

# TEST REPORT

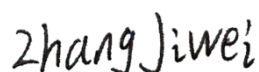
**Applicant:** Shanghai Tricheer Technology Co., Ltd.  
**Address:** Rm 907, Building 1, Lane 399, Shengxia Road,  
China (shanghai) Pilot Free Trade Zone, Shanghai,  
China  
**Equipment Type:** FS045U  
**Model Name:** FS045U  
**Brand Name:** +F  
**FCC ID:** 2ANKMFS045U  
**Test Standard:** FCC 47 CFR Part 2.1093  
(refer section 3.1)  
**Maximum SAR:** Body-worn (1 g@5mm): 1.17W/kg  
**Sample Arrival Date:** Feb. 05, 2026  
**Test Date:** Feb. 09, 2026 - Mar. 23, 2026  
**Date of Issue:** Apr. 21, 2026

**ISSUED BY:**

Shenzhen BALUN Technology Co., Ltd.

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(Testing Director)



### Revision History

| Version        | Issue Date           | Revisions Content    |
|----------------|----------------------|----------------------|
| <u>Rev. 01</u> | <u>Apr. 21, 2026</u> | <u>Initial Issue</u> |

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# 1 GENERAL INFORMATION

## 1.1 Test Laboratory

|              |                                                                                                                              |
|--------------|------------------------------------------------------------------------------------------------------------------------------|
| Name         | Shenzhen BALUN Technology Co., Ltd.                                                                                          |
| Address      | Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China |
| Phone Number | +86 755 6685 0100                                                                                                            |

## 1.2 Test Location

|                           |                                                                                                                                                                                                                                    |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name                      | Shenzhen BALUN Technology Co., Ltd.                                                                                                                                                                                                |
| Location                  | <input type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China                                                                              |
|                           | <input checked="" type="checkbox"/> 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China |
| Accreditation Certificate | The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.                                                                                                   |

## 1.3 Test Environment Condition

|                           |              |
|---------------------------|--------------|
| Ambient Temperature       | 18°C to 25°C |
| Ambient Relative Humidity | 30% to 70%   |

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

|           |                                                                                                      |
|-----------|------------------------------------------------------------------------------------------------------|
| Applicant | Shanghai Tricheer Technology Co., Ltd.                                                               |
| Address   | Rm 907, Building 1, Lane 399, Shengxia Road, China (shanghai) Pilot Free Trade Zone, Shanghai, China |

### 2.2 Manufacturer Information

|              |                                                                                                      |
|--------------|------------------------------------------------------------------------------------------------------|
| Manufacturer | Shanghai Tricheer Technology Co., Ltd.                                                               |
| Address      | Rm 907, Building 1, Lane 399, Shengxia Road, China (shanghai) Pilot Free Trade Zone, Shanghai, China |

### 2.3 General Description for Equipment under Test (EUT)

|                                           |                  |
|-------------------------------------------|------------------|
| EUT Name                                  | FS045U           |
| Model Name Under Test                     | FS045U           |
| Series Model Name                         | N/A              |
| Description of Model name differentiation | N/A              |
| Hardware Version                          | A9606M1A         |
| Software Version                          | LWDJC16.1.0_6M1A |
| Dimensions (Approx.)                      | N/A              |
| Weight (Approx.)                          | N/A              |

### 2.4 Ancillary Equipment

Note: Not applicable

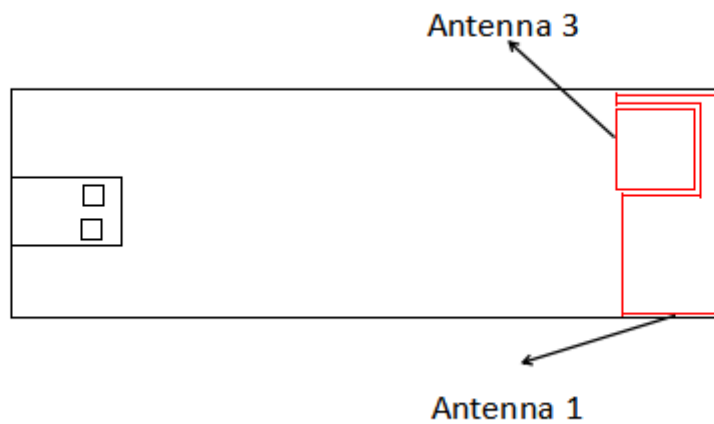
## 2.5 Technical Information

|                                   |                                                                                    |
|-----------------------------------|------------------------------------------------------------------------------------|
| Network and Wireless connectivity | 4G Network LTE FDD Band 26<br>LTE TDD Band 41<br>5G Network SA: NR n26/n41/n77/n78 |
|-----------------------------------|------------------------------------------------------------------------------------|

The requirement for the following technical information of the EUT was tested in this report:

|                   |                                                                                                  |                     |                     |
|-------------------|--------------------------------------------------------------------------------------------------|---------------------|---------------------|
| Operating Mode    | LTE, NR                                                                                          |                     |                     |
|                   | LTE Band 26                                                                                      | TX: 814~849 MHz     | RX: 859~894 MHz     |
|                   | LTE Band 41                                                                                      | TX: 2496 ~ 2690 MHz | RX: 2496 ~ 2690 MHz |
|                   | n26                                                                                              | TX: 814 ~ 849 MHz   | RX: 859 ~ 894 MHz   |
|                   | n41                                                                                              | TX: 2496 ~ 2690 MHz | RX: 2496 ~ 2690 MHz |
|                   | n77                                                                                              | TX: 3300 ~ 4200 MHz | RX: 3300 ~ 4200 MHz |
|                   | n78                                                                                              | TX: 3300 ~ 3800 MHz | RX: 3300 ~ 3800 MHz |
| Antenna Type      | Internal antenna                                                                                 |                     |                     |
| Exposure Category | General Population/Uncontrolled exposure                                                         |                     |                     |
| Product Type      | Portable Device                                                                                  |                     |                     |
| EUT Type          | <input checked="" type="checkbox"/> Production unit <input type="checkbox"/> Identical prototype |                     |                     |

## 2.6 Antenna Location



| Antenna   | Description     | Support Bands               |
|-----------|-----------------|-----------------------------|
| Antenna 1 | 4/5G TX Antenna | LTE Band 26/41<br>NR n26/41 |
| Antenna 3 | 5G TX Antenna   | NR n77/78                   |

### 3 SUMMARY OF TEST RESULT

#### 3.1 Test Standards

| No. | Identity                  | Document Title                                                                                                             |
|-----|---------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1   | 47 CFR Part 2.1093        | Radiofrequency radiation exposure evaluation: portable devices                                                             |
| 2   | ANSI/IEEE Std. C95.1-1992 | IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz |
| 3   | KDB 447498 D04 v01        | 447498 D04 Interim General RF Exposure Guidance v01                                                                        |
| 4   | KDB 447498 D02 v02r01     | SAR MEASUREMENT PROCEDURES FOR USB DONGLE TRANSMITTERS                                                                     |
| 5   | KDB 941225 D05 v02r05     | SAR Evaluation Considerations for LTE Devices                                                                              |
| 6   | KDB 865664 D01 v01r04     | SAR Measurement 100 MHz to 6 GHz                                                                                           |
| 7   | KDB 865664 D02 v01r02     | RF Exposure Reporting                                                                                                      |

### 3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

| Body Position                                                                       | SAR Value (W/Kg)                             |                                      |
|-------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|
|                                                                                     | General Population/<br>Uncontrolled Exposure | Occupational/<br>Controlled Exposure |
| Whole-Body SAR<br>(averaged over the entire body)                                   | 0.08                                         | 0.4                                  |
| Partial-Body SAR<br>(averaged over any 1 gram of tissue)                            | 1.60                                         | 8.0                                  |
| SAR for hands, wrists, feet and<br>ankles<br>(averaged over any 10 grams of tissue) | 4.0                                          | 20.0                                 |

**NOTE:**

**General Population/Uncontrolled Exposure:** Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

**Occupational/Controlled Exposure:** Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure. In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

### 3.3 Test Result Summary

| Equipment Class | Band        | Maximum Scaled SAR (W/kg) | Maximum Report SAR (W/kg) |
|-----------------|-------------|---------------------------|---------------------------|
|                 |             | Body                      | Body                      |
|                 |             | (5mm)                     | (5mm)                     |
|                 |             | 1g SAR                    | 1g SAR                    |
| PCB             | LTE Band 26 | 0.82                      | 1.17                      |
|                 | LTE Band 41 | 0.99                      |                           |
|                 | NR Band 26  | 0.81                      |                           |
|                 | NR Band 41  | 1.17                      |                           |
|                 | NR Band 77  | 0.76                      |                           |
|                 | NR Band 78  | 0.62                      |                           |
| Limit (W/kg)    |             | 1.6                       | 1.6                       |
| Verdict         |             | PASS                      |                           |

### 3.4 Test Uncertainty

According to KDB 865664 D01, When the highest measured 1 g SAR within a frequency band is  $< 1.5$  W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 1.17 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

## 4 MEASUREMENT SYSTEM

### 4.1 Specific Absorption Rate (SAR) Definition

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density ( $\rho$ ). The equation description is as below:

$$\text{SAR} = \frac{d}{dt} \left( \frac{dW}{dm} \right) = \frac{d}{dt} \left( \frac{dW}{\rho dv} \right)$$

SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

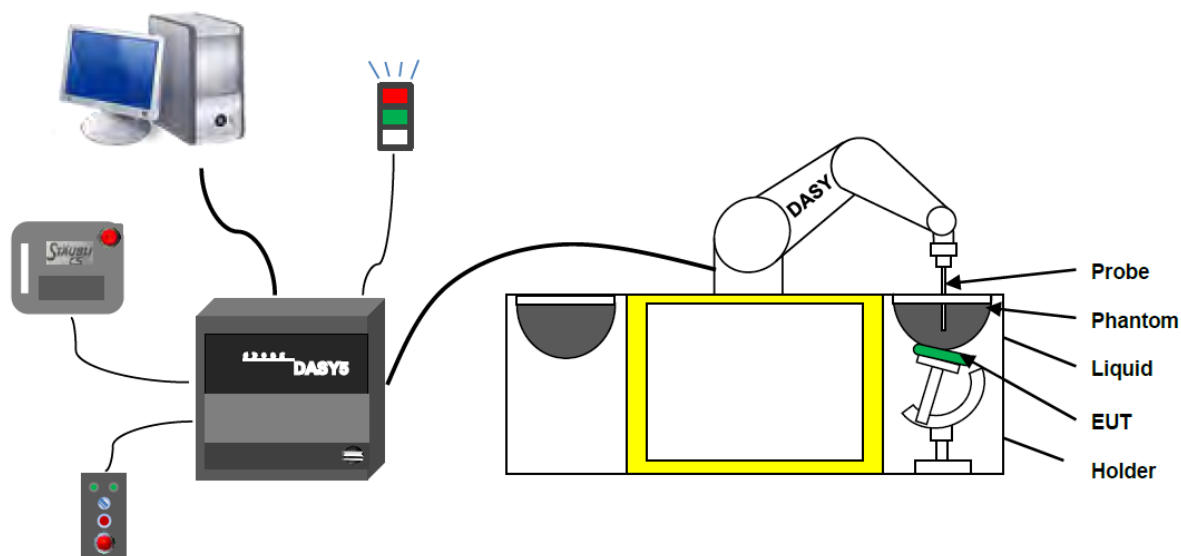
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where:  $\sigma$  is the conductivity of the tissue,

$\rho$  is the mass density of the tissue and E is the RMS electrical field strength.

## 4.2 DASY SAR System

### 4.2.1 DASY SAR System Diagram



The DASY5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

#### 4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:



- High precision  
(repeatability  $\pm 0.02$  mm)
- High reliability  
(industrial design)
- Low maintenance costs  
(virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements  
(brush less synchron motors; no stepper motors)
- Low ELF interference  
(motor control \_elds shielded via the closed metallic construction shields)

#### 4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4 with following specifications is used.

|               |                                                                                                                                                                                                                  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Construction  | Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether) |
| Calibration   | ISO/IEC 17025 calibration service available                                                                                                                                                                      |
| Frequency     | 10 MHz to 6 GHz; Linearity: $\pm 0.2$ dB (30 MHz to 6 GHz)                                                                                                                                                       |
| Directivity   | $\pm 0.2$ dB in HSL (rotation around probe axis) ; $\pm 0.4$ dB in HSL (rotation normal to probe axis)                                                                                                           |
| Dynamic range | 5 $\mu$ W/g to > 100 mW/g; Linearity: $\pm 0.2$ dB                                                                                                                                                               |
| Dimensions    | Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm                                                                                          |
| Application   | General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)                                                                                           |



#### E-Field Probe Calibration Process

Probe calibration is realized, in compliance with CENELEC EN 62209-1/-2 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the EN 62209-1/2 annexe technique using reference guide at the five frequencies.

#### 4.2.4 Data Acquisition Electronics

The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200M $\Omega$
- The Inputs: Symmetrical and Floating
- Commom Mode Rejection: Above 80dB

#### 4.2.5 Phantoms

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.



- Left head
- Right head
- Flat phantom



#### 4.2.6 Device Holder

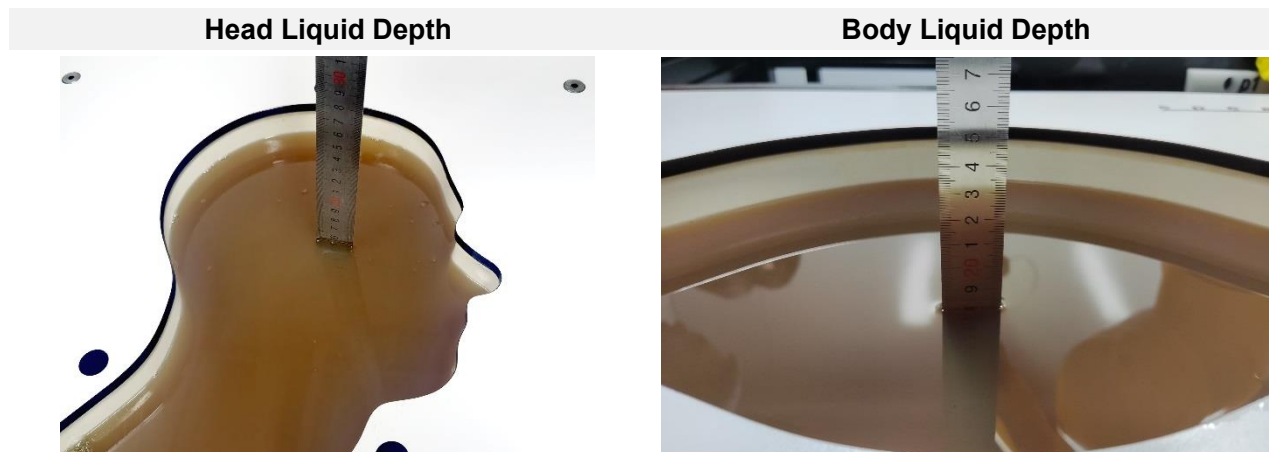
The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of  $65^\circ$ . The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA's only. If necessary an additional support of polystyrene material is used. Larger DUT's (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.



The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than  $1^\circ$ .

#### 4.2.7 Simulating Liquid

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.



The following table gives the recipes for tissue simulating liquid.

| TSL           | Manufacturer / Model  | Freq Range (MHz) | Main Ingredients                                                                                         |
|---------------|-----------------------|------------------|----------------------------------------------------------------------------------------------------------|
| Head WideBand | SPEAG HBBL600-10000V6 | 600-10000        | Ethenediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol |

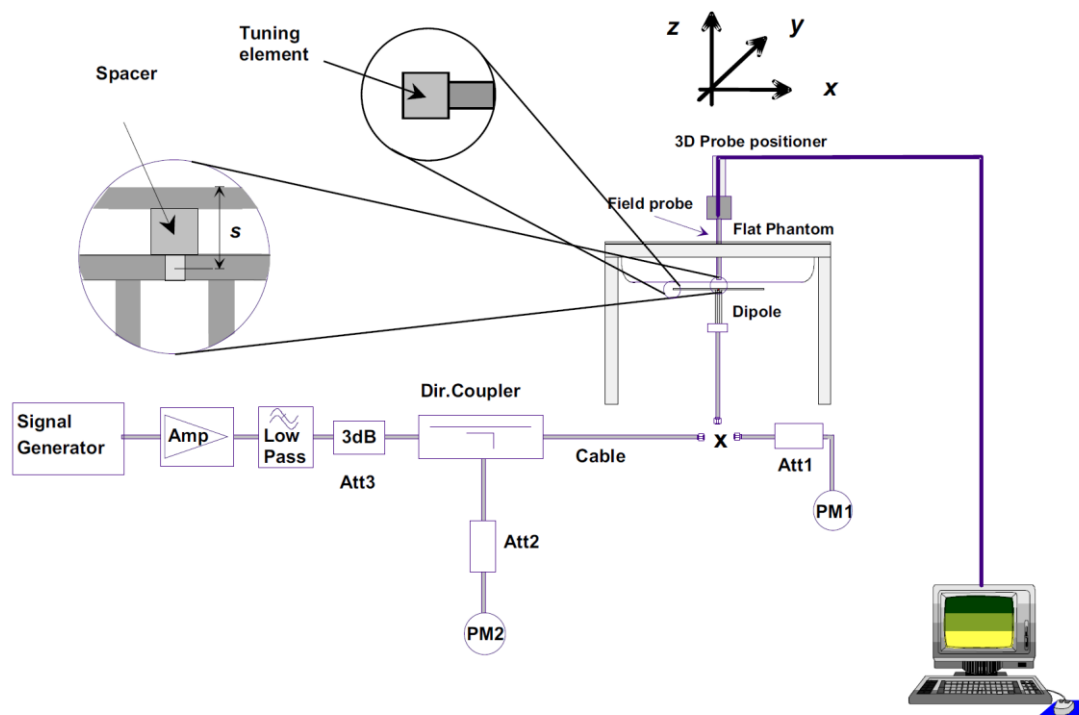
## 5 SYSTEM VERIFICATION

### 5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

### 5.2 System Check Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



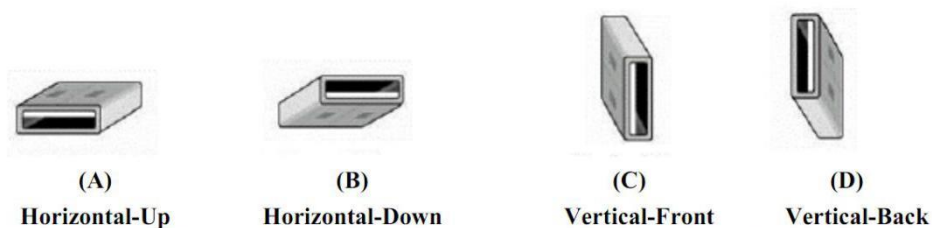
## 6 TEST POSITION CONFIGURATIONS

### 6.1 USB DONGLE TRANSMITTERS Position Conditions

#### SIMPLE DONGLE PROCEDURES

Test all USB orientations [see figure below: (A) Horizontal-Up, (B) Horizontal-Down, (C) Vertical-Front, and (D) Vertical-Back] with a device-to-phantom separation distance of 5 mm or less, according to KDB Publication 447498 D01 requirements.

These test orientations are intended for the exposure conditions found in typical laptop/notebook/netbook or tablet computers with either horizontal or vertical USB connector configurations at various locations in the keyboard section of the computer.



Note: These are USB connector orientations on laptop computers; USB dongles have the reverse configuration for plugging into the corresponding laptop computers.

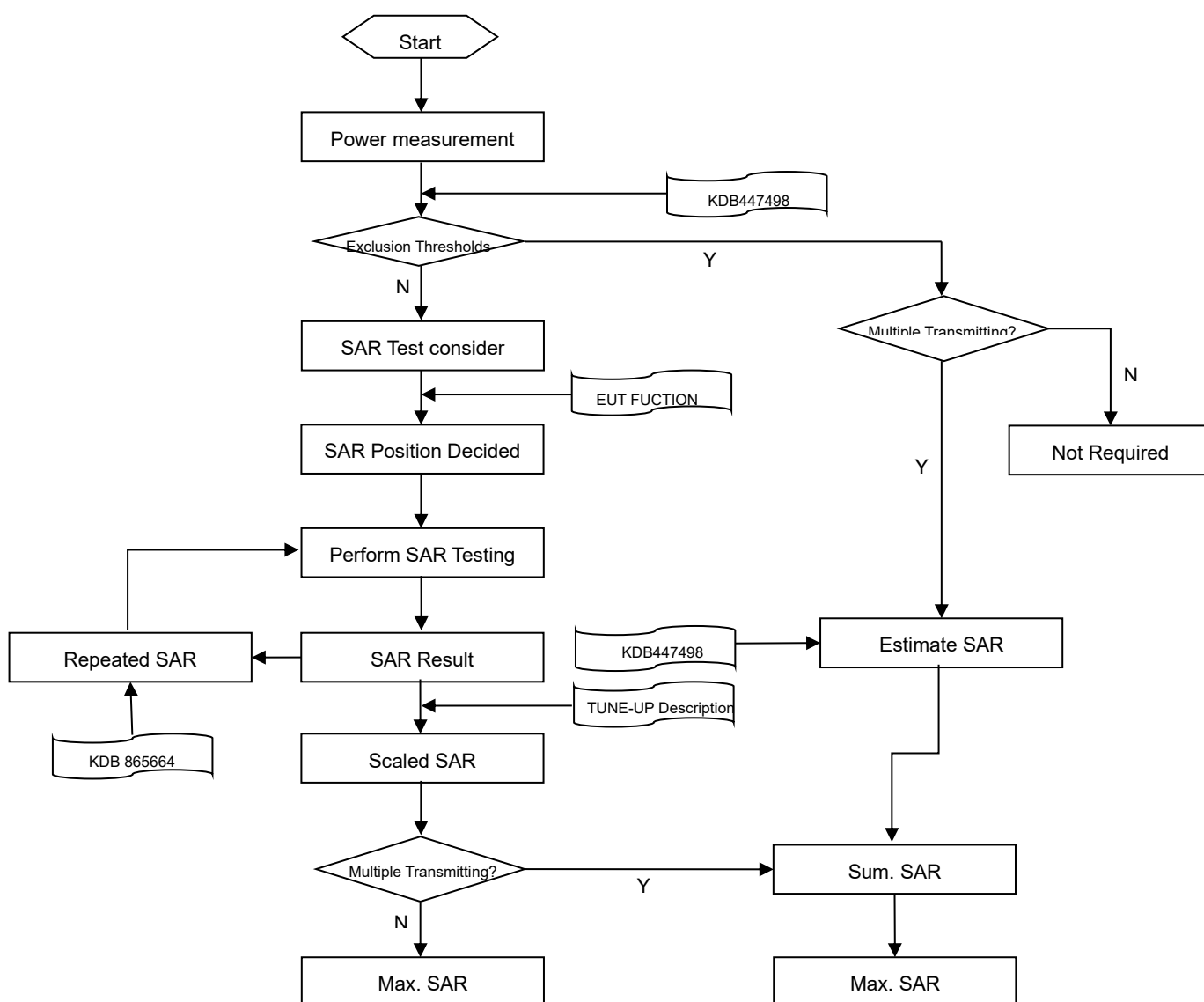
#### DONGLES WITH SWIVEL OR ROTATING CONNECTORS

A swivel or rotating USB connector may enable the dongle to connect in different orientations to host computers. When the antenna is built-in within the housing of a dongle, a swivel or rotating connector may allow the antenna to assume different positions.

The combination of these possible configurations must be considered to determine the SAR test requirements. When the antenna is located near the tip of a dongle, it may operate at closer proximity to users in certain connector orientations where dongle tip testing may be required. If the antenna is within 1 cm from the tip of the dongle (the end without the USB connector), the tip of the dongle should also be tested at 5 mm perpendicular to the phantom.

## 7 MEASUREMENT PROCEDURE

### 7.1 Measurement Process Diagram



## 7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1 g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013.

|                                                                                                                                                                                                                                                                             |                           |                                                                | ≤3GHz                                                                                                                                                                                                                                                             | >3GHz                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface                                                                                                                                                                      |                           |                                                                | 5±1 mm                                                                                                                                                                                                                                                            | $\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm |
| Maximum probe angle from probe axis to phantom surface normal at the measurement location                                                                                                                                                                                   |                           |                                                                | 30°±1°                                                                                                                                                                                                                                                            | 20°±1°                                             |
| Maximum area scan spatial resolution: Δx Area , Δy Area                                                                                                                                                                                                                     |                           |                                                                | ≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm                                                                                                                                                                                                                            | 3–4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 10 mm             |
|                                                                                                                                                                                                                                                                             |                           |                                                                | When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device. |                                                    |
| Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom                                                                                                                                                                                                                     |                           |                                                                | ≤ 2 GHz: ≤ 8 mm<br>2 –3 GHz: ≤ 5 mm*                                                                                                                                                                                                                              | 3–4 GHz: ≤ 5 mm*<br>4 – 6 GHz: ≤ 4 mm*             |
| Maximum zoom scan spatial resolution, normal to phantom surface                                                                                                                                                                                                             | uniform grid: Δz Zoom (n) |                                                                | ≤ 5 mm                                                                                                                                                                                                                                                            | 3–4 GHz: ≤ 4 mm                                    |
|                                                                                                                                                                                                                                                                             |                           |                                                                |                                                                                                                                                                                                                                                                   | 4–5 GHz: ≤ 3 mm                                    |
|                                                                                                                                                                                                                                                                             |                           |                                                                |                                                                                                                                                                                                                                                                   | 5–6 GHz: ≤ 2 mm                                    |
|                                                                                                                                                                                                                                                                             | graded grid               | Δz Zoom (1): between 1st two points closest to phantom surface | ≤ 4 mm                                                                                                                                                                                                                                                            | 3–4 GHz: ≤ 3 mm                                    |
|                                                                                                                                                                                                                                                                             |                           |                                                                |                                                                                                                                                                                                                                                                   | 4–5 GHz: ≤ 2.5 mm                                  |
|                                                                                                                                                                                                                                                                             |                           | Δz Zoom (n>1): between subsequent points                       | ≤ 1.5·Δz Zoom (n-1)                                                                                                                                                                                                                                               |                                                    |
| Minimum zoom scan volume                                                                                                                                                                                                                                                    | x, y, z                   |                                                                | ≥30 mm                                                                                                                                                                                                                                                            | 3–4 GHz: ≥ 28 mm                                   |
|                                                                                                                                                                                                                                                                             |                           |                                                                |                                                                                                                                                                                                                                                                   | 4–5 GHz: ≥ 25 mm                                   |
|                                                                                                                                                                                                                                                                             |                           |                                                                |                                                                                                                                                                                                                                                                   | 5–6 GHz: ≥ 22 mm                                   |
| Note:                                                                                                                                                                                                                                                                       |                           |                                                                |                                                                                                                                                                                                                                                                   |                                                    |
| 1. δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.                                                                                                                                     |                           |                                                                |                                                                                                                                                                                                                                                                   |                                                    |
| 2. * When zoom scan is required and the reported SAR from the area scan based 1 g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz. |                           |                                                                |                                                                                                                                                                                                                                                                   |                                                    |

### 7.3 Measurement Procedure

The following steps are used for each test position

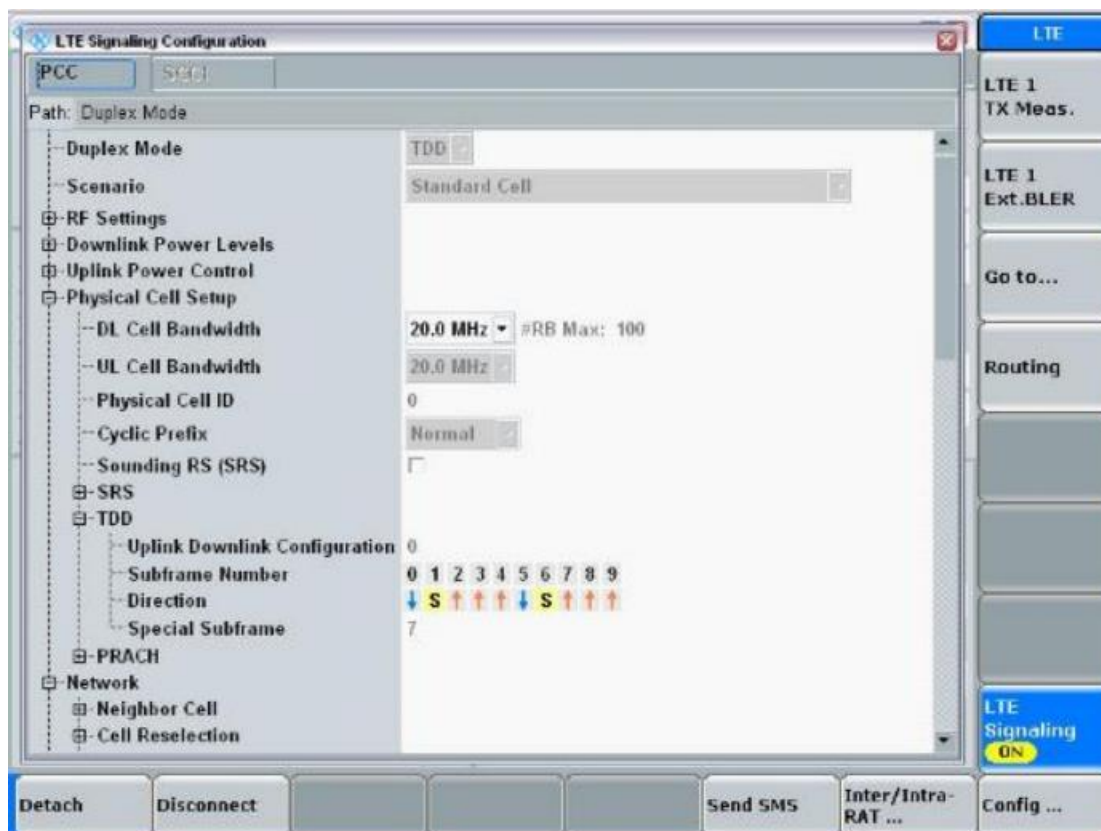
- a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. Measurement of the SAR distribution with a grid of 8 to 16mm \* 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- d. Around this point, a cube of 30 \* 30 \* 30 mm or 32 \* 32 \* 32 mm is assessed by measuring 5 or 8 \* 5 or 8\*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

### 7.4 Area & Zoom Scan Procedure

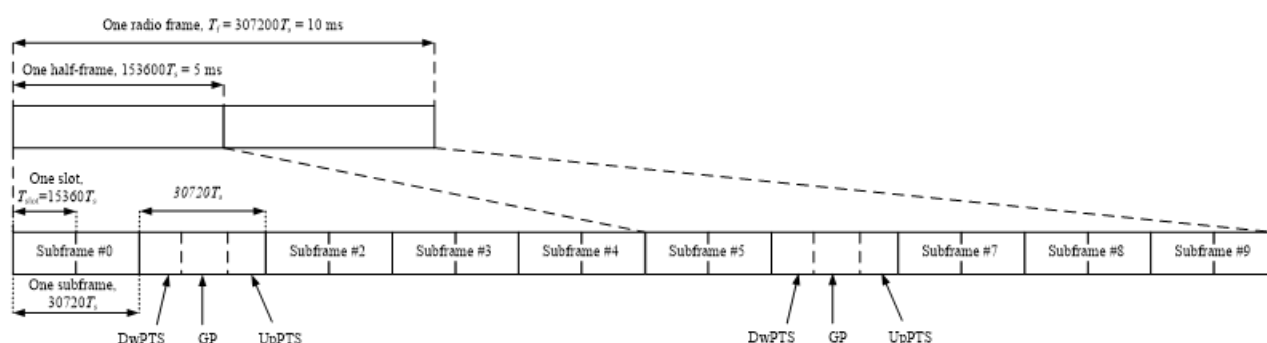
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below. When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

## 7.5 LTE (TDD) Considerations

During TDD-LTE SAR testing, the EUT was commanded to transmit on maximum output power and maximum transmitting bandwidth. The uplink and downlink slot configuration as below in one radio frame.



According to 3GPP Per 3GPP TS 36.211. Each radio frame of length ( $T_f = 307200 \cdot T_s = 10\text{ms}$ ) of two half-frames of length ( $153600 \cdot T_s = 5\text{ms}$ ). Each half-frame consists of five sub-frames of length ( $30720 \cdot T_s = 1\text{ms}$ )



And the special sub-frame with the three fields DwPTS, GP and UpPTS.

The length of DwPTS and UpPTS is given by below table subject to the total length of DwPTS, GP and UpPTS being equal to  $30720 \cdot T_s = 1\text{ms}$ .

### Configuration of special sub-frame (lengths of DwPTS/GP/UpPTS)

| Special sub-frame configuration | Normal cyclic prefix in downlink |                                |                                  | Extended cyclic prefix in downlink |                                |                                  |
|---------------------------------|----------------------------------|--------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------|
|                                 | DwPTS                            | UpPTS                          |                                  | DwPTS                              | UpPTS                          |                                  |
|                                 |                                  | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |                                    | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| 0                               | $6592 \cdot T_s$                 | $2192 \cdot T_s$               | $2560 \cdot T_s$                 | $7680 \cdot T_s$                   | $2192 \cdot T_s$               | $2560 \cdot T_s$                 |
| 1                               | $19760 \cdot T_s$                |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 2                               | $21592 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 3                               | $24144 \cdot T_s$                |                                |                                  | $25600 \cdot T_s$                  |                                |                                  |
| 4                               | $26336 \cdot T_s$                | $4384 \cdot T_s$               | $5120 \cdot T_s$                 | $7680 \cdot T_s$                   | $2560 \cdot T_s$               | $5120 \cdot T_s$                 |
| 5                               | $6592 \cdot T_s$                 |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 6                               | $19760 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 7                               | $21592 \cdot T_s$                |                                |                                  | $12800 \cdot T_s$                  | -                              | -                                |
| 8                               | $24144 \cdot T_s$                |                                |                                  | -                                  |                                |                                  |
| 9                               | $13168 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |

For special sub-frame uplink time we used the largest cyclic prefix for duty cycle calculate;

Maximum uplink time of one special sub-frame=(largest cyclic prefix)/(one sub-frame of length)\* time of one sub-frame= $5120 \cdot T_s / 30720 \cdot T_s \cdot 1\text{ms} = 0.167\text{ms}$

One radio frame with 6 uplink sub-frames and two special sub-frame,

there for the maximum Uplink time in one radio frame is:  $6 \cdot 1\text{ ms} + 2 \cdot 0.167\text{ ms} = 6.334\text{ms}$

So, the duty cycle for TDD-LTE is:  $6.334\text{ms} / 10\text{ms} = 1: 1.58$

## 8 CONDUCTED RF OUTPUT POWER

### 8.1 Power Reduction List

Please refer the document “Ti-AT26020109-AP.pdf”.

- 1.The device employs proximity sensors that detect the presence of the user's body of the device. When these conditions are detected, body reduced power will be active.
- 2.When the proximity sensor fails, the power supply will reduce to the minimum.

WWAN Reduced power level table

| Sensor state | Transmitting  | Antenna | Position                                                                                   |
|--------------|---------------|---------|--------------------------------------------------------------------------------------------|
|              | conditions    |         |                                                                                            |
| Sensor Off   | WWAN Use Only | Ant.1   | Horizontal-Up; Horizontal-Down;<br>Vertical-Front; Vertical-Back;<br>Top Edge; Bottom Edge |
|              |               | Ant.3   |                                                                                            |
| Sensor On    | WWAN Use Only | Ant.1   | Horizontal-Up; Horizontal-Down                                                             |
|              |               | Ant.3   |                                                                                            |

WWAN Antenna Power table

| Mode       | Antenna | WWAN Antenna |              |           |
|------------|---------|--------------|--------------|-----------|
|            |         | Full Power   | Receiver off |           |
|            |         |              | Body         |           |
|            |         |              | Sensor Off   | Sensor On |
| LTE Band26 | ant1    | 24.00        | 24.00        | 24.00     |
| LTE Band41 | ant1    | 24.00        | 24.00        | 22.00     |
| N26        | ant1    | 24.00        | 24.00        | 24.00     |
| N41        | ant1    | 24.00        | 24.00        | 21.00     |
| N77        | ant3    | 24.00        | 24.00        | 22.00     |
| N78        | ant3    | 24.00        | 24.00        | 22.00     |

## 8.2 LTE

Please refer the document “Ti-AT26020109-AP.pdf”.

## 8.3 5G NR

Please refer the document “Ti-AT26020109-AP.pdf”.

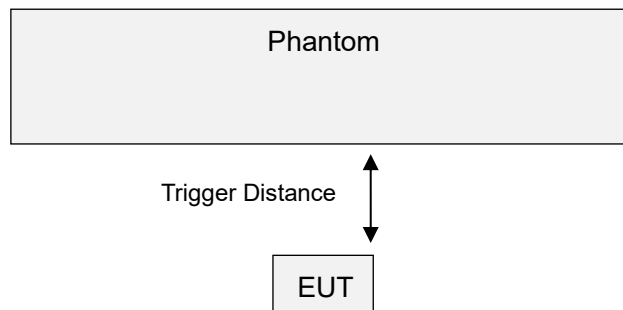
## 9 PROXIMITY SENSOR TRIGGERING TEST

### 9.1 Procedures for determining proximity sensor distance

The device uses proximity sensors to reduce the maximum output power in selected wireless mode and operating configurations to ensure SAR compliance. The sensor implementation can identify and facilitate triggering different max power levels for different scenarios including the device held by hand(Extremity) and different exposure test positions test positions when the device is closed to a user's body.

Proximity sensor triggering distance testing was performed, EUT moving further away from the phantom and EUT moving toward the phantom were both assessed, and the shortest triggering distances were reported and used for SAR assessment. Note that while sensor is failed and it sets the output power to the lowest one in the sensor trigger state, to make sure the SAR requirements can still be satisfied.

#### 9.1.1 proximity sensor



EUT moving toward Phantom and EUT moving away from Phantom

| Distance in mm  | 1~5 | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 13  | 14  | 15~30 |
|-----------------|-----|----|----|----|----|----|----|-----|-----|-----|-------|
| Horizontal-Up   | On  | On | On | On | On | On | On | Off | Off | Off | Off   |
| Horizontal-Down | On  | On | On | On | On | On | On | Off | Off | Off | Off   |

Note: Power reduction is only applicable for ANT1/3.

To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for EUT moving toward the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

ANT1/3 of proximity sensor

| EUT Sides       | Additional SAR test Distance in mm |
|-----------------|------------------------------------|
| Horizontal-Up   | 10                                 |
| Horizontal-Down | 10                                 |

# 10 TEST RESULT

## 10.1Body

### 10.1.1 LTE

| Band    | Sesnor State | Antenna | Mode | Position        | Dist.(mm) | Bandwidth | Ch.   | Freq.(MHz) | RB Size | RB offset | Power Drift(dB) | 1 g Meas SAR(W/kg) | Meas. Power (dBm) | Max. tune-up power(dBm) | Scaling Factor | 1g Scaled SAR (W/kg) | Meas. No. |
|---------|--------------|---------|------|-----------------|-----------|-----------|-------|------------|---------|-----------|-----------------|--------------------|-------------------|-------------------------|----------------|----------------------|-----------|
| Body    |              |         |      |                 |           |           |       |            |         |           |                 |                    |                   |                         |                |                      |           |
| LTE B26 | On           | 1       | QPSK | Horizontal-Up   | 5         | 15        | 26865 | 831.5      | 1       | Mid       | 0.11            | 0.659              | 23.06             | 24.00                   | 1.242          | 0.818                | 1#        |
| LTE B26 | On           | 1       | QPSK | Horizontal-Down | 5         | 15        | 26865 | 831.5      | 1       | Mid       | -0.11           | 0.343              | 23.06             | 24.00                   | 1.242          | 0.426                | /         |
| LTE B26 | Off          | 1       | QPSK | Vertical-Front  | 5         | 15        | 26865 | 831.5      | 1       | Mid       | 0.08            | 0.366              | 23.06             | 24.00                   | 1.242          | 0.455                | /         |
| LTE B26 | Off          | 1       | QPSK | Vertical-Back   | 5         | 15        | 26865 | 831.5      | 1       | Mid       | -0.09           | 0.237              | 23.06             | 24.00                   | 1.242          | 0.294                | /         |
| LTE B26 | Off          | 1       | QPSK | Top Edge        | 5         | 15        | 26865 | 831.5      | 1       | Mid       | 0.04            | 0.068              | 23.06             | 24.00                   | 1.242          | 0.084                | /         |
| LTE B26 | Off          | 1       | QPSK | Bottom Edge     | 5         | 15        | 26865 | 831.5      | 1       | Mid       | 0.11            | 0.012              | 23.06             | 24.00                   | 1.242          | 0.015                | /         |
| LTE B26 | On           | 1       | QPSK | Horizontal-Up   | 5         | 15        | 26765 | 821.5      | 36      | Mid       | -0.06           | 0.521              | 22.01             | 23.00                   | 1.256          | 0.654                | /         |
| LTE B26 | On           | 1       | QPSK | Horizontal-Down | 5         | 15        | 26765 | 821.5      | 36      | Mid       | 0.03            | 0.276              | 22.01             | 23.00                   | 1.256          | 0.347                | /         |
| LTE B26 | Off          | 1       | QPSK | Vertical-Front  | 5         | 15        | 26765 | 821.5      | 36      | Mid       | 0.09            | 0.290              | 22.01             | 23.00                   | 1.256          | 0.364                | /         |
| LTE B26 | Off          | 1       | QPSK | Vertical-Back   | 5         | 15        | 26765 | 821.5      | 36      | Mid       | 0.01            | 0.192              | 22.01             | 23.00                   | 1.256          | 0.241                | /         |
| LTE B26 | Off          | 1       | QPSK | Top Edge        | 5         | 15        | 26765 | 821.5      | 36      | Mid       | 0.06            | 0.052              | 22.01             | 23.00                   | 1.256          | 0.065                | /         |
| LTE B26 | Off          | 1       | QPSK | Bottom Edge     | 5         | 15        | 26765 | 821.5      | 36      | Mid       | 0.12            | 0.008              | 22.01             | 23.00                   | 1.256          | 0.010                | /         |
| LTE B26 | On           | 1       | QPSK | Horizontal-Up   | 5         | 15        | 26765 | 821.5      | 1       | Mid       | -0.12           | 0.601              | 23.01             | 24.00                   | 1.256          | 0.755                | /         |
| LTE B26 | On           | 1       | QPSK | Horizontal-Up   | 5         | 15        | 26965 | 841.5      | 1       | Low       | 0.12            | 0.413              | 23.03             | 24.00                   | 1.250          | 0.516                | /         |
| Body    |              |         |      |                 |           |           |       |            |         |           |                 |                    |                   |                         |                |                      |           |
| LTE B41 | On           | 1       | QPSK | Horizontal-Up   | 5         | 20        | 40620 | 2593       | 1       | Low       | -0.07           | 0.658              | 21.58             | 22.00                   | 1.102          | 0.725                | /         |
| LTE B41 | On           | 1       | QPSK | Horizontal-Down | 5         | 20        | 40620 | 2593       | 1       | Low       | -0.06           | 0.753              | 21.58             | 22.00                   | 1.102          | 0.830                | /         |

|                |     |   |      |                 |    |    |       |        |     |     |       |       |       |       |       |       |    |
|----------------|-----|---|------|-----------------|----|----|-------|--------|-----|-----|-------|-------|-------|-------|-------|-------|----|
| LTE B41        | Off | 1 | QPSK | Vertical-Front  | 5  | 20 | 40620 | 2593   | 1   | Low | -0.08 | 0.073 | 23.49 | 24.00 | 1.125 | 0.082 | /  |
| LTE B41        | Off | 1 | QPSK | Vertical-Back   | 5  | 20 | 40620 | 2593   | 1   | Low | 0.16  | 0.610 | 23.49 | 24.00 | 1.125 | 0.686 | /  |
| LTE B41        | Off | 1 | QPSK | Top Edge        | 5  | 20 | 40620 | 2593   | 1   | Low | -0.16 | 0.732 | 23.49 | 24.00 | 1.125 | 0.824 | /  |
| LTE B41        | Off | 1 | QPSK | Bottom Edge     | 5  | 20 | 40620 | 2593   | 1   | Low | -0.09 | 0.010 | 23.49 | 24.00 | 1.125 | 0.011 | /  |
| LTE B41        | On  | 1 | QPSK | Horizontal-Up   | 5  | 20 | 40620 | 2593   | 50  | Mid | 0.05  | 0.472 | 20.48 | 21.00 | 1.127 | 0.532 | /  |
| LTE B41        | On  | 1 | QPSK | Horizontal-Down | 5  | 20 | 40620 | 2593   | 50  | Mid | 0.12  | 0.583 | 20.48 | 21.00 | 1.127 | 0.657 | /  |
| LTE B41        | Off | 1 | QPSK | Vertical-Front  | 5  | 20 | 40620 | 2593   | 50  | Low | 0.09  | 0.056 | 22.47 | 23.00 | 1.130 | 0.063 | /  |
| LTE B41        | Off | 1 | QPSK | Vertical-Back   | 5  | 20 | 40620 | 2593   | 50  | Low | -0.03 | 0.468 | 22.47 | 23.00 | 1.130 | 0.529 | /  |
| LTE B41        | Off | 1 | QPSK | Top Edge        | 5  | 20 | 40620 | 2593   | 50  | Low | -0.08 | 0.546 | 22.47 | 23.00 | 1.130 | 0.617 | /  |
| LTE B41        | Off | 1 | QPSK | Bottom Edge     | 5  | 20 | 40620 | 2593   | 50  | Low | -0.01 | 0.008 | 22.47 | 23.00 | 1.130 | 0.009 | /  |
| LTE B41        | On  | 1 | QPSK | Horizontal-Down | 5  | 20 | 39750 | 2506   | 1   | Low | -0.09 | 0.684 | 21.57 | 22.00 | 1.104 | 0.755 | /  |
| LTE B41        | On  | 1 | QPSK | Horizontal-Down | 5  | 20 | 40185 | 2549.5 | 1   | Mid | 0.07  | 0.701 | 21.56 | 22.00 | 1.107 | 0.776 | /  |
| LTE B41        | On  | 1 | QPSK | Horizontal-Down | 5  | 20 | 41055 | 2636.5 | 1   | Low | -0.03 | 0.726 | 21.44 | 22.00 | 1.138 | 0.826 | /  |
| LTE B41        | On  | 1 | QPSK | Horizontal-Down | 5  | 20 | 41490 | 2680   | 1   | Low | 0.09  | 0.866 | 21.41 | 22.00 | 1.146 | 0.992 | 2# |
| LTE B41        | On  | 1 | QPSK | Horizontal-Down | 5  | 20 | 40185 | 2549.5 | 100 | Low | -0.09 | 0.582 | 20.41 | 21.00 | 1.146 | 0.667 | /  |
| LTE B41        | Off | 1 | QPSK | Top Edge        | 5  | 20 | 39750 | 2506   | 1   | Low | 0.03  | 0.628 | 23.46 | 24.00 | 1.132 | 0.711 | /  |
| LTE B41        | Off | 1 | QPSK | Top Edge        | 5  | 20 | 40185 | 2549.5 | 1   | Low | -0.08 | 0.650 | 23.45 | 24.00 | 1.135 | 0.738 | /  |
| LTE B41        | Off | 1 | QPSK | Top Edge        | 5  | 20 | 41055 | 2636.5 | 1   | Mid | 0.11  | 0.678 | 23.47 | 24.00 | 1.130 | 0.766 | /  |
| LTE B41        | Off | 1 | QPSK | Top Edge        | 5  | 20 | 41490 | 2680   | 1   | Low | 0.05  | 0.715 | 23.20 | 24.00 | 1.202 | 0.859 | /  |
| LTE B41        | Off | 1 | QPSK | Top Edge        | 5  | 20 | 41055 | 2636.5 | 100 | Low | 0.03  | 0.724 | 22.43 | 23.00 | 1.140 | 0.825 | /  |
| Body(Sensor-1) |     |   |      |                 |    |    |       |        |     |     |       |       |       |       |       |       |    |
| LTE B41        | Off | 1 | QPSK | Horizontal-Up   | 10 | 20 | 40620 | 2593   | 1   | Low | 0.07  | 0.505 | 23.49 | 24.00 | 1.125 | 0.568 | /  |

|            |     |   |      |                     |    |    |       |      |    |     |       |       |       |       |       |       |   |
|------------|-----|---|------|---------------------|----|----|-------|------|----|-----|-------|-------|-------|-------|-------|-------|---|
| LTE<br>B41 | Off | 1 | QPSK | Horizontal-<br>Down | 10 | 20 | 40620 | 2593 | 1  | Low | -0.09 | 0.548 | 23.49 | 24.00 | 1.125 | 0.617 | / |
| LTE<br>B41 | Off | 1 | QPSK | Horizontal-<br>Up   | 10 | 20 | 40620 | 2593 | 50 | Low | 0.12  | 0.381 | 22.47 | 23.00 | 1.130 | 0.431 | / |
| LTE<br>B41 | Off | 1 | QPSK | Horizontal-<br>Down | 10 | 20 | 40620 | 2593 | 50 | Low | 0.04  | 0.413 | 22.47 | 23.00 | 1.130 | 0.467 | / |

## 10.1.2 5G NR

| Band | Sesnor State | Antenna | Mode            | Position        | Dist.(mm) | Bandwidth | Ch.    | Freq.(MHz) | RB Size | RB offset | Power Drift(dB) | 1 g Meas SAR(W/kg) | Meas. Power (dBm) | Max. tune-up power(dBm) | Scaling Factor | 1g Scaled SAR (W/kg) | Meas. No. |
|------|--------------|---------|-----------------|-----------------|-----------|-----------|--------|------------|---------|-----------|-----------------|--------------------|-------------------|-------------------------|----------------|----------------------|-----------|
| Body |              |         |                 |                 |           |           |        |            |         |           |                 |                    |                   |                         |                |                      |           |
| N26  | On           | 1       | DFT-s-OFDM BPSK | Horizontal-Up   | 5         | 20        | 167800 | 839        | 1       | 1         | -0.01           | 0.611              | 22.79             | 24.00                   | 1.321          | 0.807                | 3#        |
| N26  | On           | 1       | DFT-s-OFDM BPSK | Horizontal-Down | 5         | 20        | 167800 | 839        | 1       | 1         | -0.14           | 0.584              | 22.79             | 24.00                   | 1.321          | 0.771                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Vertical-Front  | 5         | 20        | 167800 | 839        | 1       | 1         | 0.15            | 0.365              | 22.79             | 24.00                   | 1.321          | 0.482                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Vertical-Back   | 5         | 20        | 167800 | 839        | 1       | 1         | 0.15            | 0.476              | 22.79             | 24.00                   | 1.321          | 0.629                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Top Edge        | 5         | 20        | 167800 | 839        | 1       | 1         | -0.04           | 0.068              | 22.79             | 24.00                   | 1.321          | 0.090                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Bottom Edge     | 5         | 20        | 167800 | 839        | 1       | 1         | -0.12           | 0.013              | 22.79             | 24.00                   | 1.321          | 0.017                | /         |
| N26  | On           | 1       | DFT-s-OFDM BPSK | Horizontal-Up   | 5         | 20        | 164800 | 824        | 50      | 56        | 0.01            | 0.605              | 22.81             | 24.00                   | 1.315          | 0.796                | /         |
| N26  | On           | 1       | DFT-s-OFDM BPSK | Horizontal-Down | 5         | 20        | 164800 | 824        | 50      | 56        | 0.04            | 0.579              | 22.81             | 24.00                   | 1.315          | 0.761                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Vertical-Front  | 5         | 20        | 164800 | 824        | 50      | 56        | 0.03            | 0.362              | 22.81             | 24.00                   | 1.315          | 0.476                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Vertical-Back   | 5         | 20        | 164800 | 824        | 50      | 56        | -0.02           | 0.471              | 22.81             | 24.00                   | 1.315          | 0.619                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Top Edge        | 5         | 20        | 164800 | 824        | 50      | 56        | 0.05            | 0.065              | 22.81             | 24.00                   | 1.315          | 0.085                | /         |
| N26  | Off          | 1       | DFT-s-OFDM BPSK | Bottom Edge     | 5         | 20        | 164800 | 824        | 50      | 56        | 0.05            | 0.013              | 22.81             | 24.00                   | 1.315          | 0.017                | /         |

|      |     |   |                 |                 |   |    |        |         |     |     |       |       |       |       |       |       |   |
|------|-----|---|-----------------|-----------------|---|----|--------|---------|-----|-----|-------|-------|-------|-------|-------|-------|---|
| N26  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 164800 | 824     | 1   | 104 | 0.04  | 0.600 | 22.77 | 24.00 | 1.327 | 0.796 | / |
| N26  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 166300 | 831.5   | 1   | 104 | 0.18  | 0.575 | 22.71 | 24.00 | 1.346 | 0.774 | / |
| N26  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 166300 | 831.5   | 50  | 56  | -0.02 | 0.595 | 22.71 | 24.00 | 1.346 | 0.801 | / |
| N26  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 167800 | 839     | 50  | 0   | 0.06  | 0.583 | 22.78 | 24.00 | 1.324 | 0.772 | / |
| N26  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 167800 | 839     | 100 | 0   | -0.03 | 0.520 | 22.33 | 23.50 | 1.309 | 0.681 | / |
| Body |     |   |                 |                 |   |    |        |         |     |     |       |       |       |       |       |       |   |
| N41  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 518598 | 2592.99 | 1   | 26  | 0.11  | 0.675 | 20.63 | 21.00 | 1.089 | 0.735 | / |
| N41  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 518598 | 2592.99 | 1   | 26  | -0.07 | 0.894 | 20.63 | 21.00 | 1.089 | 0.974 | / |
| N41  | Off | 1 | DFT-s-OFDM BPSK | Vertical-Front  | 5 | 20 | 518598 | 2592.99 | 1   | 49  | -0.09 | 0.071 | 23.56 | 24.00 | 1.107 | 0.079 | / |
| N41  | Off | 1 | DFT-s-OFDM BPSK | Vertical-Back   | 5 | 20 | 518598 | 2592.99 | 1   | 49  | -0.07 | 0.562 | 23.56 | 24.00 | 1.107 | 0.622 | / |
| N41  | Off | 1 | DFT-s-OFDM BPSK | Top Edge        | 5 | 20 | 518598 | 2592.99 | 1   | 49  | -0.04 | 0.876 | 23.56 | 24.00 | 1.107 | 0.97  | / |
| N41  | Off | 1 | DFT-s-OFDM BPSK | Bottom Edge     | 5 | 20 | 518598 | 2592.99 | 1   | 49  | 0.09  | 0.010 | 23.56 | 24.00 | 1.107 | 0.011 | / |
| N41  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 518598 | 2592.99 | 25  | 13  | -0.11 | 0.679 | 20.58 | 21.00 | 1.102 | 0.748 | / |
| N41  | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 518598 | 2592.99 | 25  | 13  | 0.04  | 0.830 | 20.58 | 21.00 | 1.102 | 0.915 | / |
| N41  | Off | 1 | DFT-s-OFDM BPSK | Vertical-Front  | 5 | 20 | 518598 | 2592.99 | 25  | 13  | 0.05  | 0.068 | 23.58 | 24.00 | 1.102 | 0.075 | / |

|     |     |   |                 |                 |   |    |        |         |    |    |       |       |       |       |       |              |           |
|-----|-----|---|-----------------|-----------------|---|----|--------|---------|----|----|-------|-------|-------|-------|-------|--------------|-----------|
| N41 | Off | 1 | DFT-s-OFDM BPSK | Vertical-Back   | 5 | 20 | 518598 | 2592.99 | 25 | 13 | 0.05  | 0.551 | 23.58 | 24.00 | 1.102 | 0.607        | /         |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge        | 5 | 20 | 518598 | 2592.99 | 25 | 13 | -0.05 | 0.856 | 23.58 | 24.00 | 1.102 | 0.943        | /         |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Bottom Edge     | 5 | 20 | 518598 | 2592.99 | 25 | 13 | -0.06 | 0.011 | 23.58 | 24.00 | 1.102 | 0.012        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 501204 | 2506.02 | 1  | 26 | 0.06  | 0.856 | 20.56 | 21.00 | 1.107 | 0.948        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 509898 | 2549.49 | 1  | 26 | 0.04  | 0.872 | 20.61 | 21.00 | 1.094 | 0.954        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 527298 | 2636.49 | 1  | 26 | 0.01  | 0.904 | 20.55 | 21.00 | 1.109 | 1.003        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 535998 | 2679.99 | 1  | 26 | 0.04  | 1.060 | 20.56 | 21.00 | 1.107 | <b>1.173</b> | <b>4#</b> |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 501204 | 2506.02 | 25 | 13 | 0.01  | 0.920 | 20.50 | 21.00 | 1.122 | 1.032        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 509898 | 2549.49 | 25 | 13 | -0.03 | 0.908 | 20.64 | 21.00 | 1.086 | 0.986        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 527298 | 2636.49 | 25 | 13 | -0.02 | 0.874 | 20.48 | 21.00 | 1.127 | 0.985        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 535998 | 2679.99 | 25 | 13 | 0.05  | 0.862 | 20.44 | 21.00 | 1.138 | 0.981        | /         |
| N41 | On  | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 501204 | 2506.02 | 50 | 0  | 0.00  | 0.825 | 20.35 | 21.00 | 1.161 | 0.958        | /         |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge        | 5 | 20 | 501204 | 2506.02 | 1  | 49 | 0.04  | 0.896 | 23.50 | 24.00 | 1.122 | 1.005        | /         |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge        | 5 | 20 | 509898 | 2549.49 | 1  | 26 | -0.03 | 0.864 | 23.55 | 24.00 | 1.109 | 0.958        | /         |

|     |     |   |                 |          |   |    |        |         |    |    |       |       |       |       |       |       |   |
|-----|-----|---|-----------------|----------|---|----|--------|---------|----|----|-------|-------|-------|-------|-------|-------|---|
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge | 5 | 20 | 527298 | 2636.49 | 1  | 26 | 0.08  | 0.890 | 23.53 | 24.00 | 1.114 | 0.991 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge | 5 | 20 | 535998 | 2679.99 | 1  | 26 | 0.17  | 0.925 | 23.52 | 24.00 | 1.117 | 1.033 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge | 5 | 20 | 501204 | 2506.02 | 25 | 0  | 0.06  | 0.881 | 23.41 | 24.00 | 1.146 | 1.010 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge | 5 | 20 | 509898 | 2549.49 | 25 | 13 | 0.12  | 0.875 | 23.56 | 24.00 | 1.107 | 0.969 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge | 5 | 20 | 527298 | 2636.49 | 25 | 13 | 0.04  | 0.862 | 23.52 | 24.00 | 1.117 | 0.963 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge | 5 | 20 | 535998 | 2679.99 | 25 | 26 | -0.07 | 0.868 | 23.55 | 24.00 | 1.109 | 0.963 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Top Edge | 5 | 20 | 501204 | 2506.02 | 50 | 0  | -0.05 | 0.803 | 23.02 | 23.50 | 1.117 | 0.897 | / |

## Body(Sensor-1)

|     |     |   |                 |                 |    |    |        |         |    |    |       |       |       |       |       |       |   |
|-----|-----|---|-----------------|-----------------|----|----|--------|---------|----|----|-------|-------|-------|-------|-------|-------|---|
| N41 | Off | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 10 | 20 | 518598 | 2592.99 | 1  | 49 | -0.01 | 0.573 | 23.56 | 24.00 | 1.107 | 0.634 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 10 | 20 | 518598 | 2592.99 | 1  | 49 | 0.08  | 0.712 | 23.56 | 24.00 | 1.107 | 0.788 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Horizontal-Up   | 10 | 20 | 518598 | 2592.99 | 25 | 13 | -0.05 | 0.558 | 23.58 | 24.00 | 1.102 | 0.615 | / |
| N41 | Off | 1 | DFT-s-OFDM BPSK | Horizontal-Down | 10 | 20 | 518598 | 2592.99 | 25 | 13 | 0.10  | 0.675 | 23.58 | 24.00 | 1.102 | 0.744 | / |

## Body

|                   |     |   |                 |                 |   |    |        |         |   |   |       |       |       |       |       |              |    |
|-------------------|-----|---|-----------------|-----------------|---|----|--------|---------|---|---|-------|-------|-------|-------|-------|--------------|----|
| N77(3450-3550MHz) | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 5 | 20 | 633334 | 3500.01 | 1 | 1 | -0.11 | 0.285 | 20.79 | 22.00 | 1.321 | 0.376        | /  |
| N77(3450-3550MHz) | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 5 | 20 | 633334 | 3500.01 | 1 | 1 | -0.05 | 0.434 | 20.79 | 22.00 | 1.321 | <b>0.573</b> | 5# |
| N77(3450-3550MHz) | Off | 3 | DFT-s-OFDM BPSK | Vertical-Front  | 5 | 20 | 633334 | 3500.01 | 1 | 1 | -0.06 | 0.410 | 22.85 | 24.00 | 1.303 | 0.534        | /  |

|                       |     |   |                 |                 |    |    |        |         |    |    |       |       |       |       |       |       |   |
|-----------------------|-----|---|-----------------|-----------------|----|----|--------|---------|----|----|-------|-------|-------|-------|-------|-------|---|
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Vertical-Back   | 5  | 20 | 633334 | 3500.01 | 1  | 1  | 0.18  | 0.176 | 22.85 | 24.00 | 1.303 | 0.229 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Top Edge        | 5  | 20 | 633334 | 3500.01 | 1  | 1  | -0.12 | 0.148 | 22.85 | 24.00 | 1.303 | 0.193 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Bottom Edge     | 5  | 20 | 633334 | 3500.01 | 1  | 1  | -0.02 | 0.005 | 22.85 | 24.00 | 1.303 | 0.007 | / |
| N77(3450-3550MHz)     | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 5  | 20 | 630668 | 3460.02 | 25 | 0  | -0.02 | 0.273 | 20.81 | 22.00 | 1.315 | 0.359 | / |
| N77(3450-3550MHz)     | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 5  | 20 | 630668 | 3460.02 | 25 | 0  | -0.11 | 0.432 | 20.81 | 22.00 | 1.315 | 0.568 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Vertical-Front  | 5  | 20 | 633334 | 3500.01 | 25 | 13 | -0.03 | 0.405 | 22.85 | 24.00 | 1.303 | 0.528 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Vertical-Back   | 5  | 20 | 633334 | 3500.01 | 25 | 13 | 0.09  | 0.169 | 22.85 | 24.00 | 1.303 | 0.22  | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Top Edge        | 5  | 20 | 633334 | 3500.01 | 25 | 13 | 0.00  | 0.141 | 22.85 | 24.00 | 1.303 | 0.184 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Bottom Edge     | 5  | 20 | 633334 | 3500.01 | 25 | 13 | 0.00  | 0.005 | 22.85 | 24.00 | 1.303 | 0.007 | / |
| <b>Body(Sensor-1)</b> |     |   |                 |                 |    |    |        |         |    |    |       |       |       |       |       |       |   |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 10 | 20 | 633334 | 3500.01 | 1  | 1  | -0.04 | 0.301 | 22.85 | 24.00 | 1.303 | 0.392 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 10 | 20 | 633334 | 3500.01 | 1  | 1  | 0.00  | 0.418 | 22.85 | 24.00 | 1.303 | 0.545 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 10 | 20 | 633334 | 3500.01 | 25 | 13 | 0.03  | 0.315 | 22.85 | 24.00 | 1.303 | 0.410 | / |
| N77(3450-3550MHz)     | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 10 | 20 | 633334 | 3500.01 | 25 | 13 | 0.05  | 0.430 | 22.85 | 24.00 | 1.303 | 0.560 | / |
| <b>Body</b>           |     |   |                 |                 |    |    |        |         |    |    |       |       |       |       |       |       |   |
| N77(3700-3980MHz)     | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 5  | 20 | 656000 | 3840    | 1  | 49 | -0.11 | 0.368 | 20.79 | 22.00 | 1.321 | 0.486 | / |

|                       |     |   |                 |                 |    |    |        |      |    |    |       |       |       |       |       |              |    |
|-----------------------|-----|---|-----------------|-----------------|----|----|--------|------|----|----|-------|-------|-------|-------|-------|--------------|----|
| N77(3700-3980MHz)     | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 5  | 20 | 656000 | 3840 | 1  | 49 | -0.09 | 0.576 | 20.79 | 22.00 | 1.321 | <b>0.761</b> | 6# |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Vertical-Front  | 5  | 20 | 656000 | 3840 | 1  | 1  | -0.06 | 0.556 | 22.81 | 24.00 | 1.315 | 0.731        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Vertical-Back   | 5  | 20 | 656000 | 3840 | 1  | 1  | 0.18  | 0.229 | 22.81 | 24.00 | 1.315 | 0.301        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Top Edge        | 5  | 20 | 656000 | 3840 | 1  | 1  | -0.12 | 0.183 | 22.81 | 24.00 | 1.315 | 0.241        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Bottom Edge     | 5  | 20 | 656000 | 3840 | 1  | 1  | -0.02 | 0.005 | 22.81 | 24.00 | 1.315 | 0.007        | /  |
| N77(3700-3980MHz)     | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 5  | 20 | 656000 | 3840 | 25 | 26 | -0.02 | 0.342 | 20.84 | 22.00 | 1.306 | 0.447        | /  |
| N77(3700-3980MHz)     | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 5  | 20 | 656000 | 3840 | 25 | 26 | -0.11 | 0.558 | 20.84 | 22.00 | 1.306 | 0.729        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Vertical-Front  | 5  | 20 | 656000 | 3840 | 25 | 26 | -0.03 | 0.535 | 22.81 | 24.00 | 1.315 | 0.704        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Vertical-Back   | 5  | 20 | 656000 | 3840 | 25 | 26 | 0.09  | 0.210 | 22.81 | 24.00 | 1.315 | 0.276        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Top Edge        | 5  | 20 | 656000 | 3840 | 25 | 26 | 0.00  | 0.174 | 22.81 | 24.00 | 1.315 | 0.229        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Bottom Edge     | 5  | 20 | 656000 | 3840 | 25 | 26 | 0.00  | 0.005 | 22.81 | 24.00 | 1.315 | 0.007        | /  |
| <b>Body(Sensor-1)</b> |     |   |                 |                 |    |    |        |      |    |    |       |       |       |       |       |              |    |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 10 | 20 | 656000 | 3840 | 1  | 1  | -0.09 | 0.362 | 22.81 | 24.00 | 1.315 | 0.476        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 10 | 20 | 656000 | 3840 | 1  | 1  | 0.12  | 0.485 | 22.81 | 24.00 | 1.315 | 0.638        | /  |
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 10 | 20 | 656000 | 3840 | 25 | 26 | 0.04  | 0.356 | 22.85 | 24.00 | 1.303 | 0.464        | /  |

|                       |     |   |                    |                 |    |    |        |         |    |    |       |       |       |       |       |              |           |
|-----------------------|-----|---|--------------------|-----------------|----|----|--------|---------|----|----|-------|-------|-------|-------|-------|--------------|-----------|
| N77(3700-3980MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Horizontal-Down | 10 | 20 | 656000 | 3840    | 25 | 26 | 0.10  | 0.471 | 22.85 | 24.00 | 1.303 | 0.614        | /         |
| <b>Body</b>           |     |   |                    |                 |    |    |        |         |    |    |       |       |       |       |       |              |           |
| N78(3450-3550MHz)     | On  | 3 | DFT-s-OFDM<br>BPSK | Horizontal-Up   | 5  | 20 | 633334 | 3500.01 | 1  | 49 | 0.00  | 0.482 | 21.22 | 22.00 | 1.197 | 0.577        | /         |
| N78(3450-3550MHz)     | On  | 3 | DFT-s-OFDM<br>BPSK | Horizontal-Down | 5  | 20 | 633334 | 3500.01 | 1  | 49 | 0.01  | 0.517 | 21.22 | 22.00 | 1.197 | <b>0.619</b> | <b>7#</b> |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Vertical-Front  | 5  | 20 | 636000 | 3540    | 1  | 49 | -0.07 | 0.435 | 23.18 | 24.00 | 1.208 | 0.525        | /         |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Vertical-Back   | 5  | 20 | 636000 | 3540    | 1  | 49 | 0.16  | 0.120 | 23.18 | 24.00 | 1.208 | 0.145        | /         |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Top Edge        | 5  | 20 | 636000 | 3540    | 1  | 49 | -0.12 | 0.072 | 23.18 | 24.00 | 1.208 | 0.087        | /         |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Bottom Edge     | 5  | 20 | 636000 | 3540    | 1  | 49 | -0.02 | 0.006 | 23.18 | 24.00 | 1.208 | 0.007        | /         |
| N78(3450-3550MHz)     | On  | 3 | DFT-s-OFDM<br>BPSK | Horizontal-Up   | 5  | 20 | 636000 | 3540    | 25 | 26 | 0.01  | 0.436 | 21.20 | 22.00 | 1.202 | 0.524        | /         |
| N78(3450-3550MHz)     | On  | 3 | DFT-s-OFDM<br>BPSK | Horizontal-Down | 5  | 20 | 636000 | 3540    | 25 | 26 | 0.12  | 0.503 | 21.20 | 22.00 | 1.202 | 0.605        | /         |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Vertical-Front  | 5  | 20 | 633334 | 3500.01 | 25 | 0  | -0.03 | 0.413 | 23.17 | 24.00 | 1.211 | 0.500        | /         |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Vertical-Back   | 5  | 20 | 633334 | 3500.01 | 25 | 0  | 0.08  | 0.114 | 23.17 | 24.00 | 1.211 | 0.138        | /         |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Top Edge        | 5  | 20 | 633334 | 3500.01 | 25 | 0  | 0.05  | 0.067 | 23.17 | 24.00 | 1.211 | 0.081        | /         |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Bottom Edge     | 5  | 20 | 633334 | 3500.01 | 25 | 0  | -0.10 | 0.006 | 23.17 | 24.00 | 1.211 | 0.007        | /         |
| <b>Body(Sensor-1)</b> |     |   |                    |                 |    |    |        |         |    |    |       |       |       |       |       |              |           |
| N78(3450-3550MHz)     | Off | 3 | DFT-s-OFDM<br>BPSK | Horizontal-Up   | 10 | 20 | 636000 | 3540    | 1  | 49 | -0.04 | 0.428 | 23.18 | 24.00 | 1.208 | 0.517        | /         |

|                   |     |   |                 |                 |    |    |        |         |    |    |       |       |       |       |       |              |           |
|-------------------|-----|---|-----------------|-----------------|----|----|--------|---------|----|----|-------|-------|-------|-------|-------|--------------|-----------|
| N78(3450-3550MHz) | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 10 | 20 | 636000 | 3540    | 1  | 49 | -0.03 | 0.503 | 23.18 | 24.00 | 1.208 | 0.608        | /         |
| N78(3450-3550MHz) | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 10 | 20 | 633334 | 3500.01 | 25 | 0  | 0.04  | 0.415 | 23.17 | 24.00 | 1.211 | 0.503        | /         |
| N78(3450-3550MHz) | Off | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 10 | 20 | 633334 | 3500.01 | 25 | 0  | -0.11 | 0.496 | 23.17 | 24.00 | 1.211 | 0.601        | /         |
| <b>Body</b>       |     |   |                 |                 |    |    |        |         |    |    |       |       |       |       |       |              |           |
| N78(3700-3800MHz) | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 5  | 20 | 650000 | 3750    | 1  | 1  | 0.00  | 0.410 | 21.14 | 22.00 | 1.219 | 0.500        | /         |
| N78(3700-3800MHz) | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 5  | 20 | 650000 | 3750    | 1  | 1  | 0.04  | 0.448 | 21.14 | 22.00 | 1.219 | <b>0.546</b> | <b>8#</b> |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM BPSK | Vertical-Front  | 5  | 20 | 650000 | 3750    | 1  | 49 | -0.07 | 0.375 | 23.19 | 24.00 | 1.205 | 0.452        | /         |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM BPSK | Vertical-Back   | 5  | 20 | 650000 | 3750    | 1  | 49 | 0.16  | 0.103 | 23.19 | 24.00 | 1.205 | 0.124        | /         |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM BPSK | Top Edge        | 5  | 20 | 650000 | 3750    | 1  | 49 | -0.12 | 0.063 | 23.19 | 24.00 | 1.205 | 0.076        | /         |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM BPSK | Bottom Edge     | 5  | 20 | 650000 | 3750    | 1  | 49 | -0.02 | 0.005 | 23.19 | 24.00 | 1.205 | 0.006        | /         |
| N78(3700-3800MHz) | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Up   | 5  | 20 | 650000 | 3750    | 25 | 26 | 0.01  | 0.401 | 21.18 | 22.00 | 1.208 | 0.484        | /         |
| N78(3700-3800MHz) | On  | 3 | DFT-s-OFDM BPSK | Horizontal-Down | 5  | 20 | 650000 | 3750    | 25 | 26 | 0.12  | 0.432 | 21.18 | 22.00 | 1.208 | 0.522        | /         |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM BPSK | Vertical-Front  | 5  | 20 | 650000 | 3750    | 25 | 26 | -0.03 | 0.363 | 23.20 | 24.00 | 1.202 | 0.436        | /         |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM BPSK | Vertical-Back   | 5  | 20 | 650000 | 3750    | 25 | 26 | 0.08  | 0.098 | 23.20 | 24.00 | 1.202 | 0.118        | /         |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM BPSK | Top Edge        | 5  | 20 | 650000 | 3750    | 25 | 26 | 0.05  | 0.057 | 23.20 | 24.00 | 1.202 | 0.069        | /         |

|                   |     |   |                    |                     |    |    |        |      |    |    |       |       |       |       |       |       |   |
|-------------------|-----|---|--------------------|---------------------|----|----|--------|------|----|----|-------|-------|-------|-------|-------|-------|---|
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM<br>BPSK | Bottom<br>Edge      | 5  | 20 | 650000 | 3750 | 25 | 26 | -0.10 | 0.005 | 23.20 | 24.00 | 1.202 | 0.006 | / |
| Body(Sensor-1)    |     |   |                    |                     |    |    |        |      |    |    |       |       |       |       |       |       |   |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM<br>BPSK | Horizontal-<br>Up   | 10 | 20 | 650000 | 3750 | 1  | 49 | 0.00  | 0.395 | 23.19 | 24.00 | 1.205 | 0.476 | / |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM<br>BPSK | Horizontal-<br>Down | 10 | 20 | 650000 | 3750 | 1  | 49 | -0.11 | 0.431 | 23.19 | 24.00 | 1.205 | 0.519 | / |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM<br>BPSK | Horizontal-<br>Up   | 10 | 20 | 650000 | 3750 | 25 | 26 | -0.06 | 0.377 | 23.20 | 24.00 | 1.202 | 0.453 | / |
| N78(3700-3800MHz) | Off | 3 | DFT-s-OFDM<br>BPSK | Horizontal-<br>Down | 10 | 20 | 650000 | 3750 | 25 | 26 | 0.09  | 0.419 | 23.20 | 24.00 | 1.202 | 0.504 | / |

## 11 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are  $\leq 1.45$  W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is  $\leq 1.10$ , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is  $< 0.80$  W/kg, repeated measurement is not required.
2. When the highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is  $> 1.20$ , or when the original or repeated measurement is  $\geq 1.45$  W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ , and the original, first or second repeated measurement is  $\geq 1.5$  W/kg, perform a third repeated measurement.

| Frequency Band (MHz)                                                                                                                                        | Wireless Band | RF Exposure Conditions | Test Position   | Highest Measured SAR (W/kg) | Repeated SAR (Yes/No) | Repeated <sup>1st</sup> Measured SAR (W/kg) | Largest to Smallest SAR Ratio |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------|-----------------|-----------------------------|-----------------------|---------------------------------------------|-------------------------------|
| 2680                                                                                                                                                        | LTE Band41    | Body                   | Horizontal-Down | 0.866                       | Yes                   | 0.853                                       | 1.02                          |
| 2679.99                                                                                                                                                     | N41           | Body                   | Horizontal-Down | 1.060                       | Yes                   | 1.01                                        | 1.05                          |
| Note: The ratio of largest to smallest SAR for the original and first repeated measurements is $< 1.20$ , the second repeated measurement. is not required. |               |                        |                 |                             |                       |                                             |                               |

## 12 SIMULTANEOUS TRANSMISSION

Note: This product has only one antenna for 4G/5G, so simultaneous transmission evaluation is not required in this report.

## 13 TEST EQUIPMENTS LIST

| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Manufacturer  | Model       | Serial No./Version | Cal. Date  | Cal. Due   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|--------------------|------------|------------|
| PC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Dell          | N/A         | N/A                | N/A        | N/A        |
| Test Software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Speag         | DASY5       | 52.8.8.1222        | N/A        | N/A        |
| 835MHz Validation Dipole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Speag         | D835V2      | SN: 4d187          | 2024/05/08 | 2027/05/07 |
| 2600MHz Validation Dipole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Speag         | D2600V2     | SN: 1095           | 2024/05/08 | 2027/05/07 |
| 3500MHz Validation Dipole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Speag         | D3500V2     | SN: 1129           | 2024/07/19 | 2027/07/18 |
| 3700MHz Validation Dipole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Speag         | D3700V2     | SN: 1101           | 2024/07/18 | 2027/07/17 |
| 3900MHz Validation Dipole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Speag         | D3900V2     | SN: 1077           | 2024/07/19 | 2027/07/18 |
| Data Acquisition Electronics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Speag         | DAE4        | SN: 1711           | 2025/11/11 | 2026/11/10 |
| E-Field Probe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Speag         | EX3DV4      | SN: 7510           | 2025/11/11 | 2026/11/10 |
| Signal Generator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Keysight      | N5173B      | MY62150163         | 2025/07/15 | 2026/07/14 |
| Power Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | R&S           | NRVD-B2     | 835843/014         | 2025/07/15 | 2026/07/14 |
| Power Sensor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | R&S           | NRV-Z4      | 100381             | 2025/07/15 | 2026/07/14 |
| Power Sensor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | R&S           | NRV-Z2      | 100211             | 2025/07/15 | 2026/07/14 |
| Wireless Communication<br>Test Set                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | R&S           | CMW500      | 126646             | 2025/09/15 | 2026/09/14 |
| Network Analyzer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Agilent       | E5071C      | MY46103472         | 2025/08/13 | 2026/08/12 |
| Thermometer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Elitech       | RC-4HC      | EF7239002652       | 2025/09/04 | 2026/09/03 |
| Thermometer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Elitech       | RC-4        | EF5238001629       | 2025/09/16 | 2026/09/15 |
| Power Amplifier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mini-Circuits | ZVA-183W-S+ | 932502132          | N/A        | N/A        |
| Dielectric Probe Kit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Speag         | DAK3.5      | SN: 1312           | N/A        | N/A        |
| Phantom                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Speag         | SAM         | SN: 1858           | N/A        | N/A        |
| Attenuator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | COM-MW        | ZA-S1-31    | 1305003187         | N/A        | N/A        |
| Directional coupler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | AA-MCS        | AAMCS-UDC   | 000272             | N/A        | N/A        |
| <p>Note: For dipole antennas, BALUN has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:</p> <ol style="list-style-type: none"> <li>1. There is no physical damage on the dipole;</li> <li>2. System validation with specific dipole is within 10% of calibrated value;</li> <li>3. Return-loss in within 20% of calibrated measurement.</li> <li>4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.</li> </ol> |               |             |                    |            |            |

## ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using a DAK3.5 Dielectric Probe Kit.

| Date       | Liquid Type | Fre. (MHz) | Temp. (°C) | Meas. Conductivity ( $\sigma$ ) (S/m) | Meas. Permittivity ( $\epsilon$ ) | Target Conductivity ( $\sigma$ ) (S/m) | Target Permittivity ( $\epsilon$ ) | Conductivity Tolerance (%) | Permittivity Tolerance (%) |
|------------|-------------|------------|------------|---------------------------------------|-----------------------------------|----------------------------------------|------------------------------------|----------------------------|----------------------------|
| 2026.02.09 | Head        | 835        | 21.4       | 0.90                                  | 41.37                             | 0.90                                   | 41.50                              | 0.00                       | -0.31                      |
| 2026.02.11 | Head        | 835        | 21.1       | 0.89                                  | 42.27                             | 0.90                                   | 41.50                              | -1.11                      | 1.86                       |
| 2026.02.12 | Head        | 835        | 21.3       | 0.89                                  | 41.04                             | 0.90                                   | 41.50                              | -1.11                      | -1.11                      |
| 2026.02.13 | Head        | 835        | 21.5       | 0.91                                  | 41.73                             | 0.90                                   | 41.50                              | 1.11                       | 0.55                       |
| 2026.02.25 | Head        | 2600       | 21.1       | 1.98                                  | 39.75                             | 1.96                                   | 39.01                              | 1.02                       | 1.90                       |
| 2026.03.20 | Head        | 2600       | 21.6       | 1.97                                  | 38.61                             | 1.96                                   | 39.01                              | 0.51                       | -1.03                      |
| 2026.03.21 | Head        | 2600       | 21.3       | 1.97                                  | 39.07                             | 1.96                                   | 39.01                              | 0.51                       | 0.15                       |
| 2026.02.28 | Head        | 3500       | 21.5       | 2.96                                  | 37.18                             | 2.91                                   | 37.93                              | 1.72                       | -1.98                      |
| 2026.03.22 | Head        | 3500       | 21.3       | 2.97                                  | 37.73                             | 2.91                                   | 37.93                              | 2.06                       | -0.53                      |
| 2026.03.10 | Head        | 3700       | 21.5       | 3.10                                  | 37.72                             | 3.12                                   | 37.70                              | -0.64                      | 0.05                       |
| 2026.03.23 | Head        | 3700       | 21.3       | 3.08                                  | 37.72                             | 3.12                                   | 37.70                              | -1.28                      | 0.05                       |
| 2026.03.23 | Head        | 3900       | 21.3       | 3.37                                  | 37.72                             | 3.32                                   | 37.47                              | 1.51                       | 0.67                       |

Note: The tolerance limit of Conductivity and Permittivity is  $\pm 5\%$ .

## ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 % (for 1 g).

Head liquid 1g

| Date       | Liquid Type | Freq. (MHz) | Power (mW) | Measured SAR (W/kg) | Normalized SAR (W/kg) | Dipole SAR (W/kg) | Tolerance (%) |
|------------|-------------|-------------|------------|---------------------|-----------------------|-------------------|---------------|
| 2026.02.09 | Head        | 835         | 100        | 0.975               | 9.75                  | 9.74              | 0.10          |
| 2026.02.11 | Head        | 835         | 100        | 0.964               | 9.64                  | 9.74              | -1.03         |
| 2026.02.12 | Head        | 835         | 100        | 0.968               | 9.68                  | 9.74              | -0.62         |
| 2026.02.13 | Head        | 835         | 100        | 0.975               | 9.75                  | 9.74              | 0.10          |
| 2026.02.25 | Head        | 2600        | 100        | 5.580               | 55.80                 | 55.90             | -0.18         |
| 2026.03.20 | Head        | 2600        | 100        | 5.630               | 56.30                 | 55.90             | 0.72          |
| 2026.03.21 | Head        | 2600        | 100        | 5.680               | 56.80                 | 55.90             | 1.61          |
| 2026.02.28 | Head        | 3500        | 100        | 6.710               | 67.10                 | 68.00             | -1.32         |
| 2026.03.22 | Head        | 3500        | 100        | 6.780               | 67.80                 | 68.00             | -0.29         |
| 2026.03.10 | Head        | 3700        | 100        | 6.790               | 67.90                 | 66.70             | 1.80          |
| 2026.03.23 | Head        | 3700        | 100        | 6.710               | 67.10                 | 66.70             | 0.60          |
| 2026.03.23 | Head        | 3900        | 100        | 6.890               | 68.90                 | 67.60             | 1.92          |

Note: The tolerance limit of System validation  $\pm 10\%$ .

Please refer the document "Ti-AT26020109-ASC.pdf".

## **ANNEX C TEST DATA**

Please refer the document "Ti-AT26020109-ATD.pdf".

## **ANNEX D EUT EXTERNAL PHOTOS**

Please refer the document "Ti-AT26020109-AW.pdf".

## **ANNEX E SAR TEST SETUP PHOTOS**

Please refer the document "Ti-AT26020109-AS.pdf".

## **ANNEX F CALIBRATION REPORT**

Please refer the document "Ti-AT26020109-AC.pdf".

## **ANNEX G TUNE-UP PROCEDURE**

Please refer the document "Ti-AT26020109-AT Procedure.pdf".

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