SAR TEST REPORT

For

4G LTE AX300 Wi-Fi 6 USB Adapter
Model Number: DWM-222W
Series Model:DWM-222W/x, DWM-222W/xx, DWM-222W/xxx (x can be 0-9 , A-Z)

FCC ID: KA2WM222WB1

Report Number: WT258501693

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Test report declaration

Applicant	:	D-Link Corporation
Address	:	14420 Myford Road Suite 100,Irvine, California 92606, United States
Manufacturer	:	D-Link Corporation
Address	:	14420 Myford Road Suite 100,Irvine, California 92606, United States
EUT Description	:	4G LTE AX300 Wi-Fi 6 USB Adapter
Model No.	:	DWM-222W
Series Model		DWM-222W/x, DWM-222W/xx, DWM-222W/xxx (x can be 0-9 , A-Z)
Brand	:	D-LINK

Test Standards:

FCC 47CFR Part 2(2.1093) IEC/IEEE 62209-1528 KDB 447498 D04v01 KDB 248227 D01v02r02 KDB 865664 D01v01r04 KDB 865664 D02v01r02 KDB 941225 D01v03r01 KDB 941225 D05v02r05 KDB 941225 D06v02r01

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the compliance of the applicable standards stated above. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results.

The results documented in this report only apply to the tested sample, under the conditions and modes of operation as described herein.

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Project Engineer:	(Zhang Qiang)	Date:	Spe.16, 2025
Checked by:	(Wan Xiao Jing)	Date:	Spe.16, 2025
Approved by:	(Lin Bin)	Date:	Spe.16, 2025

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1. REPORTED SAR SUMMARY

1.1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing are as follows.

Band		Highest SAR Summary Body-worn (Gap 5mm) 1g (W/kg)
	WCDMA Band II	0.56
	WCDMA Band IV	0.68
	WCDMA Band V	0.82
	LTE Band 2	0.56
	LTE Band 4	0.62
	LTE Band 5	0.89
	LTE Band 7	0.61
	LTE Band 12	0.84
	LTE Band 17	0.75
	LTE Band 41	0.57
	LTE Band 66	0.55
WLAN	2.4GHzWLAN	0.17

Maximum Report SAR 1g(W/kg)	Body-worn(5mm)	0.89	Limit(W/kg): 1.6 W/kg

Highest Simultaneous SAR 1g(W/kg)	LTE Band 5+2.4GWIFI	1.19	Limit(W/kg): 1.6 W/kg

Note:

1. This device is in compliance with Specific Absorption Rate (SAR) for general population or uncontrolled exposure limits (1.6W/kg as averaged over any 1 gram of tissue; specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992), and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.
2. When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% risk level.

1.2. RF exposure limits (ICNIRP Guidelines)

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR*(Brain/Body)	**1.60W/g**	8.00W/g
Spatial Average SAR** (Whole Body)	0.08W/g	0.40W/g
Spatial Peak SAR***(Limbs)	4.00W/g	20.00W/g

Table 2: RF exposure limits

The limit applied in this test report is shown in bold letters

Notes:

* The Spatial Peak value of the SAR averaged over any 1 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time

** The Spatial Average value of the SAR averaged over the whole body.

*** The Spatial Peak value of the SAR averaged over any 1 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time. Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result if employment or occupation.)

1.3. Ratings and System Details

EUT Description	4G LTE AX300 Wi-Fi 6 USB Adapter
Model No.	DWM-222W
Series Model	DWM-222W/x, DWM-222W/xx, DWM-222W/xxx (x can be 0-9 , A-Z)
Brand	D-LINK
EUT Supports Radios application:	WCDMA Band V: TX 824MHz~849MHz WCDMA Band IV: TX 1710MHz~1755MHz WCDMA Band II: TX 1850MHZ~1910MHz LTE Band 2: TX 1850MHZ~1910MHz LTE Band 4: TX 1710MHz~1755MHz LTE Band 5: TX 824MHz~849MHz LTE Band 7: TX 2500MHz~2570MHz LTE Band 12: TX 699MHz~716MHz LTE Band 17: TX 704MHz~716MHz LTE Band 41: TX 2496MHz~2690MHz LTE Band 66: TX 1710MHz~1780MHz WL AN 2.4GHz Band: 2412 MHz ~ 2462 MHz
Modulation Mode	WCDMA:BPSK uplink, QPSK downlink LTE(QPSK,16QAM,64QAM) 802.11b:DSSS,DBPSK,DQPSK, CCK; 802.11g:OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11n:OFDM (BPSK, QPSK, 16QAM, 64QAM) ;
Hardware version:	B1
Software version:	1.00.09LA
Remark	DWM-222W and DWM-222W/x, DWM-222W/xx, DWM-222W/xxx (x can be 0-9 , A-Z),Only model name and color are different.

1.4.Test specification(s)

FCC 47CFR Part 2(2.1093)	Radiofrequency Radiation Exposure Evaluation: Portable Devices
IEC/IEEE 62209-1528	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
KDB 447498 D04v01	General RF Exposure Guidance No deviation
KDB 248227 D01v02r02	SAR Measurement Procedures for 802.11Transmitters
KDB 865664 D01v01r04	SAR Measurement 100 MHz to 6 GHz
KDB 865664 D02v01r02	RF Exposure Reporting
KDB 941225 D01v03r01	3G SAR MEAUREMENT PROCEDURES
KDB 941225 D05v02r05	SAR Evaluation Consideration for LTEDevices
KDB 941225 D06v02r01	SAR Evaluation Procedures For PortableDevices With Wireless Router Capabilities
Note 1: The test item is not applicable. **Note 2:** Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.	

1.5.List of Test and Measurement Instruments

	Equipment	Model No.	Serial No.	Manufacturer	Last Calibration Date	Period
☒	SAR test system	TX60L	F08/5AY8A1/A/01+F08/	SPEAG	NCR	NCR
☒	Electronic Data Transmitter	DAE4	1637	SPEAG	2024.10.15	1year
☒	SAR Probe	EX3DV4	3881	SPEAG	2025.02.25	1year
☒	Software	85070	--	Agilent	--	--
☒	Software	DASY5	--	SPEAG	--	--
☒	System Validation Dipole,750MHz	D750V3	1103	SPEAG	2023.01.05	3year
☒	System Validation Dipole,835MHz	D835V2	4d141	SPEAG	2024.08.30	3year
☒	System Validation Dipole,900MHz	D900V2	1d077	SPEAG	2024.09.02	3year
☒	System Validation Dipole,1800MHz	D1800V2	2d171	SPEAG	2024.08.30	3year
☒	System Validation Dipole,1900MHz	D1900V2	5d162	SPEAG	2024.09.02	3year
☒	System Validation Dipole,2450MHz	D2450V2	818	SPEAG	2024.09.05	3year
☒	System Validation Dipole,2600MHz	D2600V2	1074	SPEAG	2023.01.05	3year
☒	Dielectric Probe Kit	85070E	MY44300455	Agilent	NCR	NCR
☒	Dual-directional coupler,0.10-2.0GHz	778D	MY48220198	Agilent	NCR	NCR
☒	Dual-directional coupler,2.00-18GHz	772D	MY46151160	Agilent	NCR	NCR
☒	Power Amplifier	ZVE-8G	SC280800926	MINI-CIRCUITS	NCR	NCR
☒	Power Amplifier	ZHL42W	81709	MINI-CIRCUITS	NCR	NCR
☒	Signal Generator	SMR20	MY51111531	R&S	2025.04.20	1year
☒	Power Sensor	NRP-Z21	102626	R&S	2025.04.20	1year
☒	Power Sensor	NRP-Z21	105057-XP	R&S	2025.04.20	1year
☒	Network Analyzer	E5071C	MY46109550	Agilent	2025.04.20	1Year
☒	Flat Phantom	ELI4.0	TP-1904	SPEAG	NCR	NCR
☒	Twin Phantom	SAM	TP-1504	SPEAG	NCR	NCR
☒	Wideband Radio Communication Tester	CMW500	170456	R&S	2025.04.20	1Year
☒	Precision Thermometer	--	--	--	2025.03.20	1Year

Table 3: List of Test and Measurement Equipment

Note: All the test equipments are calibrated once a year, except the dipoles, which are calibrated every three years. Moreover, we have self-calibration every year to the dipoles.

2. GENERAL INFORMATION

2.1. Report information

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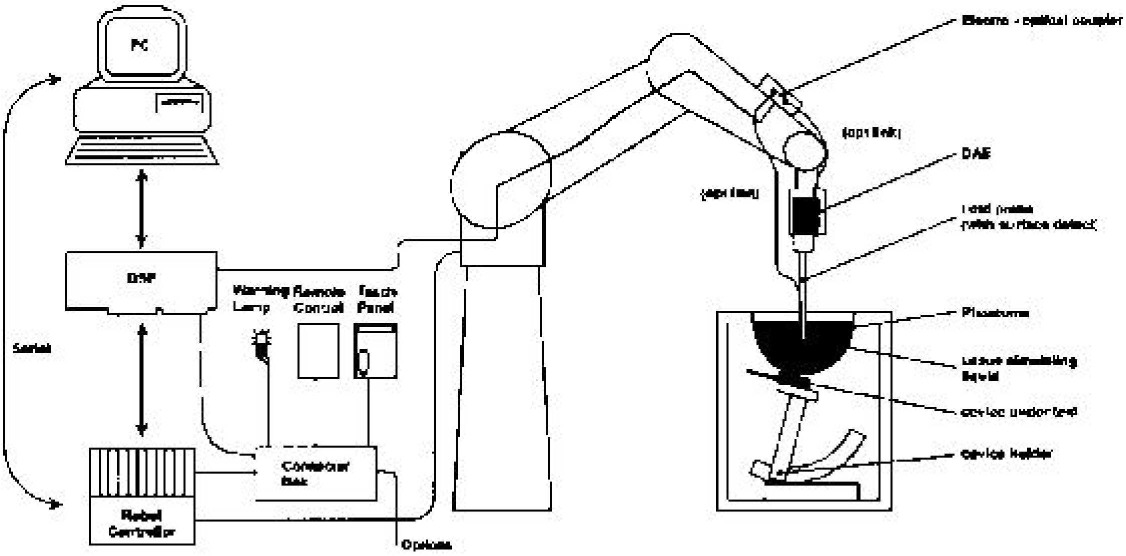
The Laboratory is Accredited Testing Laboratory of American Association for Labor atory Accreditation (A2LA) and certificate number is 3292.01.

3. SAR MEASUREMENT SYSTEM CONFIGURATION

3.1. SAR Measurement Set-up



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

- A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
- 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.
- 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.
- A unit to operate the optical surface detector which is connected to the EOC.
- 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.

● The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. ● A computer operating Windows XP.

● DASY5 software and SEMCAD data evaluation software.

Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.

● The generic twin phantom enabling the testing of left-hand and right-hand usage.

● The device holder for handheld mobile phones.

● Tissue simulating liquid mixed according to the given recipes.

● System checks dipoles allowing validating the proper functioning of the system.

● Test environment

● The DASY5 measurement system is placed at the head end of a room with dimensions: 4.5 x 4 x 3 m^3, the SAM phantom is placed in a distance of 1.3 m from the side walls and 1.1m from the rear wall.

Picture 1 of the photo documentation shows a complete view of the test environment.

3.2. Probe description

Isotropic E-Field Probe EX3DV4 for Dosimetric Measurements

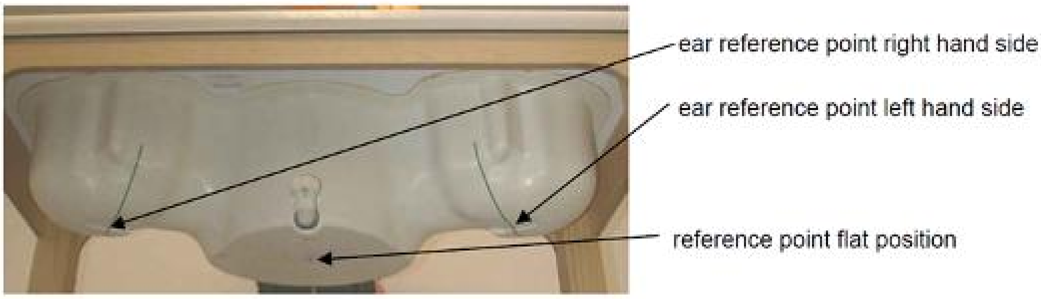
Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Calibration	ISO/IEC 17025 calibration service available.	
Frequency	10 MHz to >6 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 6 GHz)	
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 (noise:	

	typically<1 μW/g)	
Dimensions	Overall length: 337 mm (Tip: 20mm) Tip length: 2.5 mm (Body: 12mm) Typical distance from probe tip to dipole centers: 1mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	

3.3. Phantom description

The used SAM Phantom meets the requirements specified in Edition 01-01 of Supplement C to OET Bulletin 65 for Specific Absorption Rate (SAR) measurements.

The phantom consists of a fibreglass shell integrated in a wooden table. It allows left-hand and right-hand head as well as body-worn measurements with a maximum liquid depth of 18 cm in head position and 22 cm in planar position (body measurements). The thickness of the Phantom shell is 2 mm +/- 0.1 mm.



ELI4 Phantom

Shell Thickness	2mm+/- 0.2mm
Filling Volume	Approximately 30 liters
Measurement Areas	Flat phantom
The ELI4 phantom is in intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30MHz to 6GHz. ELI4 is fully compatible with the lastest draft of the standard IEC 62209-2 and all known tissue simulating liquids.	

The phantom shell material is resistant to all ingredients used in the tissue-equivalent liquid recipes. The shell of the phantom including ear spacers is constructed from low permittivity and low loss material, with a relative permittivity≤5 and a loss tangent ≤0.05.

3.4. Device holder description

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°. 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.

4. SAR MEASUREMENT PROCEDURE

4.1. Scanning procedure

- The DASY5 installation includes predefined files with recommended procedures for measurements and system check. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.
- The reference and drift measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT's output power and should vary max. +/- 5 %.
- The surface check measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within ± 30°.)
- The area scan measures the SAR above the DUT or verification dipole on a parallel plane to the surface. It is used to locate the approximate location of the peak SAR with 2D spline interpolation. The robot performs a stepped movement along one grid axis while the local electrical field strenth is measured by the probe. The probe is touching the surface of the SAM during acquisition of measurement values. The standard scan uses large grid spacing for faster measurement. Standard grid spacing for head measurements is 15 mm in x- and y- dimension(≤ 2GHz)，12 mm in x- and y- dimension(2-4 GHz) and 10mm in x- and y- dimension(4-6GHz). If a finer resolution is needed, the grid spacing can be reduced. Grid spacing and orientation have no influence on the SAR result. For special applications where the standard scan method does not

find the peak SAR within the grid, e.g. mobile phones with flip cover, the grid can be adapted in orientation.

Results of this coarse scan are shown in Appendix B.

● A "zoom scan" measures the field in a volume around the 2D peak SAR value acquired in the previous "coarse" scan. This is a fine grid with maximum scan spatial resolution: Δxzoom, Δyzoom ≤2GHZ≤ 8 mm, 2-4GHz - ≤ 5 mm and 4-6 GHz-≤ 4 mm; Δzzoom ≤ 3GHz - ≤ 5 mm, 3-4 GHz- ≤ 4 mm and 4-6GHz-≤2mm where the robot additionally moves the probe along the z-axis away from the bottom of the Phantom. DASY5 is also able to perform repeated zoom scans if more than 1 peak is found during area scan. Test results relevant for the specified standard (see chapter 1.5.) are shown in table form in chapter 3.2.

● A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 2mm steps. This measurement shows the continuity of the liquid and can – depending in the field strength- also show the liquid depth. A z-axis scan of the measurement with maximum SAR value is shown in Appendix B.

The following table summarizes the area scan and zoom scan resolutions per FCC KDB 865664D01:

Frequency	Maximum Area Scan resolution (Δxarea, Δyarea)	Maximum Zoom Scan spatial resolution(Δxzoom Δyzoom)	Maximum Zoom Scan spatial resolution			Minimum zoom scan volume (x,y,z)
			Uniform Grid	Graded Grad		
			Δzzoom(n)	Δzzoom(1)	Δzzoom(n>1)	
≤2GHz	≤15mm	≤8mm	≤5mm	≤4mm	≤1.5*Δzzoom(n-1)	≥30mm
2-3GHz	≤12mm	≤5mm	≤5mm	≤4mm	≤ 1.5*Δzzoom(n-1)	≥30mm
3-4GHz	≤10mm	≤5mm	≤4mm	≤3mm	≤ 1.5*Δzzoom(n-1)	≥28mm
4-5GHz	≤10mm	≤4mm	≤3mm	≤2.5mm	≤ 1.5*Δzzoom(n-1)	≥25mm

5-6GHz	≤10mm	≤4mm	≤2mm	≤2mm	≤ 1.5*Δzzoom(n-1)	≥22mm

Spatial Peak SAR Evaluation

● The spatial peak SAR - value for 1 and 10 g is evaluated after the Cube measurements have been done. The bases of the evaluation are the SAR values measured at the points of the fine cube grid consisting of 5 x 5 x 7 points (with 8mm horizontal resolution) or 7 x 7 x 7 points (with 5mm horizontal resolution).

● The algorithm that finds the maximal averaged volume is separated into three different stages.

● The data between the dipole center of the probe and the surface of the phantom are extrapolated. This data cannot be measured since the center of the dipole is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is about 1 mm (see probe calibration sheet). The extrapolated data from a cube measurement can be visualized by selecting 'Graph Evaluated'.

● The maximum interpolated value is searched with a straight-forward algorithm. Around this maximum the SAR - values averaged over the spatial volumes (1g or 10 g) are computed using the 3d-spline interpolation algorithm. If the volume cannot be evaluated (i.e., if a part of the grid was cut off by the boundary of the measurement area) the evaluation will be started on the corners of the bottom plane of the cube.

● All neighboring volumes are evaluated until no neigh boring volume with a higher average value is found.

● Extrapolation

● The extrapolation is based on a least square algorithm [W. Gander, Computermathematik, p.168-180]. Through the points in the first 3 cm along the z-axis, polynomials of order four are calculated. These polynomials are then used to evaluate the points between the surface and the probe tip. The points, calculated from the surface, have a distance of 1 mm from each other.

Interpolation

● The interpolation of the points is done with a 3d-Spline. The 3d-Spline is composed of three one-dimensional splines with the "Not a knot"-condition [W. Gander, Computermathematik, p.141-150] (x, y and z -direction) [Numerical Recipes in C, Second Edition, p.123ff].

● Volume Averaging

● At First the size of the cube is calculated. Then the volume is integrated with the trapezoidal algorithm. 8000 points (20x20x20) are interpolated to calculate the average.

● Advanced Extrapolation

● DASY5 uses the advanced extrapolation option which is able to compansate boundary effects on E-field probes.

6.1.1. Data Storage and Evaluation

Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension DAE4. The 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 incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

Data Evaluation by SEMCAD

The SEMCAD software 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 Normi, ai0, ai1, ai2

- Conversion factor ConvFi

- 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 DASY5 components. In the direct measuring mode of the multimeter 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:

$$V_i = U_i + U_i^2 \bullet cf/dcp_i$$

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

U_i = input signal of channel i (i = x, y, z)

cf = crest factor of exciting field (DASY parameter)

dcp_i = diode compression point (DASY parameter)

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

E-field probes: $E_i = (V_i / Norm_i \bullet ConvF)^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \bullet (a_{i0} + a_{i1}f + a_{i2}f^2)/f$

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

$Norm_i$ = sensor sensitivity of channel i (i = x, y, z)

$[mV/(V/m)^2]$ for E-field Probes

ConvF = sensitivity enhancement in solution

aij = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

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

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

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

Etot = (Ex2 + EY2 + Ez2)1/2

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

SAR = (Etot2 • σ) / (ρ • 1000)

with SAR = local specific absorption rate in mW/g

Etot = total field strength in V/m

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

ρ = equivalent tissue density in g/cm3

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

Ppwe = Etot2 / 3770 or Ppwe = Htot2 • 37.7

with Ppwe = equivalent power density of a plane wave in mW/cm2

Etot = total electric field strength in V/m

Htot = total magnetic field strength in A/m

7. SYSTEM VERIFICATION PROCEDURE

7.1. Tissue Verification

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectric parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ±5% of the target values.

The following materials are used for producing the tissue-equivalent materials

Ingredient	Head Tissue				
(% by weight)	750	835	1750	1900	2450
Water	34.4	41.45	52.64	55.24	62.7
Salt(NaCl)	0.79	1.45	0.36	0.306	0.5
Sugar	64.81	56.0	0.0	0.0	0.0
HEC	0.0	1.0	0.0	0.0	0.0
Bactericide	0.0	0.1	0.0	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0
DGBE	0.0	0.0	47.0	44.54	36.8

Table 4 : Tissue Dielectric Properties

Salt: 99+% Pure Sodium Chloride; Sugar”98+% Pure Sucrose; Water: De-ionized, 16MΩ+ resistivity

HEC: Hydroxyethyl Cellulose; DGBE: 99+% Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy)ethanol]

Triton X-100(ultra pure): Polyethylene glycol mono[4-(1,1,3,3-tetramethylbutyl)phenyl]ether

Tissue-equivalent liquid measurements:

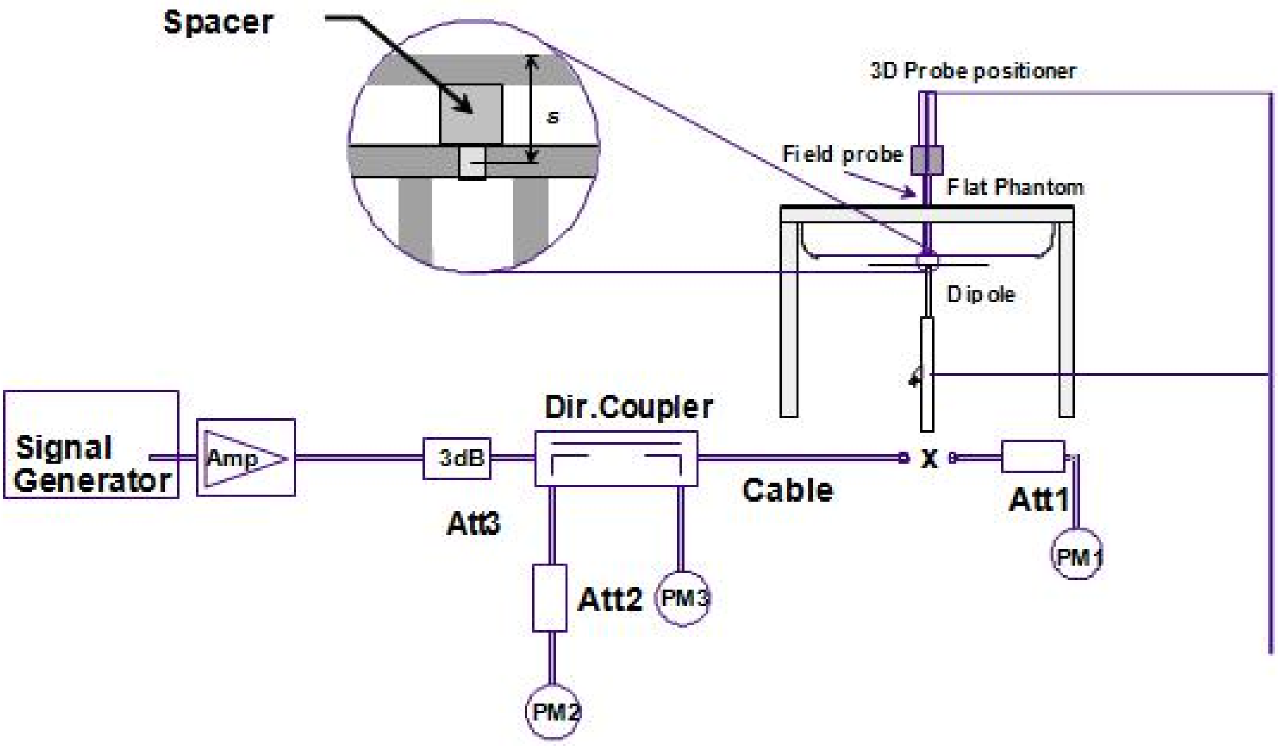
f/MHz	Date Tested	Dielectric Parameters	Target	Tolerance (%)	Temp (ºC)
750	2025.09.03	εr=41.82	41.9 (39.81~43.99)	±5	20
		σ=0.9	0.89 (0.85~0.93)		
835	2025.09.04	εr =42.19	41.5 (39.43~43.57)	±5	20
		σ=0.93	0.90 (0.86~0.94)		
900	2025.09.05	εr =42.22	41.5 (39.43~43.57)	±5	20
		σ=0.97	0.97 (0.93~1.01)		
1750	2025.09.06	εr =40.03	40.1 (38.10~42.10)	±5	20
		σ=1.42	1.37 (1.31~1.43)		
1900	2025.09.08	εr =40.14	40.0 (38.00~42.00)	±5	20
		σ=1.37	1.40 (1.33~1.47)		
2450	2025.09.11	εr =38.45	39.2 (37.24~41.16)	±5	20
		σ=1.87	1.80 (1.71~1.89)		
2600	2025.09.12	εr =38.6	39.0 (37.05~40.95)	±5	20
		σ=1.99	1.96 (1.87~2.05)		

System check, Tissue-equivalent liquid:

f/MHz	Date Tested	Power（mW）	SAR(W/kg), 1g	SAR(W/kg), 10g	Target 1g	Target 10g	Tolerance (%)	Temp (ºC)
750	2025.09.03	250	7.76	5.16	8.42 (7.58 ~9.26)	5.53 (4.98 ~6.08)	±10	20
835	2025.09.04	250	9.24	6.32	9.59 (8.64 ~10.54)	6.36 (5.73 ~6.99)	±10	20
900	2025.09.05	250	10.84	7.00	10.80 (9.72 ~11.88)	7.07 (6.37 ~7.77)	±10	20
1750	2025.09.06	250	36.32	19.56	35.90 (32.31 ~39.49)	19.30 (17.37 ~21.23)	±10	20
1900	2025.09.08	250	40.80	21.60	40.00 (36.00 ~44.00)	21.10 (18.99 ~23.21)	±10	20
2450	2025.09.11	250	52.80	24.84	52.60 (47.34 ~57.86)	23.70 (21.33 ~26.07)	±10	20
2600	2025.09.12	250	56.40	25.36	56.20 (50.58 ~61.82)	25.30 (22.77 ~27.83)	±10	20

System Checking

The manufacturer calibrates the probes annually. A system check measurement was made following the determination of the dielectric parameters of the tissue-equivalent liquid, using the dipole validation kit. A power level of 250mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom.



The system checking results (dielectric parameters and SAR values) are given in the table below.

The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE P1528 (described above). The following table shows system check results for all frequency bands and tissue liquids used during the tests (Graphic Plot(s)see Appendix A).

8. SAR MEASUREMENT VARIABILITY AND UNCERTAINTY

8.1. SAR measurement variability

Per KDB865664 D01 SAR measurement 100MHz to 6GHz v01r04, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurement 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.

1) Repeated measurement is not required when the original highest measured SAR is <0.80 W/kg; step2) through 4) do not apply.
2) When the original highest measured SAR is ≥0.8 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% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is >1.20.

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

8.2. SAR measurement uncertainty

Per KDB865664 D01 SAR Measurement 100MHz to 6GHz v01r03, when the highest measured 1-g SAR within a frequency band is <1.5W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2003 is not required in SAR reports submitted for equipment approval. The equivalent ratio(1.5/1.6) is applied to extremity and occupational exposure conditions.

9. Test Configuration

The DUT is tested using a CMU 200 or E5515C communications tester as controller unit to set test channels and maximum output power to the DUT, as well as for measuring the conducted peak power.

Test positions as described in the tables above are in accordance with the specified test standard.

WCDMA Test Configuration

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

	Mode	Rel99
	Subtest	---
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	β_c / β_d	8/15

Handsets with Release 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the “Release 5 HSDPA Data Devices” section of this document, for the highest reported SAR body-worn accessory exposure configuration in 12.2 kbps RMC. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

HSDPA should be configured according to the UE category of a test device.The number of HSDSCH/HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors(βc, βd), and HS-DPCCH power offset parameters (ΔACK, ΔNACK, ΔCQI) should be set according to values indicated in the Table below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (note 1, note 2)	CM(dB) (note 3)	MPR(dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (note 4)	15/15 (note 4)	64	12/15 (note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI}= 8 ⇔ $A_{hs} = \beta_{hs}/\beta_c = 30/15$ ⇔ $\beta_{hs} = 30/15 * \beta_c$

Note2: CM=1 for β_c/β_d =12/15, β_{hs}/β_c=24/15.

Note3: For subtest 2 the $\beta_c\beta_d$ ratio of 12/15 for the TFC during the measurement period(TF1,TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1,TF1) to β_c=11/15 and β_d=15/15.

HSUPA Test Configuration

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices” section of this document, for the highest reported body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn accessory measurements is tested for next to the ear head exposure.

Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in Table 2 and other applicable procedures described in the ‘WCDMA Handset’ and ‘Release 5 HSDPA Data Devices’ sections of this document

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (1)	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM (2) (dB)	MPR (dB)	AG(4) Index	E-TFCI
1	11/15(3)	15/15(3)	64	11/15(3)	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15(4)	15/15(4)	64	15/15(4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK}, ΔNACK and Δ_{CQI} = 8 ⇔ A_{hs} = β_{hs}/β_c = 30/15 ⇔ β_{hs}= 30/15 *β_c.

Note 2: CM = 1 for βc/βd =12/15, β_{hs}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the βc/βd ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to βc = 10/15 and βd = 15/15.

Note 4: For subtest 5 the βc/βd ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to βc = 14/15 and βd = 15/15.

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Figure 5.1g.

Note 6: βed can not be set directly; it is set by Absolute Grant Value.

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	11484	5.76
	4	4	10		20000	2.00
7 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	22996	?
	4	4	10		20000	?

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.
UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM. (TS25.306-7.3.0)

HSPA, HSPA+ and DC-HSDPA Test Configuration

measurement is required for HSPA, HSPA+ or DC-HSDPA, a KDB inquiry is required to confirm that the wireless mode configurations in the test setup have remained stable throughout the SAR measurements.35 Without prior KDB confirmation to determine the SAR results are acceptable, a PBA is required for TCB approval. SAR test exclusion for HSPA, HSPA+ and DC-HSDPA is determined according to the following:

1) The HSPA procedures are applied to configure 3GPP Rel. 6 HSPA devices in the required Sub-test mode(s) to determine SAR test exclusion.

2) SAR is required for Rel. 7 HSPA+ when SAR is required for Rel. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (Up antenna) HSPA+ with 12.2 kbps RMC as the primary mode.36 Power is measured for HSPA+ that supports Up antenna 16 QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

3) SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

4) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA, HSPA+ or DC-HSDPA: a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121.

i) Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.

b) The power measurement results are in agreement with the individual device implementation and specifications. When Enhanced MPR (E-MPR) applies, the normal MPR targets may be modified according to the Cubic Metric (CM) measured by the device, which must be taken into consideration.

c) The UE category, operating parameters, such as the β and Δ values used to configure the device for testing, power setback procedures described in 3GGPP TS 34.121 for the power measurements, and HSPA/HSPA+ channel conditions (active and stable) for the entire duration of the measurement according to the required E-TFCI and AG index values.

5) When SAR measurement is required, the test configurations, procedures and power measurement results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

HS-DSCH category	Maximum number of HS-DSCH codes received	Minimum inter-TTI interval	Maximum number of bits of an HS-DSCH transport block received within an HS-DSCH TTI NOTE 1	Total number of soft channel bits	Supported modulations without MIMO operation or dual cell operation	Supported modulations with MIMO operation and without dual cell operation	Supported modulations with dual cell operation
Category 1	5	3	7298	19200	QPSK, 16QAM	Not applicable (MIMO not supported)	Not applicable (dual cell operation not supported)
Category 2	5	3	7298	28800			
Category 3	5	2	7298	28800			
Category 4	5	2	7298	38400			
Category 5	5	1	7298	57600			
Category 6	5	1	7298	67200			
Category 7	10	1	14411	115200			
Category 8	10	1	14411	134400			
Category 9	15	1	20251	172800			
Category 10	15	1	27952	172800			
Category 11	5	2	3630	14400	QPSK		
Category 12	5	1	3630	28800			
Category 13	15	1	35280	259200	QPSK, 16QAM, 64QAM		
Category 14	15	1	42192	259200			
Category 15	15	1	23370	345600	QPSK, 16QAM		
Category 16	15	1	27952	345600			
Category 17 NOTE 2	15	1	35280	259200	QPSK, 16QAM, 64QAM	-	
			23370	345600	-	QPSK, 16QAM	
Category 18 NOTE 3	15	1	42192	259200	QPSK, 16QAM, 64QAM	-	
			27952	345600	-	QPSK, 16QAM	
Category 19	15	1	35280	518400	QPSK, 16QAM, 64QAM		
Category 20	15	1	42192	518400			
Category 21	15	1	23370	345600	-	-	QPSK, 16QAM
Category 22	15	1	27952	345600			
Category 23	15	1	35280	518400			QPSK, 16QAM, 64QAM
Category 24	15	1	42192	518400			

LTE Test Configuration

SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02r05. The CMW500 WideBand Radio Communication Tester was used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing.SAR test were performed with the same number of RB and RB offsets transmitting on all TTI frames (Maximum TTI)

1) Spectrum Plots for RB configurations

A properly configured base station simulator was used for LTE output power measurements and SAR testing. Therefore, spectrum plots for RB configurations were not required to be included in this report.

2) MPR

When MPR is implemented permanently within the UE, regardless of network requirements, only those RB configurations allowed by 3GPP for the channel bandwidth and modulation combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR.

The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101:

Maximun Power Reduction(MRP) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth(N_{RB})						MPR(dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	＞5	＞4	＞8	＞12	＞16	＞18	⩽1
16 QAM	⩽5	⩽4	⩽8	⩽12	⩽16	⩽18	⩽1
16 QAM	＞5	＞4	＞8	＞12	＞16	＞18	⩽2

Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

<table>
<tr><th rowspan="3">Special subframe configuration</th><th colspan="3">Normal cyclic prefix in downlink</th><th colspan="3">Extended cyclic prefix in downlink</th></tr>
<tr><th>DwPTS</th><th colspan="2">UpPTS</th><th>DwPTS</th><th colspan="2">UpPTS</th></tr>
<tr><th></th><th>Normal cyclic prefix in uplink</th><th>Extended cyclic prefix in uplink</th><th></th><th>Normal cyclic prefix in uplink</th><th>Extended cyclic prefix in uplink</th></tr>
<tr><td>0</td><td>6592 T_s</td><td rowspan="5">2192 T_s</td><td rowspan="5">2560 T_s</td><td>7680 T_s</td><td rowspan="4">2192 T_s</td><td rowspan="4">2560 T_s</td></tr>
<tr><td>1</td><td>19760 T_s</td><td>20480 T_s</td></tr>
<tr><td>2</td><td>21952 T_s</td><td>23040 T_s</td></tr>
<tr><td>3</td><td>24144 T_s</td><td>25600 T_s</td></tr>
<tr><td>4</td><td>26336 T_s</td><td>7680 T_s</td><td rowspan="4">4384 T_s</td><td rowspan="4">5120 T_s</td></tr>
<tr><td>5</td><td>6592 T_s</td><td rowspan="3">4384 T_s</td><td rowspan="3">5120 T_s</td><td>20480 T_s</td></tr>
<tr><td>6</td><td>19760 T_s</td><td>23040 T_s</td></tr>
<tr><td>7</td><td>21952 T_s</td><td>12800 T_s</td></tr>
</table>

8	24144 T_S			-	-	-
9	13168 T_S			-	-	-

Uplink-downlink configurations

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

Calculated Duty Cycle = Extended cyclic prefix in uplink x (Ts) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%

Where Ts = 1/(15000 x 2048) seconds

LTE Test Configuration

SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02r05. The CMW500 WideBand Radio Communication Tester was used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing.SAR test were performed with the same number of RB and RB offsets transmitting on all TTI frames (Maximum TTI)

1) Spectrum Plots for RB configurations

A properly configured base station simulator was used for LTE output power measurements and SAR testing. Therefore, spectrum plots for RB configurations were not required to be included in this report.

2) MPR

When MPR is implemented permanently within the UE, regardless of network requirements, only those RB configurations allowed by 3GPP for the channel bandwidth and modulation combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR.

The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101:

Maximun Power Reduction(MRP) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth(N_{RB})						MPR(dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	＞5	＞4	＞8	＞12	＞16	＞18	≤1
16 QAM	≤5	≤4	≤8	≤12	≤16	≤18	≤1
16 QAM	＞5	＞4	＞8	＞12	＞16	＞18	≤2

Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

pecial subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		ormal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	6592 T_s	2192 T_s	2560 T_s	7680 T_s	2192 T_s	2560 T_s
1	19760 T_s			20480 T_s		
2	21952 T_s			23040 T_s		
3	24144 T_s			25600 T_s		
4	26336 T_s			7680 T_s	4384 T_s	5120 T_s
5	6592 T_s	4384 T_s	5120 T_s	20480 T_s		
6	19760 T_s			23040 T_s		

7	21952 T_s			12800 T_s		
8	24144 T_s			-	-	-
9	13168 T_s			-	-	-

Uplink-downlink configurations

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

Calculated Duty Cycle = Extended cyclic prefix in uplink x (Ts) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%

Where Ts = 1/(15000 x 2048) seconds

3) **A-MPR**

A-MPR(Additional MPR) has been disabled for all SAR tests by using Network Signalling Value of “NS_01”on the base station simulator.

4) LTE procedures for SAR testing

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

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. When the reported SAR is ≤ 0.8W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

ii) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in i) are applied to measure the SAR for QPSK with 50% RB allocation.

iii) QPSK with 100% RB allocation

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 in i) and ii) 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.

iv) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

B) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

WIFI Test Configurations

For WLAN SAR testing, WLAN engineering testing software installed on the DUT can provide continuous transmitting RF signal. The Tx power is set according to tune up procedure for 802.11 b mode by software. This RF signal utilized in SAR measurement has almost 100% duty cycle and its crest factor is 1.

For the 802.11b/g/n SAR tests, a communication link is set up with the test mode software for WiFi mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode.

10. AR TEST RESULTS

10.1. EUT Antenna Locations

ANT1 (MAIN ANT)	WCDMA:B2/B4/B5 LTE:B2/4/5/7/12/17/41/66(TX)
ANT0 (DIV ANT)	WCDMA:B2/B4/B5 LTE:B2/4/5/7/12/17/41/66(RX)

ANT2(WIFI ANT)	2.4GWIFI

11. SAR MEASUREMENT RESULTS

Result: Passed

Date of testing	:	2025.09.03~2025.09.12;
Ambient temperature	:	20℃~22℃
Relative humidity	:	50%~60%

General Notes:

1) Per KDB447498 D01v06, all measurement SAR results are scaled to the maximum tune-up tolerance limit to demonstrate compliant.
2) Per KDB447498 D01v06, 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 2.0W/kg, for 1-g or 10-g respectively, when the transmission band is ≤100MHz. When the maximum output power variation across the required test channels is >1/2 dB, instead of the middle channel, the highest output power channel must be used.
3) Per KDB865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measure SAR is ≥0.8W/kg; if the deviation among the repeated measurement is ≤20%, and the measured SAR<1.45W/kg, only one repeated measurement is required.
4) Per KDB 941225 D06 Hotspot Mode SAR v02:r01, the DUT dimension is bigger than 9cm*5cm, so 10mm is chosen as the test separation distance for Hotspot mode. When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
5) Per KDB648474 D04v01r03, SAR is evaluated without a headset connected to the device. When the standalone reported body-worn SAR is ≤1.2W/kg, no additional SAR evaluations using a headset are required.
6) Per KDB865664 D02v01r02, SAR plot is only required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination; plots are also required when the measured SAR is >1.5W/kg, or >7.0W/kg for occupational exposure. The published RF exposure KDB procedures may require additional plots; for example, to support SAR to peak location separation ratio test exclusion and/or volume

scan plots-processing (refer to appendix B for details).

UMTS Notes:

Per KDB 941225 D01v03r01, when maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤1/4dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤1.2 W/kg, SAR measurement is not required for the secondary mode..

Per KDB941225 D01v03, SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

LTE Notes:

7) 1. 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 theupper edge, middle and lower edge of each required test channel.

8) 2. Per KDB 941225 D05v02r05, 50% RB alocation for QPSK SAR testing fllows 1RB QPSK allocation procedure.

9) 3. Per KDB 941225 D05v02r05, For QPSK with 100% RB alocation, 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

10) 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 Wlkg, the remaining required test channels must also be tested.

11) 4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is > not Vs 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 SAR testing is not required.

12) 5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB alocation

configuration is > not % dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is≤1.45 Wlkg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.

13)6. ForLTEB41B5/B12/B17 1 B26 1 B381 B71 the maximum bandwidth does not support three non-overlapping channels,per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration,the middle channel of the group of overlapping channels should be selected for testing.

14)7. LTE band 2/4/17/38 SAR test was covered by Band 25/66/12/41; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if

15)a. The maximum output power, including tolerance, for the smaller band is≤the larger band to qualify for the SAR test exclusion.The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.

WLAN Notes

Per KDB 248227 D01v02r02, for all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

Per KDB 248227 D01v02r02, for 802.11g/n SAR testing is required. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is > 1.2 W/kg.

Per KDB 248227 D01v02r02, for OFDM transmission configurations in the 2.4 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11g/n mode is used for SAR measurement, on the highest measured output power channel for each frequency band.

11.1. WCDMA II SAR results

Configuration	Power Level	Mode	Position	Dist.(mm)	Ch.	Freq.(MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	RMC	Front	5	9400	1880	24.81	26.0	1.315	0.422	0.56
	original Power	RMC	Back	5	9400	1880	24.81	26.0	1.315	0.404	0.53
	original Power	RMC	Right	5	9400	1880	24.81	26.0	1.315	0.005	0.01
	original Power	RMC	Top	5	9400	1880	24.81	26.0	1.315	0.271	0.36
	original Power	RMC	Bottom	5	9400	1880	24.81	26.0	1.315	0.173	0.23

11.2. WCDMA IV SAR results

Configuration	Power Level	Mode	Position	Dist.(mm)	Ch.	Freq.(MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	RMC	Front	5	1412	1732.4	24.21	25.5	1.346	0.411	0.55
	original Power	RMC	Back	5	1412	1732.4	24.21	25.5	1.346	0.503	0.68
	original Power	RMC	Right	5	1412	1732.4	24.21	25.5	1.346	0.047	0.06
	original Power	RMC	Top	5	1412	1732.4	24.21	25.5	1.346	0.265	0.36
	original Power	RMC	Bottom	5	1412	1732.4	24.21	25.5	1.346	0.238	0.32

11.3. WCDMA V SAR results

Configuration	Power Level	Mode	Position	Dist.(mm)	Ch.	Freq.(MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	RMC	Front	5	4183	836.6	22.86	24.0	1.300	0.631	0.82
	original Power	RMC	Back	5	4183	836.6	22.86	24.0	1.300	0.546	0.71
	original Power	RMC	Right	5	4183	836.6	22.86	24.0	1.300	0.165	0.22
	original Power	RMC	Top	5	4183	836.6	22.86	24.0	1.300	0.227	0.30
	original Power	RMC	Bottom	5	4183	836.6	22.86	24.0	1.300	0.292	0.38
	original Power	RMC	Front	5	4132	826.4	23.58	24.0	1.102	0.496	0.55
	original Power	RMC	Front	5	4233	846.6	23.22	24.0	1.197	0.622	0.74

11.4. LTE Band 2 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	20MHz	QPSK	1	50	Front	5	18900	1880	25.42	26.0	1.143	0.490	0.56
	original Power	20MHz	QPSK	1	50	Back	5	18900	1880	25.42	26.0	1.143	0.346	0.40
	original Power	20MHz	QPSK	1	50	Right	5	18900	1880	25.42	26.0	1.143	0.045	0.05
	original Power	20MHz	QPSK	1	50	Top	5	18900	1880	25.42	26.0	1.143	0.294	0.34
	original Power	20MHz	QPSK	1	50	Bottom	5	18900	1880	25.42	26.0	1.143	0.221	0.25

11.5. LTE Band 4 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	20MHz	QPSK	1	50	Front	5	20175	1732.5	25.55	26.0	1.109	0.555	0.62
	original Power	20MHz	QPSK	1	50	Back	5	20175	1732.5	25.55	26.0	1.109	0.456	0.51
	original Power	20MHz	QPSK	1	50	Right	5	20175	1732.5	25.55	26.0	1.109	0.050	0.06
	original Power	20MHz	QPSK	1	50	Top	5	20175	1732.5	25.55	26.0	1.109	0.254	0.28
	original Power	20MHz	QPSK	1	50	Bottom	5	20175	1732.5	25.55	26.0	1.109	0.197	0.22

11.6. LTE Band 5 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	10MHz	QPSK	1	25	Front	5	20525	836.5	20.95	22.0	1.274	0.701	0.89
	original Power	10MHz	QPSK	1	25	Back	5	20525	836.5	20.95	22.0	1.274	0.641	0.82
	original Power	10MHz	QPSK	1	25	Right	5	20525	836.5	20.95	22.0	1.274	0.170	0.22
	original Power	10MHz	QPSK	1	25	Top	5	20525	836.5	20.95	22.0	1.274	0.384	0.49
	original Power	10MHz	QPSK	1	25	Bottom	5	20525	836.5	20.95	22.0	1.274	0.356	0.45
	original Power	10MHz	QPSK	1	25	Front	5	20450	829	20.90	22.0	1.288	0.689	0.89
	original Power	10MHz	QPSK	1	25	Front	5	20600	844	20.90	22.0	1.288	0.609	0.79

11.7. LTE Band7 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	20MHz	QPSK	1	50	Front	5	21100	2535	23.41	24.0	1.146	0.241	0.28
	original Power	20MHz	QPSK	1	50	Back	5	21100	2535	23.41	24.0	1.146	0.530	0.61
	original Power	20MHz	QPSK	1	50	Right	5	21100	2535	23.41	24.0	1.146	0.095	0.11
	original Power	20MHz	QPSK	1	50	Top	5	21100	2535	23.41	24.0	1.146	0.140	0.16
	original Power	20MHz	QPSK	1	50	Bottom	5	21100	2535	23.41	24.0	1.146	0.359	0.41

11.8. LTE Band12 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	10MHz	QPSK	1	13	Front	5	23090	707	26.03	27.0	1.250	0.675	0.84
	original Power	10MHz	QPSK	1	13	Back	5	23090	707	26.03	27.0	1.250	0.598	0.75
	original Power	10MHz	QPSK	1	13	Right	5	23090	707	26.03	27.0	1.250	0.191	0.24
	original Power	10MHz	QPSK	1	13	Top	5	23090	707	26.03	27.0	1.250	0.273	0.34
	original Power	10MHz	QPSK	1	13	Bottom	5	23090	707	26.03	27.0	1.250	0.350	0.44
	original Power	10MHz	QPSK	1	13	Front	5	23050	703	25.99	27.0	1.262	0.661	0.83
	original Power	10MHz	QPSK	1	13	Front	5	23130	711	25.99	27.0	1.262	0.622	0.79

11.9. LTE Band17 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	10MHz	QPSK	1	25	Front	5	23790	710	25.79	26.0	1.050	0.715	0.75
	original Power	10MHz	QPSK	1	25	Back	5	23790	710	25.79	26.0	1.050	0.465	0.49
	original Power	10MHz	QPSK	1	25	Right	5	23790	710	25.79	26.0	1.050	0.141	0.15
	original Power	10MHz	QPSK	1	25	Top	5	23790	710	25.79	26.0	1.050	0.209	0.22
	original Power	10MHz	QPSK	1	25	Bottom	5	23790	710	25.79	26.0	1.050	0.295	0.31

11.10. LTE Band41 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	20MHz	QPSK	1	50	Front	5	40620	2593	24.05	25.0	1.245	0.460	0.57
	original Power	20MHz	QPSK	1	50	Back	5	40620	2593	24.05	25.0	1.245	0.243	0.30
	original Power	20MHz	QPSK	1	50	Right	5	40620	2593	24.05	25.0	1.245	0.107	0.13
	original Power	20MHz	QPSK	1	50	Top	5	40620	2593	24.05	25.0	1.245	0.061	0.08
	original Power	20MHz	QPSK	1	50	Bottom	5	40620	2593	24.05	25.0	1.245	0.252	0.31

11.11. LTE Band66 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	original Power	20MHz	QPSK	1	50	Front	5	132322	1745	24.79	25.0	1.050	0.523	0.55
	original Power	20MHz	QPSK	1	50	Back	5	132322	1745	24.79	25.0	1.050	0.417	0.44
	original Power	20MHz	QPSK	1	50	Right	5	132322	1745	24.79	25.0	1.050	0.047	0.05
	original Power	20MHz	QPSK	1	50	Top	5	132322	1745	24.79	25.0	1.050	0.253	0.27
	original Power	20MHz	QPSK	1	50	Bottom	5	132322	1745	24.79	25.0	1.050	0.186	0.20

11.12. 2.4GWi-Fi SAR results

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant2	802.11b	original Power	Front	5	7	2442	17.85	18.5	1.161	0.148	0.17
	802.11b	original Power	Back	5	7	2442	17.85	18.5	1.161	0.061	0.07
	802.11b	original Power	Right	5	7	2442	17.85	18.5	1.161	0.013	0.02
	802.11b	original Power	Top	5	7	2442	17.85	18.5	1.161	0.057	0.07
	802.11b	original Power	Bottom	5	7	2442	17.85	18.5	1.161	0.015	0.02

11.13. Repeated SAR results

Remark:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ⩾0.8W/kg.

2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ⩽ 1.2 and the measured SAR<1.45W/kg, only one repeated measurement is required.

3. The ratio is the difference in percentage between original and repeated measured SAR.

4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
original Power	10MHz	QPSK	1	25	Front	5	20525	836.5	20.95	22.0	1.274	0.701	0.89
original Power	10MHz	QPSK	1	25	Back	5	20525	836.5	20.95	22.0	1.274	0.641	0.82
original Power	10MHz	QPSK	1	25	Front	5	20450	829	20.90	22.0	1.288	0.689	0.89

Power Level	Mode	Position	Dist.(mm)	Ch.	Freq.(MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
original Power	RMC	Front	5	4183	836.6	22.86	24.0	1.300	0.631	0.82

Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
original Power	10MHz	QPSK	1	13	Front	5	23090	707	26.03	27.0	1.250	0.675	0.84
original Power	10MHz	QPSK	1	13	Front	5	23050	703	25.99	27.0	1.262	0.661	0.83

12. EXPOSURE POSITIONS CONSIDERATION

12.1. Multiple Transmitter Evaluation

	Distance of the Antenna to the EUT sufaceledge				
Antennas	Front	Back	Right	Top	Bottom
ANT1	≤25mm	≤25mm	≤25mm	≤25mm	≤25mm
ANT2	≤25mm	≤25mm	>25mm	≤25mm	≤25mm

	Positions for SAR tests; Hotspot mode				
Antennas	Front	Back	Right	Top	Bottom
ANT1	Yes	Yes	Yes	Yes	Yes
ANT2	Yes	Yes	No	Yes	Yes

12.2. Simultaneous Transmission Possibilities

The Simultaneous Transmission Possibilities of this device are as below:

No.	Configuration	Body
1	WCDMA+ WiFi2.4G	Yes
2	LTE+ WiFi2.4G	Yes

Table 7: Simultaneous Transmission Possibilities

Note:

1) 3G&4G can't transmit simultaneously.

12.3. SAR Summation Scenario

Test Position		FrontSide (5m m)	Back Side (5mm)	RightSide (5mm)	TopSide (5mm)	BottomSide (5mm)
	WCDMA Band II	0.56	0.53	0.01	0.36	0.23
	WCDMA Band IV	0.55	0.68	0.06	0.36	0.32
	WCDMA Band V	0.82	0.71	0.22	0.30	0.38
	LTE Band 2	0.56	0.40	0.05	0.34	0.25
	LTE Band 4	0.62	0.51	0.06	0.28	0.22
	LTE Band 5	0.89	0.82	0.22	0.49	0.45
	LTE Band 7	0.28	0.61	0.11	0.16	0.41
	LTE Band 12	0.84	0.75	0.24	0.34	0.44
	LTE Band 17	0.75	0.49	0.15	0.22	0.31
	LTE Band 41	0.57	0.30	0.13	0.08	0.31
	LTE Band 66	0.55	0.44	0.05	0.27	0.20
	Wi-Fi 2.4G	0.30	0.07	0.02	0.07	0.02
Σ1g SAR(W/kg)		1.19	0.89	0.26	0.56	0.47

Conclusion:

1) Simultaneous Transmission SAR evaluation is not required for WiFi and UMTS&GSM&LTE, because the sum of the 1g SAR is 1.19W/kg <1.6 W/kg.

2) One way of determining the threshold power level available to the secondary transmitter(Pavailable) is to calculate it from the measured peak spatial-average SAR of the primarytransmitter (SAR1) according to the equation:

12.4. Simultaneous Transmission Conclusion

The above numeral summed SAR results and SPLSR analysis is sufficient to determine that simultaneous cases will not exceed the SAR limit and therefore simultaneous transmission SAR with Volume Scan is not required per KDB 447498 D01v06

Appendix A. System Check Plots

(Pls see Appendix A)

Appendix B. MEASUREMENT SCANS

(Pls see Appendix B)

AppendixC RELEVANT PAGES FROM PROBE CALIBRATION REPORT(S)

(Pls see Appendix C)

Appendix D. RELEVANT PAGES FROM DAE&DIPOLE VALIDATION KIT REPORT(S)

(Pls see Appendix D)

Appendix E. Photographs of the Test Set-Up

(Pls see Appendix E)

Appendix F. Conducted RF Output Power Table and Tune-up

(Pls see Appendix F)