REPORT No. : SZ17120028S01

TEST REPORT

APPLICANT	**:**	Plus One Marketing Ltd.
PRODUCT NAME	**:**	Mobile Phone
MODEL NAME	**:**	FTU18A001
BRAND NAME	**:**	N/A
FCC ID	**:**	2AG5L-FTU18A00
STANDARD(S)	**:**	47CFR 2.1093 IEEE 1528-2013
TEST DATE	**:**	2017-12-06 to 2017-12-11
ISSUE DATE	**:**	2017-12-11

Tested by: Peng Fuwei

Peng Fuwei (Test engineer)

Approved by: Peng Huarui

Peng Huarui (Supervisor)

DIRECTORY

Change History		
Issue	**Date**	**Reason for change**
1.0	2017-12-11	First edition

1. Technical Information

Note: Provide by manufacturer.

1.1. Applicant and Manufacturer Information

Applicant:	Plus One Marketing Ltd.
Applicant Address:	2-8-6 Nishi-Shimbashi, Minatoku, Tokyo, JAPAN
Manufacturer:	Plus One Marketing Ltd.
Manufacturer Address:	2-8-6 Nishi-Shimbashi, Minatoku, Tokyo, JAPAN

1.2. Equipment Under Test (EUT) Description

EUT Type:	FTU18A00		
Hardware Version:	N/A		
Software Version:	N/A		
Frequency Bands:	LTE Band 30: 2305 MHz ~ 2315 MHz		
Modulation Mode:	LTE: QPSK/16QAM		
Multi-slot Class:	N/A		
Operation mode:	Class B		
Hotspot function:	Support		
Antenna type:	WWAN : Fixed Internal Antenna WLAN : Fixed Internal Antenna Bluetooth : Fixed Internal Antenna		
SIM cards description:	Single SIM card		
Max Scaled SAR-1g(W/Kg)	Head	0.104 W/kg	Limit(W/kg): 1.6W/kg
	Body	0.511 W/kg	

Note:

1、For a more detailed description, please refer to specification or user's manual supplied by the applicant and/or manufacturer.

2、LTE Band 30 is tested only in this report.

1.3. Summary of Maximum SAR Value

Frequency Band	Highest SAR Summary		
	Head(0mm)	Body-worn(10mm)	Hotspot(10mm)
	1g SAR (W/kg)		
LTE Band 30	0.104	0.511	0.511

1.4. Photographs of the EUT

Please refer to the External Photos for the Photos of the EUT

1.5. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	**47 CFR§2.1093**	Radiofrequency Radiation Exposure Evaluation: Portable Devices
2	**IEEE 1528-2013**	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
3	**KDB 447498 D01v06**	General RF Exposure Guidance
5	**KDB 865664 D01v01r04**	SAR Measurement 100 MHz to 6 GHz
6	**KDB 865664 D02v01r02**	RF Exposure Reporting
7	**KDB 648474 D04v01r03**	Handset SAR
8	**KDB 941225 D01v03r01**	3G SAR MEAUREMENT PROCEDURES
9	**KDB 941225 D05v02r05**	SAR Evaluation Consideratoin for LTE Devices

2. Specific Absorption Rate (SAR)

2.1. Introduction

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 Middle than the limits for general population/uncontrolled.

2.2. SAR Definition

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. (ρ). The equation description is as below:

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

SAR is expressed in units of Watts per kilogram (W/kg)
SAR measurement can be either related to the temperature elevation in tissue by,

$$\mathbf{SAR} = \mathbf{C}\left(\frac{\boldsymbol{\delta}\mathbf{T}}{\boldsymbol{\delta}\mathbf{t}}\right)$$

Where C is the specific head capacity, δT is the temperature rise and δt the exposure duration, or related to the electrical field in the tissue by

$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}|\mathbf{E}|^{\mathbf{2}}}{\boldsymbol{\rho}}$$

Where σ is the conductivity of the tissue, ρ is the mass density of the tissue and $|E|$ is the rms electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

3. SAR Measurement System

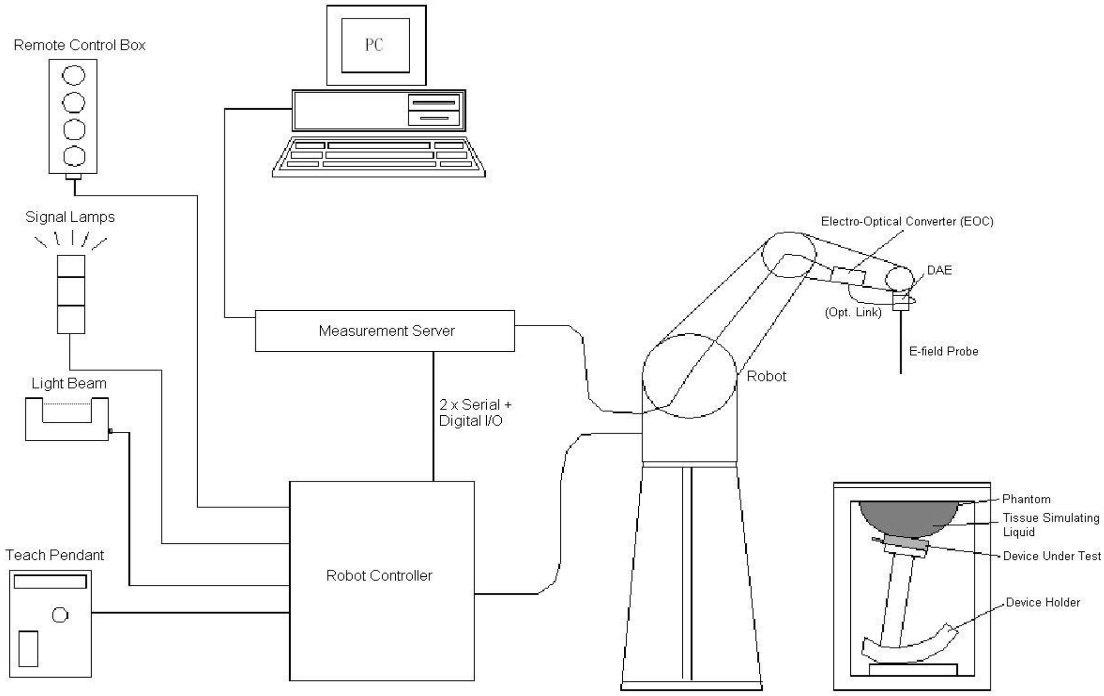


Fig 3.1 SPEAG DASY System Configurations

The DASY system for performance compliance tests is illustrated above graphically. This system consists of the following items:

A standard high precision 6-axis robot with controller, a teach pendant and software

A data acquisition electronic (DAE) attached to the robot arm extension

A dosimetric probe equipped with an optical surface detector system

The electro-optical converter (ECO) performs the conversion between optical and electrical signals

A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.

A probe alignment unit which improves the accuracy of the probe positioning

A computer operating Windows XP

DASY software

Remove control with teach pendant and additional circuitry for robot safety such as warming lamps, etc.

The SAM twin phantom

A device holder

Tissue simulating liquid

Dipole for evaluating the proper functioning of the system

Some of the components are described in details in the following sub-sections.

3.1. E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG).The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

E-Field Probe Specification
<ET3DV6 Probe >

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., DGBE)	
Frequency	10 MHz to 3 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.4 dB in HSL (rotation normal to probe axis)	
Dynamic Range	5 µW/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 330 mm (Tip: 16 mm) Tip diameter: 6.8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.7 mm	**Fig 3.2 Photo of ES3DV3**

<EX3DV4 Probe>

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	**Fig 3.3 Photo of EX3DV4**

E-Field Probe Calibration

Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than ± 10%. The spherical isotropy shall be evaluated and within ± 0.25 dB. The sensitivity parameters (NormX, NormY, and NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested. The calibration data can be referred to appendix C of this report.

3.2. Data Acquisition Electronics (DAE)

The data acquisition electronics(DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. AD-converter and a command decoder and 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. The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Fig 3.4Photo of DAE

3.3. Robot

The SPEAG DASY system uses the high precision robots (DASY4: RX90BL; DASY5: TX90XL) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY4: CS7MB; DASY5: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:
High precision (repeatability ±0.035 mm)
High reliability (industrial design)
Jerk-free straight movements
Low ELF interference (the closed metallic construction shields against motor control fields)

Fig 3.5 Photo of DASY5

3.4. Measurement Server

The measurement server is based on a PC/104 CPU board with CPU (DASY4: 166 MHz, Intel Pentium;

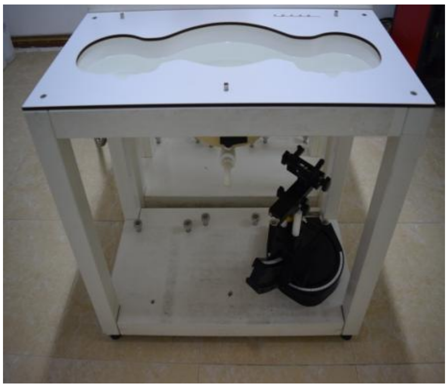
DASY5: 400 MHz, Intel Celeron), chip disk (DASY4: 32 MB; DASY5: 128 MB), RAM (DASY4: 64 MB, DASY5: 128 MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all the real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operations.

Fig 3.6 Photo of Server for DASY5

3.5. Phantom

<SAM Twin Phantom>

<table>
<tr><td>Shell Thickness</td><td>2 ± 0.2 mm (sagging: <1%)
Center ear point: 6 ± 0.2 mm</td><td rowspan="4">
Fig 3.7Photo of SAM Phantom</td></tr>
<tr><td>Filling Volume</td><td>Approx. 25 liters</td></tr>
<tr><td>Dimensions</td><td>Length: 1000 mm; Width: 500 mm;
Height: adjustable feet</td></tr>
<tr><td>Measurement Areas</td><td>Left Hand, Right Hand, Flat Phantom</td></tr>
</table>

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. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

4. Device Holder

<Device Holder for SAM Twin Phantom>

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR). Thus the device needs no repositioning when changing the angles.

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

Fig 4.1 Device Holder

<Laptop Extension Kit>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.

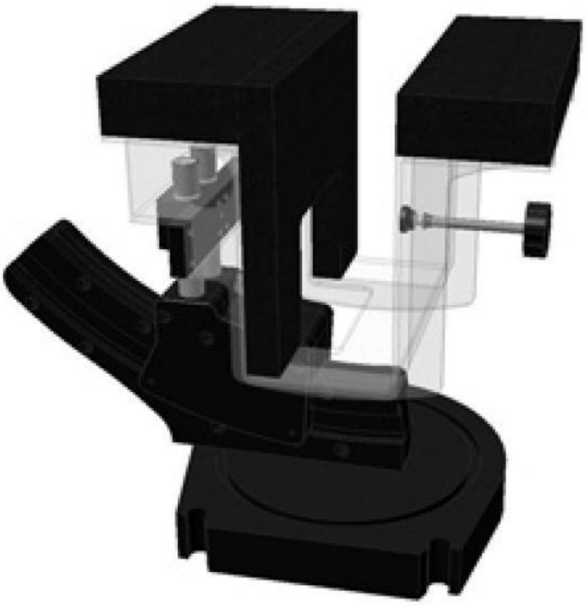


Fig 4.2 Laptop Extension Kit

4.1. Data Storage and Evaluation

Data Storage

The DASY software stores the assessed data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all the necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files. The post-processing software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of erroneous parameter settings. For example, if a measurement has been performed with an incorrect crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be reevaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type (e.g., [V/m], [A/m], [mW/g]). Some of these units are not available in certain situations or give meaningless results, e.g., a SAR-output in a non-lose media, will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

Data Evaluation

The DASY post-processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software.

Probe parameters:	- Sensitivity	$Norm_i$, a_{i0}, a_{i1}, a_{i2}
	- Conversion factor	$ConvF_i$
	- Diode compression point	dcpi
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	σ
	- Density	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY components. In the direct measuring mode of the multi-meter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power.

The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \times \frac{cf}{dcp_i}$$

With Vi = compensated signal of channel i, (i = x, y, z)
Ui = input signal of channel i, (i = x, y, z)
cf = crest factor of exciting field (DASY parameter)
dcpi = diode compression point (DASY parameter)

From the compensated input signals, the primary field data for each channel can be evaluated:

$$\text{E-field Probes:} E_i = \sqrt{\frac{V_i}{Norm_i \times ConvF}}$$

$$\text{H-field Probes:} H_i = \sqrt{V_i} \times \frac{a_{i0} + a_{i1} + a_{i2} f^2}{f}$$

With V_i = compensated signal of channel i, (i = x, y, z)

$Norm_i$ = sensor sensitivity of channel i, (i = x, y, z), $\mu V/(V/m)^2$ for E-field

Probes ConvF = sensitivity enhancement in solution

a_{ij} = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

E_i = electric field strength of channel i in V/m

H_i = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \times \frac{\sigma}{\rho \times 1000}$$

with SAR = local specific absorption rate in mW/g

E_{tot} = total field strength in V/m

σ = conductivity in [mho/m] or [Siemens/m]

ρ = equivalent tissue density in g/cm^3

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid.

5. Tissue Simulating Liquids

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, which is shown in Fig. 5.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 5.2.The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in below table.

Fig 5.1 Photo of Liquid Height for Head SAR

Fig 5.2 Photo of Liquid Height for Body SAR

The following table gives the recipes for tissue simulating liquids

Frequency Band (MHz)	900		1800	2000		2450	2600	5200-5800	
Tissue Type	Head	Body	Body	Head	Body	Body	Body	Head	Body
Ingredients(% by weight)									
Deionised Water	50.36	50.20	68.80	54.90	40.40	73.20	68.1	65.53	78.60
Salt(NaCl)	1.25	0.90	0.20	0.18	0.50	0.10	0.10	0.00	0.00
Sugar	0.00	48.50	0.00	0.00	58.00	0.00	0.00	0.00	0.00
Tween 20	48.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HEC	0.00	0.20	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Bactericide	0.00	0.20	0.00	0.00	0.10	0.00	0.00	0.00	0.00
Triton X-100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.24	10.70
DGBE	0.00	0.00	31.00	44.92	0.00	26.70	31.8	0.00	0.00
Diethylenglycol monohexylether	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.24	10.70
Target dielectric parameters									
Dielectric Constant	41.50	56.10	53.40	39.90	53.30	52.70	52.5	35.3	48.7
Conductivity (S/m)	0.90	0.95	1.49	1.42	1.52	1.95	2.16	5.07	5.53

Note: Please refer to the validation results for dielectric parameters of each frequency band.

The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using an Agilent 85033E Dielectric Probe Kit and an Agilent Network Analyzer.

Table 1: Dielectric Performance of Tissue Simulating Liquid

Frequency (MHz)	**Tissue Type**	**Liquid Temp.(℃)**	**Conductivity(σ)**	**Conductivity Target (σ)**	**Delta (σ) (%)**	**Limit (%)**	**Date**
2300	HSL	22.4	1.650	1.67	-1.20	±5	2017.12.6
2300	MSL	22.5	1.780	1.81	-1.66	±5	2017.12.11
Frequency (MHz)	**Tissue Type**	**Liquid Temp.(℃)**	**Permittivity (εr)**	**Permittivity Target (εr)**	**Delta (εr) (%)**	**Limit (%)**	**Date**
2300	HSL	22.4	39.200	39.50	-0.76	±5	2017.12.6
2300	MSL	22.5	52.120	52.90	-1.47	±5	2017.12.11

6. Uncertainty Assessment

6.1. Uncertainty For System Performance Check

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Standard Uncertainty (1g)
Measurement System					
Probe Calibration	6.0	Normal	1	1	± 6.0 %
Axial Isotropy	4.7	Rectangular	√3	0.7	± 1.9 %
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	± 3.9 %
Boundary Effects	1.0	Rectangular	√3	1	± 0.6 %
Linearity	4.7	Rectangular	√3	1	± 2.7 %
System Detection Limits	1.0	Rectangular	√3	1	± 0.6 %
Readout Electronics	0.3	Normal	1	1	± 0.3 %
Response Time	0.8	Rectangular	√3	1	± 0.5 %
Integration Time	2.6	Rectangular	√3	1	± 1.5 %
RF Ambient Noise	3.0	Rectangular	√3	1	± 1.7 %
RF Ambient Reflections	3.0	Rectangular	√3	1	± 1.7 %
Probe Positioner	0.4	Rectangular	√3	1	± 0.2 %
Probe Positioning	2.9	Rectangular	√3	1	± 1.7 %
Max. SAR Eval.	1.0	Rectangular	√3	1	± 0.6 %
Test Sample Related					
Device Positioning	2.9	Normal	1	1	± 2.9 %
Device Holder	3.6	Normal	1	1	± 3.6 %
Power Drift	5.0	Rectangular	√3	1	± 2.9 %
Phantom and Setup					
Phantom Uncertainty	4.0	Rectangular	√3	1	± 2.3 %
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	± 1.8 %
Liquid Conductivity (Meas.)	2.5	Normal	1	0.64	± 1.6 %
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	± 1.7 %
Liquid Permittivity (Meas.)	2.5	Normal	1	0.6	± 1.5 %
Combined Standard Uncertainty					± 11.0 %
Coverage Factor for 95 %					K=2
Expanded Uncertainty					± 22.0 %

7. SAR Measurement Evaluation

Each DASY system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the DASY software, enable the user to conduct the system performance check and system validation. System validation kit includes a dipole, tripod holder to fix it underneath the flat phantom and a corresponding distance holder.

7.1. Purpose of System Performance 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.

7.2. System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave which 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 system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.

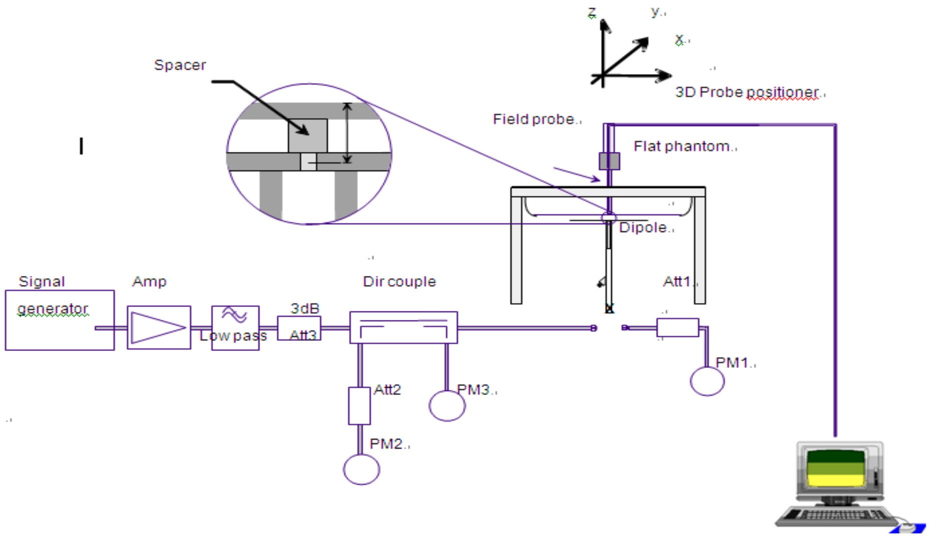


Fig 7.1 System Setup for System Evaluation

The output power on dipole port must be calibrated to 24 dBm (250 mW) before dipole is connected.

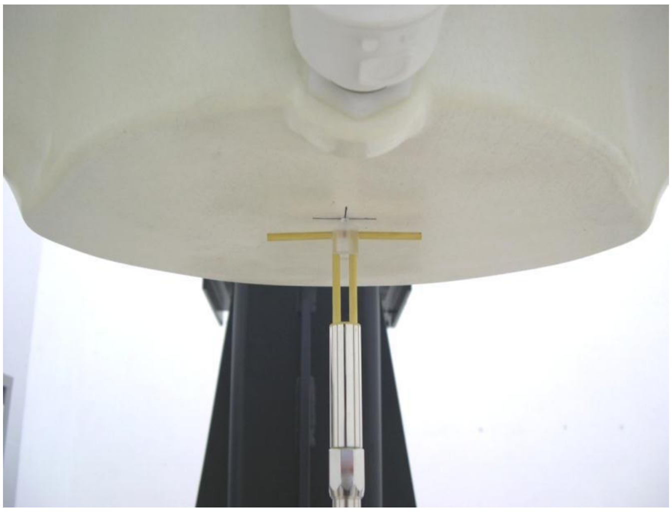


Fig 7.2 Photo of Dipole Setup

7.3. Validation Results

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.

Frequency (MHz)	Tissue Type	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2300	HSL	12.23	47.70	48.92	2.56	6.01	23.10	24.04	4.07
2300	MSL	12.18	47.90	48.72	1.71	5.96	23.00	23.84	3.65

Note: System checks the specific test data please see Annex C

8. Operational Conditions During Test

8.1. Information on the testing

The mobile phone antenna and battery are those specified by the manufacturer. The battery is fully charged before each measurement. The output power and frequency are controlled using a base station simulator. The mobile phone is set to transmit at its highest output peak power level.

The mobile phone is test in the “cheek” and “tilted” positions on the left and right sides of the phantom. The mobile phone is placed with the vertical centre line of the body of the mobile phone and the horizontal line crossing the centre of the earpiece in a plane parallel to the sagittal plane of the phantom.

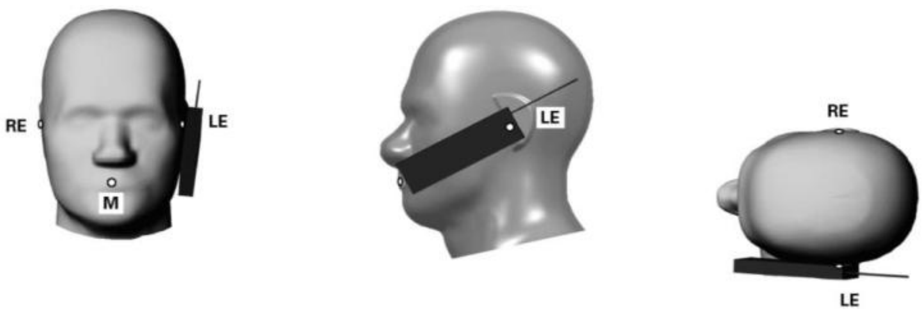


Fig 8.1 Illustration for Cheek Position

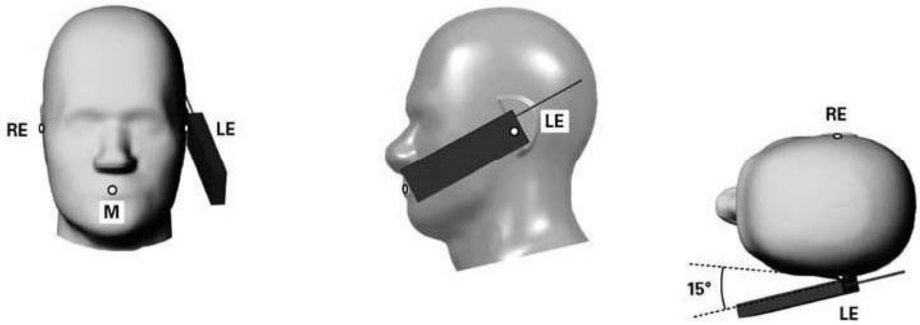


Fig 8.2 Illustration for Tilted Position

Description of the “cheek” position:

The mobile phone is well placed in the reference plane and the earpiece is in contact with the ear. Then the mobile phone is moved until any point on the front side get in contact with the cheek of the phantom or until contact with the ear is lost.

Description of the “tilted” position:

The mobile phone is well placed in the “cheek” position as described above. Then the mobile phone is moved outward away from the month by an angle of 15 degrees or until contact with the ear lost.

Remark: Please refer to Appendix B for the test setup photos.

8.2. Body-worn Configurations

The body-worn configurations shall be tested with the supplied accessories (belt-clips, holsters, etc.) attached to the device in normal use configuration.

For body-worn and other configurations a flat phantom shall be used which is comprised of material with electrical properties similar to the corresponding tissues.

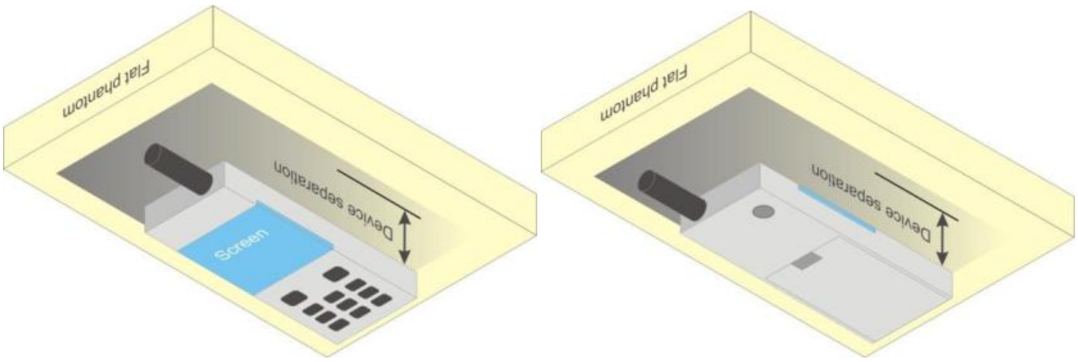


Fig 8.3 Illustration for Body Worn Position

8.3. Measurement procedure

The Following steps are used for each test position

1. 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.
2. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
3. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to16 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.

4. 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.

8.4. Description of interpolation/extrapolation scheme

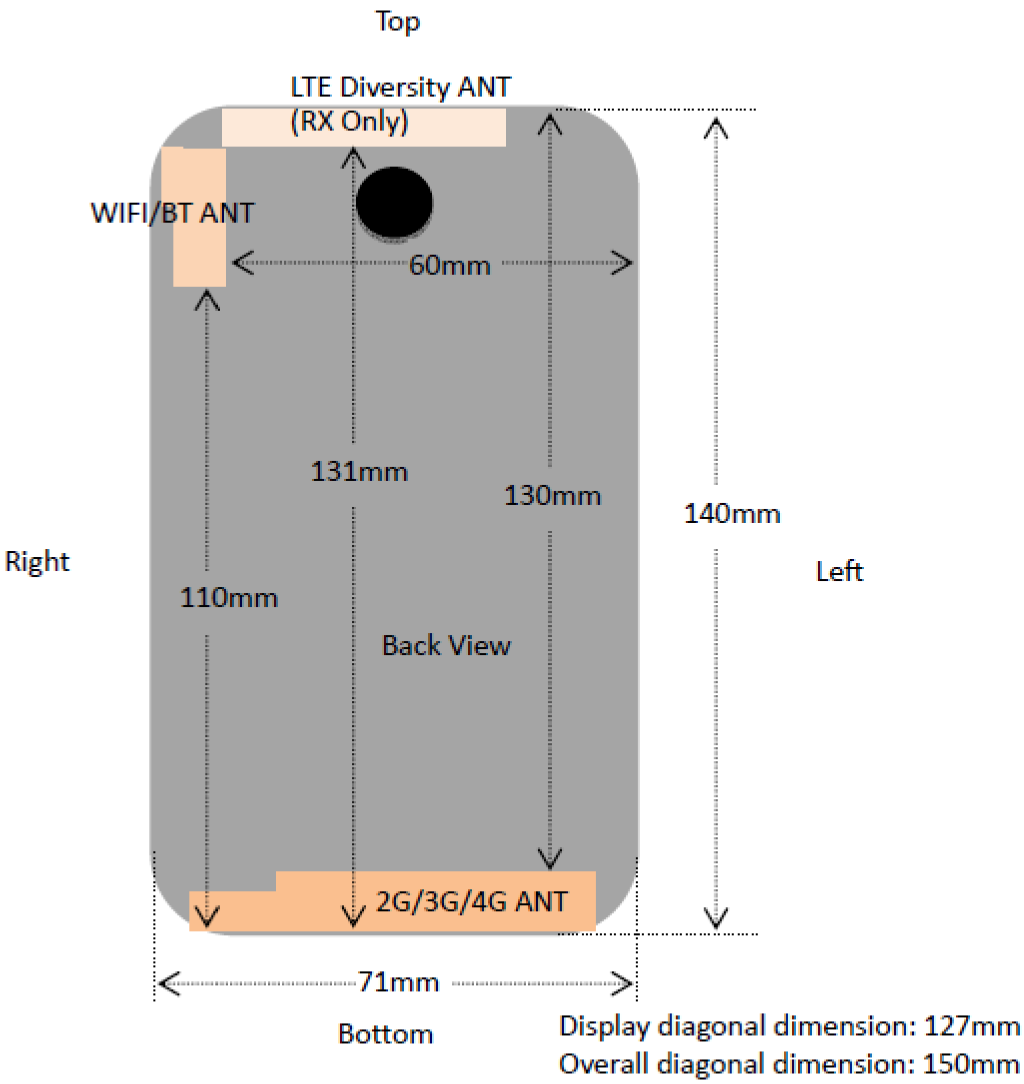
The local SAR inside the phantom is measured using small dipole sensing elements inside a probe body. The probe tip must not be in contact with the phantom surface in order to minimize measurements errors, but the highest local SAR will occur at the surface of the phantom.

An extrapolation is using to determinate this highest local SAR values. The extrapolation is based on a fourth-order least-square polynomial fit of measured data. The local SAR value is then extrapolated from the liquid surface with a 1mm step.

The measurements have to be performed over a limited time (due to the duration of the battery) so the step of measurement is high. It could vary between 5 and 8 mm. To obtain an accurate assessment of the maximum SAR averaged over 10 grams and 1 gram requires a very fine resolution in the three dimensional scanned data array.

9. Hot-Spot Mode Evaluation Procedure

Antenna location:



Assessment	Hotspot side for SAR Test distance: 10mm					
Antennas	**Front**	**Back**	**Top**	**Left**	**Right**	**Bottom**
LTE	**Yes**	**Yes**	No	**Yes**	**Yes**	**Yes**

Note :

The SAR evaluation procedures for Portable Devices with Wireless Router function is according to KDB 941225 D06 Hotspot SAR v02r01.

1. Head/Body-worn/Hotspot mode SAR assessments are required.
2. Referring to KDB 941225 D06, when the overall device length and width are ≥ 9cm*5cm, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.
3. For Main antenna, SAR measurements at Bottom side.
4. For the secondary antenna, it supports RX only, SAR is not required.

10. Measurement Procedures

The measurement procedures are as follows:

(a) Use base station simulator (if applicable) or engineering software to transmit RF power continuously (continuous Tx) in the highest power channel.
(b) Keep DUT to radiate maximum output power or 100% duty factor (if applicable)
(c) Measure output power through RF cable and power meter.
(d) Place the DUT in the positions as Appendix E demonstrates.
(e) Set scan area, grid size and other setting on the DASY software.
(f) Measure SAR results for the highest power channel on each testing position.
(g) Find out the largest SAR result on these testing positions of each band
(h) Measure SAR results for other channels in worst SAR testing position if the SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average
SAR value consists of the following steps:

(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

10.1. Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.
The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.
The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes.
The algorithm to find the cube with highest averaged SAR is divided into the following stages:

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume

(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

10.2. Area & Zoom Scan Procedures

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 measures 5x5x7 points with step size 8, 8 and 5 mm for 300 MHz to 3 GHz, and 8x8x8 points with step size 4, 4 and 2.5 mm for 3 GHz to 6 GHz. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

10.3. Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the DUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing (step-size is 4, 4 and 2.5 mm). When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

10.4. SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

10.5. Power Drift Monitoring

All SAR testing is under the DUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of DUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5%, the SAR will be retested.

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11. Measurement Of Conducted output power

1. LTE mode conducted output power values

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit(dBm)
Channel					27710		
Frequency (MHz)					2310		
10	QPSK	1	0		**23.20**		23.5
10	QPSK	1	25		23.12		
10	QPSK	1	49		23.00		
10	QPSK	25	0		22.10		22.5
10	QPSK	25	12		22.07		
10	QPSK	25	25		21.88		
10	QPSK	50	0		22.05		
10	16QAM	1	0		21.70		22.5
10	16QAM	1	25		21.81		
10	16QAM	1	49		21.08		
10	16QAM	25	0		20.99		21.5
10	16QAM	25	12		20.99		
10	16QAM	25	25		20.76		
10	16QAM	50	0		21.01		
Channel				27685	27710	27735	Tune-up limit(dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.67	22.57	22.57	23.5
5	QPSK	1	12	22.72	22.90	22.86	
5	QPSK	1	24	22.64	22.64	22.71	
5	QPSK	12	0	21.89	22.11	21.96	22.5
5	QPSK	12	7	21.91	22.06	21.86	
5	QPSK	12	13	21.79	21.82	21.81	
5	QPSK	25	0	21.77	21.89	21.90	
5	16QAM	1	0	22.83	21.42	21.36	22.5
5	16QAM	1	12	22.95	21.68	21.41	
5	16QAM	1	24	22.80	21.26	20.94	
5	16QAM	12	0	21.93	20.69	20.61	21.5
5	16QAM	12	7	21.97	20.86	20.48	
5	16QAM	12	13	21.84	20.69	20.59	
5	16QAM	25	0	20.71	20.87	20.88	

Note:

1. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
2. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
3. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
4. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
5. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
6. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.

2. Scaling Factor calculation

Band	Tune-up power tolerance(dBm)	SAR test channel Power (dBm)	Scaling Factor
LTE Band 30 (QPSK)	Max output power =23+-0.5(1RB)	23.2	1.072
	Max output power =22+-0.5(25RB)	22.1	1.096

12. Information Related to LTE Test parameter (Per 941225 D05v02r05)

<table>
<tr><td>1</td><td>Identify the operating frequency range of each LTE transmission FCC band used by the device</td><td colspan="7">Band 30
Tx:2305-2315MHz</td></tr>
<tr><td rowspan="5">2</td><td rowspan="5">Identify the high, middle and low (L, M, H) channel numbers and frequencies tested in each LTE frequency band</td><td rowspan="2">Band30</td><td colspan="6">Channel Bandwidth</td></tr>
<tr><td>20Mhz</td><td>15MHz</td><td>10MHz</td><td>5MHz</td><td>3MHz</td><td>1.4MHz</td></tr>
<tr><td>Low</td><td>N/A</td><td>N/A</td><td rowspan="3">27710/
2310</td><td>27685/
2307.5</td><td>N/A</td><td>N/A</td></tr>
<tr><td>Middle</td><td>N/A</td><td>N/A</td><td>27710/
2310</td><td>N/A</td><td>N/A</td></tr>
<tr><td>High</td><td>N/A</td><td>N/A</td><td>20375/
2312.5</td><td>N/A</td><td>N/A</td></tr>
<tr><td>3</td><td>Specify the UE category and uplink modulations used</td><td colspan="7">The UE Category is 4 and the uplink modulations used are QPSK and 16QAM.</td></tr>
<tr><td>4</td><td>Descriptions of the LTE transmitter and antenna implementation & identify whether it is a standalone transmitter operating independently of other wireless transmitters in the device or sharing hardware components and/or antenna(s) with other transmitters etc.</td><td colspan="7">The module has a primary antenna for all LTE&UMTS bands, a Wi-Fi Tx/Rx antenna.</td></tr>
<tr><td>5</td><td>Identify the LTE Band Voice/data requirements in each operating mode and exposure condition with respect to head and body test configurations, antenna locations, handset flip-cover or slide positions, antenna diversity conditions, etc.</td><td colspan="7">Mobile Hotspot Mode will be tested according to Section 9 of this report.</td></tr>
<tr><td>6</td><td>Identify if Maximum Power</td><td colspan="7">As per 3GPP TS 36.101 v11.0.0 (2012-03)</td></tr>
</table>

<table>
<tr>
<td></td>
<td>Reduction (MPR) is optional or mandatory, i.e. built-in by design:
only mandatory MPR may be considered during SAR testing, when the maximum output power is permanently limited by the MPR implemented within the UE; and only for the applicable RB (resource block) configurations specified in LTE standards
b) A-MPR (additional MPR) must be disabled.</td>
<td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
</table>
A-MPR is supported by design, but disable for SAR testing.</td>
</tr>
<tr>
<td>7</td>
<td>Include the maximum average conducted output power measured on the required test channels for each channel bandwidth and UL modulation used in each frequency band:
a) with 1 RB allocated at the low, centred, high end of a channel
b) using 50% RB allocation low, centered, high end within a channel
c) using 100% RB allocation</td>
<td>This is included in the section 11 of this report.</td>
</tr>
<tr>
<td>8</td>
<td>Include the maximum average conducted output power measured for the other wireless mode and frequency bands</td>
<td>This is included in the section 13 of this report.</td>
</tr>
</table>

<table>
<tr><td>10</td><td>Identify the simultaneous transmission conditions for the voice and data configurations supported by all wireless modes, device configurations and frequency bands, for the head and body exposure conditions and device operating configurations (handset flip or cover positions, antenna diversity conditions etc.)</td><td>
<table>
<tr><td rowspan="2"></td><td colspan="5">Simultaneous transmission conditions</td></tr>
<tr><td colspan="2">WWAN</td><td colspan="2">WLAN</td><td rowspan="2">Sum of WWAN& WLAN</td></tr>
<tr><td>#</td><td>LTE Data</td><td>UMTS</td><td>802.11b/g/n</td><td>BT</td></tr>
<tr><td>1</td><td>×</td><td></td><td>×</td><td></td><td>×</td></tr>
<tr><td>2</td><td></td><td>×</td><td>×</td><td></td><td>×</td></tr>
<tr><td>3</td><td>×</td><td></td><td></td><td>×</td><td>×</td></tr>
<tr><td>4</td><td></td><td>×</td><td></td><td>×</td><td>×</td></tr>
</table>
</td></tr>
<tr><td>11</td><td>When power reduction is applied to certain wireless modes to satisfy SAR compliance for simultaneous transmission conditions, other equipment certification or operating requirements, include the maximum average conducted output power measured in each power reduction mode applicable to the simultaneous voice/data transmission configurations for such wireless configurations and frequency bands; and also include details of the power reduction implementation and measurement setup</td><td>Not applicable.</td></tr>
</table>

13. Test Results List

Test Guidance:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is: ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.

13.1 Summary of Measurement Results for Head

Summary of Measurement Results for LTE Band (QPSK, 10MHz)

Test Date: 2017.12.11											
Plot No.	**Band**	**RB Size**	**RB offset**	**Test Position**	**Gap (mm)**	**Ch.**	**Freq. (MHz)**	**Tune-up Scaling Factor**	**Power Drift (dB)**	**Measured 1g SAR (W/kg)**	**Reported 1g SAR (W/kg)**
1#	LTE Band 30	1	0	Right Cheek	0mm	27710	2310	1.072	0.06	**0.097**	**0.104**
	LTE Band 30	1	0	Right Tilt	0mm	27710	2310	1.072	0.02	0.022	0.024
	LTE Band 30	1	0	Left Cheek	0mm	27710	2310	1.072	0.08	0.041	0.044
	LTE Band 30	1	0	Left Tilt	0mm	27710	2310	1.072	0.04	0.018	0.019
	LTE Band 30	25	0	Right Cheek	0mm	27710	2310	1.096	0.11	0.070	0.077
	LTE Band 30	25	0	Right Tilt	0mm	27710	2310	1.096	0.01	0.018	0.020
	LTE Band 30	25	0	Left Cheek	0mm	27710	2310	1.096	-0.04	0.018	0.020
	LTE Band 30	25	0	Left Tilt	0mm	27710	2310	1.096	0.07	0.014	0.016

13.2 Summary of Measurement Results for Hotspot

Summary of Measurement Results for LTE Band (QPSK, 10MHz)

Plot No.	**Band**	**RB Size**	**RB offset**	**Test Position**	**Gap (mm)**	**Ch.**	**Freq. (MHz)**	**Tune-Up Limit (dBm)**	**Tune-up Scaling Factor**	**Power Drift (dB)**	**Measured 1g SAR (W/kg)**	**Reported 1g SAR (W/kg)**
	LTE Band 30	1	0	Front Side	10mm	27710	2310	23.5	1.072	0.11	0.151	0.162
	LTE Band 30	1	0	Back Side	10mm	27710	2310	23.5	1.072	-0.01	**0.477**	**0.511**
	LTE Band 30	1	0	Left Side	10mm	27710	2310	23.5	1.072	0.03	0.012	0.012
	LTE Band 30	1	0	Right Side	10mm	27710	2310	23.5	1.072	0.01	0.041	0.044
	LTE Band 30	1	0	Bottom Side	10mm	27710	2310	23.5	1.072	0.06	0.308	0.330
	LTE Band 30	25	0	Front Side	10mm	27710	2310	22.5	1.096	-0.1	0.126	0.138
	LTE Band 30	25	0	Back Side	10mm	27710	2310	22.5	1.096	0.11	0.293	0.321
	LTE Band 30	25	0	Left Side	10mm	27710	2310	22.5	1.096	0.09	0.007	0.008
	LTE Band 30	25	0	Right Side	10mm	27710	2310	22.5	1.096	0.04	0.031	0.034
	LTE Band 30	25	0	Bottom Side	10mm	27710	2310	22.5	1.096	0.02	0.225	0.247

13.3 Summary of Measurement Results for Body-worn

Summary of Measurement Results for LTE Band (QPSK, 10MHz)

Plot No.	Band	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30	1	0	Front Side	10mm	27710	2310	23.5	1.072	0.11	0.151	0.162
3#	LTE Band 30	1	0	Back Side	10mm	27710	2310	23.5	1.072	-0.01	**0.477**	**0.511**
	LTE Band 30	25	0	Front Side	10mm	27710	2310	22.5	1.096	-0.1	0.126	0.138
	LTE Band 30	25	0	Back Side	10mm	27710	2310	22.5	1.096	0.11	0.293	0.321

14. Repeated SAR Measurement

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz. 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 forthe repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2)through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only 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 ≥ 1.45 W/kg (~ 10% fromthe 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kgand the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

15. Simultaneous SAR

#	Simultaneous transmission conditions					
	WWAN			WLAN		Sum of WWAN& WLAN
	LTE Data	GSM	UMTS	802.11b/g/n	BT	
1	×	×	×	×	×	

Note:

1. When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the Wi-Fi transmitter and another WWAN transmitter. Both transmitter often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. The "Portable Hotspot" feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.
2. The hotspot SAR result may overlap with the body-worn accessory SAR requirements, per KDB 941225 D06, the more conservative configurations can be considered, thus excluding some unnecessary body-worn accessory SAR tests.
3. GSM supports voice and data transmission, though not simultaneously. WCDMA supports voice and data transmission simultaneously.
4. Simultaneous Transmission SAR evaluation is not required for BT and Wi-Fi , because the software mechanism have been incorporated to guarantee that the WLAN and Bluetooth transmitters would not simultaneously operate.
5. Per KDB 447498D01v06, Simultaneous Transmission SAR Evaluation procedures is as followed:

   Step 1: If sum of 1 g SAR < 1.6 W/kg, Simultaneous SAR measurement is not required.

   Step 2: If sum of 1 g SAR > 1.6 W/kg, ratio of SAR to peak separation distance for pair of transmitters calculated.

   Step 3: If the ratio of SAR to peak separation distance is ≤ 0.04, Simultaneous SAR measurement is not required.

   Step 4: If the ratio of SAR to peak separation distance is > 0.04, Simultaneous SAR measurement is required and simultaneous transmission SAR value is calculated.

   (The ratio is determined by: (SAR1 + SAR2) ^ 1.5/Ri ≤ 0.04,

   Ri is the separation distance between the peak SAR locations for the antenna pair in mm)

6. Applicable Multiple Scenario Evaluation

Test Position	Main Ant. SAR Max (W/Kg)	Bluetooth SAR(W/Kg)	Wi-Fi SAR Max(W/Kg)	∑1-g SAR Max(W/Kg)	
				BT & Main Ant	Wi-Fi &Main Ant
Head SAR	0.104	N/A	N/A	0.104	0.104
Body SAR	0.511	N/A	N/A	0.511	0.511

Note:

1、The device supports WLAN 2.4GHz and Bluetooth, but LTE Band 30 is tested only in this reported.