# FCC SAR Test Report

**Report No.:** RWAY202300045-SAA

**Applicant:** Shenzhen Youmi Intelligent Technology Co., Ltd.

**Address:** 406-407 Jinqi Zhigu Building, 4/F, 1 Tangling Road, Nanshan District, Shenzhen City, China

**Product Name:** Smart phone

**Product Model:** PG2309GBA

**Trade Mark:** UMIDIGI

**FCC ID:** 2ATZ4-G65GA

**Standards:** FCC CFR Title 47 CFR Part 2(2.1093)

**Test Date:** 2024/01/30-2024/02/04

**Test Result:** PASS

**Report Date:** 2024/02/21

**Reviewed by:** Abel Chen

Abel Chen
Project Engineer

**Approved by:** Jacob Kong

Jacob Kong
Manager

**Prepared by:**

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# Revision History

| Version No. | Issued Date | Description |
|---|---|---|
| *00* | *2024/02/21* | *Original* |

# SAR TEST RESULTS SUMMARY

| Operation Frequency Band | Highest Reported SAR(W/kg) | | Limit (W/kg) |
|---|---|---|---|
| | Head SAR (Gap 0mm) | Body SAR (Gap 10mm) | |
| **GSM 850** | 0.13 | 0.25 | 1.6 |
| **PCS 1900** | 0.74 | 0.64 | |
| **WCDMA Band 2** | 0.58 | 0.23 | |
| **WCDMA Band 5** | 0.17 | 0.19 | |
| **LTE Band 2** | 0.48 | 0.16 | |
| **LTE Band 5** | 0.05 | 0.13 | |
| **LTE Band 12** | 0.02 | 0.05 | |
| **LTE Band 13** | 0.04 | 0.07 | |
| **LTE Band 41** | 0.17 | 0.79 | |
| **5G NR n41** | 0.42 | 0.18 | |
| **5G NR n66** | 0.79 | 0.17 | |
| **WLAN 2.4G** | 0.3 | 0.06 | |
| **WLAN 5.2G** | 0.36 | 0.2 | |
| **WLAN 5.8G** | 0.28 | 0.14 | |
| **Max. Simultaneous Transmission SAR(W/kg)** | | | |
| **Items** | **Head SAR (Gap 0mm)** | **Body SAR (Gap 10mm)** | **Limit (W/kg)** |
| **Sum SAR** | 1.16 | 0.79 | 1.6 |
| **SPLSR** | NA | NA | 0.04 |

# Contents

# 1 General Information

## 1.1 Client Information

| | |
|---|---|
| Applicant: | Shenzhen Youmi Intelligent Technology Co., Ltd. |
| Address: | 406-407 Jinqi Zhigu Building, 4/F, 1 Tangling Road, Nanshan District, Shenzhen City, China |
| Manufacturer: | Shenzhen Youmi Intelligent Technology Co., Ltd. |
| Address: | 406-407 Jinqi Zhigu Building, 4/F, 1 Tangling Road, Nanshan District, Shenzhen City, China |

## 1.2 Product Description of EUT

| | |
|---|---|
| Sample Serial Number | 2DU0-1(assigned by WATC) |
| Sample Received Date | 2023-11-10 |
| Sample Status | Good Condition |
| Device Type | Portable |
| Exposure Category | Population / Uncontrolled |
| Antenna Type(s) | Internal Antenna |
| Body-Worn Accessories | None |
| Proximity Sensor | None |
| Carrier Aggregation | None |
| Operation modes | GSM Voice, GPRS/EDGE Data,<br>WCDMA( R99 (Voice+Data), HSUPA/HSDPA/HSPA+), FDD-LTE, TDD-LTE, 5G NR,WLAN, Bluetooth, NFC |
| Frequency Range | GSM 850: 824-849MHz(TX); 869-894MHz(RX)<br>PCS 1900: 1850-1910MHz(TX); 1930-1990MHz(RX)<br>WCDMA Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX)<br>WCDMA Band 5: 824-849MHz(TX); 869-894MHz(RX)<br>LTE Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX)<br>LTE Band 5: 824-849MHz(TX); 869-894MHz(RX)<br>LTE Band 12: 699-716MHz(TX); 729-746MHz(RX)<br>LTE Band 13: 777-787MHz(TX); 746-756MHz(RX)<br>LTE Band 41: 2496-2690MHz(TX/RX)<br>5G NR n41: 2496-2690MHz(TX/RX)<br>5G NR n66:1710-1780MHz(TX); 2110-2180MHz(RX)<br>WLAN 2.4G:2412MHz-2462MHz/2422MHz-2452MHz<br>WLAN 5.2G: 5150MHz-5250MHz<br>WLAN 5.8G: 5745MHz-5850MHz<br>Bluetooth: 2402MHz-2480MHz<br>NFC: 13.56MHz |
| Power Supply | DC 3.87 V from Rechargeable Battery |
| Dimensions (L*W*H) | 165mm (L) *76mm (W) *10mm (H) |
| Normal Operation | Head and Body Worn |

## 1.3 Laboratory Location

World Alliance Testing and Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: qa@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

## 1.4 Test Methodology

FCC 47 CFR § 2.1093

IEEE 1528:2013

IEC 62209-1

IEC 62209-2

KDB 447498 D01 General RF Exposure Guidance v06

KDB 648474 D04 Handset SAR v01r03

KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04

KDB 865664 D02 RF Exposure Reporting v01r02

KDB 941225 D01 3G SAR Procedures v03r01

KDB 941225 D05 SAR for LTE Devices v02r05

KDB 941225 D06 Hotspot Mode v02r01

KDB 248227 D01 802.11 Wi-Fi SAR v02r02

## 1.5 SAR Limit

**FCC Limit**

| EXPOSURE LIMITS | SAR (W/kg) | |
|---|---|---|
| | (General Population / Uncontrolled Exposure Environment) | (Occupational / Controlled Exposure Environment) |
| Spatial Average (averaged over the whole body) | 0.08 | 0.4 |
| Spatial Peak (averaged over any 1 g of tissue) | **1.60** | 8.0 |
| Spatial Peak (hands/wrists/feet/ankles averaged over 10 g) | 4.0 | 20.0 |

Population/Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

Occupational/Controlled Environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg for 1g SAR applied to the EUT.

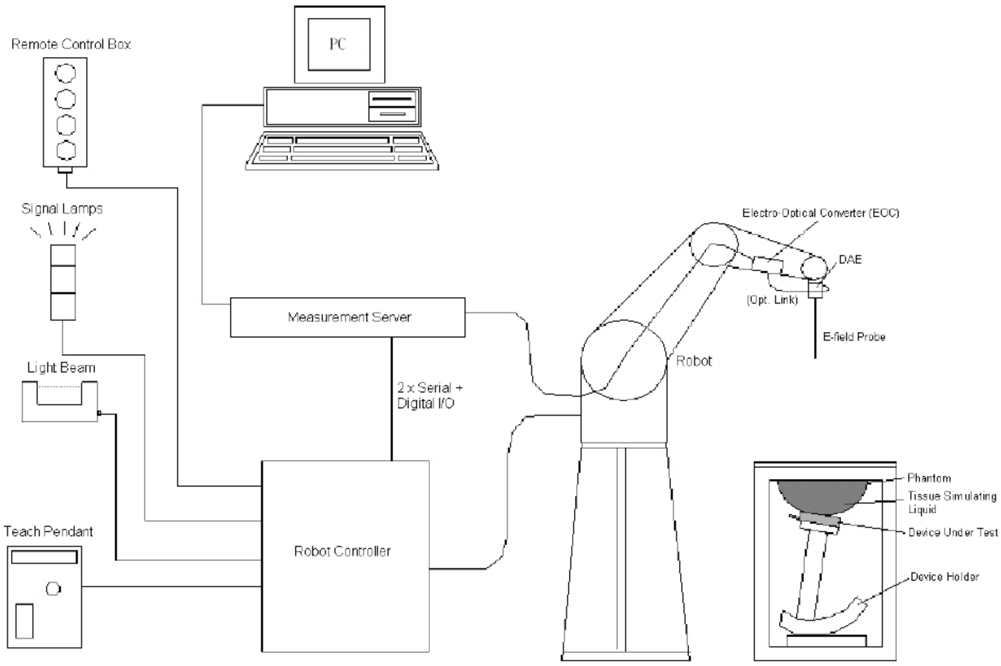
# 2 SAR Measurement System & Test Equipment

## 2.1 SAR Measurement System

These measurements were performed with the automated near-field scanning system DASY5 from Schmid & Partner Engineering AG (SPEAG) which is the Fifth generation of the system shown in the figure hereinafter:


### DASY5 System Description

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal application, 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.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 professional operating system and the DASY52 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

**DASY5 Measurement Server**


The DASY5 measurement server is based on a PC/104 CPU board with a 400MHz Intel ULV Celeron, 128MB chip-disk and 128MB RAM. The necessary circuits for communication with the DAE4 (or DAE3) electronics box, as well as the 16 bit AD-converter system for optical detection and digital I/O interface are contained on theDASY5 I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all real-time data evaluation of field measurements and surface detection, controls robot movements and handles safety operation. The PC operating system cannot interfere with these time critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program-controlled robot movements. Furthermore, the measurement server is equipped with an expansion port which is reserved for future applications. Please note that this expansion port does not have a standardized point out, and therefore only devices provided by SPEAG can be connected. Devices from any other supplier could seriously damage the measurement server.

**Data Acquisition Electronics**

The data acquisition electronics (DAE4) consist 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 with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

The input impedance of both the DAE4 as well as of the DAE3 box is 200MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

## EX3DV4 E-Field Probes

| | |
|---|---|
| **Frequency** | 4 MHz - 10 GHz<br>Linearity: ± 0.2 dB (30 MHz to 10 GHz) |
| **Directivity** | ± 0.1 dB in TSL (rotation around probe axis)<br>± 0.3 dB in TSL (rotation normal to probe axis) |
| **Dynamic Range** | 10 µW/g to > 100 mW/g<br>Linearity: ± 0.2 dB (noise: typically < 1 µW/g) |
| **Dimensions** | Overall length: 337 mm (Tip: 20 mm)<br>Tip diameter: 2.5 mm (Body: 12 mm)<br>Typical distance from probe tip to dipole centers: 1 mm |
| **Application** | High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%. |
| **Compatibility** | DASY3, DASY4, DASY52, DASY6, DASY8 SAR, EASY6, EASY4/MRI |

### SAM Twin Phantom

The SAM twin phantom is a fiberglass shell phantom with

2mm shell thickness (except the ear region, where shell thickness increases to 6 mm). The phantom has three measurement areas:

_ Left Head

_ Right Head

_ Flat phantom

The phantom table for the DASY systems based on the

robots have the size of 100 x 50 x 85 cm (L xWx H).

For easy dislocation these tables have fork lift cut outs at the bottom.

The bottom plate contains three pairs of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. Only one device holder is necessary if two phantoms are used (e.g., for different liquids)

A white cover is provided to cover the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. Free space scans of devices on top of this phantom cover are possible.

Three reference marks are provided on the phantom counter. These reference marks are used to teach the absolute phantom position relative to the robot.

**Robots**

The DASY5 system uses the high precision industrial robot. The robot offers the same features important for our application:

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

The above mentioned robots are controlled by the Staubli CS8c robot controllers. All information regarding the use and maintenance of the robot arm and the robot controller is contained on the CDs delivered along with the robot. Paper manuals are available upon request direct from Staubli.

## 2.2 SAR Scan Procedures

**Step 1: Power Reference Measurement**

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 1.4 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

**Step 2: Area Scans**

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 15mm2 step integral, with 1.5mm interpolation used to locate the peak SAR area used for zoom scan assessments.

Where the system identifies multiple SAR peaks (which are within 25% of peak value) the system will provide the user with the option of assessing each peak location individually for zoom scan averaging.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

| | ≤ 3 GHz | > 3 GHz |
|---|---|---|
| Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface | 5 mm ± 1 mm | $\frac{1}{2}\cdot\delta\cdot\ln(2)$ mm ± 0.5 mm |
| Maximum probe angle from probe axis to phantom surface normal at the measurement location | 30° ± 1° | 20° ± 1° |
| Maximum area scan spatial resolution: $\Delta x_{Area}$, $\Delta y_{Area}$ | ≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm | 3 – 4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 10 mm |
| | When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device. | |

**Step 3: Zoom Scan (Cube Scan Averaging)**

The averaging zoom scan volume utilized in the DASY5 software is in the shape of a cube and the side dimension of a 1 g or 10 g mass is dependent on the density of the liquid representing the simulated tissue. A density of 1000 kg/m$^3$ is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1g cube is 5mm,with the side length of the 10g cube is 21.5mm.

When the cube intersects with the surface of the phantom, it is oriented so that 3 vertices touch the surface of the shell or the center of a face is tangent to the surface. The face of the cube closest to the surface is modified in order to conform to the tangent surface.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 7 x7 x 7 (5mmx5mmx5mm) providing a volume of 30 mm in the X & Y & Z axis.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

<table>
<tr><th colspan="3"></th><th>$\leq$ 3 GHz</th><th>> 3 GHz</th></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$</td><td>$\leq$ 2 GHz: $\leq$ 8 mm<br>2 – 3 GHz: $\leq$ 5 mm*</td><td>3 – 4 GHz: $\leq$ 5 mm*<br>4 – 6 GHz: $\leq$ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>$\leq$ 5 mm</td><td>3 – 4 GHz: $\leq$ 4 mm<br>4 – 5 GHz: $\leq$ 3 mm<br>5 – 6 GHz: $\leq$ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>$\leq$ 4 mm</td><td>3 – 4 GHz: $\leq$ 3 mm<br>4 – 5 GHz: $\leq$ 2.5 mm<br>5 – 6 GHz: $\leq$ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$ mm</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>$\geq$ 30 mm</td><td>3 – 4 GHz: $\geq$ 28 mm<br>4 – 5 GHz: $\geq$ 25 mm<br>5 – 6 GHz: $\geq$ 22 mm</td></tr>
<tr><td colspan="5">Note: $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.<br>* When zoom scan is required and the <u>reported</u> SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 447498 is $\leq$ 1.4 W/kg, $\leq$ 8 mm, $\leq$ 7 mm and $\leq$ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</td></tr>
</table>

**Step 4: Power Drift Measurement**

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

## 2.3 Test Equipment

| Description | Model | SN | Calibration Date | Calibration Due Date |
|---|---|---|---|---|
| DASY5 Test Software | DASY52.8 | N/A | NCR | NCR |
| DASY5 Measurement Server | DASY5 5.0.28 | 1123 | NCR | NCR |
| Data Acquisition Electronics | DAE4 | 1354 | 2023/11/17 | 2024/11/16 |
| E-Field Probe | EX3DV4 | 3801 | 2023/6/23 | 2024/6/22 |
| Mounting Device | MD4HHTV5 | BJPCTC0152 | NCR | NCR |
| Twin SAM | Twin SAM V5.0 | 1470 | NCR | NCR |
| Dipole, 750 MHz | D750V3 | 1109 | 2021/5/17 | 2024/5/16 |
| Dipole, 1750 MHz | D1750V2 | 1166 | 2021/5/17 | 2024/5/16 |
| Dipole, 1900 MHz | D1900V2 | 5d229 | 2021/5/20 | 2024/5/19 |
| Dipole, 2450 MHz | D2450V2 | 1014 | 2021/5/19 | 2024/5/18 |
| Dipole,2600 MHz | D2600V2 | 1153 | 2021/5/19 | 2024/5/18 |
| Dipole,5GHz | D5GHzV2 | 1280 | 2021/5/17 | 2024/5/16 |
| Simulated Tissue Liquid Head(500-9500 MHz) | HBBL600-1000 0V6 | 230728-1 | Each Time | / |
| Network Analyzer | 8753D | 3410A08288 | 2023/12/18 | 2024/12/17 |
| Dielectric assessment kit | 85070B | US33020324 | NCR | NCR |
| Vector Signal Generator | SMBV100A | 256300 | 2023/9/12 | 2024/9/11 |
| USB Power Sensor | MA24418A | 12620 | 2023/7/12 | 2024/7/11 |
| SPECTRUM ANALYZER | FSV40 | 101419 | 2023/9/12 | 2024/9/11 |
| Amplifier | ZHL-5W-202S+ | 416402571 | NCR | NCR |
| Amplifier | ZVE-8G+ | 558621401 | NCR | NCR |
| Directional Coupler | 441498 | 523Z | NCR | NCR |
| 10dB attenuator | 10dB | 10-1 | NCR | NCR |
| 10dB attenuator | DC-6GHz | 10-2 | NCR | NCR |
| Thermometer | 0~50℃ | N/A | 2023/11/16 | 2024/11/15 |
| Wideband Radio Communication Tester | CMW500 | 116218 | 2023/9/12 | 2024/9/11 |
| Radio Communication Analyzer | MT8821C | 6262150039 | 2024/1/19 | 2025/1/18 |
| Radio Communication Test Station | MT8000A | 6262166770 | 2024/1/19 | 2025/1/18 |

Note: All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or International standards.

# 3 SAR Measurements Verification

## 3.1 Tissue Verification

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

**The head tissue dielectric parameters recommended by the IEC 62209-1**

Table A.3 – Dielectric properties of the head tissue-equivalent liquid

| Frequency MHz | Relative permittivity $\varepsilon_r$ | Conductivity ($\sigma$) S/m |
|---|---|---|
| 300 | 45,3 | 0,87 |
| 450 | 43,5 | 0,87 |
| *750* | *41,9* | *0,89* |
| 835 | 41,5 | 0,90 |
| 900 | 41,5 | 0,97 |
| 1 450 | 40,5 | 1,20 |
| *1 500* | *40,4* | *1,23* |
| *1 640* | *40,2* | *1,31* |
| *1 750* | *40,1* | *1,37* |
| 1 800 | 40,0 | 1,40 |
| 1 900 | 40,0 | 1,40 |
| 2 000 | 40,0 | 1,40 |
| *2 100* | *39,8* | *1,49* |
| *2 300* | *39,5* | *1,67* |
| 2 450 | 39,2 | 1,80 |
| *2 600* | *39,0* | *1,96* |
| 3 000 | 38,5 | 2,40 |
| *3 500* | *37,9* | *2,91* |
| *4 000* | *37,4* | *3,43* |
| *4 500* | *36,8* | *3,94* |
| *5 000* | *36,2* | *4,45* |
| *5 200* | *36,0* | *4,66* |
| *5 400* | *35,8* | *4,86* |
| *5 600* | *35,5* | *5,07* |
| *5 800* | *35,3* | *5,27* |
| *6 000* | *35,1* | *5,48* |

NOTE For convenience, permittivity and conductivity values at those frequencies which are not part of the original data provided by Drossos et al. [33] or the extension to 5 800 MHz are provided (i.e. the values shown *in italics*). These values were linearly interpolated between the values in this table that are immediately above and below these values, except the values at 6 000 MHz that were linearly extrapolated from the values at 3 000 MHz and 5 800 MHz.

**Dielectric Property Measurements Results:**

| Date | Band (MHz) | Tissue Type | Frequency (MHz) | Conductivity, σ (S/m) | | | Relative Permittivity, $\varepsilon_r$ | | | Tolerance (%) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Meas. | Target | Delta(%) | Meas. | Target | Delta(%) | |
| 2024/01/27 | 750 | Head | 704 | 0.852 | 0.89 | -4.27 | 42.664 | 42.15 | 1.22 | ±5 |
| | | | 707.5 | 0.859 | 0.89 | -3.48 | 42.496 | 42.13 | 0.87 | ±5 |
| | | | 711 | 0.865 | 0.89 | -2.81 | 42.228 | 42.11 | 0.28 | ±5 |
| | | | 750 | 0.871 | 0.89 | -2.13 | 42.034 | 41.9 | 0.32 | ±5 |
| | | | 782 | 0.892 | 0.89 | 0.22 | 41.729 | 41.75 | -0.05 | ±5 |
| 2024/01/27 | 750 | Head | 750 | 0.864 | 0.89 | -2.92 | 42.265 | 41.9 | 0.87 | ±5 |
| | | | 824.2 | 0.903 | 0.9 | 0.33 | 41.911 | 41.55 | 0.87 | ±5 |
| | | | 826.4 | 0.908 | 0.9 | 0.89 | 41.892 | 41.54 | 0.85 | ±5 |
| | | | 829 | 0.913 | 0.9 | 1.44 | 41.886 | 41.53 | 0.86 | ±5 |
| | | | 836.5 | 0.921 | 0.9 | 2.33 | 41.467 | 41.50 | -0.08 | ±5 |
| | | | 836.6 | 0.924 | 0.9 | 2.67 | 41.416 | 41.50 | -0.2 | ±5 |
| | | | 844 | 0.931 | 0.91 | 2.31 | 41.106 | 41.50 | -0.95 | ±5 |
| | | | 846.6 | 0.935 | 0.91 | 2.75 | 41.002 | 41.50 | -1.2 | ±5 |
| | | | 848.8 | 0.938 | 0.91 | 3.08 | 40.908 | 41.50 | -1.43 | ±5 |
| 2024/01/28 | 1900 | Head | 1850.2 | 1.382 | 1.40 | -1.29 | 40.273 | 40.00 | 0.68 | ±5 |
| | | | 1852.4 | 1.386 | 1.40 | -1 | 40.254 | 40.00 | 0.63 | ±5 |
| | | | 1860 | 1.398 | 1.40 | -0.14 | 40.023 | 40.00 | 0.06 | ±5 |
| | | | 1880 | 1.405 | 1.40 | 0.36 | 39.928 | 40.00 | -0.18 | ±5 |
| | | | 1900 | 1.411 | 1.40 | 0.79 | 39.636 | 40.00 | -0.91 | ±5 |
| | | | 1907.6 | 1.418 | 1.40 | 1.29 | 39.479 | 40.00 | -1.3 | ±5 |
| | | | 1909.8 | 1.426 | 1.40 | 1.86 | 39.376 | 40.00 | -1.56 | ±5 |
| 2024/01/28 | 1750 | Head | 1730 | 1.312 | 1.36 | -3.53 | 40.747 | 40.12 | 1.56 | ±5 |
| | | | 1745 | 1.322 | 1.37 | -3.5 | 40.477 | 40.1 | 0.94 | ±5 |
| | | | 1750 | 1.351 | 1.37 | -1.39 | 40.319 | 40.1 | 0.55 | ±5 |
| | | | 1760 | 1.364 | 1.38 | -1.16 | 40.161 | 40.08 | 0.2 | ±5 |
| 2024/01/28 | 2450 | Head | 2412 | 1.739 | 1.77 | -1.75 | 39.901 | 39.28 | 1.58 | ±5 |
| | | | 2437 | 1.747 | 1.79 | -2.4 | 39.883 | 39.23 | 1.66 | ±5 |
| | | | 2450 | 1.752 | 1.80 | -2.67 | 39.674 | 39.20 | 1.21 | ±5 |
| | | | 2462 | 1.798 | 1.81 | -0.66 | 39.519 | 39.18 | 0.87 | ±5 |
| 2024/01/29 | 2600 | Head | 2510 | 1.833 | 1.86 | -1.45 | 39.452 | 39.12 | 0.85 | ±5 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2535 | 1.901 | 1.89 | 0.58 | 39.169 | 39.09 | 0.2 | ±5 |
| | | | 2545 | 1.917 | 1.90 | 0.89 | 38.901 | 39.07 | -0.43 | ±5 |
| | | | 2560 | 1.918 | 1.92 | -0.1 | 38.88 | 39.05 | -0.44 | ±5 |
| | | | 2593 | 1.935 | 1.95 | -0.77 | 38.847 | 39.01 | -0.42 | ±5 |
| | | | 2600 | 1.998 | 1.96 | 1.94 | 38.723 | 39.00 | -0.71 | ±5 |
| | | | 2625 | 2.008 | 1.99 | 0.9 | 38.626 | 38.97 | -0.88 | ±5 |
| | | | 2645 | 2.012 | 2.01 | 0.1 | 38.547 | 38.94 | -1.01 | ±5 |
| 2024/01/28 | 5250 | Head | 5180 | 4.596 | 4.64 | -0.95 | 36.281 | 36.02 | 0.72 | ±5 |
| | | | 5200 | 4.645 | 4.66 | -0.32 | 36.016 | 36.00 | 0.04 | ±5 |
| | | | 5230 | 4.725 | 4.69 | 0.75 | 35.996 | 35.97 | 0.07 | ±5 |
| | | | 5240 | 4.764 | 4.70 | 1.36 | 35.987 | 35.96 | 0.08 | ±5 |
| | | | 5250 | 4.782 | 4.71 | 1.53 | 35.802 | 35.95 | -0.41 | ±5 |
| 2024/01/29 | 5750 | Head | 5745 | 5.182 | 5.22 | -0.73 | 35.465 | 35.36 | 0.3 | ±5 |
| | | | 5785 | 5.206 | 5.26 | -1.03 | 35.225 | 35.32 | -0.27 | ±5 |
| | | | 5800 | 5.308 | 5.27 | 0.72 | 34.951 | 35.3 | -0.99 | ±5 |
| | | | 5825 | 5.383 | 5.30 | 1.57 | 34.832 | 35.28 | -1.27 | ±5 |

## 3.2 System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ±10%. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

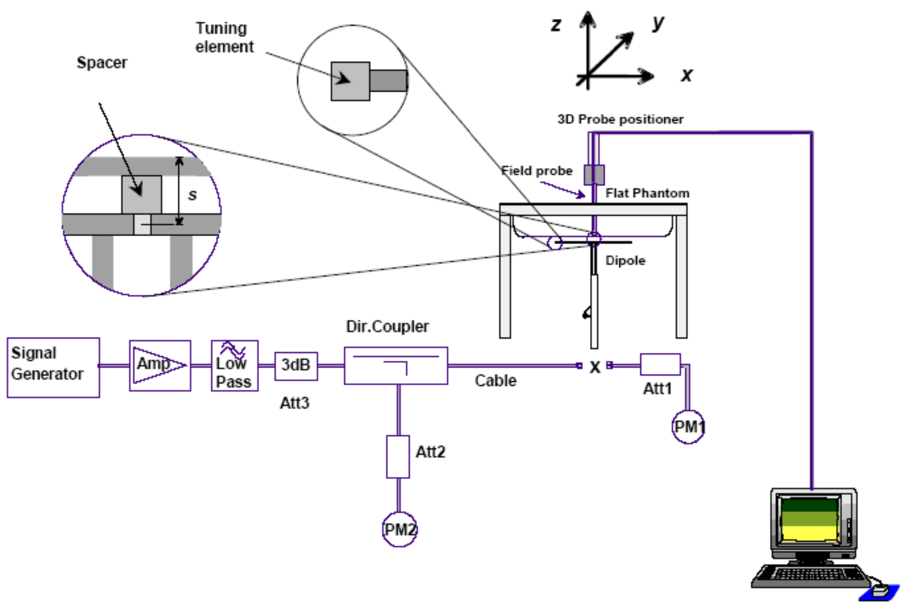
The spacing distance*s* in the **System Verification Setup Block Diagram** is given by the following:

a) s = 15 mm ± 0,2 mm for 300 MHz ≤ f ≤ 1 000 MHz;

b) s = 10 mm ± 0,2 mm for 1 000 MHz < f ≤ 3 000 MHz;

c) s = 10 mm ± 0,2 mm for 3 000 MHz < f ≤ 6 000 MHz.

**System Verification Setup Block Diagram**




## 3.3 SAR System Validation Results

| Date | Frequency Band | Liquid Type | Input Power (mW) | Measured 1g SAR (W/kg) | Normalized to 1W (W/kg) | Target Value (W/kg) | Delta (%) | Tolerance (%) |
|---|---|---|---|---|---|---|---|---|
| 2024/01/30 | 750MHz | Head | 100 | 0.867 | 8.67 | 8.39 | 3.34 | ±10 |
| 2024/01/31 | 750MHz | Head | 100 | 0.853 | 8.53 | 8.39 | 1.67 | ±10 |
| 2024/02/02 | 1750MHz | Head | 100 | 3.63 | 36.3 | 36.8 | -1.36 | ±10 |
| 2024/02/01 | 1900MHz | Head | 100 | 3.95 | 39.5 | 39.9 | -1.0 | ±10 |
| 2024/02/02 | 2450MHz | Head | 100 | 5.13 | 51.3 | 51.8 | -0.97 | ±10 |
| 2024/02/03 | 2600MHz | Head | 100 | 5.72 | 57.2 | 54.8 | 4.38 | ±10 |
| 2024/02/04 | 5250MHz | Head | 100 | 8.06 | 80.6 | 79.2 | 1.77 | ±10 |
| 2024/02/04 | 5800MHz | Head | 100 | 7.98 | 79.8 | 80.6 | -0.99 | ±10 |

## 3.4 SAR System Validation Data

**System Performance 750 MHz**

**DUT: D750V3; Type: 750 MHz; Serial: 1109**

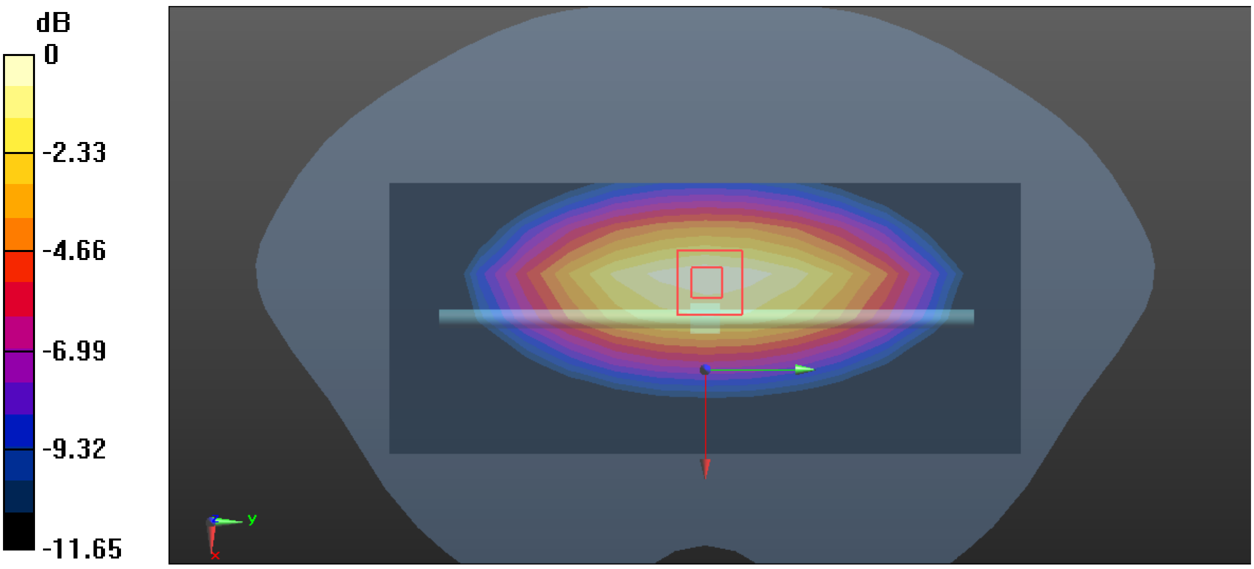
Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; $\sigma$ = 0.885 S/m; $\varepsilon_r$ = 42.652; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @ 750 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (7x15x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.25 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.67 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.57 W/kg
**SAR(1 g) = 0.867 W/kg; SAR(10 g) = 0.558 W/kg**
Maximum value of SAR (measured) = 1.22 W/kg




0 dB = 1.22 W/kg = 0.86dBW/kg

**System Performance 750 MHz was performed on 2023/12/03**

**DUT: D750V3; Type: 750 MHz; Serial: 1109**

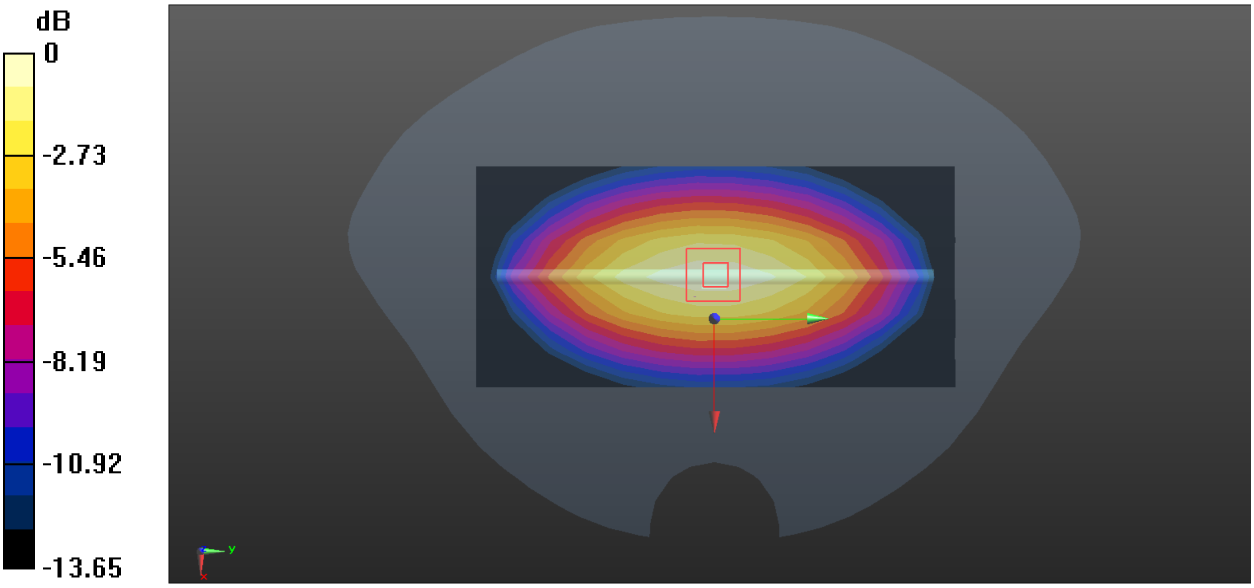
Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; $\sigma = 0.864$ S/m; $\varepsilon_r = 42.647$; $\rho = 1000$ kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @ 750 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (7x14x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.35 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.56 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.38 W/kg
**SAR(1 g) = 0.853 W/kg; SAR(10 g) = 0.557 W/kg**
Maximum value of SAR (measured) = 1.12 W/kg




0 dB = 1.12 W/kg = 0.49 dBW/kg

**System Performance 1750MHz**

**DUT: D1750V2; Type: 1750 MHz; Serial: 1166**

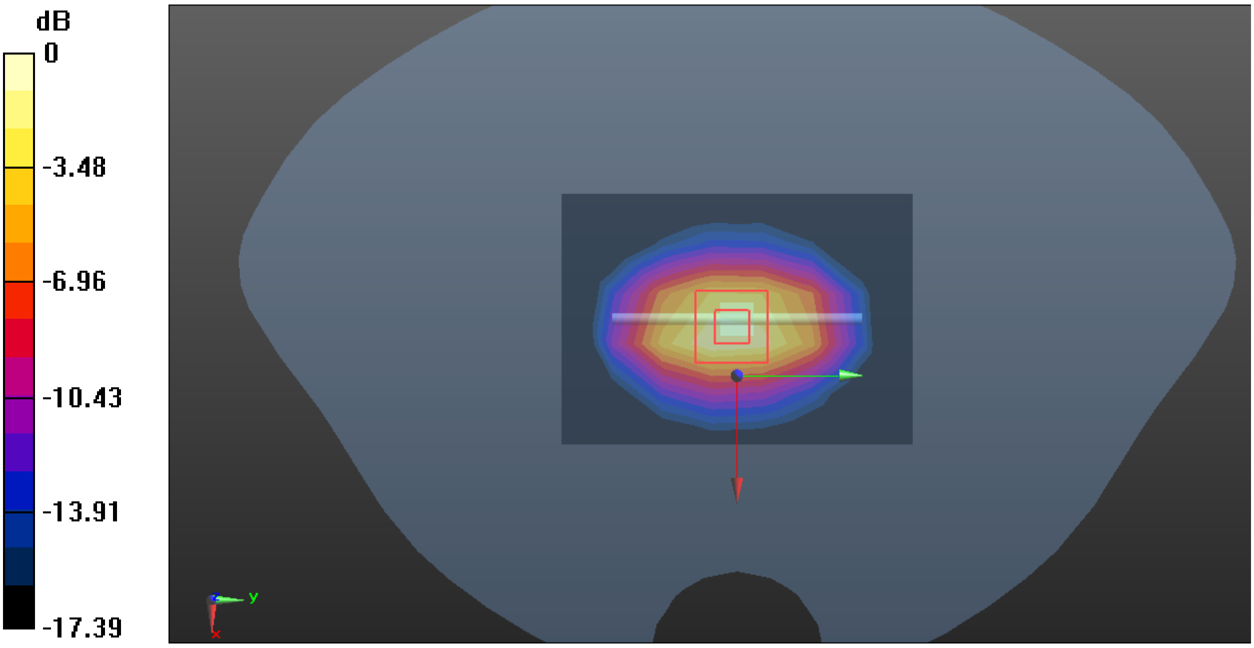
Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; $\sigma$ = 1.345 S/m; $\varepsilon_r$ = 40.544; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(8.22, 8.22, 8.22) @ 1750 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x8x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.52 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.83 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 6.94 W/kg
**SAR(1 g) = 3.63 W/kg; SAR(10 g) = 1.95 W/kg**
Maximum value of SAR (measured) = 5.57 W/kg




0 dB = 5.57 W/kg = 7.46dBW/kg

**System Performance 1900MHz**

**DUT: D1900V2; Type: 1900 MHz; Serial: 5d229**

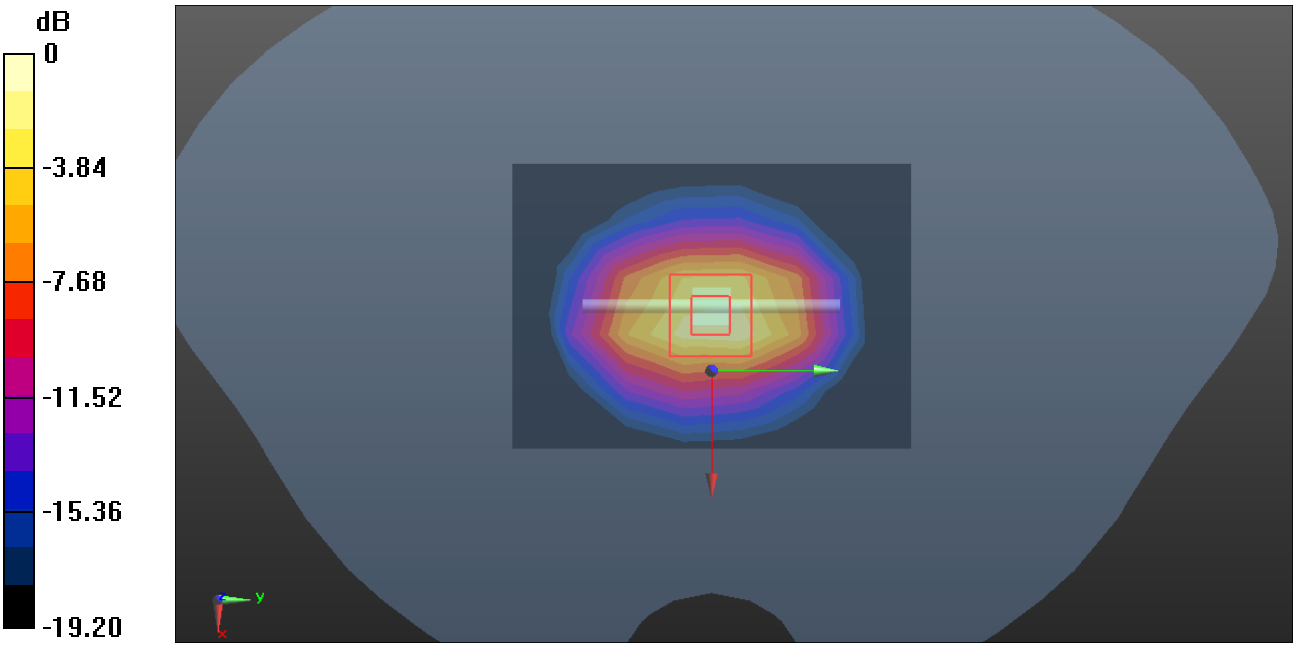
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.451 S/m; $\varepsilon_r$ = 39.467; ρ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.93, 7.93, 7.93) @ 1900 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x8x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 6.57 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.62 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 8.54 W/kg
**SAR(1 g) = 3.95 W/kg; SAR(10 g) = 2.21 W/kg**
Maximum value of SAR (measured) = 6.73 W/kg




0 dB = 6.73 W/kg = 8.28dBW/kg

**System Performance 2450MHz Head**

**DUT: D2450V2; Type: 2450 MHz; Serial: 1014**

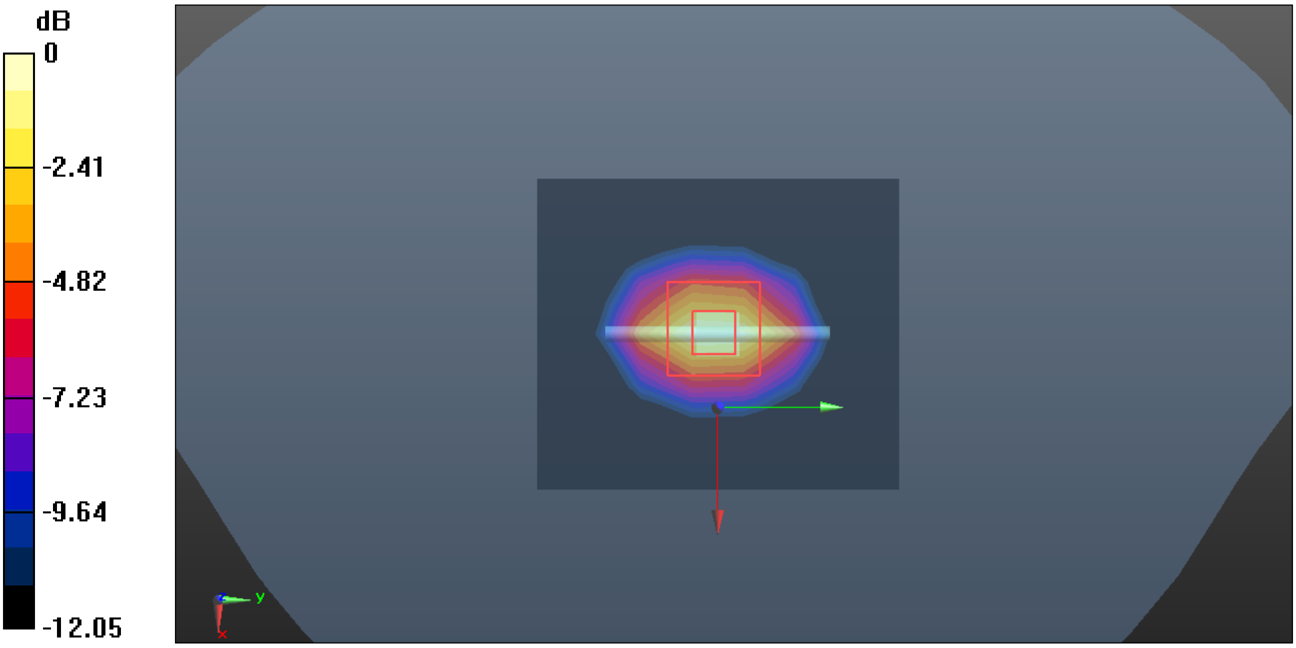
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; $\sigma$ = 1.861 S/m; $\varepsilon_r$ = 38.267; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.38, 7.38, 7.38) @ 2450 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x7x1):**Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (Measured) = 9.17 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.92 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 11.9 W/kg
**SAR(1 g) = 5.13W/kg; SAR(10 g) = 2.49 W/kg**
Maximum value of SAR (measured) = 9.23 W/kg




0 dB = 9.23W/kg = 9.65 dBW/kg

**System Performance 2600MHz Head**

**DUT: D2600V2; Type: 2600 MHz; Serial: 1153**

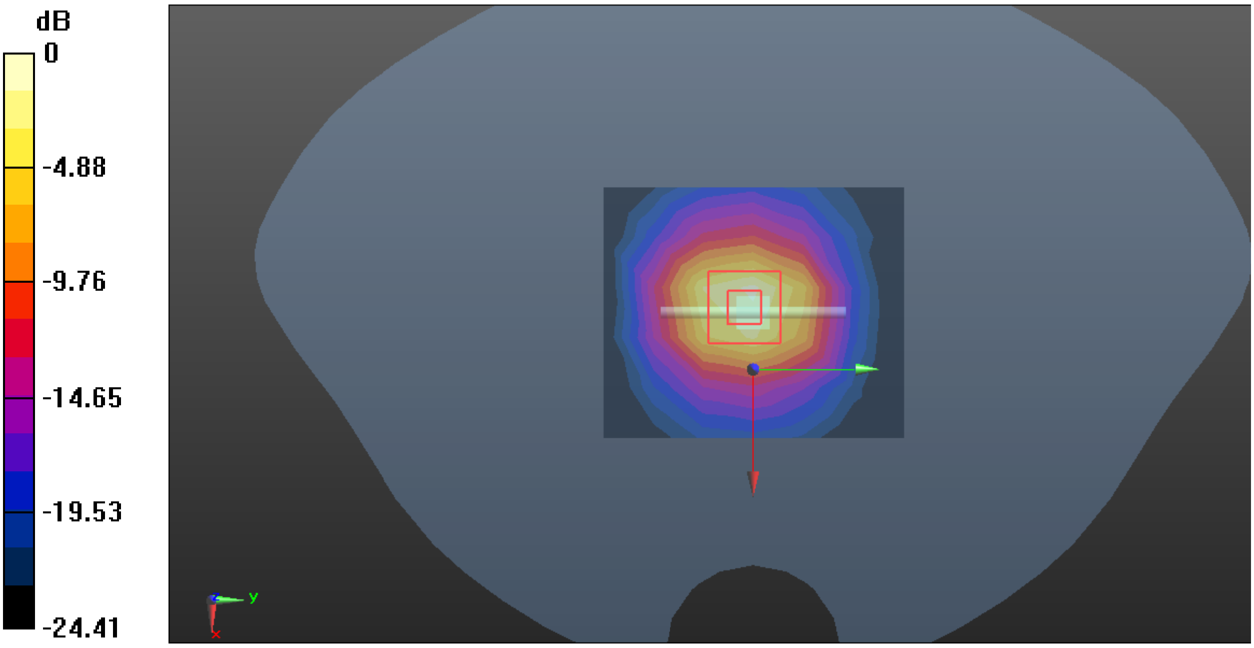
Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; $\sigma$ = 1.861 S/m; $\varepsilon_r$ = 38.267; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.16, 7.16, 7.16) @ 2600 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x7x1):**Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (Measured) = 10.5 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.56 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 11.5 W/kg
**SAR(1 g) = 5.72 W/kg; SAR(10 g) = 2.67 W/kg**
Maximum value of SAR (measured) = 10.1 W/kg




0 dB = 10.1 W/kg = 10.04dBW/kg

**System Performance 5250 MHz Head**

**DUT: D5GHzV2; Type: 5250 MHz; Serial: 1280**

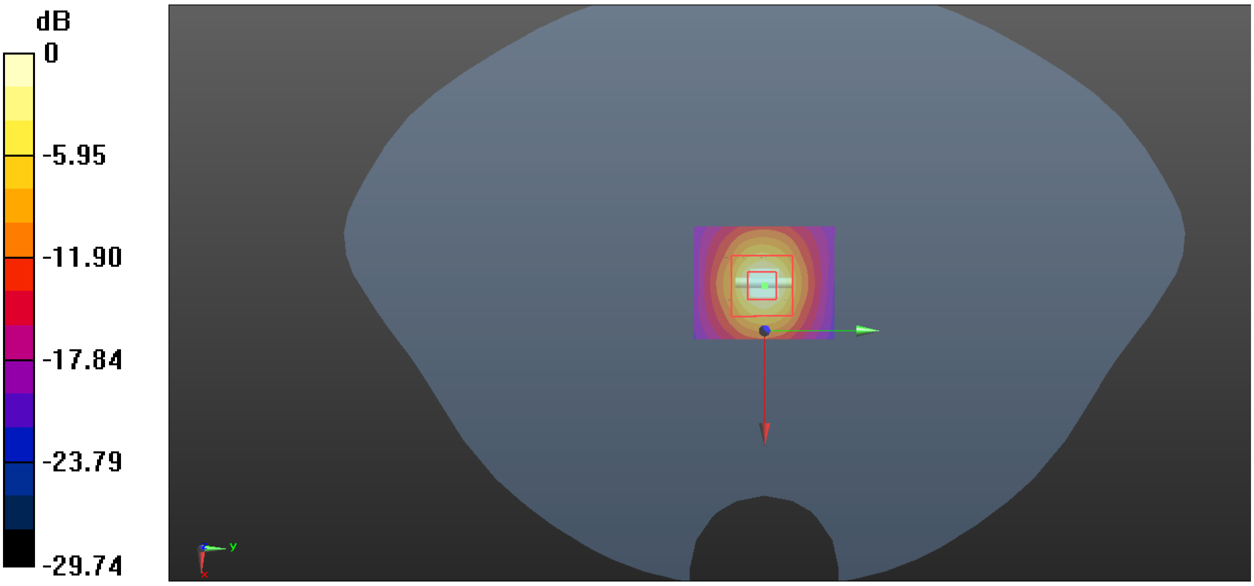
Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; $\sigma$ = 4.692 S/m; $\varepsilon_r$ = 35.123; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(5.19, 5.19, 5.19) @ 5250 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (9x11x1):** Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (measured) = 23.1 W/kg

**Zoom Scan (9x9x16)/Cube 0::** Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 44.07 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 36.5 W/kg
**SAR(1 g) = 8.06 W/kg; SAR(10 g) = 2.29 W/kg**
Maximum value of SAR (measured) = 21.3 W/kg




0 dB = 21.3 W/kg = 13.28 dBW/kg

**System Performance 5800 MHz Head**

**DUT: D5GHzV2; Type: 5800 MHz; Serial: 1280**

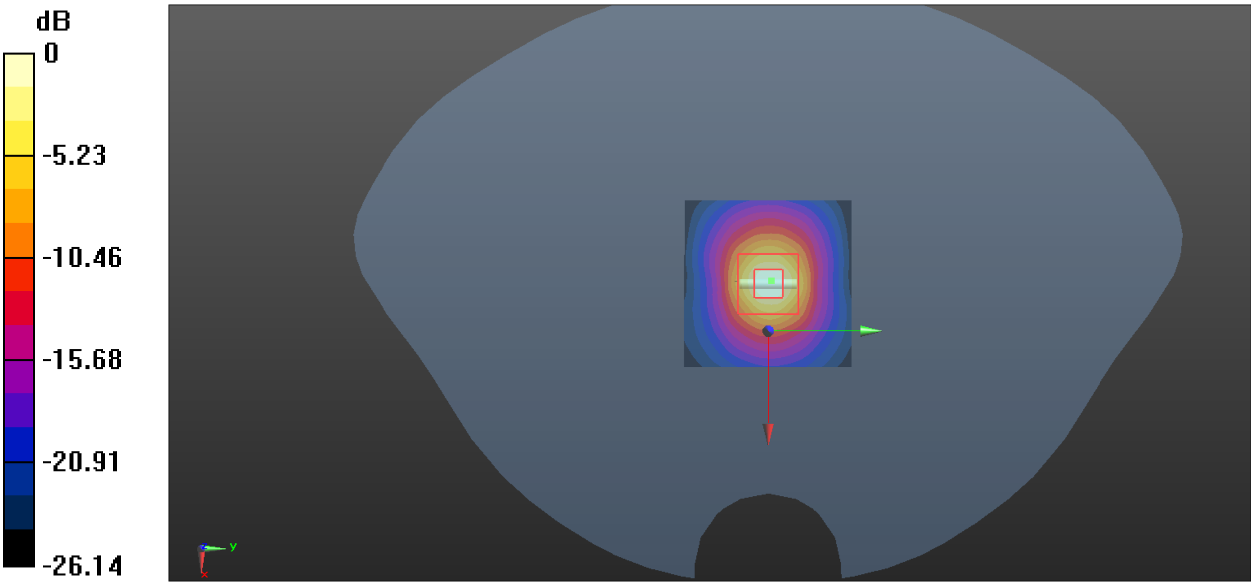
Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.325 S/m; $\varepsilon_r$ = 35.273; ρ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(4.89, 4.89, 4.89) @ 5800 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x8x1):**Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (measured) = 21.1 W/kg

**Zoom Scan (9x9x16)/Cube 0::** Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 40.29 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 38.5 W/kg
**SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.26 W/kg**
Maximum value of SAR (measured) = 21.2 W/kg




0 dB = 21.2 W/kg = 13.26 dBW/kg

# 4 EUT Test Positions and Methodology

## 4.1 Test Positions for Device Operating Next to a Person's Ear

### 4.1.1 Definition of the cheek position

The cheek position is established using steps a) to j) as follows.

a) Configure the DUT for voice operation, if necessary. For example, for a DUT with a flip, swivel, or slide cover piece, open the cover if this is consistent with voice operation. If the DUT can also be used with the cover closed, both configurations shall be tested.

b) Define two imaginary lines on the DUT, the vertical centreline and the horizontal line, relative to the DUT in vertical orientation as shown in Figure 15.

c) The vertical centreline passes through two points on the front side of the DUT: the midpoint of the width $w_t$ of the DUT at the level of the acoustic output (Point A in Figure 15), and the midpoint of the width $w_b$ at the bottom of the DUT (Point B). The horizontal line is perpendicular to the vertical centerline, and passes through the centre of the acoustic output (Figure 15). The two lines intersect at Point A. Note that for many DUTs, Point A coincides with the centre of the acoustic output. However, the acoustic output could be located elsewhere on the horizontal line. Also note that the vertical centreline is not necessarily parallel to the front face of the DUT, especially for clamshell DUTs, DUTs with flip cover pieces, and other irregularly shaped DUTs.

d) Position the DUT close to the surface of the phantom such that Point A is on the (virtual) extension of the line passing through points RE (right-ear ear reference point) and LE (left-ear ear reference point) on the phantom (see Figure 16a) and Figure 16b)). The plane determined by the vertical centreline and the horizontal line of the DUT shall be parallel to the sagittal plane of the phantom.

e) Translate the DUT towards the phantom along the line passing through RE and LE until the DUT touches the ear (see Figure 16c)).

f) Rotate the DUT around the (virtual) LE-RE Line until the DUT vertical centreline is in the reference plane (see Figure 16d)).

g) Rotate the DUT around its vertical centreline until the plane established by the DUT vertical centreline and horizontal line is parallel to the N-F line (see Annex G), and then translate the DUT towards the phantom along the LE-RE line until DUT Point A touches the ear at the ERP (ear reference point) (see Figure 16e)).

h) While keeping Point A on the line passing through RE and LE and maintaining the DUT in contact with the pinna, rotate the DUT about the N-F line until any point on the DUT is in contact with a phantom point below the pinna (cheek) (see Figure 16f)). The physical angles of rotation shall be documented.

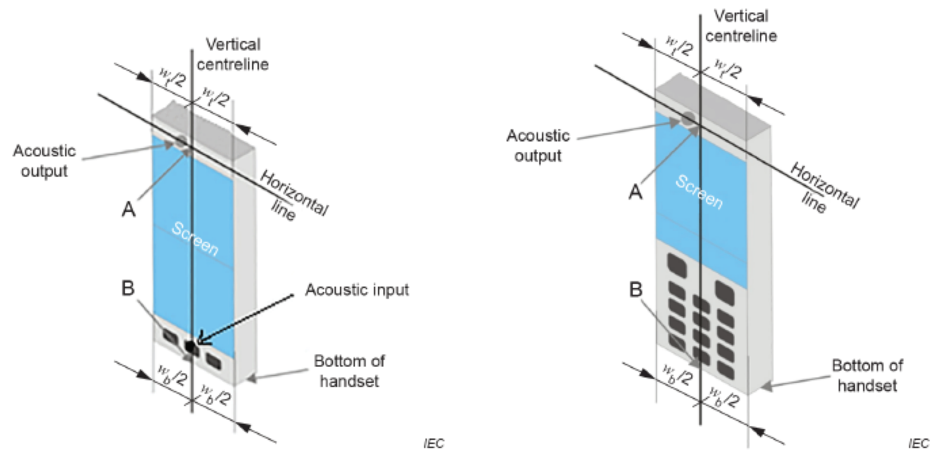
i) While keeping DUT Point A in contact with the ERP, rotate the DUT around a line perpendicular to the plane established by the DUT vertical centreline and horizontal line and passing through DUT Point A, until the DUT vertical centreline is in the reference plane (see Figure 16g)).

j) Verify that the cheek position is correct as follows:

1) the N-F line is in the plane established by the DUT vertical centreline and horizontal line;

2) DUT Point A touches the pinna at the ERP;

3) the DUT vertical centreline is in the reference plane.




**Key**

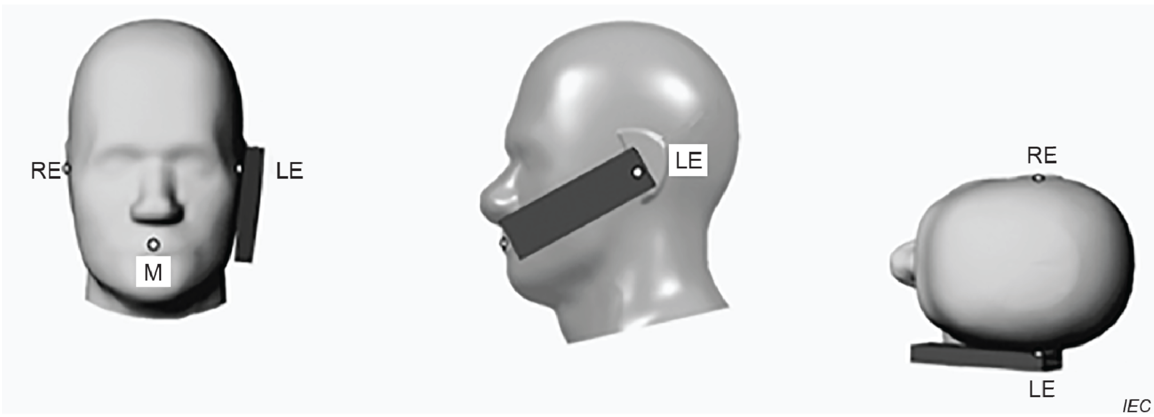
$w_t$ Width of the DUT at the level of the acoustic output

$w_b$ Width of the bottom of the DUT

A Midpoint of the width $w_t$ of the DUT at the level of the acoustic output

B Midpoint of the width $w_b$ of the bottom of the DUT

**Figure 15 – Vertical and horizontal reference lines and reference**




**4.1.2 Definition of the tilt position**

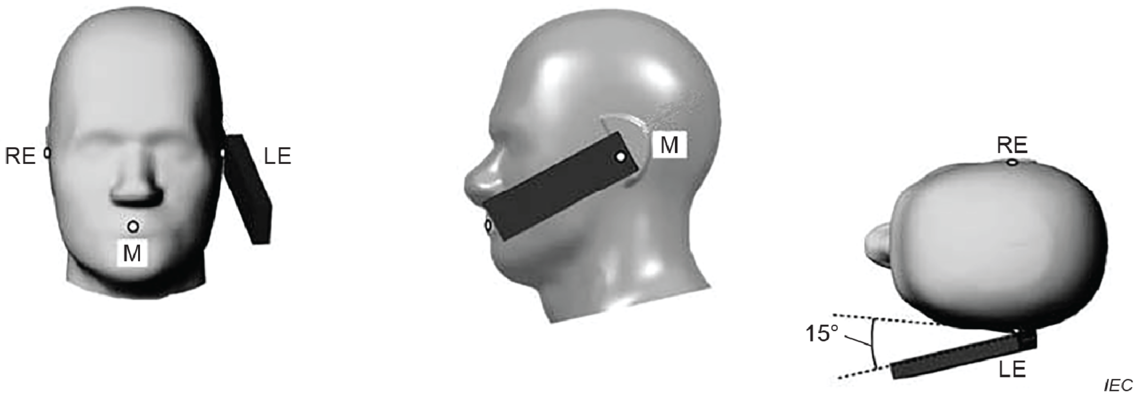
The tilt position is established using steps a) through d) as follows.

a) Repeat steps a) through j) of 7.2.4.2.2 to place the DUT in the cheek position (see Figure 16).

b) While maintaining the orientation of the DUT, move the DUT away from the pinna along the line passing through RE and LE far enough to allow a rotation of the DUT away from the cheek by 15°.

c) Rotate the DUT around the horizontal line by 15° (see Figure 17).

d) While maintaining the orientation of the DUT, move the DUT towards the phantom on a line passing through RE and LE until any part of the DUT touches the ear. The tilt position is obtained when the contact is on the pinna. If the contact is at any location other than the pinna, e.g. an extended antenna in contact with the back of the head phantom, the angle of the DUT shall be reduced. In this case, the tilt position is obtained if any part of the DUT is in contact with the pinna and a second point on the DUT is in contact with the phantom, e.g. the antenna in contact with the back of the head.




## 4.2 Test positions for body-supported device

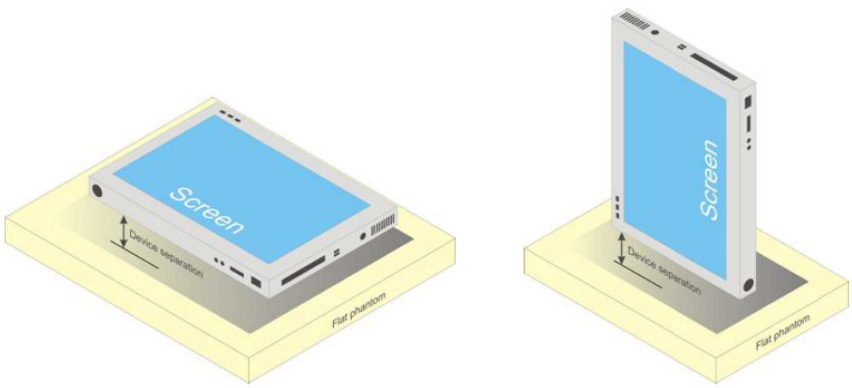
A typical example of a body supported device is a wireless enabled laptop device that among other orientations may be supported on the thighs of a sitting user. To represent this orientation, the device shall be positioned with its base against the flat phantom. Other orientations may be specified by the manufacturer in the user instructions. If the intended use is not specified, the device shall be tested directly against the flat phantom in all usable orientations.

The example in Figure 7b) shows a tablet form factor portable computer for which SAR should be separately assessed with

d) each surface and

e) the separation distances

positioned against the flat phantom that correspond to the intended use as specified by the manufacturer. If the intended use is not specified in the user instructions, the device shall be tested directly against the flat phantom in all usable orientations.

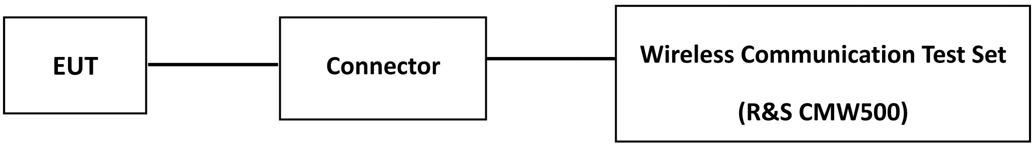



b) Tablet form factor portable computer

# 5 Conducted Output Power Measurements

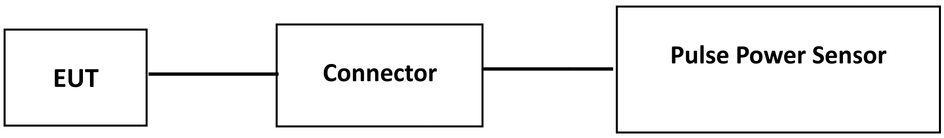
## 5.1 Test Procedure

The RF output of the transmitter was connected to the input of the Wireless Communication Test Set through Connector.




**GSM/WCDMA/LTE**

The RF output of the transmitter was connected to the input port of the Pulse Power Sensor through Connector.




**BT/WLAN**

## 5.2 Maximum Target Output Power

| Mode/Band | Max. Target Power(dBm) | | |
|---|---|---|---|
| | Low Channel | Middle Channel | High Channel |
| GSM 850 | 34.5 | 34.5 | 34.5 |
| GPRS 850 1 Slot | 34.4 | 34.4 | 34.4 |
| GPRS 850 2 Slots | 34 | 34 | 34 |
| GPRS 850 3 Slots | 30.6 | 30.6 | 30.6 |
| GPRS 850 4 Slots | 29.1 | 29.1 | 29.1 |
| EDGE 850 1 Slot | 27.2 | 27.2 | 27.2 |
| EDGE 850 2 Slots | 26.1 | 26.1 | 26.1 |
| EDGE 850 3 Slots | 24.2 | 24.2 | 24.2 |
| EDGE 850 4 Slots | 23.2 | 23.2 | 23.2 |
| GSM 1900 | 31.5 | 31.5 | 31.5 |
| GPRS 1900 1 Slot | 31 | 31 | 31 |
| GPRS 1900 2 Slots | 30.9 | 30.9 | 30.9 |
| GPRS 1900 3 Slots | 26.9 | 26.9 | 26.9 |
| GPRS 1900 4 Slots | 25.3 | 25.3 | 25.3 |
| EDGE 1900 1 Slot | 25.8 | 25.8 | 25.8 |
| EDGE 1900 2 Slots | 24.7 | 24.7 | 24.7 |
| EDGE 1900 3 Slots | 22.7 | 22.7 | 22.7 |
| EDGE 1900 4 Slots | 21.7 | 21.7 | 21.7 |

| | | | |
|---|---|---|---|
| WCDMA Band 2 | 23.4 | 23.4 | 23.4 |
| HSDPA | 21.1 | 21.1 | 21.1 |
| HSUPA | 20.9 | 20.9 | 20.9 |
| HSPA+ | 21 | 21 | 21 |
| WCDMA Band 5 | 23.2 | 23.2 | 23.2 |
| HSDPA | 20.7 | 20.7 | 20.7 |
| HSUPA | 20.6 | 20.6 | 20.6 |
| HSPA+ | 20.7 | 20.7 | 20.7 |
| LTE Band 2 | 23.4 | 23.4 | 23.4 |
| LTE Band 5 | 23.1 | 23.1 | 23.1 |
| LTE Band 12 | 23.2 | 23.2 | 23.2 |
| LTE Band 13 | 22.9 | 22.9 | 22.9 |
| LTE Band 41 | 24.8 | 24.8 | 24.8 |
| 5G NR n41 | 25.6 | 25.6 | 25.6 |
| 5G NR n66 | 17.8 | 17.8 | 17.8 |
| 2.4G WLAN (802.11b) | 14.8 | 14.8 | 14.8 |
| 2.4G WLAN (802.11g) | 14.3 | 14.3 | 14.3 |
| 2.4G WLAN (802.11 n20) | 13 | 13 | 13 |
| 2.4G WLAN (802.11 n40) | 10.9 | 10.9 | 10.9 |
| 5.2G WLAN (802.11a) | 13.2 | 13.2 | 13.2 |
| 5.2G WLAN (802.11 ac20) | 13.1 | 13.1 | 13.1 |
| 5.2G WLAN (802.11 ac40) | 14.1 | / | 14.1 |
| 5.2G WLAN (802.11 ac80) | / | 11 | / |
| 5.8G WLAN (802.11a) | 16.1 | 16.1 | 16.1 |
| 5.8G WLAN (802.11 ac20) | 16 | 16 | 16 |
| 5.8G WLAN (802.11 ac40) | 15.9 | / | 15.9 |
| 5.8G WLAN (802.11 ac80) | / | 13 | / |
| Bluetooth(BDR/EDR) | 0 | 0 | 0 |
| BLE_1M | 5 | 5 | 5 |
| BLE_2M | 5.5 | 5.5 | 5.5 |

## 5.3 Maximum Conducted Output Power

### GSM:

| Band | Channel No. | Frequency (MHz) | RF Output Power (dBm) |
|---|---|---|---|
| GSM 850 | 128 | 824.2 | 34.28 |
| | 190 | 836.6 | 34.36 |
| | 251 | 848.8 | **34.42** |
| PCS 1900 | 512 | 1850.2 | **31.41** |
| | 661 | 1880 | 31.16 |
| | 810 | 1909.8 | 31.12 |

### GPRS:

| Band | Channel No. | Frequency (MHz) | RF Peak Output Power(dBm) | | | |
|---|---|---|---|---|---|---|
| | | | 1 Slot | 2 Slots | 3 Slots | 4 Slots |
| GSM 850 | 128 | 824.2 | 34.04 | 33.61 | 30.54 | 28.95 |
| | 190 | 836.6 | 34.27 | 33.69 | 30.37 | 28.73 |
| | 251 | 848.8 | 33.83 | 33.86 | 30.01 | 28.57 |
| PCS 1900 | 512 | 1850.2 | 30.63 | 30.81 | 26.73 | 25.06 |
| | 661 | 1880 | 30.80 | 30.63 | 26.82 | 25.16 |
| | 810 | 1909.8 | 30.85 | 30.59 | 26.14 | 25.04 |

### EDGE:

| Band | Channel No. | Frequency (MHz) | RF Peak Output Power(dBm) | | | |
|---|---|---|---|---|---|---|
| | | | 1 Slot | 2 Slots | 3 Slots | 4 Slots |
| GSM 850 | 128 | 824.2 | 27.12 | 25.91 | 24.08 | 23.05 |
| | 190 | 836.6 | 26.91 | 25.96 | 23.92 | 22.87 |
| | 251 | 848.8 | 26.95 | 25.77 | 23.97 | 22.83 |
| PCS 1900 | 512 | 1850.2 | 25.68 | 24.63 | 22.62 | 21.55 |
| | 661 | 1880 | 25.53 | 24.43 | 22.50 | 21.57 |
| | 810 | 1909.8 | 25.25 | 24.19 | 22.26 | 21.22 |

For SAR, the time based average power is relevant, the difference in between depends on the duty cycle of the TDMA signal.

| Number of Time Slots | 1 Slot | 2 Slots | 3 Slots | 4 Slots |
|---|---|---|---|---|
| Duty Cycle | 1:8 | 1:4 | 1:2.66 | 1:2 |
| Time based Ave. power compared to slotted Ave. power | -9 dB | -6 dB | -4.25 dB | -3 dB |
| Crest Factor | 8 | 4 | 2.66 | 2 |

## GPRS:

| Band | Channel No. | Frequency (MHz) | Time Based Average Power(dBm) | | | |
|---|---|---|---|---|---|---|
| | | | 1 Slot | 2 Slots | 3 Slots | 4 Slots |
| GSM 850 | 128 | 824.2 | 25.04 | 27.61 | 26.29 | 25.95 |
| | 190 | 836.6 | 25.27 | 27.69 | 26.12 | 25.73 |
| | 251 | 848.8 | 24.83 | **27.86** | 25.76 | 25.57 |
| PCS 1900 | 512 | 1850.2 | 21.63 | **24.71** | 22.48 | 22.06 |
| | 661 | 1880 | 21.80 | 24.63 | 22.47 | 22.16 |
| | 810 | 1909.8 | 21.85 | 24.59 | 21.89 | 22.04 |

## EDGE:

| Band | Channel No. | Frequency (MHz) | Time Based Average Power(dBm) | | | |
|---|---|---|---|---|---|---|
| | | | 1 Slot | 2 Slots | 3 Slots | 4 Slots |
| GSM 850 | 128 | 824.2 | 18.12 | 19.91 | 19.83 | 20.05 |
| | 190 | 836.6 | 17.91 | 19.96 | 19.67 | 19.87 |
| | 251 | 848.8 | 17.95 | 19.77 | 19.72 | 19.83 |
| PCS 1900 | 512 | 1850.2 | 16.68 | 18.63 | 18.27 | 18.55 |
| | 661 | 1880 | 16.53 | 18.43 | 18.25 | 18.57 |
| | 810 | 1909.8 | 16.25 | 18.19 | 18.01 | 18.22 |

**Note:**

1. Rohde & Schwarz Radio Communication Tester (CMW500) was used for the measurement of GSM peak and average output power for active timeslots.
2 .For GSM voice, 1 timeslot has been activated with power level 5 (850 MHz band) and 0 (1900 MHz band).
3 .For GPRS, 1, 2, 3 and 4timeslots has been activated separately with power level 3(850 MHz band) and 3(1900 MHz band).

## WCDMA Band 2:

| Test Mode | Sub Test | Conducted Average Output Power(dBm) | | |
|---|---|---|---|---|
| | | Lowest Channel | Middle Channel | Highest Channel |
| RMC 12.2kbps | | **23.32** | 23.15 | 22.85 |
| HSDPA | 1 | 20.86 | 20.23 | 20.06 |
| | 2 | 20.87 | 20.29 | 20.05 |
| | 3 | 21.01 | 20.38 | 20.26 |
| | 4 | 21.06 | 20.44 | 20.22 |
| HSUPA | 1 | 20.57 | 20.27 | 19.86 |
| | 2 | 20.52 | 20.34 | 19.82 |
| | 3 | 20.64 | 20.45 | 20.00 |
| | 4 | 20.77 | 20.41 | 20.12 |
| | 5 | 20.78 | 20.54 | 20.07 |
| HSPA+ | 1 | 20.87 | 20.57 | 20.19 |

## WCDMA Band 5:

| Test Mode | Sub Test | Conducted Average Output Power(dBm) | | |
|---|---|---|---|---|
| | | Lowest Channel | Middle Channel | Highest Channel |
| RMC 12.2kbps | | 23.08 | **23.13** | 23.09 |
| HSDPA | 1 | 20.43 | 20.34 | 20.49 |
| | 2 | 20.45 | 20.41 | 20.44 |
| | 3 | 20.65 | 20.50 | 20.57 |
| | 4 | 20.55 | 20.53 | 20.63 |
| HSUPA | 1 | 20.19 | 20.27 | 20.14 |
| | 2 | 20.33 | 20.35 | 20.18 |
| | 3 | 20.28 | 20.36 | 20.15 |
| | 4 | 20.41 | 20.48 | 20.27 |
| | 5 | 20.40 | 20.44 | 20.19 |
| HSPA+ | 1 | 20.43 | 20.56 | 20.28 |

**Note:**

1. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model 1.
2. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/HSPA+ when the maximum average output of each RF channel is less than ¼ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

## LTE Band 2:

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Target MPR | Meas. MPR | Lowest Channel (dBm) | Middle Channel (dBm) | Highest Channel (dBm) |
|---|---|---|---|---|---|---|---|
| 1.4M | QPSK | RB1#0 | 0 | 0 | 23.05 | 22.96 | 22.71 |
| | | RB1#3 | 0 | 0 | 23.03 | 22.98 | 22.74 |
| | | RB1#5 | 0 | 0 | 23.14 | 22.96 | 22.77 |
| | | RB3#0 | 1 | 1 | 23.14 | 23.04 | 22.71 |
| | | RB3#3 | 1 | 1 | 23.11 | 22.96 | 22.60 |
| | | RB6#0 | 1 | 1 | 22.09 | 21.95 | 21.73 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.24 | 22.12 | 21.91 |
| | | RB1#3 | 1 | 1 | 22.17 | 22.07 | 21.78 |
| | | RB1#5 | 1 | 1 | 22.09 | 22.02 | 21.79 |
| | | RB3#0 | 2 | 2 | 22.20 | 22.23 | 21.83 |
| | | RB3#3 | 2 | 2 | 22.10 | 22.27 | 21.69 |
| | | RB6#0 | 2 | 2 | 21.23 | 21.18 | 20.89 |
| 3M | QPSK | RB1#0 | 0 | 0 | 23.06 | 23.03 | 22.79 |
| | | RB1#8 | 0 | 0 | 22.96 | 23.02 | 22.53 |
| | | RB1#14 | 0 | 0 | 22.99 | 23.02 | 22.57 |
| | | RB6#0 | 1 | 1 | 22.15 | 21.97 | 21.76 |
| | | RB6#9 | 1 | 1 | 22.08 | 22.09 | 21.81 |
| | | RB15#0 | 1 | 1 | 22.04 | 22.00 | 21.66 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.27 | 22.63 | 22.04 |
| | | RB1#8 | 1 | 1 | 22.18 | 22.57 | 21.89 |
| | | RB1#14 | 1 | 1 | 22.10 | 22.59 | 21.89 |
| | | RB6#0 | 2 | 2 | 21.08 | 21.15 | 20.87 |
| | | RB6#9 | 2 | 2 | 21.08 | 21.16 | 20.78 |
| | | RB15#0 | 2 | 2 | 21.31 | 21.13 | 20.91 |
| 5M | QPSK | RB1#0 | 0 | 0 | 23.23 | 23.10 | 22.99 |
| | | RB1#13 | 0 | 0 | 23.10 | 23.08 | 22.73 |
| | | RB1#24 | 0 | 0 | **23.25** | 23.12 | 22.72 |
| | | RB15#0 | 1 | 1 | 22.20 | 22.02 | 21.88 |
| | | RB15#10 | 1 | 1 | 22.24 | 22.08 | 21.74 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | RB25#0 | 1 | 1 | 22.22 | 22.12 | 21.81 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.22 | 22.02 | 22.16 |
| | | RB1#13 | 1 | 1 | 22.22 | 22.01 | 21.97 |
| | | RB1#24 | 1 | 1 | 22.21 | 21.96 | 21.91 |
| | | RB15#0 | 2 | 2 | 21.24 | 21.25 | 20.93 |
| | | RB15#10 | 2 | 2 | 21.27 | 21.10 | 20.82 |
| | | RB25#0 | 2 | 2 | 21.28 | 21.20 | 20.85 |
| 10M | QPSK | RB1#0 | 0 | 0 | 23.22 | 23.17 | 22.95 |
| | | RB1#25 | 0 | 0 | 23.20 | 23.01 | 22.86 |
| | | RB1#49 | 0 | 0 | 23.08 | 22.99 | 22.76 |
| | | RB25#0 | 1 | 1 | 22.17 | 22.14 | 21.83 |
| | | RB25#25 | 1 | 1 | 22.24 | 22.05 | 21.95 |
| | | RB50#0 | 1 | 1 | 22.18 | 22.05 | 21.88 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.71 | 22.34 | 21.94 |
| | | RB1#25 | 1 | 1 | 22.74 | 22.34 | 21.96 |
| | | RB1#49 | 1 | 1 | 22.66 | 22.25 | 21.90 |
| | | RB25#0 | 2 | 2 | 21.19 | 21.20 | 21.15 |
| | | RB25#25 | 2 | 2 | 21.19 | 21.09 | 21.05 |
| | | RB50#0 | 2 | 2 | 21.18 | 21.06 | 20.99 |
| 15M | QPSK | RB1#0 | 0 | 0 | 23.25 | 23.20 | 22.91 |
| | | RB1#38 | 0 | 0 | 23.15 | 23.12 | 22.78 |
| | | RB1#74 | 0 | 0 | 23.16 | 23.04 | 22.94 |
| | | RB36#0 | 1 | 1 | 22.09 | 22.03 | 22.00 |
| | | RB36#39 | 1 | 1 | 22.13 | 22.13 | 21.86 |
| | | RB75#0 | 1 | 1 | 22.17 | 22.13 | 21.93 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.51 | 22.57 | 22.39 |
| | | RB1#38 | 1 | 1 | 22.44 | 22.55 | 22.42 |
| | | RB1#74 | 1 | 1 | 22.40 | 22.37 | 22.25 |
| | | RB36#0 | 2 | 2 | 21.27 | 21.08 | 20.90 |
| | | RB36#39 | 2 | 2 | 21.20 | 21.03 | 21.00 |
| | | RB75#0 | 2 | 2 | 21.21 | 21.16 | 21.06 |
| 20M | QPSK | RB1#0 | 0 | 0 | 23.10 | 23.22 | 22.93 |
| | | RB1#50 | 0 | 0 | 23.06 | 23.11 | 22.83 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | RB1#99 | 0 | 0 | 23.15 | 22.95 | 22.87 |
| | | RB50#0 | 1 | 1 | 22.15 | 22.16 | 22.09 |
| | | RB50#50 | 1 | 1 | 22.11 | 22.09 | 21.92 |
| | | RB100#0 | 1 | 1 | 22.17 | 22.14 | 21.88 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.83 | 22.52 | 22.19 |
| | | RB1#50 | 1 | 1 | 22.71 | 22.49 | 22.24 |
| | | RB1#99 | 1 | 1 | 22.83 | 22.17 | 22.06 |
| | | RB50#0 | 2 | 2 | 21.24 | 21.21 | 21.07 |
| | | RB50#50 | 2 | 2 | 21.21 | 21.06 | 20.89 |
| | | RB100#0 | 2 | 2 | 21.20 | 21.22 | 21.05 |

## LTE Band 5:

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Target MPR | Meas. MPR | Lowest Channel (dBm) | Middle Channel (dBm) | Highest Channel (dBm) |
|---|---|---|---|---|---|---|---|
| 1.4M | QPSK | RB1#0 | 0 | 0 | 22.88 | 22.86 | 22.79 |
| | | RB1#3 | 0 | 0 | 22.79 | 22.95 | 22.75 |
| | | RB1#5 | 0 | 0 | 22.76 | 22.98 | 22.90 |
| | | RB3#0 | 1 | 1 | 22.81 | 22.84 | 22.84 |
| | | RB3#3 | 1 | 1 | 22.83 | 22.88 | 22.80 |
| | | RB6#0 | 1 | 1 | 21.77 | 21.89 | 21.86 |
| | 16-QAM | RB1#0 | 1 | 1 | 21.74 | 22.03 | 21.78 |
| | | RB1#3 | 1 | 1 | 21.77 | 21.96 | 21.87 |
| | | RB1#5 | 1 | 1 | 21.89 | 21.99 | 21.77 |
| | | RB3#0 | 2 | 2 | 21.91 | 21.86 | 21.96 |
| | | RB3#3 | 2 | 2 | 21.95 | 21.86 | 21.89 |
| | | RB6#0 | 2 | 2 | 20.84 | 21.00 | 20.67 |
| 3M | QPSK | RB1#0 | 0 | 0 | 22.75 | 22.97 | 22.81 |
| | | RB1#8 | 0 | 0 | 22.69 | 22.84 | 22.81 |
| | | RB1#14 | 0 | 0 | 22.76 | 22.77 | 22.72 |
| | | RB6#0 | 1 | 1 | 21.84 | 21.86 | 21.82 |
| | | RB6#9 | 1 | 1 | 21.88 | 21.80 | 21.88 |
| | | RB15#0 | 1 | 1 | 21.76 | 21.89 | 21.89 |
| | 16-QAM | RB1#0 | 1 | 1 | 21.90 | 22.55 | 21.90 |
| | | RB1#8 | 1 | 1 | 21.80 | 22.50 | 21.98 |
| | | RB1#14 | 1 | 1 | 21.89 | 22.52 | 21.89 |
| | | RB6#0 | 2 | 2 | 20.75 | 20.96 | 20.85 |
| | | RB6#9 | 2 | 2 | 20.82 | 21.01 | 20.85 |
| | | RB15#0 | 2 | 2 | 20.84 | 21.03 | 20.85 |
| 5M | QPSK | RB1#0 | 0 | 0 | 22.84 | 22.99 | 22.90 |
| | | RB1#13 | 0 | 0 | 22.74 | 22.94 | 22.94 |
| | | RB1#24 | 0 | 0 | 22.90 | **23.01** | 23.00 |
| | | RB15#0 | 1 | 1 | 21.95 | 21.99 | 21.95 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | RB15#10 | 1 | 1 | 21.87 | 21.92 | 21.82 |
| | | RB25#0 | 1 | 1 | 21.88 | 21.92 | 21.85 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.05 | 21.90 | 22.22 |
| | | RB1#13 | 1 | 1 | 21.88 | 21.94 | 22.13 |
| | | RB1#24 | 1 | 1 | 21.89 | 21.85 | 22.27 |
| | | RB15#0 | 2 | 2 | 21.00 | 20.97 | 20.99 |
| | | RB15#10 | 2 | 2 | 20.95 | 20.89 | 20.87 |
| | | RB25#0 | 2 | 2 | 20.95 | 21.06 | 20.92 |
| 10M | QPSK | RB1#0 | 0 | 0 | 22.97 | 22.80 | 22.95 |
| | | RB1#25 | 0 | 0 | 22.76 | 22.95 | 22.94 |
| | | RB1#49 | 0 | 0 | 22.88 | 22.94 | 22.76 |
| | | RB25#0 | 1 | 1 | 21.82 | 21.98 | 21.96 |
| | | RB25#25 | 1 | 1 | 21.94 | 21.90 | 21.81 |
| | | RB50#0 | 1 | 1 | 21.86 | 21.88 | 21.91 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.13 | 21.92 | 22.54 |
| | | RB1#25 | 1 | 1 | 21.96 | 22.00 | 22.51 |
| | | RB1#49 | 1 | 1 | 22.10 | 21.95 | 22.38 |
| | | RB25#0 | 2 | 2 | 20.88 | 21.05 | 20.91 |
| | | RB25#25 | 2 | 2 | 20.99 | 20.97 | 20.81 |
| | | RB50#0 | 2 | 2 | 20.96 | 20.94 | 20.83 |

## LTE Band 12:

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Target MPR | Meas. MPR | Lowest Channel (dBm) | Middle Channel (dBm) | Highest Channel (dBm) |
|---|---|---|---|---|---|---|---|
| 1.4M | QPSK | RB1#0 | 0 | 0 | 23.01 | 22.91 | 22.89 |
| | | RB1#3 | 0 | 0 | 23.00 | 22.90 | 22.81 |
| | | RB1#5 | 0 | 0 | 23.02 | 22.97 | 22.81 |
| | | RB3#0 | 1 | 1 | 23.07 | 22.96 | 22.88 |
| | | RB3#3 | 1 | 1 | 23.01 | 22.89 | 22.79 |
| | | RB6#0 | 1 | 1 | 21.98 | 21.90 | 21.87 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.03 | 21.97 | 22.05 |
| | | RB1#3 | 1 | 1 | 21.96 | 22.00 | 21.88 |
| | | RB1#5 | 1 | 1 | 21.95 | 21.92 | 21.87 |
| | | RB3#0 | 2 | 2 | 22.12 | 22.08 | 21.78 |
| | | RB3#3 | 2 | 2 | 22.07 | 22.14 | 21.91 |
| | | RB6#0 | 2 | 2 | 20.99 | 21.02 | 20.87 |
| 3M | QPSK | RB1#0 | 0 | 0 | 22.94 | 22.95 | 22.80 |
| | | RB1#8 | 0 | 0 | 22.90 | 22.84 | 22.87 |
| | | RB1#14 | 0 | 0 | 22.89 | 22.88 | 22.70 |
| | | RB6#0 | 1 | 1 | 22.00 | 21.93 | 22.00 |
| | | RB6#9 | 1 | 1 | 22.02 | 21.87 | 21.90 |
| | | RB15#0 | 1 | 1 | 22.07 | 21.90 | 21.86 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.08 | 22.53 | 21.96 |
| | | RB1#8 | 1 | 1 | 22.00 | 22.52 | 22.04 |
| | | RB1#14 | 1 | 1 | 22.02 | 22.43 | 21.99 |
| | | RB6#0 | 2 | 2 | 20.91 | 21.11 | 20.89 |
| | | RB6#9 | 2 | 2 | 21.00 | 21.05 | 20.80 |
| | | RB15#0 | 2 | 2 | 21.03 | 20.96 | 20.80 |
| 5M | QPSK | RB1#0 | 0 | 0 | **23.15** | 23.00 | 23.03 |
| | | RB1#13 | 0 | 0 | 23.09 | 23.09 | 22.99 |
| | | RB1#24 | 0 | 0 | 23.05 | 23.00 | 22.93 |
| | | RB15#0 | 1 | 1 | 21.98 | 22.04 | 21.87 |
| | | RB15#10 | 1 | 1 | 22.09 | 21.95 | 21.96 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | RB25#0 | 1 | 1 | 21.97 | 22.00 | 21.98 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.18 | 21.94 | 22.19 |
| | | RB1#13 | 1 | 1 | 22.14 | 21.98 | 22.26 |
| | | RB1#24 | 1 | 1 | 22.01 | 21.86 | 22.08 |
| | | RB15#0 | 2 | 2 | 21.09 | 21.07 | 20.91 |
| | | RB15#10 | 2 | 2 | 21.15 | 21.09 | 20.90 |
| | | RB25#0 | 2 | 2 | 21.13 | 20.99 | 20.84 |
| 10M | QPSK | RB1#0 | 0 | 0 | 23.07 | 23.04 | 23.01 |
| | | RB1#25 | 0 | 0 | 23.01 | 22.95 | 22.80 |
| | | RB1#49 | 0 | 0 | 22.92 | 23.01 | 22.78 |
| | | RB25#0 | 1 | 1 | 21.96 | 22.06 | 22.03 |
| | | RB25#25 | 1 | 1 | 21.92 | 21.99 | 21.82 |
| | | RB50#0 | 1 | 1 | 21.94 | 22.12 | 22.03 |
| | 16-QAM | RB1#0 | 1 | 1 | 22.09 | 22.19 | 22.10 |
| | | RB1#25 | 1 | 1 | 22.03 | 22.23 | 21.83 |
| | | RB1#49 | 1 | 1 | 22.10 | 22.06 | 21.86 |
| | | RB25#0 | 2 | 2 | 21.12 | 21.07 | 21.05 |
| | | RB25#25 | 2 | 2 | 21.09 | 21.09 | 21.01 |
| | | RB50#0 | 2 | 2 | 20.94 | 20.95 | 20.86 |

## LTE Band 13:

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Target MPR | Meas. MPR | Lowest Channel (dBm) | Middle Channel (dBm) | Highest Channel (dBm) |
|---|---|---|---|---|---|---|---|
| 5M | QPSK | RB1#0 | 0 | 0 | 22.82 | / | 22.81 |
| | | RB1#13 | 0 | 0 | 22.73 | / | **22.84** |
| | | RB1#24 | 0 | 0 | 22.78 | / | 22.64 |
| | | RB15#0 | 1 | 1 | 21.63 | / | 21.76 |
| | | RB15#10 | 1 | 1 | 21.77 | / | 21.65 |
| | | RB25#0 | 1 | 1 | 21.76 | / | 21.82 |
| | 16-QAM | RB1#0 | 1 | 1 | 21.80 | / | 22.03 |
| | | RB1#13 | 1 | 1 | 21.64 | / | 21.97 |
| | | RB1#24 | 1 | 1 | 21.79 | / | 22.02 |
| | | RB15#0 | 2 | 2 | 20.91 | / | 20.82 |
| | | RB15#10 | 2 | 2 | 20.95 | / | 20.76 |
| | | RB25#0 | 2 | 2 | 20.86 | / | 20.98 |
| 10M | QPSK | RB1#0 | 0 | 0 | / | 22.70 | / |
| | | RB1#25 | 0 | 0 | / | 22.80 | / |
| | | RB1#49 | 0 | 0 | / | 22.77 | / |
| | | RB25#0 | 1 | 1 | / | 21.60 | / |
| | | RB25#25 | 1 | 1 | / | 21.93 | / |
| | | RB50#0 | 1 | 1 | / | 21.65 | / |
| | 16-QAM | RB1#0 | 1 | 1 | / | 21.74 | / |
| | | RB1#25 | 1 | 1 | / | 21.85 | / |
| | | RB1#49 | 1 | 1 | / | 21.78 | / |
| | | RB25#0 | 2 | 2 | / | 20.94 | / |
| | | RB25#25 | 2 | 2 | / | 20.89 | / |
| | | RB50#0 | 2 | 2 | / | 20.88 | / |

## LTE Band 41:

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Target MPR | Meas. MPR | Lowest Channel (dBm) | 2549.5 MHz (dBm) | Middle Channel (dBm) | 2636.5 MHz (dBm) | Highest Channel (dBm) |
|---|---|---|---|---|---|---|---|---|---|
| 5M | QPSK | RB1#0 | 0 | 0 | 24.41 | 24.15 | 23.60 | 24.15 | 24.13 |
| | | RB1#13 | 0 | 0 | 24.40 | 24.08 | 23.54 | 24.14 | 24.22 |
| | | RB1#24 | 0 | 0 | 24.44 | 24.06 | 23.62 | 24.25 | 24.23 |
| | | RB15#0 | 1 | 1 | 24.28 | 24.07 | 23.60 | 24.15 | 24.23 |
| | | RB15#10 | 1 | 1 | 24.17 | 24.01 | 23.51 | 24.15 | 24.34 |
| | | RB25#0 | 1 | 1 | 24.18 | 23.99 | 23.55 | 24.15 | 24.23 |
| | 16-QAM | RB1#0 | 1 | 1 | 24.22 | 24.06 | 23.67 | 24.14 | 24.42 |
| | | RB1#13 | 1 | 1 | 24.20 | 24.09 | 23.54 | 24.18 | 24.37 |
| | | RB1#24 | 1 | 1 | 24.19 | 24.07 | 23.59 | 24.08 | 24.37 |
| | | RB15#0 | 2 | 2 | 24.12 | 24.10 | 23.58 | 24.17 | 24.21 |
| | | RB15#10 | 2 | 2 | 24.14 | 23.96 | 23.60 | 24.16 | 24.28 |
| | | RB25#0 | 2 | 2 | 24.24 | 24.13 | 23.67 | 24.21 | 24.21 |
| 10M | QPSK | RB1#0 | 0 | 0 | 24.27 | 23.98 | 23.62 | 24.10 | 24.20 |
| | | RB1#25 | 0 | 0 | 24.15 | 24.05 | 23.65 | 24.13 | 24.07 |
| | | RB1#49 | 0 | 0 | 24.11 | 23.99 | 23.64 | 24.17 | 24.11 |
| | | RB25#0 | 1 | 1 | 24.32 | 24.12 | 23.53 | 24.10 | 24.14 |
| | | RB25#25 | 1 | 1 | 24.22 | 24.16 | 23.56 | 24.12 | 24.13 |
| | | RB50#0 | 1 | 1 | 24.24 | 24.14 | 23.49 | 24.13 | 24.11 |
| | 16-QAM | RB1#0 | 1 | 1 | 24.50 | 24.10 | 23.82 | 24.17 | 24.05 |
| | | RB1#25 | 1 | 1 | 24.21 | 23.94 | 23.68 | 24.16 | 24.06 |
| | | RB1#49 | 1 | 1 | 24.20 | 23.97 | 23.79 | 24.20 | 24.03 |
| | | RB25#0 | 2 | 2 | 24.22 | 24.04 | 23.58 | 24.14 | 24.30 |
| | | RB25#25 | 2 | 2 | 24.22 | 24.09 | 23.48 | 24.17 | 24.21 |
| | | RB50#0 | 2 | 2 | 24.24 | 24.02 | 23.55 | 24.08 | 24.22 |
| 15M | QPSK | RB1#0 | 0 | 0 | 24.34 | 24.10 | 23.62 | 24.02 | 24.05 |

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|---|---|---|---|---|---|---|---|---|---|
| | | RB1#38 | 0 | 0 | 24.22 | 23.94 | 23.54 | 24.18 | 24.18 |
| | | RB1#74 | 0 | 0 | 24.05 | 24.06 | 23.60 | 24.05 | 24.13 |
| | | RB36#0 | 1 | 1 | 24.15 | 23.96 | 23.54 | 24.14 | 24.07 |
| | | RB36#39 | 1 | 1 | 24.13 | 24.09 | 23.47 | 24.09 | 24.22 |
| | | RB75#0 | 1 | 1 | 24.17 | 23.97 | 23.50 | 24.26 | 24.17 |
| | 16-QAM | RB1#0 | 1 | 1 | 24.38 | 24.12 | 23.85 | 24.15 | 24.13 |
| | | RB1#38 | 1 | 1 | 24.27 | 24.20 | 23.76 | 24.10 | 24.08 |
| | | RB1#74 | 1 | 1 | 24.32 | 24.08 | 23.86 | 24.12 | 24.02 |
| | | RB36#0 | 2 | 2 | 24.21 | 24.14 | 23.58 | 24.07 | 24.27 |
| | | RB36#39 | 2 | 2 | 24.07 | 24.07 | 23.55 | 24.11 | 24.26 |
| | | RB75#0 | 2 | 2 | 24.15 | 24.04 | 23.56 | 24.06 | 24.14 |
| 20M | QPSK | RB1#0 | 0 | 0 | 24.23 | 24.13 | 23.89 | 24.23 | 24.08 |
| | | RB1#50 | 0 | 0 | 24.03 | 24.15 | 23.94 | 24.27 | 24.23 |
| | | RB1#99 | 0 | 0 | 24.04 | 24.19 | 23.95 | 24.30 | 24.12 |
| | | RB50#0 | 1 | 1 | 24.17 | 24.13 | 24.06 | 24.29 | 24.11 |
| | | RB50#50 | 1 | 1 | 24.12 | 24.18 | 24.02 | 24.28 | 24.15 |
| | | RB100#0 | 1 | 1 | 24.11 | 24.23 | 24.04 | 24.24 | 24.22 |
| | 16-QAM | RB1#0 | 1 | 1 | 24.23 | 24.20 | 23.62 | 24.34 | 24.42 |
| | | RB1#50 | 1 | 1 | 24.12 | 24.10 | 23.55 | 24.22 | 24.64 |
| | | RB1#99 | 1 | 1 | 24.08 | 24.16 | 23.53 | 24.33 | **24.68** |
| | | RB50#0 | 2 | 2 | 24.26 | 24.13 | 23.69 | 24.24 | 24.15 |
| | | RB50#50 | 2 | 2 | 24.04 | 24.19 | 23.67 | 24.36 | 24.30 |
| | | RB100#0 | 2 | 2 | 24.14 | 24.17 | 23.59 | 24.32 | 24.22 |

## 5G NR n41:

| Mode | Conducted Average Power(dBm) |
|---|---|
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 21.17 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM PI/2 BPSK_RB12@6 | 21.97 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM PI/2 BPSK_RB1@23 | 21.58 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM PI/2 BPSK_RB25@0 | 21.53 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM QPSK_RB1@1 | 23.79 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM QPSK_RB12@6 | 24.05 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM QPSK_RB1@23 | 23.76 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM QPSK_RB25@0 | 24.07 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM 16 QAM_RB25@0 | 23.99 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM 64 QAM_RB25@0 | 23.96 |
| n41_10MHz_30kHz_2501MHz_DFT-s-OFDM 256 QAM_RB25@0 | 22.06 |
| n41_10MHz_30kHz_2501MHz_CP-OFDM QPSK_RB1@1 | 22.52 |
| n41_10MHz_30kHz_2501MHz_CP-OFDM QPSK_RB13@6 | 24.18 |
| n41_10MHz_30kHz_2501MHz_CP-OFDM QPSK_RB1@23 | 22.37 |
| n41_10MHz_30kHz_2501MHz_CP-OFDM QPSK_RB25@0 | 23.96 |
| n41_10MHz_30kHz_2501MHz_CP-OFDM 16 QAM_RB25@0 | 24.06 |
| n41_10MHz_30kHz_2501MHz_CP-OFDM 64 QAM_RB25@0 | 24.09 |
| n41_10MHz_30kHz_2501MHz_CP-OFDM 256 QAM_RB25@0 | 23.84 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.25 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB12@6 | 23.38 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@23 | 23.23 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB25@0 | 23.34 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 23.28 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB12@6 | 23.45 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@23 | 23.25 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB25@0 | 23.43 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB25@0 | 24.53 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB25@0 | 23.59 |
| n41_10MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB25@0 | 23.08 |

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|---|---|
| n41_10MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 23.29 |
| n41_10MHz_30kHz_2593MHz_CP-OFDM QPSK_RB13@6 | 23.41 |
| n41_10MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@23 | 23.24 |
| n41_10MHz_30kHz_2593MHz_CP-OFDM QPSK_RB25@0 | 23.36 |
| n41_10MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB25@0 | 24.59 |
| n41_10MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB25@0 | 24.57 |
| n41_10MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB25@0 | 24.03 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.24 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM PI/2 BPSK_RB12@6 | 24.48 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM PI/2 BPSK_RB1@23 | 23.36 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM PI/2 BPSK_RB25@0 | 24.42 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM QPSK_RB1@1 | 22.66 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM QPSK_RB12@6 | 24.48 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM QPSK_RB1@23 | 22.74 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM QPSK_RB25@0 | 25.02 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM 16 QAM_RB25@0 | 24.24 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM 64 QAM_RB25@0 | 24.36 |
| n41_10MHz_30kHz_2685MHz_DFT-s-OFDM 256 QAM_RB25@0 | 23.75 |
| n41_10MHz_30kHz_2685MHz_CP-OFDM QPSK_RB1@1 | 22.06 |
| n41_10MHz_30kHz_2685MHz_CP-OFDM QPSK_RB13@6 | 24.23 |
| n41_10MHz_30kHz_2685MHz_CP-OFDM QPSK_RB1@23 | 22.03 |
| n41_10MHz_30kHz_2685MHz_CP-OFDM QPSK_RB25@0 | 24.18 |
| n41_10MHz_30kHz_2685MHz_CP-OFDM 16 QAM_RB25@0 | 24.24 |
| n41_10MHz_30kHz_2685MHz_CP-OFDM 64 QAM_RB25@0 | 24.37 |
| n41_10MHz_30kHz_2685MHz_CP-OFDM 256 QAM_RB25@0 | 23.67 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.35 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM PI/2 BPSK_RB25@12 | 24.25 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@50 | 23.27 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM PI/2 BPSK_RB50@0 | 24.33 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM QPSK_RB1@1 | 23.94 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM QPSK_RB25@12 | 24.07 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM QPSK_RB1@50 | 24.01 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM QPSK_RB50@0 | 24.06 |

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|---|---|
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM 16 QAM_RB50@0 | 24.21 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM 64 QAM_RB50@0 | 24.25 |
| n41_15MHz_30kHz_2503.5MHz_DFT-s-OFDM 256 QAM_RB50@0 | 23.04 |
| n41_15MHz_30kHz_2503.5MHz_CP-OFDM QPSK_RB1@1 | 21.57 |
| n41_15MHz_30kHz_2503.5MHz_CP-OFDM QPSK_RB26@13 | 23.25 |
| n41_15MHz_30kHz_2503.5MHz_CP-OFDM QPSK_RB1@50 | 21.33 |
| n41_15MHz_30kHz_2503.5MHz_CP-OFDM QPSK_RB52@0 | 23.2 |
| n41_15MHz_30kHz_2503.5MHz_CP-OFDM 16 QAM_RB52@0 | 23.83 |
| n41_15MHz_30kHz_2503.5MHz_CP-OFDM 64 QAM_RB52@0 | 23.31 |
| n41_15MHz_30kHz_2503.5MHz_CP-OFDM 256 QAM_RB52@0 | 23.37 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.94 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB25@12 | 23.86 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@50 | 23.93 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB50@0 | 23.85 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 24.53 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB25@12 | 24.41 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@50 | 24.47 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB50@0 | 24.44 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB50@0 | 24.45 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB50@0 | 24.53 |
| n41_15MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB50@0 | 24.07 |
| n41_15MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 24.68 |
| n41_15MHz_30kHz_2593MHz_CP-OFDM QPSK_RB26@13 | 24.44 |
| n41_15MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@50 | 24.56 |
| n41_15MHz_30kHz_2593MHz_CP-OFDM QPSK_RB52@0 | 24.47 |
| n41_15MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB52@0 | 23.67 |
| n41_15MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB52@0 | 23.73 |
| n41_15MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB52@0 | 22.93 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.56 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM PI/2 BPSK_RB25@12 | 24.16 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@50 | 23.52 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM PI/2 BPSK_RB50@0 | 24.09 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM QPSK_RB1@1 | 24.66 |

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| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM QPSK_RB25@12 | 23.92 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM QPSK_RB1@50 | 24.58 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM QPSK_RB50@0 | 24.02 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM 16 QAM_RB50@0 | 23.43 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM 64 QAM_RB50@0 | 23.46 |
| n41_15MHz_30kHz_2682.5MHz_DFT-s-OFDM 256 QAM_RB50@0 | 22.73 |
| n41_15MHz_30kHz_2682.5MHz_CP-OFDM QPSK_RB1@1 | 24.06 |
| n41_15MHz_30kHz_2682.5MHz_CP-OFDM QPSK_RB26@13 | 23.47 |
| n41_15MHz_30kHz_2682.5MHz_CP-OFDM QPSK_RB1@50 | 24.08 |
| n41_15MHz_30kHz_2682.5MHz_CP-OFDM QPSK_RB52@0 | 23.34 |
| n41_15MHz_30kHz_2682.5MHz_CP-OFDM 16 QAM_RB52@0 | 23.33 |
| n41_15MHz_30kHz_2682.5MHz_CP-OFDM 64 QAM_RB52@0 | 23.52 |
| n41_15MHz_30kHz_2682.5MHz_CP-OFDM 256 QAM_RB52@0 | 22.77 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.13 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM PI/2 BPSK_RB36@18 | 24.23 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM PI/2 BPSK_RB1@77 | 23.08 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM PI/2 BPSK_RB75@0 | 24.36 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM QPSK_RB1@1 | 22.94 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM QPSK_RB36@18 | 24.05 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM QPSK_RB1@77 | 22.88 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM QPSK_RB75@0 | 24.06 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM 16 QAM_RB75@0 | 24.02 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM 64 QAM_RB75@0 | 24.07 |
| n41_20MHz_30kHz_2506MHz_DFT-s-OFDM 256 QAM_RB75@0 | 23.93 |
| n41_20MHz_30kHz_2506MHz_CP-OFDM QPSK_RB1@1 | 21.67 |
| n41_20MHz_30kHz_2506MHz_CP-OFDM QPSK_RB39@19 | 24.06 |
| n41_20MHz_30kHz_2506MHz_CP-OFDM QPSK_RB1@77 | 21.56 |
| n41_20MHz_30kHz_2506MHz_CP-OFDM QPSK_RB79@0 | 24.07 |
| n41_20MHz_30kHz_2506MHz_CP-OFDM 16 QAM_RB79@0 | 24.04 |
| n41_20MHz_30kHz_2506MHz_CP-OFDM 64 QAM_RB79@0 | 24.23 |
| n41_20MHz_30kHz_2506MHz_CP-OFDM 256 QAM_RB79@0 | 23.89 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.26 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB36@18 | 24.37 |

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|---|---|
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@77 | 24.33 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB75@0 | 24.41 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 24.04 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB36@18 | 24.17 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@77 | 23.99 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB75@0 | 24.12 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB75@0 | 24.32 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB75@0 | 24.57 |
| n41_20MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB75@0 | 23.74 |
| n41_20MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 24.45 |
| n41_20MHz_30kHz_2593MHz_CP-OFDM QPSK_RB39@19 | 24.42 |
| n41_20MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@77 | 24.56 |
| n41_20MHz_30kHz_2593MHz_CP-OFDM QPSK_RB79@0 | 24.63 |
| n41_20MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB79@0 | 24.53 |
| n41_20MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB79@0 | 24.55 |
| n41_20MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB79@0 | 23.96 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 25.03 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM PI/2 BPSK_RB36@18 | 24.06 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM PI/2 BPSK_RB1@77 | 24.97 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM PI/2 BPSK_RB75@0 | 24.08 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM QPSK_RB1@1 | 21.87 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM QPSK_RB36@18 | 24.47 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM QPSK_RB1@77 | 21.82 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM QPSK_RB75@0 | 24.05 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM 16 QAM_RB75@0 | 24.25 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM 64 QAM_RB75@0 | 24.18 |
| n41_20MHz_30kHz_2680MHz_DFT-s-OFDM 256 QAM_RB75@0 | 23.68 |
| n41_20MHz_30kHz_2680MHz_CP-OFDM QPSK_RB1@1 | 23.59 |
| n41_20MHz_30kHz_2680MHz_CP-OFDM QPSK_RB39@19 | 24.27 |
| n41_20MHz_30kHz_2680MHz_CP-OFDM QPSK_RB1@77 | 23.64 |
| n41_20MHz_30kHz_2680MHz_CP-OFDM QPSK_RB79@0 | 24.15 |
| n41_20MHz_30kHz_2680MHz_CP-OFDM 16 QAM_RB79@0 | 23.77 |
| n41_20MHz_30kHz_2680MHz_CP-OFDM 64 QAM_RB79@0 | 23.63 |

| | |
|---|---|
| n41_20MHz_30kHz_2680MHz_CP-OFDM 256 QAM_RB79@0 | 23.49 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.53 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM PI/2 BPSK_RB50@25 | 23.96 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM PI/2 BPSK_RB1@104 | 24.58 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM PI/2 BPSK_RB100@0 | 23.83 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM QPSK_RB1@1 | 24.29 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM QPSK_RB50@25 | 23.9 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM QPSK_RB1@104 | 24.32 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM QPSK_RB100@0 | 23.9 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM 16 QAM_RB100@0 | 24.44 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM 64 QAM_RB100@0 | 24.17 |
| n41_40MHz_30kHz_2516MHz_DFT-s-OFDM 256 QAM_RB100@0 | 23.94 |
| n41_40MHz_30kHz_2516MHz_CP-OFDM QPSK_RB1@1 | 24.96 |
| n41_40MHz_30kHz_2516MHz_CP-OFDM QPSK_RB53@26 | 24.11 |
| n41_40MHz_30kHz_2516MHz_CP-OFDM QPSK_RB1@104 | 25.02 |
| n41_40MHz_30kHz_2516MHz_CP-OFDM QPSK_RB106@0 | 24.18 |
| n41_40MHz_30kHz_2516MHz_CP-OFDM 16 QAM_RB106@0 | 24.01 |
| n41_40MHz_30kHz_2516MHz_CP-OFDM 64 QAM_RB106@0 | 24.13 |
| n41_40MHz_30kHz_2516MHz_CP-OFDM 256 QAM_RB106@0 | 24.02 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.39 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB50@25 | 24.52 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@104 | 24.64 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB100@0 | 24.45 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 24.66 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB50@25 | 24.41 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@104 | 24.63 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB100@0 | 24.48 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB100@0 | 24.52 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB100@0 | 24.71 |
| n41_40MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB100@0 | 23.97 |
| n41_40MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 24.74 |
| n41_40MHz_30kHz_2593MHz_CP-OFDM QPSK_RB53@26 | 24.69 |
| n41_40MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@104 | 24.84 |

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| n41_40MHz_30kHz_2593MHz_CP-OFDM QPSK_RB106@0 | 24.38 |
| n41_40MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB106@0 | 24.26 |
| n41_40MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB106@0 | 24.54 |
| n41_40MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB106@0 | 23.81 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 22.06 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM PI/2 BPSK_RB50@25 | 24.36 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM PI/2 BPSK_RB1@104 | 22.19 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM PI/2 BPSK_RB100@0 | 24.25 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM QPSK_RB1@1 | 23.19 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM QPSK_RB50@25 | 24.37 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM QPSK_RB1@104 | 23.28 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM QPSK_RB100@0 | 24.11 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM 16 QAM_RB100@0 | 23.99 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM 64 QAM_RB100@0 | 24.34 |
| n41_40MHz_30kHz_2670MHz_DFT-s-OFDM 256 QAM_RB100@0 | 23.73 |
| n41_40MHz_30kHz_2670MHz_CP-OFDM QPSK_RB1@1 | 23.19 |
| n41_40MHz_30kHz_2670MHz_CP-OFDM QPSK_RB53@26 | 24.17 |
| n41_40MHz_30kHz_2670MHz_CP-OFDM QPSK_RB1@104 | 23.02 |
| n41_40MHz_30kHz_2670MHz_CP-OFDM QPSK_RB106@0 | 24.16 |
| n41_40MHz_30kHz_2670MHz_CP-OFDM 16 QAM_RB106@0 | 24.01 |
| n41_40MHz_30kHz_2670MHz_CP-OFDM 64 QAM_RB106@0 | 24.26 |
| n41_40MHz_30kHz_2670MHz_CP-OFDM 256 QAM_RB106@0 | 23.71 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 22.81 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM PI/2 BPSK_RB64@32 | 24.21 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM PI/2 BPSK_RB1@131 | 22.75 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM PI/2 BPSK_RB128@0 | 23.99 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM QPSK_RB1@1 | 25.25 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM QPSK_RB64@32 | 24.21 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM QPSK_RB1@131 | 25.25 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM QPSK_RB128@0 | 24.22 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM 16 QAM_RB128@0 | 24.35 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM 64 QAM_RB128@0 | 24.15 |
| n41_50MHz_30kHz_2521MHz_DFT-s-OFDM 256 QAM_RB128@0 | 23.79 |

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| n41_50MHz_30kHz_2521MHz_CP-OFDM QPSK_RB1@1 | 25.38 |
| n41_50MHz_30kHz_2521MHz_CP-OFDM QPSK_RB67@33 | 23.93 |
| n41_50MHz_30kHz_2521MHz_CP-OFDM QPSK_RB1@131 | 25.46 |
| n41_50MHz_30kHz_2521MHz_CP-OFDM QPSK_RB133@0 | 23.96 |
| n41_50MHz_30kHz_2521MHz_CP-OFDM 16 QAM_RB133@0 | 23.97 |
| n41_50MHz_30kHz_2521MHz_CP-OFDM 64 QAM_RB133@0 | 23.95 |
| n41_50MHz_30kHz_2521MHz_CP-OFDM 256 QAM_RB133@0 | 23.96 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.24 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB64@32 | 24.51 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@131 | 24.25 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB128@0 | 24.48 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 24.44 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB64@32 | 24.44 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@131 | 24.43 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB128@0 | 24.37 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB128@0 | 24.54 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB128@0 | 24.54 |
| n41_50MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB128@0 | 24.04 |
| n41_50MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 23.94 |
| n41_50MHz_30kHz_2593MHz_CP-OFDM QPSK_RB67@33 | 23.87 |
| n41_50MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@131 | 24.03 |
| n41_50MHz_30kHz_2593MHz_CP-OFDM QPSK_RB133@0 | 23.84 |
| n41_50MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB133@0 | 24.16 |
| n41_50MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB133@0 | 23.97 |
| n41_50MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB133@0 | 23.46 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.92 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM PI/2 BPSK_RB64@32 | 23.89 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM PI/2 BPSK_RB1@131 | 24.27 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM PI/2 BPSK_RB128@0 | 23.74 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM QPSK_RB1@1 | 24.09 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM QPSK_RB64@32 | 24.25 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM QPSK_RB1@131 | 24.13 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM QPSK_RB128@0 | 24.18 |

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| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM 16 QAM_RB128@0 | 24.21 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM 64 QAM_RB128@0 | 23.97 |
| n41_50MHz_30kHz_2665MHz_DFT-s-OFDM 256 QAM_RB128@0 | 23.49 |
| n41_50MHz_30kHz_2665MHz_CP-OFDM QPSK_RB1@1 | 24.69 |
| n41_50MHz_30kHz_2665MHz_CP-OFDM QPSK_RB67@33 | 24.07 |
| n41_50MHz_30kHz_2665MHz_CP-OFDM QPSK_RB1@131 | 24.73 |
| n41_50MHz_30kHz_2665MHz_CP-OFDM QPSK_RB133@0 | 24.11 |
| n41_50MHz_30kHz_2665MHz_CP-OFDM 16 QAM_RB133@0 | 23.84 |
| n41_50MHz_30kHz_2665MHz_CP-OFDM 64 QAM_RB133@0 | 23.75 |
| n41_50MHz_30kHz_2665MHz_CP-OFDM 256 QAM_RB133@0 | 23.64 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.61 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM PI/2 BPSK_RB80@40 | 24.24 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM PI/2 BPSK_RB1@158 | 24.34 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM PI/2 BPSK_RB160@0 | 24.24 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM QPSK_RB1@1 | 22.83 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM QPSK_RB80@40 | 24.18 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM QPSK_RB1@158 | 22.74 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM QPSK_RB160@0 | 24.04 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM 16 QAM_RB160@0 | 23.87 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM 64 QAM_RB160@0 | 23.87 |
| n41_60MHz_30kHz_2526MHz_DFT-s-OFDM 256 QAM_RB160@0 | 23.47 |
| n41_60MHz_30kHz_2526MHz_CP-OFDM QPSK_RB1@1 | 23.22 |
| n41_60MHz_30kHz_2526MHz_CP-OFDM QPSK_RB80@40 | 24.16 |
| n41_60MHz_30kHz_2526MHz_CP-OFDM QPSK_RB1@158 | 23.08 |
| n41_60MHz_30kHz_2526MHz_CP-OFDM QPSK_RB160@0 | 24.07 |
| n41_60MHz_30kHz_2526MHz_CP-OFDM 16 QAM_RB160@0 | 23.55 |
| n41_60MHz_30kHz_2526MHz_CP-OFDM 64 QAM_RB160@0 | 23.82 |
| n41_60MHz_30kHz_2526MHz_CP-OFDM 256 QAM_RB160@0 | 23.38 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.93 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB80@40 | 24.05 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@158 | 24.02 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB160@0 | 23.78 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 23.92 |

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| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB80@40 | 23.93 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@158 | 24.09 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB160@0 | 24.11 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB160@0 | 23.99 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB160@0 | 24.09 |
| n41_60MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB160@0 | 23.05 |
| n41_60MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 24.06 |
| n41_60MHz_30kHz_2593MHz_CP-OFDM QPSK_RB80@40 | 24.27 |
| n41_60MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@158 | 24.22 |
| n41_60MHz_30kHz_2593MHz_CP-OFDM QPSK_RB160@0 | 24.13 |
| n41_60MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB160@0 | 23.94 |
| n41_60MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB160@0 | 24.15 |
| n41_60MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB160@0 | 23.63 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.76 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM PI/2 BPSK_RB80@40 | 23.55 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM PI/2 BPSK_RB1@158 | 23.64 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM PI/2 BPSK_RB160@0 | 23.65 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM QPSK_RB1@1 | 23.15 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM QPSK_RB80@40 | 23.82 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM QPSK_RB1@158 | 23.17 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM QPSK_RB160@0 | 23.98 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM 16 QAM_RB160@0 | 23.63 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM 64 QAM_RB160@0 | 23.85 |
| n41_60MHz_30kHz_2660MHz_DFT-s-OFDM 256 QAM_RB160@0 | 23.39 |
| n41_60MHz_30kHz_2660MHz_CP-OFDM QPSK_RB1@1 | 23.24 |
| n41_60MHz_30kHz_2660MHz_CP-OFDM QPSK_RB80@40 | 24.28 |
| n41_60MHz_30kHz_2660MHz_CP-OFDM QPSK_RB1@158 | 23.06 |
| n41_60MHz_30kHz_2660MHz_CP-OFDM QPSK_RB160@0 | 24.02 |
| n41_60MHz_30kHz_2660MHz_CP-OFDM 16 QAM_RB160@0 | 24.06 |
| n41_60MHz_30kHz_2660MHz_CP-OFDM 64 QAM_RB160@0 | 24.29 |
| n41_60MHz_30kHz_2660MHz_CP-OFDM 256 QAM_RB160@0 | 23.86 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 22.94 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM PI/2 BPSK_RB108@54 | 24.15 |

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| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM PI/2 BPSK_RB1@214 | 23.18 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM PI/2 BPSK_RB216@0 | 24.16 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM QPSK_RB1@1 | 22.85 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM QPSK_RB108@54 | 23.97 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM QPSK_RB1@214 | 22.82 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM QPSK_RB216@0 | 24.02 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM 16 QAM_RB216@0 | 24.06 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM 64 QAM_RB216@0 | 23.96 |
| n41_80MHz_30kHz_2536MHz_DFT-s-OFDM 256 QAM_RB216@0 | 24.28 |
| n41_80MHz_30kHz_2536MHz_CP-OFDM QPSK_RB1@1 | 22.86 |
| n41_80MHz_30kHz_2536MHz_CP-OFDM QPSK_RB108@54 | 24.16 |
| n41_80MHz_30kHz_2536MHz_CP-OFDM QPSK_RB1@214 | 22.94 |
| n41_80MHz_30kHz_2536MHz_CP-OFDM QPSK_RB216@0 | 23.95 |
| n41_80MHz_30kHz_2536MHz_CP-OFDM 16 QAM_RB216@0 | 24.16 |
| n41_80MHz_30kHz_2536MHz_CP-OFDM 64 QAM_RB216@0 | 23.97 |
| n41_80MHz_30kHz_2536MHz_CP-OFDM 256 QAM_RB216@0 | 23.73 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.38 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB108@54 | 24.24 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@214 | 24.26 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB216@0 | 24.24 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 23.49 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB108@54 | 23.45 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@214 | 23.28 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB216@0 | 23.39 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB216@0 | 24.73 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB216@0 | 24.54 |
| n41_80MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB216@0 | 23.74 |
| n41_80MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 24.48 |
| n41_80MHz_30kHz_2593MHz_CP-OFDM QPSK_RB108@54 | 24.36 |
| n41_80MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@214 | 24.24 |
| n41_80MHz_30kHz_2593MHz_CP-OFDM QPSK_RB216@0 | 24.38 |
| n41_80MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB216@0 | 24.38 |
| n41_80MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB216@0 | 24.55 |

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| n41_80MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB216@0 | 23.88 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.57 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM PI/2 BPSK_RB108@54 | 24.27 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM PI/2 BPSK_RB1@214 | 23.56 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM PI/2 BPSK_RB216@0 | 24.16 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM QPSK_RB1@1 | 24.81 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM QPSK_RB108@54 | 24.06 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM QPSK_RB1@214 | 24.87 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM QPSK_RB216@0 | 24.14 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM 16 QAM_RB216@0 | 24.06 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM 64 QAM_RB216@0 | 24.24 |
| n41_80MHz_30kHz_2650MHz_DFT-s-OFDM 256 QAM_RB216@0 | 23.67 |
| n41_80MHz_30kHz_2650MHz_CP-OFDM QPSK_RB1@1 | 21.97 |
| n41_80MHz_30kHz_2650MHz_CP-OFDM QPSK_RB108@54 | 24.02 |
| n41_80MHz_30kHz_2650MHz_CP-OFDM QPSK_RB1@214 | 22.15 |
| n41_80MHz_30kHz_2650MHz_CP-OFDM QPSK_RB216@0 | 24.14 |
| n41_80MHz_30kHz_2650MHz_CP-OFDM 16 QAM_RB216@0 | 24.41 |
| n41_80MHz_30kHz_2650MHz_CP-OFDM 64 QAM_RB216@0 | 24.27 |
| n41_80MHz_30kHz_2650MHz_CP-OFDM 256 QAM_RB216@0 | 23.76 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 25.46 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM PI/2 BPSK_RB120@60 | 24.26 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM PI/2 BPSK_RB1@243 | **25.53** |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM PI/2 BPSK_RB243@0 | 24.39 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM QPSK_RB1@1 | 24.24 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM QPSK_RB120@60 | 24.08 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM QPSK_RB1@243 | 24.31 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM QPSK_RB243@0 | 24.19 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM 16 QAM_RB243@0 | 24.03 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM 64 QAM_RB243@0 | 23.99 |
| n41_90MHz_30kHz_2541MHz_DFT-s-OFDM 256 QAM_RB243@0 | 23.85 |
| n41_90MHz_30kHz_2541MHz_CP-OFDM QPSK_RB1@1 | 24.32 |
| n41_90MHz_30kHz_2541MHz_CP-OFDM QPSK_RB123@61 | 24.04 |
| n41_90MHz_30kHz_2541MHz_CP-OFDM QPSK_RB1@243 | 24.35 |

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|---|---|
| n41_90MHz_30kHz_2541MHz_CP-OFDM QPSK_RB245@0 | 23.93 |
| n41_90MHz_30kHz_2541MHz_CP-OFDM 16 QAM_RB245@0 | 23.97 |
| n41_90MHz_30kHz_2541MHz_CP-OFDM 64 QAM_RB245@0 | 24.03 |
| n41_90MHz_30kHz_2541MHz_CP-OFDM 256 QAM_RB245@0 | 23.96 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.34 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB120@60 | 24.29 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@243 | 24.48 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB243@0 | 24.44 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 24.47 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB120@60 | 24.49 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@243 | 24.46 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB243@0 | 24.48 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB243@0 | 24.51 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB243@0 | 24.32 |
| n41_90MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB243@0 | 23.93 |
| n41_90MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 24.66 |
| n41_90MHz_30kHz_2593MHz_CP-OFDM QPSK_RB123@61 | 24.39 |
| n41_90MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@243 | 24.62 |
| n41_90MHz_30kHz_2593MHz_CP-OFDM QPSK_RB245@0 | 24.42 |
| n41_90MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB245@0 | 24.39 |
| n41_90MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB245@0 | 24.52 |
| n41_90MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB245@0 | 23.87 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.28 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM PI/2 BPSK_RB120@60 | 24.29 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM PI/2 BPSK_RB1@243 | 23.16 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM PI/2 BPSK_RB243@0 | 24.11 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM QPSK_RB1@1 | 23.18 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM QPSK_RB120@60 | 24.06 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM QPSK_RB1@243 | 22.99 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM QPSK_RB243@0 | 24.2 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM 16 QAM_RB243@0 | 24.15 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM 64 QAM_RB243@0 | 24.26 |
| n41_90MHz_30kHz_2645MHz_DFT-s-OFDM 256 QAM_RB243@0 | 23.58 |

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|---|---|
| n41_90MHz_30kHz_2645MHz_CP-OFDM QPSK_RB1@1 | 22.04 |
| n41_90MHz_30kHz_2645MHz_CP-OFDM QPSK_RB123@61 | 24.12 |
| n41_90MHz_30kHz_2645MHz_CP-OFDM QPSK_RB1@243 | 22.06 |
| n41_90MHz_30kHz_2645MHz_CP-OFDM QPSK_RB245@0 | 24.26 |
| n41_90MHz_30kHz_2645MHz_CP-OFDM 16 QAM_RB245@0 | 24.13 |
| n41_90MHz_30kHz_2645MHz_CP-OFDM 64 QAM_RB245@0 | 23.85 |
| n41_90MHz_30kHz_2645MHz_CP-OFDM 256 QAM_RB245@0 | 23.48 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 21.39 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM PI/2 BPSK_RB135@67 | 24.04 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM PI/2 BPSK_RB1@271 | 21.38 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM PI/2 BPSK_RB270@0 | 23.84 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM QPSK_RB1@1 | 23.22 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM QPSK_RB135@67 | 24.13 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM QPSK_RB1@271 | 23.18 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM QPSK_RB270@0 | 24.19 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM 16 QAM_RB270@0 | 24.24 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM 64 QAM_RB270@0 | 24.26 |
| n41_100MHz_30kHz_2546MHz_DFT-s-OFDM 256 QAM_RB270@0 | 23.98 |
| n41_100MHz_30kHz_2546MHz_CP-OFDM QPSK_RB1@1 | 25.45 |
| n41_100MHz_30kHz_2546MHz_CP-OFDM QPSK_RB137@68 | 23.99 |
| n41_100MHz_30kHz_2546MHz_CP-OFDM QPSK_RB1@271 | 25.41 |
| n41_100MHz_30kHz_2546MHz_CP-OFDM QPSK_RB273@0 | 24.26 |
| n41_100MHz_30kHz_2546MHz_CP-OFDM 16 QAM_RB273@0 | 24.08 |
| n41_100MHz_30kHz_2546MHz_CP-OFDM 64 QAM_RB273@0 | 24.26 |
| n41_100MHz_30kHz_2546MHz_CP-OFDM 256 QAM_RB273@0 | 23.87 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 24.23 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB135@67 | 24.51 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB1@271 | 24.48 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM PI/2 BPSK_RB270@0 | 24.22 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@1 | 24.37 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB135@67 | 24.37 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB1@271 | 24.41 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM QPSK_RB270@0 | 24.38 |

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|---|---|
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM 16 QAM_RB270@0 | 24.58 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM 64 QAM_RB270@0 | 24.56 |
| n41_100MHz_30kHz_2593MHz_DFT-s-OFDM 256 QAM_RB270@0 | 23.95 |
| n41_100MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@1 | 24.46 |
| n41_100MHz_30kHz_2593MHz_CP-OFDM QPSK_RB137@68 | 24.29 |
| n41_100MHz_30kHz_2593MHz_CP-OFDM QPSK_RB1@271 | 24.18 |
| n41_100MHz_30kHz_2593MHz_CP-OFDM QPSK_RB273@0 | 24.14 |
| n41_100MHz_30kHz_2593MHz_CP-OFDM 16 QAM_RB273@0 | 24.38 |
| n41_100MHz_30kHz_2593MHz_CP-OFDM 64 QAM_RB273@0 | 24.36 |
| n41_100MHz_30kHz_2593MHz_CP-OFDM 256 QAM_RB273@0 | 23.99 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 23.08 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM PI/2 BPSK_RB135@67 | 23.98 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM PI/2 BPSK_RB1@271 | 23.16 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM PI/2 BPSK_RB270@0 | 23.87 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM QPSK_RB1@1 | 23.82 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM QPSK_RB135@67 | 24.26 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM QPSK_RB1@271 | 23.72 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM QPSK_RB270@0 | 23.97 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM 16 QAM_RB270@0 | 24.09 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM 64 QAM_RB270@0 | 23.93 |
| n41_100MHz_30kHz_2640MHz_DFT-s-OFDM 256 QAM_RB270@0 | 22.78 |
| n41_100MHz_30kHz_2640MHz_CP-OFDM QPSK_RB1@1 | 23.97 |
| n41_100MHz_30kHz_2640MHz_CP-OFDM QPSK_RB137@68 | 23.94 |
| n41_100MHz_30kHz_2640MHz_CP-OFDM QPSK_RB1@271 | 23.96 |
| n41_100MHz_30kHz_2640MHz_CP-OFDM QPSK_RB273@0 | 23.95 |
| n41_100MHz_30kHz_2640MHz_CP-OFDM 16 QAM_RB273@0 | 23.98 |
| n41_100MHz_30kHz_2640MHz_CP-OFDM 64 QAM_RB273@0 | 24.24 |
| n41_100MHz_30kHz_2640MHz_CP-OFDM 256 QAM_RB273@0 | 23.53 |

## 5G NR n66:

| Mode | Conducted Average Power(dBm) |
|---|---|
| n66_5MHz_15kHz_1712.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.85 |
| n66_5MHz _15kHz_1712.5MHz_DFT-s-OFDM PI/2 BPSK_RB12@6 | 16.96 |
| n66_5MHz _15kHz_1712.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@23 | 16.92 |
| n66_5MHz _15kHz_1712.5MHz_DFT-s-OFDM PI/2 BPSK_RB25@0 | 16.62 |
| n66_5MHz _15kHz_1712.5MHz_DFT-s-OFDM QPSK_RB1@1 | 17.06 |
| n66_5MHz _15kHz_1712.5MHz_DFT-s-OFDM QPSK_RB12@6 | 16.85 |
| n66_5MHz_15kHz_1712.5MHz_DFT-s-OFDM QPSK_RB1@23 | 17.03 |
| n66_5MHz_15kHz_1712.5MHz_DFT-s-OFDM QPSK_RB25@0 | 15.9 |
| n66_5MHz_15kHz_1712.5MHz_DFT-s-OFDM 16 QAM_RB25@0 | 15.01 |
| n66_5MHz_15kHz_1712.5MHz_DFT-s-OFDM 64 QAM_RB25@0 | 14.43 |
| n66_5MHz_15kHz_1712.5MHz_DFT-s-OFDM 256 QAM_RB25@0 | 12.67 |
| n66_5MHz_15kHz_1712.5MHz_CP-OFDM QPSK_RB1@1 | 15.47 |
| n66_5MHz_15kHz_1712.5MHz_CP-OFDM QPSK_RB13@6 | 15.66 |
| n66_5MHz_15kHz_1712.5MHz_CP-OFDM QPSK_RB1@23 | 15.41 |
| n66_5MHz_15kHz_1712.5MHz_CP-OFDM QPSK_RB25@0 | 13.98 |
| n66_5MHz_15kHz_1712.5MHz_CP-OFDM 16 QAM_RB25@0 | 13.91 |
| n66_5MHz_15kHz_1712.5MHz_CP-OFDM 64 QAM_RB25@0 | 13.73 |
| n66_5MHz_15kHz_1712.5MHz_CP-OFDM 256 QAM_RB25@0 | 10.63 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB12@6 | 17.29 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@23 | 16.96 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB25@0 | 16.54 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@1 | 16.87 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB12@6 | 17.19 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@23 | 16.96 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB25@0 | 15.9 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM 16 QAM_RB25@0 | 15.02 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM 64 QAM_RB25@0 | 14.73 |
| n66_5MHz_15kHz_1745MHz_DFT-s-OFDM 256 QAM_RB25@0 | 12.69 |

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|---|---|
| n66_5MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@1 | 15.45 |
| n66_5MHz_15kHz_1745MHz_CP-OFDM QPSK_RB13@6 | 15.51 |
| n66_5MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@23 | 15.68 |
| n66_5MHz_15kHz_1745MHz_CP-OFDM QPSK_RB25@0 | 14.21 |
| n66_5MHz_15kHz_1745MHz_CP-OFDM 16 QAM_RB25@0 | 14.11 |
| n66_5MHz_15kHz_1745MHz_CP-OFDM 64 QAM_RB25@0 | 13.55 |
| n66_5MHz_15kHz_1745MHz_CP-OFDM 256 QAM_RB25@0 | 10.68 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.48 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM PI/2 BPSK_RB12@6 | 17.47 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@23 | 17.59 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM PI/2 BPSK_RB25@0 | 16.68 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM QPSK_RB1@1 | 17.26 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM QPSK_RB12@6 | 17.49 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM QPSK_RB1@23 | 17.41 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM QPSK_RB25@0 | 16.55 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM 16 QAM_RB25@0 | 15.58 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM 64 QAM_RB25@0 | 14.68 |
| n66_5MHz_15kHz_1777.5MHz_DFT-s-OFDM 256 QAM_RB25@0 | 13.08 |
| n66_5MHz_15kHz_1777.5MHz_CP-OFDM QPSK_RB1@1 | 15.97 |
| n66_5MHz_15kHz_1777.5MHz_CP-OFDM QPSK_RB13@6 | 16 |
| n66_5MHz_15kHz_1777.5MHz_CP-OFDM QPSK_RB1@23 | 16.06 |
| n66_5MHz_15kHz_1777.5MHz_CP-OFDM QPSK_RB25@0 | 14.57 |
| n66_5MHz_15kHz_1777.5MHz_CP-OFDM 16 QAM_RB25@0 | 14.51 |
| n66_5MHz_15kHz_1777.5MHz_CP-OFDM 64 QAM_RB25@0 | 14.13 |
| n66_5MHz_15kHz_1777.5MHz_CP-OFDM 256 QAM_RB25@0 | 11.08 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.87 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM PI/2 BPSK_RB25@12 | 16.95 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM PI/2 BPSK_RB1@50 | 16.73 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM PI/2 BPSK_RB50@0 | 16.41 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM QPSK_RB1@1 | 16.68 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM QPSK_RB25@12 | 16.77 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM QPSK_RB1@50 | 16.78 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM QPSK_RB50@0 | 16.05 |

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|---|---|
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM 16 QAM_RB50@0 | 14.87 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM 64 QAM_RB50@0 | 14.59 |
| n66_10MHz_15kHz_1715MHz_DFT-s-OFDM 256 QAM_RB50@0 | 12.54 |
| n66_10MHz_15kHz_1715MHz_CP-OFDM QPSK_RB1@1 | 12.4 |
| n66_10MHz_15kHz_1715MHz_CP-OFDM QPSK_RB26@13 | 12.64 |
| n66_10MHz_15kHz_1715MHz_CP-OFDM QPSK_RB1@50 | 12.41 |
| n66_10MHz_15kHz_1715MHz_CP-OFDM QPSK_RB52@0 | 12.44 |
| n66_10MHz_15kHz_1715MHz_CP-OFDM 16 QAM_RB52@0 | 12.53 |
| n66_10MHz_15kHz_1715MHz_CP-OFDM 64 QAM_RB52@0 | 12.49 |
| n66_10MHz_15kHz_1715MHz_CP-OFDM 256 QAM_RB52@0 | 12.42 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.96 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB25@12 | 17.08 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@50 | 16.94 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB50@0 | 16.47 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@1 | 16.73 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB25@12 | 16.91 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@50 | 16.92 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB50@0 | 15.85 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM 16 QAM_RB50@0 | 15.21 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM 64 QAM_RB50@0 | 14.52 |
| n66_10MHz_15kHz_1745MHz_DFT-s-OFDM 256 QAM_RB50@0 | 12.73 |
| n66_10MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@1 | 15.59 |
| n66_10MHz_15kHz_1745MHz_CP-OFDM QPSK_RB26@13 | 15.44 |
| n66_10MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@50 | 15.56 |
| n66_10MHz_15kHz_1745MHz_CP-OFDM QPSK_RB52@0 | 13.89 |
| n66_10MHz_15kHz_1745MHz_CP-OFDM 16 QAM_RB52@0 | 13.91 |
| n66_10MHz_15kHz_1745MHz_CP-OFDM 64 QAM_RB52@0 | 13.44 |
| n66_10MHz_15kHz_1745MHz_CP-OFDM 256 QAM_RB52@0 | 10.52 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.03 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM PI/2 BPSK_RB25@12 | 17.51 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM PI/2 BPSK_RB1@50 | **17.68** |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM PI/2 BPSK_RB50@0 | 17.13 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM QPSK_RB1@1 | 17.44 |

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|---|---|
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM QPSK_RB25@12 | 17.38 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM QPSK_RB1@50 | 17.57 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM QPSK_RB50@0 | 16.65 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM 16 QAM_RB50@0 | 15.56 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM 64 QAM_RB50@0 | 14.94 |
| n66_10MHz_15kHz_1775MHz_DFT-s-OFDM 256 QAM_RB50@0 | 13.16 |
| n66_10MHz_15kHz_1775MHz_CP-OFDM QPSK_RB1@1 | 13.05 |
| n66_10MHz_15kHz_1775MHz_CP-OFDM QPSK_RB26@13 | 13.25 |
| n66_10MHz_15kHz_1775MHz_CP-OFDM QPSK_RB1@50 | 12.96 |
| n66_10MHz_15kHz_1775MHz_CP-OFDM QPSK_RB52@0 | 12.97 |
| n66_10MHz_15kHz_1775MHz_CP-OFDM 16 QAM_RB52@0 | 13.18 |
| n66_10MHz_15kHz_1775MHz_CP-OFDM 64 QAM_RB52@0 | 13.14 |
| n66_10MHz_15kHz_1775MHz_CP-OFDM 256 QAM_RB52@0 | 12.94 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.02 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM PI/2 BPSK_RB36@18 | 17.15 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@77 | 16.68 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM PI/2 BPSK_RB75@0 | 16.43 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM QPSK_RB1@1 | 16.78 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM QPSK_RB36@18 | 16.98 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM QPSK_RB1@77 | 16.84 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM QPSK_RB75@0 | 15.63 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM 16 QAM_RB75@0 | 15.29 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM 64 QAM_RB75@0 | 14.63 |
| n66_15MHz_15kHz_1717.5MHz_DFT-s-OFDM 256 QAM_RB75@0 | 12.55 |
| n66_15MHz_15kHz_1717.5MHz_CP-OFDM QPSK_RB1@1 | 15.44 |
| n66_15MHz_15kHz_1717.5MHz_CP-OFDM QPSK_RB39@19 | 15.52 |
| n66_15MHz_15kHz_1717.5MHz_CP-OFDM QPSK_RB1@77 | 15.45 |
| n66_15MHz_15kHz_1717.5MHz_CP-OFDM QPSK_RB79@0 | 14.17 |
| n66_15MHz_15kHz_1717.5MHz_CP-OFDM 16 QAM_RB79@0 | 13.91 |
| n66_15MHz_15kHz_1717.5MHz_CP-OFDM 64 QAM_RB79@0 | 13.34 |
| n66_15MHz_15kHz_1717.5MHz_CP-OFDM 256 QAM_RB79@0 | 10.51 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.88 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB36@18 | 17.12 |

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| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@77 | 16.98 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB75@0 | 16.62 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@1 | 17.17 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB36@18 | 17.11 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@77 | 17.13 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB75@0 | 16.16 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM 16 QAM_RB75@0 | 15.29 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM 64 QAM_RB75@0 | 14.54 |
| n66_15MHz_15kHz_1745MHz_DFT-s-OFDM 256 QAM_RB75@0 | 12.57 |
| n66_15MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@1 | 15.21 |
| n66_15MHz_15kHz_1745MHz_CP-OFDM QPSK_RB39@19 | 15.6 |
| n66_15MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@77 | 15.41 |
| n66_15MHz_15kHz_1745MHz_CP-OFDM QPSK_RB79@0 | 14.23 |
| n66_15MHz_15kHz_1745MHz_CP-OFDM 16 QAM_RB79@0 | 14.06 |
| n66_15MHz_15kHz_1745MHz_CP-OFDM 64 QAM_RB79@0 | 13.98 |
| n66_15MHz_15kHz_1745MHz_CP-OFDM 256 QAM_RB79@0 | 10.78 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.1 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM PI/2 BPSK_RB36@18 | 17.55 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@77 | 17.39 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM PI/2 BPSK_RB75@0 | 16.93 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM QPSK_RB1@1 | 17.08 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM QPSK_RB36@18 | 17.47 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM QPSK_RB1@77 | 17.38 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM QPSK_RB75@0 | 16.71 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM 16 QAM_RB75@0 | 15.32 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM 64 QAM_RB75@0 | 14.88 |
| n66_15MHz_15kHz_1772.5MHz_DFT-s-OFDM 256 QAM_RB75@0 | 12.93 |
| n66_15MHz_15kHz_1772.5MHz_CP-OFDM QPSK_RB1@1 | 15.97 |
| n66_15MHz_15kHz_1772.5MHz_CP-OFDM QPSK_RB39@19 | 16.15 |
| n66_15MHz_15kHz_1772.5MHz_CP-OFDM QPSK_RB1@77 | 16.02 |
| n66_15MHz_15kHz_1772.5MHz_CP-OFDM QPSK_RB79@0 | 14.47 |
| n66_15MHz_15kHz_1772.5MHz_CP-OFDM 16 QAM_RB79@0 | 14.33 |
| n66_15MHz_15kHz_1772.5MHz_CP-OFDM 64 QAM_RB79@0 | 13.84 |

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| n66_15MHz_15kHz_1772.5MHz_CP-OFDM 256 QAM_RB79@0 | 10.99 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.76 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM PI/2 BPSK_RB50@25 | 17.29 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM PI/2 BPSK_RB1@104 | 17.09 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM PI/2 BPSK_RB100@0 | 16.52 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM QPSK_RB1@1 | 17.08 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM QPSK_RB50@25 | 17.11 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM QPSK_RB1@104 | 17.1 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM QPSK_RB100@0 | 16.38 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM 16 QAM_RB100@0 | 15.27 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM 64 QAM_RB100@0 | 14.49 |
| n66_20MHz_15kHz_1720MHz_DFT-s-OFDM 256 QAM_RB100@0 | 12.57 |
| n66_20MHz_15kHz_1720MHz_CP-OFDM QPSK_RB1@1 | 15.8 |
| n66_20MHz_15kHz_1720MHz_CP-OFDM QPSK_RB53@26 | 15.63 |
| n66_20MHz_15kHz_1720MHz_CP-OFDM QPSK_RB1@104 | 15.76 |
| n66_20MHz_15kHz_1720MHz_CP-OFDM QPSK_RB106@0 | 14.03 |
| n66_20MHz_15kHz_1720MHz_CP-OFDM 16 QAM_RB106@0 | 14.25 |
| n66_20MHz_15kHz_1720MHz_CP-OFDM 64 QAM_RB106@0 | 13.64 |
| n66_20MHz_15kHz_1720MHz_CP-OFDM 256 QAM_RB106@0 | 10.53 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.04 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB50@25 | 16.97 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@104 | 17.17 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB100@0 | 16.43 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@1 | 16.96 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB50@25 | 17.15 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@104 | 16.83 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB100@0 | 16.18 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM 16 QAM_RB100@0 | 15.23 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM 64 QAM_RB100@0 | 14.58 |
| n66_20MHz_15kHz_1745MHz_DFT-s-OFDM 256 QAM_RB100@0 | 12.72 |
| n66_20MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@1 | 17.11 |
| n66_20MHz_15kHz_1745MHz_CP-OFDM QPSK_RB53@26 | 16.28 |
| n66_20MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@104 | 17.05 |

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| n66_20MHz_15kHz_1745MHz_CP-OFDM QPSK_RB106@0 | 16.09 |
| n66_20MHz_15kHz_1745MHz_CP-OFDM 16 QAM_RB106@0 | 13.88 |
| n66_20MHz_15kHz_1745MHz_CP-OFDM 64 QAM_RB106@0 | 13.51 |
| n66_20MHz_15kHz_1745MHz_CP-OFDM 256 QAM_RB106@0 | 10.66 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.75 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM PI/2 BPSK_RB50@25 | 17.25 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM PI/2 BPSK_RB1@104 | 17.15 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM PI/2 BPSK_RB100@0 | 16.59 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM QPSK_RB1@1 | 16.87 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM QPSK_RB50@25 | 17.21 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM QPSK_RB1@104 | 17.09 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM QPSK_RB100@0 | 16.37 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM 16 QAM_RB100@0 | 15.48 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM 64 QAM_RB100@0 | 14.68 |
| n66_20MHz_15kHz_1770MHz_DFT-s-OFDM 256 QAM_RB100@0 | 12.94 |
| n66_20MHz_15kHz_1770MHz_CP-OFDM QPSK_RB1@1 | 15.32 |
| n66_20MHz_15kHz_1770MHz_CP-OFDM QPSK_RB53@26 | 15.57 |
| n66_20MHz_15kHz_1770MHz_CP-OFDM QPSK_RB1@104 | 15.88 |
| n66_20MHz_15kHz_1770MHz_CP-OFDM QPSK_RB106@0 | 14.14 |
| n66_20MHz_15kHz_1770MHz_CP-OFDM 16 QAM_RB106@0 | 14.07 |
| n66_20MHz_15kHz_1770MHz_CP-OFDM 64 QAM_RB106@0 | 13.57 |
| n66_20MHz_15kHz_1770MHz_CP-OFDM 256 QAM_RB106@0 | 10.76 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.04 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM PI/2 BPSK_RB64@32 | 16.90 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@131 | 17.29 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM PI/2 BPSK_RB128@0 | 16.71 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM QPSK_RB1@1 | 16.99 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM QPSK_RB64@32 | 16.84 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM QPSK_RB1@131 | 16.42 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM QPSK_RB128@0 | 15.75 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM 16 QAM_RB128@0 | 14.67 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM 64 QAM_RB128@0 | 12.65 |
| n66_25MHz_15kHz_1722.5MHz_DFT-s-OFDM 256 QAM_RB128@0 | 14.29 |

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| n66_25MHz_15kHz_1722.5MHz_CP-OFDM QPSK_RB1@1 | 15.72 |
| n66_25MHz_15kHz_1722.5MHz_CP-OFDM QPSK_RB67@33 | 15.48 |
| n66_25MHz_15kHz_1722.5MHz_CP-OFDM QPSK_RB1@131 | 15.25 |
| n66_25MHz_15kHz_1722.5MHz_CP-OFDM QPSK_RB133@0 | 13.73 |
| n66_25MHz_15kHz_1722.5MHz_CP-OFDM 16 QAM_RB133@0 | 13.86 |
| n66_25MHz_15kHz_1722.5MHz_CP-OFDM 64 QAM_RB133@0 | 12.88 |
| n66_25MHz_15kHz_1722.5MHz_CP-OFDM 256 QAM_RB133@0 | 13.04 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.10 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB64@32 | 17.28 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@131 | 17.27 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB128@0 | 15.76 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@1 | 16.45 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB64@32 | 16.19 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@131 | 16.54 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB128@0 | 15.18 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM 16 QAM_RB128@0 | 14.28 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM 64 QAM_RB128@0 | 13.78 |
| n66_25MHz_15kHz_1745MHz_DFT-s-OFDM 256 QAM_RB128@0 | 13.47 |
| n66_25MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@1 | 15.49 |
| n66_25MHz_15kHz_1745MHz_CP-OFDM QPSK_RB67@33 | 15.71 |
| n66_25MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@131 | 15.58 |
| n66_25MHz_15kHz_1745MHz_CP-OFDM QPSK_RB133@0 | 14.32 |
| n66_25MHz_15kHz_1745MHz_CP-OFDM 16 QAM_RB133@0 | 14.19 |
| n66_25MHz_15kHz_1745MHz_CP-OFDM 64 QAM_RB133@0 | 13.65 |
| n66_25MHz_15kHz_1745MHz_CP-OFDM 256 QAM_RB133@0 | 9.62 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 17.21 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM PI/2 BPSK_RB64@32 | 17.49 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM PI/2 BPSK_RB1@131 | 17.44 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM PI/2 BPSK_RB128@0 | 16.76 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM QPSK_RB1@1 | 17.04 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM QPSK_RB64@32 | 17.55 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM QPSK_RB1@131 | 16.09 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM QPSK_RB128@0 | 13.88 |

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| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM 16 QAM_RB128@0 | 17.38 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM 64 QAM_RB128@0 | 16.15 |
| n66_25MHz_15kHz_1767.5MHz_DFT-s-OFDM 256 QAM_RB128@0 | 14.89 |
| n66_25MHz_15kHz_1767.5MHz_CP-OFDM QPSK_RB1@1 | 14.71 |
| n66_25MHz_15kHz_1767.5MHz_CP-OFDM QPSK_RB67@33 | 11.96 |
| n66_25MHz_15kHz_1767.5MHz_CP-OFDM QPSK_RB1@131 | 15.51 |
| n66_25MHz_15kHz_1767.5MHz_CP-OFDM QPSK_RB133@0 | 15.89 |
| n66_25MHz_15kHz_1767.5MHz_CP-OFDM 16 QAM_RB133@0 | 16.02 |
| n66_25MHz_15kHz_1767.5MHz_CP-OFDM 64 QAM_RB133@0 | 14.28 |
| n66_25MHz_15kHz_1767.5MHz_CP-OFDM 256 QAM_RB133@0 | 14.15 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 12.73 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM PI/2 BPSK_RB80@40 | 9.76 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM PI/2 BPSK_RB1@158 | 16.84 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM PI/2 BPSK_RB160@0 | 17.07 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM QPSK_RB1@1 | 17.14 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM QPSK_RB80@40 | 16.53 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM QPSK_RB1@158 | 16.71 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM QPSK_RB160@0 | 16.52 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM 16 QAM_RB160@0 | 16.76 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM 64 QAM_RB160@0 | 16.54 |
| n66_30MHz_15kHz_1725MHz_DFT-s-OFDM 256 QAM_RB160@0 | 16.51 |
| n66_30MHz_15kHz_1725MHz_CP-OFDM QPSK_RB1@1 | 16.55 |
| n66_30MHz_15kHz_1725MHz_CP-OFDM QPSK_RB80@40 | 16.47 |
| n66_30MHz_15kHz_1725MHz_CP-OFDM QPSK_RB1@158 | 16.77 |
| n66_30MHz_15kHz_1725MHz_CP-OFDM QPSK_RB160@0 | 16.56 |
| n66_30MHz_15kHz_1725MHz_CP-OFDM 16 QAM_RB160@0 | 16.51 |
| n66_30MHz_15kHz_1725MHz_CP-OFDM 64 QAM_RB160@0 | 16.75 |
| n66_30MHz_15kHz_1725MHz_CP-OFDM 256 QAM_RB160@0 | 16.62 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.68 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB80@40 | 16.74 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@158 | 15.87 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB160@0 | 15.98 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@1 | 16.22 |

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| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB80@40 | 15.46 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@158 | 15.80 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB160@0 | 15.94 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM 16 QAM_RB160@0 | 16.06 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM 64 QAM_RB160@0 | 14.99 |
| n66_30MHz_15kHz_1745MHz_DFT-s-OFDM 256 QAM_RB160@0 | 13.97 |
| n66_30MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@1 | 13.55 |
| n66_30MHz_15kHz_1745MHz_CP-OFDM QPSK_RB80@40 | 11.72 |
| n66_30MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@158 | 14.31 |
| n66_30MHz_15kHz_1745MHz_CP-OFDM QPSK_RB160@0 | 14.46 |
| n66_30MHz_15kHz_1745MHz_CP-OFDM 16 QAM_RB160@0 | 14.57 |
| n66_30MHz_15kHz_1745MHz_CP-OFDM 64 QAM_RB160@0 | 13.22 |
| n66_30MHz_15kHz_1745MHz_CP-OFDM 256 QAM_RB160@0 | 13.15 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 12.54 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM PI/2 BPSK_RB80@40 | 9.73 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM PI/2 BPSK_RB1@158 | 15.94 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM PI/2 BPSK_RB160@0 | 16.51 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM QPSK_RB1@1 | 16.55 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM QPSK_RB80@40 | 17.16 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM QPSK_RB1@158 | 16.53 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM QPSK_RB160@0 | 17.12 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM 16 QAM_RB160@0 | 17.22 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM 64 QAM_RB160@0 | 16.46 |
| n66_30MHz_15kHz_1765MHz_DFT-s-OFDM 256 QAM_RB160@0 | 16.50 |
| n66_30MHz_15kHz_1765MHz_CP-OFDM QPSK_RB1@1 | 16.77 |
| n66_30MHz_15kHz_1765MHz_CP-OFDM QPSK_RB80@40 | 16.58 |
| n66_30MHz_15kHz_1765MHz_CP-OFDM QPSK_RB1@158 | 16.94 |
| n66_30MHz_15kHz_1765MHz_CP-OFDM QPSK_RB160@0 | 16.69 |
| n66_30MHz_15kHz_1765MHz_CP-OFDM 16 QAM_RB160@0 | 16.48 |
| n66_30MHz_15kHz_1765MHz_CP-OFDM 64 QAM_RB160@0 | 16.51 |
| n66_30MHz_15kHz_1765MHz_CP-OFDM 256 QAM_RB160@0 | 17.04 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 16.69 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM PI/2 BPSK_RB108@54 | 16.99 |

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| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM PI/2 BPSK_RB1@214 | 17.16 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM PI/2 BPSK_RB216@0 | 16.39 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM QPSK_RB1@1 | 17.13 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM QPSK_RB108@54 | 17.02 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM QPSK_RB1@214 | 17.15 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM QPSK_RB216@0 | 16.03 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM 16 QAM_RB216@0 | 15.02 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM 64 QAM_RB216@0 | 14.69 |
| n66_40MHz_15kHz_1730MHz_DFT-s-OFDM 256 QAM_RB216@0 | 11.47 |
| n66_40MHz_15kHz_1730MHz_CP-OFDM QPSK_RB1@1 | 15.69 |
| n66_40MHz_15kHz_1730MHz_CP-OFDM QPSK_RB108@54 | 15.55 |
| n66_40MHz_15kHz_1730MHz_CP-OFDM QPSK_RB1@214 | 15.72 |
| n66_40MHz_15kHz_1730MHz_CP-OFDM QPSK_RB216@0 | 13.94 |
| n66_40MHz_15kHz_1730MHz_CP-OFDM 16 QAM_RB216@0 | 14.20 |
| n66_40MHz_15kHz_1730MHz_CP-OFDM 64 QAM_RB216@0 | 13.47 |
| n66_40MHz_15kHz_1730MHz_CP-OFDM 256 QAM_RB216@0 | 9.28 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 15.74 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB108@54 | 17.22 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB1@214 | 17.28 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM PI/2 BPSK_RB216@0 | 16.84 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@1 | 16.83 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB108@54 | 17.32 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB1@214 | 17.19 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM QPSK_RB216@0 | 16.23 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM 16 QAM_RB216@0 | 15.30 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM 64 QAM_RB216@0 | 14.81 |
| n66_40MHz_15kHz_1745MHz_DFT-s-OFDM 256 QAM_RB216@0 | 14.74 |
| n66_40MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@1 | 14.77 |
| n66_40MHz_15kHz_1745MHz_CP-OFDM QPSK_RB108@54 | 14.65 |
| n66_40MHz_15kHz_1745MHz_CP-OFDM QPSK_RB1@214 | 14.68 |
| n66_40MHz_15kHz_1745MHz_CP-OFDM QPSK_RB216@0 | 14.70 |
| n66_40MHz_15kHz_1745MHz_CP-OFDM 16 QAM_RB216@0 | 14.81 |
| n66_40MHz_15kHz_1745MHz_CP-OFDM 64 QAM_RB216@0 | 14.56 |

| | |
|---|---|
| n66_40MHz_15kHz_1745MHz_CP-OFDM 256 QAM_RB216@0 | 14.84 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM PI/2 BPSK_RB1@1 | 15.66 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM PI/2 BPSK_RB108@54 | 16.42 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM PI/2 BPSK_RB1@214 | 16.50 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM PI/2 BPSK_RB216@0 | 15.61 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM QPSK_RB1@1 | 15.81 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM QPSK_RB108@54 | 16.33 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM QPSK_RB1@214 | 17.27 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM QPSK_RB216@0 | 16.28 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM 16 QAM_RB216@0 | 15.34 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM 64 QAM_RB216@0 | 13.99 |
| n66_40MHz_15kHz_1760MHz_DFT-s-OFDM 256 QAM_RB216@0 | 13.85 |
| n66_40MHz_15kHz_1760MHz_CP-OFDM QPSK_RB1@1 | 13.51 |
| n66_40MHz_15kHz_1760MHz_CP-OFDM QPSK_RB108@54 | 15.78 |
| n66_40MHz_15kHz_1760MHz_CP-OFDM QPSK_RB1@214 | 15.79 |
| n66_40MHz_15kHz_1760MHz_CP-OFDM QPSK_RB216@0 | 14.44 |
| n66_40MHz_15kHz_1760MHz_CP-OFDM 16 QAM_RB216@0 | 14.14 |
| n66_40MHz_15kHz_1760MHz_CP-OFDM 64 QAM_RB216@0 | 13.91 |
| n66_40MHz_15kHz_1760MHz_CP-OFDM 256 QAM_RB216@0 | 10.80 |

## 2.4G WLAN:

| Test Mode | Channel [MHz] | Data Rate | Duty Cycle [%] | Max. Conducted Average Output Power [dBm] |
|---|---|---|---|---|
| 802.11b | 2412 | 1Mbps | 100 | 14.39 |
| | 2437 | | | 14.48 |
| | 2462 | | | **14.76** |
| 802.11g | 2412 | 6Mbps | 100 | 14.23 |
| | 2437 | | | 12.68 |
| | 2462 | | | 13.39 |
| 802.11 n ht20 | 2412 | MCS0 | 100 | 12.20 |
| | 2437 | | | 12.17 |
| | 2462 | | | 12.90 |
| 802.11 n ht40 | 2422 | MCS0 | 100 | 10.69 |
| | 2437 | | | 10.78 |
| | 2452 | | | 10.73 |

## 5.2G WLAN:

| Test Mode | Channel [MHz] | Data Rate | Duty Cycle [%] | Max. Conducted Average Output Power [dBm] |
|---|---|---|---|---|
| 802.11a | 5180 | 6Mbps | 100 | 13.10 |
| | 5200 | | | 12.89 |
| | 5240 | | | 12.79 |
| 802.11n ht20 | 5180 | MCS0 | 100 | 12.95 |
| | 5200 | | | 12.98 |
| | 5240 | | | 12.90 |
| 802.11 n ht40 | 5190 | MCS0 | 100 | 13.92 |
| | 5230 | | | **13.97** |
| 802.11 ac80 | 5210 | MCS0 | 100 | 10.90 |

## 5.8G WLAN:

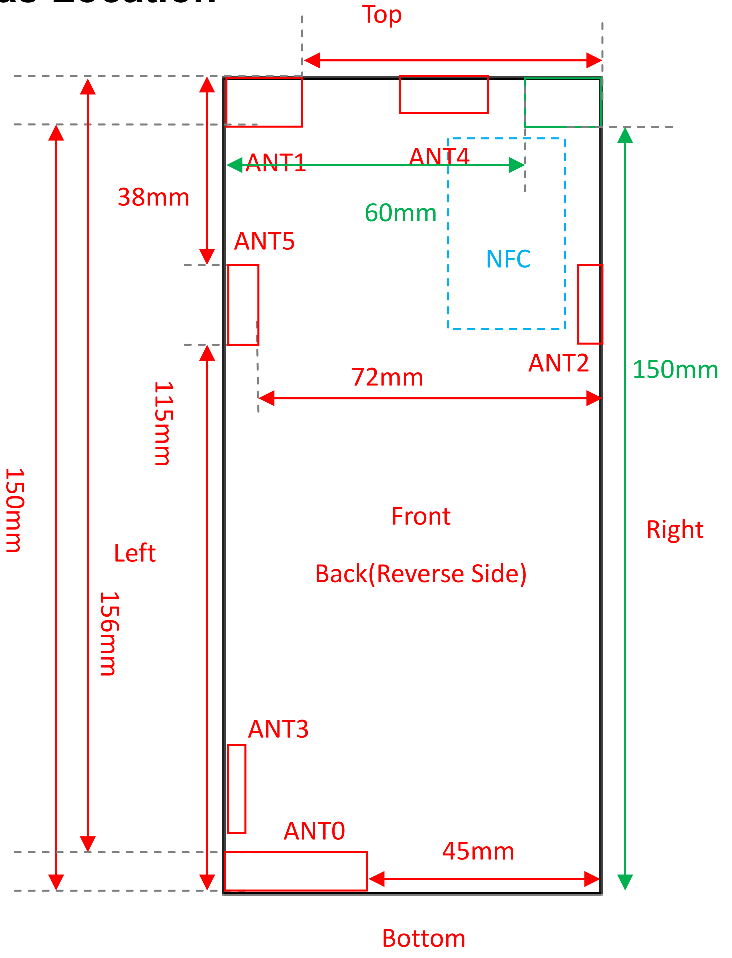
| Test Mode | Channel [MHz] | Data Rate | Duty Cycle [%] | Max. Conducted Average Output Power [dBm] |
|---|---|---|---|---|
| 802.11a | 5745 | 6Mbps | 52.94 | 15.87 |
| | 5785 | | | **16.01** |
| | 5825 | | | 15.95 |
| 802.11n ht20 | 5745 | MCS0 | 51.93 | 15.88 |
| | 5785 | | | 15.70 |
| | 5825 | | | 15.75 |
| 802.11 n ht40 | 5755 | MCS0 | 49.76 | 15.66 |
| | 5795 | | | 15.79 |
| 802.11 ac80 | 5775 | MCS0 | 45.90 | 12.91 |

## Bluetooth:

| Test Mode | Channel [MHz] | Max. Peak Conducted Output Power [dBm] |
|---|---|---|
| BDR(GFSK) | 2402 | -2.58 |
| | 2441 | -0.40 |
| | 2480 | -1.43 |
| EDR(π/4-DQPSK) | 2402 | -3.31 |
| | 2441 | -1.07 |
| | 2480 | -2.24 |
| EDR(8DPSK) | 2402 | -3.30 |
| | 2441 | -1.10 |
| | 2480 | -2.14 |
| BLE_1M | 2402 | 2.49 |
| | 2440 | 4.92 |
| | 2480 | 3.92 |
| BLE_2M | 2402 | 2.80 |
| | 2440 | **5.04** |
| | 2480 | 4.43 |

# 6 Standalone SAR Test Exclusion Considerations

## 6.1 Antennas Location




*Note: The ANT2,ANT3 only receive.*

**Each antenna supports the following frequency bands:**

ANT0: 2G:GSM850 3G:B5 4G:B5/B12/B13/B41

ANT1: 2G:PCS1900 3G:B2 4G:B2 5G:N66

ANT5: 5G:N41

## 6.2 Antennas Distance To Edge

| Antenna Distance To Edge(mm) | | | | | | |
|---|---|---|---|---|---|---|
| Antenna | Back | Front | Left | Right | Top | Bottom |
| WWAN(GSM/WCDMA/LTE/5G NR) Antenna 0 | < 5 | < 5 | < 5 | 45 | 156 | < 5 |
| WWAN(GSM/WCDMA/LTE) Antenna 1 | < 5 | < 5 | < 5 | 60 | < 5 | 150 |
| WWAN(5G NR) Antenna 5 | < 5 | < 5 | < 5 | 72 | 38 | 115 |
| BT&2.4G/5G WLAN | < 5 | < 5 | 60 | < 5 | < 5 | 150 |

## 6.3 Standalone SAR Test Exclusion Considerations

| Mode | Frequency (MHz) | Output Power (dBm) | Output Power (mW) | Distance (mm) | Calculated value | Threshold (1-g) | SAR Test Exclusion |
|---|---|---|---|---|---|---|---|
| WLAN 2.4G | 2462 | 14.8 | 30.2 | 0 | 9.5 | 3 | NO |
| WLAN 5.2G | 5240 | 14.1 | 25.7 | 0 | 11.8 | 3 | NO |
| WLAN 5.8G | 5825 | 16.1 | 40.74 | 0 | 19.7 | 3 | NO |
| Bluetooth | 2480 | 5.5 | 3.55 | 0 | 1.1 | 3 | YES |

**NOTE:**

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[( max. power of channel, including tune-up tolerance, mW )/( min. test separation distance, mm)] ·

[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤7.5 for 10-g extremity SAR, where

1. f(GHz) is the RF channel transmit frequency in GHz.

2. Power and distance are rounded to the nearest mW and mm before calculation.

3. The result is rounded to one decimal place for comparison.

4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

**Measurement Result:**

For NFC, the power of EUT: E Field@3m is 65.60dBuV/m =-29.60dBm(0.0011mW)

Note: E[dBμV/m] = EIRP[dBm] + 95.2 for d = 3 m.

SAR test exclusion threshold for NFC(13.56MHz) separation distance < 50mm

=[474*(1 + log(100/f(MHz)))]/2

= 443mW

>0.0011mW

**Conclusion:**

The NFC SAR evaluation can be exempted.

## 6.4 Standalone SAR estimation:

| Mode | Frequency (MHz) | Output Power (dBm) | Output Power (mW) | Distance (mm) | Estimated 1-g (W/kg) |
|---|---|---|---|---|---|
| BT Head | 2480 | 5.5 | 3.55 | 0 | 0.15 |
| BT Body | 2480 | 5.5 | 3.55 | 10 | 0.08 |

**NOTE:**

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with otherantennas, the standalone SAR must be estimated according to following to determine simultaneoustransmission SAR test exclusion:

[( max. power of channel, including tune-up tolerance, mW )/( min. test separation distance, mm)] ·

[√f(GHz)]

W/kg for test separation distances ≤50 mm;

where x = 7.5 for 1-g SAR.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusio

## 6.5 SAR Test Exclusion For The EUT Edge Considerations Result

| Mode | Back | Front | Left | Right | Top | Bottom |
|---|---|---|---|---|---|---|
| Antenna 0 | **Required** | **Required** | **Required** | Exclusion | Exclusion | **Required** |
| Antenna 1 | **Required** | **Required** | **Required** | Exclusion | **Required** | Exclusion |
| Antenna 5 | **Required** | **Required** | **Required** | Exclusion | Exclusion | Exclusion |
| Wi-Fi 2.4G/5G | **Required** | **Required** | Exclusion | **Required** | **Required** | Exclusion |
| Bluetooth | **Required** | **Required** | Exclusion | **Required** | **Required** | Exclusion |

**Note:**

**Required**: The distance to Edge is less than 25mm, testing is required.
**Exclusion**: The distance to Edge is more than 25 mm, testing is not required.
**Exclusion***: SAR test exclusion evaluation has been done above.

**Extremity Exposure Considerations**

Per KDB 648474 D04 D04v01r03, thisdevice is considered a “Phablet” since the diagonal dimension is >160mm and < 200mm, when hotspot mode applies, extremity SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (with tolerance is 1g SAR > 1.2W/kg)

| Extremity Exposure Condition | | |
|---|---|---|
| **Worst Mode** | **Hotspot SAR value** | **Extremity Condition Test** |
| LTE Band 41 | 0.79W/kg@1g | Exclusion |

**SAR test exclusion for the EUT edge considerations detail:**

**Distance< 50mm(To Edges)**

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[( max. power of channel, including tune-up tolerance, mW )/( min. test separation distance, mm)] ·

[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤7.5 for 10-g extremity SAR, where

1. f(GHz) is the RF channel transmit frequency in GHz.

2. Power and distance are rounded to the nearest mW and mm before calculation.

3. The result is rounded to one decimal place for comparison.

4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

5. The Time based average Power is used for calculation

**Distance> 50mm(To Edges)**

At 100 MHz to 6 GHz and for *test separation distances* > 50 mm, the SAR test exclusion threshold is determined according to the following:

a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·( f(MHz)/150)] mW, at 100 MHz to 1500 MHz

b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz

# 7 SAR Measurement Results

## 7.1 SAR Test Conditions

| | | | | | | |
|---|---|---|---|---|---|---|
| **Temperature:** | 22.9-23.6℃ | 22.5-23.2℃ | 22.7-23.4℃ | 22.2-22.9℃ | 21.9-22.5℃ | 22.1-23.1℃ |
| **Relative Humidity:** | 58% | 61% | 57% | 54% | 60% | 57% |
| **ATM Pressure:** | 101.5 kPa | 101.3 kPa | 101.2 kPa | 101.1 kPa | 100.4 kPa | 101 kPa |
| **Test Date:** | 2024/01/30 | 2024/01/31 | 2024/02/01 | 2024/02/02 | 2024/02/03 | 2024/02/04 |

*Testing was performed by Eric Zhang, Mason Xu.*

## 7.2 Measured and Reported (Scaled) SAR Results

**GSM 850:**

| Test Position | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. | |
| Head Left Cheek | 824.2 | GSM | / | / | / | / | / | / | |
| | 836.6 | GSM | 34.36 | 34.5 | 1.033 | 0.09 | 0.09 | / | |
| | 848.8 | GSM | / | / | / | / | / | / | |
| Head Left Tilt | 824.2 | GSM | / | / | / | / | / | / | |
| | 836.6 | GSM | 34.36 | 34.5 | 1.033 | 0.05 | 0.05 | / | |
| | 848.8 | GSM | / | / | / | / | / | / | |
| Head Right Cheek | 824.2 | GSM | / | / | / | / | / | / | |
| | 836.6 | GSM | 34.36 | 34.5 | 1.033 | 0.126 | 0.13 | 1# | |
| | 848.8 | GSM | / | / | / | / | / | / | |
| Head Right Tilt | 824.2 | GSM | / | / | / | / | / | / | |
| | 836.6 | GSM | 34.36 | 34.5 | 1.033 | 0.06 | 0.06 | / | |
| | 848.8 | GSM | / | / | / | / | / | / | |
| Body Worn Front (10mm) | 824.2 | GSM | / | / | / | / | / | / | |
| | 836.6 | GSM | 34.36 | 34.5 | 1.033 | 0.142 | 0.15 | / | |
| | 848.8 | GSM | / | / | / | / | / | / | |
| Body Worn Back (10mm) | 824.2 | GSM | / | / | / | / | / | / | |
| | 836.6 | GSM | 34.36 | 34.5 | 1.033 | 0.243 | 0.25 | 2# | |
| | 848.8 | GSM | / | / | / | / | / | / | |
| Body Front (10mm) | 824.2 | GPRS | / | / | / | / | / | / | |
| | 836.6 | GPRS | 33.69 | 34 | 1.074 | 0.109 | 0.12 | / | |
| | 848.8 | GPRS | / | / | / | / | / | / | |
| Body Back (10mm) | 824.2 | GPRS | / | / | / | / | / | / | |
| | 836.6 | GPRS | 33.69 | 34 | 1.074 | 0.189 | 0.2 | / | |
| | 848.8 | GPRS | / | / | / | / | / | / | |
| Body Left (10mm) | 824.2 | GPRS | / | / | / | / | / | / | |
| | 836.6 | GPRS | 33.69 | 34 | 1.074 | 0.04 | 0.04 | / | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 848.8 | GPRS | / | / | / | / | / | / |
| Body Bottom (10mm) | 824.2 | GPRS | / | / | / | / | / | / |
| | 836.6 | GPRS | 33.69 | 34 | 1.074 | 0.213 | 0.23 | / |
| | 848.8 | GPRS | / | / | / | / | / | / |

**Note:**

1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.

2. The EUT transmit and receive through the same GSM antenna while testing SAR.

3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

4. When the maximum output power variation across the required test channels is > 0.5 dB, instead of the middle channel, the highest output power channel must be used.

5. The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.

6. According to IEC/IEEE 62209-1528:2020, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

**PCS 1900:**

| Test Position | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 1850.2 | GSM | / | / | / | / | / | / |
| | 1880 | GSM | 31.16 | 31.5 | 1.081 | 0.439 | 0.47 | / |
| | 1909.8 | GSM | / | / | / | / | / | / |
| Head Left Tilt | 1850.2 | GSM | / | / | / | / | / | / |
| | 1880 | GSM | 31.16 | 31.5 | 1.081 | 0.549 | 0.59 | / |
| | 1909.8 | GSM | / | / | / | / | / | / |
| Head Right Cheek | 1850.2 | GSM | / | / | / | / | / | / |
| | 1880 | GSM | 31.16 | 31.5 | 1.081 | 0.68 | **0.74** | 3# |
| | 1909.8 | GSM | / | / | / | / | / | / |
| Head Right Tilt | 1850.2 | GSM | / | / | / | / | / | / |
| | 1880 | GSM | 31.16 | 31.5 | 1.081 | 0.619 | 0.67 | / |
| | 1909.8 | GSM | / | / | / | / | / | / |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Body Worn Front (10mm) | 1850.2 | GSM | / | / | / | / | / | / |
| | 1880 | GSM | 31.16 | 31.5 | 1.081 | 0.172 | 0.19 | / |
| | 1909.8 | GSM | / | / | / | / | / | / |
| Body Worn Back (10mm) | 1850.2 | GSM | / | / | / | / | / | / |
| | 1880 | GSM | 31.16 | 31.5 | 1.081 | 0.19 | 0.21 | / |
| | 1909.8 | GSM | / | / | / | / | / | / |
| Body Front (10mm) | 1850.2 | GPRS | / | / | / | / | / | / |
| | 1880 | GPRS | 30.63 | 30.9 | 1.064 | 0.278 | 0.3 | / |
| | 1909.8 | GPRS | / | / | / | / | / | / |
| Body Back (10mm) | 1850.2 | GPRS | / | / | / | / | / | / |
| | 1880 | GPRS | 30.63 | 30.9 | 1.064 | 0.465 | 0.49 | / |
| | 1909.8 | GPRS | / | / | / | / | / | / |
| Body Left (10mm) | 1850.2 | GPRS | / | / | / | / | / | / |
| | 1880 | GPRS | 30.63 | 30.9 | 1.064 | 0.377 | 0.4 | / |
| | 1909.8 | GPRS | / | / | / | / | / | / |
| Body Top (10mm) | 1850.2 | GPRS | / | / | / | / | / | / |
| | 1880 | GPRS | 30.63 | 30.9 | 1.064 | 0.599 | **0.64** | 4# |
| | 1909.8 | GPRS | / | / | / | / | / | / |

**Note:**

1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.

2. The EUT transmit and receive through the same GSM antenna while testing SAR.

3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

4. When the maximum output power variation across the required test channels is > 0.5 dB, instead of the middle channel, the highest output power channel must be used.

5. The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 1DL+4UL is the worst case.

6. According to IEC/IEEE 62209-1528:2020, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

**WCDMA Band 2:**

| Test Position | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.287 | 0.3 | / |
| | 1907.6 | RMC | / | / | / | / | / | / |
| Head Left Tilt | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.407 | 0.43 | / |
| | 1907.6 | RMC | / | / | / | / | / | / |
| Head Right Cheek | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.546 | **0.58** | 5# |
| | 1907.6 | RMC | / | / | / | / | / | / |
| Head Right Tilt | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.509 | 0.54 | / |
| | 1907.6 | RMC | / | / | / | / | / | / |
| Body Front (10mm) | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.132 | 0.14 | / |
| | 1907.6 | RMC | / | / | / | / | / | / |
| Body Back (10mm) | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.169 | 0.18 | / |
| | 1907.6 | RMC | / | / | / | / | / | / |
| Body Left (10mm) | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.032 | 0.03 | / |
| | 1907.6 | RMC | / | / | / | / | / | / |
| Body Top (10mm) | 1852.4 | RMC | / | / | / | / | / | / |
| | 1880 | RMC | 23.15 | 23.4 | 1.059 | 0.216 | **0.23** | 6# |
| | 1907.6 | RMC | / | / | / | / | / | / |

**WCDMA Band 5:**

| Test Position | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.162 | 0.16 | / |
| | 846.6 | RMC | / | / | / | / | / | / |
| Head Left Tilt | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.099 | 0.1 | / |
| | 846.6 | RMC | / | / | / | / | / | / |
| Head Right Cheek | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.163 | **0.17** | 7# |
| | 846.6 | RMC | / | / | / | / | / | / |
| Head Right Tilt | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.107 | 0.11 | / |
| | 846.6 | RMC | / | / | / | / | / | / |
| Body Front (10mm) | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.151 | 0.15 | / |
| | 846.6 | RMC | / | / | / | / | / | / |
| Body Back (10mm) | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.191 | **0.19** | 8# |
| | 846.6 | RMC | / | / | / | / | / | / |
| Body Left (10mm) | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.134 | 0.14 | / |
| | 846.6 | RMC | / | / | / | / | / | / |
| Body Bottom (10mm) | 826.4 | RMC | / | / | / | / | / | / |
| | 836.6 | RMC | 23.13 | 23.2 | 1.016 | 0.143 | 0.15 | / |
| | 846.6 | RMC | / | / | / | / | / | / |

**Note:**

1. When the 1-g SAR is≤ 0.8W/Kg, testing for other channels are optional.

2. The EUT transmit and receive through the same antenna while testing SAR.

3. The default test configuration is to measure SAR with an established radio link between the EUT and a

communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.

4. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/HSPA+ when the maximum average output of each RF channel is less than ¼ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

6. According to IEC/IEEE 62209-1528:2020, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

**LTE Band 2:**

| Test Position | Frequency (MHz) | Bandwidth (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 1860 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.213 | 0.22 | / |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.169 | 0.22 | / |
| Head Left Tilt | 1860 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.347 | 0.36 | / |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.276 | 0.37 | / |
| Head Right Cheek | 1860 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.456 | 0.48 | 9# |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.362 | 0.48 | / |
| Head Right Tilt | 1860 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.343 | 0.36 | / |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.261 | 0.35 | / |
| Body Front (10mm) | 1860 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.113 | 0.12 | / |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.088 | 0.12 | / |
| Body Back (10mm) | 1860 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.138 | 0.14 | / |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.106 | 0.14 | / |
| Body Left (10mm) | 1860 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.122 | 0.13 | / |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.095 | 0.13 | / |
| Body Top | 1860 | 20 | 1RB | / | / | / | / | / | / |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| (10mm) | 1880 | 20 | 1RB | 23.22 | 23.4 | 1.042 | 0.149 | 0.16 | 10# |
| | 1900 | 20 | 1RB | / | / | / | / | / | / |
| | 1880 | 20 | 50%RB | 22.16 | 23.4 | 1.33 | 0.12 | 0.16 | / |

**LTE Band 5:**

| Test Position | Frequency (MHz) | Bandwidth (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.046 | 0.05 | 11# |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.035 | 0.05 | / |
| Head Left Tilt | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.021 | 0.02 | / |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.021 | 0.03 | / |
| Head Right Cheek | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.034 | 0.04 | / |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.026 | 0.03 | / |
| Head Right Tilt | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.025 | 0.03 | / |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.019 | 0.02 | / |
| Body Front (10mm) | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.053 | 0.05 | / |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.051 | 0.07 | / |
| Body Back (10mm) | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.099 | 0.1 | / |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.076 | 0.1 | / |
| Body Left (10mm) | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.031 | 0.03 | / |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.024 | 0.03 | / |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Body Bottom (10mm) | 829 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 1RB | 22.95 | 23.1 | 1.035 | 0.127 | 0.13 | 12# |
| | 844 | 10 | 1RB | / | / | / | / | / | / |
| | 836.5 | 10 | 50%RB | 21.98 | 23.1 | 1.294 | 0.1 | 0.13 | / |

**LTE Band 12:**

| Test Position | Frequency (MHz) | Bandwidth (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 704 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.017 | 0.02 | 13# |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.014 | 0.02 | / |
| Head Left Tilt | 704 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.011 | 0.01 | / |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.00923 | 0.01 | / |
| Head Right Cheek | 704 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.016 | 0.02 | / |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.012 | 0.02 | / |
| Head Right Tilt | 704 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.00846 | 0.01 | / |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.00613 | 0.01 | / |
| Body Front (10mm) | 704 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.022 | 0.02 | / |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.017 | 0.02 | / |
| Body Back (10mm) | 704 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.04 | 0.04 | / |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.032 | 0.04 | / |
| Body Left (10mm) | 704 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.00586 | 0.01 | / |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.00354 | 0.01 | / |
| Body Bottom | 704 | 10 | 1RB | / | / | / | / | / | / |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| (10mm) | 707.5 | 10 | 1RB | 23.04 | 23.2 | 1.038 | 0.049 | 0.05 | 14# |
| | 711 | 10 | 1RB | / | / | / | / | / | / |
| | 707.5 | 10 | 50%RB | 22.06 | 23.2 | 1.3 | 0.039 | 0.05 | / |

**LTE Band 13:**

| Test Position | Frequency (MHz) | Bandwidth (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.038 | **0.04** | 15# |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.021 | 0.03 | / |
| Head Left Tilt | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.014 | 0.01 | / |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.012 | 0.02 | / |
| Head Right Cheek | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.022 | 0.02 | / |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.028 | 0.04 | / |
| Head Right Tilt | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.017 | 0.02 | / |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.013 | 0.02 | / |
| Body Front (10mm) | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.034 | 0.03 | / |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.027 | 0.03 | / |
| Body Back (10mm) | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.068 | 0.07 | / |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.055 | 0.07 | / |
| Body Left (10mm) | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.024 | 0.02 | / |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.019 | 0.02 | / |
| Body Bottom (10mm) | 782 | 10 | 1RB | 22.80 | 22.9 | 1.023 | 0.08 | 0.08 | 16# |
| | 782 | 10 | 50%RB | 21.93 | 22.9 | 1.25 | 0.067 | 0.08 | / |

**LTE Band 41:**

| Test Position | Frequency (MHz) | Bandwidth (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.139 | **0.17** | 17# |
| | 2636.5 | 20 | 1RB | / | / | / | / | / | / |
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.114 | 0.14 | / |
| Head Left Tilt | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | | | | | | |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.042 | 0.05 | / |
| | 2636.5 | 20 | 1RB | | | | | | |
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.035 | 0.04 | / |
| Head Right Cheek | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | | | | | | |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.084 | 0.1 | / |
| | 2636.5 | 20 | 1RB | | | | | | |
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.076 | 0.09 | / |
| Head Right Tilt | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | | | | | | |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.057 | 0.07 | / |
| | 2636.5 | 20 | 1RB | | | | | | |
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.051 | 0.06 | / |
| Body Front (10mm) | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | | | | | | |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.267 | 0.32 | / |
| | 2636.5 | 20 | 1RB | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.208 | 0.25 | / |
| Body Back (10mm) | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | | | | | | |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.419 | 0.51 | / |
| | 2636.5 | 20 | 1RB | | | | | | |
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.363 | 0.43 | / |
| Body Left (10mm) | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | | | | | | |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.111 | 0.13 | / |
| | 2636.5 | 20 | 1RB | | | | | | |
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.101 | 0.12 | / |
| Body Bottom (10mm) | 2506 | 20 | 1RB | / | / | / | / | / | / |
| | 2549.5 | 20 | 1RB | | | | | | |
| | 2593 | 20 | 1RB | 23.95 | 24.8 | 1.216 | 0.646 | **0.79** | 18# |
| | 2636.5 | 20 | 1RB | | | | | | |
| | 2680 | 20 | 1RB | / | / | / | / | / | / |
| | 2593 | 20 | 50%RB | 24.06 | 24.8 | 1.186 | 0.523 | 0.62 | / |

**Note:**

1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.

2. SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02.

3. KDB941225D05-SAR for higher order modulation is required only when the highest maximum output power for the configuration in the higher order modulation is > 0.5 dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg

4. KDB941225D05-For QPSK with 100% RB allocation, when the reported SAR measured for the Highest output power channel is <1.45 W/kg, tests for the remaining required test channels are optional.

5.KDB941225D05- 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.

6. KDB941225D05- 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 among RB offset the upper edge, middle and lower edge of each required test channel.

7. KDB941225D05- other channel bandwidths SAR test is required when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > 0.5 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.

8. Worst case SAR for 50% RB allocation is selected to be tested.

9. According to IEC/IEEE 62209-1528:2020, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

**5G NR n41:**

| Test Position | Frequency (MHz) | Bandwidth (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 2546 | 100 | 1RB | / | / | / | / | / | / |
| | 2593 | 100 | 1RB | 24.46 | 25.6 | 1.3 | 0.091 | 0.12 | / |
| | 2640 | 100 | 1RB | / | / | / | / | / | / |
| | 2593 | 100 | 50%RB | 24.29 | 25.6 | 1.352 | 0.081 | 0.11 | / |
| Head Left Tilt | 2546 | 100 | 1RB | / | / | / | / | / | / |
| | 2593 | 100 | 1RB | 24.46 | 25.6 | 1.3 | 0.06 | 0.08 | / |
| | 2640 | 100 | 1RB | / | / | / | / | / | / |
| | 2593 | 100 | 50%RB | 24.29 | 25.6 | 1.352 | 0.049 | 0.07 | / |
| Head Right Cheek | 2546 | 100 | 1RB | / | / | / | / | / | / |
| | 2593 | 100 | 1RB | 24.46 | 25.6 | 1.3 | 0.321 | **0.42** | 19# |
| | 2640 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 50%RB | 24.29 | 25.6 | 1.352 | 0.28 | 0.38 | / |
| Head Right Tilt | 2546 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 1RB | 24.46 | 25.6 | 1.3 | 0.089 | 0.12 | / |
| | 2640 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 50%RB | 24.29 | 25.6 | 1.352 | 0.078 | 0.11 | / |
| Body Front (10mm) | 2546 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 1RB | 24.46 | 25.6 | 1.3 | 0.064 | 0.08 | / |
| | 2640 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 50%RB | 24.29 | 25.6 | 1.352 | 0.053 | 0.07 | / |
| Body Back (10mm) | 2546 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 1RB | 24.46 | 25.6 | 1.3 | 0.136 | **0.18** | 20# |
| | 2640 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 50%RB | 24.29 | 25.6 | 1.352 | 0.116 | 0.16 | / |
| Body Left (10mm) | 2546 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 1RB | 24.46 | 25.6 | 1.3 | 0.106 | 0.14 | / |
| | 2640 | 100 | 1RB | / | / | / | | / | / |
| | 2593 | 100 | 50%RB | 24.29 | 25.6 | 1.352 | 0.094 | 0.13 | / |

**5G NR n66:**

| Test Position | Frequency (MHz) | Bandwidth (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Scaled Factor | Meas. SAR | Scaled SAR | Plot No. |
| Head Left Cheek | 1730 | 40 | 1RB | / | / | / | / | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.346 | 0.4 | / |
| | 1760 | 40 | 1RB | / | / | / | / | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.351 | 0.39 | / |
| Head Left Tilt | 1730 | 40 | 1RB | / | / | / | / | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.395 | 0.45 | / |
| | 1760 | 40 | 1RB | / | / | / | / | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.4 | 0.45 | / |
| Head Right Cheek | 1730 | 40 | 1RB | / | / | / | / | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.674 | 0.78 | / |
| | 1760 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.705 | **0.79** | 21# |
| Head Right Tilt | 1730 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.488 | 0.56 | / |
| | 1760 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.498 | 0.56 | / |
| Body Front (10mm) | 1730 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.137 | 0.16 | / |
| | 1760 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.14 | 0.16 | / |
| Body Back (10mm) | 1730 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.138 | 0.16 | / |
| | 1760 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.148 | **0.17** | 22# |
| Body Left (10mm) | 1730 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.075 | 0.09 | / |
| | 1760 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.078 | 0.09 | / |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Body Top (10mm) | 1730 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 1RB | 17.19 | 17.8 | 1.151 | 0.113 | 0.13 | / |
| | 1760 | 40 | 1RB | / | / | / | | / | / |
| | 1745 | 40 | 50%RB | 17.32 | 17.8 | 1.117 | 0.115 | 0.13 | / |

**2.4G WLAN**

| EUT Position | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Scaled Factor | Duty cycle Factor | Meas. SAR | Scaled SAR | Plot |
| Head Left Cheek | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.281 | **0.3** | 23# |
| | 2462 | 802.11b | / | / | / | / | / | / | / |
| Head Left Tilt | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.204 | 0.22 | / |
| | 2462 | 802.11b | / | / | / | / | / | / | / |
| Head Right Cheek | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.091 | 0.1 | / |
| | 2462 | 802.11b | / | / | / | / | / | / | / |
| Head Right Tilt | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.1 | 0.11 | / |
| | 2462 | 802.11b | / | / | / | / | / | / | / |
| Body Front (10mm) | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.041 | 0.04 | / |
| | 2462 | 802.11b | / | / | / | / | / | / | / |
| Body Back (10mm) | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.052 | **0.06** | 24# |
| | 2462 | 802.11b | / | / | / | / | / | / | / |
| Body Right (10mm) | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.042 | 0.05 | / |
| | 2462 | 802.11b | / | / | / | / | / | / | / |
| Body Top (10mm) | 2412 | 802.11b | / | / | / | / | / | / | / |
| | 2437 | 802.11b | 14.48 | 14.8 | 1.076 | 1 | 0.042 | 0.05 | / |
| | 2462 | 802.11b | / | / | / | / | / | / | / |

**Note**:

1. When the 1-g SAR is≤ 0.8W/kg, testing for other channels are optional.

2.When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

3.For 802.11b mode power is the largest among 802.11b/g/n, 802.11 b mode as initial test configuration is selected to test.

4. According to IEC/IEEE 62209-1528:2020, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

### 5.2G WLAN

| EUT Position | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Scaled Factor | Duty cycle Factor | Meas. SAR | Scaled SAR | Plot |
| Head Left Cheek | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.328 | 0.34 | / |
| Head Left Tilt | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.346 | **0.36** | 25# |
| Head Right Cheek | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.252 | 0.26 | / |
| Head Right Tilt | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.311 | 0.32 | / |
| Body Front (10mm) | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.092 | 0.09 | / |
| Body Back (10mm) | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.198 | **0.2** | 26# |
| Body Right (10mm) | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.055 | 0.06 | / |
| Body Top (10mm) | 5190 | 802.11n40 | / | / | / | / | / | / | / |
| | 5230 | 802.11n40 | 13.97 | 14.1 | 1.03 | 1 | 0.114 | 0.12 | / |

**Note**:

1. When the 1-g SAR is≤ 0.8W/kg, testing for other channels are optional.

2.When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

3.For 802.11n40 mode power is the largest among 802.11a/n/ac, 802.11 n40 mode as initial test configuration is selected to test.

4. According to IEC/IEEE 62209-1528:2020, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

**5.8G WLAN**

| EUT Position | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | 1g SAR (W/kg) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Scaled Factor | Duty cycle Factor | Meas. SAR | Scaled SAR | Plot |
| Head Left Cheek | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.273 | **0.28** | 27# |
| | 5825 | 802.11a | / | / | / | / | / | / | / |
| Head Left Tilt | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.227 | 0.23 | / |
| | 5825 | 802.11a | / | / | / | / | / | / | / |
| Head Right Cheek | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.227 | 0.23 | / |
| | 5825 | 802.11a | / | / | / | / | / | / | / |
| Head Right Tilt | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.205 | 0.21 | / |
| | 5825 | 802.11a | / | / | / | / | / | / | / |
| Body Front (10mm) | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.054 | 0.06 | / |
| | 5825 | 802.11a | / | / | / | / | / | / | / |
| Body Back (10mm) | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.123 | 0.13 | / |
| | 5825 | 802.11a | / | / | / | / | / | / | / |
| Body Right (10mm) | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.059 | 0.06 | / |
| | 5825 | 802.11a | / | / | / | / | / | / | / |
| Body Top (10mm) | 5745 | 802.11a | / | / | / | / | / | / | / |
| | 5785 | 802.11a | 16.01 | 16.1 | 1.021 | 1 | 0.136 | **0.14** | 28# |
| | 5825 | 802.11a | / | / | / | / | / | / | / |

**Note**:

1. When the 1-g SAR is≤ 0.8W/kg, testing for other channels are optional.

2.When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

3.For 802.11a mode power is the largest among 802.11a/n/ac, 802.11 a mode as initial test configuration is selected to test.

4. According to IEC/IEEE 62209-1528:2020, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

# 8 SAR Measurement Variability

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results

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% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

*Note: 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.*

**The Highest Measured SAR Configuration in Each Frequency Band**

**Body**

| SAR probe calibration point | Frequency Band | Freq.(MHz) | EUT Position | Meas. SAR (W/kg) | | Largest to Smallest SAR Ratio |
|---|---|---|---|---|---|---|
| | | | | Original | Repeated | |
| / | / | / | / | / | / | / |

**Note:**

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.
2. The measured SAR results do not have to be scaled to the maximum tune-up tolerance to determine if repeated measurements are required.
3. 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.

# 9 Simultaneous Transmission Description

## 9.1 Simultaneous Transmission

| Description of Simultaneous Transmit Capabilities | | |
|---|---|---|
| **Transmitter Combination** | **Simultaneous?** | **Hotspot?** |
| WWAN(GSM/WCDMA/LTE)Antenna + WLAN 2.4G/5G | √ | √ |
| WWAN(GSM/WCDMA/LTE)Antenna + Bluetooth | √ | × |
| 5G NR n41+LTE Band 2 + WLAN 2.4G/5G | √ | √ |
| 5G NR n41+LTE Band 2 + Bluetooth | √ | × |
| WLAN 2.4G/5G+ Bluetooth | × | × |

## 9.2 Simultaneous SAR test exclusion considerations:

| Mode(SAR1+SAR2) | Position | Reported SAR(W/kg) | | ΣSAR < 1.6w/kg |
|---|---|---|---|---|
| | | SAR1 | SAR2 | |
| WWAN(GSM/WCDMA/LTE) + Bluetooth | Head Left Cheek | 0.47 | 0.15 | 0.62 |
| | Head Left Tilt | 0.59 | 0.15 | 0.74 |
| | Head Right Cheek | 0.79 | 0.15 | 0.94 |
| | Head Right Tilt | 0.67 | 0.15 | 0.82 |
| | Body Front | 0.32 | 0.08 | 0.4 |
| | Body Back | 0.51 | 0.08 | 0.59 |
| WWAN(GSM/WCDMA/LTE) + 2.4G WLAN | Head Left Cheek | 0.47 | 0.3 | 0.77 |
| | Head Left Tilt | 0.59 | 0.22 | 0.81 |
| | Head Right Cheek | 0.79 | 0.1 | 0.89 |
| | Head Right Tilt | 0.67 | 0.11 | 0.78 |
| WWAN(GSM/WCDMA/LTE) + 2.4G WLAN (Hotspot) | Body Front | 0.32 | 0.04 | 0.36 |
| | Body Back | 0.51 | 0.06 | 0.57 |
| | Body Left | 0.4 | NA | 0.4 |
| | Body Right | NA | 0.05 | 0.05 |
| | Body Top | 0.64 | 0.05 | 0.69 |
| | Body Bottom | 0.79 | NA | 0.79 |
| WWAN(GSM/WCDMA/LTE) + | Head Left Cheek | 0.47 | 0.34 | 0.81 |

| | | | | |
|---|---|---|---|---|
| 5G WLAN | Head Left Tilt | 0.59 | 0.36 | 0.95 |
| | Head Right Cheek | 0.79 | 0.26 | **1.05** |
| | Head Right Tilt | 0.67 | 0.32 | 0.99 |
| WWAN(GSM/WCDMA/LTE) + 5G WLAN (Hotspot) | Body Front | 0.32 | 0.09 | 0.41 |
| | Body Back | 0.51 | 0.2 | 0.71 |
| | Body Left | 0.4 | NA | 0.4 |
| | Body Right | NA | 0.06 | 0.06 |
| | Body Top | 0.64 | 0.14 | 0.78 |
| | Body Bottom | 0.79 | NA | 0.79 |

| Mode(SAR1+SAR2) | Position | Reported SAR(W/kg) | | | ΣSAR < 1.6w/kg |
|---|---|---|---|---|---|
| | | SAR1 | SAR2 | SAR3 | |
| 5G NR n41+LTE Band 2 + Bluetooth | Head Left Cheek | 0.12 | 0.22 | 0.15 | 0.49 |
| | Head Left Tilt | 0.08 | 0.37 | 0.15 | 0.6 |
| | Head Right Cheek | 0.42 | 0.48 | 0.15 | 1.05 |
| | Head Right Tilt | 0.12 | 0.36 | 0.15 | 0.63 |
| | Body Front | 0.08 | 0.12 | 0.08 | 0.28 |
| | Body Back | 0.18 | 0.14 | 0.08 | 0.4 |
| 5G NR n41+LTE Band 2 + 2.4G WLAN | Head Left Cheek | 0.12 | 0.22 | 0.3 | 0.64 |
| | Head Left Tilt | 0.08 | 0.37 | 0.22 | 0.67 |
| | Head Right Cheek | 0.42 | 0.48 | 0.1 | 1 |
| | Head Right Tilt | 0.12 | 0.36 | 0.11 | 0.59 |
| 5G NR n41+LTE Band 2 + 2.4G WLAN (Hotspot) | Body Front | 0.08 | 0.12 | 0.04 | 0.24 |
| | Body Back | 0.18 | 0.14 | 0.06 | 0.38 |
| | Body Left | 0.14 | 0.13 | NA | 0.27 |
| | Body Right | NA | NA | 0.05 | 0.05 |
| | Body Top | NA | 0.16 | 0.05 | 0.21 |
| 5G NR n41+LTE Band 2 + 5G WLAN | Head Left Cheek | 0.12 | 0.22 | 0.34 | 0.68 |
| | Head Left Tilt | 0.08 | 0.37 | 0.36 | 0.81 |
| | Head Right Cheek | 0.42 | 0.48 | 0.26 | **1.16** |
| | Head Right Tilt | 0.12 | 0.36 | 0.32 | 0.8 |
| WWAN(GSM/WCDMA/LTE) + 5G WLAN | Body Front | 0.08 | 0.12 | 0.09 | 0.29 |
| | Body Back | 0.18 | 0.14 | 0.2 | **0.52** |

| | | | | | |
|---|---|---|---|---|---|
| (Hotspot) | Body Left | 0.14 | 0.13 | NA | 0.27 |
| | Body Right | NA | NA | 0.06 | 0.06 |
| | Body Top | NA | 0.16 | 0.14 | 0.3 |

Note:

1.For the EIRP of NFC is 0.0011mW, per KDB447498 D01 clause 4.3, the estimated SAR is so lower, so the NFC almost have no influence on the results of simultaneous transmission.

**Conclusion:**

Sum of SAR: **ΣSAR ≤ 1.6 W/kg,** therefore simultaneous transmission SAR with Volume Scans is **not required**.

# 10 SAR Plots

**Test Plot1#: GSM 850_Head Right Cheek_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

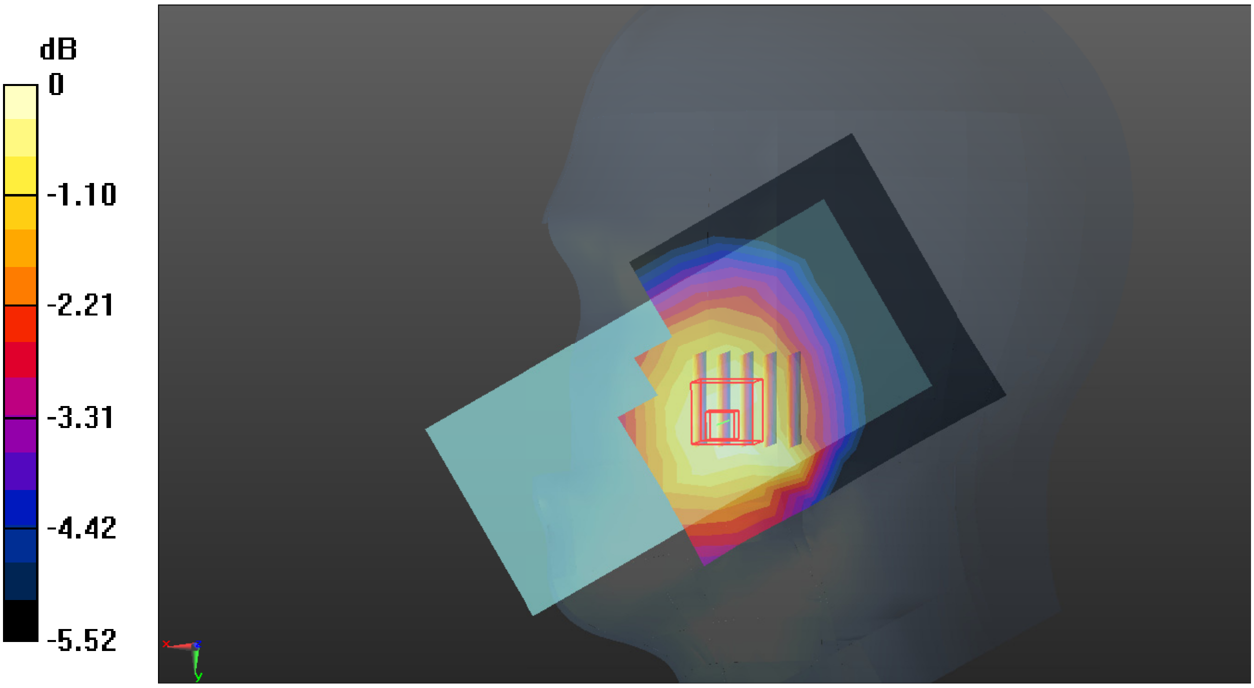
Communication System: Generic GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used: f =836.6 MHz; σ = 0.924 S/m; $\varepsilon_r$ = 41.416; ρ = 1000 kg/m$^3$ ;
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @836.6 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.135 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.671 V/m; Power Drift = 0.1 dB
Peak SAR (interpolated) = 0.163 W/kg
**SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.099 W/kg**
Maximum value of SAR (measured) = 0.138 W/kg




0 dB = 0.138 W/kg = -8.60 dB dBW/kg

**Test Plot2#: GSM 850_Body Worn Back_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

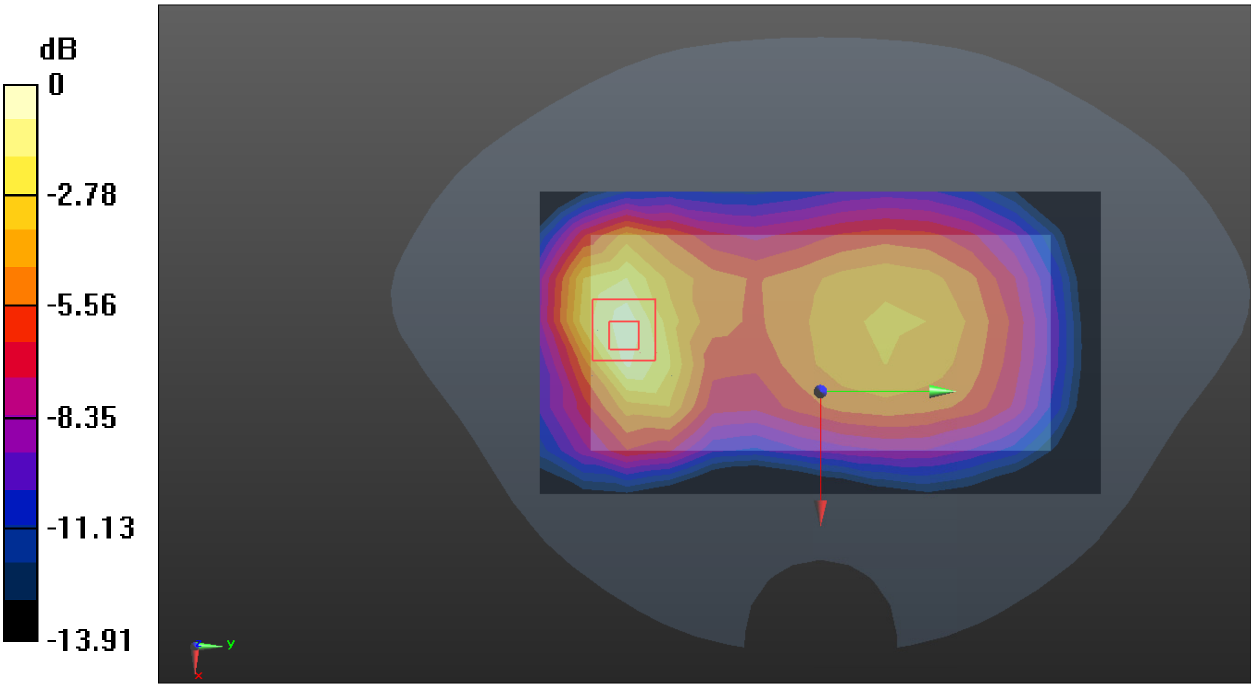
Communication System: Generic GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used: f =836.6 MHz; $\sigma$ = 0.924 S/m; $\varepsilon_r$ = 41.416; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @836.6 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x14x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.283 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.10 V/m; Power Drift = 0 dB
Peak SAR (interpolated) = 0.466 W/kg
**SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.136 W/kg**
Maximum value of SAR (measured) = 0.297 W/kg




0 dB = 0.297 W/kg = -5.27 dB dBW/kg

**Test Plot3#: PCS 1900_Head Right Cheek_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

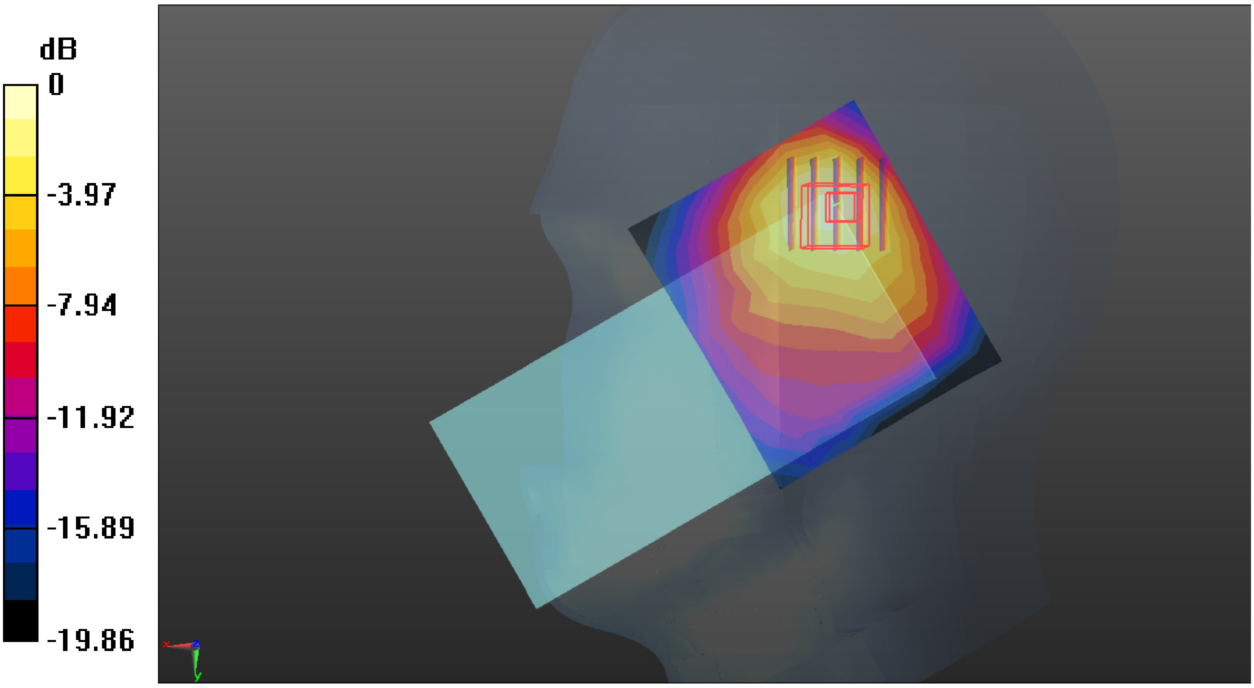
Communication System: Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8
Medium parameters used: f =1880 MHz; $\sigma$ = 1.405 S/m; $\varepsilon_r$ = 39.928; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.93, 7.93, 7.93)) @1880 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x7x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.743 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.88 V/m; Power Drift = 0.04 dB
Peak SAR (interpolated) = 1.37 W/kg
**SAR(1 g) = 0.680 W/kg; SAR(10 g) = 0.380 W/kg**
Maximum value of SAR (measured) = 0.850 W/kg




0 dB = 0.850 W/kg = -0.71 dB dBW/kg

**Test Plot4#: PCS 1900_Body Top_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

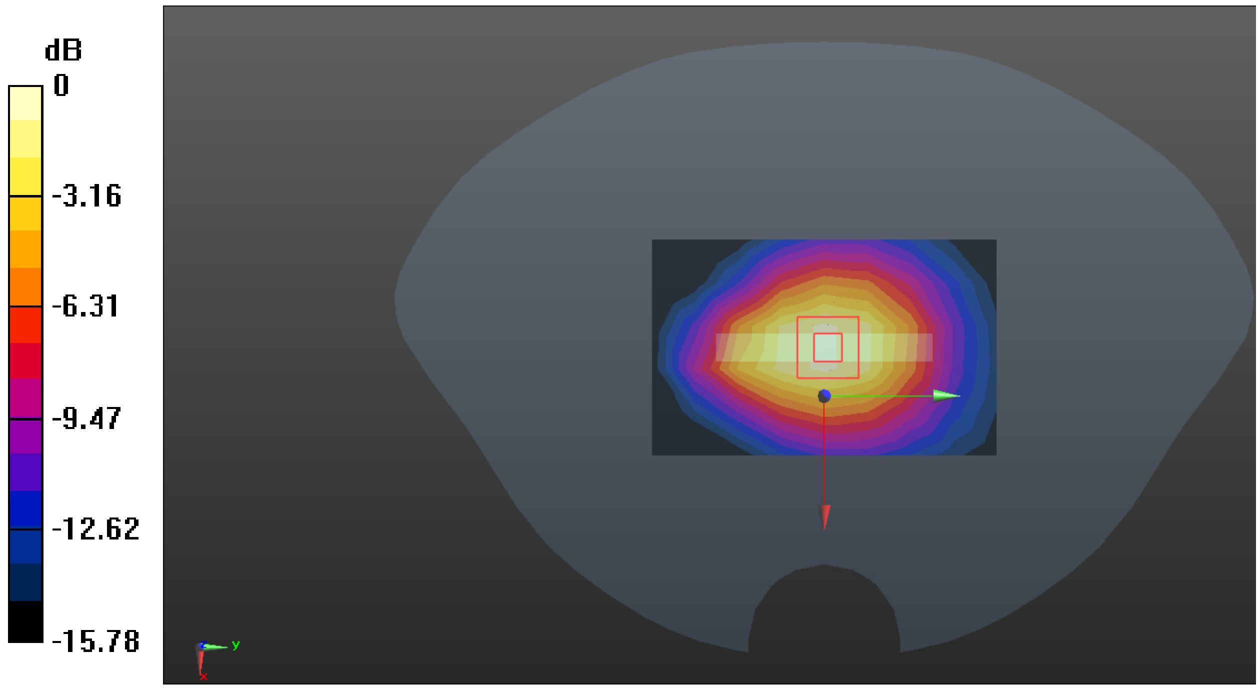
Communication System: Generic GPRS-2 slots (0); Frequency: 1880 MHz;Duty Cycle: 1:4
Medium parameters used: f =1880 MHz; $\sigma$ = 1.405 S/m; $\varepsilon_r$ = 39.928; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.93, 7.93, 7.93)) @1880 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.605 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.50 V/m; Power Drift = 0.14 dB
Peak SAR (interpolated) = 0.926 W/kg
**SAR(1 g) = 0.599 W/kg; SAR(10 g) = 0.363 W/kg**
Maximum value of SAR (measured) = 0.714 W/kg




0 dB = 0.714 W/kg = -1.46 dB dBW/kg

**Test Plot5#: WCDMA Band 2_Head Right Cheek_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

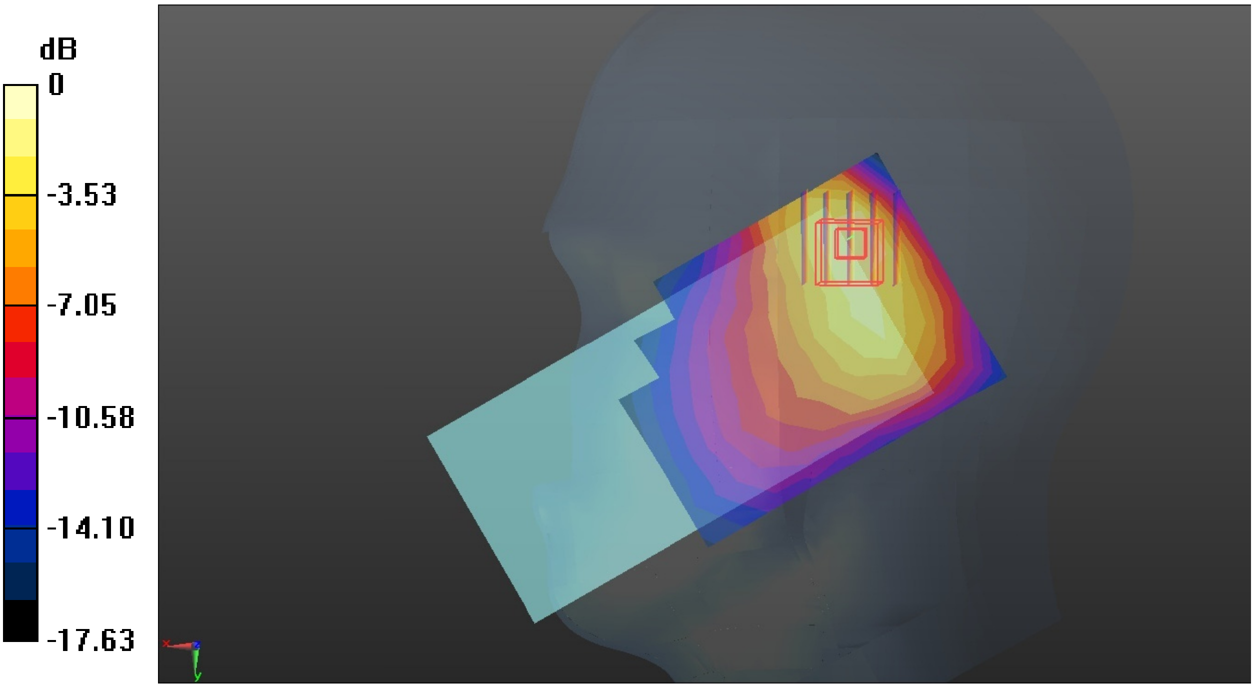
Communication System: Generic WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f =1880 MHz; $\sigma$ = 1.405 S/m; $\varepsilon_r$ = 39.928; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.93, 7.93, 7.93)) @1880 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (7x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.636 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.36 V/m; Power Drift = 0.13 dB
Peak SAR (interpolated) = 1.10 W/kg
**SAR(1 g) = 0.546 W/kg; SAR(10 g) = 0.300 W/kg**
Maximum value of SAR (measured) = 0.662 W/kg




0 dB = 0.662 W/kg = -1.79 dB dBW/kg

**Test Plot6#: WCDMA Band 2_Body Top_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

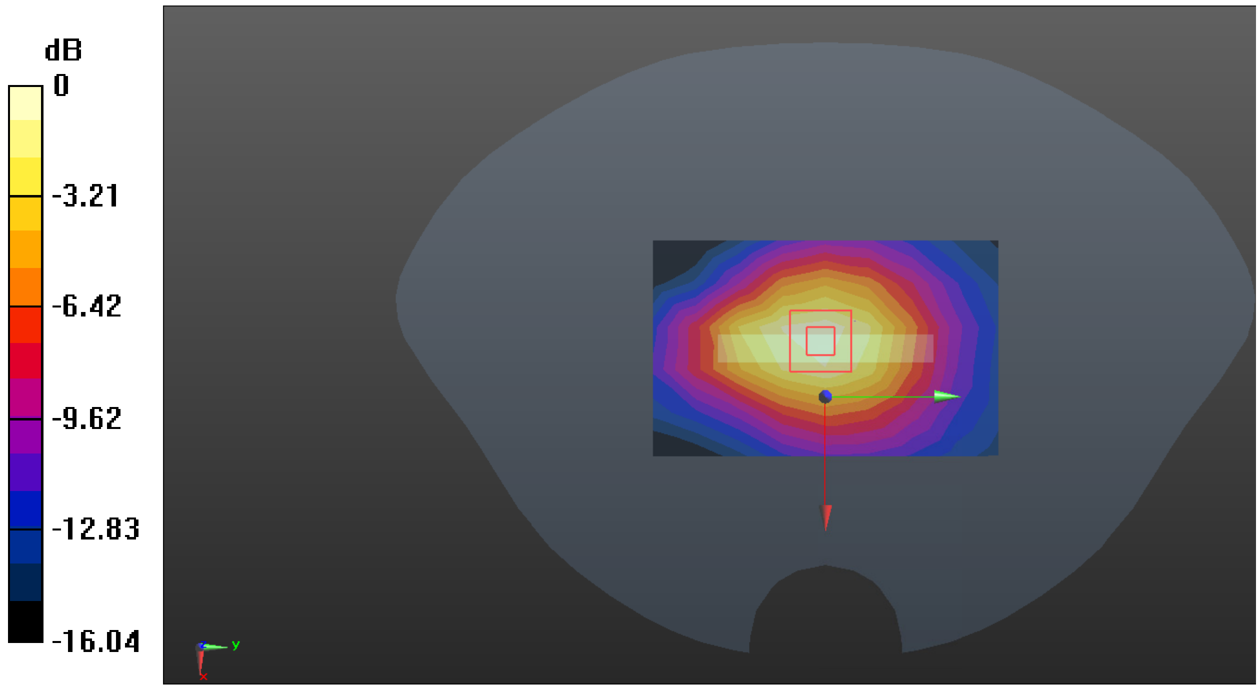
Communication System: Generic WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f =1880 MHz; $\sigma$ = 1.405 S/m; $\varepsilon_r$ = 39.928; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.93, 7.93, 7.93)) @1880 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.237 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.07 V/m; Power Drift = -0.15 dB
Peak SAR (interpolated) = 0.338 W/kg
**SAR(1 g) = 0.216 W/kg; SAR(10 g) = 0.131 W/kg**
Maximum value of SAR (measured) = 0.258 W/kg




0 dB = 0.258 W/kg = -5.88 dB dBW/kg

**Test Plot7#: WCDMA Band 5_Head Right Cheek_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

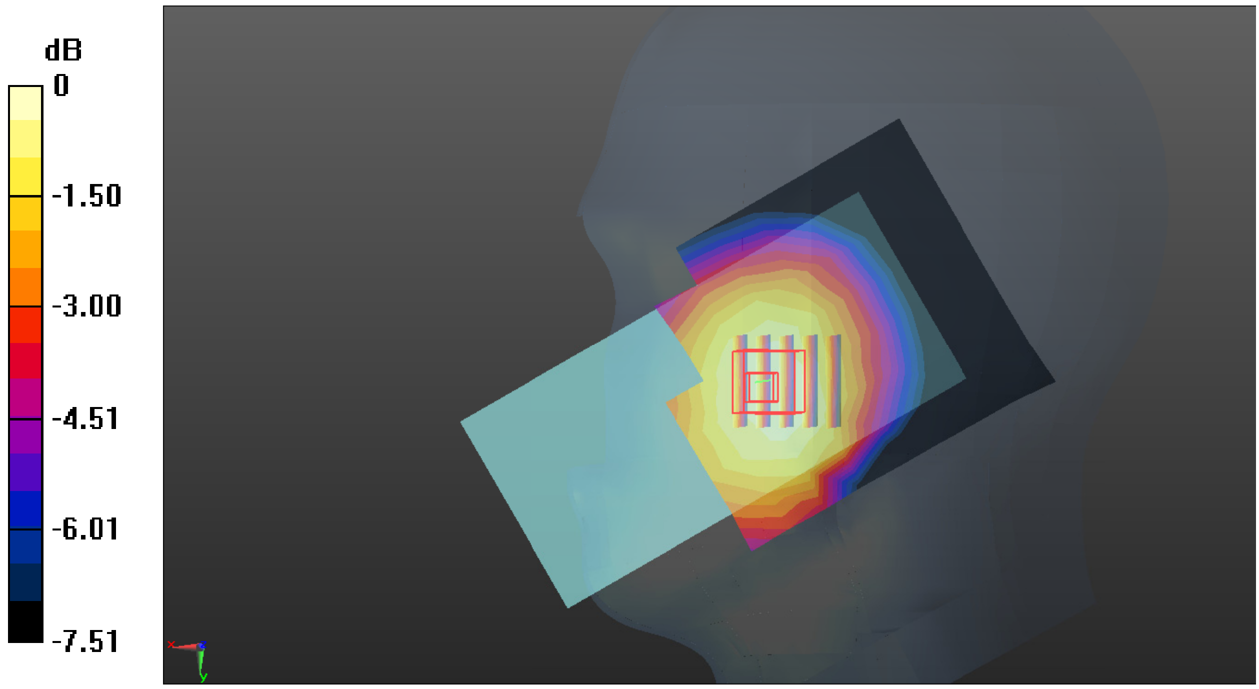
Communication System: Generic WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f =836.6 MHz; $\sigma$ = 0.924 S/m; $\varepsilon_r$ = 41.416; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @836.6 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.179 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.812 V/m; Power Drift = -0.08 dB
Peak SAR (interpolated) = 0.207 W/kg
**SAR(1 g) = 0.163 W/kg; SAR(10 g) = 0.126 W/kg**
Maximum value of SAR (measured) = 0.180 W/kg




0 dB = 0.180 W/kg = -7.45 dB dBW/kg

**Test Plot8#: WCDMA Band 5_Body Back_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

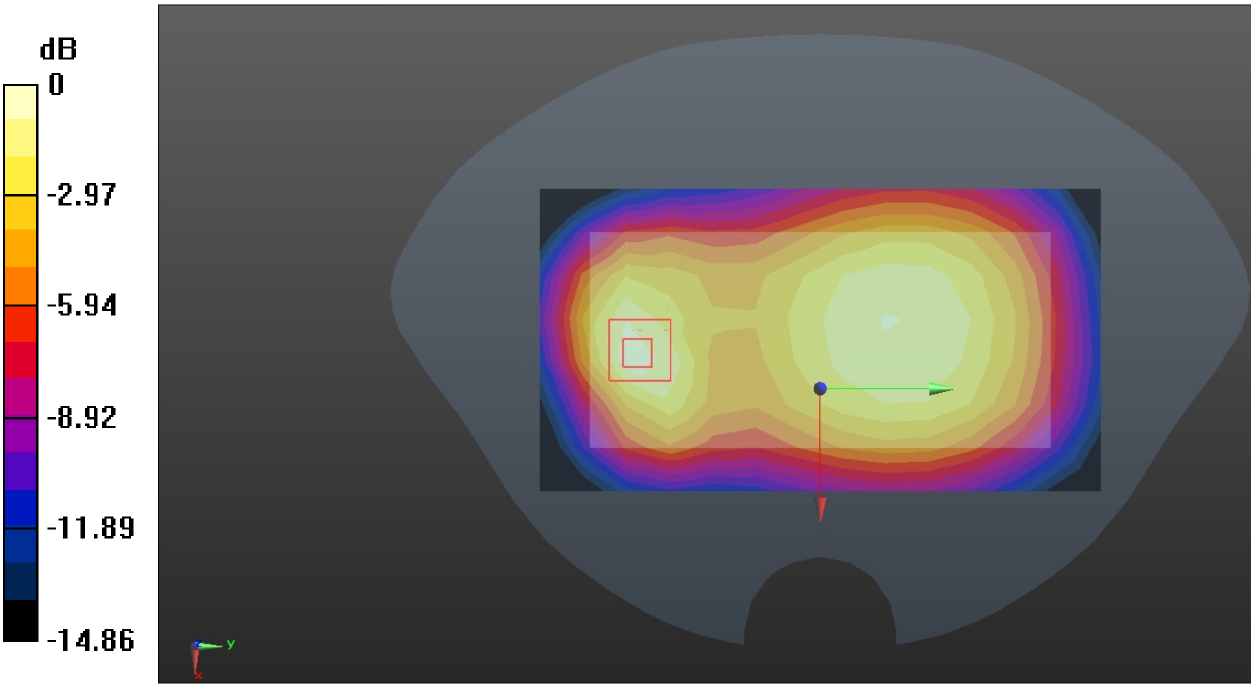
Communication System: Generic WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f =836.6 MHz; $\sigma$ = 0.924 S/m; $\varepsilon_r$ = 41.416; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @836.6 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x14x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.218 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.06 V/m; Power Drift = 0 dB
Peak SAR (interpolated) = 0.358 W/kg
**SAR(1 g) = 0.191 W/kg; SAR(10 g) = 0.109 W/kg**
Maximum value of SAR (measured) = 0.236 W/kg




0 dB = 0.236 W/kg = -6.27 dB dBW/kg

**Test Plot9#: LTE Band 2_Head Right Cheek_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

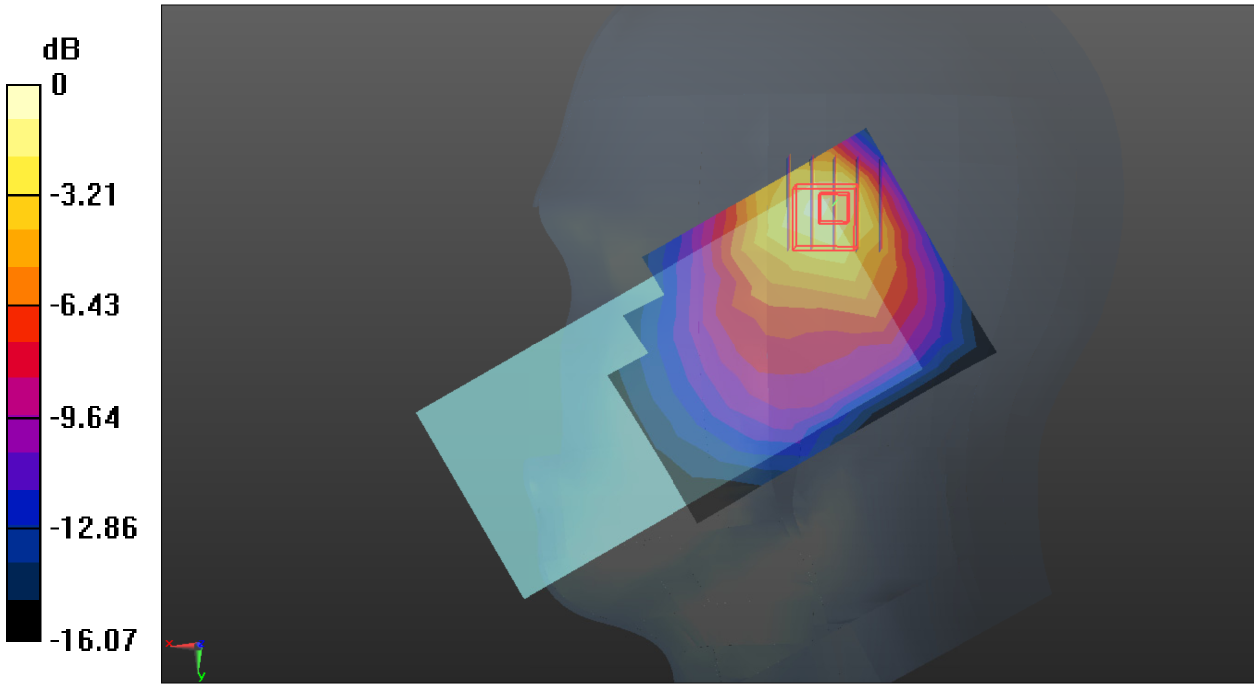
Communication System: Generic FDD-LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f =1880 MHz; $\sigma$ = 1.405 S/m; $\varepsilon_r$ = 39.928; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.93, 7.93, 7.93)) @1880 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (7x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.507 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.07 V/m; Power Drift = 0.07 dB
Peak SAR (interpolated) = 0.935 W/kg
**SAR(1 g) = 0.456 W/kg; SAR(10 g) = 0.256 W/kg**
Maximum value of SAR (measured) = 0.576 W/kg




0 dB = 0.576 W/kg = -2.40 dB dBW/kg

**Test Plot10#: LTE Band 2_Body Top_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

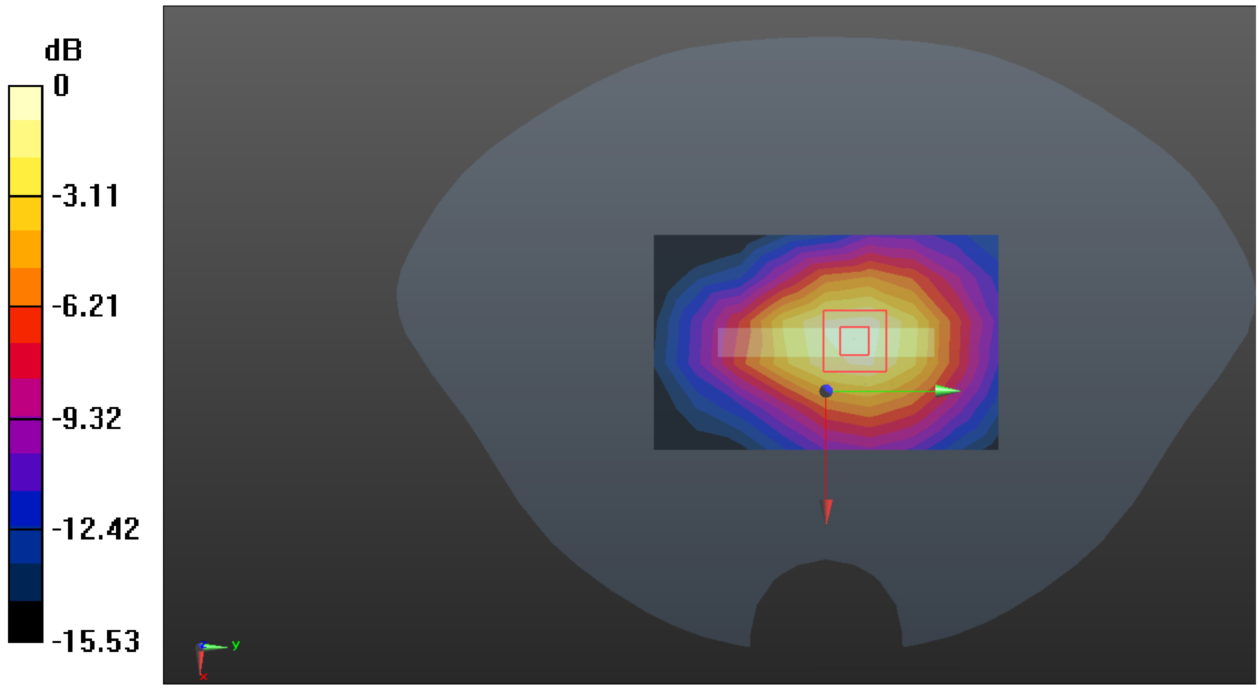
Communication System: Generic FDD-LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f =1880 MHz; $\sigma$ = 1.405 S/m; $\varepsilon_r$ = 39.928; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.93, 7.93, 7.93)) @1880 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.155 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.19 V/m; Power Drift = 0.01 dB
Peak SAR (interpolated) = 0.225 W/kg
**SAR(1 g) = 0.149 W/kg; SAR(10 g) = 0.087 W/kg**
Maximum value of SAR (measured) = 0.174 W/kg




0 dB = 0.174 W/kg = -7.59 dB dBW/kg

**Test Plot11#: LTE Band 5_Head Left Cheek_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

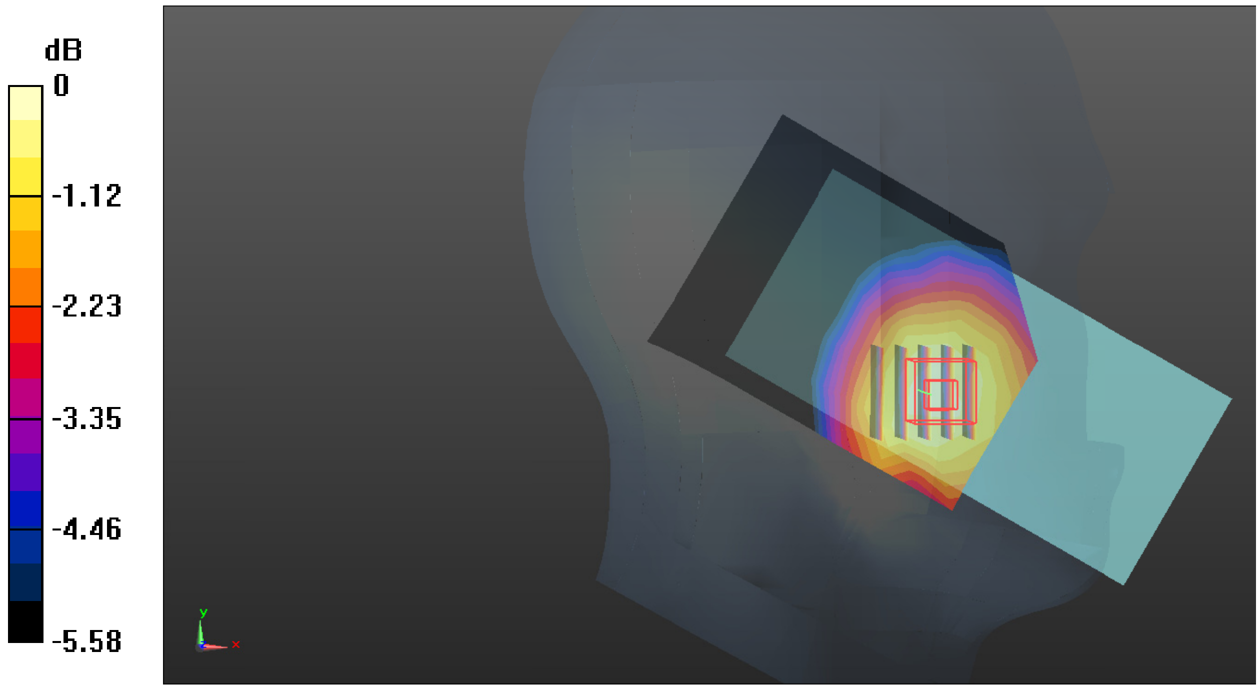
Communication System: Generic FDD-LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used: f =836.5 MHz; $\sigma$ = 0.921 S/m; $\varepsilon_r$ = 41.467; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @836.5 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (7x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.0502 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.002 V/m; Power Drift = 0.13 dB
Peak SAR (interpolated) = 0.0620 W/kg
**SAR(1 g) = 0.046 W/kg; SAR(10 g) = 0.035 W/kg**
Maximum value of SAR (measured) = 0.0513 W/kg




0 dB = 0.0513 W/kg = -12.90 dB dBW/kg

**Test Plot12#: LTE Band 5_Body Bottom_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

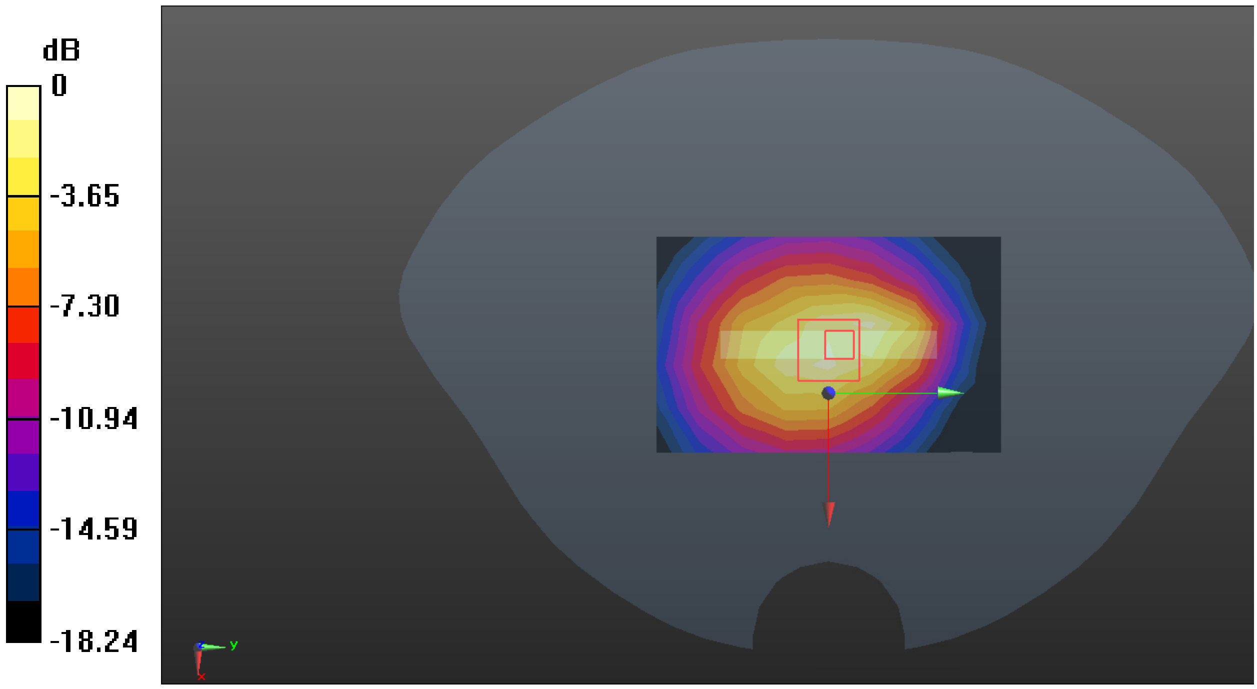
Communication System: Generic FDD-LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used: f =836.5 MHz; $\sigma$ = 0.921 S/m; $\varepsilon_r$ = 41.467; $\rho$ = 1000 kg/$m^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @836.5 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.129 W/kg

**Zoom Scan (6x6x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.54 V/m; Power Drift = 0.02 dB
Peak SAR (interpolated) = 0.245 W/kg
**SAR(1 g) = 0.127 W/kg; SAR(10 g) = 0.073 W/kg**
Maximum value of SAR (measured) = 0.157 W/kg




0 dB = 0.157 W/kg = -8.04 dB dBW/kg

**Test Plot13#: LTE Band 12_Head Left Cheek_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

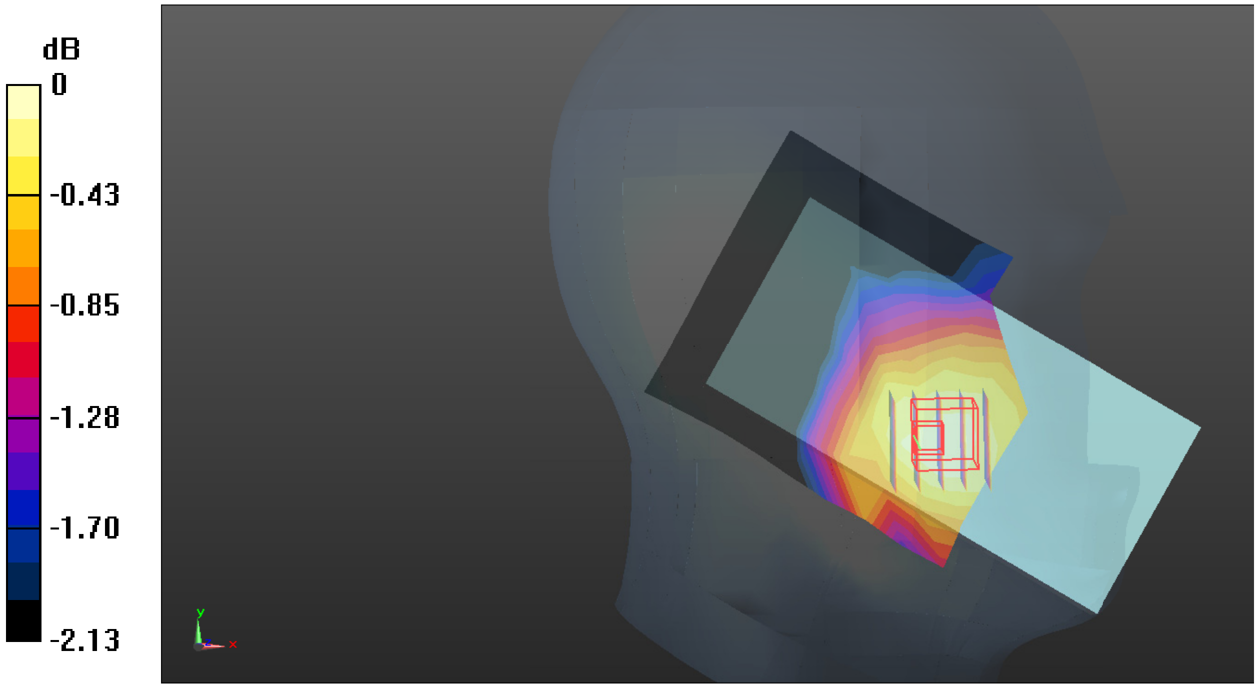
Communication System: Generic FDD-LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used: f =707.5 MHz; $\sigma$ = 0.859 S/m; $\varepsilon_r$ = 42.496; $\rho$ = 1000 kg/$m^3$ ;
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @707.5 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.0253 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.353 V/m; Power Drift = 0.03 dB
Peak SAR (interpolated) = 0.0210 W/kg
**SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.013 W/kg**
Maximum value of SAR (measured) = 0.0182 W/kg




0 dB = 0.0182 W/kg = -17.40 dB dBW/kg

**Test Plot14#: LTE Band 12_Body Bottom_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

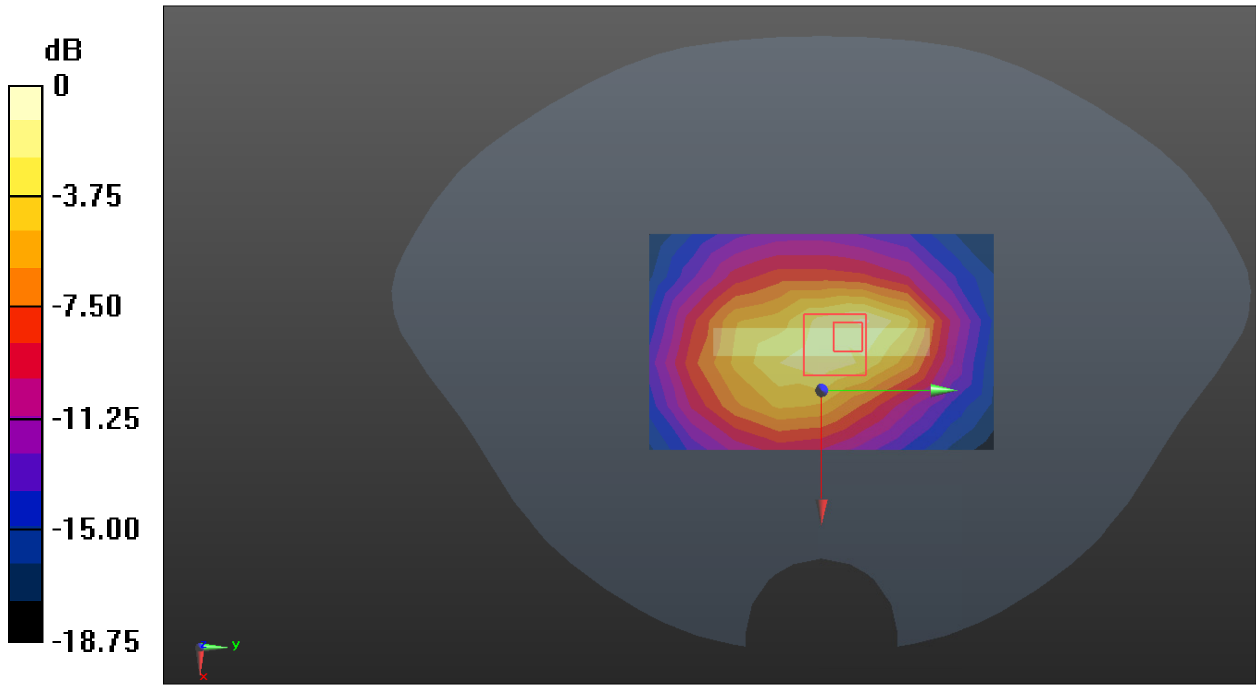
Communication System: Generic FDD-LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used: f =707.5 MHz; $\sigma$ = 0.859 S/m; $\varepsilon_r$ = 42.496; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @707.5 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.0504 W/kg

**Zoom Scan (6x6x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.590 V/m; Power Drift = 0.13 dB
Peak SAR (interpolated) = 0.104 W/kg
**SAR(1 g) = 0.049 W/kg; SAR(10 g) = 0.026 W/kg**
Maximum value of SAR (measured) = 0.0626 W/kg




0 dB = 0.0626 W/kg = -12.03 dB dBW/kg

**Test Plot15#: LTE Band 13_Head Left Cheek_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

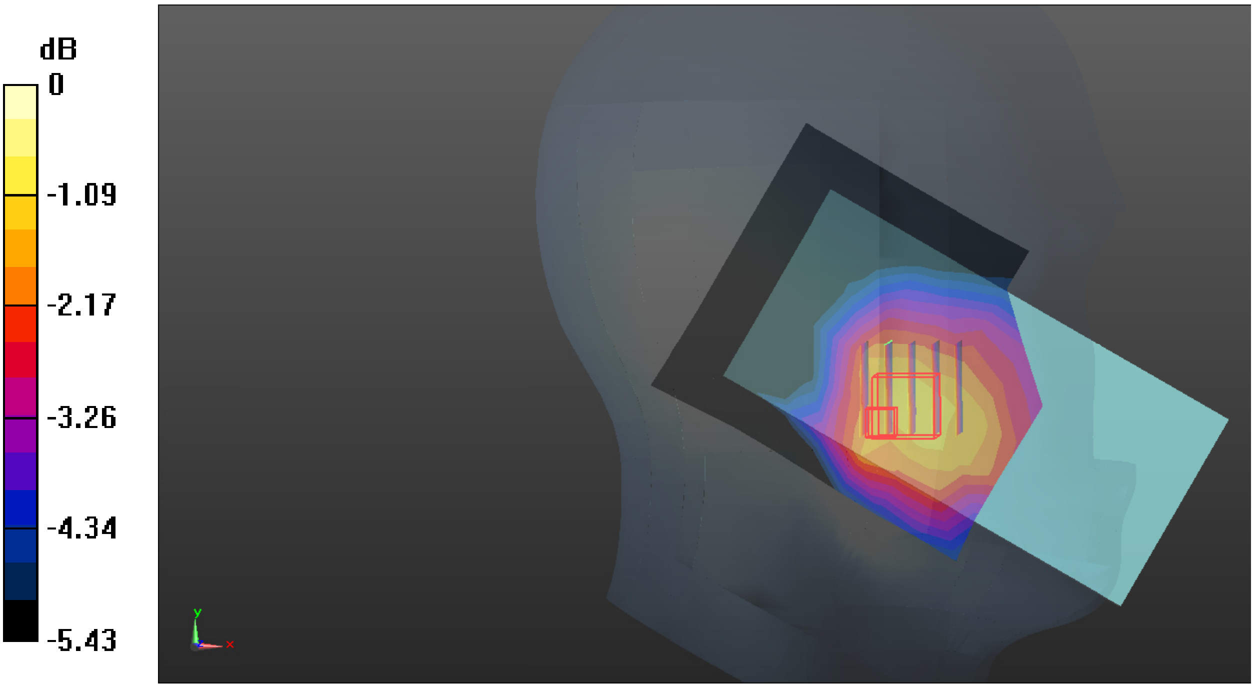
Communication System: Generic FDD-LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f =782 MHz; $\sigma$ = 0.892 S/m; $\varepsilon_r$ = 41.729; $\rho$ = 1000 kg/$m^3$ ;
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @782 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.0353 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.454 V/m; Power Drift = 0.09 dB
Peak SAR (interpolated) = 0.0810 W/kg
**SAR(1 g) = 0.038 W/kg; SAR(10 g) = 0.031 W/kg**
Maximum value of SAR (measured) = 0.0470 W/kg




0 dB = 0.0470 W/kg = -13.28 dB dBW/kg

**Test Plot16#: LTE Band 13_Body Bottom_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

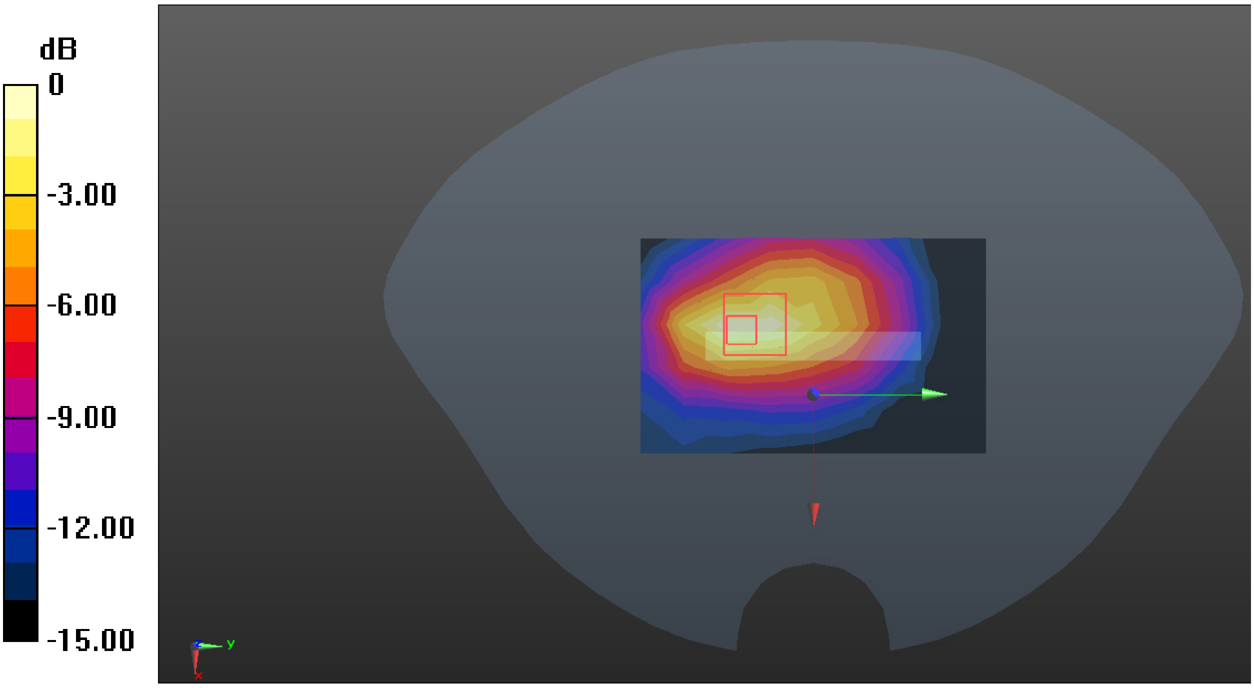
Communication System: Generic FDD-LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f =782 MHz; $\sigma$ = 0.892 S/m; $\varepsilon_r$ = 41.729; $\rho$ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(9.49, 9.49, 9.49) @782 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x9x1):**Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.0966 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.844 V/m; Power Drift = -0.17 dB
Peak SAR (interpolated) = 0.172 W/kg
**SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.042 W/kg**
Maximum value of SAR (measured) = 0.100 W/kg




0 dB = 0.100 W/kg = -10.00 dB dBW/kg

**Test Plot17#: LTE Band 41_Head Left Cheek_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

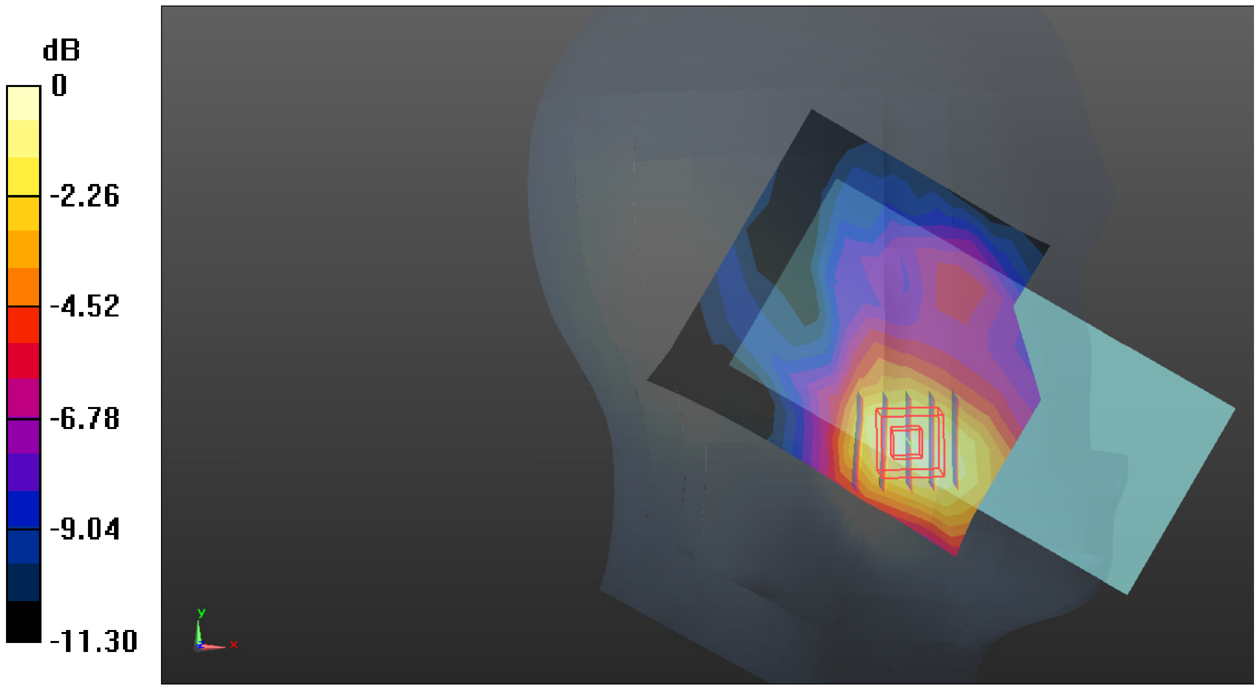
Communication System: Generic TDD-LTE (0); Frequency: 2593 MHz;Duty Cycle: 1:1.58
Medium parameters used: f =2593 MHz; σ = 1.935 S/m; $\varepsilon_r$ = 38.847; ρ = 1000 kg/$m^3$ ;
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.16, 7.16, 7.16) @2593 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (10x11x1):**Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.161 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.970 V/m; Power Drift = 0.19 dB
Peak SAR (interpolated) = 0.235 W/kg
**SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.085 W/kg**
Maximum value of SAR (measured) = 0.168 W/kg




0 dB = 0.168 W/kg = -7.75 dB dBW/kg

**Test Plot18#: LTE Band 41_Body Bottom_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

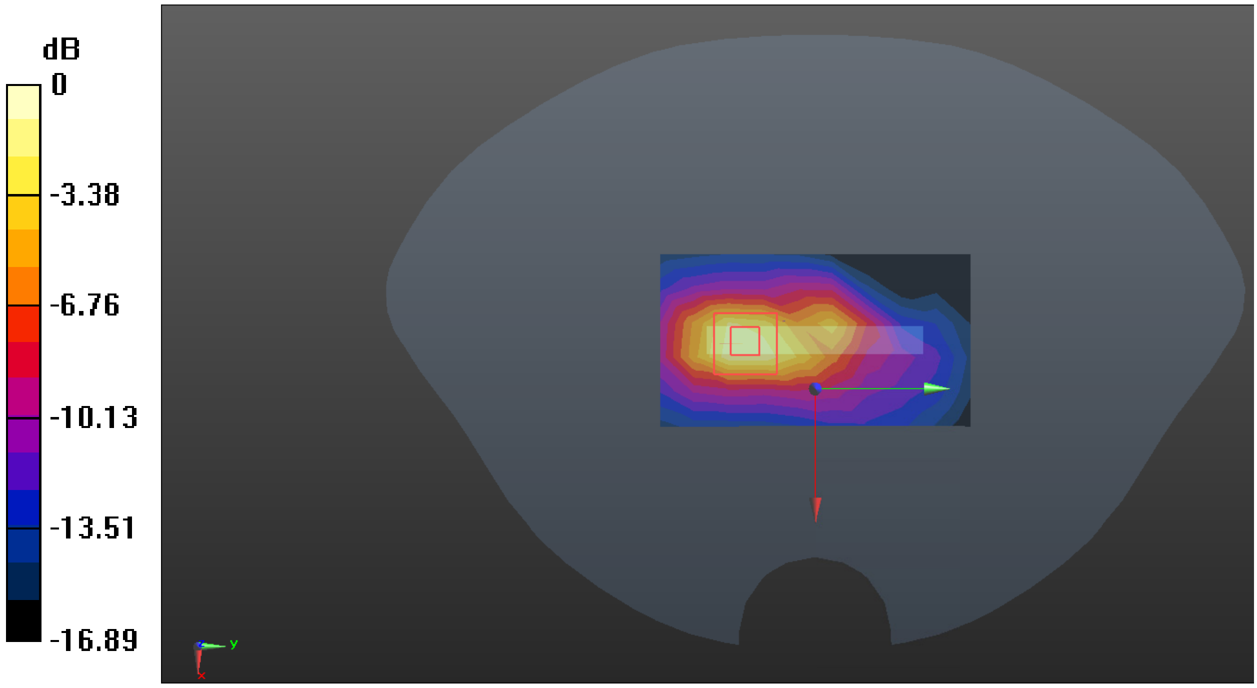
Communication System: Generic TDD-LTE (0); Frequency: 2593 MHz;Duty Cycle: 1:1.58
Medium parameters used: f =2593 MHz; σ = 1.935 S/m; $\varepsilon_r$ = 38.847; ρ = 1000 kg/m$^3$ ;
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.16, 7.16, 7.16) @2593 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (6x10x1):**Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.608 W/kg

**Zoom Scan (5x5x7)/Cube 0:**Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.45 V/m; Power Drift = -0.17 dB
Peak SAR (interpolated) = 1.29 W/kg
**SAR(1 g) = 0.646 W/kg; SAR(10 g) = 0.299 W/kg**
Maximum value of SAR (measured) = 0.862 W/kg




0 dB = 0.862 W/kg = -0.64 dB dBW/kg

**Test Plot19#: FR1 n 41_Head Right Cheek_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

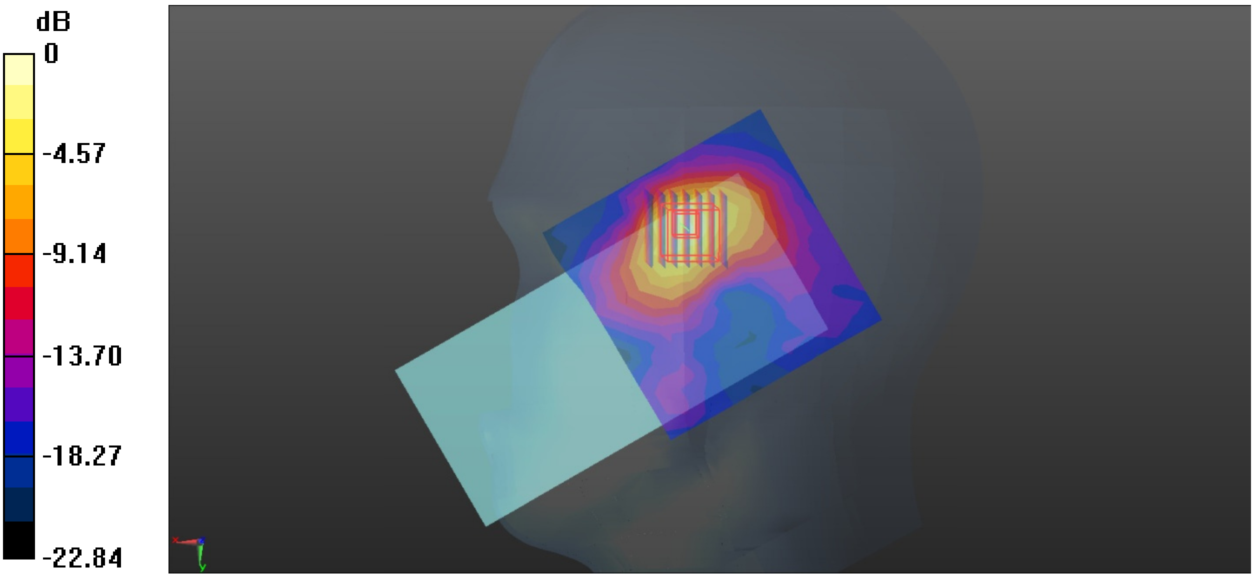
Communication System: Generic TDD-FR1 n 41 (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58
Medium parameters used: f =2593 MHz; $\sigma$ = 1.935 S/m; $\varepsilon_r$ = 38.847; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.16, 7.16, 7.16) @2593 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (11x11x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.465 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.360 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.814 W/kg
**SAR(1 g) = 0.321 W/kg; SAR(10 g) = 0.141 W/kg**
Maximum value of SAR (measured) = 0.603 W/kg




0 dB = 0.603 W/kg = -2.20 dBW/kg

**Test Plot20#: FR1 n 41_Body Back_1RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

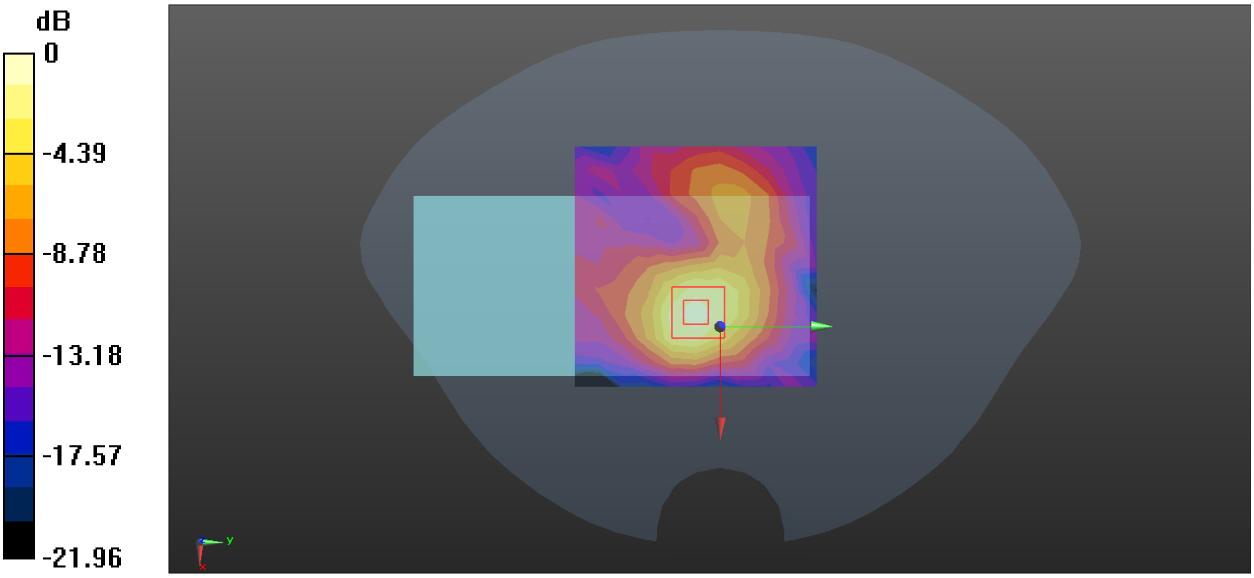
Communication System: Generic TDD-FR1 n 41 (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58
Medium parameters used: f =2593 MHz; $\sigma$ = 1.935 S/m; $\varepsilon_r$ = 38.847; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.16, 7.16, 7.16) @2593 MHz; Calibrated: 2023/6/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (11x11x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.227 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.953 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.282 W/kg
**SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.065 W/kg**
Maximum value of SAR (measured) = 0.224 W/kg




0 dB = 0.224 W/kg = -6.50 dBW/kg

**Test Plot21#: FR1 n 66_Head Right Cheek_50%RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

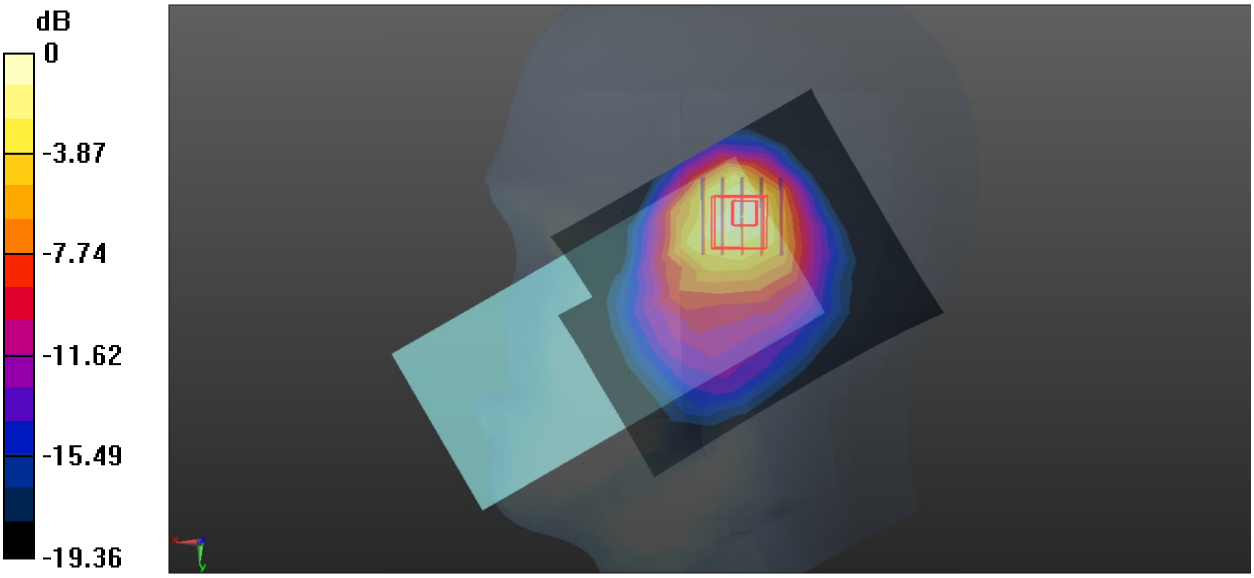
Communication System: FDD-5G NR (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; $\sigma = 1.322$ S/m; $\varepsilon_r = 40.477$; $\rho = 1000$ kg/m$^3$
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(8.22, 8.22, 8.22) @1745 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x10x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.02 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.65 V/m; Power Drift = 0.06 dB
Peak SAR (interpolated) = 1.40 W/kg
**SAR(1 g) = 0.705 W/kg; SAR(10 g) = 0.385 W/kg**
Maximum value of SAR (measured) = 0.977 W/kg




0 dB = 0.977 W/kg = -0.10 dBW/kg

**Test Plot22#: FR1 n 66_Body Back_50%RB_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

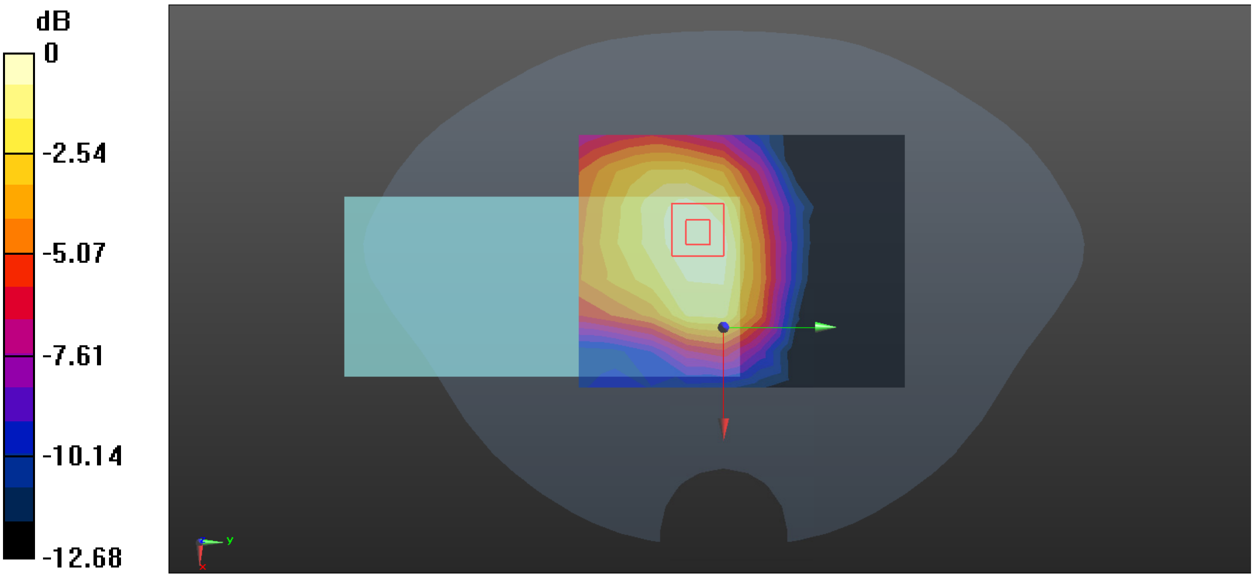
Communication System: FDD-5G NR (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.322 S/m; $\varepsilon_r$ = 40.477; ρ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(8.22, 8.22, 8.22) @1745 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (8x10x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.186 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.83 V/m; Power Drift = -0.07 dB
Peak SAR (interpolated) = 0.218 W/kg
**SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.095 W/kg**
Maximum value of SAR (measured) = 0.189 W/kg




0 dB = 0.189 W/kg = -7.24 dBW/kg

**Test Plot23#: 2.4G WIFI_Head Left Cheek_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

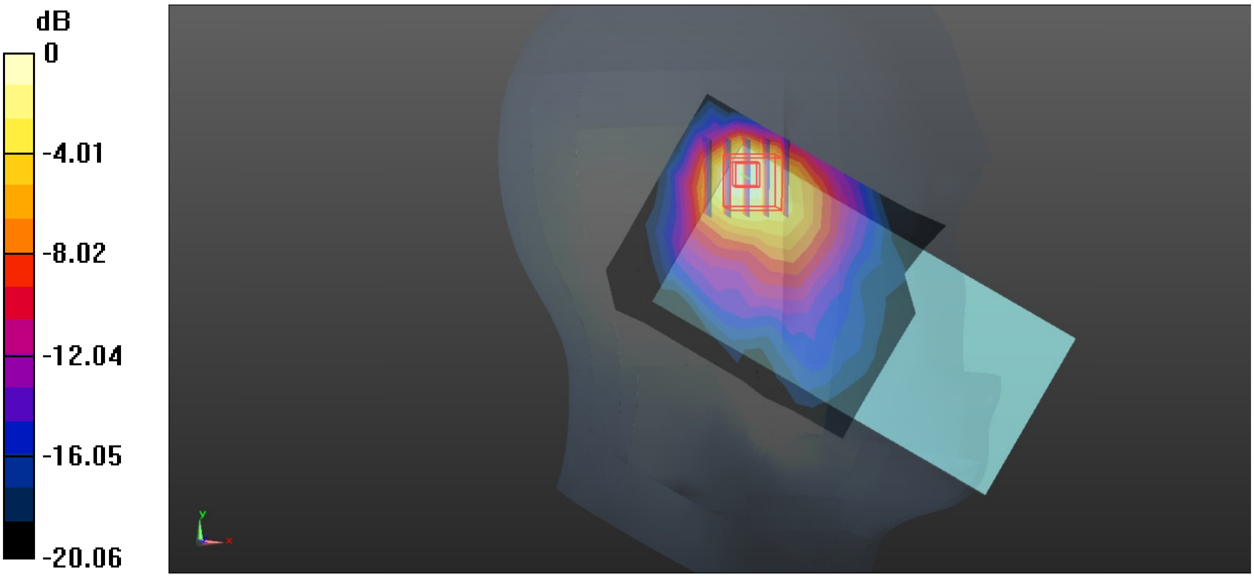
Communication System: 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; $\sigma$ = 1.747 S/m; $\varepsilon_r$ = 39.883; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.38, 7.38, 7.38) @ 2437 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (9x11x1):** Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.499 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.172 V/m; Power Drift = -0.05 dB
Peak SAR (interpolated) = 0.673 W/kg
**SAR(1 g) = 0.281 W/kg; SAR(10 g) = 0.146 W/kg**
Maximum value of SAR (measured) = 0.426 W/kg




0 dB = 0.426 W/kg = -3.71 dBW/kg

**Test Plot24#: 2.4G WIFI_Body Back_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

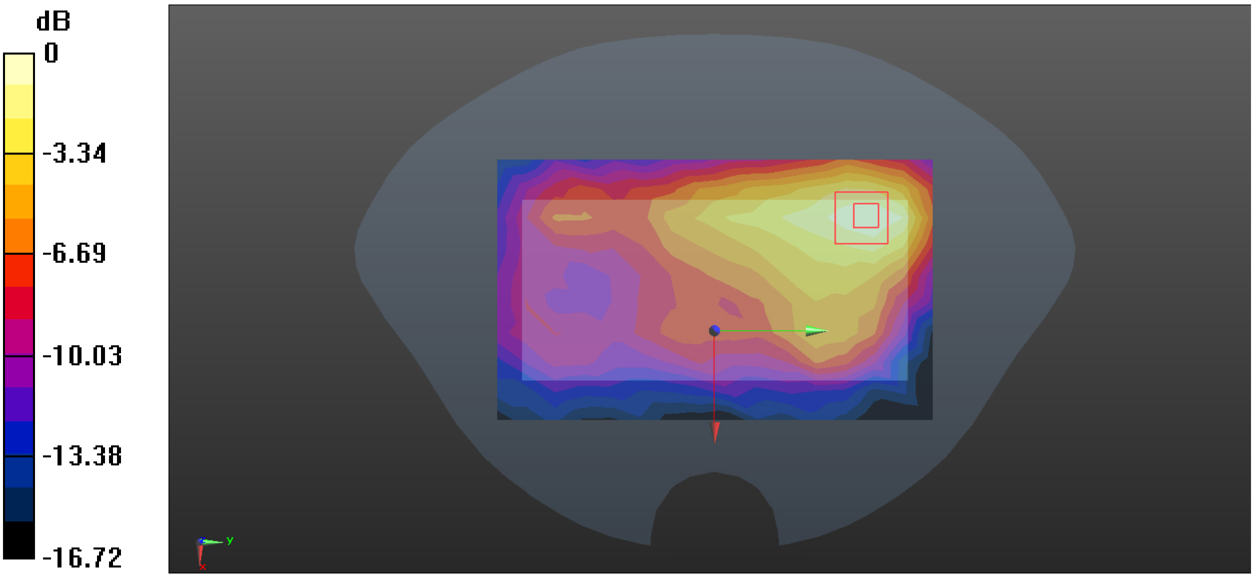
Communication System: 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; $\sigma$ = 1.747 S/m; $\varepsilon_r$ = 39.883; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.38, 7.38, 7.38) @ 2437 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (10x16x1):** Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.0840 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.891 V/m; Power Drift = 0.03 dB
Peak SAR (interpolated) = 0.105 W/kg
**SAR(1 g) = 0.052 W/kg; SAR(10 g) = 0.028 W/kg**
Maximum value of SAR (measured) = 0.0813 W/kg




0 dB = 0.0813 W/kg = -10.90 dBW/kg

**Test Plot25#: 5.2G WIFI_Head Left Tilt_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

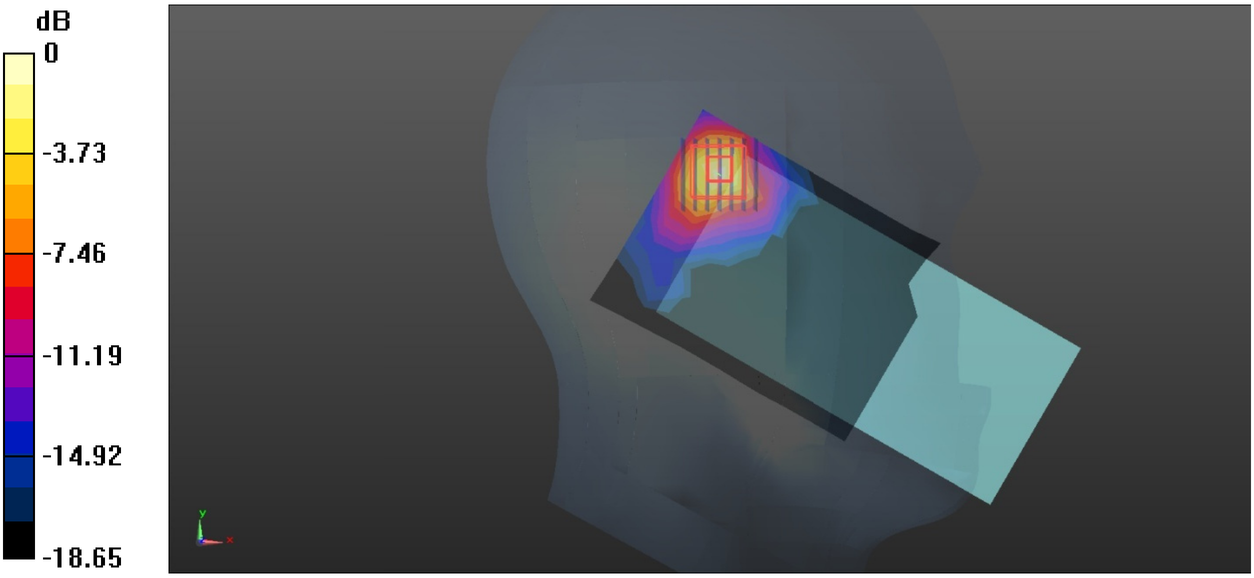
Communication System: 802.11a (0); Frequency: 5230 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5230 MHz; $\sigma$ = 4.725 S/m; $\varepsilon_r$ = 35.996; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(5.19, 5.19, 5.19) @ 5230 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.660 W/kg

**Zoom Scan (8x8x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 4.026 V/m; Power Drift = 0.16 dB
Peak SAR (interpolated) = 1.23 W/kg
**SAR(1 g) = 0.346 W/kg; SAR(10 g) = 0.117 W/kg**
Maximum value of SAR (measured) = 0.824 W/kg




0 dB = 0.824 W/kg = -0.84 dBW/kg

**Test Plot26#: 5.2G WIFI_Body Back_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

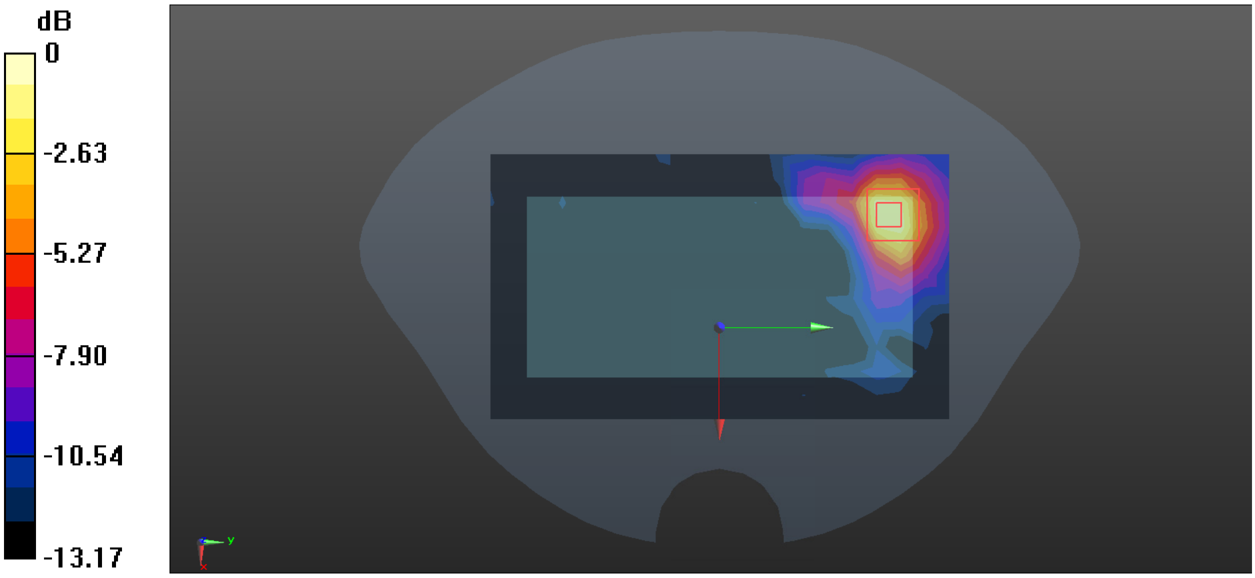
Communication System: 802.11a (0); Frequency: 5230 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5230 MHz; $\sigma$ = 4.725 S/m; $\varepsilon_r$ = 35.996; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(5.19, 5.19, 5.19) @ 5230 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (12x20x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.299 W/kg

**Zoom Scan (8x8x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.915 V/m; Power Drift = 0.04 dB
Peak SAR (interpolated) = 0.570 W/kg
**SAR(1 g) = 0.198 W/kg; SAR(10 g) = 0.091 W/kg**
Maximum value of SAR (measured) = 0.393 W/kg




0 dB = 0.393 W/kg = -4.06 dBW/kg

**Test Plot27#: 5.8G WIFI_Head Left Cheek_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

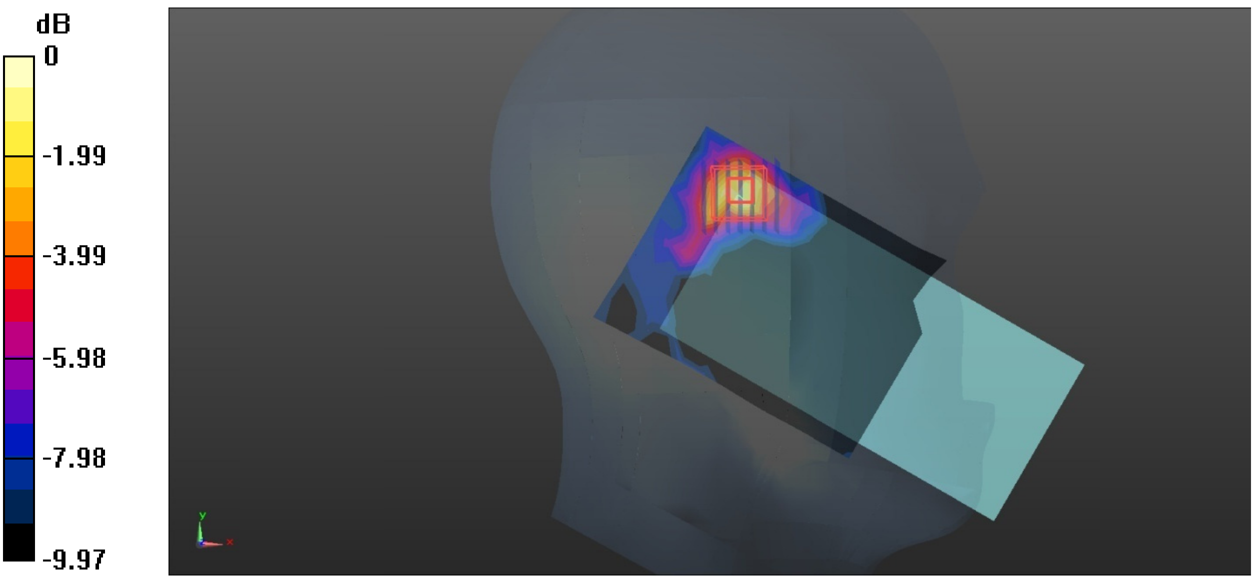
Communication System: 802.11a (0); Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5785 MHz; σ = 5.206 S/m; $\varepsilon_r$ = 35.225; ρ = 1000 kg/m$^3$
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(4.89, 4.89, 4.89) @ 5785 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (10x13x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.433 W/kg

**Zoom Scan (8x8x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 4.827 V/m; Power Drift = 0.11 dB
Peak SAR (interpolated) = 0.955 W/kg
**SAR(1 g) = 0.273 W/kg; SAR(10 g) = 0.140 W/kg**
Maximum value of SAR (measured) = 0.535 W/kg




0 dB = 0.535 W/kg = -2.72 dBW/kg

**Test Plot28#: 5.8G WIFI_Body Top_Middle**

**DUT: Smart phone; Type: PG2309GBA; Serial: 2DU0-1;**

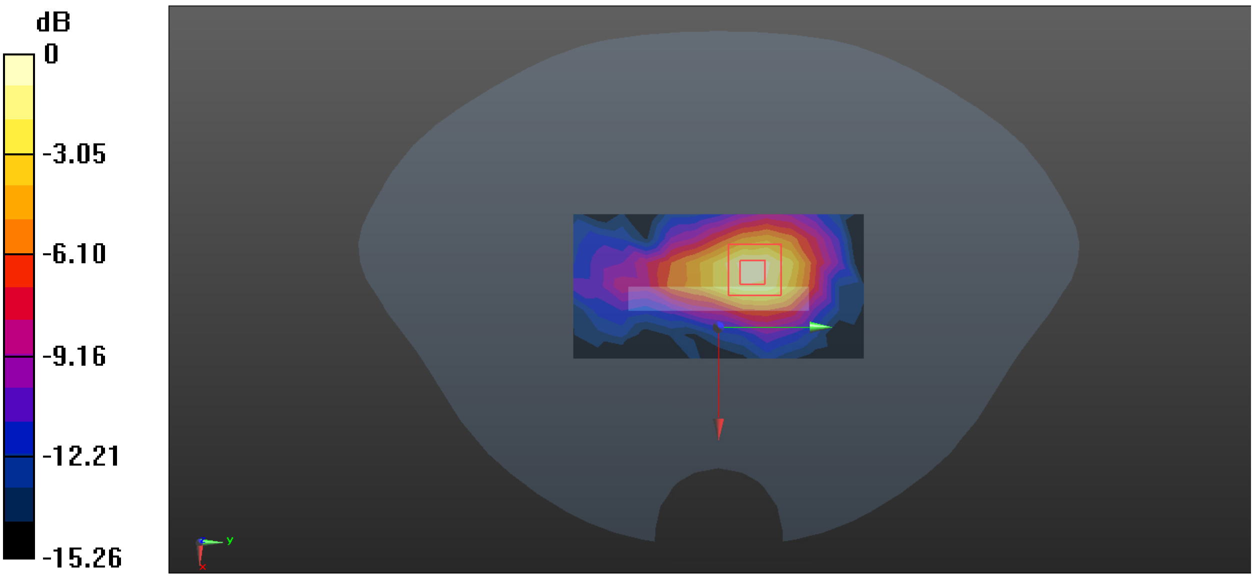
Communication System: 802.11a (0); Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5785 MHz; $\sigma$ = 5.206 S/m; $\varepsilon_r$ = 35.225; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(4.89, 4.89, 4.89) @ 5785 MHz; Calibrated: 2023/6/23
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: Twin SAM V5.0; Type: QD000P40CD; Serial: TP:1470
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Area Scan (7x13x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.267 W/kg

**Zoom Scan (8x8x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 5.907 V/m; Power Drift = -0.06 dB
Peak SAR (interpolated) = 0.492 W/kg
**SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.053 W/kg**
Maximum value of SAR (measured) = 0.302 W/kg




0 dB = 0.302 W/kg = -5.20 dBW/kg

# Appendix A Measurement Uncertainty

The uncertainty budget has been determined for the measurement system and is given in the following Table.

**Measurement uncertainty evaluation for IEC62209-1 SAR test**

| Source of uncertainty | Tolerance/ uncertainty ± % | Probability distribution | Divisor | ci (1 g) | ci (10 g) | Standard uncertainty ± %, (1 g) | Standard uncertainty ± %, (10 g) |
|---|---|---|---|---|---|---|---|
| **Measurement system** | | | | | | | |
| Probe calibration | 6.0 | N | 1 | 1 | 1 | 6.0 | 6.0 |
| Axial Isotropy | 1.5 | R | √3 | 1 | 1 | 0.9 | 0.9 |
| Hemispherical Isotropy | 9.4 | R | √3 | 0 | 0 | 0.0 | 0.0 |
| Boundary effect | 1.2 | R | √3 | 1 | 1 | 0.7 | 0.7 |
| Linearity | 0.9 | R | √3 | 1 | 1 | 0.5 | 0.5 |
| Detection limits | 1.1 | R | √3 | 1 | 1 | 0.6 | 0.6 |
| Readout electronics | 0.5 | N | 1 | 1 | 1 | 0.5 | 0.5 |
| Response time | 0 | R | √3 | 1 | 1 | 0.0 | 0.0 |
| Integration time | 0 | R | √3 | 1 | 1 | 0.0 | 0.0 |
| RF ambient conditions – noise | 1.1 | R | √3 | 1 | 1 | 0.6 | 0.6 |
| RF ambient conditions–reflections | 1.2 | R | √3 | 1 | 1 | 0.7 | 0.7 |
| Probe positioner mech. Restrictions | 0.9 | R | √3 | 1 | 1 | 0.5 | 0.5 |
| Probe positioning with respect to phantom shell | 6.9 | R | √3 | 1 | 1 | 4.0 | 4.0 |
| Post-processing | 2.1 | R | √3 | 1 | 1 | 1.2 | 1.2 |
| **Test sample related** | | | | | | | |
| Test sample positioning | 2.2 | N | 1 | 1 | 1 | 2.2 | 2.2 |
| Device holder uncertainty | 6.1 | N | 1 | 1 | 1 | 6.1 | 6.1 |
| Drift of output power | 5.3 | R | √3 | 1 | 1 | 3.1 | 3.1 |
| Power scaling | 3.98 | R | √3 | 1 | 1 | 2.3 | 2.3 |
| **Phantom and set-up** | | | | | | | |
| Phantom uncertainty (shape and thickness tolerances) | 4.1 | R | √3 | 1 | 1 | 2.4 | 2.4 |
| Liquid conductivity target) | 4.1 | R | √3 | 0.64 | 0.43 | 1.5 | 1.0 |
| Liquid conductivity meas.) | 3 | N | 1 | 0.64 | 0.43 | 1.9 | 1.3 |
| Liquid permittivity target) | 4.3 | R | √3 | 0.6 | 0.49 | 1.5 | 1.2 |
| Liquid permittivity meas.) | 2.9 | N | 1 | 0.6 | 0.49 | 1.7 | 1.4 |
| Combined standard uncertainty | | RSS | | | | 11.4 | 11.2 |
| Expanded uncertainty 95 % confidence interval) | | | | | | 22.8 | 22.4 |

**Measurement uncertainty evaluation for IEC62209-2 SAR test**

| Source of uncertainty | Tolerance/ uncertainty ± % | Probability distribution | Divisor | ci (1 g) | ci (10 g) | Standard uncertainty ± %, (1 g) | Standard uncertainty ± %, (10 g) |
|---|---|---|---|---|---|---|---|
| **Measurement system** | | | | | | | |
| Probe calibration | 6.0 | N | 1 | 1 | 1 | 6.0 | 6.0 |
| Axial Isotropy | 1.5 | R | √3 | 1 | 1 | 0.9 | 0.9 |
| Hemispherical Isotropy | 9.4 | R | √3 | 0 | 0 | 0.0 | 0.0 |
| Linearity | 0.9 | R | √3 | 1 | 1 | 0.5 | 0.5 |
| Modulation Response | 0 | R | √3 | 1 | 1 | 0.0 | 0.0 |
| Detection limits | 1.1 | R | √3 | 1 | 1 | 0.6 | 0.6 |
| Boundary effect | 1.2 | R | √3 | 1 | 1 | 0.7 | 0.7 |
| Readout electronics | 0.5 | N | 1 | 1 | 1 | 0.5 | 0.5 |
| Response time | 0 | R | √3 | 1 | 1 | 0.0 | 0.0 |
| Integration time | 0 | R | √3 | 1 | 1 | 0.0 | 0.0 |
| RF ambient conditions – noise | 1.1 | R | √3 | 1 | 1 | 0.6 | 0.6 |
| RF ambient conditions–reflections | 1.2 | R | √3 | 1 | 1 | 0.7 | 0.7 |
| Probe positioner mech. Restrictions | 0.9 | R | √3 | 1 | 1 | 0.5 | 0.5 |
| Probe positioning with respect to phantom shell | 6.9 | R | √3 | 1 | 1 | 4.0 | 4.0 |
| Post-processing | 2.1 | R | √3 | 1 | 1 | 1.2 | 1.2 |
| **Probe calibration** | | | | | | | |
| Device holder Uncertainty | 6.1 | N | 1 | 1 | 1 | 6.1 | 6.1 |
| Test sample positioning | 2.2 | N | 1 | 1 | 1 | 2.2 | 2.2 |
| Power scaling | 3.98 | R | √3 | 1 | 1 | 2.3 | 2.3 |
| Drift of output power | 5.3 | R | √3 | 1 | 1 | 3.1 | 3.1 |
| **Phantom and set-up** | | | | | | | |
| Phantom uncertainty (shape and thickness tolerances) | 4.1 | R | √3 | 1 | 1 | 2.4 | 2.4 |
| Algorithm for correcting SAR for deviations in permittivity and conductivity | 2.3 | N | 1 | 1 | 0.84 | 2.3 | 1.9 |
| Liquid conductivity (meas.) | 2.7 | N | 1 | 0.64 | 0.43 | 1.7 | 1.2 |
| Liquid permittivity (meas.) | 2.9 | N | 1 | 0.6 | 0.49 | 1.7 | 1.4 |
| Temp. unc. - Conductivity | 1.5 | R | √3 | 0.78 | 0.71 | 0.7 | 0.6 |
| Temp. unc. - Permittivity | 0.6 | R | √3 | 0.23 | 0.26 | 0.1 | 0.1 |
| Combined standard uncertainty | | RSS | | | | 11.5 | 11.3 |
| Expanded uncertainty 95 % confidence interval) | | | | | | 23.0 | 22.6 |

# Appendix B Test Setup Photos

Please refer to the attachment (SAR EUT Test Position Photos_A).

# Appendix C Probe Calibration Certificates

Please refer to the attachment (Appendix Probe and Dipole Calibration Certificates).

# Appendix D Dipole Calibration Certificates

Please refer to the attachment (Appendix Probe and Dipole Calibration Certificates).

**---End of Report---**