          |
| 5               | QPSK       | 1       | 24        | 22.03                 | 22.09                    | 21.94                  |                     |          |
| 5               | QPSK       | 12      | 0         | 21.38                 | 21.55                    | 21.46                  | 22.5                | 0        |
| 5               | QPSK       | 12      | 7         | 21.49                 | 21.57                    | 21.51                  |                     |          |
| 5               | QPSK       | 12      | 13        | 21.44                 | 21.5                     | 21.38                  |                     |          |
| 5               | QPSK       | 25      | 0         | 21.49                 | 21.58                    | 21.51                  | 22.5                | 0        |
| 5               | 16QAM      | 1       | 0         | 21.55                 | 21.72                    | 21.65                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 21.48                 | 21.65                    | 21.52                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 21.55                 | 21.62                    | 21.46                  | 22                  | 0.5      |
| 5               | 16QAM      | 12      | 0         | 20.52                 | 20.65                    | 20.6                   |                     |          |
| 5               | 16QAM      | 12      | 7         | 20.61                 | 20.66                    | 20.61                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 20.59                 | 20.63                    | 20.48                  | 22                  | 0.5      |
| 5               | 16QAM      | 25      | 0         | 20.61                 | 20.65                    | 20.63                  |                     |          |
| 5               | 64QAM      | 1       | 0         | 20.53                 | 20.68                    | 20.62                  |                     |          |
| 5               | 64QAM      | 1       | 12        | 20.45                 | 20.65                    | 20.49                  | 22                  | 0.5      |
| 5               | 64QAM      | 1       | 24        | 20.54                 | 20.64                    | 20.48                  |                     |          |
| 5               | 64QAM      | 12      | 0         | 19.67                 | 19.85                    | 19.8                   |                     |          |
| 5               | 64QAM      | 12      | 7         | 19.79                 | 19.86                    | 19.8                   | 21                  | 1.5      |
| 5               | 64QAM      | 12      | 13        | 19.77                 | 19.81                    | 19.67                  |                     |          |
| 5               | 64QAM      | 25      | 0         | 19.79                 | 19.83                    | 19.75                  |                     |          |

LTE Band 41

| 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) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 21.95                 | 22.07                        | 22.23                    | 22.34                         | 22.28                  | 22.5                | 0        |
| 20              | QPSK       | 1       | 49        | 21.88                 | 21.84                        | 22.08                    | 22.23                         | 22.17                  |                     |          |
| 20              | QPSK       | 1       | 99        | 21.91                 | 22.05                        | 22.28                    | 22.18                         | 22.16                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.44                 | 21.52                        | 21.77                    | 21.85                         | 21.79                  | 22.5                | 0        |
| 20              | QPSK       | 50      | 24        | 21.54                 | 21.56                        | 21.74                    | 21.72                         | 21.76                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.45                 | 21.51                        | 21.73                    | 21.72                         | 21.72                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.5                  | 21.51                        | 21.72                    | 21.77                         | 21.75                  | 22.5                | 0        |
| 20              | 16QAM      | 1       | 0         | 21.65                 | 21.72                        | 21.87                    | 21.85                         | 21.91                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 21.64                 | 21.64                        | 21.75                    | 21.87                         | 21.79                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.6                  | 21.77                        | 21.92                    | 21.84                         | 21.8                   | 22                  | 0.5      |
| 20              | 16QAM      | 50      | 0         | 20.56                 | 20.66                        | 20.5                     | 20.98                         | 20.88                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 20.62                 | 20.67                        | 20.88                    | 20.85                         | 20.85                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.58                 | 20.66                        | 20.88                    | 20.85                         | 20.79                  | 22                  | 0.5      |
| 20              | 16QAM      | 100     | 0         | 20.63                 | 20.66                        | 20.86                    | 20.87                         | 20.83                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.52                 | 20.64                        | 20.74                    | 20.88                         | 20.79                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.41                 | 20.51                        | 20.64                    | 20.75                         | 20.67                  | 22                  | 0.5      |
| 20              | 64QAM      | 1       | 99        | 20.45                 | 20.63                        | 20.82                    | 20.67                         | 20.63                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.62                 | 19.73                        | 19.87                    | 20.05                         | 19.98                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.68                 | 19.75                        | 19.95                    | 19.92                         | 19.95                  | 21                  | 1.5      |
| 20              | 64QAM      | 50      | 50        | 19.66                 | 19.7                         | 19.89                    | 19.92                         | 19.88                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.83                 | 19.78                        | 20.04                    | 19.99                         | 20.02                  |                     |          |
| Channel         |            |         |           | 39745                 | 40173                        | 40620                    | 41068                         | 41515                  |                     |          |
| Frequency (MHz) |            |         |           | 2503.5                | 2546.3                       | 2593                     | 2637.5                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 21.85                 | 21.94                        | 22.24                    | 22.28                         | 22.13                  | 22.5                | 0        |
| 15              | QPSK       | 1       | 37        | 21.81                 | 21.89                        | 22.14                    | 22.19                         | 22.03                  |                     |          |
| 15              | QPSK       | 1       | 74        | 21.84                 | 21.98                        | 22.27                    | 22.17                         | 22.07                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.32                 | 21.66                        | 21.74                    | 21.75                         | 21.68                  | 22.5                | 0        |
| 15              | QPSK       | 36      | 20        | 21.29                 | 21.63                        | 21.74                    | 21.69                         | 21.64                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.29                 | 21.6                         | 21.72                    | 21.62                         | 21.61                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.36                 | 21.68                        | 21.72                    | 21.7                          | 21.68                  | 22.5                | 0        |
| 15              | 16QAM      | 1       | 0         | 21.49                 | 21.71                        | 21.87                    | 21.88                         | 21.77                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 21.51                 | 21.64                        | 21.79                    | 21.82                         | 21.69                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 21.5                  | 21.82                        | 21.96                    | 21.75                         | 21.73                  | 22                  | 0.5      |
| 15              | 16QAM      | 36      | 0         | 20.39                 | 20.66                        | 20.81                    | 20.83                         | 20.68                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.36                 | 20.69                        | 20.8                     | 20.68                         | 20.73                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.43                 | 20.62                        | 20.77                    | 20.7                          | 20.66                  | 22                  | 0.5      |
| 15              | 16QAM      | 75      | 0         | 20.52                 | 20.74                        | 20.8                     | 20.79                         | 20.8                   |                     |          |
| 15              | 64QAM      | 1       | 0         | 20.44                 | 20.67                        | 20.78                    | 20.76                         | 20.67                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.34                 | 20.61                        | 20.75                    | 20.72                         | 20.57                  | 21                  | 1.5      |
| 15              | 64QAM      | 1       | 74        | 20.41                 | 20.79                        | 20.83                    | 20.62                         | 20.63                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.52                 | 19.86                        | 19.95                    | 20.01                         | 19.82                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.53                 | 19.83                        | 19.97                    | 19.86                         | 19.89                  | 21                  | 1.5      |
| 15              | 64QAM      | 36      | 39        | 19.6                  | 19.62                        | 19.99                    | 19.84                         | 19.79                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.59                 | 19.61                        | 19.95                    | 19.92                         | 19.91                  |                     |          |
| Channel         |            |         |           | 39700                 | 40180                        | 40620                    | 41080                         | 41540                  |                     |          |
| Frequency (MHz) |            |         |           | 2501                  | 2547                         |                          |                               |                        |                     |          |



| LTE Band 41 NPUE |       |     |    | 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) | MPR (dB) |
|------------------|-------|-----|----|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel          |       |     |    | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz)  |       |     |    | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20               | QPSK  | 1   | 0  | 22.02                 | 21.98                        | 21.96                    | 22.09                         | 21.98                  | 22.5                | 0        |
| 20               | QPSK  | 1   | 49 | 21.78                 | 21.98                        | 21.91                    | 21.87                         | 21.9                   |                     |          |
| 20               | QPSK  | 1   | 99 | 21.62                 | 21.72                        | 22.06                    | 21.84                         | 21.95                  |                     |          |
| 20               | QPSK  | 50  | 0  | 21.87                 | 21.75                        | 22.01                    | 22.07                         | 22.06                  | 22.5                | 0        |
| 20               | QPSK  | 50  | 24 | 21.76                 | 21.73                        | 22.06                    | 22.01                         | 22.04                  |                     |          |
| 20               | QPSK  | 50  | 50 | 21.69                 | 21.68                        | 22.03                    | 21.89                         | 21.98                  |                     |          |
| 20               | QPSK  | 100 | 0  | 21.75                 | 21.73                        | 22.01                    | 22.06                         | 22.05                  | 22.5                | 0        |
| 20               | QPSK  | 1   | 0  | 21.97                 | 22.04                        | 22.01                    | 22.03                         | 22.03                  |                     |          |
| 20               | 16QAM | 1   | 49 | 21.84                 | 22                           | 22.01                    | 22.06                         | 22.02                  |                     |          |
| 20               | 16QAM | 1   | 99 | 21.69                 | 22.02                        | 22.01                    | 21.99                         | 22.05                  | 22.5                | 0        |
| 20               | 16QAM | 50  | 0  | 21.82                 | 21.9                         | 22.01                    | 21.99                         | 21.97                  |                     |          |
| 20               | 16QAM | 50  | 24 | 21.86                 | 21.9                         | 21.98                    | 21.88                         | 22                     |                     |          |
| 20               | 16QAM | 50  | 50 | 21.79                 | 21.85                        | 21.97                    | 21.86                         | 21.93                  | 22.5                | 0        |
| 20               | 16QAM | 100 | 0  | 21.82                 | 21.92                        | 21.99                    | 21.92                         | 21.94                  |                     |          |
| 20               | 64QAM | 1   | 0  | 21.87                 | 21.96                        | 21.92                    | 22.07                         | 22.01                  |                     |          |
| 20               | 64QAM | 1   | 49 | 21.77                 | 21.86                        | 21.91                    | 21.99                         | 21.92                  | 22.5                | 0        |
| 20               | 64QAM | 1   | 99 | 21.85                 | 21.98                        | 21.98                    | 21.88                         | 21.93                  |                     |          |
| 20               | 64QAM | 50  | 0  | 21.8                  | 21.83                        | 21.93                    | 21.97                         | 21.91                  |                     |          |
| 20               | 64QAM | 50  | 24 | 21.78                 | 21.81                        | 21.95                    | 21.87                         | 21.88                  | 22.5                | 0        |
| 20               | 64QAM | 50  | 50 | 21.7                  | 21.82                        | 21.99                    | 21.77                         | 21.86                  |                     |          |
| 20               | 64QAM | 100 | 0  | 21.88                 | 21.94                        | 21.98                    | 21.91                         | 21.97                  |                     |          |
| Channel          |       |     |    | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz)  |       |     |    | 2503.5                | 2548.3                       | 2593                     | 2637.6                        | 2682.5                 |                     |          |
| 15               | QPSK  | 1   | 0  | 21.71                 | 21.7                         | 22.02                    | 22.04                         | 21.93                  | 22.5                | 0        |
| 15               | QPSK  | 1   | 37 | 21.58                 | 21.69                        | 21.97                    | 21.95                         | 21.91                  |                     |          |
| 15               | QPSK  | 1   | 74 | 21.66                 | 21.78                        | 22.04                    | 21.93                         | 21.92                  |                     |          |
| 15               | QPSK  | 36  | 0  | 21.69                 | 21.75                        | 22.04                    | 22.03                         | 22.01                  | 22.5                | 0        |
| 15               | QPSK  | 36  | 20 | 21.87                 | 21.79                        | 22.06                    | 21.99                         | 22.01                  |                     |          |
| 15               | QPSK  | 36  | 39 | 21.71                 | 21.77                        | 21.83                    | 21.75                         | 21.77                  |                     |          |
| 15               | QPSK  | 75  | 0  | 21.73                 | 21.76                        | 21.81                    | 21.76                         | 21.77                  | 22.5                | 0        |
| 15               | 16QAM | 1   | 0  | 21.99                 | 22.05                        | 22.03                    | 22.01                         | 22.01                  |                     |          |
| 15               | 16QAM | 1   | 37 | 21.85                 | 22.04                        | 22.04                    | 22.04                         | 22.04                  |                     |          |
| 15               | 16QAM | 1   | 74 | 22.02                 | 22.01                        | 21.93                    | 21.99                         | 22.05                  | 22.5                | 0        |
| 15               | 16QAM | 36  | 0  | 21.75                 | 21.88                        | 21.93                    | 21.96                         | 21.88                  |                     |          |
| 15               | 16QAM | 36  | 20 | 21.75                 | 21.88                        | 21.95                    | 21.83                         | 21.86                  |                     |          |
| 15               | 16QAM | 36  | 39 | 21.8                  | 21.85                        | 21.95                    | 21.81                         | 21.83                  | 22.5                | 0        |
| 15               | 16QAM | 75  | 0  | 21.83                 | 21.93                        | 21.96                    | 21.84                         | 21.9                   |                     |          |
| 15               | 64QAM | 1   | 0  | 21.91                 | 21.93                        | 22.05                    | 22.02                         | 21.95                  |                     |          |
| 15               | 64QAM | 1   | 37 | 21.81                 | 21.93                        | 21.99                    | 21.93                         | 21.94                  | 22.5                | 0        |
| 15               | 64QAM | 1   | 74 | 21.85                 | 22.03                        | 22.08                    | 21.89                         | 21.97                  |                     |          |
| 15               | 64QAM | 36  | 0  | 21.76                 | 21.9                         | 21.96                    | 21.97                         | 21.93                  |                     |          |
| 15               | 64QAM | 36  | 20 | 21.78                 | 21.95                        | 21.97                    | 21.88                         | 21.9                   | 22.5                | 0        |
| 15               | 64QAM | 36  | 39 | 21.8                  | 21.87                        | 21.94                    | 21.82                         | 21.86                  |                     |          |
| 15               | 64QAM | 75  | 0  | 21.88                 | 21.87                        | 21.95                    | 21.86                         | 21.87                  |                     |          |
| Channel          |       |     |    | 39700                 | 40160                        | 40620                    | 41080                         | 41540                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz)  |       |     |    | 2501                  | 2547                         | 2593                     | 2639                          | 2685                   |                     |          |
| 10               | QPSK  | 1   | 0  | 21.53                 | 21.63                        | 21.95                    | 21.99                         | 21.83                  | 22.5                | 0        |
| 10               | QPSK  | 1   | 25 | 21.53                 | 21.64                        | 21.98                    | 22                            | 21.93                  |                     |          |
| 10               | QPSK  | 1   | 49 | 21.53                 | 21.62                        | 21.93                    | 21.86                         | 21.94                  |                     |          |
| 10               | QPSK  | 25  | 0  | 21.65                 | 21.69                        | 22.02                    | 22.04                         | 22.03                  | 22.5                | 0        |
| 10               | QPSK  | 25  | 12 | 21.6                  | 21.67                        | 22.03                    | 21.99                         | 21.98                  |                     |          |
| 10               | QPSK  | 25  | 25 | 21.58                 | 21.68                        | 22.02                    | 21.93                         | 21.99                  |                     |          |
| 10               | QPSK  | 50  | 0  | 21.6                  | 21.72                        | 21.84                    | 21.8                          | 21.84                  | 22.5                | 0        |
| 10               | 16QAM | 1   | 0  | 21.83                 | 22.06                        | 21.92                    | 22.01                         | 22.01                  |                     |          |
| 10               | 16QAM | 1   | 25 | 21.69                 | 21.99                        | 21.92                    | 21.88                         | 21.91                  |                     |          |
| 10               | 16QAM | 1   | 49 | 21.9                  | 22                           | 21.92                    | 21.88                         | 22.04                  | 22.5                | 0        |
| 10               | 16QAM | 25  | 0  | 21.78                 | 21.91                        | 22.01                    | 22                            | 21.9                   |                     |          |
| 10               | 16QAM | 25  | 12 | 21.81                 | 21.91                        | 22.02                    | 21.92                         | 21.95                  |                     |          |
| 10               | 16QAM | 25  | 25 | 21.73                 | 21.88                        | 21.95                    | 21.91                         | 21.91                  | 22.5                | 0        |
| 10               | 16QAM | 50  | 0  | 21.76                 | 21.87                        | 21.96                    | 21.9                          | 21.93                  |                     |          |
| 10               | 64QAM | 1   | 0  | 21.8                  | 21.92                        | 22.03                    | 22.01                         | 21.98                  |                     |          |
| 10               | 64QAM | 1   | 25 | 21.79                 | 21.96                        | 22.02                    | 22.03                         | 21.94                  | 22.5                | 0        |
| 10               | 64QAM | 1   | 49 | 21.75                 | 21.87                        | 21.97                    | 21.87                         | 21.96                  |                     |          |
| 10               | 64QAM | 25  | 0  | 21.74                 | 21.85                        | 21.96                    | 21.94                         | 21.94                  |                     |          |
| 10               | 64QAM | 25  | 12 | 21.75                 | 21.83                        | 21.95                    | 21.85                         | 21.87                  | 22.5                | 0        |
| 10               | 64QAM | 25  | 25 | 21.68                 | 21.85                        | 21.92                    | 21.83                         | 21.85                  |                     |          |
| 10               | 64QAM | 50  | 0  | 21.71                 | 21.81                        | 21.91                    | 21.85                         | 21.85                  |                     |          |
| Channel          |       |     |    | 39875                 | 40148                        | 40620                    | 41093                         | 41565                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz)  |       |     |    | 2498.5                | 2545.8                       | 2593                     | 2640.3                        | 2687.5                 |                     |          |
| 5                | QPSK  | 1   | 0  | 21.54                 | 21.62                        | 21.99                    | 21.99                         | 21.9                   | 22.5                | 0        |
| 5                | QPSK  | 1   | 12 | 21.53                 | 21.65                        | 21.98                    | 21.88                         | 21.91                  |                     |          |
| 5                | QPSK  | 1   | 24 | 21.51                 | 21.61                        | 21.93                    | 21.86                         | 21.87                  |                     |          |
| 5                | QPSK  | 12  | 0  | 21.64                 | 21.71                        | 22.03                    | 21.92                         | 22                     | 22.5                | 0        |
| 5                | QPSK  | 12  | 7  | 21.62                 | 21.74                        | 22.03                    | 21.99                         | 22                     |                     |          |
| 5                | QPSK  | 12  | 13 | 21.59                 | 21.71                        | 22.04                    | 21.94                         | 21.96                  |                     |          |
| 5                | QPSK  | 25  | 0  | 21.62                 | 21.71                        | 22.04                    | 21.94                         | 21.98                  | 22.5                | 0        |
| 5                | 16QAM | 1   | 0  | 21.84                 | 22.02                        | 22.03                    | 22.03                         | 22.02                  |                     |          |
| 5                | 16QAM | 1   | 12 | 21.88                 | 22.02                        | 22.01                    | 22.01                         | 22.01                  |                     |          |
| 5                | 16QAM | 1   | 24 | 21.91                 | 22.01                        | 22.03                    | 21.98                         | 22.02                  | 22.5                | 0        |
| 5                | 16QAM | 12  | 0  | 21.77                 | 21.9                         | 22                       | 21.87                         | 21.92                  |                     |          |
| 5                | 16QAM | 12  | 7  | 21.8                  | 21.92                        | 22.01                    | 21.9                          | 21.93                  |                     |          |
| 5                | 16QAM | 12  | 13 | 21.72                 | 21.88                        | 22.01                    | 21.88                         | 21.91                  | 22.5                | 0        |
| 5                | 16QAM | 25  | 0  | 21.75                 | 21.88                        | 21.99                    | 21.88                         | 21.93                  |                     |          |
| 5                | 64QAM | 1   | 0  | 21.82                 | 21.89                        | 21.99                    | 21.99                         | 21.93                  |                     |          |
| 5                | 64QAM | 1   | 12 | 21.76                 | 21.86                        | 22                       | 21.92                         | 21.96                  | 22.5                | 0        |
| 5                | 64QAM | 1   | 24 | 21.74                 | 21.91                        | 21.98                    | 21.88                         | 21.89                  |                     |          |
| 5                | 64QAM | 12  | 0  | 21.71                 | 21.86                        | 21.95                    | 21.81                         | 21.88                  |                     |          |
| 5                | 64QAM | 12  | 7  | 21.74                 | 21.86                        | 21.94                    | 21.86                         | 21.89                  | 22.5                | 0        |
| 5                | 64QAM | 12  | 13 | 21.65                 | 21.83                        | 21.95                    | 21.82                         | 21.86                  |                     |          |
| 5                | 64QAM | 25  | 0  | 21.82                 | 21.81                        | 21.92                    | 21.82                         | 21.86                  |                     |          |





### Reduced Power Mode for Hotspot On

| GSM1800         | Burst Average Power (dBm) |       |        | Tune-up Limit (dBm) | Frame-Average Power (dBm) |       |        | Tune-up Limit (dBm) |
|-----------------|---------------------------|-------|--------|---------------------|---------------------------|-------|--------|---------------------|
|                 | 912                       | 881   | 810    |                     | 912                       | 881   | 810    |                     |
| TX Channel      | 912                       | 881   | 810    |                     | 912                       | 881   | 810    |                     |
| Frequency (MHz) | 1852.2                    | 1850  | 1807.8 |                     | 1852.2                    | 1850  | 1807.8 |                     |
| GSM 1 Tx slot   | 24.34                     | 24.39 | 24.52  | 25                  | 15.34                     | 15.39 | 15.52  | 16                  |
| GPRS 1 Tx slot  | 24.33                     | 24.38 | 24.5   | 25                  | 15.33                     | 15.38 | 15.5   | 16                  |
| GPRS 2 Tx slots | 23.37                     | 23.47 | 23.46  | 24                  | 17.37                     | 17.47 | 17.46  | 18                  |
| GPRS 3 Tx slots | 21.69                     | 21.75 | 21.86  | 22.5                | 17.43                     | 17.49 | 17.6   | 18.24               |
| GPRS 4 Tx slots | 20.05                     | 20.14 | 20.23  | 21                  | 17.05                     | 17.14 | 17.23  | 18                  |
| EDGE 1 Tx slot  | 20.56                     | 20.6  | 20.7   | 21                  | 11.58                     | 11.6  | 11.7   | 12                  |
| EDGE 2 Tx slots | 19.02                     | 19    | 19.06  | 20                  | 13.02                     | 13    | 13.06  | 14                  |
| EDGE 3 Tx slots | 17.41                     | 17.4  | 17.5   | 18                  | 13.15                     | 13.14 | 13.24  | 13.74               |
| EDGE 4 Tx slots | 16.44                     | 16.69 | 16.65  | 17                  | 13.44                     | 13.69 | 13.65  | 14                  |

| Band            | WCDMA II           |       |        | Tune-up Limit (dBm) | WCDMA IV |        |        | Tune-up Limit (dBm) |
|-----------------|--------------------|-------|--------|---------------------|----------|--------|--------|---------------------|
|                 | 9262               | 9400  | 9538   |                     | 1312     | 1413   | 1513   |                     |
| TX Channel      | 9262               | 9400  | 9538   |                     | 1312     | 1413   | 1513   |                     |
| Rx Channel      | 9662               | 9800  | 9938   |                     | 1537     | 1638   | 1738   |                     |
| Frequency (MHz) | 1852.4             | 1880  | 1907.8 |                     | 1712.4   | 1732.6 | 1752.8 |                     |
| 3GPP Rel 99     | AMR 12.2Kbps       | 14.84 | 14.74  | 14.75               | 15.5     | 15.07  | 15.23  | 15.28               |
| 3GPP Rel 99     | AMR 12.2Kbps       | 14.85 | 14.75  | 14.78               | 15.5     | 15.08  | 15.24  | 15.29               |
| 3GPP Rel 6      | HSDPA Subtest-1    | 13.8  | 13.44  | 13.38               | 14.5     | 13.82  | 13.83  | 13.9                |
| 3GPP Rel 6      | HSDPA Subtest-2    | 13.66 | 13.43  | 13.4                | 14.5     | 13.51  | 13.91  | 13.66               |
| 3GPP Rel 6      | HSDPA Subtest-3    | 13.14 | 12.93  | 12.9                | 14       | 13.29  | 13.45  | 13.12               |
| 3GPP Rel 6      | HSDPA Subtest-4    | 13.14 | 12.89  | 12.89               | 14       | 13.3   | 13.47  | 13.42               |
| 3GPP Rel 8      | DC-HSDPA Subtest-1 | 13.59 | 13.43  | 13.39               | 14.5     | 13.81  | 13.92  | 13.89               |
| 3GPP Rel 8      | DC-HSDPA Subtest-2 | 13.65 | 13.42  | 13.41               | 14.5     | 13.5   | 13.9   | 13.65               |
| 3GPP Rel 8      | DC-HSDPA Subtest-3 | 13.15 | 12.94  | 12.92               | 14       | 13.3   | 13.46  | 13.13               |
| 3GPP Rel 8      | DC-HSDPA Subtest-4 | 13.13 | 12.91  | 12.9                | 14       | 13.32  | 13.46  | 13.43               |
| 3GPP Rel 8      | HSUPA Subtest-1    | 13.55 | 13.39  | 13.35               | 14.5     | 13.69  | 13.72  | 13.78               |
| 3GPP Rel 8      | HSUPA Subtest-2    | 11.62 | 11.36  | 11.33               | 12.5     | 11.66  | 11.69  | 11.74               |
| 3GPP Rel 8      | HSUPA Subtest-3    | 12.59 | 12.4   | 12.38               | 13.5     | 12.99  | 12.71  | 12.75               |
| 3GPP Rel 8      | HSUPA Subtest-4    | 11.58 | 11.4   | 11.33               | 12.5     | 11.71  | 11.76  | 11.79               |
| 3GPP Rel 8      | HSUPA Subtest-5    | 13.8  | 13.4   | 13.3                | 14.5     | 13.7   | 13.74  | 13.82               |

| Band             | CDMA BC1 |       |         | Tune-up Limit (dBm) |
|------------------|----------|-------|---------|---------------------|
|                  | 25       | 800   | 1175    |                     |
| TX Channel       | 25       | 800   | 1175    |                     |
| Frequency (MHz)  | 1851.25  | 1880  | 1809.75 |                     |
| RC1 S055         | 15.81    | 15.64 | 15.62   | 16.5                |
| RC1 S055         | 15.58    | 15.52 | 15.58   | 16.5                |
| RC3 S042 (F+SCH) | 15.6     | 15.65 | 15.61   | 16.5                |
| RC3 S030 (F+SCH) | 15.67    | 15.64 | 15.65   | 16.5                |
| RTAP 153 89bps   | 15.37    | 15.35 | 15.38   | 16.5                |
| RETAP 49986bps   | 15.64    | 15.6  | 15.65   | 16.5                |



LTE Band 2

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) and multiple data rows for various modulation schemes and power levels.

LTE Band 4

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) and multiple data rows for various modulation schemes and power levels.

LTE Band 7

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) and multiple data rows for various modulation schemes and power levels.



LTE Band 25

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Contains multiple channel frequency blocks for various modulation schemes and RB sizes.

LTE Band 30

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Contains multiple channel frequency blocks for various modulation schemes and RB sizes.

LTE Band 66

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Contains multiple channel frequency blocks for various modulation schemes and RB sizes.





**LTE Band 38**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 37850                 | 38000                    | 38150                  |                     |          |
| Frequency (MHz) |            |         |           | 2580                  | 2595                     | 2610                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.13                 | 22.2                     | 22.18                  | 22.5                | 0        |
| 20              | QPSK       | 1       | 49        | 22.11                 | 22.15                    | 22.11                  |                     |          |
| 20              | QPSK       | 1       | 99        | 21.93                 | 22.13                    | 22.02                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.67                 | 21.73                    | 21.56                  | 22.5                | 0        |
| 20              | QPSK       | 30      | 24        | 21.6                  | 21.69                    | 21.59                  |                     |          |
| 20              | QPSK       | 30      | 50        | 21.88                 | 21.66                    | 21.54                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.6                  | 21.66                    | 21.59                  | 22.5                | 0        |
| 20              | 16QAM      | 1       | 0         | 21.67                 | 21.8                     | 21.75                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 21.65                 | 21.7                     | 21.66                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.79                 | 21.68                    | 21.64                  | 22                  | 0.5      |
| 20              | 16QAM      | 50      | 0         | 20.73                 | 20.81                    | 20.71                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 20.73                 | 20.77                    | 20.66                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.81                 | 20.74                    | 20.68                  | 22                  | 0.5      |
| 20              | 16QAM      | 100     | 0         | 20.7                  | 20.76                    | 20.69                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.7                  | 20.77                    | 20.75                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.68                 | 20.69                    | 20.65                  | 22                  | 0.5      |
| 20              | 64QAM      | 1       | 99        | 20.77                 | 20.69                    | 20.61                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.94                 | 19.95                    | 19.87                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.91                 | 19.95                    | 19.87                  | 21                  | 1.5      |
| 20              | 64QAM      | 50      | 50        | 20                    | 19.93                    | 19.86                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.98                 | 20.04                    | 19.96                  |                     |          |
| Channel         |            |         |           | 37925                 | 38000                    | 38175                  |                     |          |
| Frequency (MHz) |            |         |           | 2577.5                | 2595                     | 2612.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 22.02                 | 22.11                    | 22.11                  | 22.5                | 0        |
| 15              | QPSK       | 1       | 37        | 21.99                 | 22.06                    | 22.04                  |                     |          |
| 15              | QPSK       | 1       | 74        | 21.82                 | 22.04                    | 21.95                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.56                 | 21.64                    | 21.49                  | 22.5                | 0        |
| 15              | QPSK       | 36      | 20        | 21.49                 | 21.6                     | 21.52                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.57                 | 21.57                    | 21.47                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.49                 | 21.57                    | 21.52                  | 22.5                | 0        |
| 15              | 16QAM      | 1       | 0         | 21.56                 | 21.71                    | 21.68                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 21.54                 | 21.61                    | 21.59                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 21.68                 | 21.59                    | 21.57                  | 22                  | 0.5      |
| 15              | 16QAM      | 36      | 0         | 20.62                 | 20.72                    | 20.64                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.62                 | 20.68                    | 20.59                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.7                  | 20.65                    | 20.61                  | 22                  | 0.5      |
| 15              | 16QAM      | 75      | 0         | 20.59                 | 20.67                    | 20.62                  |                     |          |
| 15              | 64QAM      | 1       | 0         | 20.59                 | 20.68                    | 20.68                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.57                 | 20.6                     | 20.58                  | 22                  | 0.5      |
| 15              | 64QAM      | 1       | 74        | 20.66                 | 20.6                     | 20.54                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.83                 | 19.86                    | 19.8                   |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.8                  | 19.86                    | 19.8                   | 21                  | 1.5      |
| 15              | 64QAM      | 36      | 39        | 19.89                 | 19.84                    | 19.79                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.87                 | 19.95                    | 19.89                  |                     |          |
| Channel         |            |         |           | 37800                 | 38000                    | 38200                  |                     |          |
| Frequency (MHz) |            |         |           | 2575                  | 2595                     | 2615                   |                     |          |
| 10              | QPSK       | 1       | 0         | 22.09                 | 22.11                    | 22.14                  | 22.5                | 0        |
| 10              | QPSK       | 1       | 25        | 22.05                 | 22.18                    | 22.01                  |                     |          |
| 10              | QPSK       | 1       | 49        | 22.14                 | 22.18                    | 22.01                  |                     |          |
| 10              | QPSK       | 25      | 0         | 21.49                 | 21.64                    | 21.53                  | 22.5                | 0        |
| 10              | QPSK       | 25      | 12        | 21.6                  | 21.66                    | 21.58                  |                     |          |
| 10              | QPSK       | 25      | 25        | 21.55                 | 21.59                    | 21.45                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.6                  | 21.67                    | 21.58                  | 22.5                | 0        |
| 10              | 16QAM      | 1       | 0         | 21.66                 | 21.91                    | 21.72                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 21.59                 | 21.74                    | 21.59                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 21.68                 | 21.71                    | 21.53                  | 22                  | 0.5      |
| 10              | 16QAM      | 25      | 0         | 20.63                 | 20.74                    | 20.67                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.72                 | 20.75                    | 20.68                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 20.7                  | 20.72                    | 20.55                  | 22                  | 0.5      |
| 10              | 16QAM      | 50      | 0         | 20.72                 | 20.74                    | 20.7                   |                     |          |
| 10              | 64QAM      | 1       | 0         | 20.64                 | 20.77                    | 20.69                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 20.56                 | 20.74                    | 20.56                  | 22                  | 0.5      |
| 10              | 64QAM      | 1       | 49        | 20.65                 | 20.73                    | 20.55                  |                     |          |
| 10              | 64QAM      | 25      | 0         | 19.78                 | 19.94                    | 19.87                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 19.9                  | 19.95                    | 19.87                  | 21                  | 1.5      |
| 10              | 64QAM      | 25      | 25        | 19.88                 | 19.9                     | 19.74                  |                     |          |
| 10              | 64QAM      | 50      | 0         | 19.9                  | 19.92                    | 19.82                  |                     |          |
| Channel         |            |         |           | 37775                 | 38000                    | 38225                  |                     |          |
| Frequency (MHz) |            |         |           | 2572.5                | 2595                     | 2617.5                 |                     |          |
| 5               | QPSK       | 1       | 0         | 21.98                 | 21.62                    | 22.07                  | 22.5                | 0        |
| 5               | QPSK       | 1       | 12        | 21.94                 | 22.09                    | 21.94                  |                     |          |
| 5               | QPSK       | 1       | 24        | 22.03                 | 22.09                    | 21.94                  |                     |          |
| 5               | QPSK       | 12      | 0         | 21.38                 | 21.55                    | 21.46                  | 22.5                | 0        |
| 5               | QPSK       | 12      | 7         | 21.49                 | 21.57                    | 21.51                  |                     |          |
| 5               | QPSK       | 12      | 13        | 21.44                 | 21.5                     | 21.38                  |                     |          |
| 5               | QPSK       | 25      | 0         | 21.49                 | 21.58                    | 21.51                  | 22.5                | 0        |
| 5               | 16QAM      | 1       | 0         | 21.55                 | 21.72                    | 21.65                  |                     |          |
| 5               | 16QAM      | 1       | 12        | 21.48                 | 21.65                    | 21.52                  |                     |          |
| 5               | 16QAM      | 1       | 24        | 21.55                 | 21.62                    | 21.46                  | 22                  | 0.5      |
| 5               | 16QAM      | 12      | 0         | 20.52                 | 20.65                    | 20.6                   |                     |          |
| 5               | 16QAM      | 12      | 7         | 20.61                 | 20.66                    | 20.61                  |                     |          |
| 5               | 16QAM      | 12      | 13        | 20.59                 | 20.63                    | 20.48                  | 22                  | 0.5      |
| 5               | 16QAM      | 25      | 0         | 20.61                 | 20.65                    | 20.63                  |                     |          |
| 5               | 64QAM      | 1       | 0         | 20.53                 | 20.68                    | 20.62                  |                     |          |
| 5               | 64QAM      | 1       | 12        | 20.45                 | 20.65                    | 20.49                  | 22                  | 0.5      |
| 5               | 64QAM      | 1       | 24        | 20.54                 | 20.64                    | 20.48                  |                     |          |
| 5               | 64QAM      | 12      | 0         | 19.67                 | 19.85                    | 19.8                   |                     |          |
| 5               | 64QAM      | 12      | 7         | 19.79                 | 19.86                    | 19.8                   | 21                  | 1.5      |
| 5               | 64QAM      | 12      | 13        | 19.77                 | 19.81                    | 19.67                  |                     |          |
| 5               | 64QAM      | 25      | 0         | 19.79                 | 19.83                    | 19.75                  |                     |          |

**LTE Band 41**

| 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) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 21.95                 | 22.07                        | 22.23                    | 22.34                         | 22.28                  | 22.5                | 0        |
| 20              | QPSK       | 1       | 49        | 21.88                 | 21.84                        | 22.08                    | 22.23                         | 22.17                  |                     |          |
| 20              | QPSK       | 1       | 99        | 21.91                 | 22.05                        | 22.28                    | 22.18                         | 22.16                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.44                 | 21.52                        | 21.77                    | 21.85                         | 21.79                  | 22.5                | 0        |
| 20              | QPSK       | 50      | 24        | 21.54                 | 21.56                        | 21.74                    | 21.72                         | 21.76                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.45                 | 21.51                        | 21.73                    | 21.72                         | 21.72                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.5                  | 21.51                        | 21.72                    | 21.77                         | 21.75                  | 22.5                | 0        |
| 20              | 16QAM      | 1       | 0         | 21.65                 | 21.72                        | 21.87                    | 21.85                         | 21.91                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 21.64                 | 21.64                        | 21.75                    | 21.87                         | 21.79                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.6                  | 21.77                        | 21.92                    | 21.84                         | 21.8                   | 22                  | 0.5      |
| 20              | 16QAM      | 50      | 0         | 20.56                 | 20.66                        | 20.5                     | 20.98                         | 20.88                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 20.62                 | 20.67                        | 20.88                    | 20.85                         | 20.85                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.58                 | 20.66                        | 20.88                    | 20.85                         | 20.79                  | 22                  | 0.5      |
| 20              | 16QAM      | 100     | 0         | 20.63                 | 20.66                        | 20.86                    | 20.87                         | 20.83                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.52                 | 20.64                        | 20.74                    | 20.88                         | 20.79                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.41                 | 20.51                        | 20.64                    | 20.75                         | 20.67                  | 22                  | 0.5      |
| 20              | 64QAM      | 1       | 99        | 20.45                 | 20.63                        | 20.82                    | 20.67                         | 20.63                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.62                 | 19.73                        | 19.87                    | 20.05                         | 19.98                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.68                 | 19.75                        | 19.95                    | 19.92                         | 19.95                  | 21                  | 1.5      |
| 20              | 64QAM      | 50      | 50        | 19.66                 | 19.7                         | 19.89                    | 19.92                         | 19.88                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.83                 | 19.78                        | 20.04                    | 19.99                         | 20.02                  |                     |          |
| Channel         |            |         |           | 39745                 | 40173                        | 40620                    | 41068                         | 41515                  |                     |          |
| Frequency (MHz) |            |         |           | 2503.5                | 2546.3                       | 2593                     | 2637.8                        | 2682.5                 |                     |          |
| 15              | QPSK       | 1       | 0         | 21.85                 | 21.94                        | 22.24                    | 22.28                         | 22.13                  | 22.5                | 0        |
| 15              | QPSK       | 1       | 37        | 21.81                 | 21.89                        | 22.14                    | 22.19                         | 22.03                  |                     |          |
| 15              | QPSK       | 1       | 74        | 21.84                 | 21.98                        | 22.27                    | 22.17                         | 22.07                  |                     |          |
| 15              | QPSK       | 36      | 0         | 21.32                 | 21.66                        | 21.74                    | 21.75                         | 21.68                  | 22.5                | 0        |
| 15              | QPSK       | 36      | 20        | 21.29                 | 21.63                        | 21.74                    | 21.69                         | 21.64                  |                     |          |
| 15              | QPSK       | 36      | 39        | 21.29                 | 21.6                         | 21.72                    | 21.62                         | 21.61                  |                     |          |
| 15              | QPSK       | 75      | 0         | 21.36                 | 21.68                        | 21.72                    | 21.7                          | 21.68                  | 22.5                | 0        |
| 15              | 16QAM      | 1       | 0         | 21.49                 | 21.71                        | 21.87                    | 21.88                         | 21.77                  |                     |          |
| 15              | 16QAM      | 1       | 37        | 21.51                 | 21.64                        | 21.79                    | 21.82                         | 21.69                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 21.5                  | 21.82                        | 21.96                    | 21.75                         | 21.73                  | 22                  | 0.5      |
| 15              | 16QAM      | 36      | 0         | 20.39                 | 20.66                        | 20.81                    | 20.83                         | 20.68                  |                     |          |
| 15              | 16QAM      | 36      | 20        | 20.36                 | 20.69                        | 20.8                     | 20.68                         | 20.73                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.43                 | 20.62                        | 20.77                    | 20.7                          | 20.66                  | 22                  | 0.5      |
| 15              | 16QAM      | 75      | 0         | 20.52                 | 20.74                        | 20.8                     | 20.79                         | 20.8                   |                     |          |
| 15              | 64QAM      | 1       | 0         | 20.44                 | 20.67                        | 20.78                    | 20.76                         | 20.67                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 20.34                 | 20.61                        | 20.75                    | 20.72                         | 20.57                  | 21                  | 1.5      |
| 15              | 64QAM      | 1       | 74        | 20.41                 | 20.79                        | 20.83                    | 20.62                         | 20.63                  |                     |          |
| 15              | 64QAM      | 36      | 0         | 19.52                 | 19.86                        | 19.95                    | 20.01                         | 19.82                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 19.53                 | 19.83                        | 19.97                    | 19.86                         | 19.89                  | 21                  | 1.5      |
| 15              | 64QAM      | 36      | 39        | 19.6                  | 19.62                        | 19.99                    | 19.84                         | 19.79                  |                     |          |
| 15              | 64QAM      | 75      | 0         | 19.69                 | 19.61                        | 19.95                    | 19.92                         | 19.91                  |                     |          |
| Channel         |            |         |           | 39700                 | 40180                        | 40620                    | 41080                         | 41540                  |                     |          |
| Frequency (MHz) |            |         |           | 2501                  |                              |                          |                               |                        |                     |          |



| LTE Band 41 NPUE |            |         |           |                       |                              |                          |                               |                        |                     |          |
|------------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| 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) | MPR (dB) |
| Channel          |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz)  |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20               | QPSK       | 1       | 0         | 22.02                 | 21.98                        | 21.96                    | 22.09                         | 21.98                  | 22.5                | 0        |
| 20               | QPSK       | 1       | 49        | 21.78                 | 21.98                        | 21.91                    | 21.87                         | 21.9                   |                     |          |
| 20               | QPSK       | 1       | 99        | 21.62                 | 21.72                        | 22.06                    | 21.84                         | 21.95                  |                     |          |
| 20               | QPSK       | 50      | 0         | 21.87                 | 21.75                        | 22.01                    | 22.07                         | 22.06                  | 22.5                | 0        |
| 20               | QPSK       | 50      | 24        | 21.76                 | 21.73                        | 22.06                    | 22.01                         | 22.04                  |                     |          |
| 20               | QPSK       | 50      | 50        | 21.69                 | 21.68                        | 22.03                    | 21.89                         | 21.98                  |                     |          |
| 20               | QPSK       | 100     | 0         | 21.75                 | 21.73                        | 22.01                    | 22.06                         | 22.05                  | 22.5                | 0        |
| 20               | QPSK       | 1       | 0         | 21.97                 | 22.04                        | 22.01                    | 22.03                         | 22.03                  |                     |          |
| 20               | 16QAM      | 1       | 49        | 21.84                 | 22                           | 22.01                    | 22.06                         | 22.02                  |                     |          |
| 20               | 16QAM      | 1       | 99        | 21.69                 | 22.02                        | 22.01                    | 21.99                         | 22.05                  | 22.5                | 0        |
| 20               | 16QAM      | 50      | 0         | 21.82                 | 21.9                         | 22.01                    | 21.99                         | 21.97                  |                     |          |
| 20               | 16QAM      | 50      | 24        | 21.86                 | 21.9                         | 21.98                    | 21.88                         | 22                     |                     |          |
| 20               | 16QAM      | 50      | 50        | 21.79                 | 21.85                        | 21.97                    | 21.86                         | 21.93                  | 22.5                | 0        |
| 20               | 16QAM      | 100     | 0         | 21.82                 | 21.92                        | 21.99                    | 21.92                         | 21.94                  |                     |          |
| 20               | 64QAM      | 1       | 0         | 21.87                 | 21.96                        | 21.92                    | 22.07                         | 22.01                  |                     |          |
| 20               | 64QAM      | 1       | 49        | 21.77                 | 21.86                        | 21.91                    | 21.99                         | 21.92                  | 22.5                | 0        |
| 20               | 64QAM      | 1       | 99        | 21.85                 | 21.98                        | 21.98                    | 21.88                         | 21.93                  |                     |          |
| 20               | 64QAM      | 50      | 0         | 21.8                  | 21.83                        | 21.93                    | 21.97                         | 21.91                  |                     |          |
| 20               | 64QAM      | 50      | 24        | 21.78                 | 21.81                        | 21.95                    | 21.87                         | 21.88                  | 22.5                | 0        |
| 20               | 64QAM      | 50      | 50        | 21.7                  | 21.82                        | 21.99                    | 21.77                         | 21.86                  |                     |          |
| 20               | 64QAM      | 100     | 0         | 21.88                 | 21.94                        | 21.98                    | 21.91                         | 21.97                  |                     |          |
| Channel          |            |         |           | 39725                 | 40173                        | 40620                    | 41068                         | 41515                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz)  |            |         |           | 2503.5                | 2548.3                       | 2593                     | 2637.6                        | 2682.5                 |                     |          |
| 15               | QPSK       | 1       | 0         | 21.71                 | 21.7                         | 22.02                    | 22.04                         | 21.93                  | 22.5                | 0        |
| 15               | QPSK       | 1       | 37        | 21.58                 | 21.69                        | 21.97                    | 21.95                         | 21.91                  |                     |          |
| 15               | QPSK       | 1       | 74        | 21.66                 | 21.78                        | 22.04                    | 21.93                         | 21.92                  |                     |          |
| 15               | QPSK       | 36      | 0         | 21.69                 | 21.75                        | 22.04                    | 22.03                         | 22.01                  | 22.5                | 0        |
| 15               | QPSK       | 36      | 20        | 21.87                 | 21.79                        | 22.06                    | 21.99                         | 22.01                  |                     |          |
| 15               | QPSK       | 36      | 39        | 21.71                 | 21.77                        | 21.83                    | 21.75                         | 21.77                  |                     |          |
| 15               | QPSK       | 75      | 0         | 21.73                 | 21.76                        | 21.81                    | 21.76                         | 21.77                  | 22.5                | 0        |
| 15               | 16QAM      | 1       | 0         | 21.99                 | 22.05                        | 22.03                    | 22.01                         | 22.01                  |                     |          |
| 15               | 16QAM      | 1       | 37        | 21.85                 | 22.04                        | 22.04                    | 22.04                         | 22.04                  |                     |          |
| 15               | 16QAM      | 1       | 74        | 22.02                 | 22.01                        | 21.93                    | 21.99                         | 22.05                  | 22.5                | 0        |
| 15               | 16QAM      | 36      | 0         | 21.75                 | 21.88                        | 21.93                    | 21.96                         | 21.88                  |                     |          |
| 15               | 16QAM      | 36      | 20        | 21.75                 | 21.88                        | 21.95                    | 21.83                         | 21.86                  |                     |          |
| 15               | 16QAM      | 36      | 39        | 21.8                  | 21.85                        | 21.95                    | 21.81                         | 21.83                  | 22.5                | 0        |
| 15               | 16QAM      | 75      | 0         | 21.83                 | 21.93                        | 21.96                    | 21.84                         | 21.9                   |                     |          |
| 15               | 64QAM      | 1       | 0         | 21.91                 | 21.93                        | 22.05                    | 22.02                         | 21.95                  |                     |          |
| 15               | 64QAM      | 1       | 37        | 21.81                 | 21.93                        | 21.99                    | 21.93                         | 21.94                  | 22.5                | 0        |
| 15               | 64QAM      | 1       | 74        | 21.85                 | 22.03                        | 22.08                    | 21.89                         | 21.97                  |                     |          |
| 15               | 64QAM      | 36      | 0         | 21.76                 | 21.9                         | 21.96                    | 21.97                         | 21.93                  |                     |          |
| 15               | 64QAM      | 36      | 20        | 21.78                 | 21.95                        | 21.97                    | 21.88                         | 21.9                   | 22.5                | 0        |
| 15               | 64QAM      | 36      | 39        | 21.8                  | 21.87                        | 21.94                    | 21.82                         | 21.86                  |                     |          |
| 15               | 64QAM      | 75      | 0         | 21.88                 | 21.87                        | 21.95                    | 21.86                         | 21.87                  |                     |          |
| Channel          |            |         |           | 39700                 | 40160                        | 40620                    | 41080                         | 41540                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz)  |            |         |           | 2501                  | 2547                         | 2593                     | 2639                          | 2685                   |                     |          |
| 10               | QPSK       | 1       | 0         | 21.53                 | 21.63                        | 21.95                    | 21.99                         | 21.83                  | 22.5                | 0        |
| 10               | QPSK       | 1       | 25        | 21.53                 | 21.64                        | 21.98                    | 22                            | 21.93                  |                     |          |
| 10               | QPSK       | 1       | 49        | 21.53                 | 21.62                        | 21.93                    | 21.86                         | 21.94                  |                     |          |
| 10               | QPSK       | 25      | 0         | 21.65                 | 21.69                        | 22.02                    | 22.04                         | 22.03                  | 22.5                | 0        |
| 10               | QPSK       | 25      | 12        | 21.6                  | 21.67                        | 22.03                    | 21.99                         | 21.98                  |                     |          |
| 10               | QPSK       | 25      | 25        | 21.58                 | 21.68                        | 22.02                    | 21.93                         | 21.99                  |                     |          |
| 10               | QPSK       | 50      | 0         | 21.6                  | 21.72                        | 21.84                    | 21.8                          | 21.84                  | 22.5                | 0        |
| 10               | 16QAM      | 1       | 0         | 21.83                 | 22.06                        | 21.92                    | 22.01                         | 22.01                  |                     |          |
| 10               | 16QAM      | 1       | 25        | 21.69                 | 21.99                        | 21.92                    | 21.88                         | 21.91                  |                     |          |
| 10               | 16QAM      | 1       | 49        | 21.9                  | 22                           | 21.92                    | 21.88                         | 22.04                  | 22.5                | 0        |
| 10               | 16QAM      | 25      | 0         | 21.78                 | 21.91                        | 22.01                    | 22                            | 21.9                   |                     |          |
| 10               | 16QAM      | 25      | 12        | 21.81                 | 21.91                        | 22.02                    | 21.92                         | 21.95                  |                     |          |
| 10               | 16QAM      | 25      | 25        | 21.73                 | 21.88                        | 21.95                    | 21.91                         | 21.91                  | 22.5                | 0        |
| 10               | 16QAM      | 50      | 0         | 21.76                 | 21.87                        | 21.96                    | 21.9                          | 21.93                  |                     |          |
| 10               | 64QAM      | 1       | 0         | 21.8                  | 21.92                        | 22.03                    | 22.01                         | 21.98                  |                     |          |
| 10               | 64QAM      | 1       | 25        | 21.79                 | 21.96                        | 22.02                    | 22.03                         | 21.94                  | 22.5                | 0        |
| 10               | 64QAM      | 1       | 49        | 21.75                 | 21.87                        | 21.97                    | 21.87                         | 21.96                  |                     |          |
| 10               | 64QAM      | 25      | 0         | 21.74                 | 21.85                        | 21.96                    | 21.94                         | 21.94                  |                     |          |
| 10               | 64QAM      | 25      | 12        | 21.75                 | 21.83                        | 21.95                    | 21.85                         | 21.87                  | 22.5                | 0        |
| 10               | 64QAM      | 25      | 25        | 21.68                 | 21.85                        | 21.92                    | 21.83                         | 21.85                  |                     |          |
| 10               | 64QAM      | 50      | 0         | 21.71                 | 21.81                        | 21.91                    | 21.85                         | 21.85                  |                     |          |
| Channel          |            |         |           | 39875                 | 40148                        | 40620                    | 41093                         | 41565                  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz)  |            |         |           | 2498.5                | 2545.8                       | 2593                     | 2640.3                        | 2687.5                 |                     |          |
| 5                | QPSK       | 1       | 0         | 21.54                 | 21.62                        | 21.99                    | 21.99                         | 21.9                   | 22.5                | 0        |
| 5                | QPSK       | 1       | 12        | 21.53                 | 21.65                        | 21.98                    | 21.88                         | 21.91                  |                     |          |
| 5                | QPSK       | 1       | 24        | 21.51                 | 21.61                        | 21.93                    | 21.86                         | 21.87                  |                     |          |
| 5                | QPSK       | 12      | 0         | 21.64                 | 21.71                        | 22.03                    | 21.92                         | 22                     | 22.5                | 0        |
| 5                | QPSK       | 12      | 7         | 21.62                 | 21.74                        | 22.03                    | 21.99                         | 22                     |                     |          |
| 5                | QPSK       | 12      | 13        | 21.59                 | 21.71                        | 22.04                    | 21.94                         | 21.96                  |                     |          |
| 5                | QPSK       | 25      | 0         | 21.62                 | 21.71                        | 22.04                    | 21.94                         | 21.98                  | 22.5                | 0        |
| 5                | 16QAM      | 1       | 0         | 21.84                 | 22.02                        | 22.03                    | 22.03                         | 22.02                  |                     |          |
| 5                | 16QAM      | 1       | 12        | 21.88                 | 22.02                        | 22.01                    | 22.01                         | 22.01                  |                     |          |
| 5                | 16QAM      | 1       | 24        | 21.91                 | 22.01                        | 22.03                    | 21.98                         | 22.02                  | 22.5                | 0        |
| 5                | 16QAM      | 12      | 0         | 21.77                 | 21.9                         | 22                       | 21.87                         | 21.92                  |                     |          |
| 5                | 16QAM      | 12      | 7         | 21.8                  | 21.92                        | 22.01                    | 21.9                          | 21.93                  |                     |          |
| 5                | 16QAM      | 12      | 13        | 21.72                 | 21.88                        | 22.01                    | 21.88                         | 21.91                  | 22.5                | 0        |
| 5                | 16QAM      | 25      | 0         | 21.75                 | 21.88                        | 21.99                    | 21.88                         | 21.93                  |                     |          |
| 5                | 64QAM      | 1       | 0         | 21.82                 | 21.89                        | 21.99                    | 21.99                         | 21.93                  |                     |          |
| 5                | 64QAM      | 1       | 12        | 21.76                 | 21.86                        | 22                       | 21.92                         | 21.96                  | 22.5                | 0        |
| 5                | 64QAM      | 1       | 24        | 21.74                 | 21.91                        | 21.98                    | 21.88                         | 21.89                  |                     |          |
| 5                | 64QAM      | 12      | 0         | 21.71                 | 21.86                        | 21.95                    | 21.81                         | 21.88                  |                     |          |
| 5                | 64QAM      | 12      | 7         | 21.74                 | 21.86                        | 21.94                    | 21.86                         | 21.89                  | 22.5                | 0        |
| 5                | 64QAM      | 12      | 13        | 21.65                 | 21.83                        | 21.95                    | 21.82                         | 21.86                  |                     |          |
| 5                | 64QAM      | 25      | 0         | 21.82                 | 21.81                        | 21.92                    | 21.82                         | 21.86                  |                     |          |



### Reduced Power Mode for Handheld On

| Band        | WCDMA II          |        |       | Tune-up<br>Limit<br>(dBm) | WCDMA IV |        |        | Tune-up<br>Limit<br>(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      | 19.12  | 19.04 | 19.03                     | 20       | 18.77  | 18.94  | 18.86                     |      |
| 3GPP Rel 99 | RM-C 12.2Kbps     | 19.13  | 19.05 | 19.04                     | 20       | 18.78  | 18.95  | 18.90                     |      |
| 3GPP Rel 6  | HSDPA Subtest-1   | 18.22  | 18.12 | 18.07                     | 19       | 17.95  | 18.07  | 18.14                     |      |
| 3GPP Rel 6  | HSDPA Subtest-2   | 18.18  | 18.09 | 18.14                     | 19       | 17.94  | 18.12  | 18.1                      |      |
| 3GPP Rel 6  | HSDPA Subtest-3   | 17.78  | 17.62 | 17.6                      | 18.5     | 17.43  | 17.55  | 17.62                     |      |
| 3GPP Rel 6  | HSDPA Subtest-4   | 17.69  | 17.65 | 17.62                     | 18.5     | 17.35  | 17.58  | 17.6                      |      |
| 3GPP Rel 6  | DCHSDPA Subtest-1 | 18.21  | 18.11 | 18.08                     | 19       | 17.94  | 18.08  | 18.15                     |      |
| 3GPP Rel 6  | DCHSDPA Subtest-2 | 18.19  | 18.1  | 18.15                     | 19       | 17.93  | 18.11  | 18.12                     |      |
| 3GPP Rel 6  | DCHSDPA Subtest-3 | 17.79  | 17.63 | 17.61                     | 18.5     | 17.44  | 17.54  | 17.61                     |      |
| 3GPP Rel 6  | DCHSDPA Subtest-4 | 17.7   | 17.66 | 17.6                      | 18.5     | 17.36  | 17.55  | 17.63                     |      |
| 3GPP Rel 6  | HSUPA Subtest-1   | 18.27  | 18.14 | 18.09                     | 19       | 17.89  | 17.96  | 18.06                     |      |
| 3GPP Rel 6  | HSUPA Subtest-2   | 18.3   | 18.11 | 18.08                     | 17       | 15.96  | 15.98  | 16.04                     |      |
| 3GPP Rel 6  | HSUPA Subtest-3   | 17.29  | 17.15 | 17.05                     | 18       | 16.54  | 16.55  | 17.08                     |      |
| 3GPP Rel 6  | HSUPA Subtest-4   | 16.24  | 16.13 | 16.04                     | 17       | 15.88  | 16.01  | 16.11                     |      |
| 3GPP Rel 6  | HSUPA Subtest-5   | 18.28  | 18.17 | 18.08                     | 19       | 17.92  | 18.05  | 18.07                     |      |

| Band | CDMA BC1         |         |       | Tune-up<br>Limit<br>(dBm) |         |
|------|------------------|---------|-------|---------------------------|---------|
|      | TX Channel       | 25      | 600   |                           | 1175    |
|      | Frequency (MHz)  | 1851.25 | 1880  |                           | 1908.75 |
|      | RC1 384kbps      | 20.24   | 20.31 | 20.27                     | 21      |
|      | RC3 384kbps      | 20.21   | 20.28 | 20.33                     | 21      |
|      | RC3 SQ32 (F+SCH) | 20.25   | 20.32 | 20.29                     | 21      |
|      | RC3 SQ32 (H+SCH) | 20.28   | 20.3  | 20.27                     | 21      |
|      | RTAP 153.6Kbps   | 20.14   | 20.16 | 20.27                     | 21      |
|      | RETAP 4096bits   | 20.23   | 20.28 | 20.28                     | 21      |





LTE Band 2

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) with multiple rows of data.

LTE Band 4

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) with multiple rows of data.

LTE Band 7

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) with multiple rows of data.



LTE Band 25

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

LTE Band 30

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

LTE Band 66

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

### Full Power

| 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                     | 22.58                | 24.00               |
| 40185                                 | 39987       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.97                | 24.00               |
| 40620                                 | 40422       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 23.03                | 24.00               |
| 41055                                 | 40857       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 23.05                | 24.00               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 23.15                | 24.00               |

### Reduced Power Mode for Hotspot On

| 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                     | 22.34                | 22.50               |
| 40185                                 | 39987       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.08                | 22.50               |
| 40620                                 | 40422       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.24                | 22.50               |
| 41055                                 | 40857       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.38                | 22.50               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.39                | 22.50               |

### Reduced Power Mode for Sensor On

| 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       | 100     | 0         | 0       | 0         | 1             | 0                     | 22.38                | 22.50               |
| 40185                                 | 39987       | QPSK       | 100     | 0         | 0       | 0         | 1             | 0                     | 22.12                | 22.50               |
| 40620                                 | 40422       | QPSK       | 100     | 0         | 0       | 0         | 1             | 0                     | 22.22                | 22.50               |
| 41055                                 | 40857       | QPSK       | 100     | 0         | 0       | 0         | 1             | 0                     | 22.41                | 22.50               |
| 41490                                 | 41292       | QPSK       | 100     | 0         | 0       | 0         | 1             | 0                     | 22.46                | 22.50               |

### Reduced Power Mode for Handheld On

| 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                     | 22.85                | 24.00               |
| 40185                                 | 39987       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.27                | 24.00               |
| 40620                                 | 40422       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.78                | 24.00               |
| 41055                                 | 40857       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.86                | 24.00               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 22.93                | 24.00               |

### Full Power

| CA_B5                              |             |            |         |           |         |           |               |                       |                      |                     |
|------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|----------------------|---------------------|
| Combination 10MHz+5MHz (50RB+25RB) |             |            |         |           |         |           |               |                       |                      |                     |
| 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                              | 20522       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 23.37                | 24.00               |
| 20525                              | 20597       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 23.39                | 24.00               |
| 20600                              | 20528       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | 23.02                | 24.00               |



| Configure      | CA List    | PCC        |          |             |            |        |       |       |           | SCC      |          |             |            | Power           |                 |       |
|----------------|------------|------------|----------|-------------|------------|--------|-------|-------|-----------|----------|----------|-------------|------------|-----------------|-----------------|-------|
|                |            | LTE Band   | BW (MHz) | UL          | UL Channel | Mod.   | UL#   | UL RB | UL Offset | LTE Band | BW (MHz) | DL          | DL Channel | With CA         | Without CA      |       |
|                |            |            |          | Freq. (MHz) |            |        | RB    |       |           |          |          | Freq. (MHz) |            | Tx. Power (dBm) | Tx. Power (dBm) |       |
| Inter-Band     | CA_2A-4A   | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 4    | 20M      | 2132.5   | 2175        | 23.47      | 23.30           |                 |       |
|                |            | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.25      | 23.08           |                 |       |
|                | CA_2A-5A   | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 5    | 10M      | 881.5    | 2525        | 23.40      | 23.30           |                 |       |
|                |            | Band 5     | 10M      | 829         | 20450      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.41      | 23.38           |                 |       |
|                | CA_2A-7A   | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 7    | 20M      | 2655     | 3100        | 23.47      | 23.30           |                 |       |
|                |            | Band 7     | 20M      | 2560        | 21350      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.27      | 23.07           |                 |       |
|                | CA_2A-12A  | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 12   | 10M      | 737.5    | 5095        | 23.51      | 23.30           |                 |       |
|                |            | Band 12    | 10M      | 707.5       | 23095      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.27      | 23.09           |                 |       |
|                | CA_2A-13A  | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 13   | 10M      | 751      | 5230        | 23.53      | 23.30           |                 |       |
|                |            | Band 13    | 10M      | 782         | 23230      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 22.75      | 22.68           |                 |       |
|                | CA_2A-14A  | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 14   | 10M      | 763      | 5330        | 23.40      | 23.30           |                 |       |
|                |            | Band 14    | 10M      | 793         | 23330      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.03      | 23.11           |                 |       |
|                | CA_2A-29A  | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 29   | 10M      | 722.5    | 9715        | 23.52      | 23.30           |                 |       |
|                |            | Band 29    | 10M      | 722.5       | 9715       | QPSK   | 1     | 0     | Band 30   | 10M      | 2355     | 9820        | 23.51      | 23.30           |                 |       |
|                | CA_2A-30A  | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.42      | 23.31           |                 |       |
|                |            | Band 30    | 10M      | 2310        | 27710      | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.42      | 23.31           |                 |       |
|                | CA_2A-66A  | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 23.40      | 23.30           |                 |       |
|                |            | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.25      | 23.09           |                 |       |
|                | CA_2A-71A  | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 71   | 20M      | 637      | 68786       | 23.50      | 23.30           |                 |       |
|                |            | Band 71    | 20M      | 673         | 133222     | QPSK   | 1     | 0     | Band 2    | 20M      | 1960     | 900         | 23.25      | 23.12           |                 |       |
|                | CA_4A-5A   | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 5    | 10M      | 881.5    | 2525        | 23.15      | 23.08           |                 |       |
|                |            | Band 5     | 10M      | 829         | 20450      | QPSK   | 1     | 0     | Band 4    | 20M      | 2132.5   | 2175        | 23.55      | 23.38           |                 |       |
|                | CA_4A-7A   | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 7    | 20M      | 2655     | 3100        | 23.28      | 23.08           |                 |       |
|                |            | Band 7     | 20M      | 2560        | 21350      | QPSK   | 1     | 0     | Band 4    | 20M      | 2132.5   | 2175        | 23.21      | 23.07           |                 |       |
|                | CA_4A-12A  | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 12   | 10M      | 737.5    | 5095        | 23.15      | 23.08           |                 |       |
|                |            | Band 12    | 10M      | 707.5       | 23095      | QPSK   | 1     | 0     | Band 4    | 20M      | 2132.5   | 2175        | 23.25      | 23.09           |                 |       |
|                | CA_4A-13A  | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 13   | 10M      | 751      | 5230        | 23.16      | 23.08           |                 |       |
|                |            | Band 13    | 10M      | 782         | 23230      | QPSK   | 1     | 0     | Band 4    | 20M      | 2132.5   | 2175        | 22.86      | 22.68           |                 |       |
|                | CA_4A-29A  | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 29   | 10M      | 722.5    | 9715        | 23.16      | 23.08           |                 |       |
|                |            | Band 29    | 10M      | 722.5       | 9715       | QPSK   | 1     | 0     | Band 30   | 10M      | 2355     | 9820        | 23.18      | 23.08           |                 |       |
|                | CA_4A-66A  | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 23.16      | 23.08           |                 |       |
|                |            | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 4    | 20M      | 2132.5   | 2175        | 23.28      | 23.09           |                 |       |
|                | CA_4A-71A  | Band 4     | 20M      | 1732.5      | 20175      | QPSK   | 1     | 0     | Band 71   | 20M      | 637      | 68786       | 23.19      | 23.08           |                 |       |
|                |            | Band 71    | 20M      | 673         | 133222     | QPSK   | 1     | 0     | Band 4    | 20M      | 2132.5   | 2175        | 23.23      | 23.12           |                 |       |
|                | CA_5A-7A   | Band 5     | 10M      | 829         | 20450      | QPSK   | 1     | 0     | Band 7    | 20M      | 2655     | 3100        | 23.45      | 23.38           |                 |       |
|                |            | Band 7     | 20M      | 2560        | 21350      | QPSK   | 1     | 0     | Band 5    | 10M      | 881.5    | 2525        | 23.25      | 23.07           |                 |       |
|                | CA_5A-30A  | Band 5     | 10M      | 829         | 20450      | QPSK   | 1     | 0     | Band 30   | 10M      | 2355     | 9820        | 23.50      | 23.38           |                 |       |
|                |            | Band 30    | 10M      | 2310        | 27710      | QPSK   | 1     | 0     | Band 5    | 10M      | 881.5    | 2525        | 23.51      | 23.31           |                 |       |
|                | CA_5A-41A  | Band 5     | 10M      | 829         | 20450      | QPSK   | 1     | 0     | Band 41   | 20M      | 2593     | 40620       | 23.55      | 23.38           |                 |       |
|                |            | Band 41    | 20M      | 2636.5      | 41055      | QPSK   | 1     | 0     | Band 5    | 10M      | 881.5    | 2525        | 22.99      | 22.89           |                 |       |
|                | CA_5A-66A  | Band 5     | 10M      | 829         | 20450      | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 23.54      | 23.38           |                 |       |
|                |            | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 5    | 10M      | 881.5    | 2525        | 23.29      | 23.09           |                 |       |
|                | CA_7A-12A  | Band 7     | 20M      | 2560        | 21350      | QPSK   | 1     | 0     | Band 12   | 10M      | 737.5    | 5095        | 23.15      | 23.07           |                 |       |
|                |            | Band 12    | 10M      | 707.5       | 23095      | QPSK   | 1     | 0     | Band 7    | 20M      | 2655     | 3100        | 23.22      | 23.09           |                 |       |
|                | CA_7A-66A  | Band 7     | 20M      | 2560        | 21350      | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 23.15      | 23.07           |                 |       |
|                |            | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 7    | 20M      | 2655     | 3100        | 22.89      | 23.09           |                 |       |
|                | CA_12A-30A | Band 12    | 10M      | 707.5       | 23095      | QPSK   | 1     | 0     | Band 30   | 10M      | 2355     | 9820        | 23.31      | 23.09           |                 |       |
|                |            | Band 30    | 10M      | 2310        | 27710      | QPSK   | 1     | 0     | Band 12   | 10M      | 737.5    | 5095        | 23.45      | 23.31           |                 |       |
|                | CA_12A-66A | Band 12    | 10M      | 707.5       | 23095      | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 23.30      | 23.09           |                 |       |
|                |            | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 12   | 10M      | 737.5    | 5095        | 23.15      | 23.09           |                 |       |
|                | CA_13A-66A | Band 13    | 10M      | 782         | 23230      | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 22.85      | 22.68           |                 |       |
|                |            | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 13   | 10M      | 751      | 5230        | 23.29      | 23.09           |                 |       |
|                | CA_14A-30A | Band 14    | 10M      | 793         | 23330      | QPSK   | 1     | 0     | Band 30   | 10M      | 2355     | 9820        | 23.06      | 23.11           |                 |       |
|                |            | Band 30    | 10M      | 2310        | 27710      | QPSK   | 1     | 0     | Band 14   | 10M      | 763      | 5330        | 23.54      | 23.31           |                 |       |
|                | CA_14A-66A | Band 14    | 10M      | 793         | 23330      | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 23.05      | 23.11           |                 |       |
|                |            | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 14   | 10M      | 763      | 5330        | 23.26      | 23.09           |                 |       |
|                | CA_25A-26A | Band 25    | 20M      | 1860        | 26140      | QPSK   | 1     | 0     | Band 26   | 15M      | 876.5    | 8865        | 23.36      | 23.18           |                 |       |
|                |            | Band 26    | 15M      | 821.5       | 26765      | QPSK   | 1     | 0     | Band 25   | 20M      | 1962.5   | 8365        | 23.25      | 23.09           |                 |       |
|                | CA_25A-41A | Band 25    | 20M      | 1860        | 26140      | QPSK   | 1     | 0     | Band 41   | 20M      | 2593     | 40620       | 23.05      | 23.18           |                 |       |
|                |            | Band 41    | 20M      | 2636.5      | 41055      | QPSK   | 1     | 0     | Band 25   | 20M      | 1962.5   | 8365        | 23.10      | 22.89           |                 |       |
|                | CA_26A-41A | Band 26    | 15M      | 821.5       | 26765      | QPSK   | 1     | 0     | Band 41   | 20M      | 2593     | 40620       | 23.25      | 23.09           |                 |       |
|                |            | Band 41    | 20M      | 2636.5      | 41055      | QPSK   | 1     | 0     | Band 26   | 15M      | 876.5    | 8865        | 23.05      | 22.89           |                 |       |
|                | CA_29A-30A | Band 30    | 10M      | 2310        | 27710      | QPSK   | 1     | 0     | Band 29   | 10M      | 722.5    | 9715        | 23.51      | 23.31           |                 |       |
|                |            | Band 29    | 10M      | 722.5       | 9715       | QPSK   | 1     | 0     | Band 29   | 10M      | 722.5    | 9715        | 23.25      | 23.09           |                 |       |
|                | CA_29A-66A | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 66   | 20M      | 2155     | 66886       | 23.45      | 23.31           |                 |       |
|                |            | Band 30    | 10M      | 2310        | 27710      | QPSK   | 1     | 0     | Band 30   | 10M      | 2355     | 9820        | 22.98      | 23.09           |                 |       |
|                | CA_30A-66A | Band 66    | 20M      | 1720        | 132072     | QPSK   | 1     | 0     | Band 2    | 20M      | 1959.8   | 898         | 23.42      | 23.30           |                 |       |
|                |            | Band 2     | 20M      | 1860        | 18700      | QPSK   | 1     | 0     | Band 5    | 10M      | 883.9    | 2549        | 23.55      | 23.38           |                 |       |
|                | Intra-Band | Contiguous | CA_5B    | Band 5      | 10M        | 829    | 20450 | QPSK  | 1         | 0        | Band 7   | 5M          | 2678.2     | 3332            | 23.24           | 23.06 |
|                |            |            | CA_7C    | Band 7      | 20M        | 2560   | 21350 | QPSK  | 1         | 0        | Band 7   | 20M         | 2660.2     | 3152            | 23.15           | 23.07 |
| CA_12B         |            |            | Band 12  | 5M          | 707.5      | 23095  | QPSK  | 1     | 0         | Band 12  | 10M      | 744.7       | 5167       | 23.11           | 22.98           |       |
| CA_41C         |            |            | Band 41  | 20M         | 2636.5     | 41055  | QPSK  | 1     | 0         | Band 41  | 20M      | 2656.3      | 41253      | 23.10           | 22.89           |       |
| CA_66B         |            |            | Band 66  | 15M         | 1717.5     | 132047 | QPSK  | 1     | 0         | Band 66  | 5M       | 2121.8      | 66554      | 23.16           | 22.96           |       |
| Non-Contiguous |            | CA_66C     | Band 66  | 20M         | 1720       | 132072 | QPSK  | 1     | 0         | Band 66  | 20M      | 2139.8      | 66734      | 23.30           | 23.09           |       |
|                |            | CA_2A-2A   | Band 2   | 20M         | 1860       | 18700  | QPSK  | 1     | 0         | Band 2   | 5M       | 1987.5      | 1175       | 23.49           | 23.30           |       |
|                |            | CA_4A-4A   | Band 4   | 20M         | 1732.5     | 20175  | QPSK  | 1     | 0         | Band 4   | 5M       | 2152.5      | 2375       | 23.13           | 23.08           |       |
|                |            | CA_5A-5A   | Band 5   | 10M         | 829        | 20450  | QPSK  | 1     | 0         | Band 5   | 5M       | 891.5       | 2625       | 23.45           | 23.38           |       |
|                |            | CA_7A-7A   | Band 7   | 20M         | 2560       | 21350  | QPSK  | 1     | 0         | Band 7   | 5M       | 2622.5      | 2775       | 23.29           | 23.07           |       |
| Inter-Band     | CA_66A-71A | CA_25A-25A | Band 25  | 20M         | 1860       | 26140  | QPSK  | 1     | 0         | Band 25  | 5M       | 1992.5      | 8695       | 23.31           | 23.18           |       |
|                |            | CA_41A-41A | Band 41  | 20M         | 2636.5     | 41055  | QPSK  | 1     | 0         | Band 41  | 5M       | 2498.5      | 39675      | 23.00           | 22.89           |       |
|                |            | CA_66A-66A | Band 66  | 20M         | 1720       | 132072 | QPSK  | 1     | 0         | Band 66  | 5M       | 2197.5      | 67311      | 23.23           | 23.09           |       |
|                |            | CA_66A-71A | Band 66  | 20M         | 1720       | 132072 | QPSK  | 1     | 0         | Band 71  | 20M      | 637         | 68786      | 23.26           | 23.09           |       |
|                |            | Band 71    | 20M      | 673         | 133222     | QPSK   | 1     | 0     | Band 66   | 20M      | 2139.8   | 66734       | 23.12      | 23.12           |                 |       |





| 2.4GHz WLAN |                   | Full Power |                 |                     |               |              |
|-------------|-------------------|------------|-----------------|---------------------|---------------|--------------|
|             | Mode              | Channel    | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 2.4GHz WLAN | 802.11b 1Mbps     | 1          | 2412            | 20.78               | 22.50         | 100          |
|             |                   | 6          | 2437            | 20.84               | 22.50         |              |
|             |                   | 11         | 2462            | 20.92               | 22.50         |              |
|             | 802.11g 6Mbps     | 1          | 2412            | 20.07               | 21.50         | 98.26        |
|             |                   | 6          | 2437            | 20.20               | 21.50         |              |
|             |                   | 11         | 2462            | 20.17               | 21.50         |              |
|             | 802.11n-HT20 MCS0 | 1          | 2412            | 19.32               | 20.50         | 98.14        |
|             |                   | 6          | 2437            | 19.42               | 20.50         |              |
|             |                   | 11         | 2462            | 19.52               | 20.50         |              |

| 2.4GHz WLAN |                   | Receiver On |                 |                     |               |              |
|-------------|-------------------|-------------|-----------------|---------------------|---------------|--------------|
|             | Mode              | Channel     | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 2.4GHz WLAN | 802.11b 1Mbps     | 1           | 2412            | 16.53               | 17.00         | 100          |
|             |                   | 6           | 2437            | 16.41               | 17.00         |              |
|             |                   | 11          | 2462            | 16.35               | 17.00         |              |
|             | 802.11g 6Mbps     | 1           | 2412            | Not Required        | 17.00         | 98.26        |
|             |                   | 6           | 2437            |                     | 17.00         |              |
|             |                   | 11          | 2462            |                     | 17.00         |              |
|             | 802.11n-HT20 MCS0 | 1           | 2412            | Not Required        | 17.00         | 98.14        |
|             |                   | 6           | 2437            |                     | 17.00         |              |
|             |                   | 11          | 2462            |                     | 17.00         |              |

| 5GHz WLAN           |                     | Full Power |                 |                     |               |              |
|---------------------|---------------------|------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel    | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.2GHz WLAN         | 802.11a 6Mbps       | 36         | 5180            | 17.54               | 19.00         | 98.26        |
|                     |                     | 40         | 5200            | 17.40               | 19.00         |              |
|                     |                     | 44         | 5220            | 17.20               | 19.00         |              |
|                     |                     | 48         | 5240            | 17.03               | 19.00         |              |
|                     | 802.11n-HT20 MCS0   | 36         | 5180            | 17.77               | 19.00         | 98.14        |
|                     |                     | 40         | 5200            | 17.68               | 19.00         |              |
|                     |                     | 44         | 5220            | 17.47               | 19.00         |              |
|                     |                     | 48         | 5240            | 17.27               | 19.00         |              |
|                     | 802.11n-HT40 MCS0   | 38         | 5190            | 17.31               | 19.00         | 96.3         |
|                     |                     | 46         | 5230            | 17.29               | 19.00         |              |
|                     | 802.11ac-VHT20 MCS0 | 36         | 5180            | 17.73               | 19.00         | 98.15        |
|                     |                     | 40         | 5200            | 17.74               | 19.00         |              |
|                     |                     | 44         | 5220            | 17.57               | 19.00         |              |
|                     |                     | 48         | 5240            | 17.43               | 19.00         |              |
|                     | 802.11ac-VHT40 MCS0 | 38         | 5190            | 17.59               | 19.00         | 96.3         |
|                     |                     | 46         | 5230            | 17.48               | 19.00         |              |
| 802.11ac-VHT80 MCS0 | 42                  | 5210       | 14.28           | 16.00               | 92.71         |              |

| 5GHz WLAN           |                     | Receiver On |                 |                     |               |              |
|---------------------|---------------------|-------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel     | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.2GHz WLAN         | 802.11a 6Mbps       | 36          | 5180            | Not Required        | 15.50         | 98.26        |
|                     |                     | 40          | 5200            |                     | 15.50         |              |
|                     |                     | 44          | 5220            |                     | 15.50         |              |
|                     |                     | 48          | 5240            |                     | 15.50         |              |
|                     | 802.11n-HT20 MCS0   | 36          | 5180            | Not Required        | 15.50         | 98.14        |
|                     |                     | 40          | 5200            |                     | 15.50         |              |
|                     |                     | 44          | 5220            |                     | 15.50         |              |
|                     |                     | 48          | 5240            |                     | 15.50         |              |
|                     | 802.11n-HT40 MCS0   | 38          | 5190            | Not Required        | 15.50         | 96.3         |
|                     |                     | 46          | 5230            |                     | 15.50         |              |
|                     | 802.11ac-VHT20 MCS0 | 36          | 5180            | Not Required        | 15.50         | 98.15        |
|                     |                     | 40          | 5200            |                     | 15.50         |              |
|                     |                     | 44          | 5220            |                     | 15.50         |              |
|                     |                     | 48          | 5240            |                     | 15.50         |              |
|                     | 802.11ac-VHT40 MCS0 | 38          | 5190            | Not Required        | 15.50         | 96.3         |
|                     |                     | 46          | 5230            |                     | 15.50         |              |
| 802.11ac-VHT80 MCS0 | 42                  | 5210        | Not Required    | 15.50               | 92.71         |              |

| 5GHz WLAN           |                     | Full Power |                 |                     |               |              |
|---------------------|---------------------|------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel    | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.3GHz WLAN         | 802.11a 6Mbps       | 52         | 5260            | 17.27               | 19.00         | 98.26        |
|                     |                     | 56         | 5280            | 17.34               | 19.00         |              |
|                     |                     | 60         | 5300            | 17.59               | 19.00         |              |
|                     |                     | 64         | 5320            | 17.71               | 19.00         |              |
|                     | 802.11n-HT20 MCS0   | 52         | 5260            | 17.16               | 19.00         | 98.14        |
|                     |                     | 56         | 5280            | 17.14               | 19.00         |              |
|                     |                     | 60         | 5300            | 17.44               | 19.00         |              |
|                     |                     | 64         | 5320            | 17.57               | 19.00         |              |
|                     | 802.11n-HT40 MCS0   | 54         | 5270            | 17.78               | 19.00         | 96.3         |
|                     |                     | 62         | 5310            | 17.98               | 19.00         |              |
|                     | 802.11ac-VHT20 MCS0 | 52         | 5260            | 17.17               | 19.00         | 98.15        |
|                     |                     | 56         | 5280            | 17.06               | 19.00         |              |
|                     |                     | 60         | 5300            | 17.49               | 19.00         |              |
|                     |                     | 64         | 5320            | 17.40               | 19.00         |              |
|                     | 802.11ac-VHT40 MCS0 | 54         | 5270            | 17.59               | 19.00         | 96.3         |
|                     |                     | 62         | 5310            | 17.61               | 19.00         |              |
| 802.11ac-VHT80 MCS0 | 58                  | 5290       | 14.85           | 16.00               | 92.71         |              |

| 5GHz WLAN           |                     | Receiver On |                 |                     |               |              |
|---------------------|---------------------|-------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel     | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.3GHz WLAN         | 802.11a 6Mbps       | 52          | 5260            | Not Required        | 15.50         | 98.26        |
|                     |                     | 56          | 5280            |                     | 15.50         |              |
|                     |                     | 60          | 5300            |                     | 15.50         |              |
|                     |                     | 64          | 5320            |                     | 15.50         |              |
|                     | 802.11n-HT20 MCS0   | 52          | 5260            | Not Required        | 15.50         | 98.14        |
|                     |                     | 56          | 5280            |                     | 15.50         |              |
|                     |                     | 60          | 5300            |                     | 15.50         |              |
|                     |                     | 64          | 5320            |                     | 15.50         |              |
|                     | 802.11n-HT40 MCS0   | 54          | 5270            | Not Required        | 15.31         | 96.3         |
|                     |                     | 62          | 5310            |                     | 15.36         |              |
|                     | 802.11ac-VHT20 MCS0 | 52          | 5260            | Not Required        | 15.50         | 98.15        |
|                     |                     | 56          | 5280            |                     | 15.50         |              |
|                     |                     | 60          | 5300            |                     | 15.50         |              |
|                     |                     | 64          | 5320            |                     | 15.50         |              |
|                     | 802.11ac-VHT40 MCS0 | 54          | 5270            | Not Required        | 15.50         | 96.3         |
|                     |                     | 62          | 5310            |                     | 15.50         |              |
| 802.11ac-VHT80 MCS0 | 58                  | 5290        | Not Required    | 15.50               | 92.71         |              |

| 5GHz WLAN           |                     | Full Power |                 |                     |               |              |
|---------------------|---------------------|------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel    | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.5GHz WLAN         | 802.11a 6Mbps       | 100        | 5500            | 17.33               | 19.00         | 98.26        |
|                     |                     | 116        | 5580            | 16.71               | 18.00         |              |
|                     |                     | 132        | 5660            | 17.73               | 19.00         |              |
|                     |                     | 140        | 5700            | 18.00               | 19.00         |              |
|                     | 802.11n-HT20 MCS0   | 100        | 5500            | 17.58               | 19.00         | 98.14        |
|                     |                     | 116        | 5580            | 17.19               | 19.00         |              |
|                     |                     | 132        | 5660            | 18.10               | 19.00         |              |
|                     |                     | 140        | 5700            | 18.14               | 19.00         |              |
|                     | 802.11n-HT40 MCS0   | 102        | 5510            | 17.57               | 19.00         | 96.3         |
|                     |                     | 110        | 5550            | 17.56               | 19.00         |              |
|                     |                     | 134        | 5670            | 18.46               | 19.00         |              |
|                     | 802.11ac-VHT20 MCS0 | 100        | 5500            | 17.68               | 19.00         | 98.15        |
|                     |                     | 116        | 5580            | 17.23               | 19.00         |              |
|                     |                     | 132        | 5660            | 18.00               | 19.00         |              |
|                     |                     | 140        | 5700            | 18.07               | 19.00         |              |
|                     | 802.11ac-VHT40 MCS0 | 102        | 5510            | 18.10               | 19.00         | 96.3         |
| 110                 |                     | 5550       | 16.97           | 18.00               |               |              |
| 802.11ac-VHT80 MCS0 | 134                 | 5670       | 18.71           | 19.00               | 92.71         |              |

| 5GHz WLAN           |                     | Receiver On |                 |                     |               |              |
|---------------------|---------------------|-------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel     | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.5GHz WLAN         | 802.11a 6Mbps       | 100         | 5500            | Not Required        | 17.00         | 98.26        |
|                     |                     | 116         | 5580            |                     | 17.00         |              |
|                     |                     | 132         | 5660            |                     | 17.00         |              |
|                     |                     | 140         | 5700            |                     | 17.00         |              |
|                     | 802.11n-HT20 MCS0   | 100         | 5500            | Not Required        | 17.00         | 98.14        |
|                     |                     | 116         | 5580            |                     | 17.00         |              |
|                     |                     | 132         | 5660            |                     | 17.00         |              |
|                     |                     | 140         | 5700            |                     | 17.00         |              |
|                     | 802.11n-HT40 MCS0   | 102         | 5510            | Not Required        | 16.15         | 96.3         |
|                     |                     | 110         | 5550            |                     | 16.19         |              |
|                     |                     | 134         | 5670            |                     | 16.51         |              |
|                     | 802.11ac-VHT20 MCS0 | 100         | 5500            | Not Required        | 17.00         | 98.15        |
|                     |                     | 116         | 5580            |                     | 17.00         |              |
|                     |                     | 132         | 5660            |                     | 17.00         |              |
|                     |                     | 140         | 5700            |                     | 17.00         |              |
|                     | 802.11ac-VHT40 MCS0 | 102         | 5510            | Not Required        | 17.00         | 96.3         |
| 110                 |                     | 5550        | 17.00           |                     |               |              |
| 802.11ac-VHT80 MCS0 | 134                 | 5670        | Not Required    | 17.00               | 92.71         |              |

| 5GHz WLAN           |                     | Full Power |                 |                     |               |              |
|---------------------|---------------------|------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel    | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.8GHz WLAN         | 802.11a 6Mbps       | 149        | 5745            | 18.17               | 19.00         | 98.26        |
|                     |                     | 157        | 5785            | 18.21               | 19.00         |              |
|                     |                     | 165        | 5825            | 18.25               | 19.00         |              |
|                     | 802.11n-HT20 MCS0   | 149        | 5745            | 17.16               | 19.00         | 98.14        |
|                     |                     | 157        | 5785            | 17.17               | 19.00         |              |
|                     |                     | 165        | 5825            | 17.07               | 19.00         |              |
|                     | 802.11n-HT40 MCS0   | 151        | 5755            | 17.72               | 18.50         | 96.3         |
|                     |                     | 159        | 5795            | 17.85               | 18.50         |              |
|                     | 802.11ac-VHT20 MCS0 | 149        | 5745            | 17.06               | 19.00         | 98.15        |
|                     |                     | 157        | 5785            | 17.26               | 19.00         |              |
|                     |                     | 165        | 5825            | 17.01               | 19.00         |              |
|                     | 802.11ac-VHT40 MCS0 | 151        | 5755            | 17.22               | 18.50         | 96.3         |
| 159                 |                     | 5795       | 17.18           | 18.50               |               |              |
| 802.11ac-VHT80 MCS0 | 155                 | 5775       | 17.26           | 18.50               | 92.71         |              |

| 5GHz WLAN           |                     | Receiver On |                 |                     |               |              |
|---------------------|---------------------|-------------|-----------------|---------------------|---------------|--------------|
|                     | Mode                | Channel     | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |
| 5.8GHz WLAN         | 802.11a 6Mbps       | 149         | 5745            | Not Required        | 18.00         | 98.26        |
|                     |                     | 157         | 5785            |                     | 17.75         |              |
|                     |                     | 165         | 5825            |                     | 17.77         |              |
|                     | 802.11n-HT20 MCS0   | 149         | 5745            | Not Required        | 18.00         | 98.14        |
|                     |                     | 157         | 5785            |                     | 18.00         |              |
|                     |                     | 165         | 5825            |                     | 18.00         |              |
|                     | 802.11n-HT40 MCS0   | 151         | 5755            | Not Required        | 17.50         | 96.3         |
|                     |                     | 159         | 5795            |                     | 17.50         |              |
|                     | 802.11ac-VHT20 MCS0 | 149         | 5745            | Not Required        | 18.00         | 98.15        |
|                     |                     | 157         | 5785            |                     | 18.00         |              |
|                     |                     | 165         | 5825            |                     | 18.00         |              |
|                     | 802.11ac-VHT40 MCS0 | 151         | 5755            | Not Required        | 17.50         | 96.3         |
| 159                 |                     | 5795        | 17.50           |                     |               |              |
| 802.11ac-VHT80 MCS0 | 155                 | 5775        | Not Required    | 17.50               | 92.71         |              |



| 2.4GHz WLAN       |         | Sensor On/Hotspot On |                     |               |              |  |
|-------------------|---------|----------------------|---------------------|---------------|--------------|--|
| Mode              | Channel | Frequency (MHz)      | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11b 1Mbps     | 1       | 2412                 | 19.66               | 20            | 100          |  |
|                   | 6       | 2437                 | 19.39               | 20            |              |  |
|                   | 11      | 2462                 | 19.44               | 20            |              |  |
| 802.11g 6Mbps     | 1       | 2412                 | Not Required        | 20            | 98.26        |  |
|                   | 6       | 2437                 |                     | 20            |              |  |
|                   | 11      | 2462                 |                     | 20            |              |  |
| 802.11n-HT20 MCS0 | 1       | 2412                 | Not Required        | 20            | 98.14        |  |
|                   | 6       | 2437                 |                     | 20            |              |  |
|                   | 11      | 2462                 |                     | 20            |              |  |

| 2.4GHz WLAN       |         | Simultaneous-handheld |                     |               |              |  |
|-------------------|---------|-----------------------|---------------------|---------------|--------------|--|
| Mode              | Channel | Frequency (MHz)       | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11b 1Mbps     | 1       | 2412                  | 20.78               | 22.5          | 100          |  |
|                   | 6       | 2437                  | 20.84               | 22.5          |              |  |
|                   | 11      | 2462                  | 20.92               | 22.5          |              |  |
| 802.11g 6Mbps     | 1       | 2412                  | 20.07               | 21.5          | 98.26        |  |
|                   | 6       | 2437                  | 20.20               | 21.5          |              |  |
|                   | 11      | 2462                  | 20.17               | 21.5          |              |  |
| 802.11n-HT20 MCS0 | 1       | 2412                  | 19.32               | 20.5          | 98.14        |  |
|                   | 6       | 2437                  | 19.42               | 20.5          |              |  |
|                   | 11      | 2462                  | 19.52               | 20.5          |              |  |

| 5GHz WLAN           |         | Sensor On/Hotspot On |                     |               |              |  |
|---------------------|---------|----------------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz)      | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 36      | 5180                 | Not Required        | 14.50         | 98.26        |  |
|                     | 40      | 5200                 |                     | 14.50         |              |  |
|                     | 44      | 5220                 |                     | 14.50         |              |  |
|                     | 48      | 5240                 |                     | 14.50         |              |  |
| 802.11n-HT20 MCS0   | 36      | 5180                 | Not Required        | 14.50         | 98.14        |  |
|                     | 40      | 5200                 |                     | 14.50         |              |  |
|                     | 44      | 5220                 |                     | 14.50         |              |  |
|                     | 48      | 5240                 |                     | 14.50         |              |  |
| 802.11n-HT40 MCS0   | 38      | 5190                 | 14.36               | 14.50         | 96.3         |  |
|                     | 46      | 5230                 | 14.09               | 14.50         |              |  |
| 802.11ac-VHT20 MCS0 | 36      | 5180                 | Not Required        | 14.50         | 98.15        |  |
|                     | 40      | 5200                 |                     | 14.50         |              |  |
|                     | 44      | 5220                 |                     | 14.50         |              |  |
|                     | 48      | 5240                 |                     | 14.50         |              |  |
| 802.11ac-VHT40 MCS0 | 38      | 5190                 | Not Required        | 14.50         | 96.3         |  |
|                     | 46      | 5230                 |                     | 14.50         |              |  |
| 802.11ac-VHT80 MCS0 | 42      | 5210                 | Not Required        | 14.00         | 92.71        |  |

| 5GHz WLAN           |         | Simultaneous-handheld |                     |               |              |  |
|---------------------|---------|-----------------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz)       | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 36      | 5180                  | 17.54               | 18.50         | 98.26        |  |
|                     | 40      | 5200                  | 17.40               | 18.50         |              |  |
|                     | 44      | 5220                  | 17.20               | 18.50         |              |  |
|                     | 48      | 5240                  | 17.03               | 18.50         |              |  |
| 802.11n-HT20 MCS0   | 36      | 5180                  | 17.77               | 18.50         | 98.14        |  |
|                     | 40      | 5200                  | 17.68               | 18.50         |              |  |
|                     | 44      | 5220                  | 17.47               | 18.50         |              |  |
|                     | 48      | 5240                  | 17.27               | 18.50         |              |  |
| 802.11n-HT40 MCS0   | 38      | 5190                  | 17.31               | 18.50         | 96.3         |  |
|                     | 46      | 5230                  | 17.29               | 18.50         |              |  |
| 802.11ac-VHT20 MCS0 | 36      | 5180                  | 17.73               | 18.50         | 98.15        |  |
|                     | 40      | 5200                  | 17.74               | 18.50         |              |  |
|                     | 44      | 5220                  | 17.57               | 18.50         |              |  |
|                     | 48      | 5240                  | 17.43               | 18.50         |              |  |
| 802.11ac-VHT40 MCS0 | 38      | 5190                  | 17.59               | 18.50         | 96.3         |  |
|                     | 46      | 5230                  | 17.48               | 18.50         |              |  |
| 802.11ac-VHT80 MCS0 | 42      | 5210                  | 14.28               | 16.00         | 92.71        |  |

| 5GHz WLAN           |         | Sensor On       |                     |               |              |  |
|---------------------|---------|-----------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 52      | 5260            | Not Required        | 14.50         | 98.26        |  |
|                     | 56      | 5280            |                     | 14.50         |              |  |
|                     | 60      | 5300            |                     | 14.50         |              |  |
|                     | 64      | 5320            |                     | 14.50         |              |  |
| 802.11n-HT20 MCS0   | 52      | 5260            | Not Required        | 14.50         | 98.14        |  |
|                     | 56      | 5280            |                     | 14.50         |              |  |
|                     | 60      | 5300            |                     | 14.50         |              |  |
|                     | 64      | 5320            |                     | 14.50         |              |  |
| 802.11n-HT40 MCS0   | 54      | 5270            | 13.48               | 14.50         | 96.3         |  |
|                     | 62      | 5310            | 13.49               | 14.50         |              |  |
| 802.11ac-VHT20 MCS0 | 52      | 5260            | Not Required        | 14.50         | 98.15        |  |
|                     | 56      | 5280            |                     | 14.50         |              |  |
|                     | 60      | 5300            |                     | 14.50         |              |  |
|                     | 64      | 5320            |                     | 14.50         |              |  |
| 802.11ac-VHT40 MCS0 | 54      | 5270            | Not Required        | 14.50         | 96.3         |  |
|                     | 62      | 5310            |                     | 14.50         |              |  |
| 802.11ac-VHT80 MCS0 | 58      | 5290            | Not Required        | 14.00         | 92.71        |  |

| 5GHz WLAN           |         | Simultaneous-handheld |                     |               |              |  |
|---------------------|---------|-----------------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz)       | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 52      | 5260                  | 17.27               | 18.00         | 98.26        |  |
|                     | 56      | 5280                  | 17.34               | 18.00         |              |  |
|                     | 60      | 5300                  | 17.59               | 18.00         |              |  |
|                     | 64      | 5320                  | 17.71               | 18.00         |              |  |
| 802.11n-HT20 MCS0   | 52      | 5260                  | 17.16               | 18.00         | 98.14        |  |
|                     | 56      | 5280                  | 17.14               | 18.00         |              |  |
|                     | 60      | 5300                  | 17.44               | 18.00         |              |  |
|                     | 64      | 5320                  | 17.57               | 18.00         |              |  |
| 802.11n-HT40 MCS0   | 54      | 5270                  | 17.78               | 18.00         | 96.3         |  |
|                     | 62      | 5310                  | 17.98               | 18.00         |              |  |
| 802.11ac-VHT20 MCS0 | 52      | 5260                  | 17.17               | 18.00         | 98.15        |  |
|                     | 56      | 5280                  | 17.06               | 18.00         |              |  |
|                     | 60      | 5300                  | 17.49               | 18.00         |              |  |
|                     | 64      | 5320                  | 17.40               | 18.00         |              |  |
| 802.11ac-VHT40 MCS0 | 54      | 5270                  | 17.59               | 18.00         | 96.3         |  |
|                     | 62      | 5310                  | 17.81               | 18.00         |              |  |
| 802.11ac-VHT80 MCS0 | 58      | 5290                  | 14.85               | 16            | 92.71        |  |

| 5GHz WLAN           |         | Sensor On       |                     |               |              |  |
|---------------------|---------|-----------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz) | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 100     | 5500            | Not Required        | 15.00         | 98.26        |  |
|                     | 116     | 5580            |                     | 15.00         |              |  |
|                     | 132     | 5660            |                     | 15.00         |              |  |
|                     | 140     | 5700            |                     | 15.00         |              |  |
| 802.11n-HT20 MCS0   | 100     | 5500            | Not Required        | 15.00         | 98.14        |  |
|                     | 116     | 5580            |                     | 15.00         |              |  |
|                     | 132     | 5660            |                     | 15.00         |              |  |
|                     | 140     | 5700            |                     | 15.00         |              |  |
| 802.11n-HT40 MCS0   | 102     | 5510            | 14.46               | 15.00         | 96.3         |  |
|                     | 110     | 5550            | 14.63               | 15.00         |              |  |
|                     | 134     | 5670            | 14.69               | 15.00         |              |  |
| 802.11ac-VHT20 MCS0 | 100     | 5500            | Not Required        | 15.00         | 98.15        |  |
|                     | 116     | 5580            |                     | 15.00         |              |  |
|                     | 132     | 5660            |                     | 15.00         |              |  |
|                     | 140     | 5700            |                     | 15.00         |              |  |
| 802.11ac-VHT40 MCS0 | 102     | 5510            | Not Required        | 15.00         | 96.3         |  |
|                     | 110     | 5550            |                     | 15.00         |              |  |
|                     | 134     | 5670            |                     | 15.00         |              |  |
| 802.11ac-VHT80 MCS0 | 106     | 5530            | Not Required        | 14.5          | 92.71        |  |

| 5GHz WLAN           |         | Simultaneous-handheld |                     |               |              |  |
|---------------------|---------|-----------------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz)       | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 100     | 5500                  | Not Required        | 18.50         | 98.26        |  |
|                     | 116     | 5580                  |                     | 18.50         |              |  |
|                     | 132     | 5660                  |                     | 18.50         |              |  |
|                     | 140     | 5700                  |                     | 18.50         |              |  |
| 802.11n-HT20 MCS0   | 100     | 5500                  | Not Required        | 18.50         | 98.14        |  |
|                     | 116     | 5580                  |                     | 18.50         |              |  |
|                     | 132     | 5660                  |                     | 18.50         |              |  |
|                     | 140     | 5700                  |                     | 18.50         |              |  |
| 802.11n-HT40 MCS0   | 102     | 5510                  | 17.57               | 18.50         | 96.3         |  |
|                     | 110     | 5550                  | 17.56               | 18.50         |              |  |
|                     | 134     | 5670                  | 18.46               | 18.50         |              |  |
| 802.11ac-VHT20 MCS0 | 100     | 5500                  | Not Required        | 18.50         | 98.15        |  |
|                     | 116     | 5580                  |                     | 18.50         |              |  |
|                     | 132     | 5660                  |                     | 18.50         |              |  |
|                     | 140     | 5700                  |                     | 18.50         |              |  |
| 802.11ac-VHT40 MCS0 | 102     | 5510                  | Not Required        | 18.50         | 96.3         |  |
|                     | 110     | 5550                  |                     | 18.50         |              |  |
|                     | 134     | 5670                  |                     | 18.50         |              |  |
| 802.11ac-VHT80 MCS0 | 106     | 5530                  | Not Required        | 16            | 92.71        |  |

| 5GHz WLAN           |         | Sensor On/Hotspot On |                     |               |              |  |
|---------------------|---------|----------------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz)      | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 149     | 5745                 | 14.38               | 14.50         | 98.26        |  |
|                     | 157     | 5785                 | 14.26               | 14.50         |              |  |
|                     | 165     | 5825                 | 14.45               | 14.50         |              |  |
| 802.11n-HT20 MCS0   | 149     | 5745                 | Not Required        | 14.50         | 98.14        |  |
|                     | 157     | 5785                 |                     | 14.50         |              |  |
|                     | 165     | 5825                 |                     | 14.50         |              |  |
| 802.11n-HT40 MCS0   | 151     | 5755                 | Not Required        | 14.00         | 96.3         |  |
|                     | 159     | 5795                 |                     | 14.00         |              |  |
| 802.11ac-VHT20 MCS0 | 149     | 5745                 | Not Required        | 14.50         | 98.15        |  |
|                     | 157     | 5785                 |                     | 14.50         |              |  |
|                     | 165     | 5825                 |                     | 14.50         |              |  |
| 802.11ac-VHT40 MCS0 | 151     | 5755                 | Not Required        | 14.00         | 96.3         |  |
|                     | 159     | 5795                 |                     | 14.00         |              |  |
| 802.11ac-VHT80 MCS0 | 155     | 5775                 | Not Required        | 14.00         | 92.71        |  |

| 5GHz WLAN           |         | Simultaneous-handheld |                     |               |              |  |
|---------------------|---------|-----------------------|---------------------|---------------|--------------|--|
| Mode                | Channel | Frequency (MHz)       | Average power (dBm) | Tune-Up Limit | Duty Cycle % |  |
| 802.11a 6Mbps       | 149     | 5745                  | 18.17               | 18.50         | 98.26        |  |
|                     | 157     | 5785                  | 18.21               | 18.50         |              |  |
|                     | 165     | 5825                  | 18.25               | 18.50         |              |  |
| 802.11n-HT20 MCS0   | 149     | 5745                  | 17.16               | 18.50         | 98.14        |  |
|                     | 157     | 5785                  | 17.17               | 18.50         |              |  |
|                     | 165     | 5825                  | 17.07               | 18.50         |              |  |
| 802.11n-HT40 MCS0   | 151     | 5755                  | 17.72               | 18.00         | 96.3         |  |
|                     | 159     | 5795                  | 17.85               | 18.00         |              |  |
| 802.11ac-VHT20 MCS0 | 149     | 5745                  | 17.06               | 18.50         | 98.15        |  |
|                     | 157     | 5785                  | 17.26               | 18.50         |              |  |
|                     | 165     | 5825                  | 17.01               | 18.50         |              |  |
| 802.11ac-VHT40 MCS0 | 151     | 5755                  | 17.22               | 18.00         | 96.3         |  |
|                     | 159     | 5795                  | 17.18               | 18.00         |              |  |
| 802.11ac-VHT80 MCS0 | 155     | 5775                  | 17.26               | 18.00         | 92.71        |  |

BT 2.0

| Mode          | Channel | Frequency (MHz) | Average power (dBm) |       |       |
|---------------|---------|-----------------|---------------------|-------|-------|
|               |         |                 | 1Mbps               | 2Mbps | 3Mbps |
| BR / EDR      | CH 00   | 2402            | 7.67                | 5.26  | 5.31  |
|               | CH 39   | 2441            | 7.20                | 4.39  | 4.26  |
|               | CH 76   | 2480            | 7.84                | 5.18  | 5.49  |
| Tune-up Limit |         |                 | 9                   | 6     | 6     |

BT 4.0

| Mode          | Channel | Frequency (MHz) | Average power (dBm) |
|---------------|---------|-----------------|---------------------|
|               |         |                 | GFSK                |
| LE            | CH 00   | 2402            | 7.51                |
|               | CH 19   | 2440            | 7.13                |
|               | CH 39   | 2480            | 7.58                |
| Tune-up Limit |         |                 | 9                   |

BT 5.0

| Mode          | Channel | Frequency (MHz) | Average power (dBm) |
|---------------|---------|-----------------|---------------------|
|               |         |                 | 1Mbps               |
| LE            | CH 00   | 2402            | 7.59                |
|               | CH 19   | 2440            | 7.11                |
|               | CH 39   | 2480            | 7.66                |
| Tune-up Limit |         |                 | 9                   |



**Appendix F. Supplemental Tuner Head & Body SAR Results**

The results are shown as follows.



### Head

| Mode          | Service/Modulation | Channel | Frequency (MHz) | RB Size | RB Offset | Test Position | Spacing | Measured 1g SAR (W/kg) | Average Value of Time Sweep (W/kg) |       |       |       |       |       |       |       |       |       |       |
|---------------|--------------------|---------|-----------------|---------|-----------|---------------|---------|------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|               |                    |         |                 |         |           |               |         |                        | Auto-Tune                          | 0     | 15    | 30    | 45    | 60    | 75    | 90    | 105   | 120   | 135   |
| GSM850        | GPRS 3 Tx slots    | 189     | 836.4           | -       | -         | Right Cheek   | 0mm     | 0.424                  | 0.511                              | 0.033 | 0.439 | 0.359 | 0.011 | 0.353 | 0.117 | 0.014 | 0.471 | 0.040 | 0.007 |
| GSM1900       | GPRS 3 Tx slots    | 661     | 1880            | -       | -         | Left Cheek    | 0mm     | 0.077                  | 0.109                              | 0.017 | 0.066 | 0.083 | 0.046 | 0.070 | 0.036 | 0.037 | 0.077 | 0.027 | 0.021 |
| WCDMA V       | RMC 12.2Kbps       | 4233    | 846.6           | -       | -         | Right Cheek   | 0mm     | 0.385                  | 0.465                              | 0.067 | 0.334 | 0.330 | 0.107 | 0.349 | 0.292 | 0.060 | 0.407 | 0.224 | 0.068 |
| WCDMA II      | RMC 12.2Kbps       | 9262    | 1852.4          | -       | -         | Right Cheek   | 0mm     | 0.141                  | 0.207                              | 0.070 | 0.067 | 0.176 | 0.063 | 0.049 | 0.122 | 0.132 | 0.030 | 0.034 | 0.026 |
| WCDMA IV      | RMC 12.2Kbps       | 1312    | 1712.4          | -       | -         | Right Cheek   | 0mm     | 0.172                  | 0.233                              | 0.240 | 0.230 | 0.085 | 0.039 | 0.042 | 0.209 | 0.169 | 0.040 | 0.022 | 0.020 |
| CDMA2000 BC10 | RC3 SO55           | 684     | 823.1           | -       | -         | Right Cheek   | 0mm     | 0.391                  | 0.478                              | 0.226 | 0.080 | 0.557 | 0.300 | 0.154 | 0.390 | 0.320 | 0.019 | 0.453 | 0.200 |
| CDMA2000 BC0  | RC3 SO55           | 384     | 836.52          | -       | -         | Right Cheek   | 0mm     | 0.396                  | 0.492                              | 0.225 | 0.148 | 0.014 | 0.442 | 0.190 | 0.045 | 0.392 | 0.062 | 0.009 | 0.308 |
| CDMA2000 BC1  | RC3 SO55           | 1175    | 1906.75         | -       | -         | Right Cheek   | 0mm     | 0.122                  | 0.162                              | 0.037 | 0.040 | 0.116 | 0.144 | 0.095 | 0.142 | 0.067 | 0.155 | 0.065 | 0.048 |
| LTE Band 71   | 20MQPSK            | 133322  | 683             | 1       | 0         | Left Cheek    | 0mm     | 0.183                  | 0.209                              | 0.100 | 0.089 | 0.042 | 0.009 | 0.039 | 0.118 | 0.024 | 0.014 | 0.094 | 0.005 |
| LTE Band 12   | 10MQPSK            | 23095   | 707.5           | 1       | 0         | Right Cheek   | 0mm     | 0.264                  | 0.303                              | 0.074 | 0.181 | 0.049 | 0.157 | 0.042 | 0.182 | 0.015 | 0.030 | 0.051 |       |
| LTE Band 13   | 10MQPSK            | 23230   | 782             | 1       | 0         | Right Cheek   | 0mm     | 0.247                  | 0.288                              | 0.241 | 0.271 | 0.100 | 0.032 | 0.119 | 0.212 | 0.266 | 0.100 | 0.061 |       |
| LTE Band 14   | 10MQPSK            | 23330   | 793             | 1       | 0         | Left Cheek    | 0mm     | 0.231                  | 0.269                              | 0.156 | 0.205 | 0.097 | 0.026 | 0.098 | 0.169 | 0.168 | 0.182 | 0.056 |       |
| LTE Band 26   | 15MQPSK            | 26865   | 831.5           | 1       | 0         | Right Cheek   | 0mm     | 0.206                  | 0.226                              | 0.179 | 0.074 | 0.211 | 0.097 | 0.188 | 0.215 | 0.193 | 0.013 | 0.124 |       |
| LTE Band 66   | 20MQPSK            | 132572  | 1770            | 1       | 0         | Right Cheek   | 0mm     | 0.191                  | 0.257                              | 0.204 | 0.184 | 0.184 | 0.148 | 0.172 | 0.132 | 0.095 | 0.044 | 0.075 |       |
| LTE Band 25   | 20MQPSK            | 26590   | 1905            | 1       | 0         | Right Cheek   | 0mm     | 0.124                  | 0.162                              | 0.142 | 0.175 | 0.140 | 0.154 | 0.082 | 0.188 | 0.168 | 0.083 | 0.181 |       |

### Body

| Mode          | Service/Modulation | Channel | Frequency (MHz) | RB Size | RB Offset | Test Position | Spacing | Measured 1g SAR (W/kg) | Average Value of Time Sweep (W/kg) |       |       |       |       |       |       |       |       |       |       |
|---------------|--------------------|---------|-----------------|---------|-----------|---------------|---------|------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|               |                    |         |                 |         |           |               |         |                        | Auto-Tune                          | 0     | 15    | 30    | 45    | 60    | 75    | 90    | 105   | 120   | 135   |
| GSM850        | GPRS 3 Tx slots    | 189     | 836.4           | -       | -         | Back          | 5mm     | 1.02                   | 1.330                              | 0.109 | 1.153 | 0.991 | 0.725 | 1.125 | 0.376 | 0.042 | 1.316 | 0.117 | 0.871 |
| GSM1900       | GPRS 3 Tx slots    | 810     | 1909.8          | -       | -         | Bottom Side   | 5mm     | 1.2                    | 1.600                              | 0.524 | 1.568 | 1.588 | 1.101 | 1.530 | 0.927 | 1.027 | 1.586 | 0.646 | 0.498 |
| WCDMA V       | RMC 12.2Kbps       | 4182    | 836.4           | -       | -         | Back          | 5mm     | 1.25                   | 2.270                              | 0.308 | 1.617 | 1.506 | 0.527 | 1.624 | 1.293 | 0.920 | 1.994 | 1.048 | 0.320 |
| WCDMA II      | RMC 12.2Kbps       | 9538    | 1907.6          | -       | -         | Bottom Side   | 5mm     | 1.18                   | 1.600                              | 0.757 | 0.718 | 1.550 | 0.833 | 0.742 | 1.247 | 1.325 | 0.523 | 0.463 | 0.381 |
| WCDMA IV      | RMC 12.2Kbps       | 1513    | 1752.6          | -       | -         | Bottom Side   | 5mm     | 0.893                  | 1.190                              | 0.995 | 0.986 | 0.541 | 0.244 | 0.251 | 1.073 | 0.968 | 0.249 | 0.143 | 0.125 |
| CDMA2000 BC10 | RC3 SO32 (F+SCH)   | 684     | 823.10          | -       | -         | Back          | 5mm     | 1.21                   | 1.540                              | 0.685 | 0.212 | 1.302 | 0.901 | 0.389 | 0.981 | 0.882 | 0.061 | 1.316 | 0.710 |
| CDMA2000 BC0  | RTAP 153.6Kbps     | 384     | 836.52          | -       | -         | Back          | 5mm     | 1.22                   | 1.600                              | 0.832 | 0.559 | 0.060 | 1.811 | 0.741 | 0.153 | 1.366 | 0.277 | 0.040 | 1.374 |
| CDMA2000 BC1  | RTAP 153.6Kbps     | 25      | 1851.25         | -       | -         | Bottom Side   | 5mm     | 1.04                   | 1.400                              | 0.491 | 0.521 | 1.085 | 1.213 | 0.911 | 1.396 | 0.805 | 1.195 | 0.708 | 0.544 |
| LTE Band 71   | 20MQPSK            | 133322  | 883             | 1       | 0         | Back          | 5mm     | 0.645                  | 1.130                              | 0.607 | 0.526 | 0.092 | 0.748 | 0.587 | 0.452 | 0.962 | 0.284 | 0.072 | 0.399 |
| LTE Band 12   | 10MQPSK            | 23095   | 707.5           | 1       | 0         | Back          | 5mm     | 0.759                  | 1.300                              | 0.188 | 0.476 | 0.175 | 0.042 | 0.443 | 0.428 | 0.232 | 0.299 | 0.111 |       |
| LTE Band 13   | 10MQPSK            | 23230   | 782             | 1       | 0         | Back          | 5mm     | 0.881                  | 1.460                              | 0.513 | 0.881 | 0.571 | 0.129 | 0.841 | 0.840 | 0.571 | 0.591 | 0.304 |       |
| LTE Band 14   | 10MQPSK            | 23330   | 793             | 1       | 0         | Back          | 5mm     | 0.81                   | 1.330                              | 0.756 | 1.105 | 0.357 | 0.180 | 0.873 | 1.087 | 0.918 | 1.307 | 0.454 |       |
| LTE Band 26   | 15MQPSK            | 26865   | 831.5           | 1       | 0         | Back          | 5mm     | 1.19                   | 2.100                              | 0.943 | 0.603 | 1.063 | 0.463 | 0.119 | 1.336 | 1.119 | 0.096 | 0.648 |       |
| LTE Band 66   | 20MQPSK            | 132572  | 1770            | 50      | 0         | Back          | 5mm     | 1.12                   | 1.410                              | 0.864 | 0.736 | 0.760 | 0.588 | 1.001 | 0.535 | 0.398 | 0.202 | 0.305 |       |
| LTE Band 25   | 20MQPSK            | 26590   | 1905            | 50      | 0         | Back          | 5mm     | 0.948                  | 1.200                              | 0.801 | 0.946 | 0.769 | 0.625 | 0.460 | 0.963 | 0.869 | 0.373 | 0.836 |       |

Body with SAR higher than 1.2W/Kg

| Mode     | Service Modulation | Channel | Frequency (MHz) | RB Size | RB Offset | Test Position | Spacing | Measured 1g SAR (W/kg) | Auto-Tune | Average Value of Time Sweep (W/kg) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------|--------------------|---------|-----------------|---------|-----------|---------------|---------|------------------------|-----------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|          |                    |         |                 |         |           |               |         |                        |           | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
| GSM850   | GPRS 3 Tx slots    | 189     | 836.4           | -       | -         | Back          | 5mm     | 1.02                   | 1.33      | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.109                              | 0.178 | 0.269 | 0.630 | 0.796 | 0.809 | 0.901 | 0.771 | 0.572 | 0.180 | 0.398 | 0.737 | 0.871 | 1.093 | 1.138 | 1.153 | 1.124 | 0.909 | 0.133 | 0.211 | 0.308 |
|          |                    |         |                 |         |           |               |         |                        |           | 21                                 | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.713                              | 0.693 | 0.923 | 0.920 | 0.904 | 0.685 | 0.661 | 0.430 | 0.641 | 0.901 | 1.210 | 1.259 | 1.274 | 1.256 | 1.028 | 0.300 | 0.031 | 0.047 | 0.163 | 0.450 | 0.634 |
|          |                    |         |                 |         |           |               |         |                        |           | 42                                 | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |
|          |                    |         |                 |         |           |               |         |                        |           | 1.148                              | 1.301 | 0.754 | 0.725 | 0.072 | 0.170 | 0.248 | 0.520 | 0.702 | 1.057 | 1.197 | 0.996 | 0.023 | 0.038 | 0.054 | 0.207 | 0.492 | 0.707 | 1.125 | 1.254 | 0.871 |
|          |                    |         |                 |         |           |               |         |                        |           | 63                                 | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.836                              | 0.686 | 0.197 | 0.262 | 0.555 | 0.722 | 0.995 | 0.996 | 1.000 | 0.937 | 0.959 | 0.690 | 0.376 | 0.622 | 1.030 | 1.206 | 1.204 | 0.690 | 0.665 | 0.136 | 0.332 |
|          |                    |         |                 |         |           |               |         |                        |           | 84                                 | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |
|          |                    |         |                 |         |           |               |         |                        |           | 0.490                              | 0.927 | 1.123 | 1.246 | 1.299 | 1.014 | 0.942 | 0.968 | 0.104 | 0.412 | 0.870 | 1.077 | 1.268 | 1.270 | 0.915 | 0.794 | 0.163 | 0.380 | 0.536 | 0.963 | 1.139 |
|          |                    |         |                 |         |           |               |         |                        |           | 105                                | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |
|          |                    |         |                 |         |           |               |         |                        |           | 1.318                              | 1.325 | 1.077 | 0.611 | 0.616 | 0.923 | 0.985 | 0.202 | 0.310 | 0.613 | 0.844 | 0.918 | 0.015 | 0.034 | 0.060 | 0.117 | 0.247 | 0.344 | 0.571 | 0.796 | 0.933 |
|          |                    |         |                 |         |           |               |         |                        |           | 126                                | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |
|          |                    |         |                 |         |           |               |         |                        |           | 0.127                              | 0.018 | 0.028 | 0.036 | 0.220 | 0.321 | 0.600 | 0.798 | 0.876 | 0.871 | 0.040 | 0.092 | 0.174 | 0.272 | 0.366 | 0.557 | 0.669 | 0.830 |       |       |       |
| GSM1900  | GPRS 3 Tx slots    | 810     | 1900.8          | -       | -         | Bottom Side   | 5mm     | 1.2                    | 1.6       | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.494                              | 0.524 | 0.542 | 0.572 | 0.591 | 0.590 | 0.593 | 0.602 | 0.608 | 1.411 | 1.479 | 1.516 | 1.519 | 1.556 | 1.560 | 1.566 | 1.568 | 1.585 | 0.560 | 0.586 | 0.598 |
|          |                    |         |                 |         |           |               |         |                        |           | 21                                 | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.840                              | 0.657 | 0.650 | 0.660 | 0.668 | 0.671 | 1.541 | 1.590 | 1.595 | 1.585 | 1.588 | 1.587 | 1.589 | 1.593 | 1.597 | 1.225 | 1.369 | 1.460 | 1.522 | 1.520 | 1.524 |
|          |                    |         |                 |         |           |               |         |                        |           | 42                                 | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |
|          |                    |         |                 |         |           |               |         |                        |           | 1.498                              | 1.474 | 1.429 | 1.003 | 1.101 | 1.147 | 1.162 | 1.191 | 1.191 | 1.192 | 1.212 | 1.208 | 1.198 | 1.373 | 1.474 | 1.553 | 1.556 | 1.548 | 1.548 | 1.530 | 1.490 |
|          |                    |         |                 |         |           |               |         |                        |           | 63                                 | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.895                              | 0.889 | 0.880 | 0.884 | 0.883 | 0.873 | 0.877 | 0.878 | 0.875 | 0.808 | 0.925 | 0.950 | 0.944 | 0.927 | 0.929 | 0.904 | 0.921 | 0.910 | 1.557 | 1.579 | 1.589 |
|          |                    |         |                 |         |           |               |         |                        |           | 84                                 | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |
|          |                    |         |                 |         |           |               |         |                        |           | 1.585                              | 1.561 | 1.561 | 1.568 | 1.570 | 1.566 | 1.008 | 1.027 | 1.035 | 1.028 | 1.017 | 1.008 | 1.015 | 1.005 | 1.582 | 1.583 | 1.591 | 1.583 | 1.599 | 1.594 | 1.580 |
|          |                    |         |                 |         |           |               |         |                        |           | 105                                | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |
|          |                    |         |                 |         |           |               |         |                        |           | 1.590                              | 1.596 | 1.594 | 1.562 | 0.757 | 0.903 | 1.358 | 1.405 | 1.420 | 1.505 | 1.540 | 1.592 | 0.514 | 0.577 | 0.620 | 0.623 | 0.646 | 0.655 | 0.668 | 0.672 | 0.687 |
|          |                    |         |                 |         |           |               |         |                        |           | 126                                | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |
|          |                    |         |                 |         |           |               |         |                        |           | 0.566                              | 0.722 | 0.837 | 1.135 | 1.280 | 1.291 | 1.387 | 1.399 | 1.448 | 0.484 | 0.498 | 0.592 | 0.501 | 0.501 | 0.498 | 0.499 | 0.499 | 0.504 |       |       |       |
| WCDMA V  | RMC 12.2Kops       | 4182    | 836.4           | -       | -         | Back          | 5mm     | 1.25                   | 2.27      | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.164                              | 0.223 | 0.308 | 0.639 | 0.668 | 0.654 | 1.085 | 1.134 | 1.119 | 0.263 | 0.479 | 0.796 | 0.833 | 1.235 | 1.350 | 1.407 | 1.575 | 1.617 | 0.196 | 0.263 | 0.346 |
|          |                    |         |                 |         |           |               |         |                        |           | 21                                 | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.705                              | 0.943 | 1.039 | 1.189 | 1.252 | 1.292 | 0.315 | 0.558 | 0.900 | 1.060 | 1.383 | 1.506 | 1.694 | 1.777 | 1.813 | 0.066 | 0.106 | 0.157 | 0.543 | 1.092 | 1.392 |
|          |                    |         |                 |         |           |               |         |                        |           | 42                                 | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |
|          |                    |         |                 |         |           |               |         |                        |           | 1.835                              | 1.951 | 1.442 | 0.105 | 0.237 | 0.279 | 1.301 | 1.582 | 1.994 | 2.147 | 2.138 | 0.079 | 0.123 | 0.183 | 0.607 | 1.172 | 1.469 | 1.615 | 2.046 | 1.624 |       |
|          |                    |         |                 |         |           |               |         |                        |           | 63                                 | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.127                              | 0.281 | 0.605 | 0.821 | 1.388 | 1.650 | 2.016 | 2.140 | 1.988 | 0.113 | 0.174 | 0.252 | 0.735 | 1.140 | 1.293 | 1.497 | 1.557 | 1.328 | 0.171 | 0.374 | 0.766 |
|          |                    |         |                 |         |           |               |         |                        |           | 84                                 | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |
|          |                    |         |                 |         |           |               |         |                        |           | 0.997                              | 1.432 | 1.600 | 1.951 | 2.005 | 1.820 | 0.129 | 0.201 | 0.290 | 0.836 | 1.270 | 1.454 | 1.687 | 1.762 | 1.568 | 0.205 | 0.443 | 0.796 | 1.131 | 1.660 | 1.851 |
|          |                    |         |                 |         |           |               |         |                        |           | 105                                | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |
|          |                    |         |                 |         |           |               |         |                        |           | 2.072                              | 2.146 | 1.994 | 0.039 | 0.058 | 0.085 | 0.299 | 0.401 | 0.889 | 1.514 | 1.822 | 1.621 | 0.053 | 0.122 | 0.283 | 0.404 | 0.797 | 1.048 | 1.530 | 1.772 | 1.907 |
|          |                    |         |                 |         |           |               |         |                        |           | 126                                | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |
|          |                    |         |                 |         |           |               |         |                        |           | 0.842                              | 0.665 | 0.096 | 0.335 | 0.711 | 0.974 | 1.520 | 1.820 | 1.787 | 0.061 | 0.143 | 0.320 | 0.450 | 0.665 | 1.106 | 1.533 | 1.735 | 1.890 |       |       |       |
| WCDMA II | RMC 12.2Kops       | 9538    | 1907.6          | -       | -         | Bottom Side   | 5mm     | 1.18                   | 1.6       | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.628                              | 0.664 | 0.691 | 0.757 | 0.775 | 0.777 | 0.793 | 0.795 | 0.810 | 1.545 | 1.591 | 1.511 | 1.513 | 1.530 | 1.533 | 1.532 | 1.536 | 1.540 | 0.716 | 0.761 | 0.788 |
|          |                    |         |                 |         |           |               |         |                        |           | 21                                 | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.850                              | 0.878 | 0.881 | 0.897 | 0.900 | 0.916 | 1.544 | 1.507 | 1.578 | 1.560 | 1.558 | 1.536 | 1.525 | 1.066 | 1.245 | 1.350 | 1.543 | 1.585 | 1.600 |       |       |
|          |                    |         |                 |         |           |               |         |                        |           | 42                                 | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |
|          |                    |         |                 |         |           |               |         |                        |           | 1.538                              | 1.545 | 1.561 | 0.844 | 0.846 | 0.835 | 0.833 | 0.831 | 0.827 | 0.823 | 0.823 | 0.818 | 1.046 | 1.182 | 1.273 | 1.443 | 1.509 | 1.512 | 1.442 | 1.558 | 1.573 |
|          |                    |         |                 |         |           |               |         |                        |           | 63                                 | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.742                              | 0.681 | 0.645 | 0.632 | 0.612 | 0.610 | 0.598 | 0.594 | 0.583 | 1.096 | 1.145 | 1.159 | 1.236 | 1.242 | 1.238 | 1.247 | 1.251 | 1.248 | 1.529 | 1.530 | 1.519 |
|          |                    |         |                 |         |           |               |         |                        |           | 84                                 | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |
|          |                    |         |                 |         |           |               |         |                        |           | 1.522                              | 1.511 | 1.515 | 1.511 | 1.508 | 1.502 | 1.183 | 1.237 | 1.269 | 1.325 | 1.344 | 1.346 | 1.355 | 1.355 | 1.360 | 1.346 | 1.301 | 1.279 | 1.214 | 1.189 | 1.188 |
|          |                    |         |                 |         |           |               |         |                        |           | 105                                | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |
|          |                    |         |                 |         |           |               |         |                        |           | 1.174                              | 1.169 | 1.153 | 0.523 | 0.631 | 0.718 | 0.934 | 1.030 | 1.058 | 1.123 | 1.149 | 1.219 | 0.473 | 0.472 | 0.469 | 0.447 | 0.464 | 0.463 | 0.463 | 0.462 | 0.464 |
|          |                    |         |                 |         |           |               |         |                        |           | 126                                | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |
|          |                    |         |                 |         |           |               |         |                        |           | 0.511                              | 0.596 | 0.666 | 0.825 | 0.907 | 0.919 | 0.962 | 0.987 | 1.037 | 0.455 | 0.414 | 0.388 | 0.381 | 0.367 | 0.366 | 0.358 | 0.356 | 0.349 |       |       |       |
| WCDMA IV | RMC 12.2Kops       | 1513    | 1752.6          | -       | -         | Bottom Side   | 5mm     | 0.893                  | 1.19      | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |
|          |                    |         |                 |         |           |               |         |                        |           | 0.853                              | 0.891 | 0.915 | 0.971 | 0.995 | 0.994 | 1.004 | 1.012 | 1.025 | 0.884 | 0.872 | 0.826 | 0.814 | 0.792 | 0.787 | 0.777 | 0.773 | 0.760 | 0.959 | 0.986 | 1.005 |
|          |                    |         |                 |         |           |               |         |                        |           | 21                                 | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |
|          |                    |         |                 |         |           |               |         |                        |           | 1.044                              | 1.060 | 1.060 | 1.061 | 1.069 | 1.100 | 1.080 | 0.834 | 0.826 | 0.886 | 0.876 | 0.551 | 0.541 | 0.564 | 0.468 | 0.506 | 0.533 | 0.587 | 0.611 | 0.617 |       |
|          |                    |         |                 |         |           |               |         |                        |           | 42                                 | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    |       |       |       |       |       |       |       |       |



| Mode         | Service Modulation | Channel | Frequency (MHz) | RB Size | RB Offset | Test Position | Spacing | Measured 1g SAR (W/kg) | Average Value of Time Sweep (W/kg) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|--------------|--------------------|---------|-----------------|---------|-----------|---------------|---------|------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|              |                    |         |                 |         |           |               |         |                        | Auto-Tune                          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|              |                    |         |                 |         |           |               |         |                        | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |       |       |  |
| CDMA2000 BC1 | RTTAP 153.6Kbps    | 25      | 1851.25         | -       | -         | Bottom Side   | 5mm     | 1.04                   | 1.4                                | 0.370 | 0.397 | 0.417 | 0.458 | 0.474 | 0.475 | 0.487 | 0.491 | 0.492 | 0.474 | 1.120 | 1.176 | 1.191 | 1.223 | 1.224 | 1.242 | 1.248 | 1.262 | 0.411 | 0.439 | 0.457 |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 21    | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 0.501 | 0.521 | 0.521 | 0.534 | 0.539 | 0.547 | 1.373 | 1.328 | 1.389 | 1.376 | 1.386 | 1.389 | 1.392 | 1.397 | 1.397 | 0.961 | 1.085 | 1.154 | 1.213 | 1.208 | 1.208 |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 42    | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 1.193 | 1.183 | 1.160 | 0.961 | 1.131 | 1.149 | 1.194 | 1.195 | 1.187 | 1.203 | 1.213 | 1.225 | 0.992 | 1.090 | 1.168 | 1.224 | 1.265 | 1.263 | 1.259 | 1.252 | 1.238 |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 63    | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 0.889 | 0.888 | 0.908 | 0.905 | 0.911 | 0.908 | 0.913 | 0.914 | 0.915 | 0.917 | 0.883 | 0.701 | 0.729 | 0.729 | 0.734 | 0.737 | 0.736 | 0.736 | 1.396 | 1.394 |       |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 84    | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 1.360 | 1.389 | 1.386 | 1.400 | 1.400 | 0.707 | 0.707 | 0.741 | 0.781 | 0.791 | 0.802 | 0.801 | 0.805 | 0.805 | 0.805 | 1.391 | 1.394 | 1.353 | 1.358 | 1.355 | 1.356 |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 105   | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 1.355 | 1.362 | 1.371 | 1.374 | 0.745 | 0.879 | 1.195 | 1.195 | 1.195 | 1.357 | 1.392 | 1.328 | 1.367 | 0.530 | 0.602 | 0.652 | 0.666 | 0.693 | 0.699 | 0.710 | 0.721 | 0.739 |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 126   | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |       |  |
|              |                    |         |                 |         |           |               |         |                        |                                    | 0.567 | 0.708 | 0.823 | 1.105 | 1.234 | 1.243 | 1.305 | 1.328 | 1.369 | 0.523 | 0.523 | 0.533 | 0.534 | 0.534 | 0.538 | 0.541 | 0.543 | 0.544 | 0.546 |       |       |       |  |

| Mode        | Service Modulation | Channel | Frequency (MHz) | RB Size | RB Offset | Test Position | Spacing | Measured 1g SAR (W/kg) | Average Value of Time Sweep (W/kg) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|-------------|--------------------|---------|-----------------|---------|-----------|---------------|---------|------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|             |                    |         |                 |         |           |               |         |                        | Auto-Tune                          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|             |                    |         |                 |         |           |               |         |                        | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |       |  |
| LTE Band 26 | QPSK15M            | 26865   | 831.5           | 1       | 0         | Back          | 5mm     | 1.22                   | 2.23                               | 0.166 | 0.232 | 0.301 | 0.562 | 0.754 | 0.817 | 0.910 | 0.948 | 1.050 | 0.278 | 0.490 | 0.796 | 0.893 | 1.136 | 1.224 | 1.356 | 1.409 | 1.579 | 0.529 | 0.209 | 0.279 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 21    | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.360 | 0.681 | 0.879 | 0.931 | 1.100 | 1.236 | 0.363 | 0.601 | 0.820 | 1.063 | 1.160 | 1.432 | 1.577 | 1.636 | 1.826 | 0.370 | 0.108 | 0.163 | 0.556 | 1.103 | 1.402 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 42    | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 1.842 | 1.960 | 1.463 | 0.117 | 0.247 | 0.545 | 0.748 | 1.324 | 1.612 | 2.034 | 2.223 | 2.031 | 0.263 | 0.120 | 0.191 | 0.638 | 1.211 | 1.490 | 1.982 | 2.116 | 1.687 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 63    | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.138 | 0.296 | 0.607 | 0.845 | 1.442 | 1.714 | 2.095 | 2.210 | 2.118 | 0.117 | 0.187 | 0.268 | 0.772 | 1.186 | 1.301 | 1.433 | 1.446 | 1.303 | 0.182 | 0.393 | 0.788 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 84    | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 1.040 | 1.553 | 1.752 | 1.934 | 1.983 | 1.844 | 1.137 | 0.211 | 0.303 | 0.846 | 1.320 | 1.454 | 1.605 | 1.633 | 1.498 | 0.220 | 0.466 | 0.908 | 1.162 | 1.682 | 1.877 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 105   | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 2.110 | 2.177 | 2.065 | 0.040 | 0.052 | 0.091 | 0.305 | 0.671 | 0.937 | 1.521 | 1.829 | 1.750 | 0.058 | 0.131 | 0.296 | 0.422 | 0.738 | 1.056 | 1.548 | 1.788 | 1.986 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 126   | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.944 | 0.968 | 0.102 | 0.338 | 0.702 | 0.991 | 1.542 | 1.839 | 1.780 | 0.066 | 0.150 | 0.319 | 0.496 | 0.667 | 1.102 | 1.506 | 1.706 | 1.940 |       |       |       |  |

| Mode        | Service Modulation | Channel | Frequency (MHz) | RB Size | RB Offset | Test Position | Spacing | Measured 1g SAR (W/kg) | Average Value of Time Sweep (W/kg) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|-------------|--------------------|---------|-----------------|---------|-----------|---------------|---------|------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|             |                    |         |                 |         |           |               |         |                        | Auto-Tune                          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|             |                    |         |                 |         |           |               |         |                        | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |       |  |
| LTE Band 66 | QPSK20M            | 132972  | 1770            | 50      | 0         | Back          | 5mm     | 1.12                   | 1.41                               | 0.977 | 1.030 | 1.066 | 1.147 | 1.172 | 1.176 | 1.195 | 1.204 | 1.231 | 1.377 | 1.280 | 1.231 | 1.211 | 1.199 | 1.170 | 1.156 | 1.152 | 1.140 | 1.142 | 1.180 | 1.214 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 21    | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 1.295 | 1.315 | 1.316 | 1.320 | 1.332 | 1.352 | 1.012 | 0.925 | 0.870 | 0.851 | 0.820 | 0.820 | 0.806 | 0.797 | 0.778 | 0.622 | 0.686 | 0.732 | 0.839 | 0.895 | 0.900 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 42    | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.931 | 0.944 | 0.982 | 0.471 | 0.406 | 0.368 | 0.359 | 0.340 | 0.339 | 0.330 | 0.325 | 0.316 | 0.584 | 0.622 | 0.650 | 0.707 | 0.734 | 0.739 | 0.782 | 0.759 | 0.776 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 63    | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.423 | 0.337 | 0.292 | 0.280 | 0.260 | 0.257 | 0.247 | 0.243 | 0.233 | 1.168 | 1.295 | 1.296 | 1.313 | 1.355 | 1.364 | 1.396 | 1.406 | 0.884 | 0.795 | 0.738 | 0.722 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 84    | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.893 | 0.688 | 0.673 | 0.671 | 0.654 | 0.642 | 1.167 | 1.210 | 1.245 | 1.321 | 1.341 | 1.348 | 1.368 | 1.377 | 1.393 | 0.706 | 0.601 | 0.540 | 0.525 | 0.499 | 0.495 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 105   | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.480 | 0.575 | 0.460 | 0.294 | 0.324 | 0.348 | 0.402 | 0.429 | 0.434 | 0.450 | 0.457 | 0.480 | 0.297 | 0.251 | 0.228 | 0.219 | 0.211 | 0.206 | 0.199 | 0.196 | 0.191 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 126   | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.293 | 0.312 | 0.329 | 0.354 | 0.367 | 0.370 | 0.377 | 0.381 | 0.383 | 0.299 | 0.227 | 0.192 | 0.184 | 0.188 | 0.167 | 0.160 | 0.158 | 0.149 |       |       |       |  |

| Mode        | Service Modulation | Channel | Frequency (MHz) | RB Size | RB Offset | Test Position | Spacing | Measured 1g SAR (W/kg) | Average Value of Time Sweep (W/kg) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|-------------|--------------------|---------|-----------------|---------|-----------|---------------|---------|------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|             |                    |         |                 |         |           |               |         |                        | Auto-Tune                          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|             |                    |         |                 |         |           |               |         |                        | 0                                  | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |       |  |
| LTE Band 25 | QPSK20M            | 26590   | 1905            | 50      | 0         | Back          | 5mm     | 0.948                  | 1.2                                | 0.075 | 0.100 | 0.122 | 0.165 | 0.181 | 0.180 | 0.192 | 0.199 | 0.205 | 0.795 | 0.862 | 0.910 | 0.926 | 0.966 | 0.963 | 0.979 | 0.983 | 1.000 | 0.114 | 0.142 | 0.165 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 21    | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    | 31    | 32    | 33    | 34    | 35    | 36    | 37    | 38    | 39    | 40    | 41    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.208 | 0.229 | 0.229 | 0.241 | 0.247 | 0.255 | 1.119 | 1.151 | 1.183 | 1.182 | 1.196 | 1.199 | 1.197 | 1.111 | 1.115 | 0.849 | 0.785 | 0.861 | 0.963 | 0.951 | 0.949 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 42    | 43    | 44    | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 53    | 54    | 55    | 56    | 57    | 58    | 59    | 60    | 61    | 62    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.948 | 0.934 | 0.920 | 0.630 | 0.722 | 0.782 | 0.792 | 0.819 | 0.823 | 0.837 | 0.844 | 0.857 | 0.856 | 0.788 | 0.871 | 0.904 | 1.001 | 0.997 | 0.990 | 0.987 |       |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 63    | 64    | 65    | 66    | 67    | 68    | 69    | 70    | 71    | 72    | 73    | 74    | 75    | 76    | 77    | 78    | 79    | 80    | 81    | 82    | 83    |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.526 | 0.540 | 0.547 | 0.545 | 0.544 | 0.544 | 0.545 | 0.540 | 0.540 | 0.368 | 0.400 | 0.422 | 0.430 | 0.458 | 0.457 | 0.460 | 0.458 | 0.454 | 1.033 | 1.115 | 1.151 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 84    | 85    | 86    | 87    | 88    | 89    | 90    | 91    | 92    | 93    | 94    | 95    | 96    | 97    | 98    | 99    | 100   | 101   | 102   | 103   | 104   |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 1.175 | 1.167 | 1.100 | 1.198 | 1.191 | 1.197 | 0.430 | 0.481 | 0.485 | 0.516 | 0.533 | 0.532 | 0.533 | 0.534 | 0.540 | 0.831 | 1.115 | 1.126 | 1.130 | 1.140 | 1.143 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 105   | 106   | 107   | 108   | 109   | 110   | 111   | 112   | 113   | 114   | 115   | 116   | 117   | 118   | 119   | 120   | 121   | 122   | 123   | 124   | 125   |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 1.136 | 1.136 | 1.135 | 0.260 | 0.402 | 0.532 | 0.851 | 0.990 | 1.008 | 1.071 | 1.105 | 1.144 | 0.196 | 0.253 | 0.294 | 0.304 | 0.419 | 0.425 | 0.439 | 0.448 | 0.464 |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 126   | 127   | 128   | 129   | 130   | 131   | 132   | 133   | 134   | 135   | 136   | 137   | 138   | 139   | 140   | 141   | 142   | 143   |       |       |       |  |
|             |                    |         |                 |         |           |               |         |                        |                                    | 0.312 | 0.463 | 0.583 | 0.883 | 0.884 | 1.046 | 1.114 | 1.146 | 1.199 | 0.240 | 0.250 | 0.254 | 0.254 | 0.256 | 0.256 | 0.256 | 0.256 | 0.259 |       |       |       |  |