



**Part 0: SAR and Power Density Characterization  
EUT RF Exposure Compliance Test Report**

*For*  
**PHONE**

**FCC ID: A4RGUR25  
Model Name: GUR25/G1B60**

**Report Number: 15107843-S16V1  
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Revision History

| Rev. | Date       | Revisions     | Revised By |
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| V1   | 2024/05/10 | Initial Issue | --         |
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## 1. Attestation of Test Results

| Applicant Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Google LLC                                                                           |                                                            |                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------|
| FCC ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A4RGUR25                                                                             |                                                            |                               |
| Model Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GUR25/G1B60                                                                          |                                                            |                               |
| Reference SAR Report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 15107843-S6                                                                          |                                                            |                               |
| Exposure Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SAR Limits (W/Kg)                                                                    |                                                            | PD Limits (W/m <sup>2</sup> ) |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Peak Spatial Average (1-g of tissue)                                                 | Extremities (hands, wrists, ankles, etc.) (10-g of tissue) |                               |
| General Population (Uncontrolled Exposure)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.6                                                                                  | 4                                                          | 10                            |
| Date Tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2023/12/12 to 2024/04/12                                                             |                                                            |                               |
| <p>UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.</p> <p>This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.</p> <p>The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.</p> <p>This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the U.S. Government, or any agency of the U.S. government.</p> |                                                                                      |                                                            |                               |
| Approved & Released By:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Prepared By:                                                                         |                                                            |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                            |                               |
| Dave Weaver<br>Senior Staff Engineer<br>UL Verification Services Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Nathan Sousa<br>Senior Laboratory Engineer<br>UL Verification Services Inc.          |                                                            |                               |

## 2. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

|                      |                      |
|----------------------|----------------------|
| 47173 Benicia Street | 47266 Benicia Street |
| SAR Labs A to H      | SAR Labs 1 to 15     |

UL Verification Services Inc. is accredited by A2LA, Certificate Number 0751.05

The Test Lab Conformity Assessment Body Identifier (CABID)

| Location                                               | CABID  | Company Number |
|--------------------------------------------------------|--------|----------------|
| 47173 Benicia Street, Fremont, CA, 94538 UNITED STATES | US0104 | 2324A          |
| 47266 Benicia Street, Fremont, CA, 94538 UNITED STATES |        |                |

## 3. Introduction

The equipment under test (EUT) is a smart phone. It contains the Samsung modem supporting 2G/3G/4G WWAN technologies. This WWAN modem enables Samsung's S.LSI TAS feature to control and manage transmitting power, in real time, and to ensure the time-averaged RF exposure is always in compliance with the FCC requirement.

In this report, Part 0, the EUT SAR is characterized for WWAN radios (2G/3G/4G/5G) to determine the power limit that corresponds to the exposure design target after accounting for all device design related uncertainties, i.e.,  $SAR_{Design\ Target} (< FCC\ SAR\ limit)$  for Sub-6 GHz radio. The SAR Characterization is denoted as *SAR Char*.

*SAR Char* will be used as input for Samsung S.LSI TAS to operate. *SAR Char* will be loaded and stored in the EUT's software.

The EUT supports WLAN/BT radio(s) as well, but the WLAN/BT modem is not enabled with Samsung's S.LSI TAS feature.

## 4. SAR Characterization

*SAR Char* is generated to cover all radio configurations and usage scenarios that are reported in the initial FCC submission.

### 4.1. Worst-case SAR Determination

Based on FCC KDBs, in general, for a smartphone, the SAR evaluation is required for the exposure scenarios shown in Figure 4-1.

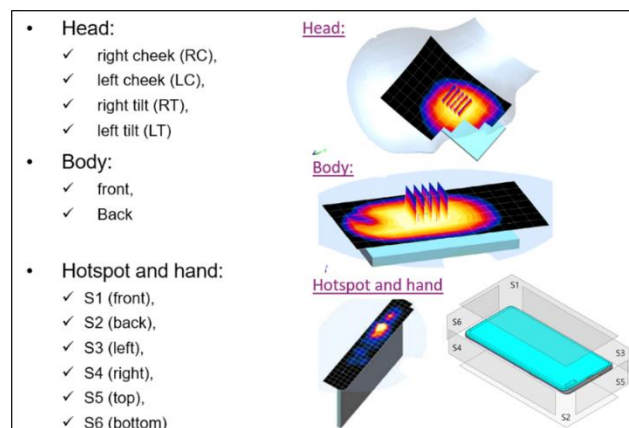


Figure 4-1: SAR evaluation for smartphone application

The *Device/Radio State Index (D/RSI)* used in Figure 3-2 represents each exposure scenario. Depending on the detection scheme implemented in the smartphone, the worst-case SAR is further grouped and determined for each or combined exposure scenario(s). Note, for the 1-g SAR versus 10-g SAR exposure scenario, the worst-case is determined in term of exposure ratio (i.e., exposure level relative to the corresponding 1-g or 10-g SAR limit).

- If the device does not have any detection mechanism, then the worst-case SAR is determined by taking the maximum SAR value among all exposure scenarios, i.e., worst-case  $SAR = \max \{SAR_{head}, SAR_{body}, SAR_{hotspot}\}$
- If the device can distinguish each of the above scenarios, then the worst-case SAR for each individual exposure scenario is given by corresponding  $SAR_{head}$ ,  $SAR_{body}$ , and  $SAR_{hotspot}$
- If the device can only distinguish a subset of the scenarios, then the worst-case SAR is given by:
  - Corresponding SAR for each exposure scenario that can be distinguished (D/RSI=yes)
  - Worst-case SAR among all other exposure scenario(s) that cannot be distinguished (D/RSI=no)

## 4.2. Usage Scenarios in SAR Evaluation

The EUT has a detection mechanism to distinguish Head, Body-worn, Hotspot, and Extremity exposure conditions, which is represented using *D/RSI 1 – 7*; within this report, D/RSIs will be referred to as Indices 1 – 6. These *Indices* states were used to determine the power limit for S.LSI TAS to operate; where the exposure scenario is managed as same Indices state, all other exposures which cannot be distinguished, in this particular instance and based on the worst-case SAR determination criteria described in §2.1, the maximum SAR (or the minimum  $P_{limit}$ ) among all remaining exposure scenarios (i.e., Body-worn 1-g SAR evaluation at a specified test separation distance, phablet extremity 10-g SAR evaluation at a specified test separation distance, and maximum RF tune-up power ( $P_{max}$ ) supported by the device if SAR measurement is not performed for this tech/band/antenna because of meeting SAR test exclusion criteria) is used to determine the power limit for S.LSI TAS to operate.

The corresponding usage scenarios supported by EUT are summarized in Table 4-1:

**Table 4-1: Usage/Exposure Scenario**

| Scenario  | INDICES State      | Description                                                                                                                                                                                                                                                                                     | SAR Definition                                                                                                                                         | Worst-case SAR    |
|-----------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Head      | Index 2<br>Index 3 | <ul style="list-style-type: none"> <li>▪ Device positioned next to head</li> <li>▪ 1-g SAR evaluated in four positions (left/right touch/tilt)</li> </ul>                                                                                                                                       | $SAR_{head} = \max \{SAR_{LC}, SAR_{LT}, SAR_{RC}, SAR_{RT}\}$                                                                                         | $SAR_{head}$      |
| Hotspot   | Index 4            | <ul style="list-style-type: none"> <li>▪ Device transmits in Hotspot mode and assumed to be located next to human body</li> <li>▪ 1-g SAR is evaluated for all six surfaces of the EUT (S1-S6 as shown in Figure 3-1) at 10 mm test separation distance relative to the flat phantom</li> </ul> | $SAR_{hotspot} = \max \{SAR_{s1}, SAR_{s2}, SAR_{s3}, SAR_{s4}, SAR_{s5}, SAR_{s6}\}$                                                                  | $SAR_{hotspot}$   |
| Extremity | Index 5            | <ul style="list-style-type: none"> <li>▪ Phablet extremity</li> <li>▪ 10-g SAR is evaluated for all six surfaces of the EUT against the flat phantom with 0 mm test separation distance</li> </ul>                                                                                              | $SAR_{extremity\ Index=5} = \max \{SAR_{s1\ Index=5}, SAR_{s2\ Index=5}, SAR_{s3\ Index=5}, SAR_{s4\ Index=5}, SAR_{s5\ Index=5}, SAR_{s6\ Index=5}\}$ | $SAR_{extremity}$ |
| Body-worn | Index 5<br>Index 6 | <ul style="list-style-type: none"> <li>▪ Device state is either body-worn</li> <li>▪ 1-g SAR evaluated at the back and front of the EUT with 10 mm test separation distance relative to the flat phantom for body-worn exposure</li> </ul>                                                      | $SAR_{body} = \max \{SAR_{s1}, SAR_{s2}\}$                                                                                                             | $SAR_{body}$      |

### 4.3. SAR<sub>Design Target</sub>

The total device design and related uncertainties of the EUT is shown below (in dB), which includes TxAGC and device to device variation.

To account for the total uncertainty,  $SAR_{Design Target}$  needs to be:

$$SAR_{Design Target} < SAR_{regulatory limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

For the FCC SAR requirement of 1.6 W/kg and 4.0 W/kg, 1-g and 10-g SAR respectively, the  $SAR_{Design Target}$  for the EUT is determined as:

| Antenna | Technology     | Mode          | Pmax (Index 1) | Index 2 | Head<br>SAR <sub>Design Target</sub><br>(W/kg) | Head<br>SAR <sub>Design Limit</sub> (W/kg) | Index 5 | Body<br>SAR <sub>Design Target</sub><br>(W/kg) | Extremity<br>SAR <sub>Design Target</sub><br>(W/kg) | Body<br>SAR <sub>Design Limit</sub> (W/kg) | Extremity<br>SAR <sub>Design Limit</sub> (W/kg) | Index 4 | Hotspot<br>SAR <sub>Design Target</sub><br>(W/kg) | Hotspot<br>SAR <sub>Design Limit</sub> (W/kg) | Total Uncertainty<br>(dB) |
|---------|----------------|---------------|----------------|---------|------------------------------------------------|--------------------------------------------|---------|------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-------------------------------------------------|---------|---------------------------------------------------|-----------------------------------------------|---------------------------|
| ANT 1   | GSM 850        | GMSK 1 Slot   | 32.2           | 29.2    | 0.810                                          | 1.0                                        | 37.0    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 34.5    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | GPRS 1 Slot   | 32.2           | 29.2    | 0.810                                          | 1.0                                        | 37.0    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 34.5    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | GPRS 2 Slots  | 31.2           | 26.2    | 0.810                                          | 1.0                                        | 34.0    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 31.5    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | GPRS 3 Slots  | 30.2           | 24.4    | 0.810                                          | 1.0                                        | 32.2    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 29.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | GPRS 4 Slots  | 29.2           | 23.2    | 0.810                                          | 1.0                                        | 31.0    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 28.5    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | EGPRS 1 Slot  | 26.2           | 20.9    | 0.810                                          | 1.0                                        | 29.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 29.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | EGPRS 2 Slots | 25.2           | 20.9    | 0.810                                          | 1.0                                        | 26.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 26.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | EGPRS 3 Slots | 24.2           | 20.9    | 0.810                                          | 1.0                                        | 25.1    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 24.4    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | GSM 850        | EGPRS 4 Slots | 23.2           | 20.9    | 0.810                                          | 1.0                                        | 23.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 23.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 850        | GMSK 1 Slot   | 32.5           | 34.0    | 0.790                                          | 1.0                                        | 33.0    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 32.2    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | GPRS 1 Slot   | 32.5           | 34.0    | 0.790                                          | 1.0                                        | 33.0    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 32.2    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | GPRS 2 Slots  | 31.5           | 31.0    | 0.790                                          | 1.0                                        | 30.0    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 29.3    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | GPRS 3 Slots  | 30.5           | 29.2    | 0.790                                          | 1.0                                        | 28.2    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 27.5    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | GPRS 4 Slots  | 29.5           | 28.0    | 0.790                                          | 1.0                                        | 27.0    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 26.3    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | EGPRS 1 Slot  | 26.5           | 30.2    | 0.790                                          | 1.0                                        | 30.2    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 26.5    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | EGPRS 2 Slots | 25.5           | 27.2    | 0.790                                          | 1.0                                        | 27.2    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 25.5    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | EGPRS 3 Slots | 24.5           | 25.4    | 0.790                                          | 1.0                                        | 25.4    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 24.5    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 850        | EGPRS 4 Slots | 23.5           | 24.2    | 0.790                                          | 1.0                                        | 24.2    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 23.5    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | GSM 1900       | GMSK 1 Slot   | 28.2           | 46.8    | 0.810                                          | 1.0                                        | 27.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 24.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | GPRS 1 Slot   | 28.2           | 46.8    | 0.810                                          | 1.0                                        | 27.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 24.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | GPRS 2 Slots  | 27.2           | 43.8    | 0.810                                          | 1.0                                        | 24.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 21.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | GPRS 3 Slots  | 26.7           | 42.0    | 0.810                                          | 1.0                                        | 22.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 19.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | GPRS 4 Slots  | 25.7           | 40.8    | 0.810                                          | 1.0                                        | 21.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 18.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | EGPRS 1 Slot  | 24.7           | 25.4    | 0.810                                          | 1.0                                        | 24.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 23.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | EGPRS 2 Slots | 23.7           | 24.4    | 0.810                                          | 1.0                                        | 23.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 21.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | EGPRS 3 Slots | 22.7           | 23.4    | 0.810                                          | 1.0                                        | 22.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 19.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | GSM 1900       | EGPRS 4 Slots | 21.7           | 22.4    | 0.810                                          | 1.0                                        | 21.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 18.7    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | GSM 1900       | GMSK 1 Slot   | 29.0           | 31.8    | 0.790                                          | 1.0                                        | 28.8    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 27.6    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | GPRS 1 Slot   | 29.0           | 31.8    | 0.790                                          | 1.0                                        | 28.8    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 27.6    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | GPRS 2 Slots  | 28.0           | 28.8    | 0.790                                          | 1.0                                        | 25.8    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 25.1    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | GPRS 3 Slots  | 27.5           | 27.0    | 0.790                                          | 1.0                                        | 24.0    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 23.3    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | GPRS 4 Slots  | 26.5           | 25.8    | 0.790                                          | 1.0                                        | 22.8    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 22.1    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | EGPRS 1 Slot  | 25.5           | 29.2    | 0.790                                          | 1.0                                        | 28.8    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 25.5    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | EGPRS 2 Slots | 24.5           | 26.2    | 0.790                                          | 1.0                                        | 25.8    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 24.5    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | EGPRS 3 Slots | 23.5           | 24.4    | 0.790                                          | 1.0                                        | 24.0    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 23.3    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | GSM 1900       | EGPRS 4 Slots | 22.5           | 23.2    | 0.790                                          | 1.0                                        | 22.8    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 22.1    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 0   | W-CDMA B5      | R99           | 24.3           | 28.8    | 0.760                                          | 1.0                                        | 26.2    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 25.5    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 0   | W-CDMA B5      | HSDPA         | 24.3           | 28.8    | 0.760                                          | 1.0                                        | 26.2    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 25.5    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 0   | W-CDMA B5      | HSUPA         | 24.3           | 28.8    | 0.760                                          | 1.0                                        | 26.2    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 25.5    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 0   | W-CDMA B5      | DC-HSDPA      | 24.3           | 28.8    | 0.760                                          | 1.0                                        | 26.2    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 25.5    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 1   | W-CDMA B5      | R99           | 24.0           | 22.1    | 0.780                                          | 1.0                                        | 27.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 26.7    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | W-CDMA B5      | HSDPA         | 24.0           | 22.1    | 0.780                                          | 1.0                                        | 27.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 26.7    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | W-CDMA B5      | HSUPA         | 24.0           | 22.1    | 0.780                                          | 1.0                                        | 27.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 26.7    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | W-CDMA B5      | DC-HSDPA      | 24.0           | 22.1    | 0.780                                          | 1.0                                        | 27.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 26.7    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 0   | W-CDMA B4      | R99           | 23.2           | 33.2    | 0.780                                          | 1.0                                        | 18.8    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.5    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 0   | W-CDMA B4      | HSDPA         | 23.2           | 33.2    | 0.780                                          | 1.0                                        | 18.8    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.5    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 0   | W-CDMA B4      | HSUPA         | 23.2           | 33.2    | 0.780                                          | 1.0                                        | 18.8    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.5    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 0   | W-CDMA B4      | DC-HSDPA      | 23.2           | 33.2    | 0.780                                          | 1.0                                        | 18.8    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.5    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 2   | W-CDMA B4      | R99           | 24.0           | 32.0    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 2   | W-CDMA B4      | HSDPA         | 24.0           | 32.0    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 2   | W-CDMA B4      | HSUPA         | 24.0           | 32.0    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 2   | W-CDMA B4      | DC-HSDPA      | 24.0           | 32.0    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 0   | W-CDMA B2      | R99           | 23.2           | 34.7    | 0.780                                          | 1.0                                        | 18.9    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.2    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 0   | W-CDMA B2      | HSDPA         | 23.2           | 34.7    | 0.780                                          | 1.0                                        | 18.9    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.2    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 0   | W-CDMA B2      | HSUPA         | 23.2           | 34.7    | 0.780                                          | 1.0                                        | 18.9    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.2    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 0   | W-CDMA B2      | DC-HSDPA      | 23.2           | 34.7    | 0.780                                          | 1.0                                        | 18.9    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.2    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 2   | W-CDMA B2      | R99           | 24.0           | 23.3    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 2   | W-CDMA B2      | HSDPA         | 24.0           | 23.3    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 2   | W-CDMA B2      | HSUPA         | 24.0           | 23.3    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 2   | W-CDMA B2      | DC-HSDPA      | 24.0           | 23.3    | 0.760                                          | 1.0                                        | 20.8    | 0.760                                          | 1.900                                               | 1.0                                        | 2.5                                             | 20.1    | 0.640                                             | 0.84                                          | 1.2                       |
| ANT 0   | LTE Band 71    | PC3           | 24.3           | 29.8    | 0.830                                          | 1.0                                        | 27.5    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 26.3    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | LTE Band 71    | PC3           | 24.0           | 23.3    | 0.850                                          | 1.0                                        | 29.3    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 28.6    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | LTE Band 12/17 | PC2           | 24.3           | 28.9    | 0.830                                          | 1.0                                        | 27.5    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 25.0    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | LTE Band 12/17 | PC3           | 24.0           | 22.4    | 0.850                                          | 1.0                                        | 28.6    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 26.9    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | LTE Band 13    | PC3           | 24.3           | 27.6    | 0.830                                          | 1.0                                        | 26.1    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 25.4    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | LTE Band 13    | PC3           | 24.0           | 22.0    | 0.850                                          | 1.0                                        | 26.6    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 25.9    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | LTE Band 14    | PC3           | 24.3           | 27.3    | 0.830                                          | 1.0                                        | 26.5    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 25.8    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | LTE Band 14    | PC3           | 24.0           | 22.2    | 0.850                                          | 1.0                                        | 27.1    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 26.4    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | LTE Band 26/5  | PC3           | 24.3           | 28.9    | 0.830                                          | 1.0                                        | 27.7    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 27.0    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | LTE Band 26/5  | PC3           | 24.0           | 22.5    | 0.850                                          | 1.0                                        | 27.4    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 26.7    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | LTE Band 66/4  | PC3           | 23.2           | 32.2    | 0.830                                          | 1.0                                        | 19.2    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 17.8    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | LTE Band 66/4  | PC3           | 24.0           | 18.3    | 0.810                                          | 1.0                                        | 27.2    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 23.3    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | LTE Band 66/4  | PC3           | 24.0           | 26.1    | 0.810                                          | 1.0                                        | 22.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 22.0    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | LTE Band 66/4  | PC3           | 24.0           | 14.7    | 0.890                                          | 1.0                                        | 19.9    | 0.890                                          | 2.225                                               | 1.0                                        | 2.5                                             | 18.6    | 0.760                                             | 0.85                                          | 0.5                       |
| ANT 0   | LTE Band 25/2  | PC3           | 23.2           | 35.7    | 0.830                                          | 1.0                                        | 18.8    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 17.0    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | LTE Band 25/2  | PC2           | 24.0           | 15.1    | 0.810                                          | 1.0                                        | 20.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 19.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | LTE Band 25/2  | PC2           | 24.0           | 23.6    | 0.810                                          | 1.0                                        | 22.8    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 22.1    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | LTE Band 25/2  | PC3           | 24.0           | 15.8    | 0.890                                          | 1.0                                        | 21.2    | 0.890                                          | 2.225                                               | 1.0                                        | 2.5                                             | 19.7    | 0.760                                             | 0.85                                          | 0.5                       |

| Antenna | Technology          | Mode  | Pmax (Index 1) | Index 2 | Head<br>SAR <sub>Design Target</sub><br>(W/kg) | Head<br>SAR <sub>Design Limit</sub> (W/kg) | Index 5 | Body<br>SAR <sub>Design Target</sub><br>(W/kg) | Extremity<br>SAR <sub>Design Target</sub><br>(W/kg) | Body<br>SAR <sub>Design Limit</sub> (W/kg) | Extremity<br>SAR <sub>Design Limit</sub> (W/kg) | Index 4 | Hotspot<br>SAR <sub>Design Target</sub><br>(W/kg) | Hotspot<br>SAR <sub>Design Limit</sub> (W/kg) | Total Uncertainty<br>(dB) |
|---------|---------------------|-------|----------------|---------|------------------------------------------------|--------------------------------------------|---------|------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-------------------------------------------------|---------|---------------------------------------------------|-----------------------------------------------|---------------------------|
| ANT 0   | LTE Band 30         | PC3   | 22.2           | 31.9    | 0.780                                          | 1.0                                        | 20.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 2   | LTE Band 30         | PC3   | 23.0           | 26.8    | 0.810                                          | 1.0                                        | 22.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 22.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | LTE Band 7          | PC3   | 23.8           | 34.0    | 0.810                                          | 1.0                                        | 20.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 17.1    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | LTE Band 7          | PC3   | 24.2           | 22.3    | 0.810                                          | 1.0                                        | 20.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 20.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | LTE Band 41/38      | PC3   | 25.8           | 34.4    | 0.810                                          | 1.0                                        | 23.4    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 20.0    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | LTE Band 41/38      | PC2   | 29.6           | 36.0    | 0.810                                          | 1.0                                        | 25.0    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 21.6    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | LTE Band 41/38      | PC3   | 26.2           | 25.3    | 0.810                                          | 1.0                                        | 25.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 23.5    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | LTE Band 41/38      | PC2   | 29.2           | 26.9    | 0.810                                          | 1.0                                        | 27.2    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 25.1    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 6   | LTE Band 48         | PC3   | 23.3           | 33.2    | 0.780                                          | 1.0                                        | 24.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 23.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 7   | LTE Band 48         | PC3   | 23.5           | 35.8    | 0.650                                          | 1.0                                        | 24.4    | 0.650                                          | 1.625                                               | 1.0                                        | 2.5                                             | 23.7    | 0.550                                             | 0.85                                          | 1.9                       |
| ANT 0   | NR n71              | PC3   | 24.3           | 31.5    | 0.830                                          | 1.0                                        | 30.0    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 28.6    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | NR n71              | PC3   | 24.0           | 26.3    | 0.850                                          | 1.0                                        | 35.4    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 28.8    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | NR n12              | PC3   | 24.3           | 30.6    | 0.830                                          | 1.0                                        | 27.7    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 27.0    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | NR n12              | PC3   | 24.0           | 22.7    | 0.850                                          | 1.0                                        | 34.3    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 27.6    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | NR n14              | PC3   | 24.3           | 28.7    | 0.830                                          | 1.0                                        | 26.8    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 23.6    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | NR n14              | PC3   | 24.0           | 23.0    | 0.850                                          | 1.0                                        | 32.0    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 23.3    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | NR n26/5            | PC3   | 24.3           | 30.9    | 0.830                                          | 1.0                                        | 29.6    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 28.2    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | NR n26/5            | PC3   | 24.0           | 22.3    | 0.850                                          | 1.0                                        | 28.9    | 0.850                                          | 2.125                                               | 1.0                                        | 2.5                                             | 28.2    | 0.720                                             | 0.85                                          | 0.7                       |
| ANT 0   | NR n66              | PC3   | 23.2           | 34.5    | 0.830                                          | 1.0                                        | 19.8    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 17.9    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | NR n66              | PC3   | 24.0           | 19.0    | 0.810                                          | 1.0                                        | 25.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 23.3    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | NR n66              | PC3   | 24.0           | 27.0    | 0.810                                          | 1.0                                        | 20.7    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 20.0    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n66              | PC3   | 24.0           | 16.8    | 0.890                                          | 1.0                                        | 21.6    | 0.890                                          | 2.225                                               | 1.0                                        | 2.5                                             | 20.9    | 0.760                                             | 0.85                                          | 0.5                       |
| ANT 0   | NR n25/2            | PC3   | 23.2           | 34.8    | 0.830                                          | 1.0                                        | 19.1    | 0.830                                          | 2.075                                               | 1.0                                        | 2.5                                             | 17.3    | 0.710                                             | 0.85                                          | 0.8                       |
| ANT 1   | NR n25/2            | PC3   | 24.0           | 14.6    | 0.810                                          | 1.0                                        | 20.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 20.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | NR n25/2            | PC3   | 24.0           | 23.3    | 0.810                                          | 1.0                                        | 20.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 19.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n25/2            | PC3   | 24.0           | 17.0    | 0.890                                          | 1.0                                        | 21.6    | 0.890                                          | 2.225                                               | 1.0                                        | 2.5                                             | 20.9    | 0.760                                             | 0.85                                          | 0.5                       |
| ANT 0   | NR n30              | PC3   | 22.3           | 35.0    | 0.790                                          | 1.0                                        | 20.5    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | 18.9    | 0.680                                             | 0.86                                          | 1.0                       |
| ANT 2   | NR n30              | PC3   | 23.0           | 26.0    | 0.810                                          | 1.0                                        | 20.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 19.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | NR n7               | PC3   | 23.8           | 32.4    | 0.810                                          | 1.0                                        | 20.3    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 18.1    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | NR n7               | PC3   | 24.2           | 21.6    | 0.810                                          | 1.0                                        | 19.0    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 18.3    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | NR n41/38           | PC3   | 23.8           | 32.5    | 0.810                                          | 1.0                                        | 21.1    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 18.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | NR n41              | PC2   | 28.0           | 35.5    | 0.810                                          | 1.0                                        | 24.1    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 21.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 0   | NR n41              | PC1P5 | 31.0           | 38.5    | 0.810                                          | 1.0                                        | 27.1    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 24.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | NR n41/38           | PC3   | 24.1           | 16.4    | 0.810                                          | 1.0                                        | 25.1    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 23.1    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | NR n41              | PC2   | 29.0           | 19.4    | 0.810                                          | 1.0                                        | 28.1    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 26.1    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 1   | NR n41              | PC1P5 | 32.0           | 22.4    | 0.810                                          | 1.0                                        | 31.1    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 29.1    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | NR n41/38           | PC3   | 24.1           | 22.1    | 0.810                                          | 1.0                                        | 19.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 19.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | NR n41              | PC2   | 29.0           | 25.1    | 0.810                                          | 1.0                                        | 22.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 22.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 2   | NR n41              | PC1P5 | 32.0           | 28.1    | 0.810                                          | 1.0                                        | 25.9    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 25.2    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n41/38           | PC3   | 24.1           | 18.1    | 0.890                                          | 1.0                                        | 29.6    | 0.890                                          | 2.225                                               | 1.0                                        | 2.5                                             | 23.8    | 0.760                                             | 0.85                                          | 0.5                       |
| ANT 5   | NR n41              | PC2   | 29.0           | 21.1    | 0.890                                          | 1.0                                        | 32.6    | 0.890                                          | 2.225                                               | 1.0                                        | 2.5                                             | 26.8    | 0.760                                             | 0.85                                          | 0.5                       |
| ANT 5   | NR n41              | PC1P5 | 31.0           | 24.1    | 0.710                                          | 1.0                                        | 35.6    | 0.710                                          | 1.775                                               | 1.0                                        | 2.5                                             | 29.8    | 0.600                                             | 0.85                                          | 1.5                       |
| ANT 1   | NR n77/78 (Block A) | PC3   | 24.0           | 14.9    | 0.780                                          | 1.0                                        | 22.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 19.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block A) | PC2   | 28.0           | 17.9    | 0.780                                          | 1.0                                        | 25.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 22.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block A) | PC1P5 | 31.0           | 20.9    | 0.780                                          | 1.0                                        | 28.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 25.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block B) | PC3   | 24.0           | 14.9    | 0.780                                          | 1.0                                        | 22.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 19.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block B) | PC2   | 28.0           | 17.9    | 0.780                                          | 1.0                                        | 25.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 22.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block B) | PC1P5 | 31.0           | 20.9    | 0.780                                          | 1.0                                        | 28.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 25.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block C) | PC3   | 24.0           | 14.9    | 0.780                                          | 1.0                                        | 22.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 19.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block C) | PC2   | 28.0           | 17.9    | 0.780                                          | 1.0                                        | 25.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 22.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 1   | NR n77/78 (Block C) | PC1P5 | 31.0           | 20.9    | 0.780                                          | 1.0                                        | 28.4    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 25.9    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 5   | NR n77/78 (Block A) | PC3   | 24.0           | 16.6    | 0.810                                          | 1.0                                        | 22.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 21.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n77/78 (Block A) | PC2   | 27.0           | 19.6    | 0.650                                          | 1.0                                        | 25.6    | 0.650                                          | 1.625                                               | 1.0                                        | 2.5                                             | 24.9    | 0.550                                             | 0.85                                          | 1.9                       |
| ANT 5   | NR n77/78 (Block A) | PC1P5 | 31.0           | 22.6    | 0.810                                          | 1.0                                        | 28.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 27.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n77/78 (Block B) | PC3   | 24.0           | 16.6    | 0.810                                          | 1.0                                        | 22.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 21.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n77/78 (Block B) | PC2   | 27.0           | 19.6    | 0.650                                          | 1.0                                        | 25.6    | 0.650                                          | 1.625                                               | 1.0                                        | 2.5                                             | 24.9    | 0.550                                             | 0.85                                          | 1.9                       |
| ANT 5   | NR n77/78 (Block B) | PC1P5 | 31.0           | 22.6    | 0.810                                          | 1.0                                        | 28.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 27.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n77/78 (Block C) | PC3   | 24.0           | 16.6    | 0.810                                          | 1.0                                        | 22.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 21.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 5   | NR n77/78 (Block C) | PC2   | 27.0           | 19.6    | 0.650                                          | 1.0                                        | 25.6    | 0.650                                          | 1.625                                               | 1.0                                        | 2.5                                             | 24.9    | 0.550                                             | 0.85                                          | 1.9                       |
| ANT 5   | NR n77/78 (Block C) | PC1P5 | 31.0           | 22.6    | 0.810                                          | 1.0                                        | 28.6    | 0.810                                          | 2.025                                               | 1.0                                        | 2.5                                             | 27.9    | 0.690                                             | 0.85                                          | 0.9                       |
| ANT 6   | NR n77/78 (Block A) | PC3   | 24.0           | 23.3    | 0.780                                          | 1.0                                        | 18.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block A) | PC2   | 29.0           | 26.3    | 0.780                                          | 1.0                                        | 21.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 20.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block A) | PC1P5 | 32.0           | 29.3    | 0.780                                          | 1.0                                        | 24.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 23.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block B) | PC3   | 24.0           | 23.3    | 0.780                                          | 1.0                                        | 18.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block B) | PC2   | 29.0           | 26.3    | 0.780                                          | 1.0                                        | 21.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 20.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block B) | PC1P5 | 32.0           | 29.3    | 0.780                                          | 1.0                                        | 24.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 23.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block C) | PC3   | 24.0           | 23.3    | 0.780                                          | 1.0                                        | 18.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 17.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block C) | PC2   | 29.0           | 26.3    | 0.780                                          | 1.0                                        | 21.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 20.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 6   | NR n77/78 (Block C) | PC1P5 | 32.0           | 29.3    | 0.780                                          | 1.0                                        | 24.5    | 0.780                                          | 1.950                                               | 1.0                                        | 2.5                                             | 23.8    | 0.660                                             | 0.85                                          | 1.1                       |
| ANT 7   | NR n77/78 (Block A) | PC3   | 22.8           | 28.4    | 0.650                                          | 1.0                                        | 18.1    | 0.650                                          | 1.625                                               | 1.0                                        | 2.5                                             | 17.4    | 0.550                                             | 0.85                                          | 1.9                       |
| ANT 7   | NR n77/78 (Block A) | PC2   | 28.0           | 31.4    | 0.710                                          | 1.0                                        | 21.1    | 0.710                                          | 1.775                                               | 1.0                                        | 2.5                                             | 20.4    | 0.600                                             | 0.85                                          | 1.5                       |
| ANT 7   | NR n77/78 (Block A) | PC1P5 | 30.8           | 34.4    | 0.680                                          | 1.0                                        | 24.1    | 0.680                                          | 1.700                                               | 1.0                                        | 2.5                                             | 23.4    | 0.570                                             | 0.84                                          | 1.7                       |
| ANT 7   | NR n77/78 (Block B) | PC3   | 22.8           | 28.4    | 0.650                                          | 1.0                                        | 18.1    | 0.650                                          | 1.625                                               | 1.0                                        | 2.5                                             | 17.4    | 0.550                                             | 0.85                                          | 1.9                       |
| ANT 7   | NR n77/78 (Block B) | PC2   | 28.0           | 31.4    | 0.710                                          | 1.0                                        | 21.1    | 0.710                                          | 1.775                                               | 1.0                                        | 2.5                                             | 20.4    | 0.600                                             | 0.85                                          | 1.5                       |
| ANT 7   | NR n77/78 (Block B) | PC1P5 | 30.8           | 34.4    | 0.680                                          | 1.0                                        | 24.1    | 0.680                                          | 1.700                                               | 1.0                                        | 2.5                                             | 23.4    | 0.570                                             | 0.84                                          | 1.7                       |
| ANT 7   | NR n77/78 (Block C) | PC3   | 22.8           | 28.4    | 0.650                                          | 1.0                                        | 18.1    | 0.650                                          | 1.625                                               | 1.0                                        | 2.5                                             | 17.4    | 0.550                                             | 0.85                                          | 1.9                       |
| ANT 7   | NR n77/78 (Block C) | PC2   | 28.0           | 31.4    | 0.710                                          | 1.0                                        | 21.1    | 0.710                                          | 1.775                                               | 1.0                                        | 2.5                                             | 20.4    | 0.600                                             | 0.85                                          | 1.5                       |
| ANT 7   | NR n77/78 (Block C) | PC1P5 | 30.8           | 34.4    | 0.680                                          | 1.0                                        | 24.1    | 0.680                                          | 1.700                                               | 1.0                                        | 2.5                                             | 23.4    | 0.570                                             | 0.84                                          | 1.7                       |
| ANT 1   | NTN S-Band          | N/A   | 22.5           | N/A     | N/A                                            | N/A                                        | 22.0    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | N/A     | N/A                                               | N/A                                           | 1.0                       |
| ANT 5   | NTN L-Band          | N/A   | 23.6           | N/A     | N/A                                            | N/A                                        | 24.6    | 0.790                                          | 1.975                                               | 1.0                                        | 2.5                                             | N/A     | N/A                                               | N/A                                           | 1.0                       |

## 4.4. SAR Characterization

Referring to the initial FCC submission, the worst-case *reported* SAR for each antenna/technology/band/Indices is summarized in Table 4-2:

**Table 4-2: Worst-case reported SAR**

| Tech/Band            | Antenna |           |         |           | Worst-case SAR (W/kg) |           |         |           | Nominal (dBm) + Uncertainty (dBm) |           |         |           |
|----------------------|---------|-----------|---------|-----------|-----------------------|-----------|---------|-----------|-----------------------------------|-----------|---------|-----------|
|                      | Head    | Body-worn | Hotspot | Extremity | Head                  | Body-worn | Hotspot | Extremity | Head                              | Body-worn | Hotspot | Extremity |
|                      | Index 2 | Index 5   | Index 4 | Index 5   | Index 2               | Index 5   | Index 4 | Index 5   | Index 2                           | Index 5   | Index 4 | Index 5   |
| GSM 850 4 slots      | ANT 1   | ANT 1     | ANT 1   | N/A       | 0.560                 | 0.665     | 0.566   | N/A       | 24.10                             | 30.10     | 29.40   | N/A       |
| GSM 1900 4 slots     | ANT 2   | ANT 0     | ANT 0   | N/A       | 0.519                 | 0.750     | 0.393   | N/A       | 26.80                             | 22.60     | 19.60   | N/A       |
| W-CDMA B2            | ANT 2   | ANT 0     | ANT 0   | N/A       | 0.717                 | 0.812     | 0.635   | N/A       | 24.50                             | 20.00     | 18.30   | N/A       |
| W-CDMA B4            | ANT 2   | ANT 0     | ANT 0   | N/A       | 0.157                 | 0.678     | 0.714   | N/A       | 25.20                             | 19.90     | 18.60   | N/A       |
| W-CDMA B5            | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.731                 | 0.651     | 0.651   | N/A       | 23.20                             | 25.50     | 25.50   | N/A       |
| LTE Band 7           | ANT 2   | ANT 0     | ANT 0   | ANT 0     | 0.732                 | 0.984     | 0.768   | 2.367     | 23.20                             | 21.50     | 18.00   | 21.50     |
| LTE Band 12/17       | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.791                 | 0.484     | 0.633   | N/A       | 23.10                             | 25.10     | 25.10   | N/A       |
| LTE Band 13          | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.720                 | 0.630     | 0.630   | N/A       | 22.70                             | 25.10     | 25.10   | N/A       |
| LTE Band 14          | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.652                 | 0.538     | 0.538   | N/A       | 22.90                             | 25.10     | 25.10   | N/A       |
| LTE Band 25/2        | ANT 1   | ANT 0     | ANT 2   | N/A       | 0.770                 | 0.939     | 0.846   | N/A       | 16.00                             | 20.00     | 23.00   | N/A       |
| LTE Band 26/5        | ANT 1   | ANT 1     | ANT 1   | N/A       | 0.872                 | 0.462     | 0.462   | N/A       | 23.20                             | 24.70     | 24.70   | N/A       |
| LTE Band 30          | ANT 2   | ANT 0     | ANT 2   | ANT 0     | 0.418                 | 0.903     | 0.794   | 2.469     | 23.60                             | 21.60     | 23.10   | 21.60     |
| LTE Band 41          | ANT 2   | ANT 0     | ANT 0   | ANT 0     | 0.809                 | 0.827     | 0.793   | 2.044     | 25.10                             | 24.30     | 20.90   | 24.30     |
| LTE Band 41 (PC2)    | ANT 0   | N/A       | N/A     | N/A       | 0.065                 | N/A       | N/A     | N/A       | 26.90                             | N/A       | N/A     | N/A       |
| LTE Band 48          | ANT 6   | ANT 7     | ANT 7   | N/A       | 0.065                 | 0.484     | 0.484   | N/A       | 22.40                             | 23.40     | 23.40   | N/A       |
| LTE Band 66/4        | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.635                 | 0.937     | 0.791   | N/A       | 19.20                             | 20.00     | 18.60   | N/A       |
| LTE Band 71          | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.783                 | 0.481     | 0.535   | N/A       | 24.00                             | 25.10     | 25.10   | N/A       |
| NTN S-Band           | N/A     | ANT 1     | N/A     | ANT 1     | N/A                   | 0.986     | N/A     | 2.335     | N/A                               | 23.00     | N/A     | 23.00     |
| NTN L-Band           | N/A     | ANT 5     | N/A     | ANT 5     | N/A                   | 0.495     | N/A     | 1.899     | N/A                               | 24.60     | N/A     | 24.60     |
| NR n7                | ANT 2   | ANT 0     | ANT 0   | ANT 0     | 0.558                 | 0.842     | 0.759   | 1.422     | 22.50                             | 21.20     | 19.00   | 21.20     |
| NR n12               | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.797                 | 0.454     | 0.454   | N/A       | 23.40                             | 25.10     | 25.10   | N/A       |
| NR n14               | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.735                 | 0.571     | 0.486   | N/A       | 23.70                             | 25.10     | 24.40   | N/A       |
| NR n25/2             | ANT 2   | ANT 0     | ANT 0   | N/A       | 0.489                 | 0.848     | 0.603   | N/A       | 24.20                             | 19.90     | 18.10   | N/A       |
| NR n26/5             | ANT 1   | ANT 1     | ANT 1   | N/A       | 0.765                 | 0.323     | 0.323   | N/A       | 23.00                             | 24.70     | 24.70   | N/A       |
| NR n30               | ANT 2   | ANT 0     | ANT 2   | N/A       | 0.689                 | 0.810     | 0.821   | N/A       | 23.90                             | 21.50     | 20.80   | N/A       |
| NR n41               | ANT 2   | ANT 0     | ANT 0   | ANT 0     | 0.734                 | 0.815     | 0.792   | 0.778     | 23.00                             | 22.00     | 19.10   | 22.00     |
| NR n66               | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.720                 | 0.962     | 0.697   | N/A       | 19.90                             | 20.60     | 18.70   | N/A       |
| NR n71               | ANT 1   | ANT 0     | ANT 0   | N/A       | 0.595                 | 0.265     | 0.313   | N/A       | 24.70                             | 25.10     | 25.10   | N/A       |
| NR n77 (Block A) PC3 | ANT 1   | ANT 1     | ANT 1   | ANT 1     | 0.549                 | 0.671     | 0.778   | 1.775     | 16.00                             | 23.50     | 21.00   | 23.50     |
| NR n77 (Block B) PC3 | ANT 1   | ANT 1     | ANT 6   | N/A       | 0.613                 | 0.680     | 0.504   | N/A       | 16.00                             | 23.50     | 18.90   | N/A       |
| NR n77 (Block C) PC3 | ANT 1   | ANT 1     | ANT 6   | N/A       | 0.598                 | 0.386     | 0.297   | N/A       | 16.00                             | 23.50     | 18.90   | N/A       |

Using the reported SAR listed in Table 4-2, and following the procedure described in §3.1, the *SAR Char* of this EUT, i.e.,  $P_{limit}$  corresponding to  $SAR_{Design Target}$ , is determined for each supported antenna/technology/band/Indices as:

1. For Indices= 5,  $P_{limit}$  is calculated based on 10-g SAR extremity evaluation at 0 mm spacing.
2. For Indices= 2,  $P_{limit}$  is calculated based on 1-g SAR head exposure evaluation.
3. For Indices = 4,  $P_{limit}$  is calculated based on Hotspot 1-g SAR evaluation at 10 mm spacing.
4. For Indices = 5, the worst-case SAR exposure is determined as maximum normalized SAR among body-worn SAR (normalized, i.e., Body-worn SAR divided by the FCC 1-g SAR limit) and extremity SAR measured at 0 mm (normalized, i.e., Extremity SAR divided by the FCC 10-g SAR limit). Therefore, the  $P_{limit}$  for Indices = 5 case is calculated and given by:

$$P_{limit} = \min \{ P_{limit} \text{ corresponding to body worn 1gSAR evaluation at 10 mm spacing, } P_{limit} \text{ corresponding to 10-g SAR extremity evaluation at 0 mm spacing, } P_{max} \text{ maximum RF tuneup power for the case that the SAR test is excluded} \}$$

The SAR Char is listed in Table 4-3.

Table 4-3: SAR Characterization

| Exposure Scenario |                       | Duty Cycle    | Head                     |                          | Body-worn                |                          | Hotspot                  |                          | Extremity                |                          | P <sub>max</sub> (dBm) |       |
|-------------------|-----------------------|---------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------|-------|
| Spatial-average   |                       |               | 1-g                      |                          | 1-g                      |                          | 1-g                      |                          | 10-g                     |                          |                        |       |
| Test Distance     |                       |               | 0 mm                     |                          | 10 mm                    |                          | 10 mm                    |                          | 0 mm                     |                          |                        |       |
| Power Mode (DSI)  |                       |               | Index 2                  |                          | Index 5                  |                          | Index 4                  |                          | Index 5                  |                          |                        |       |
| Antenna           | Tech/Band             |               | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) |                        |       |
|                   |                       | Burst Average | Frame Average            | Burst Average            | Frame Average            | Burst Average            | Frame Average            | Burst Average            | Frame Average            | Burst Average            | Frame Average          |       |
| ANT 0             | GSM 850 GPRS 4 Slots  | 50.0%         | 28.00                    | 24.99                    | 27.00                    | 23.99                    | 26.30                    | 23.29                    | 27.00                    | 23.99                    | 29.50                  | 26.49 |
|                   | GSM 1900 GPRS 4 Slots | 50.0%         | 40.80                    | 37.79                    | 21.70                    | 18.69                    | 18.70                    | 15.69                    | 21.70                    | 18.69                    | 25.70                  | 22.69 |
|                   | W-CDMA B2             | 100.0%        | 34.70                    | 34.70                    | 18.90                    | 18.90                    | 17.20                    | 17.20                    | 18.90                    | 18.90                    | 23.20                  | 23.20 |
|                   | W-CDMA B4             | 100.0%        | 33.20                    | 33.20                    | 18.80                    | 18.80                    | 17.50                    | 17.50                    | 18.80                    | 18.80                    | 23.20                  | 23.20 |
|                   | W-CDMA B5             | 100.0%        | 28.80                    | 28.80                    | 26.20                    | 26.20                    | 25.50                    | 25.50                    | 26.20                    | 26.20                    | 24.30                  | 24.30 |
|                   | LTE Band 7            | 100.0%        | 34.00                    | 34.00                    | 20.60                    | 20.60                    | 17.10                    | 17.10                    | 20.60                    | 20.60                    | 23.80                  | 23.80 |
|                   | LTE Band 12/17        | 100.0%        | 28.90                    | 28.90                    | 27.50                    | 27.50                    | 25.00                    | 25.00                    | 27.50                    | 27.50                    | 24.30                  | 24.30 |
|                   | LTE Band 13           | 100.0%        | 27.60                    | 27.60                    | 26.10                    | 26.10                    | 25.40                    | 25.40                    | 26.10                    | 26.10                    | 24.30                  | 24.30 |
|                   | LTE Band 14           | 100.0%        | 27.30                    | 27.30                    | 26.50                    | 26.50                    | 25.80                    | 25.80                    | 26.50                    | 26.50                    | 24.30                  | 24.30 |
|                   | LTE Band 25/2         | 100.0%        | 35.70                    | 35.70                    | 18.80                    | 18.80                    | 17.00                    | 17.00                    | 18.80                    | 18.80                    | 23.20                  | 23.20 |
|                   | LTE Band 26/5         | 100.0%        | 28.90                    | 28.90                    | 27.70                    | 27.70                    | 27.00                    | 27.00                    | 27.70                    | 27.70                    | 24.30                  | 24.30 |
|                   | LTE Band 30           | 100.0%        | 31.90                    | 31.90                    | 20.50                    | 20.50                    | 17.80                    | 17.80                    | 20.50                    | 20.50                    | 22.20                  | 22.20 |
|                   | LTE Band 41/38        | 63.3%         | 34.40                    | 32.41                    | 23.40                    | 21.41                    | 20.00                    | 18.01                    | 23.40                    | 21.41                    | 25.80                  | 23.81 |
|                   | LTE Band 41 (PC2)     | 43.3%         | 36.00                    | 32.36                    | 25.00                    | 21.36                    | 21.60                    | 17.96                    | 25.00                    | 21.36                    | 29.60                  | 25.96 |
|                   | LTE Band 66/4         | 100.0%        | 32.20                    | 32.20                    | 19.20                    | 19.20                    | 17.80                    | 17.80                    | 19.20                    | 19.20                    | 23.20                  | 23.20 |
|                   | LTE Band 71           | 100.0%        | 29.80                    | 29.80                    | 27.50                    | 27.50                    | 26.30                    | 26.30                    | 27.50                    | 27.50                    | 24.30                  | 24.30 |
|                   | NR n7                 | 100.0%        | 32.40                    | 32.40                    | 20.30                    | 20.30                    | 18.10                    | 18.10                    | 20.30                    | 20.30                    | 23.80                  | 23.80 |
|                   | NR n12                | 100.0%        | 30.60                    | 30.60                    | 27.70                    | 27.70                    | 27.00                    | 27.00                    | 27.70                    | 27.70                    | 24.30                  | 24.30 |
|                   | NR n14                | 100.0%        | 28.70                    | 28.70                    | 26.80                    | 26.80                    | 23.60                    | 23.60                    | 26.80                    | 26.80                    | 24.30                  | 24.30 |
|                   | NR n25/2              | 100.0%        | 34.80                    | 34.80                    | 19.10                    | 19.10                    | 17.30                    | 17.30                    | 19.10                    | 19.10                    | 23.20                  | 23.20 |
| NR n26/5          | 100.0%                | 30.90         | 30.90                    | 29.60                    | 29.60                    | 28.20                    | 28.20                    | 29.60                    | 29.60                    | 24.30                    | 24.30                  |       |
| NR n30            | 100.0%                | 35.00         | 35.00                    | 20.50                    | 20.50                    | 18.90                    | 18.90                    | 20.50                    | 20.50                    | 22.30                    | 22.30                  |       |
| NR n41/38         | 100.0%                | 32.50         | 32.50                    | 21.10                    | 21.10                    | 18.20                    | 18.20                    | 21.10                    | 21.10                    | 23.80                    | 23.80                  |       |
| NR n66            | 100.0%                | 34.50         | 34.50                    | 19.80                    | 19.80                    | 17.90                    | 17.90                    | 19.80                    | 19.80                    | 23.20                    | 23.20                  |       |
| NR n71            | 100.0%                | 31.50         | 31.50                    | 30.00                    | 30.00                    | 28.60                    | 28.60                    | 30.00                    | 30.00                    | 24.30                    | 24.30                  |       |
| ANT 1             | GSM 850 GPRS 4 Slots  | 50.0%         | 23.20                    | 20.19                    | 31.00                    | 27.99                    | 28.50                    | 25.49                    | 31.00                    | 27.99                    | 29.20                  | 26.19 |
|                   | W-CDMA B5             | 100.0%        | 22.10                    | 22.10                    | 27.40                    | 27.40                    | 26.70                    | 26.70                    | 27.40                    | 27.40                    | 24.00                  | 24.00 |
|                   | LTE Band 12/17        | 100.0%        | 22.40                    | 22.40                    | 28.60                    | 28.60                    | 26.90                    | 26.90                    | 28.60                    | 28.60                    | 24.00                  | 24.00 |
|                   | LTE Band 13           | 100.0%        | 22.00                    | 22.00                    | 26.60                    | 26.60                    | 25.90                    | 25.90                    | 26.60                    | 26.60                    | 24.00                  | 24.00 |
|                   | LTE Band 14           | 100.0%        | 22.20                    | 22.20                    | 27.10                    | 27.10                    | 26.40                    | 26.40                    | 27.10                    | 27.10                    | 24.00                  | 24.00 |
|                   | LTE Band 25/2         | 100.0%        | 15.10                    | 15.10                    | 20.60                    | 20.60                    | 19.90                    | 19.90                    | 20.60                    | 20.60                    | 24.00                  | 24.00 |
|                   | LTE Band 26/5         | 100.0%        | 22.50                    | 22.50                    | 27.40                    | 27.40                    | 26.70                    | 26.70                    | 27.40                    | 27.40                    | 24.00                  | 24.00 |
|                   | LTE Band 66/4         | 100.0%        | 18.30                    | 18.30                    | 27.20                    | 27.20                    | 23.30                    | 23.30                    | 27.20                    | 27.20                    | 24.00                  | 24.00 |
|                   | LTE Band 71           | 100.0%        | 23.30                    | 23.30                    | 29.30                    | 29.30                    | 28.60                    | 28.60                    | 29.30                    | 29.30                    | 24.00                  | 24.00 |
|                   | NTN S-Band            | 100.0%        | N/A                      | N/A                      | 22.00                    | 22.00                    | N/A                      | N/A                      | 22.00                    | 22.00                    | 22.50                  | 22.50 |
|                   | NR n12                | 100.0%        | 22.70                    | 22.70                    | 34.30                    | 34.30                    | 27.60                    | 27.60                    | 34.30                    | 34.30                    | 24.00                  | 24.00 |
|                   | NR n14                | 100.0%        | 23.00                    | 23.00                    | 32.00                    | 32.00                    | 23.30                    | 23.30                    | 32.00                    | 32.00                    | 24.00                  | 24.00 |
|                   | NR n25/2              | 100.0%        | 14.60                    | 14.60                    | 20.90                    | 20.90                    | 20.20                    | 20.20                    | 20.90                    | 20.90                    | 24.00                  | 24.00 |
|                   | NR n26/5              | 100.0%        | 22.30                    | 22.30                    | 28.90                    | 28.90                    | 28.20                    | 28.20                    | 28.90                    | 28.90                    | 24.00                  | 24.00 |
|                   | NR n41/38             | 100.0%        | 16.40                    | 16.40                    | 25.10                    | 25.10                    | 23.10                    | 23.10                    | 25.10                    | 25.10                    | 24.10                  | 24.10 |
|                   | NR n66                | 100.0%        | 19.00                    | 19.00                    | 25.70                    | 25.70                    | 23.30                    | 23.30                    | 25.70                    | 25.70                    | 24.00                  | 24.00 |
|                   | NR n71                | 100.0%        | 26.30                    | 26.30                    | 35.40                    | 35.40                    | 28.80                    | 28.80                    | 35.40                    | 35.40                    | 24.00                  | 24.00 |
|                   | NR n77/78 (Block A)   | 100.0%        | 14.90                    | 14.90                    | 22.40                    | 22.40                    | 19.90                    | 19.90                    | 22.40                    | 22.40                    | 24.00                  | 24.00 |
|                   | NR n77/78 (Block B)   | 100.0%        | 14.90                    | 14.90                    | 22.40                    | 22.40                    | 19.90                    | 19.90                    | 22.40                    | 22.40                    | 24.00                  | 24.00 |
|                   | NR n77/78 (Block C)   | 100.0%        | 14.90                    | 14.90                    | 22.40                    | 22.40                    | 19.90                    | 19.90                    | 22.40                    | 22.40                    | 24.00                  | 24.00 |

| Exposure Scenario |                       | Duty Cycle    | Head                     |                          | Body-worn                |                          | Hotspot                  |                          | Extremity                |                          | P <sub>max</sub> (dBm) |       |
|-------------------|-----------------------|---------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------|-------|
| Spatial-average   |                       |               | 1-g                      |                          | 1-g                      |                          | 1-g                      |                          | 10-g                     |                          |                        |       |
| Test Distance     |                       |               | 0 mm                     |                          | 10 mm                    |                          | 10 mm                    |                          | 0 mm                     |                          |                        |       |
| Power Mode (DSI)  |                       |               | Index 2                  |                          | Index 5                  |                          | Index 4                  |                          | Index 5                  |                          |                        |       |
| Antenna           | Tech/Band             |               | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) | P <sub>limit</sub> (dBm) |                        |       |
|                   |                       | Burst Average | Frame Average            | Burst Average            | Frame Average            | Burst Average            | Frame Average            | Burst Average            | Frame Average            | Burst Average            | Frame Average          |       |
| ANT 2             | GSM 1900 GPRS 4 Slots | 50.0%         | 25.80                    | 22.79                    | 22.80                    | 19.79                    | 22.10                    | 19.09                    | 22.80                    | 19.79                    | 26.50                  | 23.49 |
|                   | W-CDMA B2             | 100.0%        | 23.30                    | 23.30                    | 20.80                    | 20.80                    | 20.10                    | 20.10                    | 20.80                    | 20.80                    | 24.00                  | 24.00 |
|                   | W-CDMA B4             | 100.0%        | 32.00                    | 32.00                    | 20.80                    | 20.80                    | 20.10                    | 20.10                    | 20.80                    | 20.80                    | 24.00                  | 24.00 |
|                   | LTE Band 7            | 100.0%        | 22.30                    | 22.30                    | 20.90                    | 20.90                    | 20.20                    | 20.20                    | 20.90                    | 20.90                    | 24.20                  | 24.20 |
|                   | LTE Band 25/2         | 100.0%        | 23.60                    | 23.60                    | 22.80                    | 22.80                    | 22.10                    | 22.10                    | 22.80                    | 22.80                    | 24.00                  | 24.00 |
|                   | LTE Band 30           | 100.0%        | 26.80                    | 26.80                    | 22.90                    | 22.90                    | 22.20                    | 22.20                    | 22.90                    | 22.90                    | 23.00                  | 23.00 |
|                   | LTE Band 41/38        | 63.3%         | 25.30                    | 23.31                    | 25.60                    | 23.61                    | 23.50                    | 21.51                    | 25.60                    | 23.61                    | 26.20                  | 24.21 |
|                   | LTE Band 66/4         | 100.0%        | 26.10                    | 26.10                    | 22.70                    | 22.70                    | 22.00                    | 22.00                    | 22.70                    | 22.70                    | 24.00                  | 24.00 |
|                   | NR n7                 | 100.0%        | 21.60                    | 21.60                    | 19.00                    | 19.00                    | 18.30                    | 18.30                    | 19.00                    | 19.00                    | 24.20                  | 24.20 |
|                   | NR n25/2              | 100.0%        | 23.30                    | 23.30                    | 20.60                    | 20.60                    | 19.90                    | 19.90                    | 20.60                    | 20.60                    | 24.00                  | 24.00 |
| ANT 5             | NR n30                | 100.0%        | 26.00                    | 26.00                    | 20.60                    | 20.60                    | 19.90                    | 19.90                    | 20.60                    | 20.60                    | 23.00                  | 23.00 |
|                   | NR n41                | 100.0%        | 22.10                    | 22.10                    | 19.90                    | 19.90                    | 19.20                    | 19.20                    | 19.90                    | 19.90                    | 24.10                  | 24.10 |
|                   | NR n66                | 100.0%        | 27.00                    | 27.00                    | 20.70                    | 20.70                    | 20.00                    | 20.00                    | 20.70                    | 20.70                    | 24.00                  | 24.00 |
|                   | LTE Band 25/2         | 100.0%        | 15.80                    | 15.80                    | 21.20                    | 21.20                    | 19.70                    | 19.70                    | 21.20                    | 21.20                    | 24.00                  | 24.00 |
|                   | LTE Band 66/4         | 100.0%        | 14.70                    | 14.70                    | 19.90                    | 19.90                    | 18.60                    | 18.60                    | 19.90                    | 19.90                    | 24.00                  | 24.00 |
|                   | NTN L-Band            | 100.0%        | N/A                      | N/A                      | 24.60                    | 24.60                    | N/A                      | N/A                      | 24.60                    | 24.60                    | 23.60                  | 23.60 |
|                   | NR n25/2              | 100.0%        | 17.00                    | 17.00                    | 21.60                    | 21.60                    | 20.90                    | 20.90                    | 21.60                    | 21.60                    | 24.00                  | 24.00 |
|                   | NR n41                | 100.0%        | 18.10                    | 18.10                    | 29.60                    | 29.60                    | 23.80                    | 23.80                    | 29.60                    | 29.60                    | 24.10                  | 24.10 |
|                   | NR n66                | 100.0%        | 16.80                    | 16.80                    | 21.60                    | 21.60                    | 20.90                    | 20.90                    | 21.60                    | 21.60                    | 24.00                  | 24.00 |
|                   | NR n77/78 (Block A)   | 100.0%        | 16.60                    | 16.60                    | 22.60                    | 22.60                    | 21.90                    | 21.90                    | 22.60                    | 22.60                    | 24.00                  | 24.00 |
| ANT 6             | NR n77/78 (Block B)   | 100.0%        | 16.60                    | 16.60                    | 22.60                    | 22.60                    | 21.90                    | 21.90                    | 22.60                    | 22.60                    | 24.00                  | 24.00 |
|                   | NR n77/78 (Block C)   | 100.0%        | 16.60                    | 16.60                    | 22.60                    | 22.60                    | 21.90                    | 21.90                    | 22.60                    | 22.60                    | 24.00                  | 24.00 |
|                   | LTE Band 48           | 63.3%         | 33.20                    | 31.21                    | 24.50                    | 22.51                    | 23.80                    | 21.81                    | 24.50                    | 22.51                    | 23.30                  | 21.31 |
|                   | NR n77/78 (Block A)   | 100.0%        | 23.30                    | 23.30                    | 18.50                    | 18.50                    | 17.80                    | 17.80                    | 18.50                    | 18.50                    | 24.00                  | 24.00 |
|                   | NR n77/78 (Block B)   | 100.0%        | 23.30                    | 23.30                    | 18.50                    | 18.50                    | 17.80                    | 17.80                    | 18.50                    | 18.50                    | 24.00                  | 24.00 |
| ANT 7             | NR n77/78 (Block C)   | 100.0%        | 23.30                    | 23.30                    | 18.50                    | 18.50                    | 17.80                    | 17.80                    | 18.50                    | 18.50                    | 24.00                  | 24.00 |
|                   | LTE Band 48           | 63.3%         | 35.80                    | 33.81                    | 24.40                    | 22.41                    | 23.70                    | 21.71                    | 24.40                    | 22.41                    | 23.50                  | 21.51 |
|                   | NR n77/78 (Block A)   | 100.0%        | 28.40                    | 28.40                    | 18.10                    | 18.10                    | 17.40                    | 17.40                    | 18.10                    | 18.10                    | 22.80                  | 22.80 |
|                   | NR n77/78 (Block B)   | 100.0%        | 28.40                    | 28.40                    | 18.10                    | 18.10                    | 17.40                    | 17.40                    | 18.10                    | 18.10                    | 22.80                  | 22.80 |
| ANT 7             | NR n77/78 (Block C)   | 100.0%        | 28.40                    | 28.40                    | 18.10                    | 18.10                    | 17.40                    | 17.40                    | 18.10                    | 18.10                    | 22.80                  | 22.80 |

END OF REPORT