

## Part 0 SAR Char Report

The following samples were submitted and identified on behalf of the client as:

|                            |                                                                                |
|----------------------------|--------------------------------------------------------------------------------|
| <b>Product Name</b>        | Liveu net stream                                                               |
| <b>Brand Name</b>          | Liveu net stream                                                               |
| <b>Model No.</b>           | Net Stream                                                                     |
| <b>Applicant</b>           | LiveU Inc.<br>2 University Plaza Drive, Suite 505 Hackensack, NJ<br>07601, USA |
| <b>Standards</b>           | IEEE/ANSI C95.1-1992, IEEE 1528-2013                                           |
| <b>FCC ID</b>              | 2AVDZEM91                                                                      |
| <b>Date of EUT Receipt</b> | Jun. 25, 2024                                                                  |
| <b>Date of Test(s)</b>     | Nov. 15, 2025 ~ Nov. 24, 2025                                                  |
| <b>Date of Issue</b>       | May 27, 2026                                                                   |

Approved By /

John Teh

John Yeh

In the configuration tested, the EUT complied with the standards specified above.

### Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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## Revision History

| Report Number    | Revision | Description                  | Issue Date    | Revised By | Remark |
|------------------|----------|------------------------------|---------------|------------|--------|
| TESA2411000767EN | 00       | Initial creation of document | Dec. 03, 2025 | Cindy Chou |        |
| TESA2411000767EN | 01       | Modify comment               | May 21, 2026  | Cindy Chou | *      |
| TESA2411000767EN | 02       | Modify comment               | May 27, 2026  | Cindy Chou | *      |
|                  |          |                              |               |            |        |
|                  |          |                              |               |            |        |
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|                  |          |                              |               |            |        |
|                  |          |                              |               |            |        |
|                  |          |                              |               |            |        |

Note:

1. The mark " \* " is the revised version of the report due to comments submitted by the certification.

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## 1 GENERAL INFORMATION

The SAR testing method and procedure for this device is in accordance with the following standards:

IEEE/ANSI C95.1-1992

IEEE 1528-2013

KDB 447498 D01v06

KDB 865664 D01v01r04

KDB 865664 D02v01r02

KDB 941225 D01v03r01

KDB 941225 D05v02r05

KDB 941225 D05Av01r02

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## 2 GENERAL INFORMATION

### 2.1 Test Facility

| Laboratory                                            | Test Site Address                                                                                    | Test Site Name | Test Engineer   | Project Manager | FCC Designation number/Registration Number | IC CAB identifier/Company Number |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------|-----------------|-----------------|--------------------------------------------|----------------------------------|
| SGS Taiwan Ltd.<br>Central RF Lab.<br>(TAF code 3702) | <b>1F, No. 8, Alley 15, Lane 120, Sec. 1, NeiHu Road, NeiHu District, Taipei City, 11493, Taiwan</b> | SAR 2          | -               | -               | TW0029/<br>150169                          | TW3702/<br>23862                 |
|                                                       |                                                                                                      | <b>SAR 6</b>   | <b>Jason Mo</b> | <b>Afu Chen</b> |                                            |                                  |
|                                                       |                                                                                                      | SAR 8          | -               | -               |                                            |                                  |
|                                                       | No. 2, Keji 1st Rd., Guishan Township, Taoyuan County, 33383, Taiwan                                 | SAR 1          | -               | -               | TW0028/<br>200037                          | TW3702/<br>4620E                 |
|                                                       |                                                                                                      | SAR 4          | -               | -               |                                            |                                  |
|                                                       | No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan             | SAR 3          | -               | -               | TW0027/<br>891563                          | TW3702/<br>4620A                 |
|                                                       |                                                                                                      | SAR 7          | -               | -               |                                            |                                  |

**Note:** Test site name is remarked on a bolded mark as an indication where measurements occurred in specific test site and address.

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## 2.2 Description of EUT

|                                            |                                            |           |
|--------------------------------------------|--------------------------------------------|-----------|
| Product Name                               | Liveu net stream                           |           |
| Brand Name                                 | Liveu net stream                           |           |
| Model No.                                  | Net Stream                                 |           |
| Integrated WWAN Module                     | Brand Name: AirPrime<br>Model Name: EM9190 |           |
| Duty Cycle                                 | WCDMA                                      | 1         |
|                                            | LTE FDD                                    | 1         |
|                                            | LTE TDD Power Class 3                      | 0.633     |
|                                            | LTE TDD Power Class 2                      | 0.433     |
|                                            | 5G NR                                      | 1         |
| Supported radios (TX Frequency Range, MHz) | WCDMA Band II                              | 1850-1910 |
|                                            | WCDMA Band IV                              | 1710-1755 |
|                                            | WCDMA Band V                               | 824-849   |
|                                            | LTE FDD Band 2                             | 1850-1910 |
|                                            | LTE FDD Band 4                             | 1710-1755 |
|                                            | LTE FDD Band 5                             | 824-849   |
|                                            | LTE FDD Band 7                             | 2500-2570 |
|                                            | LTE FDD Band 12                            | 699-716   |
|                                            | LTE FDD Band 13                            | 777-787   |
|                                            | LTE FDD Band 14                            | 788-798   |
|                                            | LTE FDD Band 17                            | 704-716   |
|                                            | LTE FDD Band 25                            | 1850-1915 |
|                                            | LTE FDD Band 26                            | 814-849   |
|                                            | LTE TDD Band 38 Power Class 2/3            | 2570-2620 |
|                                            | LTE TDD Band 41 Power Class 2/3            | 2496-2690 |
|                                            | LTE TDD Band 42 Power Class 2/3            | 3400-3600 |

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|                                            |                                 |                        |
|--------------------------------------------|---------------------------------|------------------------|
| Supported radios (TX Frequency Range, MHz) | LTE TDD Band 48 Power Class 2/3 | 3550-3700              |
|                                            | LTE FDD Band 66                 | 1710-1780              |
|                                            | LTE FDD Band 71                 | 663-698                |
|                                            | n2                              | 1850-1910              |
|                                            | n5                              | 824-849                |
|                                            | n7                              | 2500-2570              |
|                                            | n12                             | 699-716                |
|                                            | n25                             | 1850-1915              |
|                                            | n66                             | 1710-1780              |
|                                            | n71                             | 663-698                |
|                                            | n77/78                          | 3450-3550<br>3700-3980 |

This device uses the Qualcomm® Smart Transmit feature to control and manage transmitting power in real time and to ensure the time-averaged RF exposure is in compliance with the FCC requirement at all times for 3G/4G/5G Sub-6 NR WWAN operations.

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## 2.3 Time-Averaging for SAR

This device is enabled with Qualcomm® Smart Transmit algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 3G/4G/5G Sub-6 NR WWAN is in compliance with FCC requirements. This Part 0 report shows SAR characterization of WWAN radios for 3G/4G and 5G Sub-6 NR. Characterization is achieved by determining Plimit for 3G/4G and 5G Sub-6 NR that correspond to the exposure design targets after accounting for all device design related uncertainties, i.e., SAR\_design\_target (< FCC SAR limit) for sub-6 radio. The SAR characterization is denoted as SAR Char in this report. Section 2.4 includes a nomenclature of the specific terms used in this report.

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in Part 1 report. The validation of the time-averaging algorithm and compliance under the dynamic (time-varying) transmission scenario for WWAN technologies are reported in Part 2 report (report Number could be found in Section 2.5 – Bibliography).

## 2.4 Time-Averaging for SAR

| Technology        | Term              | Description                                                                                                                             |
|-------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 3G/4G/5G Sub-6 NR | Plimit            | The time-averaged RF power which corresponds to SAR_design_target                                                                       |
|                   | Pmax              | Maximum tune-up power level                                                                                                             |
|                   | SAR_design_target | The SAR design target for SAR compliance. It shall be less than SAR limit after accounting for all device design related uncertainties. |
|                   | SAR Char          | Plimit for all technologies/bands for all applicable DSI                                                                                |

## 2.5 Reference

| Report Type                         | Report Number    |
|-------------------------------------|------------------|
| FCC Qualcomm WWAN TAS part 1 report | TESA2411000771EN |
| FCC Qualcomm WWAN TAS part 2 report | TESA2411000772EN |

## 2.6 Test Environment

Ambient Temperature: 22±2° C

Tissue Simulating Liquid: 22±2° C

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## 2.7 Operation Description

The device was tested for front edge, back edge, right edge, left edge, and top edge with 5mm separation distance.

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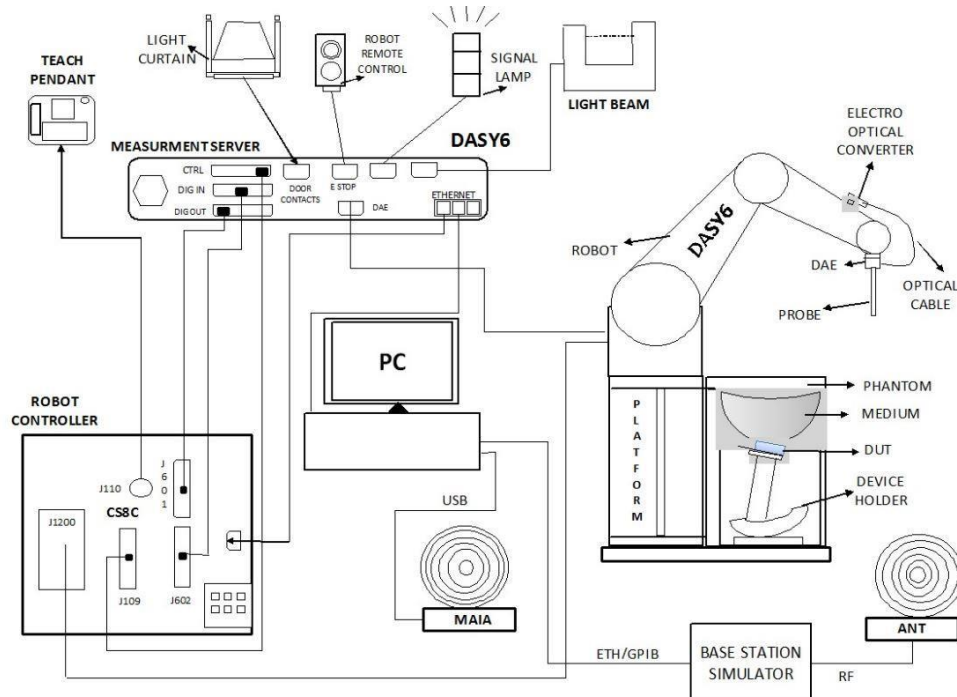
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## 2.8 SAR System

### Block Diagram (DASY6)

The DASY system used 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 amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- 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 Windows 10 and the DASY6 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.

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## EX3DV4 E-Field Probe

|               |                                                                                                                                                                                                            |                                                                                     |  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|
| Construction  | Symmetrical design with triangular core<br>Built-in shielding against static charges<br>PEEK enclosure material (resistant to organic solvents, e.g., DGBE)                                                |  |  |
| Calibration   | Basic Broad Band Calibration in air Conversion Factors (CF) for HSL<br>750/835/1750/1900/2600/3500/3700/3900 MHz Additional CF for other liquids and frequencies upon request                              |                                                                                     |  |
| Frequency     | 10 MHz to > 6 GHz                                                                                                                                                                                          |                                                                                     |  |
| Directivity   | ± 0.3 dB in HSL (rotation around probe axis)<br>± 0.5 dB in tissue material (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    | Tip diameter: 2.5 mm                                                                                                                                                                                       |                                                                                     |  |
| Application   | High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%. |                                                                                     |  |

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## PHANTOM (ELI)

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Model           | ELI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     |
| Construction    | The ELI phantom is used for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles. |                                                                                     |
| Shell Thickness | 2 ± 0.2 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| Filling Volume  | Approx. 30 liters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                     |
| Dimensions      | Major axis: 600 mm<br>Minor axis: 400 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |

## DEVICE HOLDER

|              |                                                                                                                                                                                         |                                                                                      |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Construction | The device holder (Supporter) for Notebook is made by POM (polyoxymethylene resin), which is non-metal and non-conductive. The height can be adjusted to fit various kind of notebooks. |  |
|              |                                                                                                                                                                                         | Device Holder                                                                        |

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## 2.9 SAR System

The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan.
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1g and 10g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within -2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7x7x7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements.

The measured volume of 30x30x30mm contains about 30g of tissue.

The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume. In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will

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issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

## 2.10 Probe Calibration Procedures

For the calibration of E-field probes in lossy liquids, an electric field with an accurately known field strength must be produced within the measured liquid. For standardization purposes it would be desirable if all measurements which are necessary to assess the correct field strength would be traceable to standardized measurement procedures. In the following two different calibration techniques are summarized:

### 2.11.1 Transfer Calibration with Temperature Probes

In lossy liquids the specific absorption rate (SAR) is related both to the electric field ( ) and the temperature gradient ( / ) in the liquid.

$$SAR = \frac{\sigma}{\rho} |E|^2 = c \frac{\delta T}{\delta t}$$

whereby  $\sigma$  is the conductivity,  $\rho$  the density and  $c$  the heat capacity of the liquid.

Hence, the electric field in lossy liquid can be measured indirectly by measuring the temperature gradient in the liquid. Non-disturbing temperature probes (optical probes or thermistor probes with resistive lines) with high spatial resolution (<1-2 mm) and fast reaction time (<1 s) are available and can be easily calibrated with high precision [1]. The setup and the exciting source have no influence on the calibration; only the relative positioning uncertainties of the standard temperature probe and the E-field probe to be calibrated must be considered. However, several problems limit the available accuracy of probe calibrations with temperature probes:

1. The temperature gradient is not directly measurable but must be evaluated from temperature measurements at different time steps. Special precaution is necessary to avoid measurement errors caused by temperature gradients due to energy equalizing effects or convection currents in the liquid. Such effects cannot be completely avoided, as the measured field itself destroys the thermal equilibrium in the liquid. With a careful setup these errors can be kept small.
2. The measured volume around the temperature probe is not well defined. It is difficult to calculate the energy transfer from a surrounding gradient temperature field into the probe. These effects must be considered, since temperature probes are calibrated in liquid with homogeneous temperatures. There is no traceable standard for temperature rise measurements.
3. The calibration depends on the assessment of the specific density, the heat capacity and the conductivity of the medium. While the specific density and heat capacity can be measured accurately with standardized procedures (~ 2% for  $c$ ; much better for  $\rho$ ), there is no standard for the measurement of the conductivity. Depending on the method and liquid, the error can well exceed  $\pm 5\%$ .

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4. Temperature rise measurements are not very sensitive and therefore are often performed at a higher power level than the E-field measurements. The nonlinearities in the system (e.g., power measurements, different components, etc.) must be considered.

Considering these problems, the possible accuracy of the calibration of E-field probes with temperature gradient measurements in a carefully designed setup is about  $\pm 10\%$  (RSS) [2]. Recently, a setup which is a combination of the waveguide techniques and the thermal measurements was presented in [3]. The estimated uncertainty of the setup is  $\pm 5\%$  (RSS) when the same liquid is used for the calibration and for actual measurements and  $\pm 7-9\%$  (RSS) when not, which is in good agreement with the estimates given in [2].

### 2.11.2 Calibration with Analytical Fields

In this method a technical setup is used in which the field can be calculated analytically from measurements of other physical magnitudes (e.g., input power). This corresponds to the standard field method for probe calibration in air; however, there is no standard defined for fields in lossy liquids.

When using calculated fields in lossy liquids for probe calibration, several points must be considered in the assessment of the uncertainty:

1. The setup must enable accurate determination of the incident power.
2. The accuracy of the calculated field strength will depend on the assessment of the dielectric parameters of the liquid.
3. Due to the small wavelength in liquids with high permittivity, even small setups might be above the resonant cutoff frequencies. The field distribution in the setup must be carefully checked for conformity with the theoretical field distribution.

## References

1. N. Kuster, Q. Balzano, and J.C. Lin, Eds., *Mobile Communications Safety*, Chapman & Hall, London, 1997.
2. K. Meier, M. Burkhardt, T. Schmid, and N. Kuster, "Broadband calibration of E-field probes in lossy media", *IEEE Transactions on Microwave Theory and Techniques*, vol. 44, no. 10, pp. 1954-1962, Oct. 1996.
3. K. Jokela, P. Hyysalo, and L. Puranen, "Calibration of specific absorption rate (SAR) probes in waveguide at 900 MHz", *IEEE Transactions on Instrumentation and Measurements*, vol. 47, no. 2, pp. 432-438, Apr. 1998.

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## 2.11 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate ("SAR") in Section 4.2 of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1, By the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields," NCRP Report No. 86, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter. Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

1. Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube).
2. Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.
3. Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section. (Table 4.)

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| Human Exposure                               | Uncontrolled Environment<br>General Population | Controlled Environment<br>Occupational |
|----------------------------------------------|------------------------------------------------|----------------------------------------|
| Spatial Peak SAR (Brain)                     | 1.60 W/Kg                                      | 8.00 W/Kg                              |
| Spatial Average SAR (Whole Body)             | 0.08 W/Kg                                      | 0.40 W/Kg                              |
| Spatial Peak SAR<br>(Hands/Feet/Ankle/Wrist) | 4.00 W/Kg                                      | 20.00 W/Kg                             |

Table 4. RF exposure limits

## Notes:

1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

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### 3 INSTRUMENTS LIST

| Equipment List |                              |                              |               |                          |                          |
|----------------|------------------------------|------------------------------|---------------|--------------------------|--------------------------|
| Manufacturer   | Device                       | Type                         | Serial number | Date of last calibration | Date of next calibration |
| SPEAG          | Data acquisition Electronics | DAE4                         | 1751          | Mar/27/2025              | Mar/26/2026              |
| SPEAG          | Dosimetric E-Field Probe     | EX3DV4                       | 7712          | Mar/24/2025              | Mar/23/2026              |
| SPEAG          | System Validation Dipole     | D750V3                       | 1015          | Sep/26/2025              | Sep/25/2026              |
| SPEAG          | System Validation Dipole     | D835V2                       | 4d063         | Sep/09/2025              | Sep/08/2026              |
| SPEAG          | System Validation Dipole     | D1750V2                      | 1008          | Sep/28/2025              | Sep/27/2026              |
| SPEAG          | System Validation Dipole     | D1900V2                      | 5d173         | Apr/16/2025              | Apr/15/2026              |
| SPEAG          | System Validation Dipole     | D2600V2                      | 1005          | Jan/14/2025              | Jan/13/2026              |
| SPEAG          | System Validation Dipole     | D3500V2                      | 1067          | Jan/16/2025              | Jan/15/2026              |
| SPEAG          | System Validation Dipole     | D3700V2                      | 1074          | Jan/16/2025              | Jan/15/2026              |
| SPEAG          | System Validation Dipole     | D3900V2                      | 1014          | Aug/13/2025              | Aug/12/2026              |
| SPEAG          | Dielectric Assessment Kit    | DAKS-3.5                     | 1053          | Feb/17/2025              | Feb/16/2026              |
| R&S            | MXG Analog Signal Generator  | SMB100A03                    | 182012        | Aug/09/2025              | Aug/08/2026              |
| Agilent        | Dual-directional coupler     | 772D                         | MY46151258    | Oct/08/2025              | Oct/07/2026              |
| Agilent        | Dual-directional coupler     | 778D                         | MY46151242    | Sep/09/2025              | Sep/08/2026              |
| EMCI           | Amplifier                    | EMC 074225P                  | 980155        | Calibration not required | Calibration not required |
| EMCI           | Amplifier                    | EMC 2830P                    | 980156        | Calibration not required | Calibration not required |
| R&S            | Power Sensor                 | NRP18S                       | 109065        | Sep/05/2025              | Sep/04/2026              |
| R&S            | Power Meter                  | NRX                          | 102034        | Dec/27/2024              | Dec/26/2025              |
| R&S            | Power Sensor                 | NRP8S                        | 109066        | Nov/03/2025              | Nov/02/2026              |
| SPEAG          | Software                     | DASY 52<br>V52.10.4.152<br>7 | N/A           | Calibration not required | Calibration not required |
| SPEAG          | Phantom                      | ELI                          | N/A           | Calibration not required | Calibration not required |
| R&S            | Radio Communication Test     | CMW 500                      | 125470        | May/15/2025              | May/14/2026              |
| TECPEL         | Digital thermometer          | HTC-1                        | EC23010603    | Oct/30/2025              | Oct/29/2026              |

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## 4 UNCERTAINTY BUDGET

Measurement Uncertainty evaluation template for DUT SAR test (3-6G)

| A                                                   | c                         | D                          | e   |           | f       | g        | h=c * f / e             | i=c * g / e             | k           |
|-----------------------------------------------------|---------------------------|----------------------------|-----|-----------|---------|----------|-------------------------|-------------------------|-------------|
| Source of Uncertainty                               | Tolerance/<br>Uncertainty | Probability<br>Distributio | Div | Div Value | ci (1g) | ci (10g) | Standard<br>uncertainty | Standard<br>uncertainty | vi, or Veff |
| <b>Measurement system</b>                           |                           |                            |     |           |         |          |                         |                         |             |
| Probe calibration                                   | 6.55%                     | N                          | 1   | 1         | 1       | 1        | 6.55%                   | 6.55%                   | ∞           |
| <i>Isotropy, Axial</i>                              | 3.50%                     | R                          | √3  | 1.732     | 1       | 1        | 2.02%                   | 2.02%                   | ∞           |
| <i>Isotropy, Hemispherical</i>                      | 9.60%                     | R                          | √3  | 1.732     | 1       | 1        | 5.54%                   | 5.54%                   | ∞           |
| Modulation Response                                 | 2.40%                     | R                          | √3  | 1.732     | 1       | 1        | 1.40%                   | 1.40%                   | ∞           |
| Boundary Effect                                     | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| Linearity                                           | 4.70%                     | R                          | √3  | 1.732     | 1       | 1        | 2.71%                   | 2.71%                   | ∞           |
| Detection Limits                                    | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| Readout Electronics                                 | 0.30%                     | N                          | 1   | 1         | 1       | 1        | 0.30%                   | 0.30%                   | ∞           |
| Response time                                       | 0.80%                     | R                          | √3  | 1.732     | 1       | 1        | 0.46%                   | 0.46%                   | ∞           |
| Integration Time                                    | 2.60%                     | R                          | √3  | 1.732     | 1       | 1        | 1.50%                   | 1.50%                   | ∞           |
| <b>Measurement drift<br/>(class A evaluation)</b>   | 1.75%                     | R                          | √3  | 1.732     | 1       | 1        | 1.01%                   | 1.01%                   | ∞           |
| RF ambient condition -<br>noise                     | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | ∞           |
| RF ambient conditions -<br>reflections              | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | ∞           |
| Probe positioner<br>Mechanical restrictions         | 0.40%                     | R                          | √3  | 1.732     | 1       | 1        | 0.23%                   | 0.23%                   | ∞           |
| Probe Positioning with<br>respect to phantom shell  | 2.90%                     | R                          | √3  | 1.732     | 1       | 1        | 1.67%                   | 1.67%                   | ∞           |
| Post-processing                                     | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| Max SAR Eval                                        | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| <b>Test Sample related</b>                          |                           |                            |     |           |         |          |                         |                         |             |
| Test sample positioning                             | 2.90%                     | N                          | 1   | 1         | 1       | 1        | 2.90%                   | 2.90%                   | M-1         |
| Device Holder Uncertainty                           | 3.60%                     | N                          | 1   | 1         | 1       | 1        | 3.60%                   | 3.60%                   | M-1         |
| Drift of output power                               | 5.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.89%                   | 2.89%                   | ∞           |
| <b>Phantom and Setup</b>                            |                           |                            |     |           |         |          |                         |                         |             |
| Phantom Uncertainty                                 | 4.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.31%                   | 2.31%                   | ∞           |
| Liquid permittivity (mea.)                          | 2.89%                     | N                          | 1   | 1         | 0.64    | 0.43     | 1.85%                   | 1.24%                   | M           |
| Liquid Conductivity (mea.)                          | 2.59%                     | N                          | 1   | 1         | 0.6     | 0.49     | 1.55%                   | 1.27%                   | M           |
| Combined standard<br>uncertainty                    |                           | RSS                        |     |           |         |          | 11.96%                  | 11.84%                  |             |
| Expan uncertainty (95%<br>confidence interval), K=2 |                           |                            |     |           |         |          | 23.93%                  | 23.68%                  |             |

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Measurement Uncertainty evaluation template for DUT SAR test (0.3-3G)

| A                                                    | c                         | D                          | e   |           | f       | g        | h=c * f / e             | i=c * g / e             | k           |
|------------------------------------------------------|---------------------------|----------------------------|-----|-----------|---------|----------|-------------------------|-------------------------|-------------|
| Source of Uncertainty                                | Tolerance/<br>Uncertainty | Probability<br>Distributio | Div | Div Value | ci (1g) | ci (10g) | Standard<br>uncertainty | Standard<br>uncertainty | vi, or Veff |
| <b>Measurement system</b>                            |                           |                            |     |           |         |          |                         |                         |             |
| Probe calibration                                    | 6.00%                     | N                          | 1   | 1         | 1       | 1        | 6.00%                   | 6.00%                   | ∞           |
| <i>Isotropy , Axial</i>                              | 3.50%                     | R                          | √3  | 1.732     | 1       | 1        | 2.02%                   | 2.02%                   | ∞           |
| <i>Isotropy, Hemispherical</i>                       | 9.60%                     | R                          | √3  | 1.732     | 1       | 1        | 5.54%                   | 5.54%                   | ∞           |
| Modulation Response                                  | 2.40%                     | R                          | √3  | 1.732     | 1       | 1        | 1.40%                   | 1.40%                   | ∞           |
| Boundary Effect                                      | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| Linearity                                            | 4.70%                     | R                          | √3  | 1.732     | 1       | 1        | 2.71%                   | 2.71%                   | ∞           |
| Detection Limits                                     | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| Readout Electronics                                  | 0.30%                     | N                          | 1   | 1         | 1       | 1        | 0.30%                   | 0.30%                   | ∞           |
| Response time                                        | 0.80%                     | R                          | √3  | 1.732     | 1       | 1        | 0.46%                   | 0.46%                   | ∞           |
| Integration Time                                     | 2.60%                     | R                          | √3  | 1.732     | 1       | 1        | 1.50%                   | 1.50%                   | ∞           |
| <b>Measurement drift<br/>(class A evaluation)</b>    | 1.75%                     | R                          | √3  | 1.732     | 1       | 1        | 1.01%                   | 1.01%                   | ∞           |
| RF ambient condition -<br>noise                      | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | ∞           |
| RF ambient conditions -<br>reflections               | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | ∞           |
| Probe positioner<br>Mechanical restrictions          | 0.40%                     | R                          | √3  | 1.732     | 1       | 1        | 0.23%                   | 0.23%                   | ∞           |
| Probe Positioning with<br>respect to phantom shell   | 2.90%                     | R                          | √3  | 1.732     | 1       | 1        | 1.67%                   | 1.67%                   | ∞           |
| Post-processing                                      | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| Max SAR Eval                                         | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ∞           |
| <b>Test Sample related</b>                           |                           |                            |     |           |         |          |                         |                         |             |
| Test sample positioning                              | 2.90%                     | N                          | 1   | 1         | 1       | 1        | 2.90%                   | 2.90%                   | M-1         |
| Device Holder Uncertainty                            | 3.60%                     | N                          | 1   | 1         | 1       | 1        | 3.60%                   | 3.60%                   | M-1         |
| Drift of output power                                | 5.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.89%                   | 2.89%                   | ∞           |
| <b>Phantom and Setup</b>                             |                           |                            |     |           |         |          |                         |                         |             |
| Phantom Uncertainty                                  | 4.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.31%                   | 2.31%                   | ∞           |
| Liquid permittivity (mea.)                           | 3.83%                     | N                          | 1   | 1         | 0.64    | 0.43     | 2.45%                   | 1.65%                   | M           |
| Liquid Conductivity (mea.)                           | 4.01%                     | N                          | 1   | 1         | 0.6     | 0.49     | 2.41%                   | 1.96%                   | M           |
| Combined standard<br>uncertainty                     |                           | RSS                        |     |           |         |          | 11.92%                  | 11.69%                  |             |
| Expant uncertainty (95%<br>confidence interval), K=2 |                           |                            |     |           |         |          | 23.85%                  | 23.39%                  |             |

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## 5 SAR CHARACTERIZATION

### 5.1 SAR\_design\_target and Uncertainty

SAR\_design\_target is determined by ensuring that it is less than FCC SAR limit after accounting for total device designed related uncertainties specified by the manufacturer.

$$\text{SAR\_design\_target} < \text{SAR\_limit} \times 10^{(-\text{total uncertainty} / 10)}$$

|                   |                      |
|-------------------|----------------------|
|                   | Uncertainty dB (k=2) |
| Total uncertainty | 1.59                 |

| Exposure  | Antenna | Frequency band | SAR_design_target |
|-----------|---------|----------------|-------------------|
| Test mode | Tx      | All            | 1.1 W/Kg          |

### 5.2 SAR Characterization

SAR test results corresponding to Pmax for each antenna/technology/band/DSI can be found in next chapter.

Plimit is calculated by linearly scaling the measured SAR at the Pmax to SAR\_design\_target.

Plimit determination corresponding to SAR\_design\_target are shown in next chapter.

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## 6 SAR TEST RESULTS FOR PLIMIT CALCULATIONS

### WCDMA\_Body

| Band / Mode | Antenna | Bandwidth | Modulation | Frequency (MHz) | Channel | Duty cycle | Test position | Test Distance (mm) | MPR (dBm) | Target power (dBm) | Measured conducted power (dBm) | Measured 1g-SAR (W/Kg) | Plimit** (dBm) | Minimum Plimit** (dBm) | Pmax* (dBm) |
|-------------|---------|-----------|------------|-----------------|---------|------------|---------------|--------------------|-----------|--------------------|--------------------------------|------------------------|----------------|------------------------|-------------|
| WCDMA II    | 0       | 5         | 3GPP Rel99 | 1852.4          | 9262    | 100.00%    | Front Edge    | 5                  | 0         | 24.5               | 23.92                          | 1.960                  | 21.41          | 21.07                  | 23.5        |
| WCDMA II    | 0       | 5         | 3GPP Rel99 | 1880            | 9400    | 100.00%    | Front Edge    | 5                  | 0         | 24.5               | 23.99                          | 2.150                  | 21.08          |                        | 23.5        |
| WCDMA II    | 0       | 5         | 3GPP Rel99 | 1907.6          | 9538    | 100.00%    | Front Edge    | 5                  | 0         | 24.5               | 23.95                          | 1.780                  | 21.86          |                        | 23.5        |
| WCDMA II    | 0       | 5         | 3GPP Rel99 | 1880            | 9400    | 100.00%    | Back Edge     | 5                  | 0         | 24.5               | 23.99                          | 0.593                  | 26.67          |                        | 23.5        |
| WCDMA II    | 0       | 5         | 3GPP Rel99 | 1880            | 9400    | 100.00%    | Right Edge    | 5                  | 0         | 24.5               | 23.99                          | 0.324                  | 29.30          |                        | 23.5        |
| WCDMA II    | 0       | 5         | 3GPP Rel99 | 1880            | 9400    | 100.00%    | Left Edge     | 5                  | 0         | 24.5               | 23.99                          | 0.651                  | 26.27          |                        | 23.5        |
| WCDMA II    | 0       | 5         | 3GPP Rel99 | 1880            | 9400    | 100.00%    | Top Edge      | 5                  | 0         | 24.5               | 23.99                          | 0.626                  | 26.44          |                        | 23.5        |
| WCDMA IV    | 0       | 5         | 3GPP Rel99 | 1712.4          | 1312    | 100.00%    | Front Edge    | 5                  | 0         | 24.5               | 23.94                          | 2.430                  | 20.50          | 20.39                  | 23.5        |
| WCDMA IV    | 0       | 5         | 3GPP Rel99 | 1732.4          | 1412    | 100.00%    | Front Edge    | 5                  | 0         | 24.5               | 24.20                          | 2.350                  | 20.90          |                        | 23.5        |
| WCDMA IV    | 0       | 5         | 3GPP Rel99 | 1752.6          | 1513    | 100.00%    | Front Edge    | 5                  | 0         | 24.5               | 24.29                          | 2.700                  | 20.39          |                        | 23.5        |
| WCDMA IV    | 0       | 5         | 3GPP Rel99 | 1752.6          | 1513    | 100.00%    | Back Edge     | 5                  | 0         | 24.5               | 24.29                          | 0.666                  | 26.47          |                        | 23.5        |
| WCDMA IV    | 0       | 5         | 3GPP Rel99 | 1752.6          | 1513    | 100.00%    | Right Edge    | 5                  | 0         | 24.5               | 24.29                          | 0.358                  | 29.17          |                        | 23.5        |
| WCDMA IV    | 0       | 5         | 3GPP Rel99 | 1752.6          | 1513    | 100.00%    | Left Edge     | 5                  | 0         | 24.5               | 24.29                          | 0.734                  | 26.05          |                        | 23.5        |
| WCDMA IV    | 0       | 5         | 3GPP Rel99 | 1752.6          | 1513    | 100.00%    | Top Edge      | 5                  | 0         | 24.5               | 24.29                          | 0.698                  | 26.27          |                        | 23.5        |
| WCDMA V     | 0       | 5         | 3GPP Rel99 | 826.4           | 4132    | 100.00%    | Front Edge    | 5                  | 0         | 24.5               | 23.82                          | 0.660                  | 26.04          | 25.35                  | 23.5        |
| WCDMA V     | 0       | 5         | 3GPP Rel99 | 826.4           | 4132    | 100.00%    | Back Edge     | 5                  | 0         | 24.5               | 23.82                          | 0.615                  | 26.35          |                        | 23.5        |
| WCDMA V     | 0       | 5         | 3GPP Rel99 | 826.4           | 4132    | 100.00%    | Right Edge    | 5                  | 0         | 24.5               | 23.82                          | 0.772                  | 25.36          |                        | 23.5        |
| WCDMA V     | 0       | 5         | 3GPP Rel99 | 836.6           | 4183    | 100.00%    | Right Edge    | 5                  | 0         | 24.5               | 23.71                          | 0.742                  | 25.42          |                        | 23.5        |
| WCDMA V     | 0       | 5         | 3GPP Rel99 | 846.6           | 4233    | 100.00%    | Right Edge    | 5                  | 0         | 24.5               | 23.60                          | 0.726                  | 25.40          |                        | 23.5        |
| WCDMA V     | 0       | 5         | 3GPP Rel99 | 826.4           | 4132    | 100.00%    | Left Edge     | 5                  | 0         | 24.5               | 23.82                          | 0.558                  | 26.77          |                        | 23.5        |
| WCDMA V     | 0       | 5         | 3GPP Rel99 | 826.4           | 4132    | 100.00%    | Top Edge      | 5                  | 0         | 24.5               | 23.82                          | 0.098                  | 34.32          |                        | 23.5        |

\* Pmax is used for RF tune-up procedure. The maximum allowed output power is equal to Pmax + 1.59dB uncertainty.

\*\* All Plimit power levels in above table corresponding to average power levels after accounting for duty cycle in the case TDD modulation schemes (LTE TDD).

The maximum allowed output power is the Plimit + 1.59dB device uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.

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## LTE&amp;NR Body

| Band / Mode | Antenna | Bandwidth | Modulation | RB size | RB offset | Frequency (MHz) | Channel | Duty cycle | Test position | Test Distance (mm) | MPR (dBm) | Target power (dBm) | Measured conducted power (dBm) | Duty Correction | Measured 1g-SAR (W/Kg) | Plimit** (dBm) | Minimum Plimit** (dBm) | Pmax* (dBm) |
|-------------|---------|-----------|------------|---------|-----------|-----------------|---------|------------|---------------|--------------------|-----------|--------------------|--------------------------------|-----------------|------------------------|----------------|------------------------|-------------|
| LTE B2      | 0       | 20        | QPSK       | 1       | 0         | 1860            | 18700   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.49                          |                 | 1.620                  | 21.81          |                        | 23          |
| LTE B2      | 0       | 20        | QPSK       | 1       | 0         | 1880            | 18900   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.40                          |                 | 1.710                  | 21.48          |                        | 23          |
| LTE B2      | 0       | 20        | QPSK       | 1       | 0         | 1900            | 19100   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.47                          |                 | 1.660                  | 21.68          |                        | 23          |
| LTE B2      | 0       | 20        | QPSK       | 1       | 0         | 1860            | 18700   | 100.00%    | Back Edge     | 5                  | 0         | 24                 | 23.49                          |                 | 0.633                  | 25.89          | 21.48                  | 23          |
| LTE B2      | 0       | 20        | QPSK       | 1       | 0         | 1860            | 18700   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.49                          |                 | 0.288                  | 29.31          |                        | 23          |
| LTE B2      | 0       | 20        | QPSK       | 1       | 0         | 1860            | 18700   | 100.00%    | Left Edge     | 5                  | 0         | 24                 | 23.49                          |                 | 0.688                  | 25.53          |                        | 23          |
| LTE B2      | 0       | 20        | QPSK       | 1       | 0         | 1860            | 18700   | 100.00%    | Top Edge      | 5                  | 0         | 24                 | 23.49                          |                 | 0.612                  | 26.04          |                        | 23          |
| LTE B4      | 0       | 20        | QPSK       | 1       | 0         | 1720            | 20050   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.64                          |                 | 2.120                  | 20.79          |                        | 23          |
| LTE B4      | 0       | 20        | QPSK       | 1       | 0         | 1732.5          | 20175   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.68                          |                 | 2.030                  | 21.02          |                        | 23          |
| LTE B4      | 0       | 20        | QPSK       | 1       | 0         | 1745            | 20300   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.79                          |                 | 2.310                  | 20.57          |                        | 23          |
| LTE B4      | 0       | 20        | QPSK       | 1       | 0         | 1745            | 20300   | 100.00%    | Back Edge     | 5                  | 0         | 24                 | 23.79                          |                 | 0.643                  | 26.12          | 20.56                  | 23          |
| LTE B4      | 0       | 20        | QPSK       | 1       | 0         | 1745            | 20300   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.79                          |                 | 0.322                  | 29.13          |                        | 23          |
| LTE B4      | 0       | 20        | QPSK       | 1       | 0         | 1745            | 20300   | 100.00%    | Left Edge     | 5                  | 0         | 24                 | 23.79                          |                 | 0.651                  | 26.07          |                        | 23          |
| LTE B4      | 0       | 20        | QPSK       | 1       | 0         | 1745            | 20300   | 100.00%    | Top Edge      | 5                  | 0         | 24                 | 23.79                          |                 | 0.742                  | 25.50          |                        | 23          |
| LTE B5      | 0       | 10        | QPSK       | 1       | 0         | 829             | 20450   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.14                          |                 | 0.648                  | 25.44          |                        | 23          |
| LTE B5      | 0       | 10        | QPSK       | 1       | 0         | 829             | 20450   | 100.00%    | Back Edge     | 5                  | 0         | 24                 | 23.14                          |                 | 0.542                  | 26.21          |                        | 23          |
| LTE B5      | 0       | 10        | QPSK       | 1       | 0         | 829             | 20450   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.14                          |                 | 0.670                  | 25.29          |                        | 23          |
| LTE B5      | 0       | 10        | QPSK       | 1       | 0         | 836.5           | 20525   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.02                          |                 | 0.631                  | 25.43          | 25.26                  | 23          |
| LTE B5      | 0       | 10        | QPSK       | 1       | 0         | 844             | 20600   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.01                          |                 | 0.654                  | 25.27          |                        | 23          |
| LTE B5      | 0       | 10        | QPSK       | 1       | 0         | 829             | 20450   | 100.00%    | Left Edge     | 5                  | 0         | 24                 | 23.14                          |                 | 0.452                  | 27.00          |                        | 23          |
| LTE B5      | 0       | 10        | QPSK       | 1       | 0         | 829             | 20450   | 100.00%    | Top Edge      | 5                  | 0         | 24                 | 23.14                          |                 | 0.074                  | 34.66          |                        | 23          |
| LTE B7      | 0       | 20        | QPSK       | 1       | 0         | 2510            | 20850   | 100.00%    | Front Edge    | 5                  | 0         | 24.8               | 23.33                          |                 | 0.731                  | 25.10          |                        | 23.8        |
| LTE B7      | 0       | 20        | QPSK       | 1       | 0         | 2535            | 21100   | 100.00%    | Front Edge    | 5                  | 0         | 24.8               | 23.12                          |                 | 0.755                  | 24.75          |                        | 23.8        |
| LTE B7      | 0       | 20        | QPSK       | 1       | 0         | 2560            | 21350   | 100.00%    | Front Edge    | 5                  | 0         | 24.8               | 23.43                          |                 | 1.380                  | 22.45          |                        | 23.8        |
| LTE B7      | 0       | 20        | QPSK       | 1       | 0         | 2560            | 21350   | 100.00%    | Back Edge     | 5                  | 0         | 24.8               | 23.43                          |                 | 0.522                  | 26.67          | 22.44                  | 23.8        |
| LTE B7      | 0       | 20        | QPSK       | 1       | 0         | 2560            | 21350   | 100.00%    | Right Edge    | 5                  | 0         | 24.8               | 23.43                          |                 | 0.385                  | 27.99          |                        | 23.8        |
| LTE B7      | 0       | 20        | QPSK       | 1       | 0         | 2560            | 21350   | 100.00%    | Left Edge     | 5                  | 0         | 24.8               | 23.43                          |                 | 0.571                  | 26.28          |                        | 23.8        |
| LTE B7      | 0       | 20        | QPSK       | 1       | 0         | 2560            | 21350   | 100.00%    | Top Edge      | 5                  | 0         | 24.8               | 23.43                          |                 | 0.488                  | 26.96          |                        | 23.8        |
| LTE B12     | 0       | 10        | QPSK       | 1       | 0         | 711             | 23130   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.33                          |                 | 0.606                  | 25.92          |                        | 23          |
| LTE B12     | 0       | 10        | QPSK       | 1       | 0         | 711             | 23130   | 100.00%    | Back Edge     | 5                  | 0         | 24                 | 23.33                          |                 | 0.532                  | 26.48          |                        | 23          |
| LTE B12     | 0       | 10        | QPSK       | 1       | 0         | 704             | 23060   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.23                          |                 | 0.671                  | 25.38          |                        | 23          |
| LTE B12     | 0       | 10        | QPSK       | 1       | 0         | 707.5           | 23095   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.28                          |                 | 0.688                  | 25.32          | 25.31                  | 23          |
| LTE B12     | 0       | 10        | QPSK       | 1       | 0         | 711             | 23130   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.33                          |                 | 0.665                  | 25.52          |                        | 23          |
| LTE B12     | 0       | 10        | QPSK       | 1       | 0         | 711             | 23130   | 100.00%    | Left Edge     | 5                  | 0         | 24                 | 23.33                          |                 | 0.512                  | 26.65          |                        | 23          |
| LTE B12     | 0       | 10        | QPSK       | 1       | 0         | 711             | 23130   | 100.00%    | Top Edge      | 5                  | 0         | 24                 | 23.33                          |                 | 0.066                  | 35.55          |                        | 23          |
| LTE B13     | 0       | 10        | QPSK       | 1       | 0         | 782             | 23230   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 22.98                          |                 | 0.286                  | 28.83          |                        | 23          |
| LTE B13     | 0       | 10        | QPSK       | 1       | 0         | 782             | 23230   | 100.00%    | Back Edge     | 5                  | 0         | 24                 | 22.98                          |                 | 0.422                  | 27.14          |                        | 23          |
| LTE B13     | 0       | 10        | QPSK       | 1       | 0         | 782             | 23230   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 22.98                          |                 | 0.561                  | 25.90          | 25.90                  | 23          |
| LTE B13     | 0       | 10        | QPSK       | 1       | 0         | 782             | 23230   | 100.00%    | Left Edge     | 5                  | 0         | 24                 | 22.98                          |                 | 0.366                  | 27.76          |                        | 23          |
| LTE B13     | 0       | 10        | QPSK       | 1       | 0         | 782             | 23230   | 100.00%    | Top Edge      | 5                  | 0         | 24                 | 22.98                          |                 | 0.039                  | 37.48          |                        | 23          |
| LTE B14     | 0       | 10        | QPSK       | 1       | 0         | 793             | 23330   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.14                          |                 | 0.318                  | 28.53          |                        | 23          |
| LTE B14     | 0       | 10        | QPSK       | 1       | 0         | 793             | 23330   | 100.00%    | Back Edge     | 5                  | 0         | 24                 | 23.14                          |                 | 0.533                  | 26.29          |                        | 23          |
| LTE B14     | 0       | 10        | QPSK       | 1       | 0         | 793             | 23330   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.14                          |                 | 0.657                  | 25.38          | 25.37                  | 23          |
| LTE B14     | 0       | 10        | QPSK       | 1       | 0         | 793             | 23330   | 100.00%    | Left Edge     | 5                  | 0         | 24                 | 23.14                          |                 | 0.451                  | 27.01          |                        | 23          |
| LTE B14     | 0       | 10        | QPSK       | 1       | 0         | 793             | 23330   | 100.00%    | Top Edge      | 5                  | 0         | 24                 | 23.14                          |                 | 0.042                  | 37.32          |                        | 23          |
| LTE B17     | 0       | 10        | QPSK       | 1       | 0         | 709             | 23780   | 100.00%    | Front Edge    | 5                  | 0         | 24                 | 23.34                          |                 | 0.620                  | 25.83          |                        | 23          |
| LTE B17     | 0       | 10        | QPSK       | 1       | 0         | 709             | 23780   | 100.00%    | Back Edge     | 5                  | 0         | 24                 | 23.34                          |                 | 0.418                  | 27.54          |                        | 23          |
| LTE B17     | 0       | 10        | QPSK       | 1       | 0         | 709             | 23780   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.34                          |                 | 0.679                  | 25.44          |                        | 23          |
| LTE B17     | 0       | 10        | QPSK       | 1       | 0         | 710             | 23790   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.26                          |                 | 0.685                  | 25.32          | 25.25                  | 23          |
| LTE B17     | 0       | 10        | QPSK       | 1       | 0         | 711             | 23800   | 100.00%    | Right Edge    | 5                  | 0         | 24                 | 23.25                          |                 | 0.694                  | 25.25          |                        | 23          |
| LTE B17     | 0       | 10        | QPSK       | 1       | 0         | 709             | 23780   | 100.00%    | Left Edge     | 5                  | 0         | 24                 | 23.34                          |                 | 0.531                  | 26.50          |                        | 23          |
| LTE B17     | 0       | 10        | QPSK       | 1       | 0         | 709             | 23780   | 100.00%    | Top Edge      | 5                  | 0         | 24                 | 23.34                          |                 | 0.065                  | 35.62          |                        | 23          |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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|             |   |    |      |   |   |        |        |         |            |   |   |      |       |       |       |       |       |      |
|-------------|---|----|------|---|---|--------|--------|---------|------------|---|---|------|-------|-------|-------|-------|-------|------|
| LTE B25     | 0 | 20 | QPSK | 1 | 0 | 1860   | 26140  | 100.00% | Front Edge | 5 | 0 | 24   | 23.39 | 1.560 | 21.87 | 21.87 | 23    |      |
| LTE B25     | 0 | 20 | QPSK | 1 | 0 | 1882.5 | 26365  | 100.00% | Front Edge | 5 | 0 | 24   | 23.41 | 1.510 | 22.03 |       | 23    |      |
| LTE B25     | 0 | 20 | QPSK | 1 | 0 | 1905   | 26590  | 100.00% | Front Edge | 5 | 0 | 24   | 23.43 | 1.480 | 22.14 |       | 23    |      |
| LTE B25     | 0 | 20 | QPSK | 1 | 0 | 1905   | 26590  | 100.00% | Back Edge  | 5 | 0 | 24   | 23.43 | 0.633 | 25.83 |       | 23    |      |
| LTE B25     | 0 | 20 | QPSK | 1 | 0 | 1905   | 26590  | 100.00% | Right Edge | 5 | 0 | 24   | 23.43 | 0.315 | 28.86 |       | 23    |      |
| LTE B25     | 0 | 20 | QPSK | 1 | 0 | 1905   | 26590  | 100.00% | Left Edge  | 5 | 0 | 24   | 23.43 | 0.682 | 25.51 |       | 23    |      |
| LTE B25     | 0 | 20 | QPSK | 1 | 0 | 1905   | 26590  | 100.00% | Top Edge   | 5 | 0 | 24   | 23.43 | 0.677 | 25.54 | 23    |       |      |
| LTE B26     | 0 | 15 | QPSK | 1 | 0 | 821.5  | 26765  | 100.00% | Front Edge | 5 | 0 | 24   | 23.07 | 0.612 | 25.62 | 25.20 | 23    |      |
| LTE B26     | 0 | 15 | QPSK | 1 | 0 | 821.5  | 26765  | 100.00% | Back Edge  | 5 | 0 | 24   | 23.07 | 0.565 | 25.96 |       | 23    |      |
| LTE B26     | 0 | 15 | QPSK | 1 | 0 | 821.5  | 26765  | 100.00% | Right Edge | 5 | 0 | 24   | 23.07 | 0.673 | 25.20 |       | 23    |      |
| LTE B26     | 0 | 15 | QPSK | 1 | 0 | 831.5  | 26865  | 100.00% | Right Edge | 5 | 0 | 24   | 22.99 | 0.631 | 25.40 |       | 23    |      |
| LTE B26     | 0 | 15 | QPSK | 1 | 0 | 841.5  | 26965  | 100.00% | Right Edge | 5 | 0 | 24   | 22.90 | 0.628 | 25.33 |       | 23    |      |
| LTE B26     | 0 | 15 | QPSK | 1 | 0 | 821.5  | 26765  | 100.00% | Left Edge  | 5 | 0 | 24   | 23.07 | 0.382 | 27.66 |       | 23    |      |
| LTE B26     | 0 | 15 | QPSK | 1 | 0 | 821.5  | 26765  | 100.00% | Top Edge   | 5 | 0 | 24   | 23.07 | 0.081 | 34.40 | 23    |       |      |
| LTE B66     | 0 | 20 | QPSK | 1 | 0 | 1720   | 132072 | 100.00% | Front Edge | 5 | 0 | 24   | 23.63 | 2.680 | 19.76 | 19.57 | 23    |      |
| LTE B66     | 0 | 20 | QPSK | 1 | 0 | 1745   | 132322 | 100.00% | Front Edge | 5 | 0 | 24   | 23.74 | 2.870 | 19.58 |       | 23    |      |
| LTE B66     | 0 | 20 | QPSK | 1 | 0 | 1770   | 132572 | 100.00% | Front Edge | 5 | 0 | 24   | 23.73 | 2.710 | 19.81 |       | 23    |      |
| LTE B66     | 0 | 20 | QPSK | 1 | 0 | 1745   | 132322 | 100.00% | Back Edge  | 5 | 0 | 24   | 23.74 | 0.621 | 26.22 |       | 23    |      |
| LTE B66     | 0 | 20 | QPSK | 1 | 0 | 1745   | 132322 | 100.00% | Right Edge | 5 | 0 | 24   | 23.74 | 0.235 | 30.44 |       | 23    |      |
| LTE B66     | 0 | 20 | QPSK | 1 | 0 | 1745   | 132322 | 100.00% | Left Edge  | 5 | 0 | 24   | 23.74 | 0.701 | 25.70 |       | 23    |      |
| LTE B66     | 0 | 20 | QPSK | 1 | 0 | 1745   | 132322 | 100.00% | Top Edge   | 5 | 0 | 24   | 23.74 | 0.737 | 25.48 | 23    |       |      |
| LTE B71     | 0 | 20 | QPSK | 1 | 0 | 673    | 133222 | 100.00% | Front Edge | 5 | 0 | 24   | 22.94 | 0.515 | 26.24 | 25.08 | 23    |      |
| LTE B71     | 0 | 20 | QPSK | 1 | 0 | 673    | 133222 | 100.00% | Back Edge  | 5 | 0 | 24   | 22.94 | 0.560 | 25.87 |       | 23    |      |
| LTE B71     | 0 | 20 | QPSK | 1 | 0 | 673    | 133222 | 100.00% | Right Edge | 5 | 0 | 24   | 22.94 | 0.671 | 25.09 |       | 23    |      |
| LTE B71     | 0 | 20 | QPSK | 1 | 0 | 680.5  | 133297 | 100.00% | Right Edge | 5 | 0 | 24   | 22.81 | 0.640 | 25.16 |       | 23    |      |
| LTE B71     | 0 | 20 | QPSK | 1 | 0 | 688    | 133372 | 100.00% | Right Edge | 5 | 0 | 24   | 22.69 | 0.611 | 25.24 |       | 23    |      |
| LTE B71     | 0 | 20 | QPSK | 1 | 0 | 673    | 133222 | 100.00% | Left Edge  | 5 | 0 | 24   | 22.94 | 0.527 | 26.14 |       | 23    |      |
| LTE B71     | 0 | 20 | QPSK | 1 | 0 | 673    | 133222 | 100.00% | Top Edge   | 5 | 0 | 24   | 22.94 | 0.041 | 37.23 | 23    |       |      |
| LTE B38     | 0 | 20 | QPSK | 1 | 0 | 2580   | 37850  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.515 | 24.59 | 22.08 | 23.8 |
| LTE B38     | 0 | 20 | QPSK | 1 | 0 | 2595   | 38000  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.21 | 21.22 | 0.902 | 22.09 |       | 23.8 |
| LTE B38     | 0 | 20 | QPSK | 1 | 0 | 2610   | 38150  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.13 | 21.14 | 0.509 | 24.49 |       | 23.8 |
| LTE B38     | 0 | 20 | QPSK | 1 | 0 | 2580   | 37850  | 63.30%  | Back Edge  | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.284 | 27.17 |       | 23.8 |
| LTE B38     | 0 | 20 | QPSK | 1 | 0 | 2580   | 37850  | 63.30%  | Right Edge | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.164 | 29.56 |       | 23.8 |
| LTE B38     | 0 | 20 | QPSK | 1 | 0 | 2580   | 37850  | 63.30%  | Left Edge  | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.443 | 25.24 |       | 23.8 |
| LTE B38     | 0 | 20 | QPSK | 1 | 0 | 2580   | 37850  | 63.30%  | Top Edge   | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.398 | 25.71 | 23.8  |      |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2506   | 39750  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.29 | 21.30 | 0.833 | 22.51 | 22.49 | 23.8 |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2549.5 | 40185  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.824 | 22.55 |       | 23.8 |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.44 | 21.45 | 0.865 | 22.50 |       | 23.8 |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2636.5 | 41055  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.16 | 21.17 | 0.792 | 22.60 |       | 23.8 |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2680   | 41490  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.08 | 21.09 | 0.731 | 22.87 |       | 23.8 |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 63.30%  | Back Edge  | 5 | 0 | 24.8 | 23.44 | 21.45 | 0.456 | 25.28 |       | 23.8 |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 63.30%  | Right Edge | 5 | 0 | 24.8 | 23.44 | 21.45 | 0.233 | 28.19 | 23.8  |      |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 63.30%  | Left Edge  | 5 | 0 | 24.8 | 23.44 | 21.45 | 0.539 | 24.55 | 23.8  |      |
| LTE B41_PC3 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 63.30%  | Top Edge   | 5 | 0 | 24.8 | 23.44 | 21.45 | 0.408 | 25.76 | 23.8  |      |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2506   | 39750  | 43.30%  | Front Edge | 5 | 0 | 26   | 25.14 | 21.50 | 0.923 | 22.27 | 22.16 | 25   |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2549.5 | 40185  | 43.30%  | Front Edge | 5 | 0 | 26   | 25.16 | 21.52 | 0.915 | 22.32 |       | 25   |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 43.30%  | Front Edge | 5 | 0 | 26   | 25.24 | 21.60 | 0.967 | 22.16 |       | 25   |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2636.5 | 41055  | 43.30%  | Front Edge | 5 | 0 | 26   | 24.77 | 21.13 | 0.822 | 22.40 |       | 25   |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2680   | 41490  | 43.30%  | Front Edge | 5 | 0 | 26   | 24.24 | 20.60 | 0.725 | 22.42 |       | 25   |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 43.30%  | Back Edge  | 5 | 0 | 26   | 25.24 | 21.60 | 0.433 | 25.65 |       | 25   |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 43.30%  | Right Edge | 5 | 0 | 26   | 25.24 | 21.60 | 0.291 | 27.38 | 25    |      |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 43.30%  | Left Edge  | 5 | 0 | 26   | 25.24 | 21.60 | 0.532 | 24.76 | 25    |      |
| LTE B41_PC2 | 0 | 20 | QPSK | 1 | 0 | 2593   | 40620  | 43.30%  | Top Edge   | 5 | 0 | 26   | 25.24 | 21.60 | 0.372 | 26.31 | 25    |      |
| LTE B42     | 0 | 20 | QPSK | 1 | 0 | 3560   | 43190  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.15 | 21.16 | 1.620 | 19.48 | 19.05 | 23.8 |
| LTE B42     | 0 | 20 | QPSK | 1 | 0 | 3575   | 43340  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.28 | 21.29 | 1.840 | 19.06 |       | 23.8 |
| LTE B42     | 0 | 20 | QPSK | 1 | 0 | 3590   | 43490  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.11 | 21.12 | 1.750 | 19.11 |       | 23.8 |
| LTE B42     | 0 | 20 | QPSK | 1 | 0 | 3575   | 43340  | 63.30%  | Back Edge  | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.551 | 24.30 |       | 23.8 |
| LTE B42     | 0 | 20 | QPSK | 1 | 0 | 3575   | 43340  | 63.30%  | Right Edge | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.439 | 25.28 |       | 23.8 |
| LTE B42     | 0 | 20 | QPSK | 1 | 0 | 3575   | 43340  | 63.30%  | Left Edge  | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.523 | 24.52 |       | 23.8 |
| LTE B42     | 0 | 20 | QPSK | 1 | 0 | 3575   | 43340  | 63.30%  | Top Edge   | 5 | 0 | 24.8 | 23.28 | 21.29 | 0.436 | 25.31 | 23.8  |      |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3560   | 55340  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.16 | 21.17 | 1.560 | 19.66 | 19.57 | 23.8 |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3609   | 55830  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.20 | 21.21 | 1.340 | 20.36 |       | 23.8 |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3641   | 56150  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.43 | 21.44 | 1.690 | 19.58 |       | 23.8 |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3690   | 56640  | 63.30%  | Front Edge | 5 | 0 | 24.8 | 23.24 | 21.25 | 1.440 | 20.08 |       | 23.8 |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3641   | 56150  | 63.30%  | Back Edge  | 5 | 0 | 24.8 | 23.43 | 21.44 | 0.582 | 24.21 |       | 23.8 |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3641   | 56150  | 63.30%  | Right Edge | 5 | 0 | 24.8 | 23.43 | 21.44 | 0.443 | 25.39 |       | 23.8 |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3641   | 56150  | 63.30%  | Left Edge  | 5 | 0 | 24.8 | 23.43 | 21.44 | 0.554 | 24.42 | 23.8  |      |
| LTE B48     | 0 | 20 | QPSK | 1 | 0 | 3641   | 56150  | 63.30%  | Top Edge   | 5 | 0 | 24.8 | 23.43 | 21.44 | 0.428 | 25.54 | 23.8  |      |

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|        |   |     |          |     |    |          |        |         |            |   |   |      |       |       |       |      |
|--------|---|-----|----------|-----|----|----------|--------|---------|------------|---|---|------|-------|-------|-------|------|
| 5G n2  | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.55 | 1.670 | 21.74 | 23.5 |
| 5G n2  | 0 | 20  | PV2 BPSK | 1   | 1  | 1880     | 376000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.39 | 1.820 | 21.20 | 23.5 |
| 5G n2  | 0 | 20  | PV2 BPSK | 1   | 1  | 1900     | 380000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.35 | 1.450 | 22.15 | 23.5 |
| 5G n2  | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.55 | 0.573 | 26.38 | 23.5 |
| 5G n2  | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.55 | 0.387 | 28.09 | 23.5 |
| 5G n2  | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.55 | 0.626 | 26.00 | 23.5 |
| 5G n2  | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.55 | 0.524 | 26.77 | 23.5 |
| 5G n5  | 0 | 20  | PV2 BPSK | 1   | 1  | 834      | 166800 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.23 | 0.589 | 25.94 | 23.5 |
| 5G n5  | 0 | 20  | PV2 BPSK | 1   | 1  | 834      | 166800 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.23 | 0.532 | 26.38 | 23.5 |
| 5G n5  | 0 | 20  | PV2 BPSK | 1   | 1  | 834      | 166800 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.23 | 0.767 | 24.80 | 23.5 |
| 5G n5  | 0 | 20  | PV2 BPSK | 1   | 1  | 836.5    | 167300 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.13 | 0.715 | 25.00 | 23.5 |
| 5G n5  | 0 | 20  | PV2 BPSK | 1   | 1  | 839      | 167800 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.11 | 0.685 | 25.17 | 23.5 |
| 5G n5  | 0 | 20  | PV2 BPSK | 1   | 1  | 834      | 166800 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.23 | 0.420 | 27.41 | 23.5 |
| 5G n5  | 0 | 20  | PV2 BPSK | 1   | 1  | 834      | 166800 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.23 | 0.088 | 34.20 | 23.5 |
| 5G n7  | 0 | 20  | PV2 BPSK | 1   | 1  | 2510     | 502000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.65 | 1.590 | 21.05 | 23.5 |
| 5G n7  | 0 | 20  | PV2 BPSK | 1   | 1  | 2535     | 507000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.70 | 1.780 | 20.61 | 23.5 |
| 5G n7  | 0 | 20  | PV2 BPSK | 1   | 1  | 2560     | 512000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.78 | 2.000 | 20.18 | 23.5 |
| 5G n7  | 0 | 20  | PV2 BPSK | 1   | 1  | 2560     | 512000 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 22.78 | 0.957 | 23.38 | 23.5 |
| 5G n7  | 0 | 20  | PV2 BPSK | 1   | 1  | 2560     | 512000 | 100.00% | Right Edge | 5 | 0 | 24.5 | 22.78 | 0.572 | 25.62 | 23.5 |
| 5G n7  | 0 | 20  | PV2 BPSK | 1   | 1  | 2560     | 512000 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 22.78 | 1.490 | 21.46 | 23.5 |
| 5G n7  | 0 | 20  | PV2 BPSK | 1   | 1  | 2560     | 512000 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 22.78 | 0.927 | 23.52 | 23.5 |
| 5G n12 | 0 | 15  | PV2 BPSK | 1   | 1  | 706.5    | 141300 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.34 | 0.951 | 23.97 | 23.5 |
| 5G n12 | 0 | 15  | PV2 BPSK | 1   | 1  | 707.5    | 141500 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.32 | 0.963 | 23.90 | 23.5 |
| 5G n12 | 0 | 15  | PV2 BPSK | 1   | 1  | 708.5    | 141700 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.28 | 0.940 | 23.96 | 23.5 |
| 5G n12 | 0 | 15  | PV2 BPSK | 1   | 1  | 706.5    | 141300 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.34 | 0.898 | 24.22 | 23.5 |
| 5G n12 | 0 | 15  | PV2 BPSK | 1   | 1  | 706.5    | 141300 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.34 | 0.762 | 24.93 | 23.5 |
| 5G n12 | 0 | 15  | PV2 BPSK | 1   | 1  | 706.5    | 141300 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.34 | 0.901 | 24.21 | 23.5 |
| 5G n12 | 0 | 15  | PV2 BPSK | 1   | 1  | 706.5    | 141300 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.34 | 0.114 | 33.18 | 23.5 |
| 5G n25 | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.10 | 2.170 | 20.15 | 23.5 |
| 5G n25 | 0 | 20  | PV2 BPSK | 1   | 1  | 1882.5   | 376500 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.02 | 2.030 | 20.36 | 23.5 |
| 5G n25 | 0 | 20  | PV2 BPSK | 1   | 1  | 1905     | 381000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.01 | 1.850 | 20.75 | 23.5 |
| 5G n25 | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.10 | 0.947 | 23.75 | 23.5 |
| 5G n25 | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.10 | 0.304 | 28.69 | 23.5 |
| 5G n25 | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.10 | 1.290 | 22.41 | 23.5 |
| 5G n25 | 0 | 20  | PV2 BPSK | 1   | 1  | 1860     | 372000 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.10 | 1.140 | 22.94 | 23.5 |
| 5G n66 | 0 | 20  | PV2 BPSK | 1   | 1  | 1720     | 344000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.42 | 2.450 | 19.94 | 23.5 |
| 5G n66 | 0 | 20  | PV2 BPSK | 1   | 1  | 1745     | 349000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.38 | 2.690 | 19.50 | 23.5 |
| 5G n66 | 0 | 20  | PV2 BPSK | 1   | 1  | 1770     | 354000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.40 | 2.310 | 20.18 | 23.5 |
| 5G n66 | 0 | 20  | PV2 BPSK | 1   | 1  | 1720     | 344000 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.42 | 0.513 | 26.73 | 23.5 |
| 5G n66 | 0 | 20  | PV2 BPSK | 1   | 1  | 1720     | 344000 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.42 | 0.268 | 29.55 | 23.5 |
| 5G n66 | 0 | 20  | PV2 BPSK | 1   | 1  | 1720     | 344000 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.42 | 0.582 | 26.18 | 23.5 |
| 5G n66 | 0 | 20  | PV2 BPSK | 1   | 1  | 1720     | 344000 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.42 | 0.557 | 26.38 | 23.5 |
| 5G n71 | 0 | 20  | PV2 BPSK | 1   | 1  | 673      | 134600 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.39 | 0.562 | 26.31 | 23.5 |
| 5G n71 | 0 | 20  | PV2 BPSK | 1   | 1  | 673      | 134600 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.39 | 0.599 | 26.03 | 23.5 |
| 5G n71 | 0 | 20  | PV2 BPSK | 1   | 1  | 673      | 134600 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.39 | 0.686 | 25.44 | 23.5 |
| 5G n71 | 0 | 20  | PV2 BPSK | 1   | 1  | 680.5    | 136100 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.33 | 0.642 | 25.67 | 23.5 |
| 5G n71 | 0 | 20  | PV2 BPSK | 1   | 1  | 688      | 137600 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.24 | 0.618 | 25.74 | 23.5 |
| 5G n71 | 0 | 20  | PV2 BPSK | 1   | 1  | 673      | 134600 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.39 | 0.593 | 26.07 | 23.5 |
| 5G n71 | 0 | 20  | PV2 BPSK | 1   | 1  | 673      | 134600 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.39 | 0.048 | 36.99 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3750     | 650000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.05 | 3.400 | 18.15 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3795     | 653000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.04 | 2.510 | 19.46 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3840     | 656000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.84 | 2.130 | 19.97 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3885     | 659000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.90 | 2.390 | 19.53 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3930     | 662000 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.95 | 2.260 | 19.82 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3750     | 650000 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.05 | 1.620 | 21.37 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3750     | 650000 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.05 | 0.851 | 24.16 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3750     | 650000 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.05 | 1.140 | 22.89 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3750     | 650000 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.05 | 0.759 | 24.66 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3499.995 | 633333 | 100.00% | Front Edge | 5 | 0 | 24.5 | 23.04 | 4.700 | 16.73 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 135 | 69 | 3499.995 | 633333 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.84 | 4.390 | 16.83 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 270 | 0  | 3499.995 | 633333 | 100.00% | Front Edge | 5 | 0 | 24.5 | 22.53 | 4.070 | 16.85 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3499.995 | 633333 | 100.00% | Back Edge  | 5 | 0 | 24.5 | 23.04 | 2.120 | 20.19 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3499.995 | 633333 | 100.00% | Right Edge | 5 | 0 | 24.5 | 23.04 | 0.965 | 23.61 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3499.995 | 633333 | 100.00% | Left Edge  | 5 | 0 | 24.5 | 23.04 | 1.550 | 21.55 | 23.5 |
| 5G n77 | 0 | 100 | PV2 BPSK | 1   | 1  | 3499.995 | 633333 | 100.00% | Top Edge   | 5 | 0 | 24.5 | 23.04 | 0.813 | 24.35 | 23.5 |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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## 7 APPENDIXES

**Refer to separated files for the following appendixes.**

- 7.1 SAR\_Appendix A Photographs**
- 7.2 SAR\_Appendix B DAE & Probe Cal. Certificate**
- 7.3 SAR\_Appendix C Phantom Description & Dipole Cal. Certificate**

**- End of report -**

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