RF Exposure Lab

802 N. Twin Oaks Valley Road, Suite 105 • San Marcos, CA 92069 • U.S.A.
TEL (760) 471-2100 • FAX (760) 471-2121
http://www.rfexposurelab.com

CERTIFICATE OF COMPLIANCE
SAR EVALUATION

Tait International Limited		Dates of Test:	February 16-24, 2023
245 Wooldridge Road		Test Report Number:	SAR.20230208
Harewood			
Christchurch 8051		Lab Designation Number: US1195 (FCC); US0194 (ISED)	
New Zealand			

FCC ID:	CASTPHN0A
IC Certificate:	737A-TPHN0A
Model(s):	TPHN0A
Test Sample:	Engineering Unit Same as Production
Serial Number:	26674227 & 26674228
Equipment Type:	Push-To-Talk Handheld Radio for Occupational Use
Classification:	Portable Transmitter Next to Face and Body
TX Frequency Range:	136 – 174 MHz; 403 – 470 MHz (FCC); 406.1 – 470 MHz (IC); 450 – 520 MHz; 762 – 870 MHz; 896 – 941 MHz; 2412-2462 MHz; 2402-2480 MHz
Frequency Tolerance:	± 2.5 ppm
Maximum RF Output:	150 MHz – 38.1 dBm, 450 MHz – 37.4 dBm, 800 MHz – 35.4 dBm, 900 MHz – 35.4 dBm, 2450 MHz (WiFi) – 18.00 dBm, 2450 MHz (BT) – 12.04 dBm Conducted
Signal Modulation:	FM
Body Worn Accessories:	Model T03-00038-0022, T03-00038-0023, T03-00038-0030, T03-00038-0034, T03-00079-0001, T03-00079-0002, T03-00079-0003, T03-00079-0004, T03-00079-0005, T03-00079-0006, T03-00079-0007, T03-00079-0008, TPA-CA-201, TPA-CA-206, TPA-CA-207, TPA-CA-208
Audio Accessories:	Model T03-00045-Dxxx, T03-00045-Exxx, T03-00045-Fxxx, T03-00045-Jxxx, T03-00045-Kxxx, T03-00045-Lxxx, T03-00045-Mxxx, T03-00045-Nxxx, T03-00045-Pxxx , T03-00046-Exxx, T03-00046-Fxxx, T03-00046-Gxxx, T03-00046-Hxxx, T03-00046-Jxxx, T03-00047-Axxx, T03-00047-Bxxx, T03-00047-Cxxx, T03-00086-01xx, T03-00086-02xx, T03-00086-03xx, T03-00120-xAAD, T03-00120-xAAE, T03-00120-xAAJ, T03-00053-0451, T952-055
Antenna:	Model TPA-AN-001, TPA-AN-002, TPA-AN-003, TPA-AN-004, TPA-AN-011, TPA-AN-012, TPA-AN-013, TPA-AN-015, TPA-AN-022, TPA-AN-023, TPA-AN-024, TPA-AN-027, TPA-AN-028, TPA-AN-032, TPA-AN-034, TPA-AN-037, TPA-AN-038, TPA-AN-039, TPA-AN-050, TPA-AN-051
Battery:	Model T03-00011-Axxx, T03-00011-Bxxx, T03-00011-Cxxx, T03-00011-Exxx (where x denotes different regulatory approvals and suppliers)
Application Type:	Certification
FCC Rule Parts:	Part 2, 80, 90
KDB Test Methodology:	KDB 447498 DO1 v06, KDB 643646 D01 v01r03, KDB 865664 D01 v01r04, KDB 865664 D02 v01r01
Industry Canada:	RSS-102 Issue 5, Safety Code 6
Maximum SAR Value:	3.55 W/kg for Face; 6.94 W/kg for Body Reported
Simultaneous SAR Value:	0.69 for Face: 0.99 for Body Limit Ratio
Separation Distance:	25 mm for Face; 0 mm for Body

This wireless mobile and/or portable device has been shown to be compliant for localized specific absorption rate (SAR) for uncontrolled environment/general exposure limits specified in ANSI/IEEE Std. C95.1-1992 and had been tested in accordance with the measurement procedures specified in IEEE 1528-2013 and EN/IEC 62209:2010 (See test report).

I attest to the accuracy of the data. All measurements were performed by myself or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RF Exposure Lab, LLC certifies that no party to this application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853(a).

Jay M. Moulton
Vice President

ACCREDITED
Testing Cert. # 2387.01

Table of Contents

Comment/Revision	Date
Original Release	February 26, 2023

Note: The latest version supersedes all previous versions listed in the above table. The latest version shall be used.

1. Introduction

This measurement report shows compliance of the Tait International Limited Model(s) TPHN0A FCC ID: CASTPHN0A with FCC Part 2, 1093, ET Docket 93-62 Rules for mobile and portable devices and IC Certificate: 737A-TPHN0A with RSS102 & Safety Code 6. The FCC/ISED have adopted the guidelines for evaluating the environmental effects of radio frequency radiation to protect the public and workers from the potential hazards of RF emissions due to FCC/ISED regulated portable devices. [1], [6]

The test results recorded herein are based on a single type test of Tait International Limited Model TPHN0A and therefore apply only to the tested sample.

The test procedures and limits, as described in ANSI C95.1 – 1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [2], ANSI C95.3 – 2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields [3], , IEEE Std.1528 – 2013 Recommended Practice [4], and Industry Canada Safety Code 6 Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3kHz to 300 GHz were employed.

The following table indicates all the wireless technologies operating in the Model TPHN0A PTT. The table also shows the tolerance for the power level for each mode.

Band	Technology	Class	Nominal Power dBm	Setpoint Nominal Power dBm	Tolerance dBm	Lower Tolerance dBm	Upper Tolerance dBm
150 MHz	FM	N/A	N/A	N/A	N/A	N/A	38.1
450 MHz	FM	N/A	N/A	N/A	N/A	N/A	37.4
800 MHz	FM	N/A	N/A	N/A	N/A	N/A	35.4
900 MHz	FM	N/A	N/A	N/A	N/A	N/A	35.4
2450 MHz	802.11bgn	N/A	N/A	N/A	N/A	N/A	18.00
2450 MHz	Bluetooth	N/A	N/A	N/A	N/A	N/A	12.04

SAR Definition [5]

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (*dW*) absorbed by (dissipated in) an incremental mass (*dm*) contained in a volume element (*dV*) of a given density (ρ).

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

SAR is expressed in units of watts per kilogram (W/kg). *SAR* can be related to the electric field at a point by

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

where:

σ = conductivity of the tissue (S/m)

ρ = mass density of the tissue (kg/m^3)

E = rms electric field strength (V/m)

2. SAR Measurement Setup

Robotic System

These measurements are performed using the DASY52 automated dosimetric assessment system. The DASY52 is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland and consists of high precision robotics system (Staubli), robot controller, Intel Core2 computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Fig. 2.1).

System Hardware

A cell controller system contains the power supply, robot controller teach pendant (Joystick), and a remote control used to drive the robot motors. The PC consists of the HP Intel Core2 computer with Windows XP system and SAR Measurement Software DASY52, A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit that performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

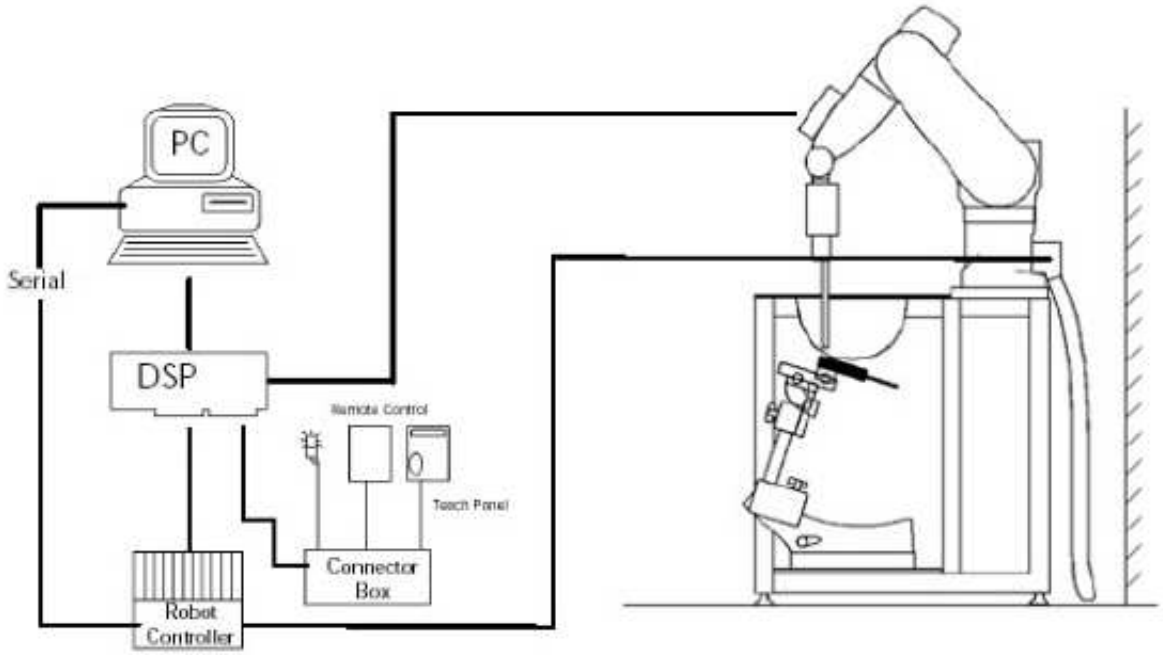


Figure 2.1 SAR Measurement System Setup

System Electronics

The DAE4 consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in.

Probe Measurement System

The SAR measurements were conducted with the dosimetric probe EX3DV4, designed in the classical triangular configuration (see Fig. 2.2) and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multi fiber line ending at the front of the probe tip. (see Fig. 2.3) It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY52 software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting. The approach is stopped at reaching the maximum.

DAE System

Probe Specifications

Calibration: In air from 10 MHz to 6.0 GHz
In brain and muscle simulating tissue at Frequencies of 450 MHz, 835 MHz, 1750 MHz, 1900 MHz, 2450 MHz, 2600 MHz, 3500 MHz, 5200 MHz, 5300 MHz, 5600 MHz, 5800 MHz

Frequency: 10 MHz to 6 GHz

Linearity: ±0.2dB (30 MHz to 6 GHz)

Dynamic: 10 mW/kg to 100 W/kg

Range: Linearity: ±0.2dB

Dimensions: Overall length: 330 mm

Tip length: 20 mm

Body diameter: 12 mm

Tip diameter: 2.5 mm

Distance from probe tip to sensor center: 1 mm

Application: SAR Dosimetry Testing
Compliance tests of wireless device

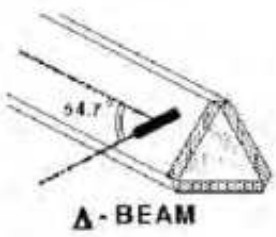


Figure 2.2 Triangular Probe Configurations

Figure 2.3 Probe Thick-Film Technique

Probe Calibration Process

Dosimetric Assessment Procedure

Each probe is calibrated according to a dosimetric assessment procedure described in with accuracy better than +/- 10%. The spherical isotropy was evaluated with the procedure described in and found to be better than +/-0.25dB. The sensitivity parameters (Norm X, Norm Y, Norm Z), the diode compression parameter (DCP) and the conversion factor (Conv F) of the probe is tested.

Free Space Assessment

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a waveguide above 1GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity at the proper orientation with the field. The probe is then rotated 360 degrees until the three channels show the maximum reading. The power density readings equates to 1 mW/cm^2.

Temperature Assessment *

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium, correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor based temperature probe is used in conjunction with the E-field probe

$$SAR = C\frac{\Delta T}{\Delta t} \qquad SAR = \frac{|E|^2 \cdot \sigma}{\rho}$$

where:

Δt = exposure time (30 seconds),

C = heat capacity of tissue (brain or muscle),

ΔT = temperature increase due to RF exposure.

where:

σ = simulated tissue conductivity,

ρ = Tissue density (1.25 g/cm^3 for brain tissue)

SAR is proportional to $\Delta T / \Delta t$, the initial rate of tissue heating, before thermal diffusion takes place.
Now it's possible to quantify the electric field in the simulated tissue by equating the thermally derived SAR to the E- field;

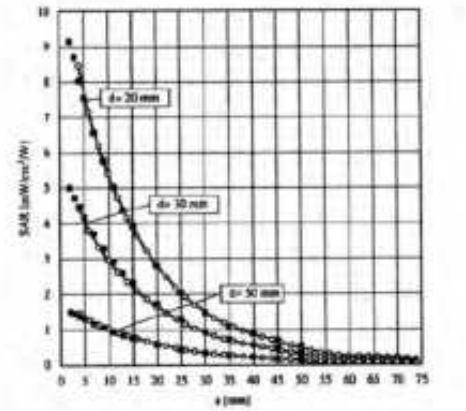


Figure 2.4 E-Field and Temperature Measurements at 900MHz

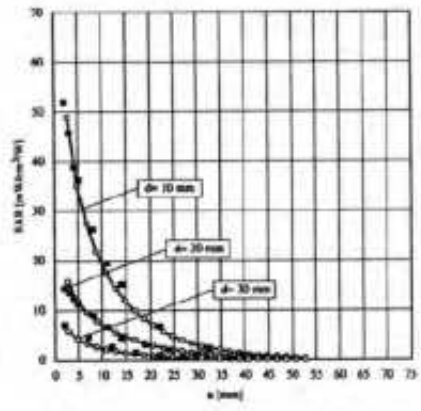


Figure 2.5 E-Field and Temperature Measurements at 1800MHz

Data Extrapolation

The DASY52 software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given like below;

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

with
V_i = compensated signal of channel i (i=x,y,z)
U_i = input signal of channel i (i=x,y,z)
cf = crest factor of exciting field (DASY parameter)
dcp_i = diode compression point (DASY parameter)

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

E-field probes:

$$E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

with
V_i = compensated signal of channel i (i = x,y,z)
$Norm_i$ = sensor sensitivity of channel i (i = x,y,z)
$\mu V/(V/m)^2$ for E-field probes
ConvF = sensitivity of enhancement in solution
E_i = electric field strength of channel i in V/m

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

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

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

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

with
SAR = local specific absorption rate in W/g
E_{tot} = total field strength in V/m
σ = conductivity in [mho/m] or [Siemens/m]
ρ = equivalent tissue density in g/cm^3

The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{pwe} = \frac{E_{tot}^2}{3770}$$

with
P_{pwe} = equivalent power density of a plane wave in W/cm^2
E_{tot} = total electric field strength in V/m

Scanning procedure

- The DASY installation includes predefined files with recommended procedures for measurements and system check. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

- The „reference“ and „drift“ measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT’s output power and should vary max. +/- 5 %.

- The highest integrated SAR value is the main concern in compliance test applications. These values can mostly be found at the inner surface of the phantom and cannot be measured directly due to the sensor offset in the probe. To extrapolate the surface values, the measurement distances to the surface must be known accurately. A distance error of 0.5mm could produce SAR errors of 6% at 1800 MHz. Using predefined locations for measurements is not accurate enough. Any shift of the phantom (e.g., slight deformations after filling it with liquid) would produce high uncertainties. For an automatic and accurate detection of the phantom surface, the DASY5 system uses the mechanical surface detection. The detection is always at touch, but the probe will move backward from the surface the indicated distance before starting the measurement.

- The „area scan“ measures the SAR above the DUT or verification dipole on a parallel plane to the surface. It is used to locate the approximate location of the peak SAR with 2D spline interpolation. The robot performs a stepped movement along one grid axis while the local electrical field strength is measured by the probe. The probe is touching the surface of the SAM during acquisition of measurement values. The scan uses different grid spacings for different frequency measurements. Standard grid spacing for head measurements in frequency ranges≤ 2GHz is 15 mm in x - and y- dimension. For higher frequencies a finer resolution is needed, thus for the grid spacing is reduced according the following table:

Area scan grid spacing for different frequency ranges	
Frequency range	Grid spacing
≤ 2 GHz	≤ 15 mm
2 – 4 GHz	≤ 12 mm
4 – 6 GHz	≤ 10 mm

Grid spacing and orientation have no influence on the SAR result. For special applications where the standard scan method does not find the peak SAR within the grid, e.g. mobile phones with flip cover, the grid can be adapted in orientation. Results of this coarse scan are shown in annex B.

- A „zoom scan" measures the field in a volume around the 2D peak SAR value acquired in the previous „coarse" scan. It uses a fine meshed grid where the robot moves the probe in steps along all the 3 axis (x,y and z-axis) starting at the bottom of the Phantom. The grid spacing for the cube measurement is varied according to the measured frequency range, the dimensions are given in the following table:

Zoom scan grid spacing and volume for different frequency ranges			
Frequency range	Grid spacing for x, y axis	Grid spacing for z axis	Minimum zoom scan volume
≤ 2 GHz	≤ 8 mm	≤ 5 mm	≥ 30 mm
2 – 3 GHz	≤ 5 mm	≤ 5 mm	≥ 28 mm
3 – 4 GHz	≤ 5 mm	≤ 4 mm	≥ 28 mm
4 – 5 GHz	≤ 4 mm	≤ 3 mm	≥ 25 mm
5 – 6 GHz	≤ 4 mm	≤ 2 mm	≥ 22 mm

DASY is also able to perform repeated zoom scans if more than 1 peak is found during area scan. In this document, the evaluated peak 1g and 10g averaged SAR values are shown in the 2D-graphics in annex B. Test results relevant for the specified standard (see section 3) are shown in table form in section 7.

Spatial Peak SAR Evaluation

The spatial peak SAR - value for 1 and 10 g is evaluated after the Cube measurements have been done. The basis of the evaluation are the SAR values measured at the points of the fine cube grid consisting of all points in the three directions x, y and z. The algorithm that finds the maximal averaged volume is separated into three different stages.

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

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

- All neighbouring volumes are evaluated until no neighbouring volume with a higher average value is found.

Extrapolation

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

Interpolation

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

Volume Averaging

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

Advanced Extrapolation

DASY uses the advanced extrapolation option which is able to compensate boundary effects on E-field probes.

SAM PHANTOM

The SAM Twin Phantom V4.0 is constructed of a fiberglass shell integrated in a wooden table. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90% of all users. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents the evaporation of the liquid. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot. (see Fig. 2.6)

Phantom Specification

Phantom: SAM Twin Phantom (V4.0)
Shell Material: Vivac Composite
Thickness: 2.0 ± 0.2 mm

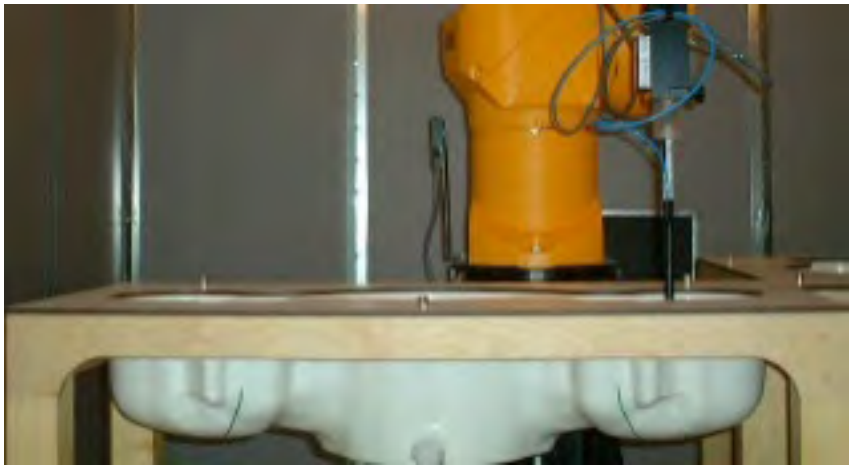


Figure 2.6 SAM Twin Phantom

Device Holder for Transmitters

In combination with the SAM Twin Phantom V4.0 the Mounting Device (see Fig. 2.7), enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation point is the ear opening. The devices can be easily, accurately, and repeat ably be positioned according to the FCC, CENELEC, IEC and IEEE specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

Note: A simulating human hand is not used due to the complex anatomical and geometrical structure of the hand that may produce infinite number of configurations. To produce the worst-case condition (the hand absorbs antenna output power), the hand is omitted during the tests.

Figure 2.7 Mounting Device

3. Probe and Dipole Calibration

See Appendix D and E.

4. Phantom & Simulating Tissue Specifications

Head & Body Simulating Mixture Characterization

The head and body mixtures consist of the material based on the table listed below. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. Body tissue parameters that have not been specified in IEEE1528-2013 are derived from the issue dielectric parameters computed from the 4-Cole-Cole equations.

Table 4.1 Typical Composition of Ingredients for Tissue

Ingredients		Simulating Tissue			
		150 MHz Head	450 MHz Head	750 MHz Head	900 MHz Head
Mixing Percentage					
Water		Proprietary Mixture Procured from Speag			
Sugar					
Salt					
HEC					
Bactericide					
DGBE					
Dielectric Constant	Target	52.30	43.50	41.94	41.50
Conductivity (S/m)	Target	0.76	0.87	0.89	0.97

5. ANSI/IEEE C95.1 – 1992 RF Exposure Limits [2]

Uncontrolled Environment

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

Controlled Environment

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

Table 5.1 Human Exposure Limits

	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIROMENT Professional Population (W/kg) or (mW/g)
SPATIAL PEAK SAR[1] Head	1.60	8.00
SPATIAL AVERAGE SAR[2] Whole Body	0.08	0.40
SPATIAL PEAK SAR[3] Hands, Feet, Ankles, Wrists	4.00	20.00

[1] The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
[2] The Spatial Average value of the SAR averaged over the whole body.
[3] The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

6. Measurement Uncertainty

Measurement uncertainty table is not required per KDB 865664 D01 v01 section 2.8.2 page 12. SAR measurement uncertainty analysis is required in the SAR report only when the highest measured SAR in a frequency band is ≥ 1.5 W/kg for 1-g SAR. The equivalent ratio (1.5/1.6) should be applied to extremity and occupational exposure conditions. The highest reported value is less than 1.5 W/kg. Therefore, the measurement uncertainty table is not required.

7. System Validation

Tissue Verification

Table 7.1 Measured Tissue Parameters

		150 MHz Head		150 MHz Head		450 MHz Head	
Date(s)		Feb. 21, 2023		Feb. 23, 2023		Feb. 20, 2023	
Liquid Temperature (˚C)	20.0	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: ε		52.30	50.95	52.30	51.27	43.50	42.67
Conductivity: σ		0.76	0.80	0.76	0.77	0.87	0.87
		450 MHz Head		750 MHz Head		900 MHz Head	
Date(s)		Feb. 22, 2023		Feb. 20, 2023		Feb. 16, 2023	
Liquid Temperature (˚C)	20.0	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: ε		43.50	42.91	41.94	41.46	41.50	41.34
Conductivity: σ		0.87	0.86	0.89	0.90	0.97	0.98

See Appendix A for data printout.

Test System Verification

Prior to assessment, the system is verified to the ±10% of the specifications at the test frequency by using the system kit. Power is normalized to 1 watt. (Graphic Plots Attached, P_{IN}=500 mW for 150 MHz and P_{IN}=100 mW for 450 MHz, 750 MHz & 900 MHz)

Table 7.2 System Dipole Validation Target & Measured

	Test Frequency	Targeted SAR_{1g} (W/kg)	Measure SAR_{1g} (W/kg)	Tissue Used for Verification	Deviation (%)	Plot
21-Feb-2023	150 MHz	3.82	3.92	Head	+ 2.62	1
23-Feb-2023	150 MHz	3.82	3.78	Head	- 1.05	2
20-Feb-2023	450 MHz	4.56	4.65	Head	+ 1.97	3
22-Feb-2023	450 MHz	4.56	4.51	Head	- 1.10	4
20-Feb-2023	750 MHz	8.57	8.58	Head	+ 0.12	5
16-Feb-2023	900 MHz	11.20	11.50	Head	+ 2.68	6

See Appendix A for data plots.

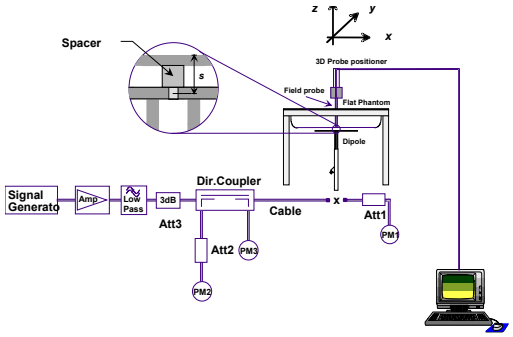


Figure 7.1 Dipole Validation Test Setup

8. SAR Test Data Summary

See Measurement Result Data Pages

See Appendix B for SAR Test Data Plots.
See Appendix C for SAR Test Setup Photos.

Procedures Used To Establish Test Signal

The device was either placed into simulated transmit mode using the manufacturer's test codes or the actual transmission is activated through a base station simulator or similar equipment. See data pages for actual procedure used in measurement.

Device Test Condition

The power drift of each test is measured at the start of the test and again at the end of the test. The drift is calculated returned in dBs. The drift is calculated into the resultant SAR value on the data sheet for each test.

The TPHN0A was tested in the face position with the front of the device 25 mm away from the flat phantom. The TPHN0A was then tested in the body position with the body accessory in contact with the flat phantom. The audio accessory (T03-00045-DMAA) was used for all body measurements. All other audio accessories have been excluded per KDB 643646 D01 v01r03 section A2. All the audio accessories are 50 ohm connections to the radio and the standard audio accessory was used for all measurements next to the body per KDB 643646 D01 v01r03 section A2. For each of the tests conducted, the device was set to continuously transmit at a maximum output power on the channel specified in the test data. The SAR was scaled to 50% duty cycle per KDB 643646 D01 v01r03. All test reductions were reduced based on the reductions in KDB 643646 D01 v01r03. See pages 23-103 for a table of test reductions.

The WiFi and Bluetooth testing was excluded from SAR testing due to the low power of the transmittesr. For the FCC, the exclusion was based on the calculation in KDB447498 v06 section 4.3.1 a). The following is the formula for the WiFi and Bluetooth transmitters.

[(63 mW)/(33.77 mm)]*√2.462=2.93 which is equal to or less than 3.0 for WiFi
[(16 mW)/(33.77 mm)]*√2.48=0.75 which is equal to or less than 3.0 for BT

For ISED, the exclusion is based on RSS-102 Issue 5 section 2.5.1 table 1. For devices evaluated to the controlled environment limit of 8.0 W/kg, the numbers in the table are multiplied by 5. Therefore, for a separation distance of 15 mm in the table, the exclusion limit is (15mW*5)=75 mW. The WiFi and Bluetooth transmitters have a maximum transmit power of 63 mW which is below the 75 mW threshold.

Battery B and Battery C are identical batteries. The only difference is the manufacturer for each part number. Therefore, the testing was conducted with the two batteries interchanged.

Optional Accessories

Accessory	Description	Part Number
Battery A	Li-Ion, 1880 mAh	T03-00011-Axxx
Battery B	Li-Ion, 2300 mAh	T03-00011-Bxxx
Battery C	Li-Ion, 2400 mAh	T03-00011-Cxxx
Battery D	Li-Ion, 3300 mAh	T03-00011-Exxx
Antenna A	Whip (135 – 225 MHz)	TPA-AN-001
Antenna B	Whip (136 – 151 MHz)	TPA-AN-002
Antenna C	Whip (150 – 162 MHz)	TPA-AN-003
Antenna D	Whip (162 – 174 MHz)	TPA-AN-004
Antenna E	Whip (400 – 470 MHz)	TPA-AN-011
Antenna F	Whip (450 – 520 MHz)	TPA-AN-012
Antenna G	Helical (400 – 470 MHz)	TPA-AN-013
Antenna H	Helical (450 – 520 MHz)	TPA-AN-015
Antenna I	½ Wave Whip (762 – 870 MHz)	TPA-AN-022
Antenna J	Helical (762 – 870 MHz)	TPA-AN-023
Antenna K	¼ Wave Whip (896 – 941 MHz)	TPA-AN-024
Antenna L	Helical (380 – 420 MHz)	TPA-AN-027
Antenna M	Helical (762 – 870 MHz)	TPA-AN-028
Antenna N	Helical (155 – 176 MHz)	TPA-AN-032
Antenna O	Helical (136 – 174 MHz)	TPA-AN-034
Antenna P	¼ Wave Whip (378 – 470 MHz)	TPA-AN-037
Antenna Q	Helical (378 – 470 MHz)	TPA-AN-038
Antenna R	¼ Wave Whip (380 – 420 MHz)	TPA-AN-039
Antenna S	Multiband (136 – 174 & 378 – 520 MHz)	TPA-AN-050
Antenna T	Multiband (136 – 174 & 378 – 520 & 757 – 870 MHz)	TPA-AN-051
Audio Accessory A	Spkr Mic Genesis	T03-00045-Dxxx
Audio Accessory B	Spkr Mic Light-Weight 3.5mm-Jack	T03-00045-Exxx
Audio Accessory C	Spkr Mic Medium-Weight 3.5mm-Jack	T03-00045-Fxxx
Audio Accessory D	Spkr Mic Evolution E-Button 3.5mm-Jack & 2.5mm-Jack	T03-00045-Jxxx
Audio Accessory E	Spkr Mic Storm IP68 E-Button 2.5mm-Jack	T03-00045-Kxxx
Audio Accessory F	Spkr Mic C-C500 E-Button Quick Release Jack	T03-00045-Lxxx
Audio Accessory G	Spkr Mic C-C500 IP67 E-Button 3.5mm-Jack 4-pole-Jack	T03-00045-Mxxx
Audio Accessory H	Spkr Mic TSM3e 2W IP67 Function-Button-Orange 3.5mm-Jack	T03-00045-Nxxx
Audio Accessory I	Spkr Mic TSM4 3W IP68 E-button Fctn-button 3.5mm-Jack	T03-00045-PXXX
Audio Accessory J	Headset Light-Weight Behind-Head Boom-Mic-with-PTT	T03-00046-Exxx
Audio Accessory K	Headset Heavy-Duty Overhead & Behind-Head	T03-00046-Fxxx
Audio Accessory L	Headset Hurricane II Behind Head	T03-00046-Gxxx
Audio Accessory M	Headset Savox HC-100 Helmet-Com Boom Mic Noise-Cancel 4-Pole	T03-00046-Hxxx
Audio Accessory N	Headset	T03-00046-Jxxx
Audio Accessory O	Wire Surveillance Kit	T03-00047-Axxx

Audio Accessory P	Covert Kit Eartube-In-Ear Lapel-Mic-With-PTT	T03-00047-Bxxx
Audio Accessory Q	Covert Kit Earhanger Lapel-Mic-With-PTT	T03-00047-Cxxx
Audio Accessory R	Earphone In-Ear 2.5mm	T03-00053-0451
Audio Accessory S	Earpiece In-Ear Acoustic-Tube 3.5mm-RA-Jack 0.3m-Lead	T03-00086-01xx
Audio Accessory T	Earpiece Ear-Bud C-Hook Black 3.5mm-RA-Jack 0.2m-Lead	T03-00086-02xx
Audio Accessory U	Earpiece On-Ear D-Ring Black 3.5mm-RA-Jack 0.3m-Lead	T03-00086-03xx
Audio Accessory V	Eartube In-Ear 2.5mm	T03-00120-xAAD
Audio Accessory W	Eartube In-Ear 3.5mm Right Angle Jack	T03-00120-xAAE
Audio Accessory X	C-Hook Shirt Lead Straight Jack 3.5mm	T03-00120-xAAJ
Audio Accessory Y	Earhanger 2.5mm	T952-055
Body Worn Accessory A	TP8/9 Belt Clip 55mm (fits to battery)	TPA-CA-201
Body Worn Accessory B	TP8/9 Belt Loop For D-Clip 55mm	TPA-CA-206
Body Worn Accessory C	TP8/9 Belt Loop For D-Clip 75mm	TPA-CA-207
Body Worn Accessory D	TP8/9 Belt Clip Adptr for 55mm Belt Clip	TPA-CA-208
Body Worn Accessory E	TP8/9 Belt Loop For D-Stud 55mm	T03-00038-0022
Body Worn Accessory F	TP8/9 Spring Clip For D-Stud 40mm	T03-00038-0023
Body Worn Accessory G	TP95/96 Battery Spacer For Carry Case Heavy Duty Leather	T03-00038-0030
Body Worn Accessory H	TP8/9 Shoulder Strap For Carry Case Heavy Duty Leather	T03-00038-0034
Body Worn Accessory I	TP95/96 Carry Case Heavy Duty Leather 16Key D-Stud Belt Loop	T03-00079-0001
Body Worn Accessory J	TP95/96 Carry Case Heavy Duty Leather 16Key Spring Clip	T03-00079-0002
Body Worn Accessory K	TP95/96 Carry Case Nylon 16Key D-Stud Belt loop	T03-00079-0003
Body Worn Accessory L	TP95/96 Carry Case Nylon 16Key Use Battery Belt Clip	T03-00079-0004
Body Worn Accessory M	TP95/96 Carry Case Soft Leather 16Key Use Battery Belt Clip	T03-00079-0005
Body Worn Accessory N	TP95/96 Carry Case Nylon 16Key D-Stud plus Chest Harness	T03-00079-0006
Body Worn Accessory O	TP95/96 Carry Case Heavy Duty Leather 16Key Belt Loop D-Rings	T03-00079-0007
Body Worn Accessory P	TP95/96 Carry Case Nylon 4/16Key D-Stud Chest Harness w/o Strap	T03-00079-0008

Audio Accessory A was chosen for the testing body worn radio configuration. Audio Accessory B-Y are excluded per KDB 643646 D01 v01r01 page 10 1) A). The following tables shows all combinations with the tested combination marked yes.

Radio Face Test

Antenna A			Antenna B		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
No	No	No	Yes	Yes	Yes
Antenna C			**Antenna D**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
Yes	Yes	Yes	Yes	Yes	Yes
Antenna E			**Antenna F**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
Yes	Yes	Yes	Yes	Yes	Yes
Antenna G			**Antenna H**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
No	No	No	Yes	Yes	Yes
Antenna I			**Antenna J**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
Yes	Yes	Yes	Yes	Yes	Yes
Antenna K			**Antenna L**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
Yes	Yes	Yes	No	No	No
Antenna M			**Antenna N**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
No	No	No	Yes	Yes	Yes
Antenna O			**Antenna P**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
Yes	Yes	Yes	Yes	Yes	Yes
Antenna Q			**Antenna R**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
Yes	Yes	Yes	No	No	No
Antenna S			**Antenna T**		
Battery A	Battery B/C	Battery D	Battery A	Battery B/C	Battery D
Yes	Yes	Yes	Yes	Yes	Yes

The following antennas were not tested as they were covered by other antennas in the same band and type.

Antenna A is cut to specific lengths and is covered by Antennas B, C & D
Antenna G is fully within the band of Antenna Q
Antenna L is fully within the band of Antenna Q
Antenna M is fully within the band of Antenna J
Antenna R is fully within the band of Antenna P

Radio Body Test

Audio Accessory	Antenna A											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna A											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna A											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna A											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna A											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna A											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna A		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna B											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna B											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna B											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna B											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna B											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna B											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna B		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna C											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna C											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna C											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna C											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna C											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna C											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna C		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna D											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna D											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna D											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna D											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna D											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna D											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna D		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna E											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna E											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna E											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna E											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna E											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna E											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna E		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna F											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna F											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna F											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna F											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna F											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna F											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna F		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna G											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna G											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna G											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna G											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna G											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna G											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna G		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna H											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna H											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna H											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna H											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna H											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna H											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna H		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna I											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna I											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna I											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna I											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna I											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna I											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna I		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna J											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna J											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna J											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna J											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna J											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna J											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna J		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna K											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna K											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna K											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna K											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna K											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna K											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna K		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna L											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna L											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna L											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna L											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna L											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna L											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna L		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna M											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna M											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna M											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna M											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna M											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna M											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna M		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna N											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna N											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna N											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna N											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna N											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna N											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna N		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna O											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna O											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna O											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna O											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna O											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna O											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna O		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna P											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna P											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna P											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna P											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna P											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna P											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna P		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna Q											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna Q											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna Q											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna Q											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna Q											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna Q											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna Q		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna R											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna R											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna R											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna R											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna R											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna R											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna R		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna S											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna S											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna S											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna S											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna S											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna S											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna S		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

Radio Body Test

Audio Accessory	Antenna T											
	Audio Accessory A			Audio Accessory B			Audio Accessory C			Audio Accessory D		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna T											
	Audio Accessory E			Audio Accessory F			Audio Accessory G			Audio Accessory H		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna T											
	Audio Accessory I			Audio Accessory J			Audio Accessory K			Audio Accessory L		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna T											
	Audio Accessory M			Audio Accessory N			Audio Accessory O			Audio Accessory P		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna T											
	Audio Accessory Q			Audio Accessory R			Audio Accessory S			Audio Accessory T		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna T											
	Audio Accessory U			Audio Accessory V			Audio Accessory W			Audio Accessory X		
	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn B	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn C	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn D	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn E	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn F	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn G	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn H	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn I	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn J	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn K	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn L	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn M	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn N	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn O	No	No	No	No	No	No	No	No	No	No	No	No
Body Worn P	No	No	No	No	No	No	No	No	No	No	No	No

Audio Accessory	Antenna T		
	Audio Accessory Y		
	Bat A	Bat B/C	Bat D
Body Worn A	No	No	No
Body Worn B	No	No	No
Body Worn C	No	No	No
Body Worn D	No	No	No
Body Worn E	No	No	No
Body Worn F	No	No	No
Body Worn G	No	No	No
Body Worn H	No	No	No
Body Worn I	No	No	No
Body Worn J	No	No	No
Body Worn K	No	No	No
Body Worn L	No	No	No
Body Worn M	No	No	No
Body Worn N	No	No	No
Body Worn O	No	No	No
Body Worn P	No	No	No

All Bands		
Freq	Channel	Power (dB)
136	1	37.8
143.5	2	37.8
145.5	3	37.8
150	4	37.9
151	5	37.9
155	6	37.9
156	7	37.8
162	8	37.8
164.5	9	37.9
168	10	37.9
174	11	37.8
378	12	37.2
393.3	13	37.2
395.8	14	37.2
400	15	37.1
408.6	16	37.1
413.5	17	37.1
417.5	18	37.2
424	19	37.2
431.3	20	37.2
435	21	37.1
439.3	22	37.2
449	23	37.1
450	24	37.2
452.5	25	37.1
454.3	26	37.1
466.8	27	37.2
467.5	28	37.2
470	29	37.2
484.5	30	37.1
485	31	37.1
501.8	32	37.1
502.5	33	37.2
520	34	37.2
762	35	35.1
780	36	35.1
798	37	35.1
816	38	35.0
834	39	35.0
852	40	35.1
870	41	35.1
896	42	35.0
918.5	43	35.1
941	44	35.0

Band	Mode	Bandwidth (MHz)	Channel	Frequency (MHz)	Data Rate	Avg Power (dBm)	Tune-up Pwr (dBm)
2450 MHz	802.11b	20	1	2412	1 Mbps	15.37	18.00
			6	2437		15.44	18.00
			11	2462		15.48	18.00
	802.11g	20	1	2412	6 Mbps	15.70	18.00
			6	2437		15.92	18.00
			11	2462		16.03	18.00
	802.11n	20	1	2412	HT0	15.87	18.00
			6	2437		16.03	18.00
			11	2462		16.03	18.00
	802.11n	40	3	2422	HT0	15.64	18.00
			6	2437		15.90	18.00
			9	2452		15.90	18.00

Band	Mode	Channel	Frequency (MHz)	Data Rate	Avg Power (dBm)	Tune-up Pwr (dBm)
2450 MHz	Bluetooth	0	2402	Basic Rate GFSK	10.64	12.04
		39	2441		10.23	12.04
		78	2480		9.80	12.04

Head SAR – In Front of Face (Handset)							
Antenna	Channel Freq. (MHz)	Battery A[1]		Battery B/C[1]		Battery D[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
B[1]	136	37.8	[2]	37.8	[2]	37.8	[2]
	143.5	37.8	0.77	37.8	0.82	37.8	1.36
	151	37.9	[2]	37.9	[2]	37.9	[2]
C[1]	150	37.9	[2]	37.9	[2]	37.9	1.70
	156	37.8	0.99	37.8	1.00	37.8	1.97
	162	37.8	[2]	37.8	[2]	37.8	1.81
D[1]	162	37.8	[2]	37.8	[2]	37.8	[2]
	168	37.9	1.19	37.9	1.57	37.9	1.38
	174	37.8	[2]	37.8	[2]	37.8	[2]
O[1]	136	37.8	[2]	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]	37.8	[2]
	155	37.9	0.27	37.9	0.30	37.9	0.29
	164.5	37.9	[2]	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]	37.8	[2]
S[1]	136	37.8	[2]	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]	37.8	[2]
	155	37.9	0.13	37.9	0.15	37.9	0.15
	164.5	37.9	[2]	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]	37.8	[2]
T[1]	136	37.8	[2]	37.8	v	37.8	[2]
	145.5	37.8	[2]	37.8		37.8	[2]
	155	37.9	0.12	37.9	0.13	37.9	0.11
	164.5	37.9	[2]	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]	37.8	[2]
E[1]	406.1	37.1	[2]	37.1	[2]	37.1	[2]
	417.5	37.2	[2]	37.2	[2]	37.2	[2]
	435	37.1	2.49	37.1	2.68	37.1	2.66
	452.5	37.1	[2]	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]	37.2	[2]
F[1]	450	37.2	[2]	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	[2]	37.2	[2]
	485	37.1	2.70	37.1	2.71	37.1	2.56
	502.5	37.2	[2]	37.2	[2]	37.2	[2]
	520	37.2	[2]	37.2	[2]	37.2	[2]
H[1]	450	37.2	[2]	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	[2]	37.2	[2]
	485	37.1	2.22	37.1	2.18	37.1	2.00
	502.5	37.2	[2]	37.2	[2]	37.2	[2]
	520	37.2	[2]	37.2	[2]	37.2	[2]
P[1]	378	37.2	N/A	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]	37.1	[2]
	424	37.2	2.95	37.2	2.92	37.2	3.12
	439.3	37.2	[2]	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]	37.2	[2]

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 2 section 1) A) I) a).

Head SAR – In Front of Face (Handset)							
Antenna	Channel Freq. (MHz)	Battery A[1]		Battery B/C[1]		Battery D[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
Q[1]	378	37.2	N/A	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]	37.1	3.47
	424	37.2	3.39	37.2	3.33	37.2	3.55
	439.3	37.2	[2]	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]	37.2	3.51
S[1]	378	37.2	N/A	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]	37.2	[2]
	449	37.1	1.30	37.1	1.30	37.1	1.28
	466.8	37.2	[2]	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]	37.2	[2]
T[1]	378	37.2	N/A	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]	37.2	[2]
	449	37.1	1.62	37.1	1.57	37.1	1.73
	466.8	37.2	[2]	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]	37.2	[2]
I[1]	762	35.1	[2]	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]	35.1	[2]
	816	35.0	1.44	35.0	1.42	35.0	1.25
	834	35.0	[2]	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]	35.1	[2]
J[1]	762	35.1	[2]	35.1	[2]	35.1	2.50
	780	35.1	[2]	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]	35.1	[2]
	816	35.0	2.47	35.0	2.68	35.0	2.75
	834	35.0	[2]	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]	35.1	2.53
T[1]	762	35.1	[2]	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]	35.1	[2]
	816	35.0	0.67	35.0	0.69	35.0	0.71
	834	35.0	[2]	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]	35.1	[2]
K[1]	896	35.0	1.84	35.0	[2]	35.0	[2]
	918.5	35.1	1.86	35.1	1.72	35.1	1.78
	941	35.0	1.77	35.0	[2]	35.0	[2]

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 2 section 1) A) I) a).

Body SAR (Handset)					
Antenna (MHz)	Channel Freq. (MHz)	Battery A[1]			
		Audio Accessory A[1]			
		Body Worn AO[1]		Body Worn A[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
B[1]	136	37.8	[2]	37.8	[2]
	143.5	37.8	1.05	37.8	1.22
	151	37.9	[2]	37.9	[2]
C[1]	150	37.9	[2]	37.9	[2]
	156	37.8	1.09	37.8	1.31
	162	37.8	[2]	37.8	[2]
D[1]	162	37.8	[2]	37.8	[2]
	168	37.9	0.74	37.9	0.88
	174	37.8	[2]	37.8	[2]
O[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.42	37.9	0.68
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
S[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.12	37.9	0.23
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
T[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.16	37.9	0.30
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
E[1]	406.1	37.1	[2]	37.1	[2]
	417.5	37.2	[2]	37.2	[2]
	435	37.1	4.41	37.1	4.98
	452.5	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]
F[1]	450	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	[2]
	485	37.1	2.76	37.1	3.08
	502.5	37.2	[2]	37.2	[2]
	520	37.2	[2]	37.2	[2]
H[1]	450	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	[2]
	485	37.1	0.94	37.1	1.25
	502.5	37.2	[2]	37.2	[2]
	520	37.2	[2]	37.2	[2]
P[1]	378	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]
	424	37.2	2.59	37.2	2.76
	439.3	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 5 section 1) A) I) a).

Body SAR (Handset)					
Antenna (MHz)	Channel Freq. (MHz)	Battery A[1]			
		Audio Accessory A[1]			
		Body Worn AO[1]		Body Worn A[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
Q[1]	378	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]
	424	37.2	1.13	37.2	1.36
	439.3	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]
S[1]	378	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]
	449	37.1	0.84	37.1	1.02
	466.8	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]
T[1]	378	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]
	449	37.1	1.32	37.1	1.52
	466.8	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]
I[1]	762	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]
	816	35.0	4.01	35.0	3.11
	834	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]
J[1]	762	35.1	[2]	35.1	2.91
	780	35.1	[2]	35.1	3.77
	798	35.1	[2]	35.1	5.39
	816	35.0	4.98	35.0	6.94
	834	35.0	[2]	35.0	5.97
	852	35.1	[2]	35.1	5.38
	870	35.1	[2]	35.1	4.94
T[1]	762	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]
	816	35.0	1.10	35.0	1.62
	834	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]
K[1]	896	35.0	[2]	35.0	[2]
	918.5	35.1	3.62	35.1	4.51
	941	35.0	[2]	35.0	[2]

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 5 section 1) A) I) a).

Body SAR (Handset)					
Antenna (MHz)	Channel Freq. (MHz)	Battery B/C[1]			
		Audio Accessory A[1]			
		Body Worn AO[1]		Body Worn A[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
B[1]	136	37.8	[2]	37.8	[2]
	143.5	37.8	0.95	37.8	1.17
	151	37.9	[2]	37.9	[2]
C[1]	150	37.9	[2]	37.9	[2]
	156	37.8	1.16	37.8	1.20
	162	37.8	[2]	37.8	[2]
D[1]	162	37.8	[2]	37.8	[2]
	168	37.9	0.76	37.9	0.72
	174	37.8	[2]	37.8	[2]
O[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.59	37.9	0.58
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
S[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.15	37.9	0.20
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
T[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.14	37.9	0.18
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
E[1]	406.1	37.1	[2]	37.1	[2]
	417.5	37.2	[2]	37.2	[2]
	435	37.1	4.33	37.1	4.27
	452.5	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]
F[1]	450	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	[2]
	485	37.1	4.22	37.1	4.24
	502.5	37.2	[2]	37.2	[2]
	520	37.2	[2]	37.2	[2]
H[1]	450	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	[2]
	485	37.1	1.74	37.1	1.69
	502.5	37.2	[2]	37.2	[2]
	520	37.2	[2]	37.2	[2]
P[1]	378	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]
	424	37.2	4.35	37.2	3.98
	439.3	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 5 section 1) A) I) a).

Body SAR (Handset)					
Antenna (MHz)	Channel Freq. (MHz)	Battery B/C[1]			
		Audio Accessory A[1]			
		Body Worn AO[1]		Body Worn A[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
Q[1]	378	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]
	424	37.2	2.44	37.2	2.18
	439.3	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]
S[1]	378	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]
	449	37.1	0.78	37.1	0.83
	466.8	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]
T[1]	378	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]
	449	37.1	0.99	37.1	1.18
	466.8	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]
I[1]	762	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]
	816	35.0	3.11	35.0	4.04
	834	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]
J[1]	762	35.1	[2]	35.1	2.24
	780	35.1	[2]	35.1	3.43
	798	35.1	[2]	35.1	4.77
	816	35.0	4.28	35.0	5.53
	834	35.0	[2]	35.0	5.10
	852	35.1	[2]	35.1	4.48
	870	35.1	[2]	35.1	4.44
T[1]	762	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]
	816	35.0	1.09	35.0	1.43
	834	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]
K[1]	896	35.0	[2]	35.0	[2]
	918.5	35.1	4.51	35.1	4.16
	941	35.0	[2]	35.0	[2]

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 5 section 1) A) I) a).

Body SAR (Handset)					
Antenna (MHz)	Channel Freq. (MHz)	Battery D[1]			
		Audio Accessory A[1]			
		Body Worn AO[1]		Body Worn A[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
B[1]	136	37.8	[2]	37.8	[2]
	143.5	37.8	0.70	37.8	0.78
	151	37.9	[2]	37.9	[2]
C[1]	150	37.9	[2]	37.9	1.28
	156	37.8	1.25	37.8	1.48
	162	37.8	[2]	37.8	1.32
D[1]	162	37.8	[2]	37.8	[2]
	168	37.9	0.80	37.9	1.07
	174	37.8	[2]	37.8	[2]
O[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.53	37.9	0.63
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
S[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.21	37.9	0.25
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
T[1]	136	37.8	[2]	37.8	[2]
	145.5	37.8	[2]	37.8	[2]
	155	37.9	0.22	37.9	0.28
	164.5	37.9	[2]	37.9	[2]
	174	37.8	[2]	37.8	[2]
E[1]	406.1	37.1	[2]	37.1	[2]
	417.5	37.2	[2]	37.2	[2]
	435	37.1	4.30	37.1	4.75
	452.5	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]
F[1]	450	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	4.99
	485	37.1	4.69	37.1	5.31
	502.5	37.2	[2]	37.2	5.08
	520	37.2	[2]	37.2	[2]
H[1]	450	37.2	[2]	37.2	[2]
	467.5	37.2	[2]	37.2	[2]
	485	37.1	1.59	37.1	1.90
	502.5	37.2	[2]	37.2	[2]
	520	37.2	[2]	37.2	[2]
P[1]	378	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]
	424	37.2	4.24	37.2	4.53
	439.3	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 5 section 1) A) I) a).

Body SAR (Handset)					
Antenna (MHz)	Channel Freq. (MHz)	Battery D[1]			
		Audio Accessory A[1]			
		Body Worn AO[1]		Body Worn A[1]	
		Measured Power (dBm)	Reported SAR (W/kg)	Measured Power (dBm)	Reported SAR (W/kg)
Q[1]	378	37.2	N/A	37.2	N/A
	393.3	37.2	N/A	37.2	N/A
	408.6	37.1	[2]	37.1	[2]
	424	37.2	2.56	37.2	2.89
	439.3	37.2	[2]	37.2	[2]
	454.3	37.1	[2]	37.1	[2]
	470	37.2	[2]	37.2	[2]
S[1]	378	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]
	449	37.1	1.48	37.1	1.60
	466.8	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]
T[1]	378	37.2	N/A	37.2	N/A
	395.8	37.2	N/A	37.2	N/A
	413.5	37.1	[2]	37.1	[2]
	431.3	37.2	[2]	37.2	[2]
	449	37.1	2.28	37.1	2.46
	466.8	37.2	[2]	37.2	[2]
	484.5	37.1	[2]	37.1	[2]
	501.8	37.1	[2]	37.1	[2]
	520	37.2	[2]	37.2	[2]
I[1]	762	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]
	816	35.0	2.62	35.0	3.43
	834	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]
J[1]	762	35.1	[2]	35.1	2.62
	780	35.1	[2]	35.1	3.41
	798	35.1	[2]	35.1	4.53
	816	35.0	4.16	35.0	5.80
	834	35.0	[2]	35.0	5.31
	852	35.1	[2]	35.1	4.91
	870	35.1	[2]	35.1	5.23
T[1]	762	35.1	[2]	35.1	[2]
	780	35.1	[2]	35.1	[2]
	798	35.1	[2]	35.1	[2]
	816	35.0	1.13	35.0	1.62
	834	35.0	[2]	35.0	[2]
	852	35.1	[2]	35.1	[2]
	870	35.1	[2]	35.1	[2]
K[1]	896	35.0	[2]	35.0	4.50
	918.5	35.1	3.52	35.1	4.78
	941	35.0	[2]	35.0	4.55

[1]See Accessory table on page 21-22 of this report.
[2]Measurement was reduced per KDB 643646 D01 v01r01 page 5 section 1) A) I) a).

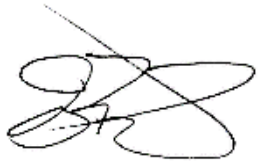
SAR Data Summary – Face SAR Measurements 150 MHz

MEASUREMENT RESULTS

Gap	Plot	Conf.	Battery	Frequency		Mod.	Ant.	End Power	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
				MHz	Ch.			(dBm)				
25 mm	-----	Radio	A	143.5	2	FM	B	37.8	-0.46	1.13	1.35	0.77
	-----			156	7	FM	C	37.8	-0.39	1.48	1.74	0.99
	-----			168	10	FM	D	37.9	-0.34	1.85	2.10	1.19
	-----			155	6	FM	O	37.9	-0.43	0.409	0.47	0.27
	-----			155	6	FM	S	37.9	-0.27	0.205	0.23	0.13
	-----			155	6	FM	T	37.9	-0.61	0.175	0.21	0.12
	-----		B/C	143.5	2	FM	B	37.8	-0.51	1.19	1.43	0.82
	-----			156	7	FM	C	37.8	-0.49	1.46	1.75	1.00
	-----			168	10	FM	D	37.9	-0.65	2.26	2.75	1.57
	-----			155	6	FM	O	37.9	-0.77	0.423	0.53	0.30
	-----			155	6	FM	S	37.9	-0.71	0.213	0.26	0.15
	-----			155	6	FM	T	37.9	-0.68	0.184	0.23	0.13
	-----		D	143.5	2	FM	B	37.8	-0.62	1.93	2.39	1.36
	-----			150	4	FM	C	37.9	-0.48	2.56	2.99	1.70
	1			156	7	FM		37.8	-0.53	2.85	3.45	1.97
	-----			162	8	FM		37.8	-0.41	2.69	3.17	1.81
	-----			168	10	FM	D	37.9	-0.54	2.04	2.42	1.38
	-----			155	6	FM	O	37.9	-0.69	0.411	0.50	0.29
	-----			155	6	FM	S	37.9	-0.64	0.211	0.26	0.15
	-----			155	6	FM	T	37.9	-0.71	0.178	0.22	0.11

Head
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Eli4 ☐Right Head
   SAR Configuration ☒Head ☐Body
3. Test Signal Call Mode ☒Test Code ☐Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A
5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (38.1 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

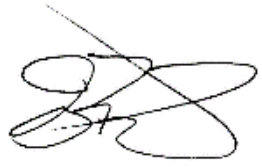
SAR Data Summary – Body SAR Measurements 150 MHz

MEASUREMENT RESULTS

Gap	Plot	Body Worn Acc.	Battery	Frequency		Mod.	Ant.	End Power	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
				MHz	Ch.			(dBm)				
0 mm	-----	AO	A	143.5	2	FM	B	37.8	-0.55	1.52	1.85	1.05
	-----			156	7	FM	C	37.8	-0.41	1.63	1.92	1.09
	-----			168	10	FM	D	37.9	-0.63	1.08	1.31	0.74
	-----			155	6	FM	O	37.9	-0.79	0.587	0.74	0.42
	-----			155	6	FM	S	37.9	-0.74	0.168	0.21	0.12
	-----			155	6	FM	T	37.9	-0.70	0.229	0.28	0.16
	-----	A		143.5	2	FM	B	37.8	-0.66	1.71	2.13	1.22
	-----			156	7	FM	C	37.8	-0.60	1.87	2.30	1.31
	-----			168	10	FM	D	37.9	-0.58	1.29	1.54	0.88
	-----			155	6	FM	O	37.9	-0.66	0.978	1.19	0.68
	-----			155	6	FM	S	37.9	-0.78	0.320	0.40	0.23
	-----			155	6	FM	T	37.9	-0.74	0.422	0.52	0.30
	-----	AO	B/C	143.5	2	FM	B	37.8	-0.59	1.36	1.67	0.95
	-----			156	7	FM	C	37.8	-0.55	1.67	2.03	1.16
	-----			168	10	FM	D	37.9	-0.47	1.14	1.33	0.76
	-----			155	6	FM	O	37.9	-0.75	0.824	1.03	0.59
	-----			155	6	FM	S	37.9	-0.76	0.216	0.27	0.15
	-----			155	6	FM	T	37.9	-0.88	0.193	0.25	0.14
	-----	A		143.5	2	FM	B	37.8	-0.57	1.68	2.05	1.17
	-----			156	7	FM	C	37.8	-0.63	1.93	2.39	1.20
	-----			168	10	FM	D	37.9	-0.59	1.20	1.44	0.72
	-----			155	6	FM	O	37.9	-0.63	0.955	1.16	0.58
	-----			155	6	FM	S	37.9	-0.67	0.318	0.39	0.20
	-----			155	6	FM	T	37.9	-0.69	0.286	0.35	0.18

Body
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Eli4 ☐Right Head
   SAR Configuration ☐Head ☒Body
3. Test Signal Call Mode ☒Test Code ☐Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A
5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (38.1 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

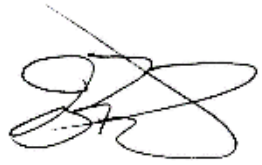
SAR Data Summary – Body SAR Measurements 150 MHz

MEASUREMENT RESULTS

Gap	Plot	Body Worn Acc.	Battery	Frequency		Mod.	Ant.	End Power	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
				MHz	Ch.			(dBm)				
0 mm	-----	AO	D	143.5	2	FM	B	37.8	-0.52	1.01	1.22	0.70
	-----			156	7	FM	C	37.8	-0.49	1.83	2.20	1.25
	-----			168	10	FM	D	37.9	-0.44	1.21	1.40	0.80
	-----			155	6	FM	O	37.9	-0.56	0.785	0.94	0.53
	-----			155	6	FM	S	37.9	-0.69	0.298	0.37	0.21
	-----			155	6	FM	T	37.9	-0.71	0.311	0.38	0.22
	-----	A		143.5	2	FM	B	37.8	-0.47	1.15	1.37	0.78
	-----			150	4	FM	C	37.9	-0.59	1.87	2.24	1.28
	2			156	7	FM		37.8	-0.66	2.08	2.59	1.48
	-----			162	8	FM		37.8	-0.53	1.91	2.31	1.32
	-----			168	10	FM	D	37.9	-0.61	1.55	1.87	1.07
	-----			155	6	FM	O	37.9	-0.68	0.898	1.10	0.63
	-----			155	6	FM	S	37.9	-0.75	0.351	0.44	0.25
	-----			155	6	FM	T	37.9	-0.78	0.395	0.49	0.28

Body
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Eli4 ☐Right Head
   SAR Configuration ☐Head ☒Body
3. Test Signal Call Mode ☒Test Code ☐Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A
5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (38.1 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

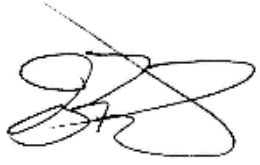
SAR Data Summary – Face SAR Measurements 450 MHz

MEASUREMENT RESULTS

Gap	Plot	Conf.	Battery	Frequency		Mod.	Ant.	End Power	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
				MHz	Ch.			(dBm)				
25 mm	-----	Radio	A	435	21	FM	E	37.1	-0.44	3.68	4.36	2.49
	-----			485	31	FM	F	37.1	-0.55	3.89	4.73	2.70
	-----			485	31	FM	H	37.1	-0.65	3.13	3.90	2.22
	-----			424	19	FM	P	37.2	-0.61	4.30	5.18	2.95
	-----			424	19	FM	Q	37.2	-0.42	5.15	5.94	3.39
	-----			449	23	FM	S	37.1	-0.77	1.78	2.28	1.30
	-----			449	23	FM	T	37.1	-0.71	2.25	2.84	1.62
	-----		B/C	435	21	FM	E	37.1	-0.62	3.81	4.71	2.68
	-----			485	31	FM	F	37.1	-0.68	3.80	4.76	2.71
	-----			485	31	FM	H	37.1	-0.72	3.02	3.82	2.18
	-----			424	19	FM	P	37.2	-0.68	4.19	5.13	2.92
	-----			424	19	FM	Q	37.2	-0.62	4.83	5.83	3.33
	-----			449	23	FM	S	37.1	-0.77	1.78	2.28	1.30
	-----			449	23	FM	T	37.1	-0.63	2.22	2.75	1.57
	-----		D	435	21	FM	E	37.1	-0.57	3.82	4.67	2.66
	-----			485	31	FM	F	37.1	-0.59	3.66	4.49	2.56
	-----			485	31	FM	H	37.1	-0.68	2.80	3.51	2.00
	-----			424	19	FM	P	37.2	-0.55	4.61	5.48	3.12
	-----			406.1	15	FM	Q	37.1	-0.54	5.01	6.08	3.47
	3			424	19	FM		37.2	-0.58	5.20	6.22	3.55
	-----			470	29	FM		37.2	-0.57	5.16	6.16	3.51
	-----			449	23	FM	S	37.1	-0.69	1.79	2.25	1.28
	-----			449	23	FM	T	37.1	-0.71	2.41	3.04	1.73

Head
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Eli4 ☐Right Head
   SAR Configuration ☒Head ☐Body
3. Test Signal Call Mode ☒Test Code ☐Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A
5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (37.4 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

SAR Data Summary – Body SAR Measurements 450 MHz

MEASUREMENT RESULTS

Gap	Plot	Body Worn Acc.	Battery	Frequency MHz	Frequency Ch.	Mod.	Ant.	End Power (dBm)	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
0 mm	-----	AO	A	435	21	FM	E	37.1	-0.51	6.42	7.74	4.41
	-----			485	31	FM	F	37.1	-0.68	3.87	4.85	2.76
	-----			485	31	FM	H	37.1	-0.82	1.27	1.64	0.94
	-----			424	19	FM	P	37.2	-0.71	3.68	4.54	2.59
	-----			424	19	FM	Q	37.2	-0.88	1.55	1.99	1.13
	-----			449	23	FM	S	37.1	-0.49	1.23	1.48	0.84
	-----			449	23	FM	T	37.1	-0.64	1.87	2.32	1.32
	-----	A		435	21	FM	E	37.1	-0.53	7.22	8.74	4.98
	-----			485	31	FM	F	37.1	-0.71	4.29	5.41	3.08
	-----			485	31	FM	H	37.1	-0.79	1.71	2.20	1.25
	-----			424	19	FM	P	37.2	-0.70	3.94	4.85	2.76
	-----			424	19	FM	Q	37.2	-0.81	1.89	2.38	1.36
	-----			449	23	FM	S	37.1	-0.77	1.40	1.79	1.02
	-----			449	23	FM	T	37.1	-0.73	2.11	2.67	1.52
	-----	AO	B/C	435	21	FM	E	37.1	-0.55	6.24	7.59	4.33
	-----			485	31	FM	F	37.1	-0.59	6.03	7.40	4.22
	-----			485	31	FM	H	37.1	-0.73	2.41	3.06	1.74
	-----			424	19	FM	P	37.2	-0.61	6.34	7.64	4.35
	-----			424	19	FM	Q	37.2	-0.83	3.38	4.28	2.44
	-----			449	23	FM	S	37.1	-0.91	1.17	1.55	0.78
	-----			449	23	FM	T	37.1	-0.72	1.56	1.97	0.99
	-----	A		435	21	FM	E	37.1	-0.57	6.98	8.53	4.27
	-----			485	31	FM	F	37.1	-0.61	6.87	8.47	4.24
	-----			485	31	FM	H	37.1	-0.75	2.65	3.37	1.69
	-----			424	19	FM	P	37.2	-0.66	6.53	7.96	3.98
	-----			424	19	FM	Q	37.2	-0.78	3.48	4.36	2.18
	-----			449	23	FM	S	37.1	-0.83	1.27	1.65	0.83
	-----			449	23	FM	T	37.1	-0.69	1.87	2.35	1.18

Body
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Eli4 ☐Right Head
   SAR Configuration ☐Head ☒Body
3. Test Signal Call Mode ☒Test Code ☐Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A
5. Tissue Depth is at least 15.0 cm

Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (37.4 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

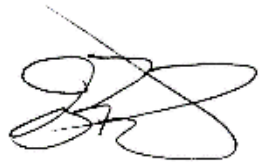
SAR Data Summary – Body SAR Measurements 450 MHz

MEASUREMENT RESULTS

Gap	Plot	Body Worn Acc.	Battery	Frequency MHz	Frequency Ch.	Mod.	Ant.	End Power (dBm)	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
0 mm	-----	AO	D	435	21	FM	E	37.1	-0.71	5.98	7.55	4.30
	-----			485	31	FM	F	37.1	-0.68	6.57	8.23	4.69
	-----			485	31	FM	H	37.1	-0.83	2.15	2.79	1.59
	-----			424	19	FM	P	37.2	-0.72	6.02	7.44	4.24
	-----			424	19	FM	Q	37.2	-0.66	3.68	4.49	2.56
	-----			449	23	FM	S	37.1	-0.89	1.98	2.60	1.48
	-----			449	23	FM	T	37.1	-0.74	3.15	4.00	2.28
	-----	A		435	21	FM	E	37.1	-0.77	6.51	8.33	4.75
	-----			450	24	FM	F	37.2	-0.52	7.41	8.75	4.99
	4			485	31	FM		37.1	-0.64	7.51	9.32	5.31
	-----			520	34	FM		37.2	-0.58	7.45	8.92	5.08
	-----			485	31	FM	H	37.1	-0.79	2.59	3.33	1.90
	-----			424	19	FM	P	37.2	-0.68	6.48	7.94	4.53
	-----			424	19	FM	Q	37.2	-0.66	4.16	5.07	2.89
	-----			449	23	FM	S	37.1	-0.57	2.30	2.81	1.60
	-----			449	23	FM	T	37.1	-0.63	3.49	4.32	2.46
	-----	Repeat		485	31	FM	F	37.1	-0.62	7.49	9.26	5.28

Body
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Eli4 ☐Right Head
   SAR Configuration ☐Head ☒Body
3. Test Signal Call Mode ☒Test Code ☐Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A
5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (37.4 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

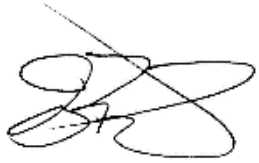
SAR Data Summary – Face SAR Measurements 800/900 MHz

MEASUREMENT RESULTS

Gap	Plot	Conf.	Battery	Frequency		Mod.	Ant.	End Power	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
				MHz	Ch.			(dBm)				
25 mm	-----	Radio	A	816	38	FM	I	35.0	-0.47	2.07	2.53	1.44
	-----			816	38	FM	J	35.0	-0.41	3.59	4.33	2.47
	-----			816	38	FM	T	35.0	-0.62	0.934	1.18	0.67
	-----			896	42	FM	K	35.0	-0.60	2.57	3.24	1.84
	7			918.5	43	FM		35.1	-0.68	2.61	3.27	1.86
	-----			941	44	FM		35.0	-0.47	2.54	3.10	1.77
	-----		B/C	816	38	FM	I	35.0	-0.63	1.97	2.50	1.42
	-----			816	38	FM	J	35.0	-0.49	3.83	4.70	2.68
	-----			816	38	FM	T	35.0	-0.68	0.941	1.21	0.69
	-----			918.5	43	FM	K	35.1	-0.55	2.48	3.02	1.72
	-----		D	816	38	FM	I	35.0	-0.64	1.72	2.19	1.25
	-----			762	35	FM	J	35.1	-0.50	3.65	4.39	2.50
	5			816	38	FM		35.0	-0.56	3.87	4.83	2.75
	-----			870	41	FM		35.1	-0.47	3.71	4.43	2.53
	-----			816	38	FM	T	35.0	-0.62	0.981	1.24	0.71
	-----			918.5	43	FM	K	35.1	-0.51	2.59	3.12	1.78

Head
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.
   Power Measured ☒Conducted ☐ERP ☐EIRP
2. SAR Measurement
   Phantom Configuration ☐Left Head ☒Eli4 ☐Right Head
   SAR Configuration ☒Head ☐Body
3. Test Signal Call Mode ☒Test Code ☐Base Station Simulator
4. Test Configuration ☐With Belt Clip ☐Without Belt Clip ☒N/A
5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (35.4 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

SAR Data Summary – Body SAR Measurements 800/900 MHz

MEASUREMENT RESULTS

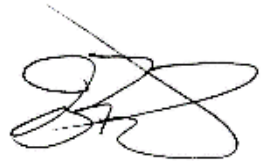
Gap	Plot	Body Worn Acc.	Battery	Frequency		Mod.	Ant.	End Power	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
				MHz	Ch.			(dBm)				
0 mm	-----	AO	A	816	38	FM	I	35.0	-0.61	5.58	7.04	4.01
	-----			816	38	FM	J	35.0	-0.58	6.97	8.73	4.98
	-----			816	38	FM	T	35.0	-0.73	1.49	1.93	1.10
	-----			918.5	43	FM	K	35.1	-0.65	5.11	6.36	3.62
	-----	A		816	38	FM	I	35.0	-0.58	6.09	7.63	4.35
	-----			762	35	FM	J	35.1	-0.69	4.07	5.11	2.91
	-----			780	36	FM		35.1	-0.61	5.37	6.62	3.77
	-----			798	37	FM		35.1	-0.55	7.78	9.46	5.39
	6			816	38	FM		35.0	-0.63	9.61	12.18	6.94
	-----			834	39	FM		35.0	-0.57	8.38	10.48	5.97
	-----			852	40	FM		35.1	-0.60	7.67	9.44	5.38
	-----			870	41	FM		35.1	-0.63	7.00	8.67	4.94
	-----			816	38	FM	T	35.0	-0.77	2.17	2.84	1.62
	-----			918.5	43	FM	K	35.1	-0.61	6.42	7.92	4.51
	-----	AO	B/C	816	38	FM	I	35.0	-0.55	4.39	5.46	3.11
	-----			816	38	FM	J	35.0	-0.59	5.98	7.51	4.28
	-----			816	38	FM	T	35.0	-0.73	1.47	1.91	1.09
	-----			918.5	43	FM	K	35.1	-0.64	4.96	6.16	3.51
	-----	A		816	38	FM	I	35.0	-0.62	5.60	7.08	4.04
	-----			762	35	FM	J	35.1	-0.66	3.58	4.47	2.24
	-----			780	36	FM		35.1	-0.60	5.58	6.86	3.43
	-----			798	37	FM		35.1	-0.52	7.90	9.54	4.77
	-----			816	38	FM		35.0	-0.55	8.89	11.06	5.53
	-----			834	39	FM		35.0	-0.47	8.34	10.19	5.10
	-----			852	40	FM		35.1	-0.59	7.30	8.96	4.48
	-----			870	41	FM		35.1	-0.67	7.10	8.88	4.44
	-----			816	38	FM	T	35.0	-0.72	2.20	2.85	1.43
	-----			918.5	43	FM	K	35.1	-0.61	6.74	8.31	4.16

Body
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.

Power Measured	☒Conducted	☐ERP	☐EIRP
2. SAR Measurement			
Phantom Configuration	☐Left Head	☒Eli4	☐Right Head
SAR Configuration	☐Head	☒Body	
3. Test Signal Call Mode	☒Test Code	☐Base Station Simulator	
4. Test Configuration	☐With Belt Clip	☐Without Belt Clip	☒N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (35.4 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

SAR Data Summary – Body SAR Measurements 800/900 MHz

MEASUREMENT RESULTS

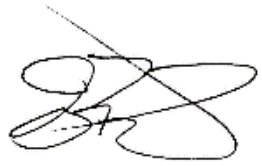
Gap	Plot	Body Worn Acc.	Battery	Frequency MHz	Frequency Ch.	Mod.	Ant.	End Power (dBm)	Drift (dB)	Measured SAR (W/kg)	Adjusted SAR (W/kg)	SAR (W/kg) 50% Duty Cycle
0 mm	-----	AO	D	816	38	FM	I	35.0	-0.59	3.66	4.60	2.62
	-----			816	38	FM	J	35.0	-0.47	5.97	7.29	4.16
	-----			816	38	FM	T	35.0	-0.66	1.56	1.99	1.13
	-----			918.5	43	FM	K	35.1	-0.62	4.99	6.17	3.52
	-----	A		816	38	FM	I	35.0	-0.65	4.72	6.01	3.43
	-----			762	35	FM	J	35.1	-0.71	3.64	4.59	2.62
	-----			780	36	FM		35.1	-0.59	4.87	5.98	3.41
	-----			798	37	FM		35.1	-0.47	6.66	7.95	4.53
	-----			816	38	FM		35.0	-0.45	8.37	10.18	5.80
	-----			834	39	FM		35.0	-0.48	7.61	9.32	5.31
	-----			852	40	FM		35.1	-0.53	7.11	8.61	4.91
	-----			870	41	FM		35.1	-0.51	7.61	9.17	5.23
	-----			816	38	FM	T	35.0	-0.73	2.19	2.84	1.62
	-----			896	42	FM	K	35.0	-0.62	6.24	7.89	4.50
	8			918.5	43	FM		35.1	-0.64	6.75	8.38	4.78
	-----			941	44	FM		35.0	-0.57	6.39	7.99	4.55
	-----	Repeat		816	38	FM	J	35.0	-0.59	9.58	12.03	6.86

Body
8.0 W/kg (mW/g)
averaged over 1 gram

1. Battery is fully charged for all tests.

Power Measured	☒Conducted	☐ERP	☐EIRP
2. SAR Measurement			
Phantom Configuration	☐Left Head	☒Eli4	☐Right Head
SAR Configuration	☐Head	☒Body	
3. Test Signal Call Mode	☒Test Code	☐Base Station Simulator	
4. Test Configuration	☐With Belt Clip	☐Without Belt Clip	☒N/A

5. Tissue Depth is at least 15.0 cm



Jay M. Moulton
Vice President

The adjusted SAR value was calculated by first scaling the SAR value up by the drift. This value was then scaled up based on the difference of the upper end of the tolerance (35.4 dB) and the measured conducted power. The resultant value is then multiplied by 0.5 to give the SAR value at 50% duty cycle.

SAR Data Summary – Simultaneous Evaluation

MEASUREMENT RESULTS								
Config.	Frequency		Modulation	Frequency		Modulation	SAR_1	SAR_2
	MHz	Ch.		MHz	Ch.			
Head	424	19	FM	2462	13	DSSS	3.55	0.39
Body	816	38	FM	2462	13	DSSS	6.94	0.19

The calculated value for the WiFi and Bluetooth radios is based on KDB447498 D01 v06 section 4.3.2 b) 1). Below is the formula used.

[(max. power, mW) / (min. distance, mm)] * [$\sqrt{f_{(GHz)}}$/x] where x=7.5 for 1 g SAR

Face:
WiFi: [63 mW/34 mm]*[√2.462/7.5]=0.39
BT: [16 mW/34 mm]*[√2.48/7.5]=0.10

Body:
WiFi: [63 mW/69 mm]*[√2.462/7.5]=0.19
BT: [16 mW/69 mm]*[√2.48/7.5]=0.05

For a device with one transmitter used in a controlled environment and the second transmitter used in an uncontrolled environment, the ratio of the two transmitters to the respective limit must be less than 1.0. Below are the calculations.

Head: (3.55/8.0) + (0.39/1.6) = 0.69
Body: (6.94/8.0) + (0.19/1.6) = 0.99

Both configurations are less than or equal to 1.0; therefore, simultaneous Tx meets the requirements of the FCC/ISED guidelines.

9. Test Equipment List

Table 9.1 Equipment Specifications

Type	Calibration Due Date	Calibration Done Date	Serial Number
Staubli Robot TX60L	N/A	N/A	F07/55M6A1/A/01
Measurement Controller CS8c	N/A	N/A	1012
ELI4 Flat Phantom	N/A	N/A	1065
ELI5 Flat Phantom	N/A	N/A	2037
Device Holder	N/A	N/A	N/A
Data Acquisition Electronics 4	08/16/2023	08/16/2022	759
Data Acquisition Electronics 4	02/14/2024	02/14/2023	1217
SPEAG E-Field Probe EX3DV4	02/10/2024	02/10/2023	3662
SPEAG E-Field Probe EX3DV4	04/12/2023	04/12/2022	7531
Speag Validation CLA150	11/02/2023	11/08/2022	4002
Speag Validation Dipole D450V3	01/13/2024	01/13/2022	1085
Speag Validation Dipole D750V3	06/04/2023	06/04/2021	1053
Speag Validation Dipole D900V3	06/04/2023	06/04/2021	1d128
Agilent N1911A Power Meter	03/16/2023	03/16/2022	GB45100254
Agilent N1922A Power Sensor	03/17/2023	03/17/2022	MY45240464
Agilent (HP) 8596E Spectrum Analyzer	03/17/2023	03/17/2022	31720068
Agilent (HP) 83752A Synthesized Sweeper	03/17/2023	03/17/2022	3610A01048
Agilent (HP) 8753C Vector Network Analyzer	03/17/2023	03/17/2022	3135A01724
Agilent (HP) 85047A S-Parameter Test Set	03/16/2023	03/16/2022	2904A00595
Agilent 778D Dual Directional Coupler	N/A	N/A	MY48220184
MiniCircuits BW-N20W5+ Fixed 20 dB Attenuator	N/A	N/A	N/A
MiniCircuits SPL-10.7+ Low Pass Filter	N/A	N/A	R8979513746
Aprel Dielectric Probe Assembly	N/A	N/A	0011
Head Equivalent Matter (150 MHz)	N/A	N/A	N/A
Head Equivalent Matter (450 MHz)	N/A	N/A	N/A
Head Equivalent Matter (750 MHz)	N/A	N/A	N/A
Head Equivalent Matter (900 MHz)	N/A	N/A	N/A

10. Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC/IC. These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body is a very complex phenomena that depends on the mass, shape, and size of the body; the orientation of the body with respect to the field vectors; and, the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

11. References

[1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radio Frequency Radiation, August 1996

[2] ANSI/IEEE C95.1 – 1992, American National Standard Safety Levels with respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300kHz to 100GHz, New York: IEEE, 1992.

[3] ANSI/IEEE C95.3 – 1992, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave, New York: IEEE, 1992.

[4] IEEE Standard 1528 – 2013, IEEE Recommended Practice for Determining the Peak-Spatial Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communication Devices: Measurement Techniques, June 2013.

[5] Industry Canada, RSS – 102e, Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands), March 2010.

[6] Health Canada, Safety Code 6, Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3kHz to 300 GHz, 2009.

Appendix A – System Validation Plots and Data

Limits for Head

```
************************************************************
Test Result for UIM Dielectric Parameter
Tue 21/Feb/2023
Freq   Frequency(GHz)
FCC_eH Limits for Head Epsilon
FCC_sH Limits for Head Sigma
Test_e Epsilon  of  UIM
Test_s Sigma of UIM
************************************************************
Freq         FCC_eH FCC_sH Test_e Test_s
0.1300       53.23  0.75   51.75  0.78
0.1360       52.954 0.75   51.516 0.786*
0.1400       52.77  0.75   51.36  0.79
0.1435       52.606 0.754  51.217 0.794*
0.1455       52.512 0.756  51.135 0.796*
0.1500       52.30  0.76   50.95  0.80
0.1510       52.253 0.761  50.907 0.801*
0.1550       52.065 0.765  50.735 0.805*
0.1560       52.018 0.766  50.692 0.806*
0.1600       51.83  0.77   50.52  0.81
0.1620       51.738 0.77   50.438 0.81*
0.1645       51.623 0.77   50.336 0.81*
0.1680       51.462 0.77   50.192 0.81*
0.1700       51.37  0.77   50.11  0.81
0.1740       51.182 0.774  49.938 0.814*
0.1800       50.90  0.78   49.68  0.82
0.1900       50.43  0.79   49.27  0.83

* value interpolated


************************************************************
Test Result for UIM Dielectric Parameter
Thu 23/Feb/2023
Freq   Frequency(GHz)
FCC_eH Limits for Head Epsilon
FCC_sH Limits for Head Sigma
Test_e Epsilon  of  UIM
Test_s Sigma of UIM
************************************************************
Freq         FCC_eH FCC_sH Test_e Test_s
0.1300       53.23  0.75   52.07  0.75
0.1360       52.954 0.75   51.836 0.756*
0.1400       52.77  0.75   51.68  0.76
0.1435       52.606 0.754  51.537 0.764*
0.1455       52.512 0.756  51.455 0.766*
0.1500       52.30  0.76   51.27  0.77
0.1510       52.253 0.761  51.227 0.771*
0.1550       52.065 0.765  51.055 0.775*
0.1560       52.018 0.766  51.012 0.776*
0.1600       51.83  0.77   50.84  0.78
0.1620       51.738 0.77   50.758 0.78*
0.1645       51.623 0.77   50.656 0.78*
0.1680       51.462 0.77   50.512 0.78*
0.1700       51.37  0.77   50.43  0.78
0.1740       51.182 0.774  50.258 0.784*
0.1800       50.90  0.78   50.00  0.79
0.1900       50.43  0.79   49.59  0.80

* value interpolated
```

```
**********************************************************
Test Result for UIM Dielectric Parameter
Mon 20/Feb/2023
Freq   Frequency(GHz)
FCC_eH Limits for Head Epsilon
FCC_sH Limits for Head Sigma
Test_e Epsilon  of  UIM
Test_s Sigma of UIM
**********************************************************
```

Freq	FCC_eH	FCC_sH	Test_e	Test_s
0.3700	44.46	0.87	43.58	0.85
0.3780	44.364	0.87	43.484	0.85*
0.3800	44.34	0.87	43.46	0.85
0.3900	44.22	0.87	43.34	0.86
0.3933	44.18	0.87	43.304	0.86*
0.3958	44.15	0.87	43.276	0.86*
0.4000	44.10	0.87	43.23	0.86
0.4100	43.98	0.87	43.11	0.86
0.4086	43.997	0.87	43.127	0.859*
0.4135	43.938	0.87	43.068	0.864*
0.4175	43.89	0.87	43.02	0.868*
0.4200	43.86	0.87	42.99	0.87
0.4240	43.812	0.87	42.942	0.87*
0.4300	43.74	0.87	42.87	0.87
0.4313	43.724	0.87	42.858	0.87*
0.4350	43.68	0.87	42.825	0.87*
0.4393	43.628	0.87	42.786	0.87*
0.4400	43.62	0.87	42.78	0.87
0.4490	43.512	0.87	42.681	0.87*
0.4500	43.50	0.87	42.67	0.87
0.4525	43.488	0.87	42.65	0.873*
0.4543	43.479	0.87	42.636	0.874*
0.4600	43.45	0.87	42.59	0.88
0.4668	43.416	0.87	42.549	0.88*
0.4675	43.413	0.87	42.545	0.88*
0.4700	43.40	0.87	42.53	0.88
0.4800	43.34	0.87	42.47	0.88
0.4845	43.313	0.87	42.443	0.88*
0.4850	43.31	0.87	42.44	0.88*
0.4900	43.28	0.87	42.41	0.88
0.5000	43.22	0.87	42.36	0.89
0.5018	43.211	0.872	42.351	0.89*
0.5025	43.208	0.873	42.348	0.89*
0.5100	43.17	0.88	42.31	0.89
0.5200	43.12	0.88	42.26	0.89
0.5300	43.07	0.88	42.21	0.90
0.5400	43.02	0.88	42.15	0.90

* value interpolated

```
**********************************************************
Test Result for UIM Dielectric Parameter
Wed 22/Feb/2023
Freq   Frequency(GHz)
FCC_eH Limits for Head Epsilon
FCC_sH Limits for Head Sigma
Test_e Epsilon  of  UIM
Test_s Sigma of UIM
**********************************************************
```

Freq	FCC_eH	FCC_sH	Test_e	Test_s
0.3700	44.46	0.87	43.82	0.84
0.3780	44.364	0.87	43.724	0.84*
0.3800	44.34	0.87	43.70	0.84
0.3900	44.22	0.87	43.58	0.85
0.3933	44.18	0.87	43.544	0.85*
0.3958	44.15	0.87	43.516	0.85*
0.4000	44.10	0.87	43.47	0.85
0.4100	43.98	0.87	43.35	0.85
0.4086	43.997	0.87	43.367	0.849*
0.4135	43.938	0.87	43.308	0.854*
0.4175	43.89	0.87	43.26	0.858*
0.4200	43.86	0.87	43.23	0.86
0.4240	43.812	0.87	43.182	0.86*
0.4300	43.74	0.87	43.11	0.86
0.4313	43.724	0.87	43.098	0.86*
0.4350	43.68	0.87	43.065	0.86*
0.4393	43.628	0.87	43.026	0.86*
0.4400	43.62	0.87	43.02	0.86
0.4490	43.512	0.87	42.921	0.86*
0.4500	43.50	0.87	42.91	0.86
0.4525	43.488	0.87	42.89	0.863*
0.4543	43.479	0.87	42.876	0.864*
0.4600	43.45	0.87	42.83	0.87
0.4668	43.416	0.87	42.789	0.87*
0.4675	43.413	0.87	42.785	0.87*
0.4700	43.40	0.87	42.77	0.87
0.4800	43.34	0.87	42.71	0.87
0.4845	43.313	0.87	42.683	0.87*
0.4850	43.31	0.87	42.68	0.87*
0.4900	43.28	0.87	42.65	0.87
0.5000	43.22	0.87	42.60	0.88
0.5018	43.211	0.872	42.591	0.88*
0.5025	43.208	0.873	42.588	0.88*
0.5100	43.17	0.88	42.55	0.88
0.5200	43.12	0.88	42.50	0.88
0.5300	43.07	0.88	42.45	0.89
0.5400	43.02	0.88	42.39	0.89

* value intepolated

```
************************************************************
Test Result for UIM Dielectric Parameter
Mon 20/Feb/2023
Freq   Frequency(GHz)
FCC_eH Limits for Head Epsilon
FCC_sH Limits for Head Sigma
Test_e Epsilon  of  UIM
Test_s Sigma of UIM
************************************************************
Freq          FCC_eH FCC_sH Test_e Test_s
0.7000        42.20  0.89   41.76  0.86
0.7100        42.15  0.89   41.69  0.87
0.7200        42.10  0.89   41.64  0.88
0.7300        42.05  0.89   41.57  0.89
0.7400        41.99  0.89   41.51  0.89
0.7500        41.94  0.89   41.46  0.90
0.7600        41.89  0.89   41.40  0.91
0.7620        41.88  0.89   41.388 0.912*
0.7700        41.84  0.89   41.34  0.92
0.7800        41.79  0.90   41.28  0.92
0.7900        41.73  0.90   41.22  0.93
0.7980        41.69  0.90   41.188 0.93*
0.8000        41.68  0.90   41.18  0.93

* value interpolated


************************************************************
Test Result for UIM Dielectric Parameter
Thu 16/Feb/2023
Freq   Frequency(GHz)
eH Limits for Head Epsilon
sH Limits for Head Sigma
Test_e Epsilon  of  UIM
Test_s Sigma of UIM
************************************************************
Freq          eH     sH     Test_e Test_s
0.8000        41.68  0.90   41.52  0.89
0.8100        41.63  0.90   41.47  0.90
0.8160        41.60  0.90   41.434 0.906*
0.8200        41.58  0.90   41.41  0.91
0.8300        41.53  0.90   41.46  0.91
0.8340        41.518 0.904  41.448 0.914*
0.8400        41.50  0.91   41.43  0.92
0.8500        41.50  0.92   41.41  0.93
0.8520        41.50  0.922  41.406 0.932*
0.8600        41.50  0.93   41.39  0.94
0.8700        41.50  0.94   41.37  0.95
0.8800        41.50  0.95   41.36  0.96
0.8900        41.50  0.96   41.35  0.97
0.8960        41.50  0.966  41.344 0.976*
0.9000        41.50  0.97   41.34  0.98
0.9100        41.50  0.98   41.33  0.99
0.9185        41.492 0.98   41.322 0.99*
0.9200        41.49  0.98   41.32  0.99
0.9300        41.47  0.99   41.30  1.00
0.9400        41.45  0.99   41.29  1.01
0.9410        41.448 0.99   41.288 1.011*
0.9500        41.43  0.99   41.27  1.02
0.9600        41.41  1.00   41.25  1.02

* value interpolated
```

RF Exposure Lab

Plot 1

DUT: Loop 150 MHz CLA150; Type: CLA150; Serial: CLA150 - SN:4002

Communication System: CW; Frequency: 150 MHz; Duty Cycle: 1:1
Medium: HSL150; Medium parameters used: f = 150 MHz; σ = 0.8 S/m; ε_r = 50.95; ρ = 1000 kg/m^3
Phantom section: Flat Section

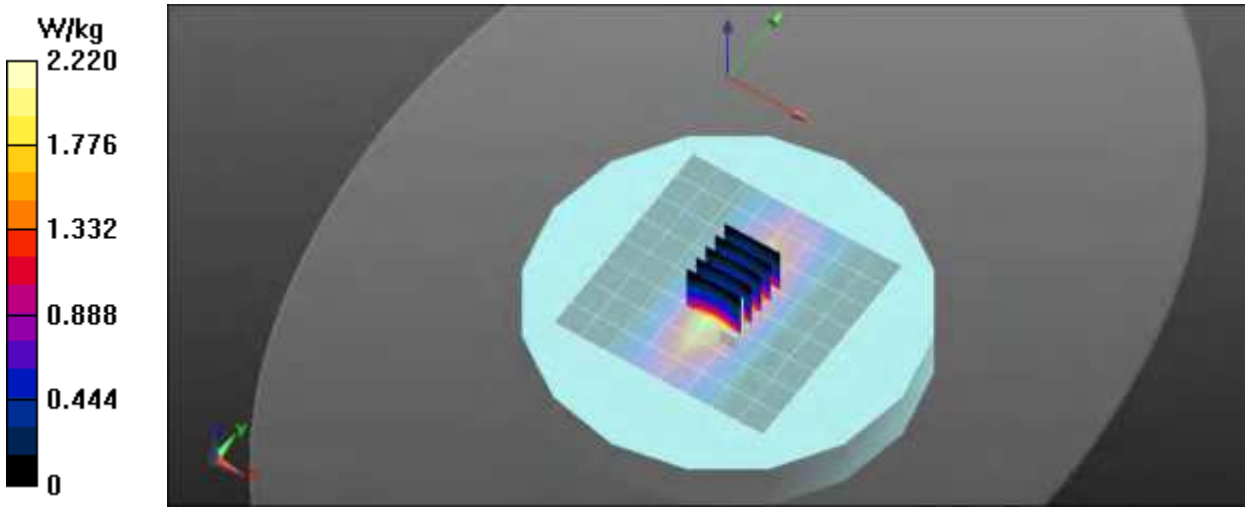
Test Date: Date: 2/21/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 – SN7531; ConvF(13.06, 13.06, 13.06); Calibrated: 4/12/2022;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Procedure Notes:

150 MHz Head/Verification/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.98 W/kg

150 MHz Head/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.596 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.15 W/kg
P_{IN}=500 mW
SAR(1 g) = 1.96 W/kg; SAR(10 g) = 1.30 W/kg
Maximum value of SAR (measured) = 2.22 W/kg



RF Exposure Lab

Plot 2

DUT: Loop 150 MHz CLA150; Type: CLA150; Serial: CLA150 - SN:4002

Communication System: CW; Frequency: 150 MHz; Duty Cycle: 1:1
Medium: HSL150; Medium parameters used: f = 150 MHz; σ = 0.77 S/m; ε_r = 51.27; ρ = 1000 kg/m^3
Phantom section: Flat Section

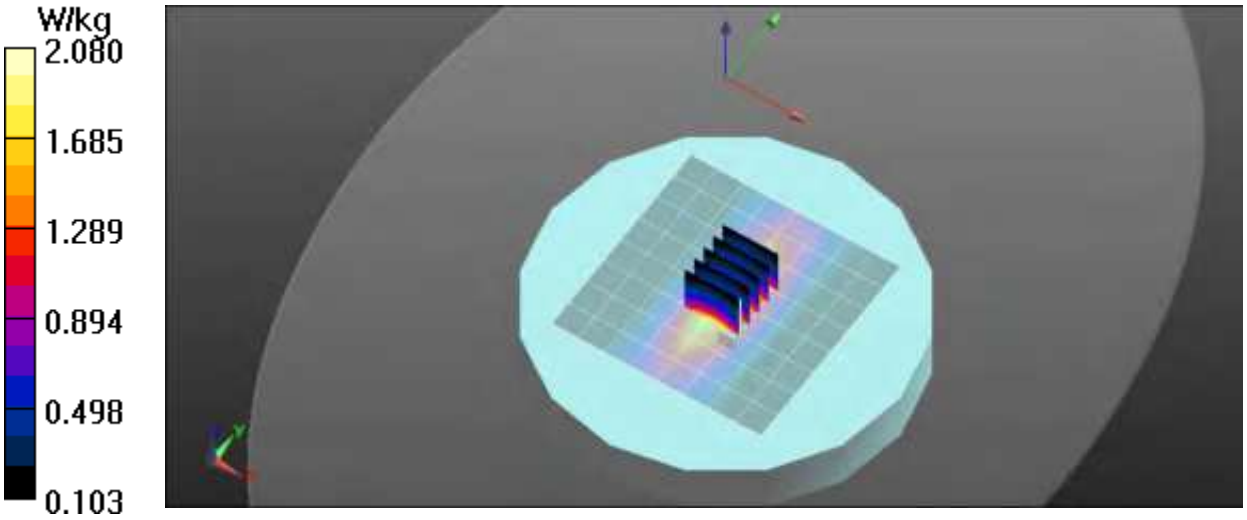
Test Date: Date: 2/23/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 – SN7531; ConvF(13.06, 13.06, 13.06); Calibrated: 4/12/2022;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Procedure Notes:

150 MHz Head/Verification/Area Scan (9x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.85 W/kg

150 MHz Head/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 53.498 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.91 W/kg
P_{IN}=500 mW
SAR(1 g) = 1.89 W/kg; SAR(10 g) = 1.23 W/kg
Maximum value of SAR (measured) = 2.08 W/kg



RF Exposure Lab

Plot 3

DUT: Dipole 450 MHz D450V2; Type: D450V2; Serial: D450V2 - SN:1085

Communication System: CW; Frequency: 450 MHz; Duty Cycle: 1:1
Medium: HSL450; Medium parameters used: f = 450 MHz; σ = 0.87 S/m; ε_r = 42.67; ρ = 1000 kg/m^3
Phantom section: Flat Section

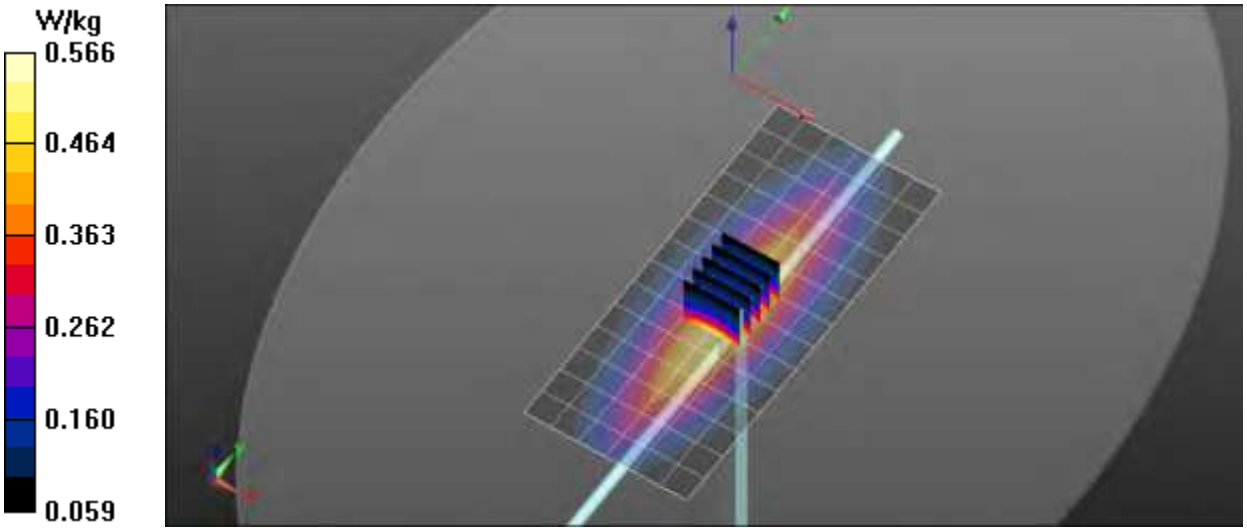
Test Date: Date: 2/20/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 – SN3662; ConvF(10.79, 10.79, 10.79); Calibrated: 2/10/2023;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1217; Calibrated: 2/14/2023
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1065
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Procedure Notes:

450 MHz Head/Verification/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.560 W/kg

450 MHz Head/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.226 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.739 W/kg
P_{IN}=100 mW
SAR(1 g) = 0.465 W/kg; SAR(10 g) = 0.311 W/kg
Maximum value of SAR (measured) = 0.566 W/kg



RF Exposure Lab

Plot 4

DUT: Dipole 450 MHz D450V2; Type: D450V2; Serial: D450V2 - SN:1085

Communication System: CW; Frequency: 450 MHz; Duty Cycle: 1:1
Medium: HSL450; Medium parameters used: f = 450 MHz; σ = 0.86 S/m; ε_r = 42.91; ρ = 1000 kg/m^3
Phantom section: Flat Section

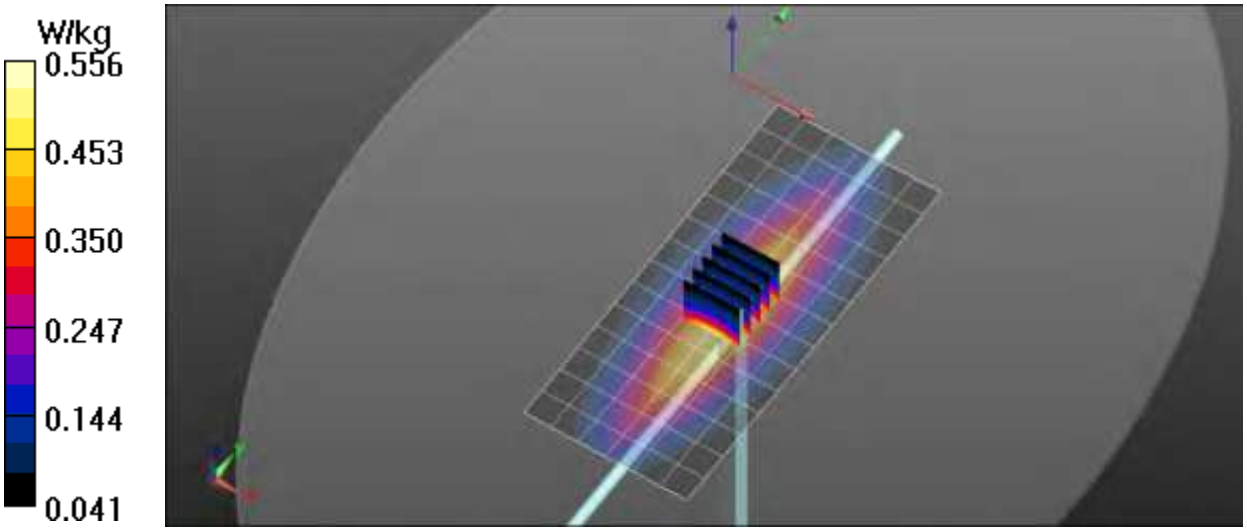
Test Date: Date: 2/22/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 – SN3662; ConvF(10.79, 10.79, 10.79); Calibrated: 2/10/2023;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1217; Calibrated: 2/14/2023
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1065
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Procedure Notes:

450 MHz Head/Verification/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.553 W/kg

450 MHz Head/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.205 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.703 W/kg
P_{IN}=100 mW
SAR(1 g) = 0.451 W/kg; SAR(10 g) = 0.301 W/kg
Maximum value of SAR (measured) = 0.556 W/kg



RF Exposure Lab

Plot 5

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN 1053

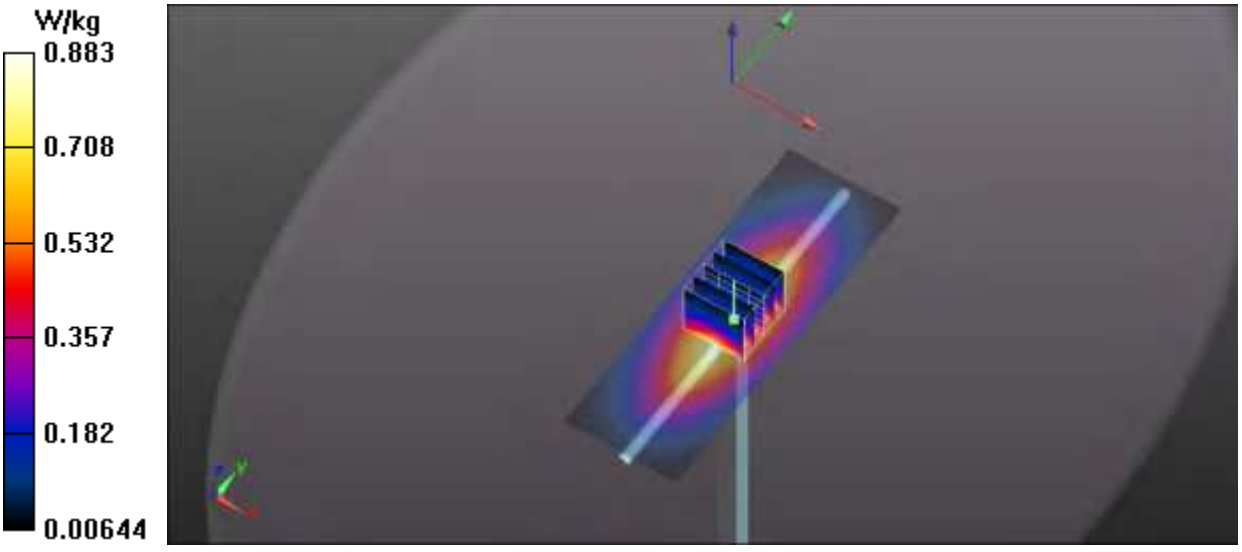
Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: HSL750; Medium parameters used (interpolated): f = 750 MHz; σ = 0.9 S/m; ε_r = 41.46; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/20/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C
Probe: EX3DV4 – SN7531; ConvF(10.75, 10.75, 10.75); Calibrated: 4/12/2022;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Procedure Notes:

750 MHz Head/Verification/Area Scan (41x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.883 W/kg

750 MHz Head/Verification /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.949 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.691 mW/g
P_{in}= 100 mW
SAR(1 g) = 0.858 mW/g; SAR(10 g) = 0.552 mW/g
Maximum value of SAR (measured) = 0.888 W/kg



RF Exposure Lab

Plot 6

DUT: Dipole 900 MHz D900V2; Type: D900V2; Serial: D900V2 - SN:1d128

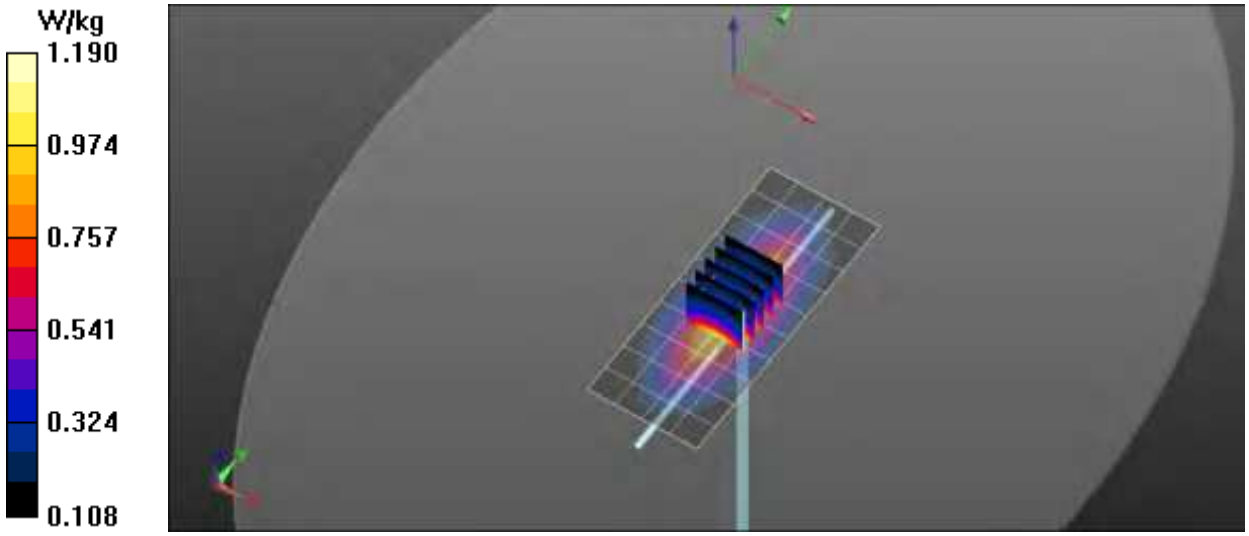
Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1
Medium: HSL900; Medium parameters used: f = 900 MHz; σ = 0.98 S/m; ε_r = 41.34; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/16/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C
Probe: EX3DV4 – SN7531; ConvF(10.33, 10.33, 10.33); Calibrated: 4/12/2022;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Procedure Notes:

900 MHz Head/Verification/Area Scan (5x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.19 W/kg

900 MHz Head/Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.568 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.43 W/kg
P_{in}= 100 mW
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.712 W/kg
Maximum value of SAR (measured) = 1.2 W/kg



Appendix B – SAR Test Data Plots

RF Exposure Lab

Plot 1

DUT: TPHN0A; Type: PTT; Serial: 26674227

Communication System: FM; Frequency: 156 MHz; Duty Cycle: 1:1
Medium: HSL150; Medium parameters used (interpolated): f = 156 MHz; σ = 0.806 S/m; ε_r = 50.692; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/21/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN7531; ConvF(13.06, 13.06, 13.06); Calibrated: 4/12/2022
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

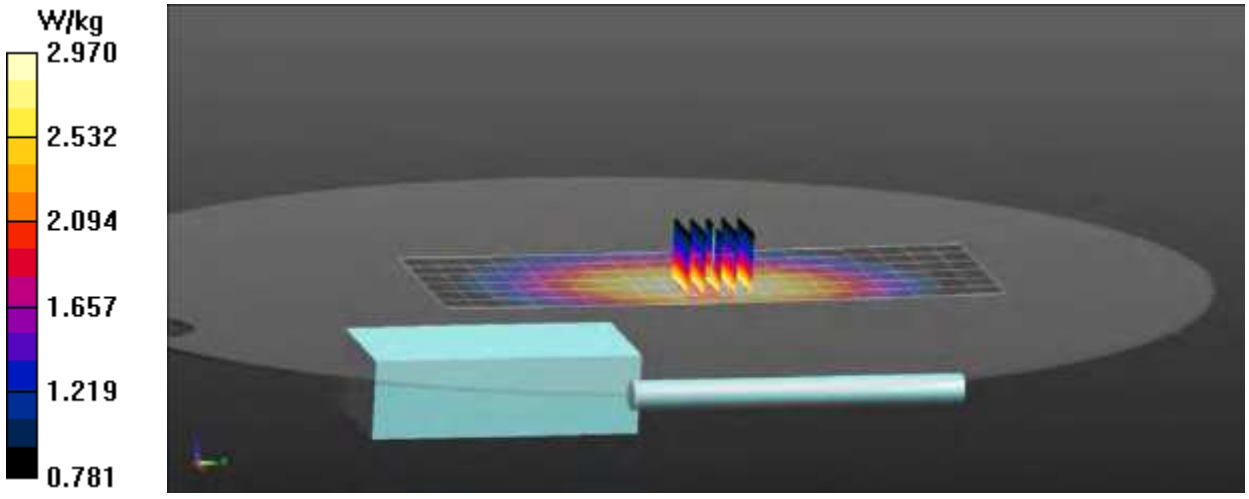
Procedure Notes:

150MHz Face/Ant 003, Bat D 156/Area Scan (7x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 3.14 W/kg

150MHz Face/Ant 003, Bat D 156/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 58.95 V/m; Power Drift = -0.53 dB
Peak SAR (extrapolated) = 3.57 W/kg
SAR(1 g) = 2.85 W/kg; SAR(10 g) = 2.26 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.97 W/kg



RF Exposure Lab

Plot 2

DUT: TPHN0A; Type: PTT; Serial: 26674227

Communication System: FM; Frequency: 156 MHz; Duty Cycle: 1:1
Medium: HSL150; Medium parameters used (interpolated): f = 156 MHz; σ = 0.776 S/m; ε_r = 51.012; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/23/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN7531; ConvF(13.06, 13.06, 13.06); Calibrated: 4/12/2022
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

Procedure Notes:

150MHz Body/Ant 003, Bat D 156/Area Scan (7x20x1): Measurement grid: dx=15mm, dy=15mm

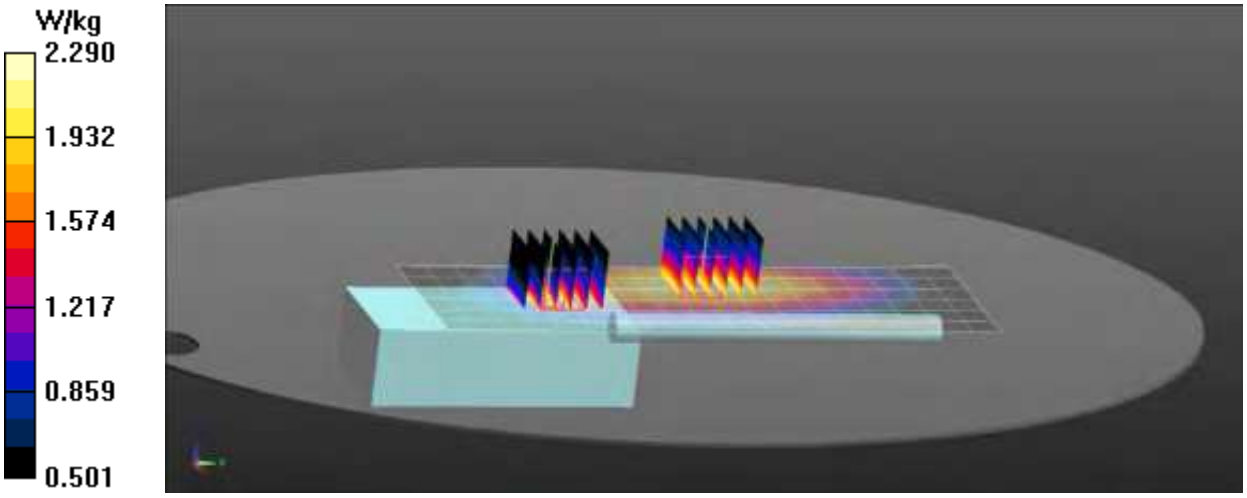
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.23 W/kg

150MHz Body/Ant 003, Bat D 156/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.40 V/m; Power Drift = -0.66 dB
Peak SAR (extrapolated) = 3.70 W/kg
SAR(1 g) = 2.04 W/kg; SAR(10 g) = 1.32 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.48 W/kg

150MHz Body/Ant 003, Bat D 156/Zoom Scan (5x6x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.40 V/m; Power Drift = -0.66 dB
Peak SAR (extrapolated) = 2.74 W/kg
SAR(1 g) = 2.08 W/kg; SAR(10 g) = 1.6 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.29 W/kg



RF Exposure Lab

Plot 3

DUT: TPHN0A; Type: PTT; Serial: 26674228

Communication System: FM; Frequency: 424 MHz; Duty Cycle: 1:1
Medium: HSL450; Medium parameters used (interpolated): f = 424 MHz; σ = 0.87 S/m; ε_r = 42.942; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/20/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN3662; ConvF(10.79, 10.79, 10.79); Calibrated: 2/10/2023
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1217; Calibrated: 2/14/2023
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1065
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

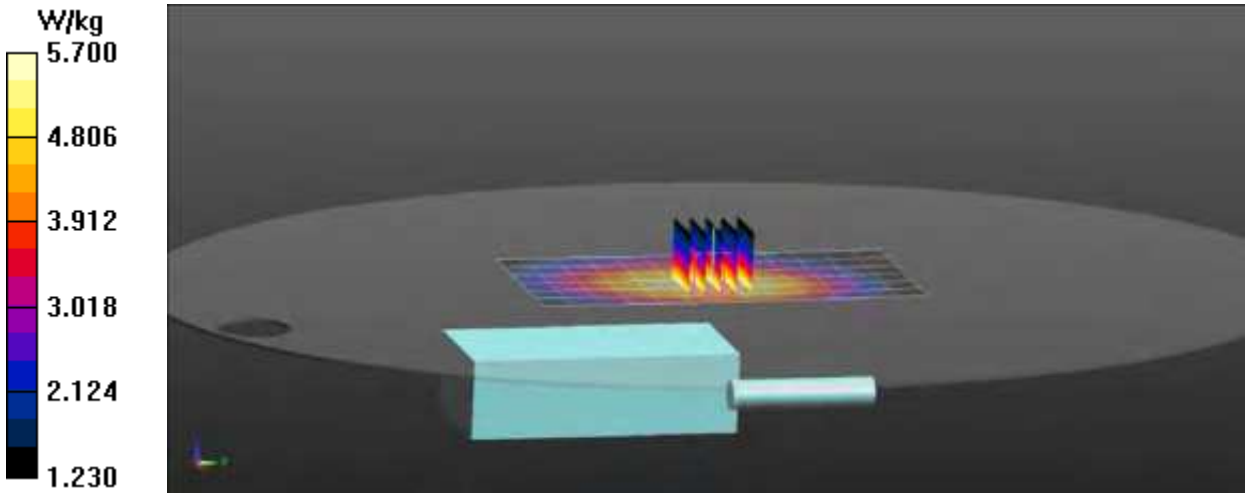
Procedure Notes:

450MHz Face/Ant 038, Bat D 424/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 5.66 W/kg

450MHz Face/Ant 038, Bat D 424/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 79.12 V/m; Power Drift = -0.58 dB
Peak SAR (extrapolated) = 6.51 W/kg
SAR(1 g) = 5.2 W/kg; SAR(10 g) = 4.04 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 5.70 W/kg



RF Exposure Lab

Plot 4

DUT: TPHN0A; Type: PTT; Serial: 26674228

Communication System: FM; Frequency: 485 MHz; Duty Cycle: 1:1
Medium: HSL450; Medium parameters used (interpolated): f = 485 MHz; σ = 0.87 S/m; ε_r = 42.68; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/22/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN3662; ConvF(10.79, 10.79, 10.79); Calibrated: 2/10/2023
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1217; Calibrated: 2/14/2023
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1065
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

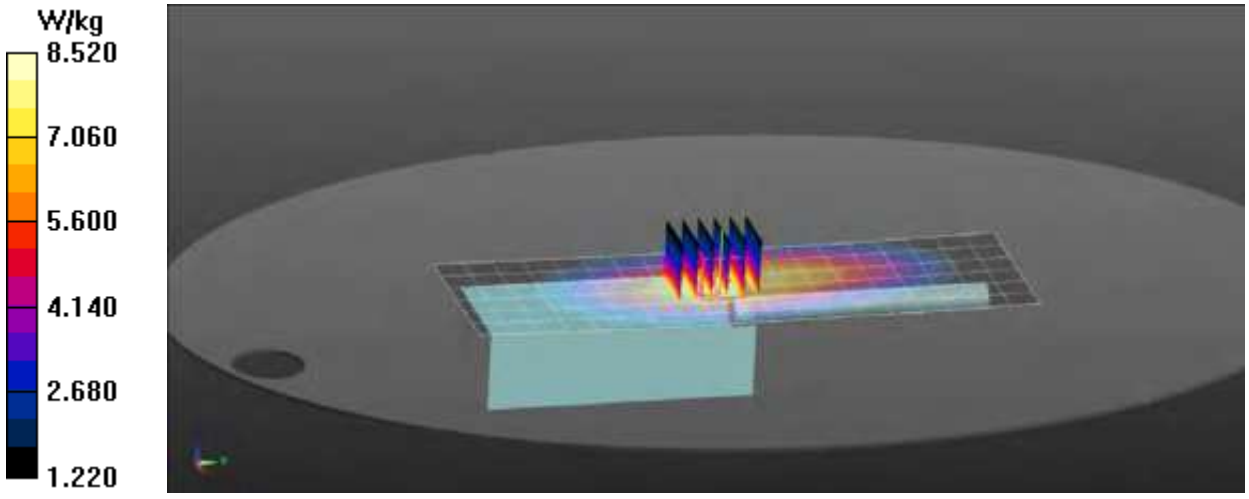
Procedure Notes:

450MHz Body/Ant 012, Bat D 485/Area Scan (7x20x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 8.18 W/kg

450MHz Body/Ant 012, Bat D 485/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 93.07 V/m; Power Drift = -0.64 dB
Peak SAR (extrapolated) = 10.2 W/kg
SAR(1 g) = 7.51 W/kg; SAR(10 g) = 5.47 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 8.52 W/kg



RF Exposure Lab

Plot 5

DUT: TPHN0A; Type: PTT; Serial: 26674227

Communication System: FM; Frequency: 816 MHz; Duty Cycle: 1:1
Medium: HSL900; Medium parameters used (interpolated): f = 816 MHz; σ = 0.906 S/m; ε_r = 41.434; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/16/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN7531; ConvF(10.33, 10.33, 10.33); Calibrated: 4/12/2022
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

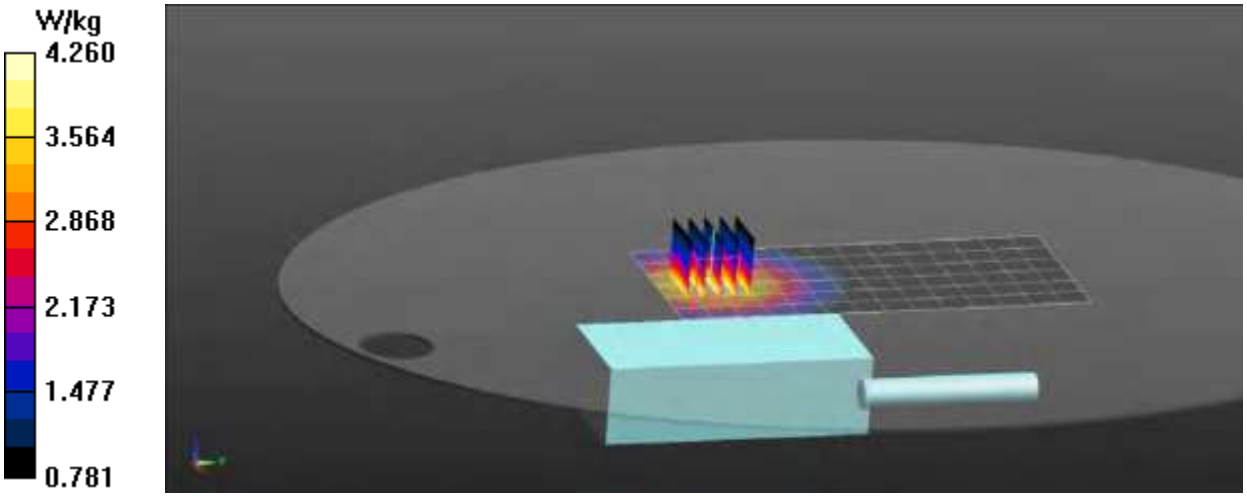
Procedure Notes:

900MHz Face/Ant 023, Bat D 816/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.24 W/kg

900MHz Face/Ant 023, Bat D 816/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.67 V/m; Power Drift = -0.56 dB
Peak SAR (extrapolated) = 4.89 W/kg
SAR(1 g) = 3.87 W/kg; SAR(10 g) = 2.94 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.26 W/kg



RF Exposure Lab

Plot 6

DUT: TPHN0A; Type: PTT; Serial: 26674227

Communication System: FM; Frequency: 816 MHz; Duty Cycle: 1:1
Medium: HSL900; Medium parameters used (interpolated): f = 816 MHz; σ = 0.906 S/m; ε_r = 41.434; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/17/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN7531; ConvF(10.33, 10.33, 10.33); Calibrated: 4/12/2022
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

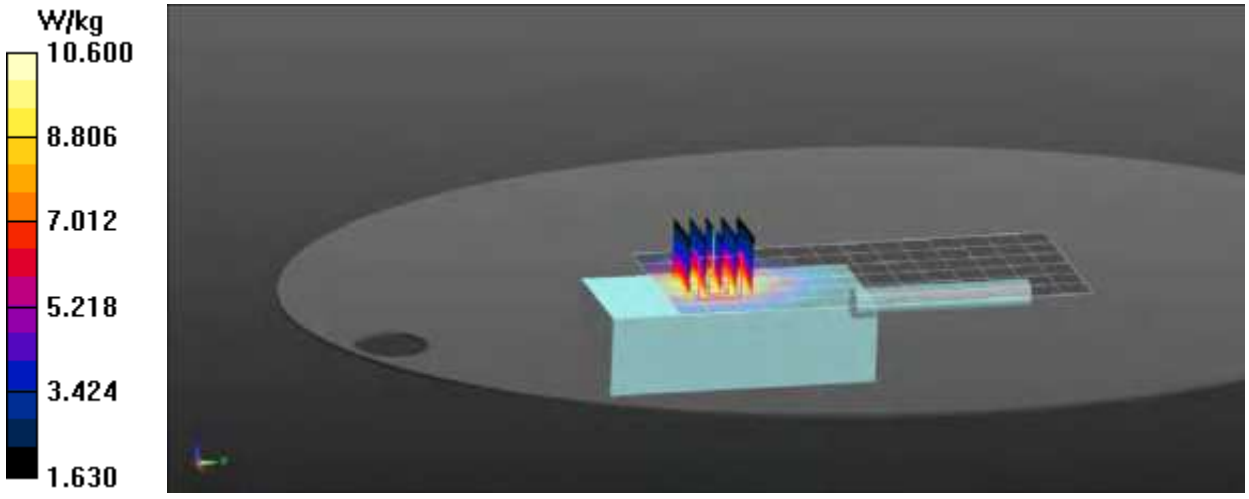
Procedure Notes:

900MHz Body/Ant 023, Bat A 816/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 10.5 W/kg

900MHz Body/Ant 023, Bat A 816/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.69 V/m; Power Drift = -0.63 dB
Peak SAR (extrapolated) = 12.3 W/kg
SAR(1 g) = 9.61 W/kg; SAR(10 g) = 7.15 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 10.6 W/kg



RF Exposure Lab

Plot 7

DUT: TPHN0A; Type: PTT; Serial: 26674227

Communication System: FM; Frequency: 918.5 MHz; Duty Cycle: 1:1
Medium: HSL900; Medium parameters used (interpolated): f = 918.5 MHz; σ = 0.99 S/m; ε_r = 41.322; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/16/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN7531; ConvF(10.33, 10.33, 10.33); Calibrated: 4/12/2022
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

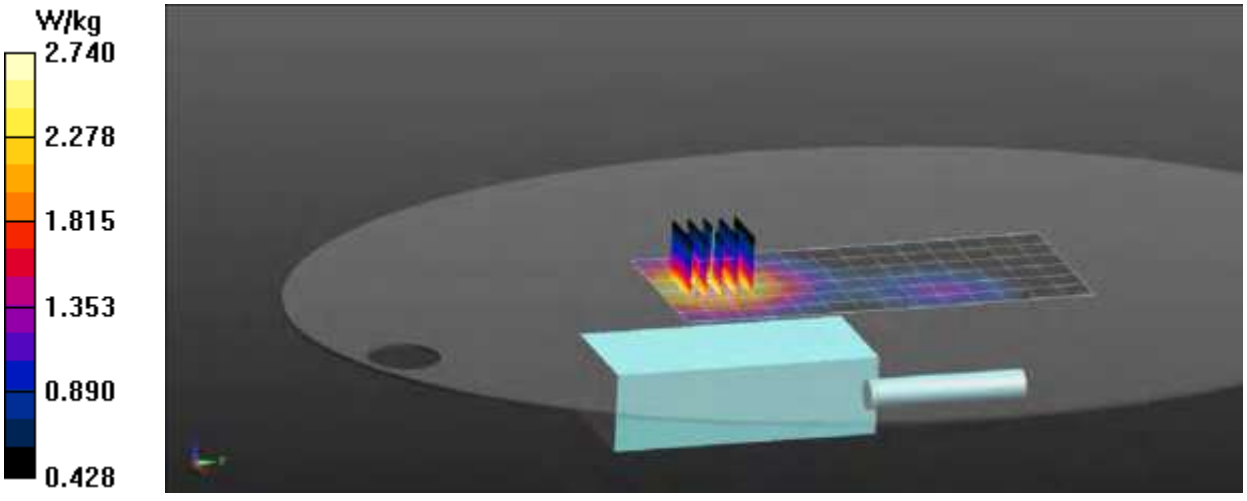
Procedure Notes:

900MHz Face/Ant 024, Bat A 918.5/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.92 W/kg

900MHz Face/Ant 024, Bat A 918.5/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.54 V/m; Power Drift = -0.68 dB
Peak SAR (extrapolated) = 3.41 W/kg
SAR(1 g) = 2.61 W/kg; SAR(10 g) = 1.94 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.74 W/kg



RF Exposure Lab

Plot 8

DUT: TPHN0A; Type: PTT; Serial: 26674227

Communication System: FM; Frequency: 918.5 MHz; Duty Cycle: 1:1
Medium: HSL900; Medium parameters used (interpolated): f = 918.5 MHz; σ = 0.99 S/m; ε_r = 41.322; ρ = 1000 kg/m^3
Phantom section: Flat Section

Test Date: Date: 2/17/2023; Ambient Temp: 23 °C; Tissue Temp: 21 °C

Probe: EX3DV4 - SN7531; ConvF(10.33, 10.33, 10.33); Calibrated: 4/12/2022
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn759; Calibrated: 8/16/2022
Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 2037
Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.14 (7483)

Procedure Notes:

900MHz Body/Ant 024, Bat D 918.5/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

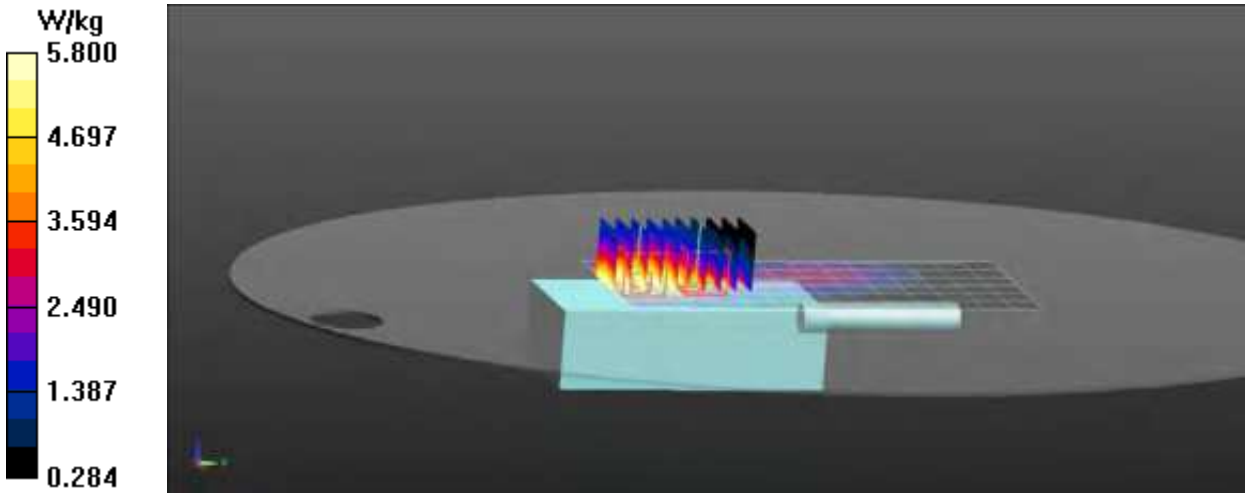
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 7.58 W/kg

900MHz Body/Ant 024, Bat D 918.5/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.76 V/m; Power Drift = -0.66 dB
Peak SAR (extrapolated) = 9.03 W/kg
SAR(1 g) = 6.75 W/kg; SAR(10 g) = 4.87 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 7.59 W/kg

900MHz Body/Ant 024, Bat D 918.5/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.76 V/m; Power Drift = -0.66 dB
Peak SAR (extrapolated) = 6.79 W/kg
SAR(1 g) = 4.71 W/kg; SAR(10 g) = 3.07 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 5.80 W/kg



Appendix C – SAR Test Setup Photos

Handset Face Ant D with 25 mm Gap Configuration

Handset with Antenna D, Audio A and Body A Accessories Configuration

Handset with Antenna D, Audio A and Body AO Accessories Configuration

Front of Device

Back of Device

Battery

Body Worn Accessories

Audio Accessory (A)

Antennas

Appendix D – Probe Calibration Data Sheets

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **RF Exposure Lab** Certificate No **EX-3662_Feb23**

CALIBRATION CERTIFICATE

Object EX3DV4 - SN:3662

Calibration procedure(s) QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6, QA CAL-25.v8
Calibration procedure for dosimetric E-field probes

Calibration date February 10, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
OCP DAK-3.5 (weighted)	SN: 1249	20-Oct-22 (OCP-DAK3.5-1249_Oct22)	Oct-23
OCP DAK-12	SN: 1016	20-Oct-22 (OCP-DAK12-1016_Oct22)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-22 (No. 217-03527)	Apr-23
DAE4	SN: 660	10-Oct-22 (No. DAE4-660_Oct22)	Oct-23
Reference Probe ES3DV2	SN: 3013	06-Jan-23 (No. ES3-3013_Jan23)	Jan-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Michael Weber	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	

Issued: February 10, 2023

Glossary

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z*: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- *DCPx,y,z*: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- *PAR*: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z*: *A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters*: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ±50 MHz to +100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Parameters of Probe: EX3DV4 - SN:3662

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc ($k = 2$)
Norm ($\mu V/(V/m)^2$) [A]	0.41	0.49	0.48	±10.1%
DCP (mV) [B]	101.0	102.5	98.0	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B $dB\sqrt{\mu V}$	C	D dB	VR mV	Max dev.	Max Unc[E] $k = 2$
0	CW	X	0.00	0.00	1.00	0.00	150.8	±3.0%	±4.7%
		Y	0.00	0.00	1.00		161.2		
		Z	0.00	0.00	1.00		147.6		

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Page 5).
[B] Linearization parameter uncertainty for maximum specified field strength.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Parameters of Probe: EX3DV4 - SN:3662

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-96.9°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3 -4 mm for an *Area Scan* job.

Parameters of Probe: EX3DV4 - SN:3662

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz)[C]	Relative Permittivity[F]	Conductivity[F] (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha[G]	Depth[G] (mm)	Unc ($k = 2$)
150	52.3	0.76	11.68	11.68	11.68	0.00	1.00	±13.3%
220	49.0	0.81	11.50	11.50	11.50	0.00	1.00	±13.3%
300	45.3	0.87	11.22	11.22	11.22	0.09	1.00	±13.3%
450	43.5	0.87	10.79	10.79	10.79	0.16	1.30	±13.3%
600	42.7	0.88	10.35	10.35	10.35	0.10	1.25	±13.3%
750	41.9	0.89	9.28	9.28	9.28	0.53	0.80	±12.0%
900	41.5	0.97	8.80	8.80	8.80	0.51	0.80	±12.0%
1450	40.5	1.20	8.26	8.26	8.26	0.33	0.80	±12.0%
1640	40.2	1.31	8.10	8.10	8.10	0.37	0.86	±12.0%
1750	40.1	1.37	7.91	7.91	7.91	0.31	0.86	±12.0%
1900	40.0	1.40	7.67	7.67	7.67	0.34	0.86	±12.0%
2300	39.5	1.67	7.60	7.60	7.60	0.33	0.90	±12.0%
2450	39.2	1.80	7.26	7.26	7.26	0.44	0.90	±12.0%
2600	39.0	1.96	7.11	7.11	7.11	0.45	0.90	±12.0%
5250	35.9	4.71	5.00	5.00	5.00	0.40	1.80	±14.0%
5600	35.5	5.07	4.70	4.70	4.70	0.40	1.80	±14.0%
5750	35.4	5.22	4.85	4.85	4.85	0.40	1.80	±14.0%

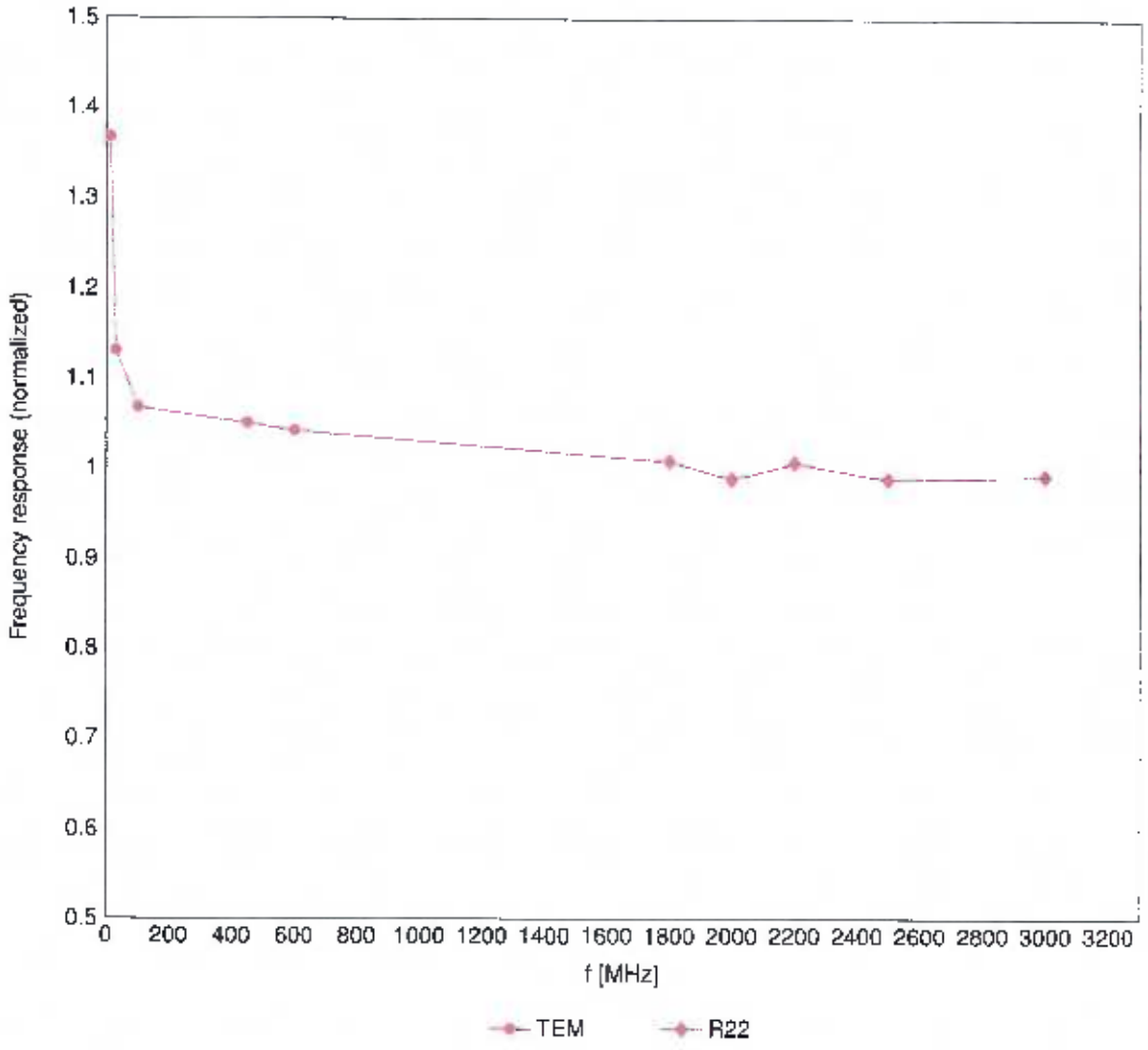
[C] Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

[F] The probes are calibrated using tissue simulating liquids (TSL) that deviate for ε and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10%. If TSL with deviations from the target of less than ±5% are used, the calibration uncertainties are 11.1% for 0.7 - 3 GHz and 13.1% for 3 - 6 GHz.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3 - 6 GHz at any distance larger than half the probe tip diameter from the boundary.

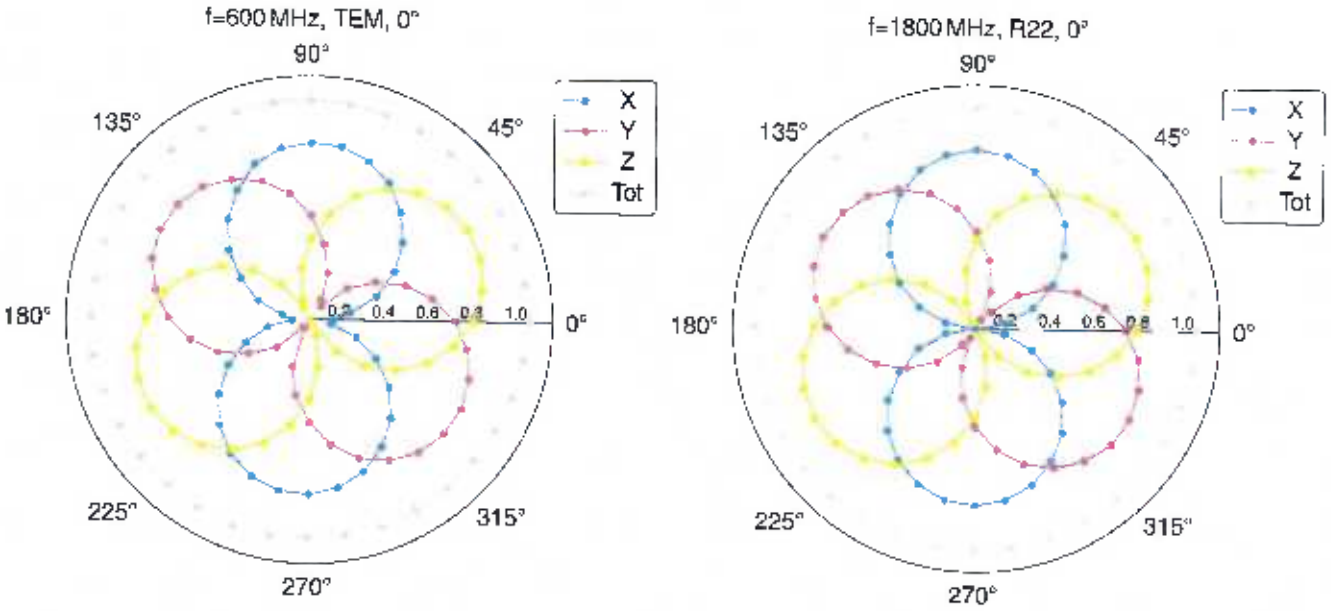
Frequency Response of E-Field

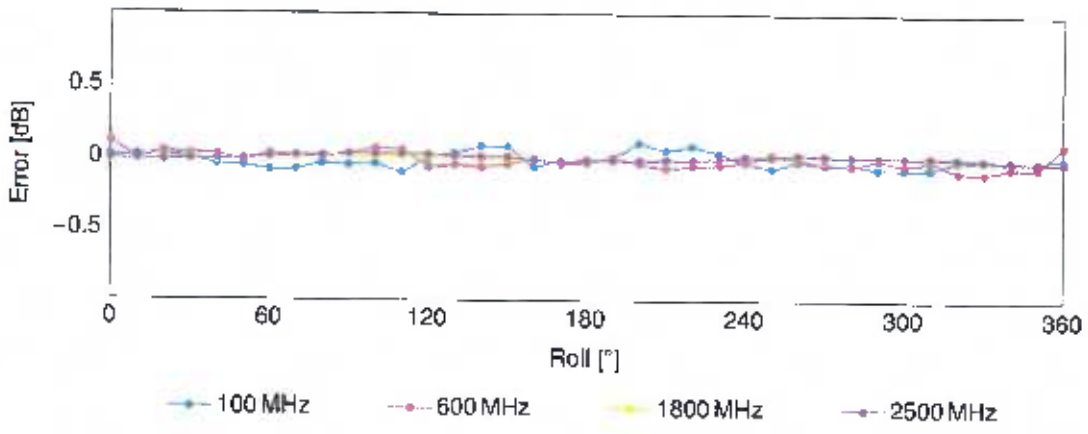
(TEM-Cell:ifi110 EXX, Waveguide:R22)



Uncertainty of Frequency Response of E-field: ±6.3% (k=2)

Receiving Pattern (ϕ), $\vartheta = 0°$

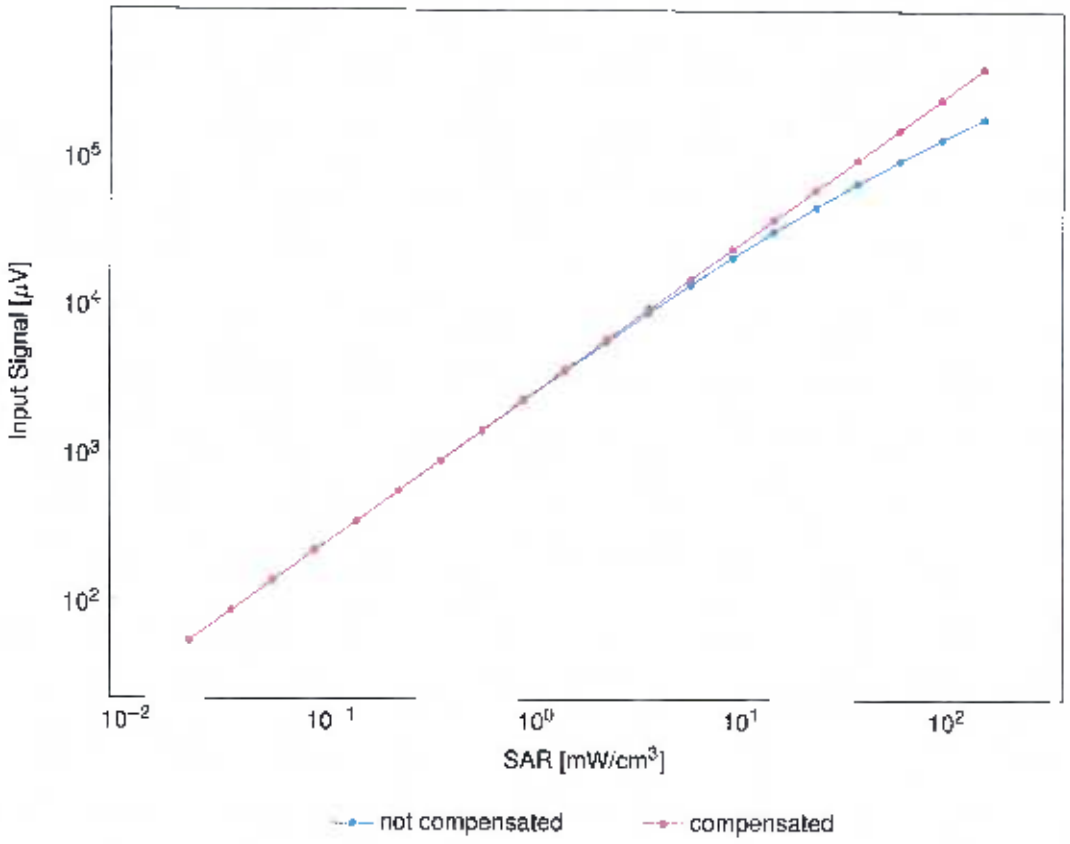


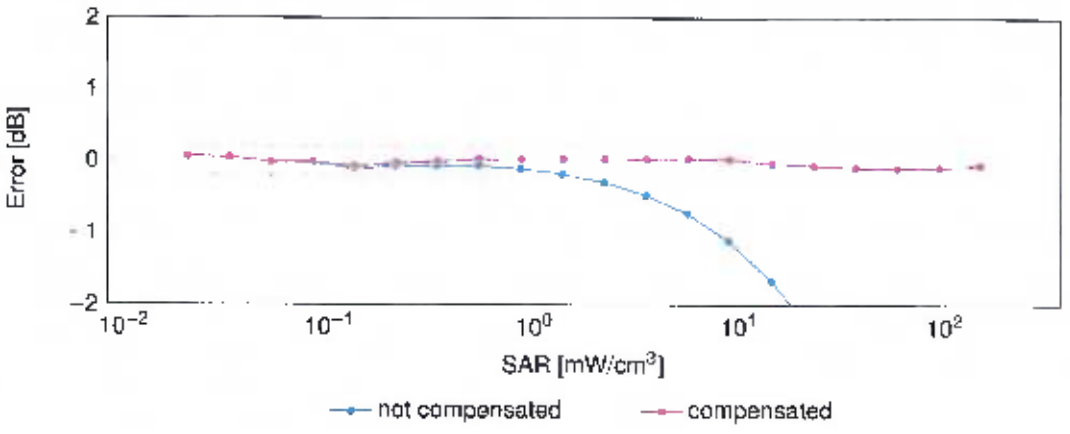


Uncertainty of Axial Isotropy Assessment: ±0.5% (k=2)

Dynamic Range f(SAR$_{head}$)

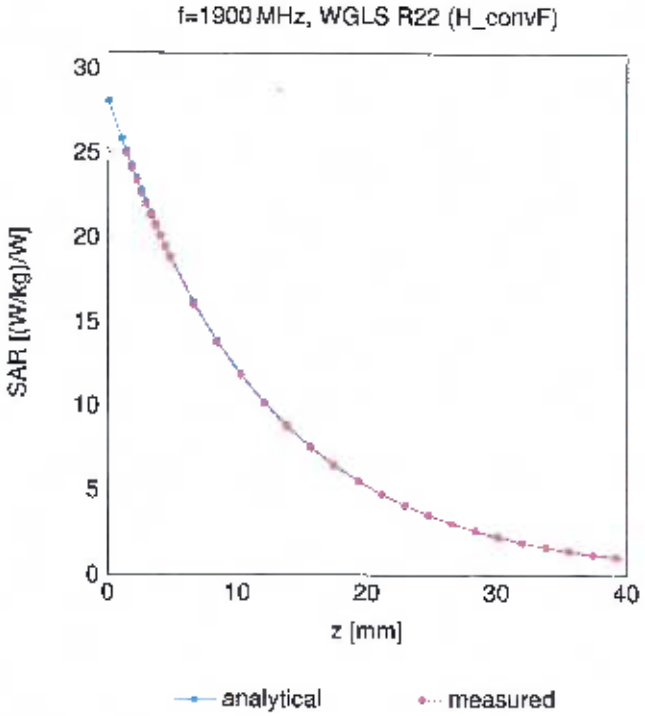
(TEM cell, f_{eval} = 1900 MHz)



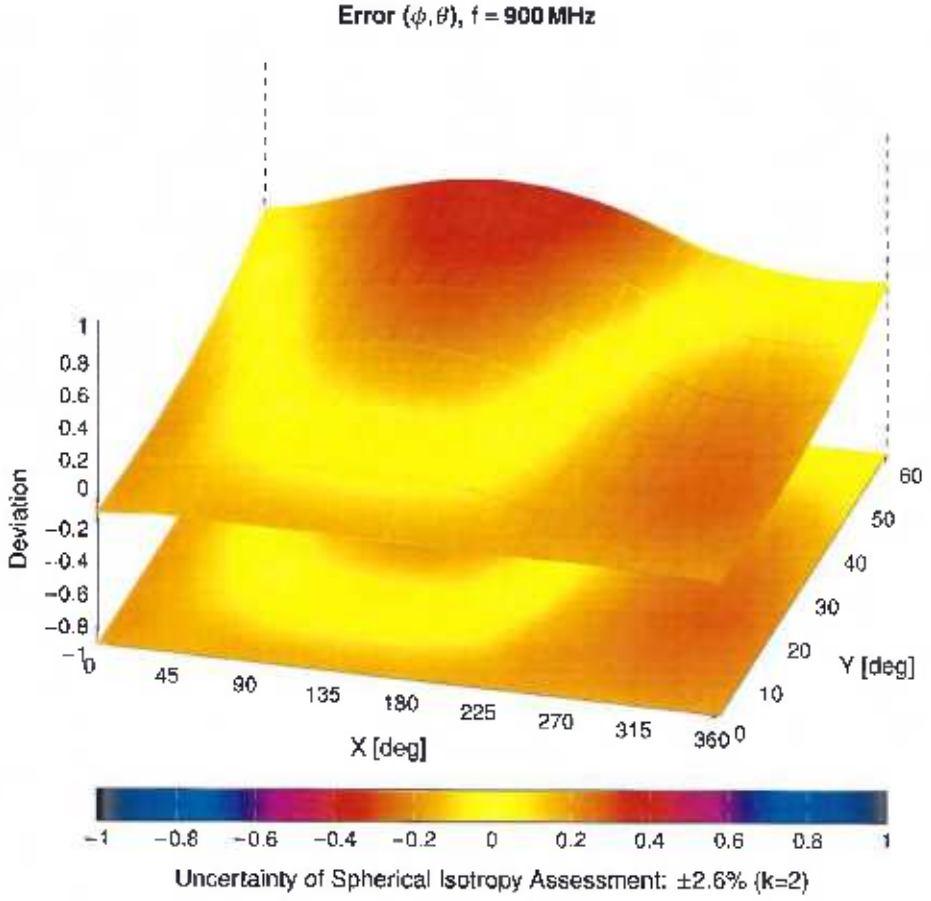


Uncertainty of Linearity Assessment: ±0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: ±2.6% (k=2)

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 0108

Client **RF Exposure Lab**

Certificate No: EX3-7531_Apr22

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7531
Calibration procedure(s)	QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v6, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes
Calibration date:	April 12, 2022

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
Power sensor NRP-Z91	SN: 103245	04-Apr-22 (No. 217-03525)	Apr-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-22 (No. 217-03527)	Apr-23
DAE4	SN: 660	13-Oct-21 (No. DAE4-660_Oct21)	Oct-22
Reference Probe ES3DV2	SN: 3013	27-Dec-21 (No. ES3-3013_Dec21)	Dec-22
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-20)	In house check: Jun-22
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-22

	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	
Approved by:	Sven Kühn	Deputy Manager	

Issued: April 12, 2022

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)". October 2020.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7531

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m)²)[A]	0.39	0.47	0.39	± 10.1 %
DCP (mV)[B]	96.5	100.4	98.5	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Max dev.	Max Unc[E] (k=2)
0	CW	X	0.00	0.00	1.00	0.00	163.8	± 2.7 %	± 4.7 %
		Y	0.00	0.00	1.00		159.2		
		Z	0.00	0.00	1.00		160.6		
10352-AAA	Pulse Waveform (200Hz, 10%)	X	3.06	68.15	11.37	10.00	60.0	± 3.0 %	± 9.6 %
		Y	2.12	64.00	9.07		60.0		
		Z	3.59	69.79	12.08		60.0		
10353-AAA	Pulse Waveform (200Hz, 20%)	X	2.53	69.42	10.87	6.99	80.0	± 2.2 %	± 9.6 %
		Y	1.23	62.47	7.56		80.0		
		Z	6.21	76.88	13.36		80.0		
10354-AAA	Pulse Waveform (200Hz, 40%)	X	20.00	85.68	14.23	3.98	95.0	± 1.2 %	± 9.6 %
		Y	0.72	62.26	6.85		95.0		
		Z	20.00	86.47	14.53		95.0		
10355-AAA	Pulse Waveform (200Hz, 60%)	X	20.00	85.67	13.21	2.22	120.0	± 0.9 %	± 9.6 %
		Y	1.09	67.79	8.75		120.0		
		Z	20.00	85.02	12.80		120.0		
10387-AAA	QPSK Waveform, 1 MHz	X	1.51	65.51	14.31	1.00	150.0	± 2.7 %	± 9.6 %
		Y	1.61	65.76	14.67		150.0		
		Z	1.39	65.15	13.84		150.0		
10388-AAA	QPSK Waveform, 10 MHz	X	2.01	66.66	15.06	0.00	150.0	± 0.9 %	± 9.6 %
		Y	2.11	67.07	15.33		150.0		
		Z	1.89	66.05	14.71		150.0		
10396-AAA	64-QAM Waveform, 100 kHz	X	2.14	65.81	16.64	3.01	150.0	± 1.4 %	± 9.6 %
		Y	2.07	65.23	16.35		150.0		
		Z	1.97	64.77	15.98		150.0		
10399-AAA	64-QAM Waveform, 40 MHz	X	3.37	66.49	15.45	0.00	150.0	± 1.7 %	± 9.6 %
		Y	3.45	66.72	15.59		150.0		
		Z	3.27	66.16	15.26		150.0		
10414-AAA	WLAN CCDF, 64-QAM, 40MHz	X	4.71	65.32	15.37	0.00	150.0	± 3.2 %	± 9.6 %
		Y	4.80	65.47	15.46		150.0		
		Z	4.57	65.10	15.24		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7531

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms.V^{-2}$	T2 $ms.V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	38.3	288.74	36.09	5.22	0.05	5.01	0.00	0.29	1.00
Y	40.8	305.25	35.68	9.07	0.00	4.96	0.00	0.24	1.00
Z	33.4	252.31	36.12	4.42	0.03	5.02	0.01	0.25	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-172.8
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3-4 mm for an *Area Scan* job.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7531

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
6	55.0	0.75	22.44	22.44	22.44	0.00	1.00	± 13.3 %
150	52.3	0.76	13.06	13.06	13.06	0.00	1.00	± 13.3 %
220	49.0	0.81	12.74	12.74	12.74	0.00	1.00	± 13.3 %
300	45.3	0.87	12.35	12.35	12.35	0.09	1.00	± 13.3 %
450	43.5	0.87	11.41	11.41	11.41	0.16	1.30	± 13.3 %
600	42.7	0.88	10.88	10.88	10.88	0.10	1.25	± 13.3 %
750	41.9	0.89	10.75	10.75	10.75	0.53	0.80	± 12.0 %
900	41.5	0.97	10.33	10.33	10.33	0.40	0.93	± 12.0 %
1450	40.5	1.20	8.71	8.71	8.71	0.35	0.80	± 12.0 %
1640	40.2	1.31	8.66	8.66	8.66	0.31	0.86	± 12.0 %
1750	40.1	1.37	8.62	8.62	8.62	0.38	0.86	± 12.0 %
1900	40.0	1.40	8.26	8.26	8.26	0.27	0.86	± 12.0 %
2300	39.5	1.67	7.98	7.98	7.98	0.33	0.90	± 12.0 %
2450	39.2	1.80	7.68	7.68	7.68	0.38	0.90	± 12.0 %
2600	39.0	1.96	7.42	7.42	7.42	0.37	0.90	± 12.0 %
3500	37.9	2.91	6.82	6.82	6.82	0.40	1.35	± 13.1 %
3700	37.7	3.12	6.48	6.48	6.48	0.40	1.35	± 13.1 %
5250	35.9	4.71	5.25	5.25	5.25	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.70	4.70	4.70	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.78	4.78	4.78	0.40	1.80	± 13.1 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7531

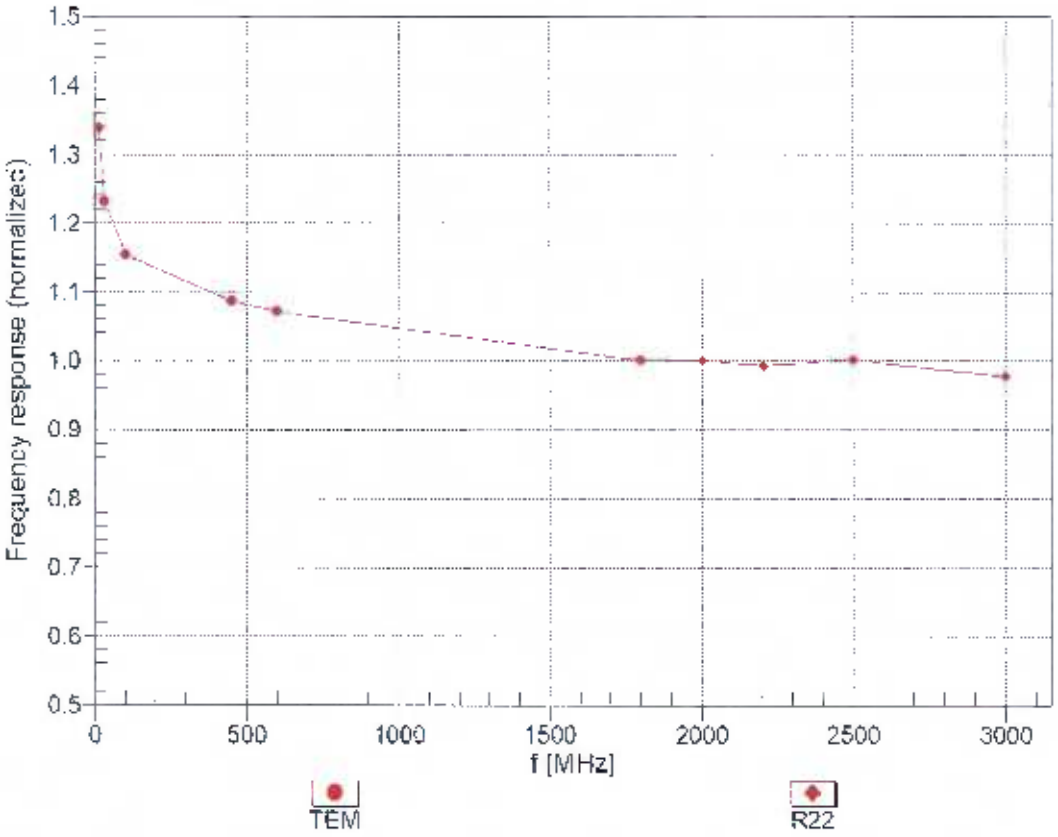
Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
6500	34.5	6.07	5.45	5.45	5.45	0.20	2.50	± 18.6 %

[C] Frequency validity at 6.5 GHz is -600/+700 MHz, and ± 700 MHz at or above 7GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies 6-10 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz; below ± 2% for frequencies between 3-6 GHz; and below ± 4% for frequencies between 6-10 GHz at any distance larger than half the probe tip diameter from the boundary.

Frequency Response of E-Field

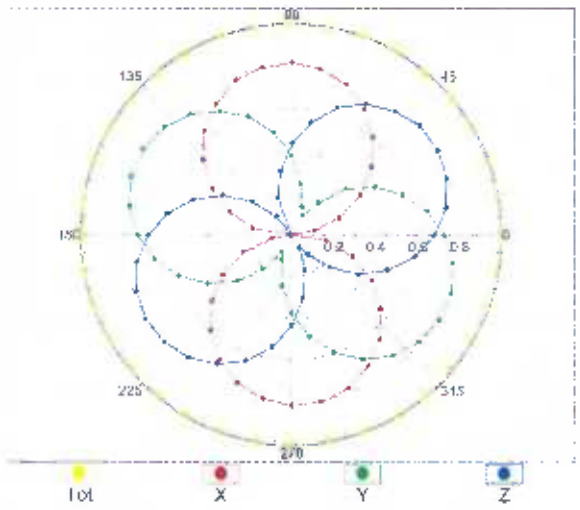
(TEM-Cell:ifi110 EXX, Waveguide: R22)



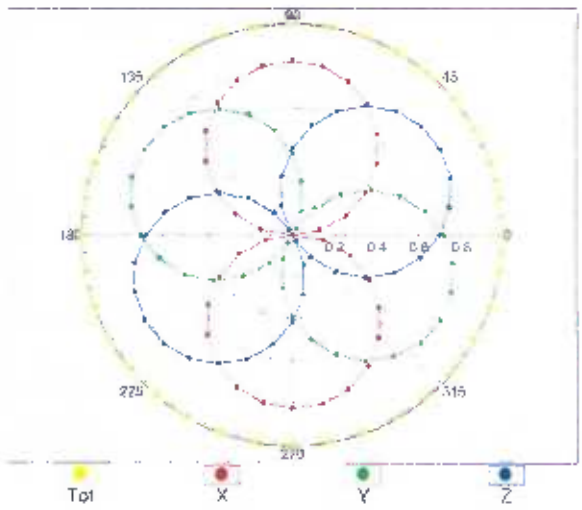
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

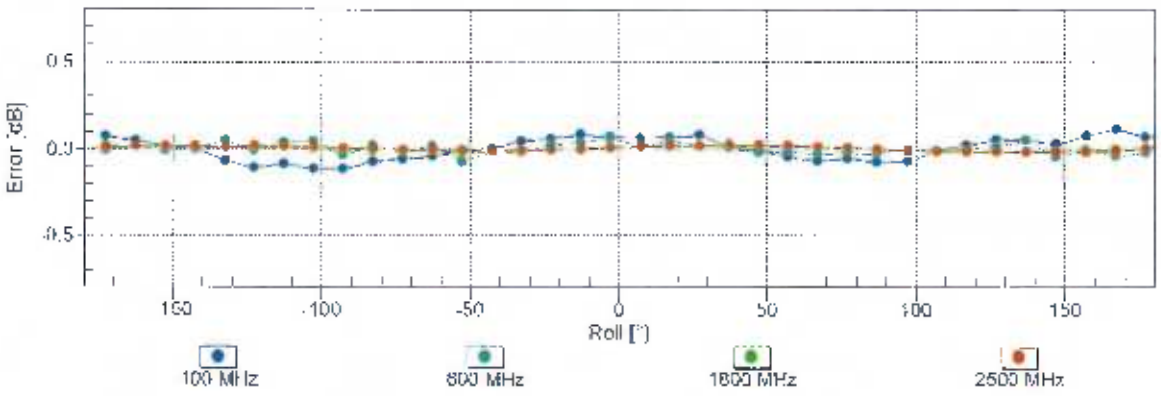
Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM



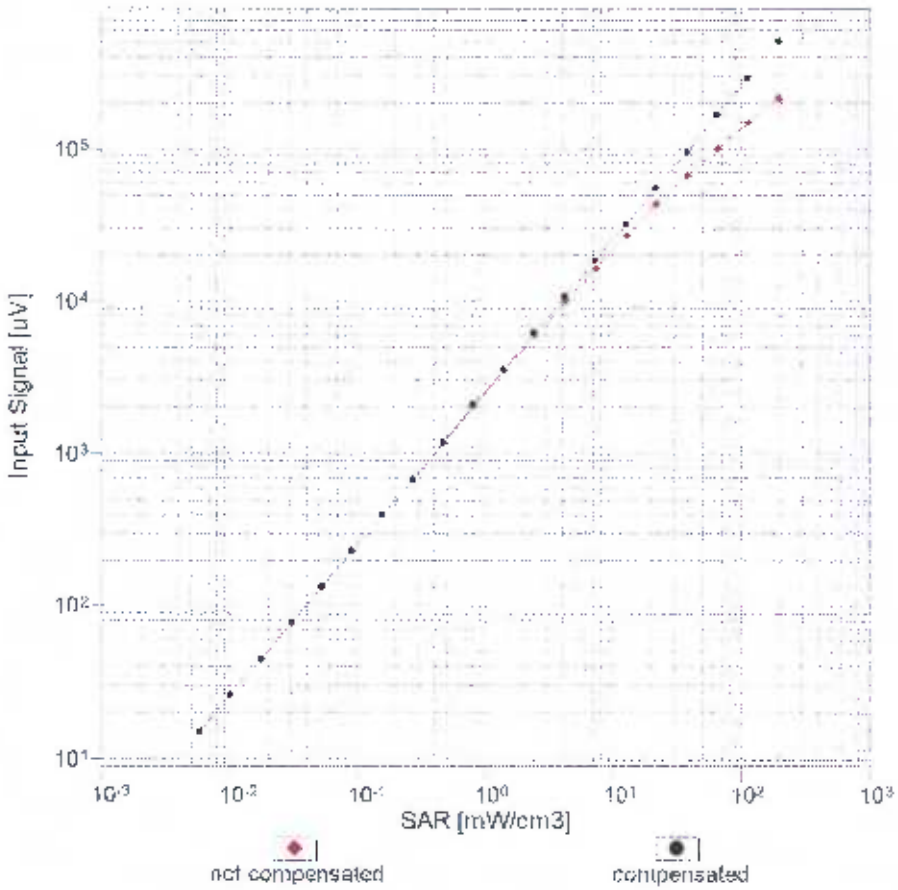
f=1800 MHz,R22

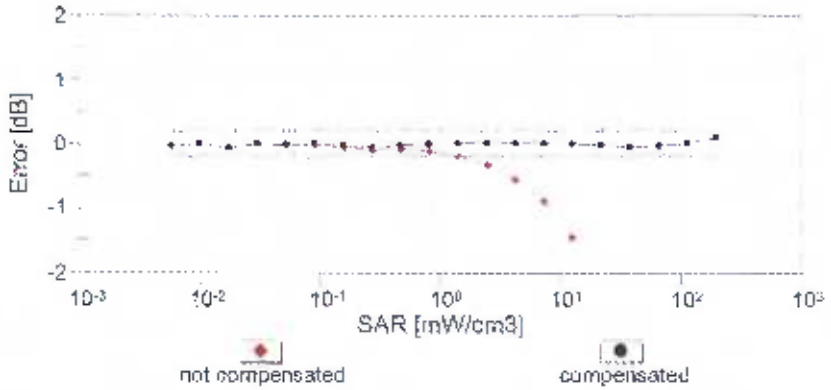




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR$_{head}$)
(TEM cell , f_{eval}= 1900 MHz)

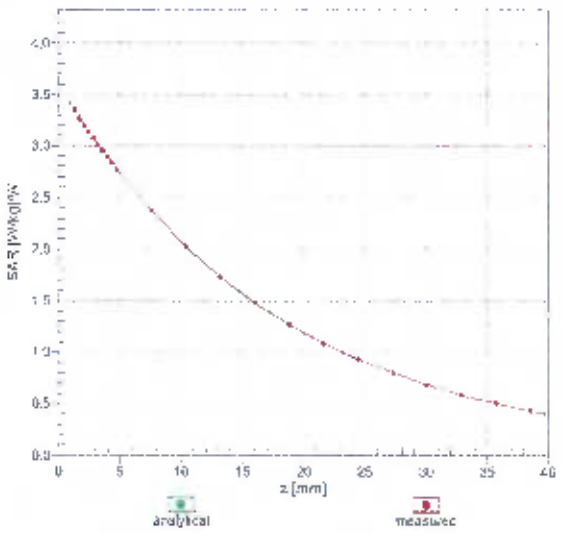




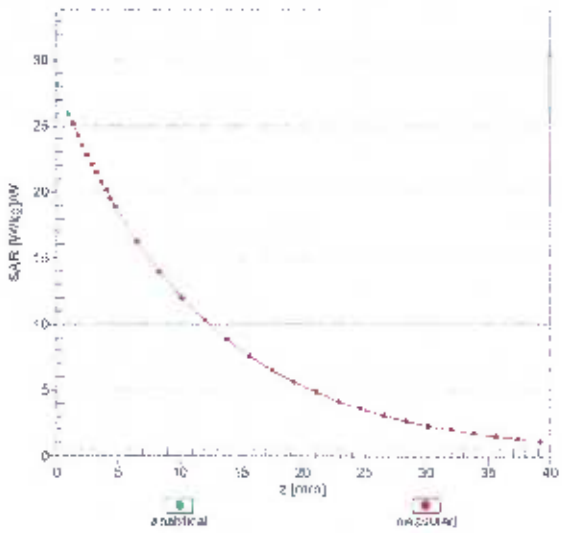
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment

f = 900 MHz,WGLS R9 (H_convF)

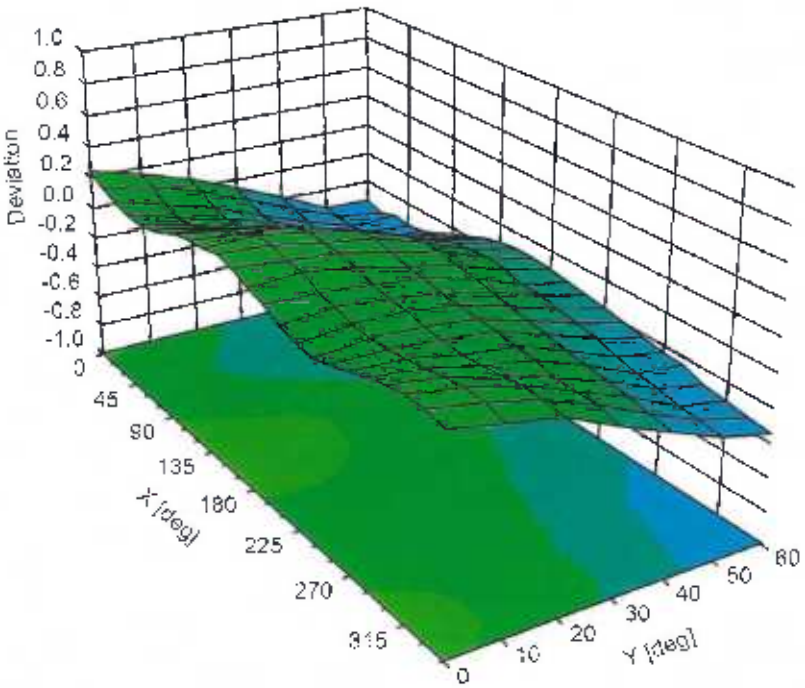


f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[E] (k=2)
0	-	CW	CW	0.00	± 4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	± 9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %

10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10108	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %
10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	± 9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10114	CAD	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10115	CAD	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	± 9.6 %
10116	CAD	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10117	CAD	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	± 9.6 %
10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	± 9.6 %
10144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	± 9.6 %
10145	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
10146	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	± 9.6 %
10147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	± 9.6 %
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10151	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	± 9.6 %
10152	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	± 9.6 %
10154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	± 9.6 %
10157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10158	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	± 9.6 %
10160	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	± 9.6 %
10161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10162	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
10166	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	± 9.6 %
10167	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	± 9.6 %
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	± 9.6 %
10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	± 9.6 %
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10175	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10180	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10181	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %

10182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10183	AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10184	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10185	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	± 9.6 %
10186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10187	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10188	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10189	AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10193	CAD	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	± 9.6 %
10194	CAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6 %
10195	CAD	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	± 9.6 %
10196	CAD	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10197	CAD	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10198	CAD	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10219	CAD	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	± 9.6 %
10220	CAD	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAD	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAD	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	± 9.6 %
10223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	± 9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	± 9.6 %
10227	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10232	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10241	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10245	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10247	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	± 9.6 %
10248	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10249	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10250	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10251	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 %
10259	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	± 9.6 %
10260	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %

10261	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	± 9.6 %
10263	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAA	PHS (QPSK)	PHS	11.81	± 9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	± 9.6 %
10279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10297	AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %
10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WiMAX	12.03	± 9.6 %
10302	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)	WiMAX	12.57	± 9.6 %
10303	AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	12.52	± 9.6 %
10304	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	11.86	± 9.6 %
10305	AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)	WiMAX	15.24	± 9.6 %
10306	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)	WiMAX	14.67	± 9.6 %
10307	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC)	WiMAX	14.49	± 9.6 %
10308	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WiMAX	14.46	± 9.6 %
10309	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM,AMC 2x3)	WiMAX	14.58	± 9.6 %
10310	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3	WiMAX	14.57	± 9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAA	iDEN 1:3	iDEN	10.51	± 9.6 %
10314	AAA	iDEN 1:6	iDEN	13.48	± 9.6 %
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)	WLAN	1.71	± 9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	± 9.6 %
10317	AAD	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	± 9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	± 9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAE	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)	WLAN	8.37	± 9.6 %
10401	AAE	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)	WLAN	8.60	± 9.6 %
10402	AAE	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %
10410	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %

10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10417	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)	WLAN	8.19	± 9.6 %
10422	AAC	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAC	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAC	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAC	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10426	AAC	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10427	AAC	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %
10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10453	AAD	Validation (Square, 10ms, 1ms)	Test	10.00	± 9.6 %
10456	AAC	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)	WLAN	8.63	± 9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	± 9.6 %
10461	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10462	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.30	± 9.6 %
10463	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10464	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10467	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10469	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10470	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10471	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10472	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10479	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10480	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.18	± 9.6 %
10481	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10482	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.71	± 9.6 %
10483	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)	LTE-TDD	8.39	± 9.6 %
10484	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.47	± 9.6 %
10485	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.59	± 9.6 %
10486	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.38	± 9.6 %
10487	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.60	± 9.6 %
10488	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.70	± 9.6 %

10489	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	± 9.6 %
10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.41	± 9.6 %
10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	± 9.6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.37	± 9.6 %
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10497	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10498	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.40	± 9.6 %
10499	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.68	± 9.6 %
10500	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10501	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.44	± 9.6 %
10502	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.52	± 9.6 %
10503	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.72	± 9.6 %
10504	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	± 9.6 %
10505	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10506	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10507	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.36	± 9.6 %
10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	± 9.6 %
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.99	± 9.6 %
10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.49	± 9.6 %
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.51	± 9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.42	± 9.6 %
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)	WLAN	1.57	± 9.6 %
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10518	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10519	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)	WLAN	8.39	± 9.6 %
10520	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)	WLAN	8.12	± 9.6 %
10521	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)	WLAN	7.97	± 9.6 %
10522	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
10523	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)	WLAN	8.08	± 9.6 %
10524	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)	WLAN	8.27	± 9.6 %
10525	AAC	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)	WLAN	8.36	± 9.6 %
10526	AAC	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)	WLAN	8.42	± 9.6 %
10527	AAC	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)	WLAN	8.21	± 9.6 %
10528	AAC	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)	WLAN	8.36	± 9.6 %
10529	AAC	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)	WLAN	8.36	± 9.6 %
10531	AAC	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)	WLAN	8.43	± 9.6 %
10532	AAC	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
10533	AAC	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)	WLAN	8.38	± 9.6 %
10534	AAC	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)	WLAN	8.45	± 9.6 %
10535	AAC	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)	WLAN	8.45	± 9.6 %
10536	AAC	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)	WLAN	8.32	± 9.6 %
10537	AAC	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)	WLAN	8.44	± 9.6 %
10538	AAC	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)	WLAN	8.54	± 9.6 %
10540	AAC	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)	WLAN	8.39	± 9.6 %
10541	AAC	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)	WLAN	8.46	± 9.6 %
10542	AAC	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)	WLAN	8.65	± 9.6 %
10543	AAC	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)	WLAN	8.65	± 9.6 %
10544	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)	WLAN	8.47	± 9.6 %
10545	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %
10546	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)	WLAN	8.35	± 9.6 %

10547	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)	WLAN	8.49	± 9.6 %
10548	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)	WLAN	8.37	± 9.6 %
10550	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)	WLAN	8.39	± 9.6 %
10551	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)	WLAN	8.50	± 9.6 %
10552	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)	WLAN	8.42	± 9.6 %
10553	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)	WLAN	8.45	± 9.6 %
10554	AAD	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)	WLAN	8.48	± 9.6 %
10555	AAD	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)	WLAN	8.47	± 9.6 %
10556	AAD	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)	WLAN	8.50	± 9.6 %
10557	AAD	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)	WLAN	8.52	± 9.6 %
10558	AAD	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)	WLAN	8.61	± 9.6 %
10560	AAD	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)	WLAN	8.73	± 9.6 %
10561	AAD	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)	WLAN	8.56	± 9.6 %
10562	AAD	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)	WLAN	8.69	± 9.6 %
10563	AAD	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)	WLAN	8.25	± 9.6 %
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc)	WLAN	8.13	± 9.6 %
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc)	WLAN	8.00	± 9.6 %
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc)	WLAN	8.37	± 9.6 %
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc)	WLAN	8.10	± 9.6 %
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc)	WLAN	8.30	± 9.6 %
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)	WLAN	1.99	± 9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)	WLAN	1.99	± 9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)	WLAN	1.98	± 9.6 %
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)	WLAN	1.98	± 9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	± 9.6 %
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	± 9.6 %
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	± 9.6 %
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	± 9.6 %
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	± 9.6 %
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	± 9.6 %
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	± 9.6 %
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	± 9.6 %
10583	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	± 9.6 %
10584	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	± 9.6 %
10585	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	± 9.6 %
10586	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	± 9.6 %
10587	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	± 9.6 %
10588	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	± 9.6 %
10589	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	± 9.6 %
10590	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	± 9.6 %
10591	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)	WLAN	8.63	± 9.6 %
10592	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10593	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)	WLAN	8.64	± 9.6 %
10594	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10595	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)	WLAN	8.74	± 9.6 %
10596	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)	WLAN	8.71	± 9.6 %
10597	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)	WLAN	8.72	± 9.6 %
10598	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)	WLAN	8.50	± 9.6 %
10599	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)	WLAN	8.79	± 9.6 %
10600	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)	WLAN	8.88	± 9.6 %
10601	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)	WLAN	8.82	± 9.6 %
10602	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)	WLAN	8.94	± 9.6 %
10603	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)	WLAN	9.03	± 9.6 %
10604	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)	WLAN	8.76	± 9.6 %

10605	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)	WLAN	8.97	± 9.6 %
10606	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10607	AAC	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)	WLAN	8.64	± 9.6 %
10608	AAC	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)	WLAN	8.77	± 9.6 %
10609	AAC	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)	WLAN	8.57	± 9.6 %
10610	AAC	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)	WLAN	8.78	± 9.6 %
10611	AAC	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10612	AAC	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10613	AAC	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)	WLAN	8.94	± 9.6 %
10614	AAC	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)	WLAN	8.59	± 9.6 %
10615	AAC	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10616	AAC	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)	WLAN	8.82	± 9.6 %
10617	AAC	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)	WLAN	8.81	± 9.6 %
10618	AAC	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)	WLAN	8.58	± 9.6 %
10619	AAC	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)	WLAN	8.86	± 9.6 %
10620	AAC	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)	WLAN	8.87	± 9.6 %
10621	AAC	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10622	AAC	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)	WLAN	8.68	± 9.6 %
10623	AAC	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10624	AAC	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)	WLAN	8.96	± 9.6 %
10625	AAC	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)	WLAN	8.96	± 9.6 %
10626	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10627	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)	WLAN	8.88	± 9.6 %
10628	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)	WLAN	8.71	± 9.6 %
10629	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10630	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)	WLAN	8.72	± 9.6 %
10631	AAC	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)	WLAN	8.81	± 9.6 %
10632	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10633	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)	WLAN	8.83	± 9.6 %
10634	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)	WLAN	8.80	± 9.6 %
10635	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10636	AAD	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10637	AAD	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10638	AAD	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)	WLAN	8.86	± 9.6 %
10639	AAD	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10640	AAD	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)	WLAN	8.98	± 9.6 %
10641	AAD	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)	WLAN	9.06	± 9.6 %
10642	AAD	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)	WLAN	9.06	± 9.6 %
10643	AAD	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)	WLAN	8.89	± 9.6 %
10644	AAD	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)	WLAN	9.05	± 9.6 %
10645	AAD	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)	WLAN	9.11	± 9.6 %
10646	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10652	AAE	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10653	AAE	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	± 9.6 %
10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAA	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAC	IEEE 802.11ax (20MHz, MCS0, 90pc dc)	WLAN	9.09	± 9.6 %
10672	AAC	IEEE 802.11ax (20MHz, MCS1, 90pc dc)	WLAN	8.57	± 9.6 %

10673	AAC	IEEE 802.11ax (20MHz, MCS2, 90pc dc)	WLAN	8.78	± 9.6 %
10674	AAC	IEEE 802.11ax (20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10675	AAC	IEEE 802.11ax (20MHz, MCS4, 90pc dc)	WLAN	8.90	± 9.6 %
10676	AAC	IEEE 802.11ax (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10677	AAC	IEEE 802.11ax (20MHz, MCS6, 90pc dc)	WLAN	8.73	± 9.6 %
10678	AAC	IEEE 802.11ax (20MHz, MCS7, 90pc dc)	WLAN	8.78	± 9.6 %
10679	AAC	IEEE 802.11ax (20MHz, MCS8, 90pc dc)	WLAN	8.89	± 9.6 %
10680	AAC	IEEE 802.11ax (20MHz, MCS9, 90pc dc)	WLAN	8.80	± 9.6 %
10681	AAC	IEEE 802.11ax (20MHz, MCS10, 90pc dc)	WLAN	8.62	± 9.6 %
10682	AAC	IEEE 802.11ax (20MHz, MCS11, 90pc dc)	WLAN	8.83	± 9.6 %
10683	AAC	IEEE 802.11ax (20MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10684	AAC	IEEE 802.11ax (20MHz, MCS1, 99pc dc)	WLAN	8.26	± 9.6 %
10685	AAC	IEEE 802.11ax (20MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10686	AAC	IEEE 802.11ax (20MHz, MCS3, 99pc dc)	WLAN	8.28	± 9.6 %
10687	AAC	IEEE 802.11ax (20MHz, MCS4, 99pc dc)	WLAN	8.45	± 9.6 %
10688	AAC	IEEE 802.11ax (20MHz, MCS5, 99pc dc)	WLAN	8.29	± 9.6 %
10689	AAC	IEEE 802.11ax (20MHz, MCS6, 99pc dc)	WLAN	8.55	± 9.6 %
10690	AAC	IEEE 802.11ax (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
10691	AAC	IEEE 802.11ax (20MHz, MCS8, 99pc dc)	WLAN	8.25	± 9.6 %
10692	AAC	IEEE 802.11ax (20MHz, MCS9, 99pc dc)	WLAN	8.29	± 9.6 %
10693	AAC	IEEE 802.11ax (20MHz, MCS10, 99pc dc)	WLAN	8.25	± 9.6 %
10694	AAC	IEEE 802.11ax (20MHz, MCS11, 99pc dc)	WLAN	8.57	± 9.6 %
10695	AAC	IEEE 802.11ax (40MHz, MCS0, 90pc dc)	WLAN	8.78	± 9.6 %
10696	AAC	IEEE 802.11ax (40MHz, MCS1, 90pc dc)	WLAN	8.91	± 9.6 %
10697	AAC	IEEE 802.11ax (40MHz, MCS2, 90pc dc)	WLAN	8.61	± 9.6 %
10698	AAC	IEEE 802.11ax (40MHz, MCS3, 90pc dc)	WLAN	8.89	± 9.6 %
10699	AAC	IEEE 802.11ax (40MHz, MCS4, 90pc dc)	WLAN	8.82	± 9.6 %
10700	AAC	IEEE 802.11ax (40MHz, MCS5, 90pc dc)	WLAN	8.73	± 9.6 %
10701	AAC	IEEE 802.11ax (40MHz, MCS6, 90pc dc)	WLAN	8.86	± 9.6 %
10702	AAC	IEEE 802.11ax (40MHz, MCS7, 90pc dc)	WLAN	8.70	± 9.6 %
10703	AAC	IEEE 802.11ax (40MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10704	AAC	IEEE 802.11ax (40MHz, MCS9, 90pc dc)	WLAN	8.56	± 9.6 %
10705	AAC	IEEE 802.11ax (40MHz, MCS10, 90pc dc)	WLAN	8.69	± 9.6 %
10706	AAC	IEEE 802.11ax (40MHz, MCS11, 90pc dc)	WLAN	8.66	± 9.6 %
10707	AAC	IEEE 802.11ax (40MHz, MCS0, 99pc dc)	WLAN	8.32	± 9.6 %
10708	AAC	IEEE 802.11ax (40MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %
10709	AAC	IEEE 802.11ax (40MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10710	AAC	IEEE 802.11ax (40MHz, MCS3, 99pc dc)	WLAN	8.29	± 9.6 %
10711	AAC	IEEE 802.11ax (40MHz, MCS4, 99pc dc)	WLAN	8.39	± 9.6 %
10712	AAC	IEEE 802.11ax (40MHz, MCS5, 99pc dc)	WLAN	8.67	± 9.6 %
10713	AAC	IEEE 802.11ax (40MHz, MCS6, 99pc dc)	WLAN	8.33	± 9.6 %
10714	AAC	IEEE 802.11ax (40MHz, MCS7, 99pc dc)	WLAN	8.26	± 9.6 %
10715	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc dc)	WLAN	8.45	± 9.6 %
10716	AAC	IEEE 802.11ax (40MHz, MCS9, 99pc dc)	WLAN	8.30	± 9.6 %
10717	AAC	IEEE 802.11ax (40MHz, MCS10, 99pc dc)	WLAN	8.48	± 9.6 %
10718	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc dc)	WLAN	8.24	± 9.6 %
10719	AAC	IEEE 802.11ax (80MHz, MCS0, 90pc dc)	WLAN	8.81	± 9.6 %
10720	AAC	IEEE 802.11ax (80MHz, MCS1, 90pc dc)	WLAN	8.87	± 9.6 %
10721	AAC	IEEE 802.11ax (80MHz, MCS2, 90pc dc)	WLAN	8.76	± 9.6 %
10722	AAC	IEEE 802.11ax (80MHz, MCS3, 90pc dc)	WLAN	8.55	± 9.6 %
10723	AAC	IEEE 802.11ax (80MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10724	AAC	IEEE 802.11ax (80MHz, MCS5, 90pc dc)	WLAN	8.90	± 9.6 %
10725	AAC	IEEE 802.11ax (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10726	AAC	IEEE 802.11ax (80MHz, MCS7, 90pc dc)	WLAN	8.72	± 9.6 %
10727	AAC	IEEE 802.11ax (80MHz, MCS8, 90pc dc)	WLAN	8.66	± 9.6 %
10728	AAC	IEEE 802.11ax (80MHz, MCS9, 90pc dc)	WLAN	8.65	± 9.6 %

10729	AAC	IEEE 802.11ax (80MHz, MCS10, 90pc dc)	WLAN	8.64	± 9.6 %
10730	AAC	IEEE 802.11ax (80MHz, MCS11, 90pc dc)	WLAN	8.67	± 9.6 %
10731	AAC	IEEE 802.11ax (80MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10732	AAC	IEEE 802.11ax (80MHz, MCS1, 99pc dc)	WLAN	8.46	± 9.6 %
10733	AAC	IEEE 802.11ax (80MHz, MCS2, 99pc dc)	WLAN	8.40	± 9.6 %
10734	AAC	IEEE 802.11ax (80MHz, MCS3, 99pc dc)	WLAN	8.25	± 9.6 %
10735	AAC	IEEE 802.11ax (80MHz, MCS4, 99pc dc)	WLAN	8.33	± 9.6 %
10736	AAC	IEEE 802.11ax (80MHz, MCS5, 99pc dc)	WLAN	8.27	± 9.6 %
10737	AAC	IEEE 802.11ax (80MHz, MCS6, 99pc dc)	WLAN	8.36	± 9.6 %
10738	AAC	IEEE 802.11ax (80MHz, MCS7, 99pc dc)	WLAN	8.42	± 9.6 %
10739	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc dc)	WLAN	8.29	± 9.6 %
10740	AAC	IEEE 802.11ax (80MHz, MCS9, 99pc dc)	WLAN	8.48	± 9.6 %
10741	AAC	IEEE 802.11ax (80MHz, MCS10, 99pc dc)	WLAN	8.40	± 9.6 %
10742	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc dc)	WLAN	8.43	± 9.6 %
10743	AAC	IEEE 802.11ax (160MHz, MCS0, 90pc dc)	WLAN	8.94	± 9.6 %
10744	AAC	IEEE 802.11ax (160MHz, MCS1, 90pc dc)	WLAN	9.16	± 9.6 %
10745	AAC	IEEE 802.11ax (160MHz, MCS2, 90pc dc)	WLAN	8.93	± 9.6 %
10746	AAC	IEEE 802.11ax (160MHz, MCS3, 90pc dc)	WLAN	9.11	± 9.6 %
10747	AAC	IEEE 802.11ax (160MHz, MCS4, 90pc dc)	WLAN	9.04	± 9.6 %
10748	AAC	IEEE 802.11ax (160MHz, MCS5, 90pc dc)	WLAN	8.93	± 9.6 %
10749	AAC	IEEE 802.11ax (160MHz, MCS6, 90pc dc)	WLAN	8.90	± 9.6 %
10750	AAC	IEEE 802.11ax (160MHz, MCS7, 90pc dc)	WLAN	8.79	± 9.6 %
10751	AAC	IEEE 802.11ax (160MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10752	AAC	IEEE 802.11ax (160MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10753	AAC	IEEE 802.11ax (160MHz, MCS10, 90pc dc)	WLAN	9.00	± 9.6 %
10754	AAC	IEEE 802.11ax (160MHz, MCS11, 90pc dc)	WLAN	8.94	± 9.6 %
10755	AAC	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.64	± 9.6 %
10756	AAC	IEEE 802.11ax (160MHz, MCS1, 99pc dc)	WLAN	8.77	± 9.6 %
10757	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc dc)	WLAN	8.77	± 9.6 %
10758	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	8.69	± 9.6 %
10759	AAC	IEEE 802.11ax (160MHz, MCS4, 99pc dc)	WLAN	8.58	± 9.6 %
10760	AAC	IEEE 802.11ax (160MHz, MCS5, 99pc dc)	WLAN	8.49	± 9.6 %
10761	AAC	IEEE 802.11ax (160MHz, MCS6, 99pc dc)	WLAN	8.58	± 9.6 %
10762	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc dc)	WLAN	8.49	± 9.6 %
10763	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc dc)	WLAN	8.53	± 9.6 %
10764	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.54	± 9.6 %
10765	AAC	IEEE 802.11ax (160MHz, MCS10, 99pc dc)	WLAN	8.54	± 9.6 %
10766	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.51	± 9.6 %
10767	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	± 9.6 %
10768	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10769	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10770	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10771	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10772	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	± 9.6 %
10773	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	± 9.6 %
10774	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10775	AAD	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 %
10776	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10777	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10778	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10780	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %
10781	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %
10782	AAD	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10783	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 %
10784	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	± 9.6 %

10785	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10786	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10787	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	± 9.6 %
10788	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10789	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10790	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10791	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	± 9.6 %
10792	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	± 9.6 %
10793	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	± 9.6 %
10794	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10795	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	± 9.6 %
10796	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10797	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10798	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10799	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10801	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
10803	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10805	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10806	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10809	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10810	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10812	AAD	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10819	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10820	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10825	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10827	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10828	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10829	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	± 9.6 %
10831	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
10832	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	± 9.6 %
10833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	± 9.6 %
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10836	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	± 9.6 %
10837	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10858	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10860	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %

10861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10865	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10870	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	± 9.6 %
10871	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	± 9.6 %
10873	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10874	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10875	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	± 9.6 %
10877	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	± 9.6 %
10878	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10879	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	± 9.6 %
10880	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10882	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	± 9.6 %
10883	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	± 9.6 %
10885	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10886	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	± 9.6 %
10889	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	± 9.6 %
10891	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
10892	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10897	AAC	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	± 9.6 %
10898	AAB	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10899	AAB	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10900	AAB	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10901	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10902	AAB	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10903	AAB	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10904	AAB	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10905	AAB	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10906	AAB	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10907	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	± 9.6 %
10908	AAB	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10909	AAB	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	± 9.6 %
10910	AAB	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10912	AAB	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10913	AAB	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10914	AAB	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	± 9.6 %
10915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10916	AAB	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10917	AAB	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10918	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10919	AAB	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10921	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	± 9.6 %

10923	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10924	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10925	AAB	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	± 9.6 %
10926	AAB	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10927	AAB	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10928	AAC	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10929	AAC	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10937	AAC	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	± 9.6 %
10938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	± 9.6 %
10940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	± 9.6 %
10941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	± 9.6 %
10944	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	± 9.6 %
10945	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	± 9.6 %
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	± 9.6 %
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	± 9.6 %
10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	± 9.6 %
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	± 9.6 %
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	± 9.6 %
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	± 9.6 %
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	± 9.6 %
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	± 9.6 %
10960	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	± 9.6 %
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	± 9.6 %
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	± 9.6 %
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10964	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	± 9.6 %
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	± 9.6 %
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	± 9.6 %
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	± 9.6 %
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	± 9.6 %
10974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.28	± 9.6 %
10978	AAA	ULLA BDR	ULLA	2.23	± 9.6 %
10979	AAA	ULLA HDR4	ULLA	7.02	± 9.6 %
10980	AAA	ULLA HDR8	ULLA	8.82	± 9.6 %
10981	AAA	ULLA HDRp4	ULLA	1.50	± 9.6 %
10982	AAA	ULLA HDRp8	ULLA	1.44	± 9.6 %
10983	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.31	± 9.6 %
10984	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.42	± 9.6 %

10985	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.54	± 9.6 %
10986	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.50	± 9.6 %
10987	AAA	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.53	± 9.6 %
10988	AAA	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.38	± 9.6 %
10989	AAA	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.33	± 9.6 %
10990	AAA	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.52	± 9.6 %

[a] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Appendix E – Dipole Calibration Data Sheets

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

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The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **RF Exposure Lab**

Certificate No: **CLA150-4002_Nov22**

CALIBRATION CERTIFICATE

Object: CLA150 - SN: 4002

Calibration procedure(s): QA CAL-15.v9
Calibration Procedure for SAR Validation Sources below 700 MHz

Calibration date: November 08, 2022

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
Power sensor NRP-Z91	SN: 103245	04-Apr-22 (No. 217-03525)	Apr-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-22 (No. 217-03527)	Apr-23
Type-N mismatch combination	SN: 310982 / 06327	04-Apr-22 (No. 217-03528)	Apr-23
Reference Probe EX3DV4	SN: 3877	31-Dec-21 (No. EX3-3877_Dec21)	Dec-22
DAE4	SN: 654	26-Jan-22 (No. DAE4-654_Jan22)	Jan-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct 24

	Name	Function	Signature
Calibrated by:	Jeffrey Katzman	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: November 16, 2022

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	ELI4 Flat Phantom	Shell thickness: 2 ± 0.2 mm
EUT Positioning	Touch Position	
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	150 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	52.3	0.76 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	51.1 ± 6 %	0.77 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	1 W input power	3.88 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**3.82 W/kg ± 18.4 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	1 W input power	2.58 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**2.54 W/kg ± 18.0 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	44.7 Ω - 6.7 jΩ
Return Loss	- 20.9 dB

Additional EUT Data

Manufactured by	SPEAG

Date: 08.11.2022

Test Laboratory: SPEAG, Zurich, Switzerland

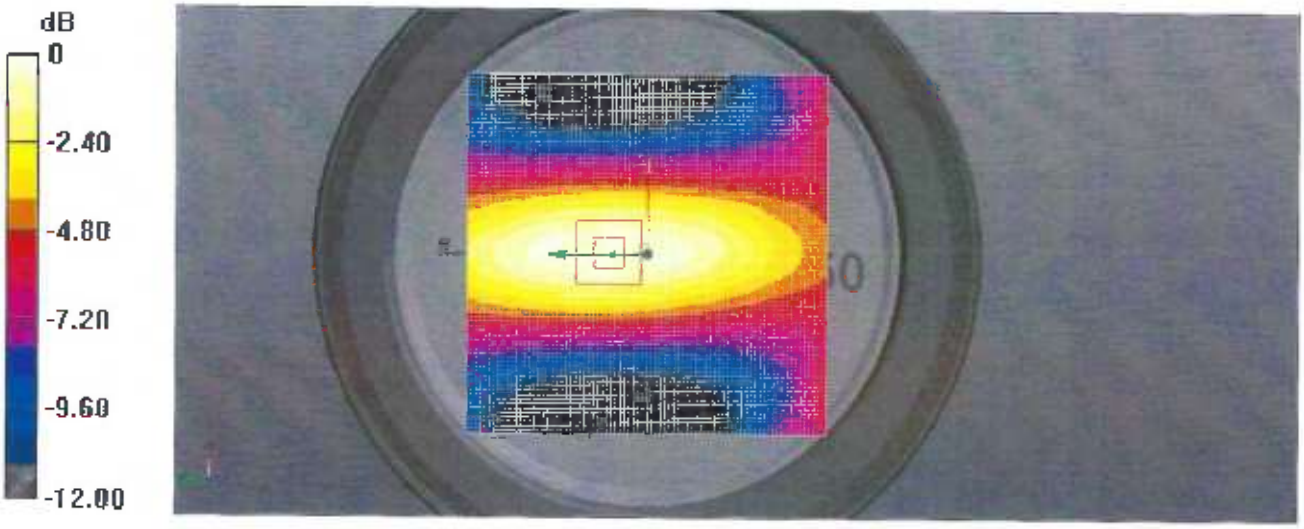
DUT: CLA150; Type: CLA150; Serial: CLA150 - SN: 4002

Communication System: UID 0 - CW; Frequency: 150 MHz
Medium parameters used: f = 150 MHz; σ = 0.77 S/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

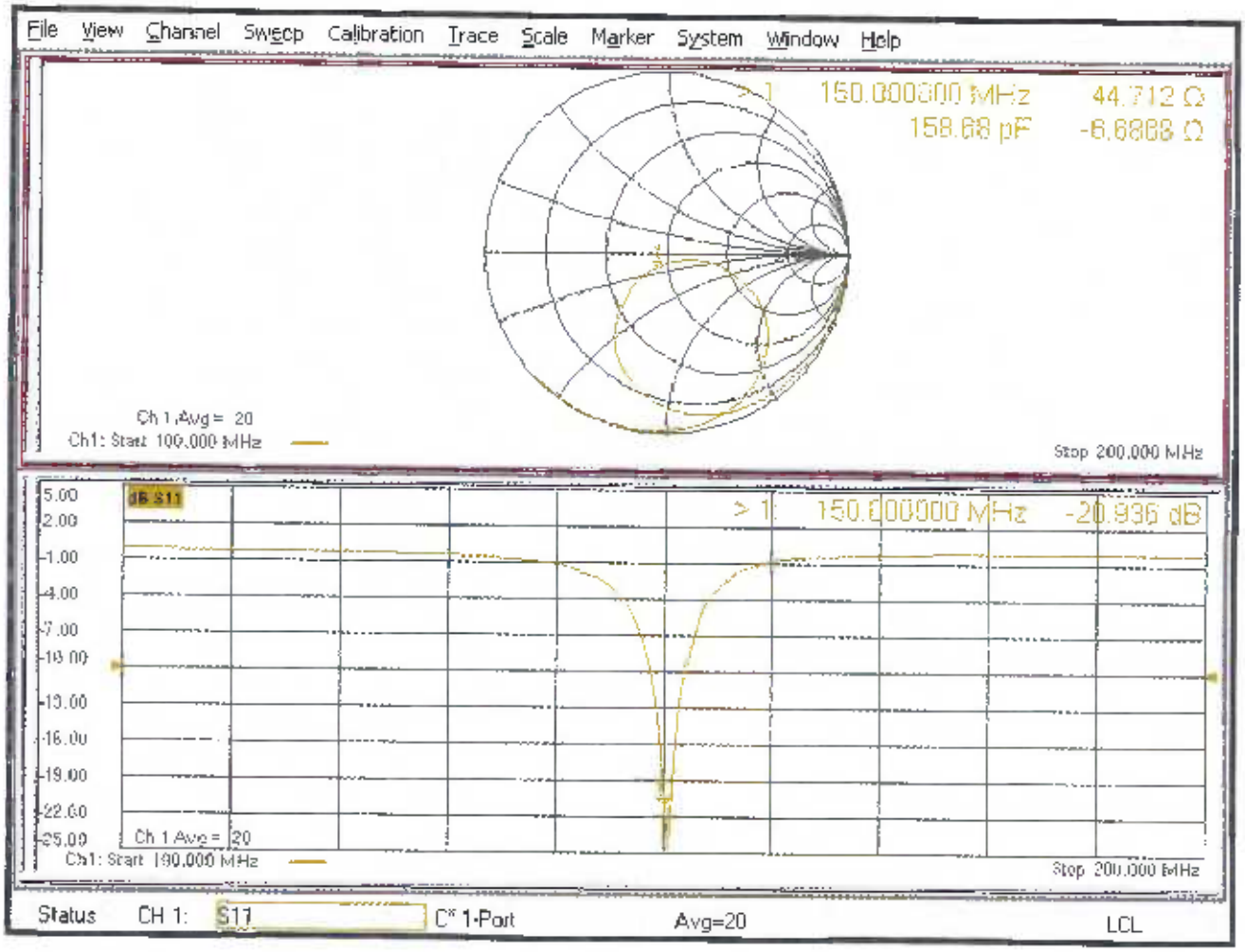
- Probe: EX3DV4 - SN3877; ConvF(12.51, 12.51, 12.51) @ 150 MHz; Calibrated: 31.12.2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 26.01.2022
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1003
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

CLA Calibration for HSL-LF Tissue/CLA150, touch configuration, Pin=1W/Zoom Scan, dist=1.4mm (8x10x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 82.01 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 7.29 W/kg
SAR(1 g) = 3.88 W/kg; SAR(10 g) = 2.58 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 14 mm)
Ratio of SAR at M2 to SAR at M1 = 80.6%
Maximum value of SAR (measured) = 5.47 W/kg



0 dB = 5.47 W/kg = 7.38 dBW/kg

Impedance Measurement Plot for Head TSL



Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
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S Swiss Calibration Service

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The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **RF Exposure Lab** **Certificate No: D450V3-1085_Jan22**

CALIBRATION CERTIFICATE

Object: D450V3 - SN:1085

Calibration procedure(s): QA CAL-15.v9
Calibration Procedure for SAR Validation Sources below 700 MHz

Calibration date: January 13, 2022

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	09-Apr-21 (No. 217-03291/03292)	Apr-22
Power sensor NRP-Z91	SN: 103244	09-Apr-21 (No. 217-03291)	Apr-22
Power sensor NRP-Z91	SN: 103245	09-Apr-21 (No. 217-03292)	Apr-22
Reference 20 dB Attenuator	SN: CC2552 (20x)	09-Apr-21 (No. 217-03343)	Apr-22
Type-N mismatch combination	SN: 310982 / 06327	09-Apr-21 (No. 217-03344)	Apr-22
Reference Probe EX3DV4	SN: 3877	31-Dec-21 (No. EX3-3877_Dec21)	Dec-22
DAE4	SN: 654	28-Jun-21 (No. DAE4-654_Jun21)	Jun-22

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-20)	In house check: Jun-22
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-22

	Name	Function	Signature
Calibrated by:	Jeffrey Katzman	Laboratory Technician	
Approved by:	Sven Kühn	Deputy Manager	

Issued: January 13, 2022

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	ELI4 Flat Phantom	Shell thickness: 2 ± 0.2 mm
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	43.5	0.87 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	43.5 ± 6 %	0.85 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	1.12 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**4.56 W/kg ± 18.1 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	0.748 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**3.04 W/kg ± 17.6 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	57.0 Ω - 4.9 jΩ
Return Loss	- 22.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.347 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG

Extended Calibration
Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss (<-20 dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB Publication 865664 D01 v01r04.

D450V2 SN:1085 - Head						
Date of Measurement	Return Loss (dB)	Δ%	Impedance (Ω)	ΔΩ	Impedance Imaginary (jΩ)	ΔΩ
1/13/2022	-22.0		57.0		-4.9	
1/13/2023	-23.1	5.0	57.6	0.6	-4.2	0.7

DASY5 Validation Report for Head TSL

Date: 13.01.2022

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 450 MHz; Type: D450V3; Serial: D450V3 - SN:1085

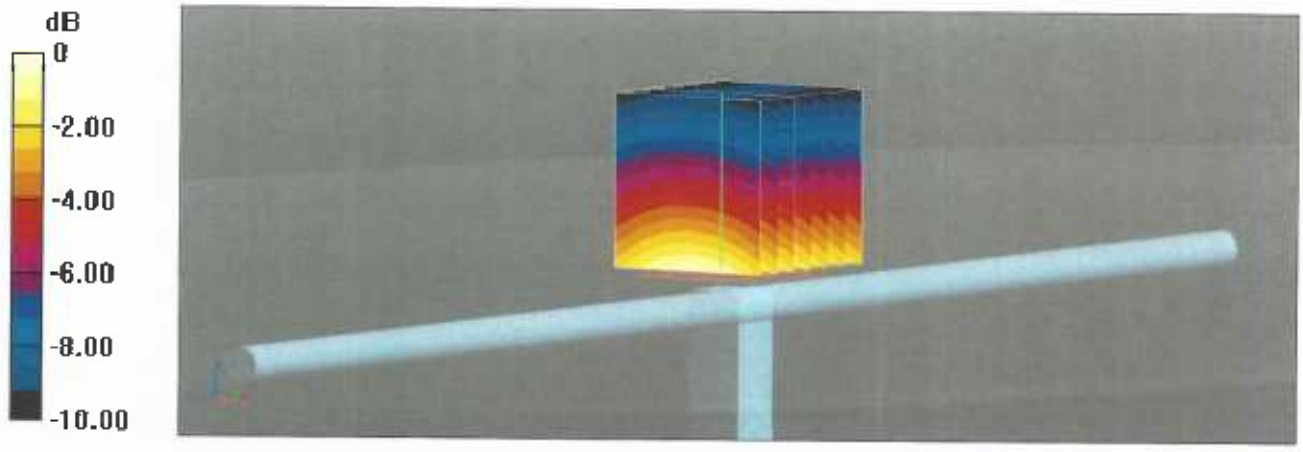
Communication System: UID 0 - CW; Frequency: 450 MHz
Medium parameters used: f = 450 MHz; σ = 0.85 S/m; ε_r = 43.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3877; ConvF(10.64, 10.64, 10.64) @ 450 MHz; Calibrated: 31.12.2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 28.06.2021
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1003
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

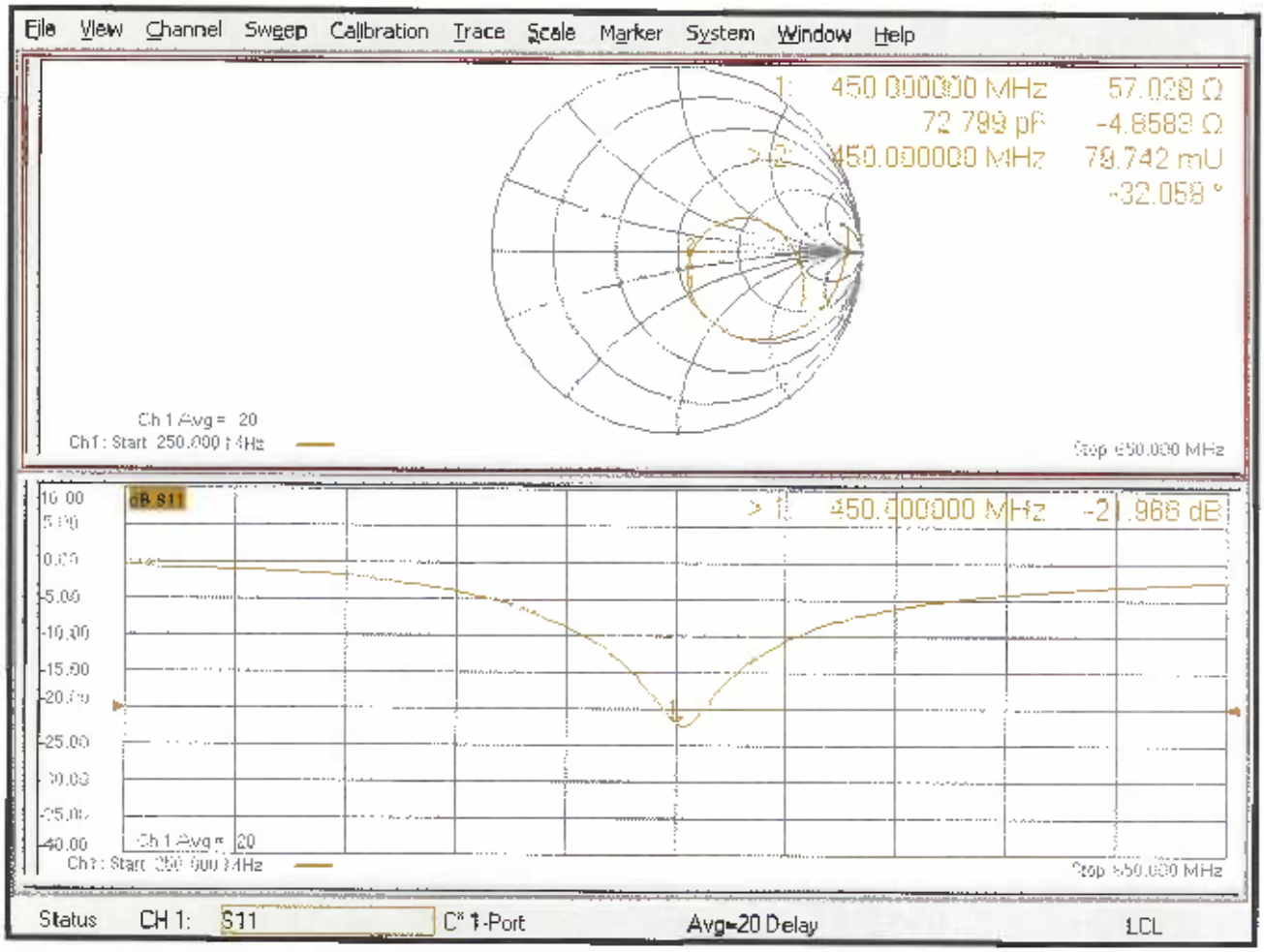
Dipole Calibration for Head Tissue/d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.02 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.73 W/kg
SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.748 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)
Ratio of SAR at M2 to SAR at M1 = 64.4%
Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.51 W/kg = 1.79 dBW/kg

Impedance Measurement Plot for Head TSL



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The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **RF Exposure Lab**

Certificate No: D750V3-1053_Jun21

CALIBRATION CERTIFICATE

Object **D750V3 - SN:1053**

Calibration procedure(s) **QA CAL-05.v11**
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz

Calibration date: **June 04, 2021**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	09-Apr-21 (No. 217-03291/03292)	Apr-22
Power sensor NRP-Z91	SN: 103244	09-Apr-21 (No. 217-03291)	Apr-22
Power sensor NRP-Z91	SN: 103245	09-Apr-21 (No. 217-03292)	Apr-22
Reference 20 dB Attenuator	SN: BH9394 (20k)	09-Apr-21 (No. 217-03343)	Apr-22
Type-N mismatch combination	SN: 310982 / 06327	09-Apr-21 (No. 217-03344)	Apr-22
Reference Probe EX3DV4	SN: 7349	28-Dec-20 (No. EX3-7349_Dec20)	Dec-21
DAE4	SN: 601	02-Nov-20 (No. DAE4-601_Nov20)	Nov-21

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-20)	In house check: Oct-22
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-21

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 8, 2021

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	42.7 ± 6 %	0.91 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.17 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**8.57 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.41 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**5.58 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	56.5 Ω + 0.1 jΩ
Return Loss	- 24.3 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.035 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG

Extended Calibration
Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss (<-20 dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB Publication 865664 D01 v01r04.

D750V3 SN: 1053 - Head						
Date of Measurement	Return Loss (dB)	Δ%	Impedance Real (Ω)	ΔΩ	Impedance Imaginary (jΩ)	ΔΩ
6/4/2021	-24.3		56.5		0.1	
6/4/2022	-26.2	7.8	57.9	1.4	0.3	0.2

DASY5 Validation Report for Head TSL

Date: 04.06.2021

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1053

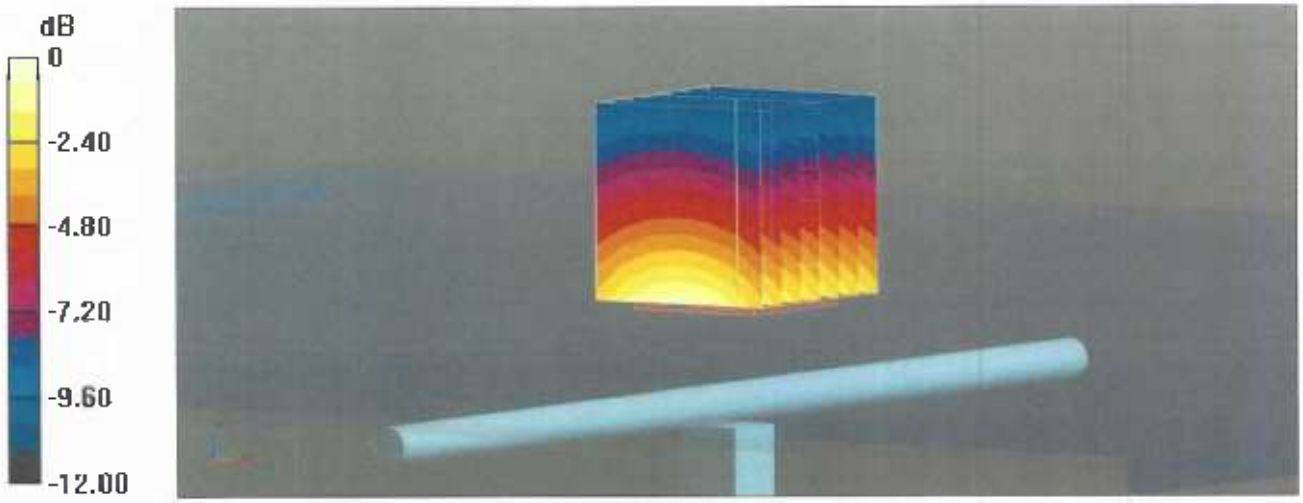
Communication System: UID 0 - CW; Frequency: 750 MHz
Medium parameters used: f = 750 MHz; σ = 0.91 S/m; ε_r = 42.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 28.12.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.11.2020
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

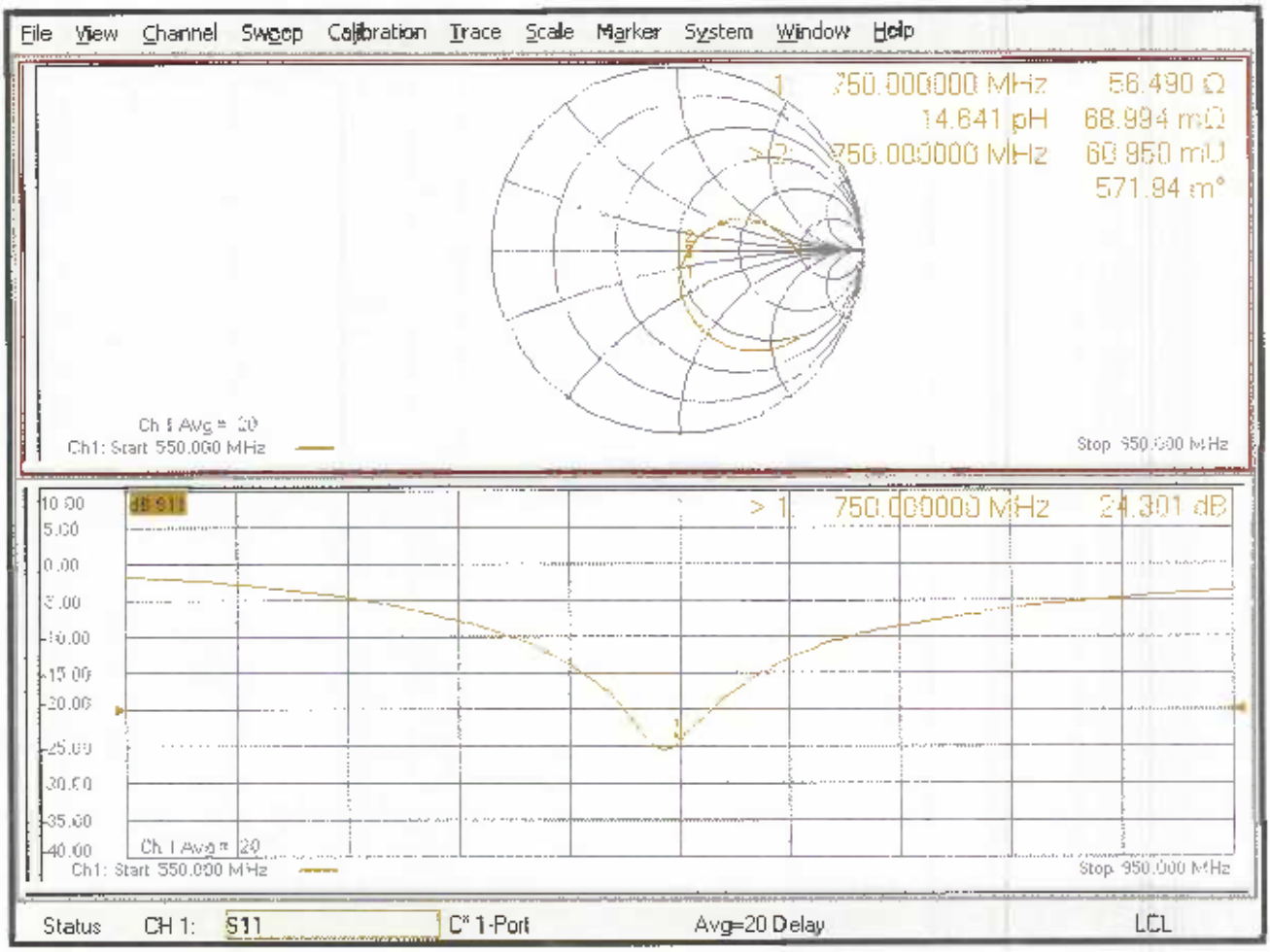
Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.74 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.30 W/kg
SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.41 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 30mm)
Ratio of SAR at M2 to SAR at M1 = 65.5%
Maximum value of SAR (measured) = 2.93 W/kg



0 dB = 2.93 W/kg = 4.67 dBW/kg

Impedance Measurement Plot for Head TSL



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Accreditation No.: SCS 0108

Client RF Exposure Lab

Certificate No: D900V2-1d128_Jun21

CALIBRATION CERTIFICATE

Object: D900V2 - SN:1d128

Calibration procedure(s): QA CAL-05.v11
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz

Calibration date: June 04, 2021

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	09-Apr-21 (No. 217-03291/03292)	Apr-22
Power sensor NRP-Z91	SN: 103244	09-Apr-21 (No. 217-03291)	Apr-22
Power sensor NRP-Z91	SN: 103245	09-Apr-21 (No. 217-03292)	Apr-22
Reference 20 dB Attenuator	SN: BH9394 (20k)	09-Apr-21 (No. 217-03343)	Apr-22
Type-N mismatch combination	SN: 310982 / 06327	09-Apr-21 (No. 217-03344)	Apr-22
Reference Probe EX3DV4	SN: 7349	28-Dec-20 (No. EX3-7349_Dec20)	Dec-21
DAE4	SN: 601	02-Nov-20 (No. DAE4-601_Nov20)	Nov-21

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-20)	In house check: Oct-22
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-21

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 8, 2021

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.5	0.97 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	42.3 ± 6 %	0.96 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.76 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**11.2 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.77 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**7.14 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.0 Ω - 0.6 jΩ
Return Loss	- 36.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.412 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG

Extended Calibration
Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss (<-20 dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB Publication 865664 D01 v01r04.

D900V2 SN: 1d128 - Head						
Date of Measurement	Return Loss (dB)	Δ%	Impedance Real (Ω)	ΔΩ	Impedance Imaginary (jΩ)	ΔΩ
6/4/2021	-38.5		51.0		-0.6	
6/4/2022	-37.2	-3.4	52.3	1.3	-0.8	-0.2

DASY5 Validation Report for Head TSL

Date: 04.06.2021

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:1d128

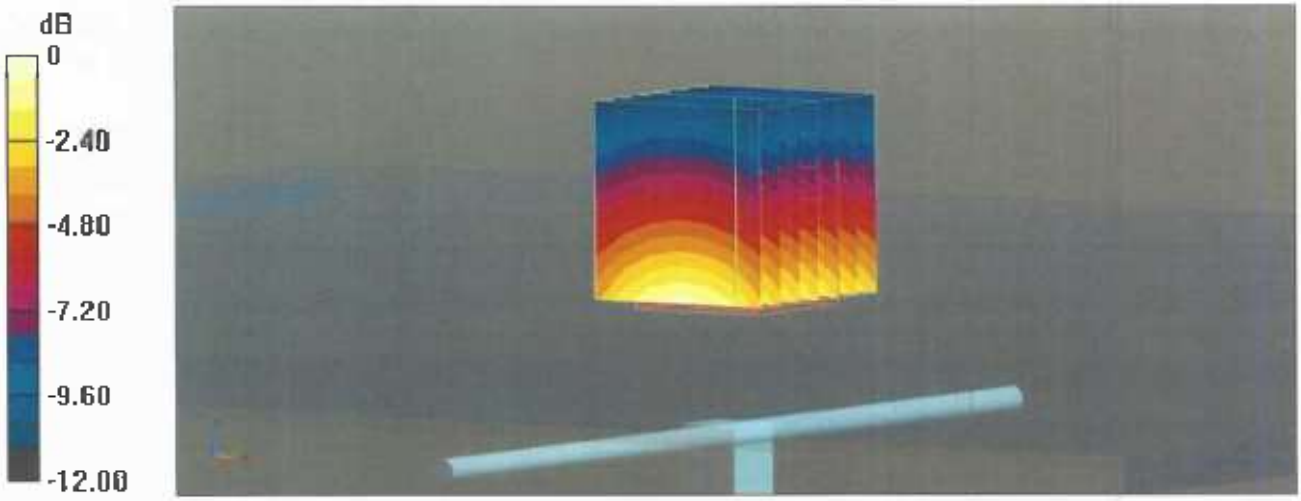
Communication System: UID 0 - CW; Frequency: 900 MHz
Medium parameters used: f = 900 MHz; σ = 0.96 S/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.62, 9.62, 9.62) @ 900 MHz; Calibrated: 28.12.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.11.2020
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

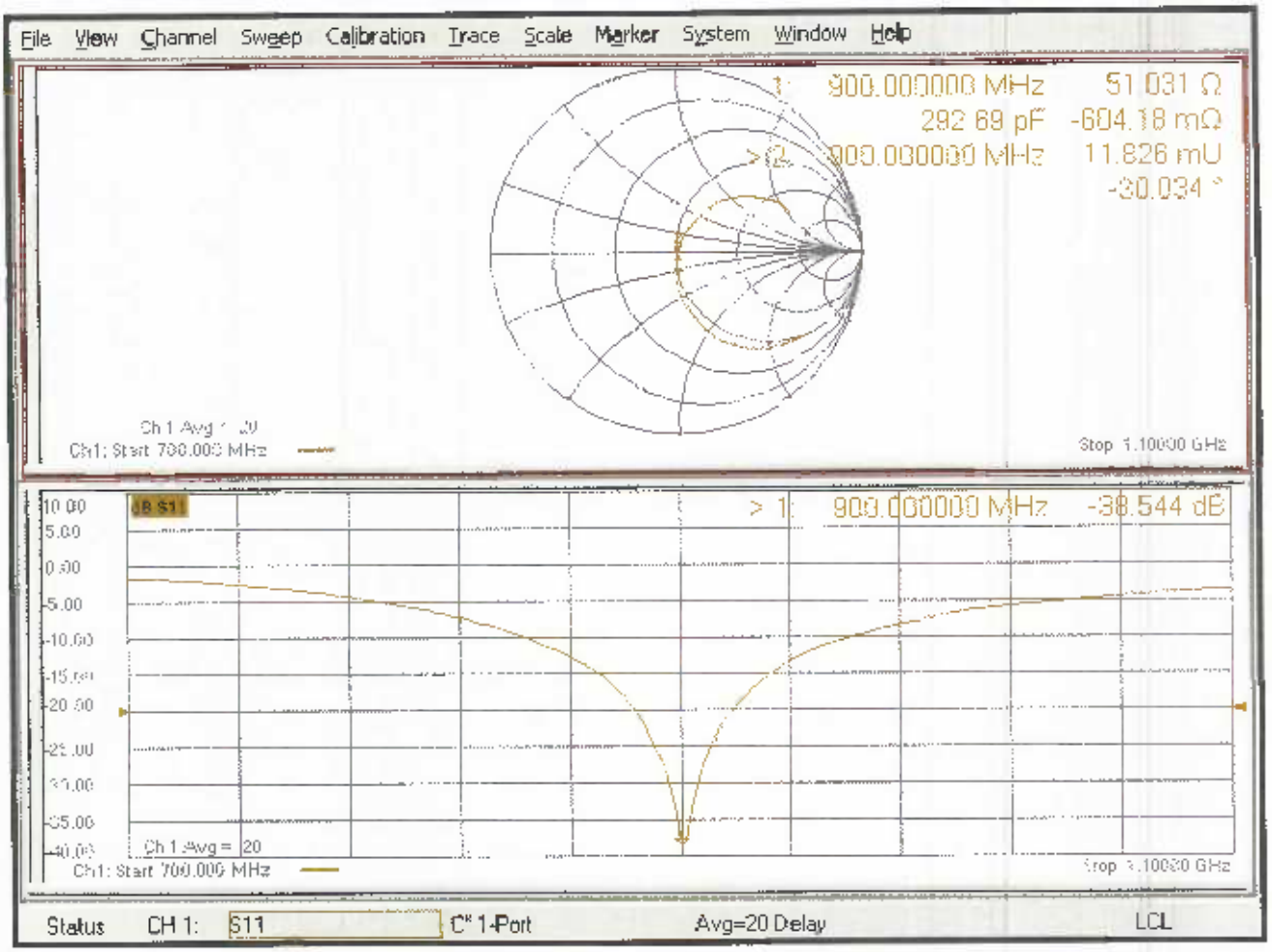
Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 65.79 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 4.23 W/kg
SAR(1 g) = 2.76 W/kg; SAR(10 g) = 1.77 W/kg
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 65%
Maximum value of SAR (measured) = 3.74 W/kg



0 dB = 3.74 W/kg = 5.73 dBW/kg

Impedance Measurement Plot for Head TSL



Appendix F – DAE Calibration Data Sheets

Calibration Laboratory of
Schmid & Partner
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Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 0108

Client **RF Exposure Lab**

Certificate No: DAE4-759_Aug22

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BM - SN: 759
Calibration procedure(s)	QA CAL-06.v30 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	August 16, 2022

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	31-Aug-21 (No:31368)	Aug-22
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Auto DAE Calibration Unit	SE UWS 053 AA 1001	24-Jan-22 (in house check)	In house check: Jan-23
Calibrator Box V2.1	SE UMS 006 AA 1002	24-Jan-22 (in house check)	In house check: Jan-23

	Name	Function	Signature
Calibrated by:	Dominique Steffen	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: August 16, 2022

Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity*: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted*: Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1µV ,	full range =	-100...+300 mV
Low Range:	1LSB =	61nV ,	full range =	-1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	406.175 ± 0.02% (k=2)	406.034 ± 0.02% (k=2)	406.444 ± 0.02% (k=2)
Low Range	3.96849 ± 1.50% (k=2)	4.00926 ± 1.50% (k=2)	3.98616 ± 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	215.0 ° ± 1 °

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	199995.18	-0.71	-0.00
Channel X	+ Input	20001.77	-0.48	-0.00
Channel X	- Input	-20000.28	1.45	-0.01
Channel Y	+ Input	199996.97	1.93	0.00
Channel Y	+ Input	20002.92	0.71	0.00
Channel Y	- Input	-19995.43	6.37	-0.03
Channel Z	+ Input	199996.69	1.68	0.00
Channel Z	+ Input	20000.35	-1.75	-0.01
Channel Z	- Input	-19998.82	3.10	-0.02

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2001.21	0.01	0.00
Channel X	+ Input	200.98	-0.62	-0.31
Channel X	- Input	-197.08	1.15	-0.58
Channel Y	+ Input	2001.10	-0.01	-0.00
Channel Y	+ Input	200.80	-0.65	-0.32
Channel Y	- Input	-198.40	-0.01	0.01
Channel Z	+ Input	2001.69	0.65	0.03
Channel Z	+ Input	199.49	-1.89	-0.94
Channel Z	- Input	-198.55	-0.02	0.01

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	4.82	3.21
	- 200	-2.58	-4.00
Channel Y	200	7.15	7.21
	- 200	-7.57	-8.64
Channel Z	200	-14.83	-15.37
	- 200	13.61	14.08

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	-1.36	-2.04
Channel Y	200	7.49	-	0.08
Channel Z	200	4.40	6.75	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	15759	16113
Channel Y	15677	15705
Channel Z	15961	15101

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	0.68	-0.51	2.09	0.49
Channel Y	0.04	-1.50	2.12	0.56
Channel Z	-0.00	-1.52	1.89	0.61

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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Accreditation No.: SCS 0108

Client **RF Exposure Lab**

Certificate No: DAE4-1217_Feb23

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BJ - SN: 1217
Calibration procedure(s)	QA CAL-06.v30 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	February 14, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	29-Aug-22 (No:34389)	Aug-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	27-Jan-23 (in house check)	In house check: Jan-24
Calibrator Box V2.1	SE UMS 006 AA 1002	27-Jan-23 (in house check)	In house check: Jan-24

	Name	Function	Signature
Calibrated by:	Adrian Gehring	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: February 14, 2023

Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1μV ,	full range =	-100...+300 mV
Low Range:	1LSB =	61nV ,	full range =	-1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	403.728 ± 0.02% (k=2)	404.159 ± 0.02% (k=2)	403.544 ± 0.02% (k=2)
Low Range	3.96075 ± 1.50% (k=2)	3.99910 ± 1.50% (k=2)	3.95128 ± 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	282.0 ° ± 1 °

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	199998.06	3.61	0.00
Channel X	+ Input	20004.03	1.44	0.01
Channel X	- Input	-19999.29	1.91	-0.01
Channel Y	+ Input	199998.59	4.10	0.00
Channel Y	+ Input	20003.11	0.68	0.00
Channel Y	- Input	-20001.61	-0.37	0.00
Channel Z	+ Input	199993.34	-1.05	-0.00
Channel Z	+ Input	20000.75	-1.64	-0.01
Channel Z	- Input	-20002.31	-0.99	0.00

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2003.09	1.39	0.07
Channel X	+ Input	202.30	0.39	0.19
Channel X	- Input	-197.64	0.35	-0.18
Channel Y	+ Input	2002.61	1.16	0.06
Channel Y	+ Input	201.33	-0.48	-0.24
Channel Y	- Input	-198.30	-0.26	0.13
Channel Z	+ Input	2002.06	0.74	0.04
Channel Z	+ Input	200.23	-1.45	-0.72
Channel Z	- Input	-199.25	-1.07	0.54

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-1.27	-3.91
	- 200	5.04	3.07
Channel Y	200	17.98	17.91
	- 200	-19.51	-19.36
Channel Z	200	-13.62	-13.42
	- 200	11.84	11.45

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	0.66	-4.91
Channel Y	200	7.42	-	0.76
Channel Z	200	10.20	5.17	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16287	14305
Channel Y	15792	14215
Channel Z	16818	15854

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	0.55	-0.41	1.58	0.43
Channel Y	-0.44	-2.12	0.86	0.55
Channel Z	-0.77	-2.07	0.55	0.49

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

Appendix G – Phantom Calibration Data Sheets

Schmid & Partner Engineering AG

s p e a g

Zeughausstrasse 43, 8004 Zurich, Switzerland
Phone +41 44 245 9700, Fax +41 44 245 9779
info@speag.com, http://www.speag.com

Certificate of Conformity / First Article Inspection

Item	Oval Flat Phantom ELI 4.0
Type No	QD OVA 001 B
Series No	1003 and higher
Manufacturer	Untersee Composites Knebelstrasse 8 CH-8268 Mannenbach, Switzerland

Tests

Complete tests were made on the prototype units QD OVA 001 AA 1001, QD OVA 001 AB 1002, pre-series units QD OVA 001 BA 1003-1005 as well as on the series units QD OVA 001 BB, 1006 ff.

Test	Requirement	Details	Units tested
Material thickness	Compliant with the standard requirements	Bottom plate: 2.0mm +/- 0.2mm	all
Material parameters	Dielectric parameters for required frequencies	< 6 GHz: Rel. permittivity = 4 +/-1, Loss tangent ≤ 0.05	Material sample
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards if handled and cleaned according to the instructions.	DGBE based simulating liquids. Observe Technical Note for material compatibility.	Equivalent phantoms. Material sample
Shape	Thickness of bottom material, Internal dimensions, Sagging compatible with standards from minimum frequency	Bottom elliptical 600 x 400 mm Depth 190 mm. Shape is within tolerance for filling height up to 155 mm, Eventual sagging is reduced or eliminated by support via DUT	Prototypes, Sample testing

Standards

[1] CENELEC EN 50361-2001, « Basic standard for the measurement of the Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz – 3 GHz) », July 2001

[2] IEEE 1528-2003, "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques, December 2003

[3] IEC 62209 – 1, "Specific Absorption Rate (SAR) in the frequency range of 300 MHz to 3 GHz – Measurement Procedure, Part 1: Hand-held mobile wireless communication devices", February 2005

[4] IEC 62209 – 2, Draft, "Human Exposure to Radio Frequency Fields from Handheld and Body-Mounted Wireless Communication Devices - Human models, Instrumentation and Procedures – Part 2: Procedure to determine the Specific Absorption Rate (SAR) in the head and body for 30 MHz to 6 GHz Handheld and Body-Mounted Devices used in close proximity to the Body.', February 2005

[5] OET Bulletin 65, Supplement C, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition January 2001

Based on the tests above, we certify that this item is in compliance with the standards [1] to [5] if operated according to the specific requirements and considering the thickness. The dimensions are fully compliant with [4] from 30 MHz to 6 GHz. For the other standards, the minimum lower frequency limit is limited due to the dimensional requirements ([1]: 450 MHz, [2]: 300 MHz, [3]: 800 MHz, [5]: 375 MHz) and possibly further by the dimensions of the DUT

Date 28.4.2008 **Signature / Stamp**

s p e a g
Schmid & Partner Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland
Phone +41 44 245 9700, Fax +41 44 245 9779
info@speag.com, http://www.speag.com