

TEST REPORT

FCC SAR Part 1 Test for SM-X400
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-SR-2506-FC019

DATE OF ISSUE
June 26, 2025

Tested by
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TEST REPORT

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FCC ID

A3LSMX400

Applicant

SAMSUNG Electronics Co., Ltd

129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677, Korea

Product Name

Tablet

Model Name

SM-X400

Date of Test

Jun. 19, 2025~ Jun. 23, 2025

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing Lab

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si,
Gyeonggi-do, Republic of Korea)

FCC Rule Part(s)

CFR § 2.1093

Test Results

PASS (SAR Limit : 1.6 W/kg)

Refer to the clause 3.2 Attestation of test result

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	Jun. 26, 2025	Initial Release

Notice

Content

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. Test Regulations

The tests documented in this report were performed in accordance with FCC CFR § 2.1093, IEEE 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- FCC KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB Publication 447498 D01 General RF Exposure Guidance v06
- FCC KDB Publication 484596 D01 Referencing Test Data v02r03
- FCC KDB Publication 616217 D04 SAR Tablets v01r02

In Addition to the above, the following information was used.

- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- April 2019 TCB Workshop Notes (Tissue Simulating Liquid (TSL))
- October 2016 TCB Workshop Notes (DUT Holder Perturbations)
- April 2019 TCBC Workshop Notes (IEEE 802.11ax)

2. Test Location

2.1 Test Laboratory

Company Name	HCT Co., Ltd.
Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Telephone	031-645-6300
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2.2 Test Facilities

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Korea	National Radio Research Agency (Designation No. KR0032)
	KOLAS (Testing No. KT197)

3. Information of the EUT

3.1 General Information of the EUT

Model Name	SM-X400
Equipment Type	Tablet
FCC ID	A3LSMX400
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

3.2 Attestation of test result of device under test

The Highest Reported SAR			
Band	Tx. Frequency	Equipment Class	Reported Body SAR
			1g (W/kg)
2.4 GHz WLAN	2 412 MHz ~ 2 472 MHz	DTS	1.08
U-NII-1	5 180 MHz ~ 5 240 MHz	NII	N/A
U-NII-2A	5 260 MHz ~ 5 320 MHz	NII	0.87
U-NII-2C	5 500 MHz ~ 5 720 MHz	NII	1.24
U-NII-3	5 745 MHz ~ 5 825 MHz	NII	0.92
U-NII-4	5 845 MHz ~ 5 885 MHz	NII	0.92
Bluetooth	2 402 MHz ~ 2 480 MHz	DSS	0.88
Simultaneous SAR per KDB 690783 D01v01r03			1.045
Date(s) of Tests:		Jun. 19, 2025~ Jun. 23, 2025	

Summary table of SAR measurement results	
SAR test Configuration	The Highest SAR (W/kg)
Body-SAR	1.24
Simultaneous transmission	1.045

4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
U-NII-1	Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Data	5 745 MHz ~ 5 825 MHz
U-NII-4	Data	5 845 MHz ~ 5 885 MHz
2.4 GHz WLAN	Data	2 412 MHz ~ 2 472 MHz
Bluetooth / LE 5.3	Data	2 402 MHz ~ 2 480 MHz
S-Pen	Data	531.25 kHz, 562.5 kHz, 593.75 kHz
Device Description		
Battery	EB-BX526ABY (ATL)	
Cover	EF-DX720(Variant 1), EF-DX725(Variant 2)	
S Pen	CP-911-21B (WACOM)	
Device Serial Numbers	Mode	Serial Number
	WLAN 2.4G	YFC0206M
	WLAN 5G, BT	YFC0210M
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	

4.2 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN operations when during the user's proximity to the human body scenarios. The reduced powers for the power reduction mechanisms were conformed via conducted power measurements at the RF Port.

4.3 Nominal and Maximum Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

a. Maximum Power

Mode	Band	SISO (2.4GHz : ANT1 / 5GHz : ANT2)						MIMO					
		a	b	g	n	ac	ax	a	b	g	n	ac	ax
							(SU)						(SU)
2.4GHz	1-10ch		18	15	15	15	15		21	18	18	18	18
	11ch		18	12.5	12.5	12.5	12.5		21	15.5	15.5	15.5	15.5
	12ch		2	2	2	2	2		5	5	5	5	5
	13ch		0	-10	-10	-10	-10		3	-7	-7	-7	-7
5GHz (20MHz)	UNII 1	16			16	16	16	19			19	19	19
	UNII 2A	16			16	16	16	19			19	19	19
	UNII 2C	16			16	16	16	19			19	19	19
	UNII 3	16			16	16	16	19			19	19	19
	UNII 4	16			16	16	16	19			19	19	19
5GHz (40MHz)	UNII 1				14 ch38:12	14 ch38:12	14 ch38:12				17 ch38:15	17 ch38:15	17 ch38:15
	UNII 2A				14	14	14				17	17	17
	UNII 2C				14	14	14				17	17	17
	UNII 3				14	14	14				17	17	17
	UNII 4				14	14	14				17	17	17
5GHz (80MHz)	UNII 1					11.5	11.5					14.5	14.5
	UNII 2A					11.5	11.5					14.5	14.5
	UNII 2C					11.5	11.5					14.5	14.5
	UNII 3					11.5	11.5					14.5	14.5
	UNII 4					11.5	11.5					14.5	14.5
Tolerance: +1 dB													

b. 11ax RU Maximum Power

SISO (2.4GHz : ANT1 / 5GHz : ANT2)				
		5G/20Mhz	5G/40Mhz	5G/80Mhz
	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index
26T	11.5 (12ch:2) (13ch:-10)	8.5(100ch:6.5)	8	7
52T	11.5 (12ch:2) (13ch:-10)	8.5(100ch:6.5)	8	7
106T	11.5 (12ch:2) (13ch:-10)	8.5(100ch:6.5)	8	7
242T	11.5 (12ch:2) (13ch:-10)	8.5(100ch:6.5)	8	7
484T			8	7
996T				7
996Tx2				
996Tx4				
MIMO				
Tones	2.4G			
		5G/20Mhz	5G/40Mhz	5G/80Mhz
	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index
26T	14.5 (12ch:5) (13ch:-7)	11.5(100ch:9.5)	11	10
52T	14.5 (12ch:5) (13ch:-7)	11.5(100ch:9.5)	11	10
106T	14.5 (12ch:5) (13ch:-7)	11.5(100ch:9.5)	11	10
242T	14.5 (12ch:5) (13ch:-7)	11.5(100ch:9.5)	11	10
484T			11	10
996T				10
996Tx2				
996Tx4				
Tolerance: +1 dB				

c. Reduced Power

Mode	Band	SISO (2.4GHz : ANT1 / 5GHz : ANT2)						MIMO					
		a	b	g	n	ac	ax	a	b	g	n	ac	ax
							(SU)						(SU)
2.4GHz	1-10ch		10	10	10	10	10		13	13	13	13	13
	11ch		10	10	10	10	10		13	13	13	13	13
	12ch		2	2	2	2	2		5	5	5	5	5
	13ch		0	-10	-10	-10	-10		3	-7	-7	-7	-7
5GHz (20MHz)	UNII 1	5			5	5	5	8			8	8	8
	UNII 2A	5			5	5	5	8			8	8	8
	UNII 2C	5			5	5	5	8			8	8	8
	UNII 3	5			5	5	5	8			8	8	8
	UNII 4	5			5	5	5	8			8	8	8
5GHz (40MHz)	UNII 1				5	5	5				8	8	8
	UNII 2A				5	5	5				8	8	8
	UNII 2C				5	5	5				8	8	8
	UNII 3				5	5	5				8	8	8
	UNII 4				5	5	5				8	8	8
5GHz (80MHz)	UNII 1					5	5					8	8
	UNII 2A					5	5					8	8
	UNII 2C					5	5					8	8
	UNII 3					5	5					8	8
	UNII 4					5	5					8	8
Tolerance: +1 dB													

d. 11ax RU Reduced Power

SISO (2.4GHz : ANT1 / 5GHz : ANT2)				
		5G/20Mhz	5G/40Mhz	5G/80Mhz
	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index
26T	10(11ch:10/13ch:-10) (12ch:2)	5	5	5
52T	10(11ch:10/13ch:-10) (12ch:2)	5	5	5
106T	10(11ch:10/13ch:-10) (12ch:2)	5	5	5
242T	10(11ch:10/13ch:-10) (12ch:2)	5	5	5
484T			5	5
996T				5
996Tx2				
996Tx4				
MIMO				
Tones	2.4G			
		5G/20Mhz	5G/40Mhz	5G/80Mhz
	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index
26T	13(11ch:13/13ch:-7) (12ch:5)	8	8	8
52T	13(11ch:13/13ch:-7) (12ch:5)	8	8	8
106T	13(11ch:13/13ch:-7) (12ch:5)	8	8	8
242T	13(11ch:13/13ch:-7) (12ch:5)	8	8	8
484T			8	8
996T				8
996Tx2				
996Tx4				
Tolerance: +1 dB				

e. Bluetooth Maximum and Reduced Conducted Output Power in Conducted Mode

- Maximum Power

Mode	Frequency	Target power (dBm)
Bluetooth BDR (in dBm)	2402	16
	2440	
	2480	
Bluetooth EDR (in dBm)	2402	10
	2440	
	2480	
Bluetooth LE (in dBm)	2402	9
	2440	
	2480	

-Reduced Power

Mode	Frequency	Target power(dBm)
Bluetooth BDR (in dBm)	2402	12
	2440	
	2480	
Bluetooth EDR (in dBm)	2402	10
	2440	
	2480	
Bluetooth LE (in dBm)	2402	9
	2440	
	2480	

(Upper Tolerance: target ~+1.0 dB)

4.4 SAR Summation Scenario

According to FCC KDB 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the EUT are shown below paths and are mode in same rectangle to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB 447498 D01v06.

BT	2.4G		5G		Scenario
Ant. 1	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
O	X	X	X	X	Bluetooth Ant. 1
O	X	X	X	O	Bluetooth Ant. 1 + 5GHz Wi-Fi Ant.2
O	X	X	O	O	Bluetooth Ant. 1 + 5GHz Wi-Fi MIMO
X	O	X	X	X	2.4GHz Wi-Fi Ant. 1
X	O	O	X	X	2.4GHz Wi-Fi MIMO
X	X	X	X	O	5GHz Wi-Fi Ant. 2
X	X	X	O	O	5GHz Wi-Fi MIMO

Note:

1. 2.4 GHz Bluetooth and 2.4 GHz WLAN cannot transmit simultaneously.
2. 2.4 GHz WLAN and 5 GHz WLAN cannot transmit simultaneously.
3. The highest reported SAR for each exposure condition is used for SAR summation purpose.
4. Wi-Fi Hotspot is supported for 2.4 GHz/UNII-3 of 5 GHz WLAN.
5. This device supports 2x2 MIMO Tx for WLAN 802.11a/b/g/n/ac/ax. 802.11a/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM. Each WLAN antenna can transmit independently or together when operating with MIMO.
6. This device supports Bluetooth tethering

4.5 SAR Test Considerations

4.5.1 WiFi

Since wireless router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A and U-NII-2C WiFi, WiFi Hotspot SAR test and combinations are considered only 2.4 GHz and U-NII-3 for SAR with respect to wireless router configurations according to FCC KDB 941225 D06v02r01.

Since U-NII-1 and U-NII-2A Bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg for 1g SAR and is less than 3.0 W/kg for 10g SAR, SAR is not required for U-NII-1 Band according to FCC KDB 248227D01v02r02.

This device supports IEEE 802.11ax with the following features:

- a) Up to 80 MHz Bandwidth only for 5 GHz
- b) Up to 20 MHz Bandwidth only for 2.4 GHz
- c) 2Tx antenna output
- d) Up to 1024 QAM is supported
- e) TDWR and Band gap channels are supported for 5 GHz

Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode.

5. Introduction

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields,” NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

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

Figure 1. SAR Mathematical Equation

SAR is expressed in units of Watts per Kilogram (W/kg)

Where:

- = conductivity of the tissue-simulant material (S/m)
- = mass density of the tissue-simulant material (kg/m^3)
- = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY4 automated dosimetric assessment system. It is made by Schmid& Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III 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 Figure.2).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC with Windows XP or Windows 7 or Window 10 or Window 11 is working with SAR Measurement system DASY4 & DASY5 & DASY6 & DASY8 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 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.

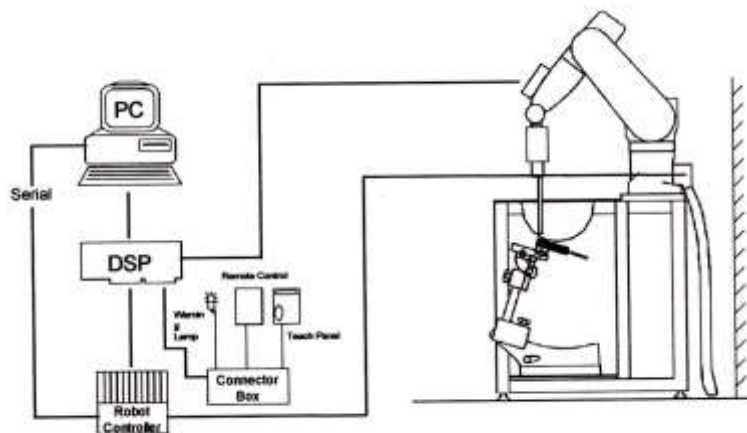


Figure 2. HCT SAR Lab. Test Measurement Set-up

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. 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.

7. SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013.

1. The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the IEC/IEEE 62209-1528-2020.
2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.
3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)
 - a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 mm away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.
 - b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.
 - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.

Area scan and zoom scan resolution setting follow KDB 865664 D01v01r04 quoted below.

			$\leq 3 \text{ GHz}$	$> 3 \text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			$5 \pm 1 \text{ mm}$	$\cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan Spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$			$\leq 2 \text{ GHz: } \leq 15 \text{ mm}$ $2\text{-}3 \text{ GHz: } \leq 12 \text{ mm}$	$3\text{-}4 \text{ GHz: } \leq 12 \text{ mm}$ $4\text{-}6 \text{ GHz: } \leq 10 \text{ mm}$
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan Spatial resolution: $\Delta x_{\text{zoom}}, \Delta y_{\text{zoom}}$			$\leq 2 \text{ GHz: } \leq 8 \text{ mm}$ $2\text{-}3 \text{ GHz: } \leq 5 \text{ mm}^*$	$3\text{-}4 \text{ GHz: } \leq 5 \text{ mm}^*$ $4\text{-}6 \text{ GHz: } \leq 4 \text{ mm}^*$
Maximum zoom scan Spatial resolution normal to phantom surface	uniform grid: $\Delta z_{\text{zoom}}(n)$		$\leq 5 \text{ mm}$	$3\text{-}4 \text{ GHz: } \leq 4 \text{ mm}$ $4\text{-}5 \text{ GHz: } \leq 3 \text{ mm}$ $5\text{-}6 \text{ GHz: } \leq 2 \text{ mm}$
	graded grid	$\Delta z_{\text{zoom}}(1)$: between 1 st two Points closest to phantom surface	$\leq 4 \text{ mm}$	$3\text{-}4 \text{ GHz: } \leq 3 \text{ mm}$ $4\text{-}5 \text{ GHz: } \leq 2.5 \text{ mm}$ $5\text{-}6 \text{ GHz: } \leq 2 \text{ mm}$
		$\Delta z_{\text{zoom}}(n>1)$: between subsequent Points	$\leq 1.5 \cdot \Delta z_{\text{zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		$\geq 30 \text{ mm}$	$3\text{-}4 \text{ GHz: } \geq 28 \text{ mm}$ $4\text{-}5 \text{ GHz: } \geq 25 \text{ mm}$ $5\text{-}6 \text{ GHz: } \geq 22 \text{ mm}$
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is $\leq 1.4 \text{ W/kg}$, $\leq 8 \text{ mm}$, $\leq 7 \text{ mm}$ and $\leq 5 \text{ mm}$ zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

8. Description of Test Position

8.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ϵ and loss tangent $\delta=0.02$.

8.2 SAR Testing for Tablet Per KDB Publication 616217 D04v01r02

Per FCC KDB Publication 616217 D04v01r02, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configuration. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

8.3 Proximity Sensor Considerations.

This device uses a sensor to reduce output powers in certain use conditions when the device is used close the user's body.

When the sensor detects a user is touching the device on or near to the antenna the device reduces the maximum allowed output power. However, the proximity sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, an additional exposure condition is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level.

FCC KDB 616217 D04 Section 8 and additional FCC guidance were used as a guideline for selecting SAR test distances for this device at these additional exposure conditions. The smallest separation distance determined by the sensor triggering and sensor coverage for each applicable edge, minus 1 mm, was used as the test separation distance for SAR testing. Sensor triggering distance evaluation is provided in a separate document.

The required separation distance to evaluate SAR at full powers were:

Wireless technologies	Position	§ 6.2 Triggering Distance [mm]	§ 6.3 Coverage	§ 6.4 Tilt Angle	Worst case distance for Body SAR [mm]
WIFI Ant1 (Grip #1)	Rear	20	N/A	N/A	19
	Front	19	N/A	N/A	18
	Top	23	N/A	N/A	22
	Right	12	N/A	N/A	11
WIFI Ant2 (Grip #3)	Rear	20	N/A	N/A	19
	Front	20	N/A	N/A	19
	Top	26	N/A	N/A	25
	Left	11	N/A	N/A	10

9. RF Exposure Limits

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg)	CONTROLLED ENVIRONMENT Occupational (W/kg)
SPATIAL PEAK SAR * (Partial Body)	1.6	8.0
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.4
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.0	20.0

NOTES:

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

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

*** The Spatial Peak value of the SAR averaged over any 10 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

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

10. FCC SAR General Measurement Procedures

Power Measurements for licensed transmitters are performed using a base simulator under digital average power.

10.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as Reported SAR. The highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

10.2 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

10.2.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR system to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92-96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

10.2.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII2A Bands, when the same maximum output power is specified for both Bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR. When different maximum output powers are specified for the Bands, SAR measurement for the U-NII Band with the lower maximum output power is not required unless the highest reported SAR for the U-NII Band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two Bands, is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR.

10.2.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 GHz – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 GHz – 5.65 GHz in U-NII-2C Band must be disabled with acceptable mechanisms and documented in the equipment certification.

Unless Band gap channels are permanently disabled, SAR must be considered for these channels.

10.2.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test positions are measured.

10.2.5 2.4 GHz SAR test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

- 1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS is that exposure configuration.
- 2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz Band, the Initial Test Configuration Procedures should be followed.

10.2.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 GHz and 5 GHz Bands, when the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency Band or aggregated Band, SAR is measured using the configuration with the largest channel Bandwidth, lowest order modulation and lowest data rate and lowest order 802.11 a/g/n/ac mode. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11 ac or 802.11g and 802.11n with the same channel Bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency Band or aggregated Band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

10.2.7 Initial Test Configuration Procedure

For OFDM, in both 2.4 GHz and 5 GHz Bands, an initial test configuration is determined for each frequency Band and aggregated Band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency Band or aggregated Band, SAR is measured using the configuration(s) with the largest channel Bandwidth, lowest order modulation, and lowest data rate. If the average RF output powers of the highest identical transmission modes are within 0.25 dB of each other, mid channel of the transmission mode with highest average RF output power is the initial test channel. Otherwise, the channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements.

10.2.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency Band and aggregated Band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position on procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg for 1g SAR and ≤ 3.0 W/kg for 10g SAR, no additional SAR tests for the subsequent test configurations are required.

11. Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

Licensed Bands

Test Description	Test Procedure Used
Conducted Output Power	- KDB 971168 D01 v03r01 – Section 5.2.4 - ANSI C63.26-2015 – Section 5.2.1 & 5.2.4.2

Test Overview

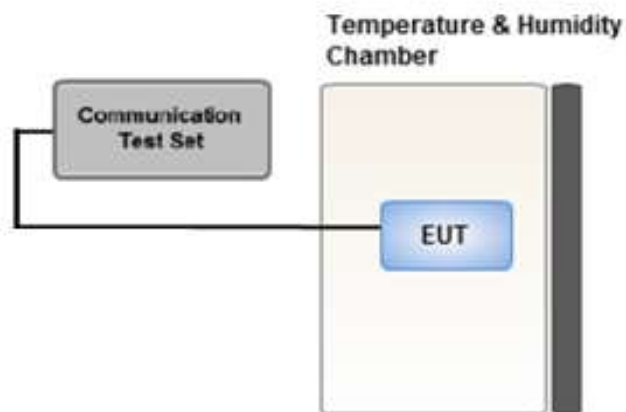
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base station emulator, communications test set, call box, or similar instrumentation that is capable of establishing a communications link with the EUT to enable control over variable parameters (e.g., output power, OBW, etc.).

In some cases, these instruments also include basic digital spectrum analyzer and/or power meter capabilities that can be utilized to measure the RF output power if the specified detectors and requirements can be realized and the measurement functions have been calibrated.

Test Procedure

1. The RF port of the EUT was connected to the Communication Tester via an RF cable.
2. Conducted average power was measured using a calibrated Radio Communication Tester.

Test setup



11.1 WIFI Conducted Power measurement method

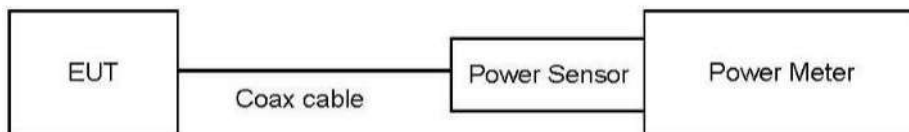
Un-Licensed Bands (DTS Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 558074 v05 – Section 8.3.2.3 - ANSI 63.10-2013 – Section 11.9.2.3

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



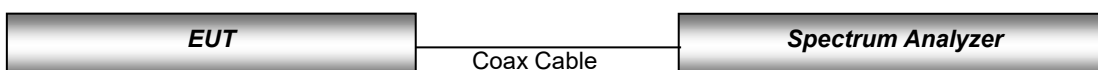
Un-Licensed Bands (NII Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 789033 D02 v02r01 – Section E.3.a

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



11.1.1 IEEE 802.11 (2.4 GHz) Maximum and Reduced Conducted Power

Mode	Frequency [MHz]	Channel	Pmax		
			IEEE 802.11 (2.4 GHz) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11b	2 412	1	18.40	17.71	21.08
	2 437	6	18.32	17.34	20.87
	2 462	11	18.41	18.13	21.28

Mode	Frequency [MHz]	Channel	Plimit		
			IEEE 802.11 (2.4 GHz) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11b	2 412	1	10.35	10.85	13.62
	2 437	6	10.46	9.96	13.23
	2 462	11	10.87	10.79	13.84

11.1.2 IEEE 802.11 (5 GHz) Maximum and Reduced Conducted Power

Frequency [MHz]	Channel	Maximum Power		
		IEEE 802.11 a (20 MHz BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 180	36	15.90	16.01	18.96
5 200	40	15.76	16.05	18.91
5 240	48	16.44	16.10	19.28
5 260	52	16.48	16.11	19.30
5 300	60	16.14	15.93	19.04
5 320	64	15.76	16.00	18.89
5 500	100	16.16	15.95	19.06
5 580	116	16.25	15.98	19.13
5 720	144	16.46	16.09	19.28
5 745	149	15.90	15.94	18.93
5 785	157	16.03	15.83	18.94
5 825	165	17.05	15.95	19.54
5 845	169	16.44	15.99	19.23
5 865	173	15.90	16.03	18.97
5 885	177	16.28	16.04	19.17

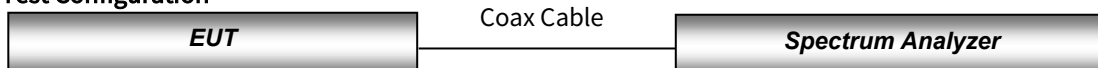
Frequency [MHz]	Channel	Reduced Power		
		IEEE 802.11 ac (80 MHz BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 210	42	5.49	5.02	8.27
5 290	58	5.62	5.57	8.60
5 530	106	5.91	5.64	8.79
5 610	122	5.94	5.34	8.66
5 690	138	5.23	5.62	8.44
5 775	155	5.72	5.34	8.54
5 855	171	5.64	5.52	8.59

Note:

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission mode with the same maximum output power specification, powers were measured for the largest channel Bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel Bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-Band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-Band channels, due to an even number of channels, both channels were measured.

Test Configuration



11.2 Bluetooth Maximum Conducted Power

11.2.1 Bluetooth Maximum Conducted Power

The Burst Averaged-conducted power

Mode	Channel	Max. Average Conducted Power [dBm]
		Ant.1 (PL11)
DH5	0	15.23
	39	15.42
	78	15.24

11.2.2 Bluetooth Reduced Conducted Power (Grip)

The Burst Averaged-conducted power

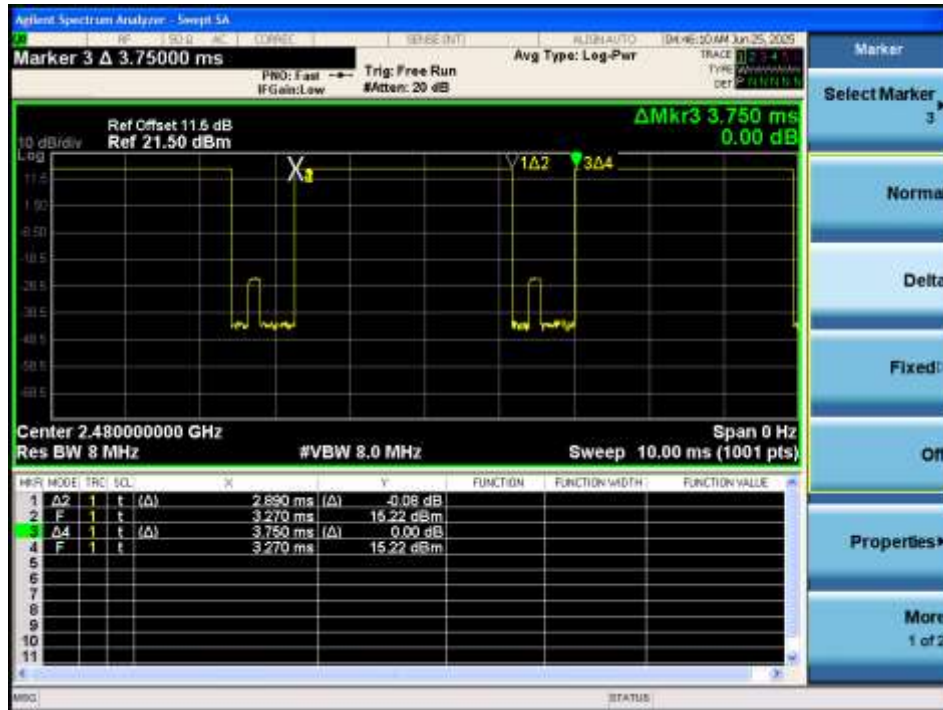
Mode	Channel	Max. Average Conducted Power [dBm]
		Ant.1 (PL11)
DH5	0	11.35
	39	11.54
	78	11.36

Per October 2016 TCB Workshop Notes:

When call box and Bluetooth protocol are used for Bluetooth SAR measurement, time-domain plot is required to identify duty factor for supporting the test setup and result.

Bluetooth duty cycle was measured using Bluetooth tester equipment (CBT / R&S) with Bluetooth.

Bluetooth Duty cycle Measurement results



BT DH5 Maximum Duty Factor:

Mode	On time	Full time	Duty Cycle
DH5	2.890	3.750	0.771

The maximum duty cycle defined by chipset manufacturer is 78.0 % The duty cycle of DH5 measured by DUT was 77.1 %, and the measured SAR results was compensated by applying the maximum duty cycle

12. System Verification

12.1 Tissue Verification

The head simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ϵ	Target Conductivity σ (S/m)	Target Dielectric Constant, ϵ	% dev σ	% dev ϵ
06/20/2025	23.2	2 450H	2 400	1.739	39.150	1.756	39.290	-0.97	-0.36
			2 450	1.794	38.970	1.800	39.200	-0.33	-0.59
			2 500	1.850	38.810	1.855	39.140	-0.27	-0.84
06/23/2025	22.4	2 450H	2 400	1.729	39.120	1.756	39.290	-1.54	-0.43
			2 450	1.785	38.929	1.800	39.200	-0.83	-0.69
			2 500	1.837	38.790	1.855	39.140	-0.97	-0.89
06/19/2025	22.5	5 180H-5 320H	5 180	4.695	35.480	4.635	36.010	1.29	-1.47
			5 250	4.784	35.249	4.706	35.930	1.66	-1.90
			5 280	4.818	35.180	4.737	35.894	1.71	-1.99
			5 320	4.883	35.130	4.778	35.846	2.20	-2.00
		5 500H-5 600H	5 500	5.038	34.960	4.963	35.640	1.51	-1.91
			5 600	5.145	34.777	5.065	35.530	1.58	-2.12
			5 750	5.369	34.686	5.219	35.360	2.87	-1.91
		5 750H-5 825H	5 800	5.291	34.691	5.270	35.300	0.40	-1.73
			5 825	5.259	34.650	5.296	35.270	-0.70	-1.76
		5800H-5885H	5 800	5.291	34.691	5.270	35.300	0.40	-1.73
			5 835	5.253	34.625	5.306	35.258	-1.00	-1.80
			5 845	5.245	34.585	5.316	35.246	-1.34	-1.88
			5 855	5.240	34.535	5.326	35.235	-1.61	-1.99
			5 865	5.241	34.500	5.337	35.225	-1.80	-2.06
			5 875	5.243	34.440	5.347	35.215	-1.95	-2.20
5 885	5.249		34.380	5.357	35.205	-2.02	-2.34		
06/20/2025	21.4	5 180H-5 320H	5 180	4.687	35.450	4.635	36.010	1.12	-1.56
			5 250	4.780	35.200	4.706	35.930	1.57	-2.03
			5 280	4.815	35.160	4.737	35.894	1.65	-2.04
			5 320	4.878	35.110	4.778	35.846	2.09	-2.05
		5 500H-5 600H	5 500	5.029	34.940	4.963	35.640	1.33	-1.96
			5 600	5.140	34.800	5.065	35.530	1.48	-2.05
			5 750	5.360	34.700	5.219	35.360	2.70	-1.87
		5 750H-5 825H	5 800	5.290	34.700	5.270	35.300	0.38	-1.70
			5 825	5.256	34.640	5.296	35.270	-0.76	-1.79
		5800H-5885H	5 800	5.290	34.700	5.270	35.300	0.38	-1.70
			5 835	5.247	34.615	5.306	35.258	-1.11	-1.82
			5 845	5.240	34.575	5.316	35.246	-1.43	-1.90
			5 855	5.238	34.520	5.326	35.235	-1.65	-2.03
			5 865	5.236	34.475	5.337	35.225	-1.89	-2.13
			5 875	5.238	34.430	5.347	35.215	-2.04	-2.23
5 885	5.244		34.370	5.357	35.205	-2.11	-2.37		

12.2 System Verification

Input Power: 50 mW

Freq.	Date	Probe	Dipole	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR _{1g} (SPEAG)	50 mW Measured SAR _{1g}	1 W Normalized SAR _{1g}	Deviation	Limit
[MHz]		(S/N)	(S/N)		[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
2 450	06/20/2025	7680	1049	Head	23.3	23.2	52.6	2.69	53.8	+ 2.28	± 10
2 450	06/23/2025	7680	1049	Head	22.5	22.4	52.6	2.69	53.8	+ 2.28	± 10
5 250	06/19/2025	7680	1107	Head	22.6	22.5	80.2	4.21	84.2	+ 4.99	± 10
5 250	06/20/2025	7681	1107	Head	21.5	21.4	80.2	4.06	81.2	+ 1.25	± 10
5 600	06/19/2025	7680	1107	Head	22.6	22.5	82.1	4.22	84.4	+ 2.80	± 10
5 600	06/20/2025	7681	1107	Head	21.5	21.4	82.1	3.91	78.2	- 4.75	± 10
5 750	06/19/2025	7680	1107	Head	22.6	22.5	79.9	4.11	82.2	+ 2.88	± 10
5 750	06/20/2025	7681	1107	Head	21.5	21.4	79.9	3.80	76.0	- 4.88	± 10
5 800	06/19/2025	7680	1107	Head	22.6	22.5	79.3	4.18	83.6	+ 5.42	± 10
5 800	06/20/2025	7681	1107	Head	21.5	21.4	79.3	3.99	79.8	+ 0.63	± 10

12.3 SAR Test System Verification Procedure

SAR measurement was prior to assessment; the system is verified to the $\pm 10\%$ of the specifications at each frequency Band by using the system verification kit. (Graphic Plots Attached)

- Cabling the system, using the verification kit equipment.
- Dipole antenna was placed below the flat phantom.
- The measured one-gram SAR at the surface of the phantom above the dipole feed-point should be within 10 % of the target reference value.

Note;

SAR Verification was performed according to the FCC KDB 865664 D01v01r04.

13. SAR Test Data Summary

13.1 Body SAR Measurement Results

DTS Body SAR																		
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
2 462	11	802.11b	1	20	1	11.0	10.87	-0.14	Rear	98.9	Active	0	2.15	0.779	1.030	1.011	0.811	
2 412	1	802.11b	1	20	1	11.0	10.15	-0.15	Rear	98.9	Active	0	1.54	0.503	1.216	1.011	0.618	
2 437	6	802.11b	1	20	1	11.0	10.46	0.01	Rear	98.9	Active	0	1.38	0.449	1.132	1.011	0.514	
2 462	11	802.11b	1	20	1	11.0	10.87	0.16	Right	98.9	Active	0	1.63	0.996	1.030	1.011	1.037	
2 412	1	802.11b	1	20	1	11.0	10.15	0.17	Right	98.9	Active	0	1.64	0.875	1.216	1.011	1.076	B1
2 437	6	802.11b	1	20	1	11.0	10.46	0.15	Right	98.9	Active	0	1.39	0.684	1.132	1.011	0.783	
2 462	11	802.11b	1	20	1	11.0	10.87	0.15	Top	98.9	Active	0	0.642	0.338	1.030	1.011	0.352	
2 462	11	802.11b	1	20	1	19.0	18.41	-0.11	Rear	98.9	Inactive	19	0.161	0.108	1.146	1.011	0.125	
2 462	11	802.11b	1	20	1	19.0	18.41	0.14	Right	98.9	Inactive	11	0.687	0.415	1.146	1.011	0.481	
2 462	11	802.11b	1	20	1	19.0	18.41	0.16	Top	98.9	Inactive	22	0.10	0.066	1.146	1.011	0.076	
2 462	11	802.11b	1	20	1	11.0	10.87	0.15	Right	98.9	Active	0	1.20	0.724	1.030	1.011	0.754	•
2 412	1	802.11b	1	20	1	11.0	10.15	0.19	Right	98.9	Active	0	1.31	0.753	1.216	1.011	0.926	#
2 412	1	802.11b	1	20	1	11.0	10.15	-0.05	Right	98.9	Active	0	1.36	0.739	1.216	1.011	0.909	##
2 462	11	802.11b	1+2	20	1	14.0	13.84	0.13	Rear	98.9	Active	0	1.83	0.752	1.050	1.011	0.798	
2 462	11	802.11b	1+2	20	1	14.0	13.84	0.15	Left	98.9	Active	0	0.79	0.433	1.050	1.011	0.460	
2 462	11	802.11b	1+2	20	1	14.0	13.84	0.15	Right	98.9	Active	0	1.57	0.889	1.050	1.011	0.944	
2 412	1	802.11b	1+2	20	1	14.0	13.62	0.16	Right	98.9	Active	0	1.46	0.914	1.161	1.011	1.073	B2
2 437	6	802.11b	1+2	20	1	14.0	13.23	0.18	Right	98.9	Active	0	1.37	0.663	1.271	1.011	0.852	
2 462	11	802.11b	1+2	20	1	14.0	13.84	-0.19	Top	98.9	Active	0	0.629	0.333	1.050	1.011	0.354	
2 462	11	802.11b	1+2	20	1	22.0	21.28	-0.16	Rear	98.9	Inactive	19	0.158	0.105	1.222	1.011	0.130	
2 462	11	802.11b	1+2	20	1	22.0	21.28	-0.11	Left	98.9	Inactive	10	0.172	0.099	1.222	1.011	0.122	
2 462	11	802.11b	1+2	20	1	22.0	21.28	0.04	Right	98.9	Inactive	11	0.575	0.346	1.222	1.011	0.428	
2 462	11	802.11b	1+2	20	1	22.0	21.28	0.17	Top	98.9	Inactive	22	0.08	0.052	1.222	1.011	0.064	
ANSI/IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg Averaged over 1 gram								

Note: • Measurement validity Repeat
#: Tablet Mode with Cover Variant 1
##: Tablet Mode with Cover Variant 2

UNII1&2A Body SAR (SISO ANT2)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 290	58	802.11ac	2	80	MCS0	6.0	5.57	0.00	Rear	87.0	Active	0	0.97	0.395	1.104	1.149	0.501	
5 290	58	802.11ac	2	80	MCS0	6.0	5.57	-0.11	Left	87.0	Active	0	2.53	0.682	1.104	1.149	0.865	B3
5 290	58	802.11ac	2	80	MCS0	6.0	5.57	0.00	Top	87.0	Active	0	0.177	0.052	1.104	1.149	0.066	
5 260	52	802.11a	2	20	6Mbps	17.0	16.11	0.00	Rear	92.8	Inactive	19	0.0762	0.033	1.227	1.078	0.044	
5 260	52	802.11a	2	20	6Mbps	17.0	16.11	0.06	Left	92.8	Inactive	10	0.676	0.284	1.227	1.078	0.376	
5 260	52	802.11a	2	20	6Mbps	17.0	16.11	-0.11	Top	92.8	Inactive	25	0.0532	0.025	1.227	1.078	0.033	

ANSI/IEEE C95.1 - 2005- Safety Limit
Spatial Peak
Uncontrolled Exposure/General Population

Body
1.6 W/kg
Averaged over 1 gram

UNII1&2A Body SAR (MIMO)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 290	58	802.11ac	1+2	80	MCS0	9.0	8.60	0.10	Rear	87.0	Active	0	0.566	0.515	1.104	1.149	0.654	B4
5 290	58	802.11ac	1+2	80	MCS0	9.0	8.60	-0.10	Left	87.0	Active	0	0.353	0.287	1.104	1.149	0.364	
5 290	58	802.11ac	1+2	80	MCS0	9.0	8.60	-0.14	Right	87.0	Active	0	0.356	0.231	1.104	1.149	0.293	
5 290	58	802.11ac	1+2	80	MCS0	9.0	8.60	-0.10	Top	87.0	Active	0	0.066	0.034	1.104	1.149	0.043	
5 260	52	802.11a	1+2	20	6Mbps	20.0	19.30	-0.17	Rear	92.8	Inactive	19	0.046	0.036	1.227	1.078	0.048	
5 260	52	802.11a	1+2	20	6Mbps	20.0	19.30	0.17	Left	92.8	Inactive	10	0.310	0.238	1.227	1.078	0.315	
5 260	52	802.11a	1+2	20	6Mbps	20.0	19.30	0.15	Right	92.8	Inactive	11	0.263	0.209	1.227	1.078	0.276	
5 260	52	802.11a	1+2	20	6Mbps	20.0	19.30	0.17	Top	92.8	Inactive	22	0.037	0.022	1.227	1.078	0.029	

ANSI/IEEE C95.1 - 2005- Safety Limit
Spatial Peak
Uncontrolled Exposure/General Population

Body
1.6 W/kg
Averaged over 1 gram

UNII2C Body SAR(SISO ANT2)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.00	Rear	87.0	Active	0	1.77	0.994	1.086	1.149	1.241	B5
5 610	122	802.11ac	2	80	MCS0	6.0	5.34	0.00	Rear	87.0	Active	0	2.26	0.602	1.164	1.149	0.805	
5 690	138	802.11ac	2	80	MCS0	6.0	5.62	0.00	Rear	87.0	Active	0	1.49	0.471	1.091	1.149	0.591	
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.18	Left	87.0	Active	0	2.54	0.837	1.086	1.149	1.045	
5 610	122	802.11ac	2	80	MCS0	6.0	5.34	0.10	Left	87.0	Active	0	1.95	0.688	1.164	1.149	0.920	
5 690	138	802.11ac	2	80	MCS0	6.0	5.62	0.19	Left	87.0	Active	0	1.78	0.564	1.091	1.149	0.707	
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.00	Top	87.0	Active	0	0.263	0.067	1.086	1.149	0.084	
5 720	144	802.11a	2	20	6Mbps	17.0	16.09	0.18	Rear	92.8	Inactive	19	0.206	0.083	1.233	1.078	0.110	
5 720	144	802.11a	2	20	6Mbps	17.0	16.09	0.13	Left	92.8	Inactive	10	1.00	0.432	1.233	1.078	0.574	
5 720	144	802.11a	2	20	6Mbps	17.0	16.09	-0.18	Top	92.8	Inactive	25	0.142	0.044	1.233	1.078	0.058	
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.00	Rear	87.0	Active	0	3.15	0.833	1.086	1.149	1.040	•
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.00	Rear	87.0	Active	0	3.22	0.841	1.086	1.149	1.050	••
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.00	Rear	87.0	Active	0	2.24	0.863	1.086	1.149	1.077	#1
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.00	Rear	87.0	Active	0	2.47	0.813	1.086	1.149	1.015	##1
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.18	Left	87.0	Active	0	0.277	0.073	1.086	1.149	0.091	#2
5 530	106	802.11ac	2	80	MCS0	6.0	5.64	0.16	Left	87.0	Active	0	0.225	0.075	1.086	1.149	0.094	##2
ANSI/IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg Averaged over 1 gram								

Note: • Measurement validity Repeat

•• Data entry indicate Device holder perturbation measurement.

#1: Tablet Mode with Cover Variant 1

##1: Tablet Mode with Cover Variant 2

#2: Laptop Mode with Cover Variant 1

##2: Laptop Mode with Cover Variant 2

UNII2C Body SAR(MIMO)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 530	106	802.11ac	1+2	80	MCS0	9.0	8.79	-0.11	Rear	87.0	Active	0	0.732	0.671	1.086	1.149	0.838	
5 610	122	802.11ac	1+2	80	MCS0	9.0	8.66	-0.19	Rear	87.0	Active	0	0.762	0.699	1.164	1.149	0.935	
5 690	138	802.11ac	1+2	80	MCS0	9.0	8.44	0.18	Rear	87.0	Active	0	0.877	0.835	1.194	1.149	1.146	B6
5 530	106	802.11ac	1+2	80	MCS0	9.0	8.79	-0.17	Left	87.0	Active	0	0.663	0.485	1.086	1.149	0.605	
5 530	106	802.11ac	1+2	80	MCS0	9.0	8.79	0.06	Right	87.0	Active	0	0.178	0.207	1.086	1.149	0.258	
5 530	106	802.11ac	1+2	80	MCS0	9.0	8.79	0.17	Top	87.0	Active	0	0.085	0.038	1.086	1.149	0.047	
5 690	138	802.11ac	1+2	80	MCS0	9.0	8.44	-0.05	Rear	87.0	Active	0	0.650	0.824	1.194	1.149	1.131	•
5 720	144	802.11a	1+2	20	6Mbps	20.0	19.28	-0.18	Rear	92.8	Inactive	19	0.086	0.068	1.233	1.078	0.090	
5 720	144	802.11a	1+2	20	6Mbps	20.0	19.28	0.17	Left	92.8	Inactive	10	0.351	0.280	1.233	1.078	0.372	
5 720	144	802.11a	1+2	20	6Mbps	20.0	19.28	0.11	Right	92.8	Inactive	11	0.222	0.173	1.233	1.078	0.230	
5 720	144	802.11a	1+2	20	6Mbps	20.0	19.28	0.17	Top	92.8	Inactive	22	0.059	0.041	1.233	1.078	0.054	
ANSI/IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg Averaged over 1 gram								

Note: • Measurement validity Repeat

UNII3 Body SAR(SISO ANT2)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 775	155	802.11ac	2	80	MCS0	6.0	5.34	0.00	Rear	87.0	Active	0	2.02	0.599	1.164	1.149	0.801	B7
5 775	155	802.11ac	2	80	MCS0	6.0	5.34	0.11	Left	87.0	Active	0	1.98	0.510	1.164	1.149	0.682	
5 775	155	802.11ac	2	80	MCS0	6.0	5.34	0.00	Top	87.0	Active	0	0.219	0.061	1.164	1.149	0.082	
5 825	165	802.11a	2	20	6Mbps	17.0	15.95	-0.19	Rear	92.8	Inactive	19	0.232	0.099	1.274	1.078	0.136	
5 825	165	802.11a	2	20	6Mbps	17.0	15.95	0.01	Left	92.8	Inactive	10	0.486	0.227	1.274	1.078	0.312	
5 825	165	802.11a	2	20	6Mbps	17.0	15.95	0.13	Top	92.8	Inactive	25	0.118	0.035	1.274	1.078	0.048	

ANSI/IEEE C95.1 - 2005- Safety Limit
Spatial Peak
Uncontrolled Exposure/General Population

Body
1.6 W/kg
Averaged over 1 gram

UNII3 Body SAR(MIMO)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 775	155	802.11ac	1+2	80	MCS0	9.0	8.54	-0.11	Rear	87.0	Active	0	1.43	0.685	1.164	1.149	0.916	B8
5 775	155	802.11ac	1+2	80	MCS0	9.0	8.54	0.13	Left	87.0	Active	0	0.318	0.267	1.164	1.149	0.357	
5 775	155	802.11ac	1+2	80	MCS0	9.0	8.54	0.16	Right	87.0	Active	0	0.285	0.170	1.164	1.149	0.227	
5 775	155	802.11ac	1+2	80	MCS0	9.0	8.54	-0.12	Top	87.0	Active	0	0.059	0.027	1.164	1.149	0.036	
5 825	165	802.11a	1+2	20	6Mbps	20.0	19.54	-0.12	Rear	92.8	Inactive	19	0.102	0.079	1.274	1.078	0.108	
5 825	165	802.11a	1+2	20	6Mbps	20.0	19.54	0.17	Left	92.8	Inactive	10	0.19	0.156	1.274	1.078	0.214	
5 825	165	802.11a	1+2	20	6Mbps	20.0	19.54	0.18	Right	92.8	Inactive	11	0.184	0.146	1.274	1.078	0.200	
5 825	165	802.11a	1+2	20	6Mbps	20.0	19.54	0.19	Top	92.8	Inactive	22	0.038	0.026	1.274	1.078	0.036	

ANSI/IEEE C95.1 - 2005- Safety Limit
Spatial Peak
Uncontrolled Exposure/General Population

Body
1.6 W/kg
Averaged over 1 gram

UNII4 Body SAR(SISO ANT2)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 855	171	802.11ac	2	80	MCS0	6.0	5.52	0.00	Rear	87.0	Active	0	1.76	0.716	1.117	1.149	0.919	B9
5 855	171	802.11ac	2	80	MCS0	6.0	5.52	0.14	Left	87.0	Active	0	1.31	0.237	1.117	1.149	0.304	
5 855	171	802.11ac	2	80	MCS0	6.0	5.52	0.00	Top	87.0	Active	0	0.105	0.070	1.117	1.149	0.090	
5 825	177	802.11a	2	20	6Mbps	17.0	16.04	0.17	Rear	92.8	Inactive	19	0.281	0.114	1.247	1.078	0.153	
5 825	177	802.11a	2	20	6Mbps	17.0	16.04	0.14	Left	92.8	Inactive	10	0.352	0.142	1.247	1.078	0.191	
5 825	177	802.11a	2	20	6Mbps	17.0	16.04	0.18	Top	92.8	Inactive	25	0.0808	0.030	1.247	1.078	0.040	

ANSI/IEEE C95.1 - 2005- Safety Limit
Spatial Peak
Uncontrolled Exposure/General Population

Body
1.6 W/kg
Averaged over 1 gram

UNII4 Body SAR(MIMO)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 855	171	802.11ac	1+2	80	MCS0	9.0	8.59	-0.08	Rear	87.0	Active	0	0.365	0.330	1.117	1.149	0.424	B10
5 855	171	802.11ac	1+2	80	MCS0	9.0	8.59	0.13	Left	87.0	Active	0	0.147	0.143	1.117	1.149	0.184	
5 855	171	802.11ac	1+2	80	MCS0	9.0	8.59	-0.14	Right	87.0	Active	0	0.298	0.189	1.117	1.149	0.243	
5 855	171	802.11ac	1+2	80	MCS0	9.0	8.59	-0.13	Top	87.0	Active	0	0.065	0.040	1.117	1.149	0.051	
5 845	169	802.11a	1+2	20	6Mbps	20.0	19.23	-0.12	Rear	92.8	Inactive	19	0.097	0.073	1.262	1.078	0.099	
5 845	169	802.11a	1+2	20	6Mbps	20.0	19.23	0.14	Left	92.8	Inactive	10	0.152	0.121	1.262	1.078	0.165	
5 845	169	802.11a	1+2	20	6Mbps	20.0	19.23	0.14	Right	92.8	Inactive	11	0.168	0.134	1.262	1.078	0.182	
5 845	169	802.11a	1+2	20	6Mbps	20.0	19.23	0.12	Top	92.8	Inactive	22	0.031	0.024	1.262	1.078	0.033	

ANSI/IEEE C95.1 - 2005- Safety Limit
Spatial Peak
Uncontrolled Exposure/General Population

Body
1.6 W/kg
Averaged over 1 gram

5 GHz WLAN Body SAR (MIMO/ ANT1)

Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Sensor	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
5 290	58	802.11ac	1	80	MCS0	9.0	8.60	-0.11	Rear	87.0	Active	0	0.092	0.121	1.104	1.149	0.154	
5 690	138	802.11ac	1	80	MCS0	9.0	8.44	0.15	Rear	87.0	Active	0	0.105	0.159	1.194	1.149	0.218	B11
5 775	155	802.11ac	1	80	MCS0	9.0	8.54	0.15	Rear	87.0	Active	0	0.083	0.129	1.164	1.149	0.173	
5 855	171	802.11ac	1	80	MCS0	9.0	8.59	-0.19	Rear	87.0	Active	0	0.086	0.133	1.117	1.149	0.171	
ANSI/IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg Averaged over 1 gram								

DSS Tethering SAR

Frequency		Mode	Ant.	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Sensor	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Scaled SAR (W/kg)	Plot No.
MHz	Ch.													
2 441	39	DH-5	1	13.0	11.54	0.15	Rear	Active	0	0.433	1.400	1.012	0.613	
2 402	0	DH-5	1	13.0	11.35	0.17	Rear	Active	0	0.597	1.462	1.012	0.883	B12
2 472	78	DH-5	1	13.0	11.36	-0.18	Rear	Active	0	0.498	1.459	1.012	0.735	
2 441	39	DH-5	1	13.0	11.54	0.13	Right	Active	0	0.302	1.400	1.012	0.428	
2 441	39	DH-5	1	13.0	11.54	0.19	Top	Active	0	0.254	1.400	1.012	0.360	
2 441	39	DH-5	1	17.0	15.42	-0.17	Rear	Inactive	19	0.013	1.439	1.012	0.019	
2 441	39	DH-5	1	17.0	15.42	-0.11	Right	Inactive	11	0.119	1.439	1.012	0.173	
2 441	39	DH-5	1	17.0	15.42	0.12	Top	Inactive	22	0.025	1.439	1.012	0.036	
ANSI/IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg Averaged over 1 gram				

13.2 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Procedure.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D01v06.
6. Per FCC KDB 865664 D01v01r04, variability SAR measurement were performed when the measured SAR results for a frequency Band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis.
7. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
8. Additional Cover was tested on the worst configuration of each antenna.

WLAN Notes:

1. For held-to-ear and hotspot operations, the initial test position procedures were applied. For initial test position, the highest extrapolated peak SAR will be used. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR results is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10 g SAR or all test position are measured.
2. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 GHz WiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement.
3. Per KDB 2482227 D01v02r02 justification for test configurations of 5 GHz WiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission mode was not investigated since the highest reported SAR for initial test configuration adjusted by the ration of maximum output powers is less than 1.2 W/kg for 1 g SAR and less than 3.0 W/kg for 10 g SAR.
4. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.
5. The device was configured to transmit continuously at the required data rated, channel Bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests mode type. In the technical documentation, the maximum duty factor of the declared BT was applied to the SAR results. Please see sec.11 for the time-domain plot and calculation for duty factor of the device.

14. Simultaneous SAR Analysis

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per KDB Publication 447498 D01v06 section 4.3.2 and IEEE 1528-2013 section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of 1g SAR and 10g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is $\leq 1.6\text{W/kg}$ for 1g SAR and $\leq 4\text{ W/kg}$ for 10g SAR. The different test positions in an exposure condition may be considered collectively to determine SAR exclusion according to the sum of 1g or 10g SAR.

WLAN/BT	
WIFI1	WLAN 2.4 GHz,5 GHz, Bluetooth
WIFI2	WLAN 2.4 GHz,5 GHz

14.1 Body SAR Simultaneous Transmission Analysis

14.1.1 SAR Simultaneous Transmission Analysis at 0mm

The measurement result for WLAN/ BT					
Position	WLAN2.4 GHz SISO(WIFI1)	WLAN2.4 GHz MIMO(WIFI1+2)	WLAN5 GHz SISO(WIFI2)	WLAN5 GHz MIMO(WIFI1+2)	Bluetooth (WIFI1)
Rear	0.811	0.783	1.241	1.146	0.883
Left		0.460	1.045	0.605	
Right	1.076	1.073		0.293	0.428
Top	0.352	0.354	0.09	0.051	0.36
Bottom					0.883

WLAN/BT

Simultaneous Transmission Analysis for Body SAR		
Position	5 GHz SISO+BT	5 GHz MIMO+BT
Rear	See Sec. 14.2.1.1	See Sec. 14.2.1.1
Left	1.045	0.605
Right	0.428	0.721
Top	0.450	0.411
Bottom		

14.1.2 SAR Simultaneous Transmission Analysis for Maximum Power configurations

The measurement result for WLAN/ BT					
Position	WLAN2.4 GHz SISO(WIFI1)	WLAN2.4 GHz MIMO(WIFI1+2)	WLAN5 GHz SISO(WIFI2)	WLAN5 GHz MIMO(WIFI1+2)	Bluetooth (WIFI1)
Rear	0.125	0.130	0.153	0.108	0.019
Left		0.122	0.574	0.372	
Right	0.481	0.428		0.276	0.173
Top	0.076	0.064	0.058	0.054	0.036
Bottom					

WLAN/BT

Simultaneous Transmission Analysis for Body SAR		
Position	5 GHz SISO+BT	5 GHz MIMO+BT
Rear	0.172	0.127
Left	0.574	0.372
Right	0.173	0.449
Top	0.094	0.090
Bottom		

14.2 SAR to Peak Location Separation Ratio (SPLSR)

FCC KDB 447498 D01v06 General RF Exposure Guidance introduces a new formula for calculating the SAR a Peak Location Separation Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR_i = (SAR_1 + SAR_2)^{1.5} / R_i$$

Where:

SAR_1 is the highest measured or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest measured or estimated SAR for the second of a pair of simultaneous

transmitting antennas, in the same test operating mode and exposure condition as the first

R_i is the separation distance between the pair of simultaneous transmitting antennas, When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(X_1 - X_2)^2 + (Y_1 - Y_2)^2 + (Z_1 - Z_2)^2]$

In order for a pair of simultaneous transmitting antennas with the sum 1-g of SAR > 1.6 W/kg and with the sum 10-g of SAR > 4 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / R_i \leq 0.04 \text{ for 1g SAR and } (SAR_1 + SAR_2)^{1.5} / R_i \leq 0.1 \text{ for 10g SAR}$$

14.2.1 Body SAR (Rear) SPLSR Evaluation

WLAN/BT

Mode/Band	Antenna	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
BT	Ant.1	-33.2	79.2	-205	0.883
WLAN 5 GHz	Ant.1	-29.6	79.2	-205	0.218
WLAN 5 GHz	Ant.2	-33.0	-74.0	-205	1.241
WLAN 5 GHz	Ant.1+2	-33.0	-74.0	-205	1.146

14.2.1.1 WLAN/BT SPLSR

Mode/Band	X-axis Distance(mm)	Sum of SAR [W/kg]	SPLSR
WLAN 5 GHz + BT	153.2	2.342	0.02



15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz, SAR additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency Band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement variability was assessed using the following procedures for each frequency Band:

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.
- 2) When the original highest measured 1g SAR is ≥ 0.80 W/kg or 10g SAR ≥ 2.0 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg for 1g SAR or ≥ 3.625 W/kg for 10g SAR (~ 10% from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg for 1g SAR or ≥ 3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 . 1.08

Body SAR measurement variability Results

Frequency		Band/Configuration	Position	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
MHz	Ch					
2 462	11	DTS Body SISO Ant1	Right	0.875	0.724	1.21
5 530	106	UNII2C Body (SISO ANT2)	Rear	0.994	0.863	1.04
5 690	138	UNII2C Body (MIMO)	Rear	0.835	0.824	1.01

16. Device Holder Perturbation Verification.

In accordance with published DUT Holder Perturbations in Oct.2016 TCB Workshop.
When Highest reported SAR is over 1.2 W/kg, Holder Perturbation Verification is required for each antenna, using the highest configuration among all applicable frequency bands.

Frequency		Mode/Band	Configuration	Highest Reported SAR		Deviation (%)
				(without Device Holder)	(with Device Holder)	
MHz	Ch.			(W/kg)	(W/kg)	
5 530	106	UNII2C Body SAR (SISO ANT2)	Rear	1.241	1.050	1.18

17. Measurement Uncertainty

The measured SAR was <1.5 W/Kg for 1g SAR and <3.75 W/Kg, for 10g SAR for all frequency Bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.

18. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	ELI Phantom	-	N/A	N/A	N/A
SPEAG	SAM Phantom	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/55B8A1/C/01	N/A	N/A	N/A
Staubli	CS9spe-TX90	F07/55B8A1/A/01	N/A	N/A	N/A
TESTO	175-H1/Thermometer	83348021	03/20/2025	Annual	03/20/2026
N/A	Teach Pendant (Joystick)	S-0306	N/A	N/A	N/A
SPEAG	E-Field Probe EX3DV4	7680	04/22/2025	Annual	04/22/2026
SPEAG	E-Field Probe EX3DV4	7681	11/22/2024	Annual	11/22/2025
SPEAG	DAE4	466	09/03/2024	Annual	09/03/2025
SPEAG	DAE4	1866	05/22/2025	Annual	05/22/2026
SPEAG	Dipole D2450V2	1049	03/13/2025	Annual	03/13/2026
SPEAG	Dipole D5 GHz V2	1107	04/19/2024	Biennial	04/19/2026
Agilent	Power Meter E4419B	MY41291386	09/11/2024	Annual	09/11/2025
Agilent	Power Meter N1911A	MY45101406	05/19/2025	Annual	05/19/2026
Agilent	Power Sensor 8481A	SG1091286	09/12/2024	Annual	09/12/2025
H.P	Power Sensor 8481A	MY41090675	09/12/2024	Annual	09/12/2025
Agilent	Wideband Power Sensor N1921A	MY55220026	07/30/2024	Annual	07/30/2025
Agilent	11636B/Power Divider	58698	01/13/2025	Annual	01/13/2026
SPEAG	DAKS 3.5	1038	01/20/2025	Annual	01/20/2026
SPEAG	Vector Reflectometer	0141013	01/13/2025	Annual	01/13/2026
KEYSIGHT	MXA Signal Analyzer	MY49100108	01/07/2025	Annual	01/07/2026
H.P	Network Analyzer /8753ES	JP39240221	12/23/2024	Annual	12/23/2025
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/18/2025	Annual	03/18/2026
EMPOWER	RF Power Amplifier	1084	05/20/2025	Annual	05/20/2026
EMPOWER	RF Power Amplifier	1041D/C0508	05/20/2025	Annual	05/20/2026
EMPOWER	RF Power Amplifier	1011	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-15N	10453	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-30N	-	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-60N	32011	09/11/2024	Annual	09/11/2025
Agilent	Attenuator (3dB) 8693B	MY39260298	08/20/2024	Annual	08/20/2025
HP	Attenuator (20dB) 8493C	09271	08/20/2024	Annual	08/20/2025
Agilent	Directional Bridge 86205A	3140A04581	04/18/2025	Annual	04/18/2026
Agilent	MXA Signal Analyzer N9020A	MY49100108	01/07/2025	Annual	01/07/2026
KEYSIGHT	EXG Vector Signal Generator	MY50350097	03/05/2025	Annual	03/05/2026
HP	Dual Directional Coupler	16072	09/11/2024	Annual	09/11/2025
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	01/13/2025	Annual	01/13/2026

Note: All measurements were performed within the valid calibration period of the specific equipment.

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

19. Conclusion

The SAR and RF Exposure measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/ IEEE C95.1 - 2005.

These measurements were taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend 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 various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

20. References

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Appendix A. DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information & setup photo file no. as follows:

Report No.
HCT-SR-2506-FC019-P

Appendix B. – SAR Test Plots

EUT Type: Tablet
 Ambient Temperature: 23.3 °C
 Liquid Temperature: 23.2 °C
 Test Date: 06/20/2025
 Band: DTS Body SAR (SISO)
 Plot No.: B1

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2412 MHz; Duty Cycle: 1:1.53886
 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.753$ S/m; $\epsilon_r = 39.107$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

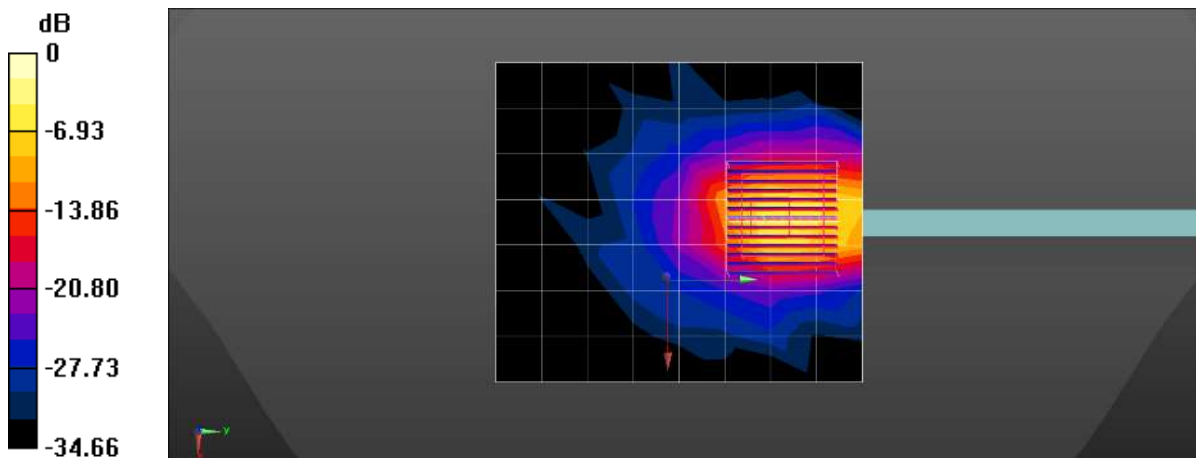
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(6.86, 7.61, 7.57) @ 2412 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11b Body Right 1Mbps 1ch/Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 0.752 W/kg

802.11b Body Right 1Mbps 1ch/Zoom Scan (13x13x8)/Cube 0: Measurement grid: dx=2.4mm, dy=2.4mm, dz=1.4mm
 Reference Value = 3.730 V/m; Power Drift = 0.17 dB
 Peak SAR (extrapolated) = 4.35 W/kg
SAR(1 g) = 0.875 W/kg; SAR(10 g) = 0.283 W/kg
 Smallest distance from peaks to all points 3 dB below = 4.1 mm
 Ratio of SAR at M2 to SAR at M1 = 63.2%

Maximum value of SAR (measured) = 2.27 W/kg



0 dB = 2.27 W/kg = 3.56 dBW/kg

EUT Type: Tablet
 Ambient Temperature: 23.3 °C
 Liquid Temperature: 23.2 °C
 Test Date: 06/20/2025
 Band: DTS Body SAR (MIMO)
 Plot No.: B2

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2412 MHz; Duty Cycle: 1:1.53886
 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.753$ S/m; $\epsilon_r = 39.107$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

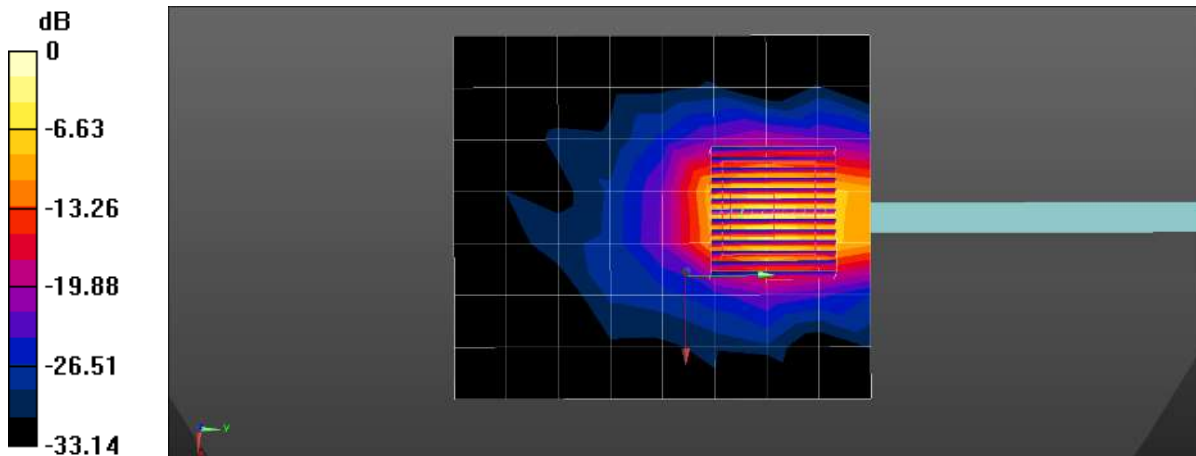
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(6.86, 7.61, 7.57) @ 2412 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11b Body Right 1Mbps 1ch/Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 0.759 W/kg

802.11b Body Right 1Mbps 1ch/Zoom Scan (13x13x8)/Cube 0: Measurement grid: dx=2.4mm, dy=2.4mm, dz=1.4mm
 Reference Value = 4.452 V/m; Power Drift = 0.16 dB
 Peak SAR (extrapolated) = 4.90 W/kg
SAR(1 g) = 0.914 W/kg; SAR(10 g) = 0.297 W/kg
 Smallest distance from peaks to all points 3 dB below = 4.3 mm
 Ratio of SAR at M2 to SAR at M1 = 59.3%

Maximum value of SAR (measured) = 2.42 W/kg



0 dB = 2.42 W/kg = 3.84 dBW/kg

EUT Type: Tablet
 Ambient Temperature: 22.6 °C
 Liquid Temperature: 22.5 °C
 Test Date: 06/19/2025
 Band: UNII1&2A Body SAR(SISO ANT2)
 Plot No.: B3

Communication System: UID 10544 - AAD, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle);
 Frequency: 5290 MHz; Duty Cycle: 1:7.02587
 Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.841$ S/m; $\epsilon_r = 35.148$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(5.33, 5.91, 5.88) @ 5290 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11ac80 Body Left MCS0 58ch/Area Scan (81x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 2.53 W/kg

802.11ac80 Body Left MCS0 58ch/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 8.270 V/m; Power Drift = -0.11 dB

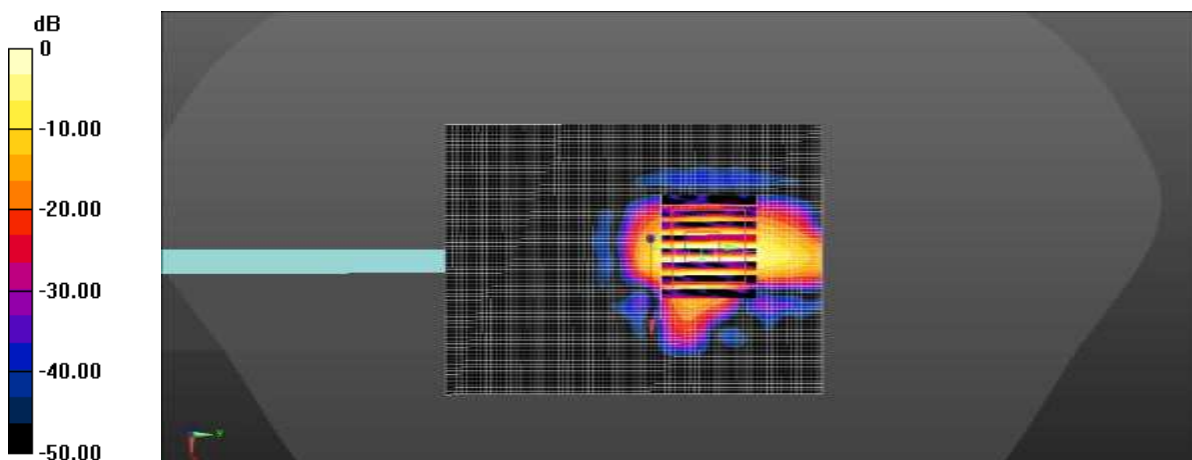
Peak SAR (extrapolated) = 5.97 W/kg

SAR(1 g) = 0.682 W/kg; SAR(10 g) = 0.146 W/kg

Smallest distance from peaks to all points 3 dB below = 4.1 mm

Ratio of SAR at M2 to SAR at M1 = 41.2%

Maximum value of SAR (measured) = 2.20 W/kg



0 dB = 2.20 W/kg = 3.42 dBW/kg

EUT Type: Tablet
Ambient Temperature: 21.5 °C
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025
Band: UNII1&2A Body SAR(MIMO)
Plot No.: B4
Measurement Report for Device, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 58 (5290.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAD	5290.000, 58	6.03	4.83	35.1

Hardware Setup

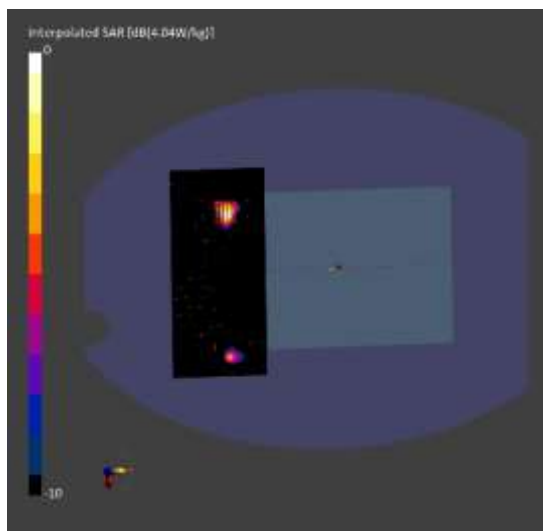
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 90.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.345	0.515
psSAR10g [W/Kg]	0.095	0.102
Power Drift [dB]	-0.14	0.10
M2/M1 [%]		59.1
Dist 3dB Peak [mm]		3.4



EUT Type: Tablet
 Ambient Temperature: 22.6 °C
 Liquid Temperature: 22.5 °C
 Test Date: 06/19/2025
 Band: UNII2C Body SAR(SISO ANT2)
 Plot No.: B5

Communication System: UID 10544 - AAD, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle);
 Frequency: 5530 MHz; Duty Cycle: 1:7.02587
 Medium parameters used: $f = 5530 \text{ MHz}$; $\sigma = 5.063 \text{ S/m}$; $\epsilon_r = 34.904$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

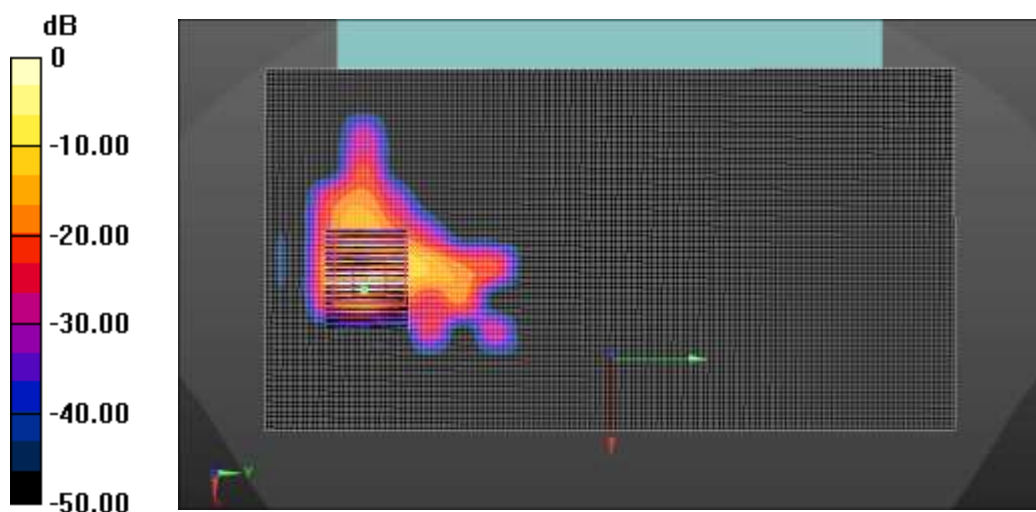
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(4.89, 5.42, 5.39) @ 5530 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11ac80 Body Rear MCS0 106ch/Area Scan (9x20x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 1.40 W/kg

802.11ac80 Body Rear MCS0 106ch/Zoom Scan (19x16x7)/Cube 0: Measurement grid: $dx=1.7\text{mm}$, $dy=1.7\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 0 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 12.3 W/kg
SAR(1 g) = 0.994 W/kg; SAR(10 g) = 0.226 W/kg
 Smallest distance from peaks to all points 3 dB below = 3.3 mm
 Ratio of SAR at M2 to SAR at M1 = 52.3%

Maximum value of SAR (measured) = 4.11 W/kg



0 dB = 4.11 W/kg = 6.14 dBW/kg

EUT Type: Tablet
Ambient Temperature: 21.5 °C
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025
Band: UNII2C Body SAR(MIMO)
Plot No.: B6
Measurement Report for Device, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 138 (5690.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAD	5690.000, 138	5.46	5.33	34.6

Hardware Setup

Phantom
 ELI V4.0 (20deg probe tilt) - xxxx

Probe, Calibration Date
 EX3DV4 - SN7681, 2024-11-22

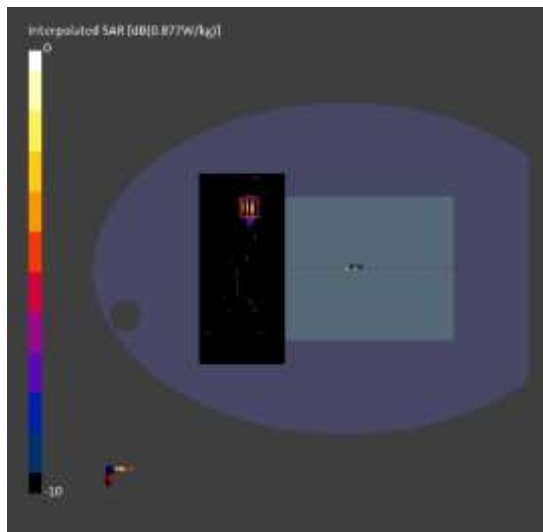
DAE, Calibration Date
 DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 90.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.510	0.835
psSAR10g [W/Kg]	0.130	0.164
Power Drift [dB]	-0.12	0.18
M2/M1 [%]		56.5
Dist 3dB Peak [mm]		3.4



EUT Type: Tablet
 Ambient Temperature: 22.6 °C
 Liquid Temperature: 22.5 °C
 Test Date: 06/19/2025
 Band: UNII3 Body SAR(SISO ANT2)
 Plot No.: B7

Communication System: UID 10544 - AAD, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle);
 Frequency: 5775 MHz; Duty Cycle: 1:7.02587
 Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.333$ S/m; $\epsilon_r = 34.703$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(4.86, 5.39, 5.36) @ 5775 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11ac80 Body Rear MCS0 155ch/Area Scan (111x211x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 2.02 W/kg

802.11ac80 Body Rear MCS0 155ch/Zoom Scan (17x17x7)/Cube 0: Measurement grid: dx=1.7mm, dy=1.7mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.00 dB

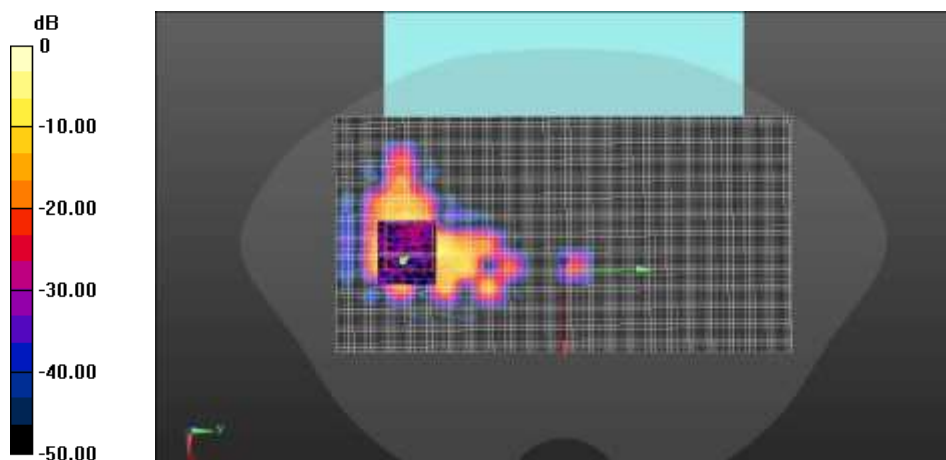
Peak SAR (extrapolated) = 5.17 W/kg

SAR(1 g) = 0.599 W/kg; SAR(10 g) = 0.128 W/kg

Smallest distance from peaks to all points 3 dB below = 3.6 mm

Ratio of SAR at M2 to SAR at M1 = 51.4%

Maximum value of SAR (measured) = 2.23 W/kg



0 dB = 2.23 W/kg = 3.48 dBW/kg

EUT Type: Tablet
Ambient Temperature: 21.5 °C
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025
Band: UNII3 Body SAR(MIMO)
Plot No.: B8
Measurement Report for Device, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 155 (5775.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAD	5775.000, 155	5.46	5.33	34.7

Hardware Setup

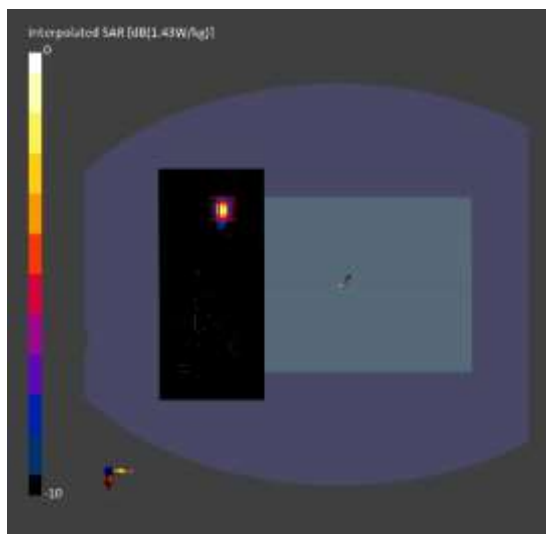
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 90.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.760	0.685
psSAR10g [W/Kg]	0.173	0.129
Power Drift [dB]	-0.00	-0.11
M2/M1 [%]		57.5
Dist 3dB Peak [mm]		3.2



EUT Type: Tablet
 Ambient Temperature: 22.6 °C
 Liquid Temperature: 22.5 °C
 Test Date: 06/19/2025
 Band: UNII4 Body SAR(SISO ANT2)
 Plot No.: B9

Communication System: UID 10544 - AAD, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle);
 Frequency: 5855 MHz; Duty Cycle: 1:7.02587
 Medium parameters used (interpolated): $f = 5855$ MHz; $\sigma = 5.239$ S/m; $\epsilon_r = 34.534$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(4.87, 5.4, 5.37) @ 5855 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11ac80 Body Rear MCS0 171ch/Area Scan (111x211x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.76 W/kg

802.11ac80 Body Rear MCS0 171ch/Zoom Scan (18x17x7)/Cube 0: Measurement grid: dx=1.7mm, dy=1.7mm, dz=1.4mm

Reference Value = 1.223 V/m; Power Drift = 0.00 dB

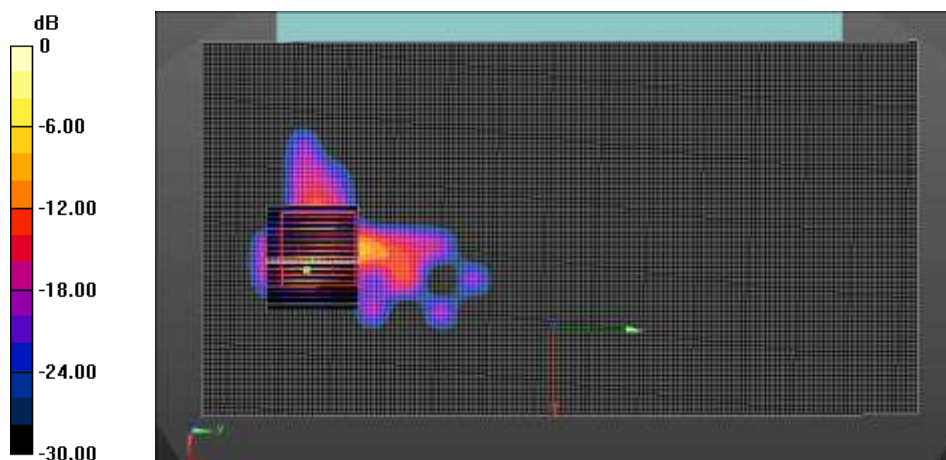
Peak SAR (extrapolated) = 6.64 W/kg

SAR(1 g) = 0.716 W/kg; SAR(10 g) = 0.143 W/kg

Smallest distance from peaks to all points 3 dB below = 3.3 mm

Ratio of SAR at M2 to SAR at M1 = 52.1%

Maximum value of SAR (measured) = 2.91 W/kg



0 dB = 2.91 W/kg = 4.64 dBW/kg

EUT Type: Tablet
Ambient Temperature: 21.5 °C
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025
Band: UNII4 Body SAR(MIMO)
Plot No.: B10
Measurement Report for Device, BACK, U-NII-4, IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 171 (5855.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	BACK, 0.00	U-NII-4	WLAN, 10626-AAD	5855.000, 171	5.5	5.24	34.5

Hardware Setup

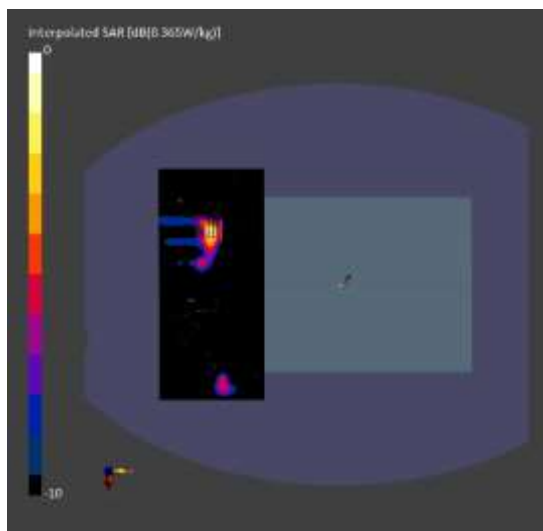
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	210.0 x 90.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.210	0.330
psSAR10g [W/Kg]	0.057	0.064
Power Drift [dB]	0.14	-0.08
M2/M1 [%]		59.2
Dist 3dB Peak [mm]		3.9



EUT Type: Tablet
Ambient Temperature: 21.5 °C
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025
Band: 5 GHz WLAN Body SAR (MIMO/ ANT1)
Plot No.: B11
Measurement Report for Device, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 138 (5690.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAD	5690.000, 138	5.46	5.33	34.6

Hardware Setup

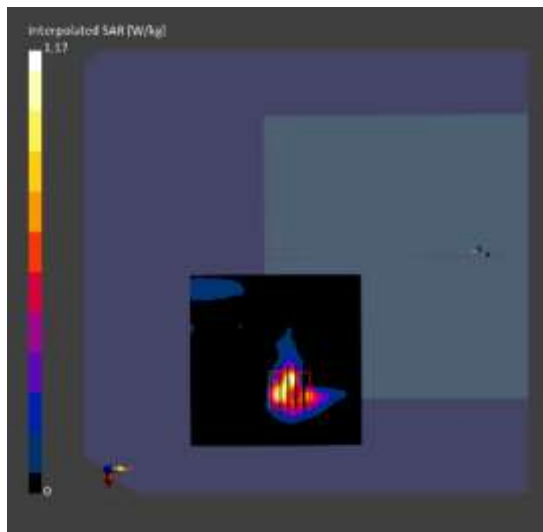
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 90.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.064	0.159
psSAR10g [W/Kg]	0.021	0.038
Power Drift [dB]	-0.10	0.15
M2/M1 [%]		50.1
Dist 3dB Peak [mm]		3.1



EUT Type: Tablet
 Ambient Temperature: 22.5 °C
 Liquid Temperature: 22.4 °C
 Test Date: 06/23/2025
 Band: Bluetooth SAR
 Plot No.: B12

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2402 MHz; Duty Cycle: 1:1.30557
 Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.733$ S/m; $\epsilon_r = 39.104$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

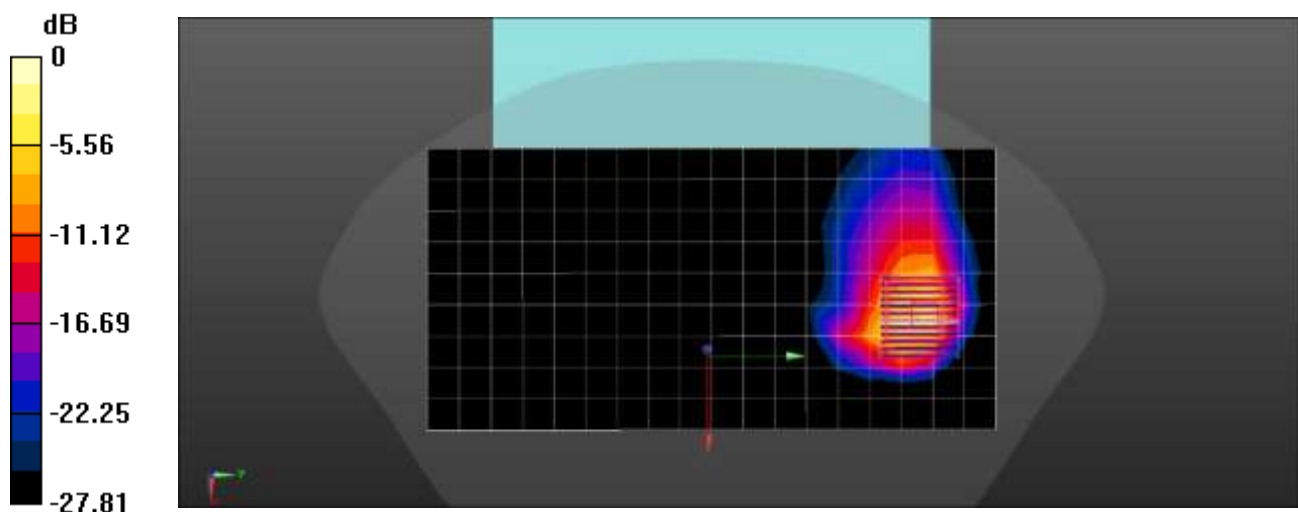
- Probe: EX3DV4 - SN7680; ConvF(6.86, 7.61, 7.57) @ 2402 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Bluetooth Body Rear DH5 0ch/Area Scan (10x19x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 1.26 W/kg

Bluetooth Body Rear DH5 0ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=2.7mm, dy=2.7mm, dz=1.4mm

Reference Value = 0.6380 V/m; Power Drift = 0.17 dB
 Peak SAR (extrapolated) = 1.87 W/kg
SAR(1 g) = 0.597 W/kg; SAR(10 g) = 0.246 W/kg
 Smallest distance from peaks to all points 3 dB below = 4.8 mm
 Ratio of SAR at M2 to SAR at M1 = 65.6%

Maximum value of SAR (measured) = 1.25 W/kg



0 dB = 1.25 W/kg = 0.97 dBW/kg

Appendix C. – Dipole Verification Plots

Test Laboratory: HCT CO., LTD
Input Power: 0.05 W
Liquid Temperature: 23.2 °C
Test Date: 06/20/2025

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.794$ S/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

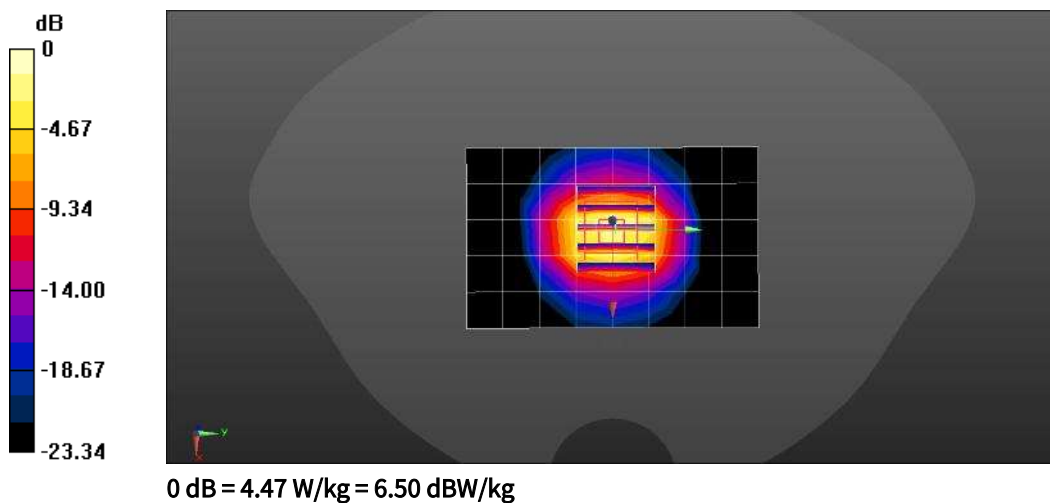
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(6.86, 7.61, 7.57) @ 2450 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

2450MHz Head Verification/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 3.12 W/kg

2450MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 53.40 V/m; Power Drift = 0.07 dB
 Peak SAR (extrapolated) = 5.46 W/kg
SAR(1 g) = 2.69 W/kg; SAR(10 g) = 1.24 W/kg
 Smallest distance from peaks to all points 3 dB below = 9.6 mm
 Ratio of SAR at M2 to SAR at M1 = 49.5%

Maximum value of SAR (measured) = 4.47 W/kg



Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temperature: 22.4 °C
 Test Date: 06/23/2025

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.785$ S/m; $\epsilon_r = 38.929$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

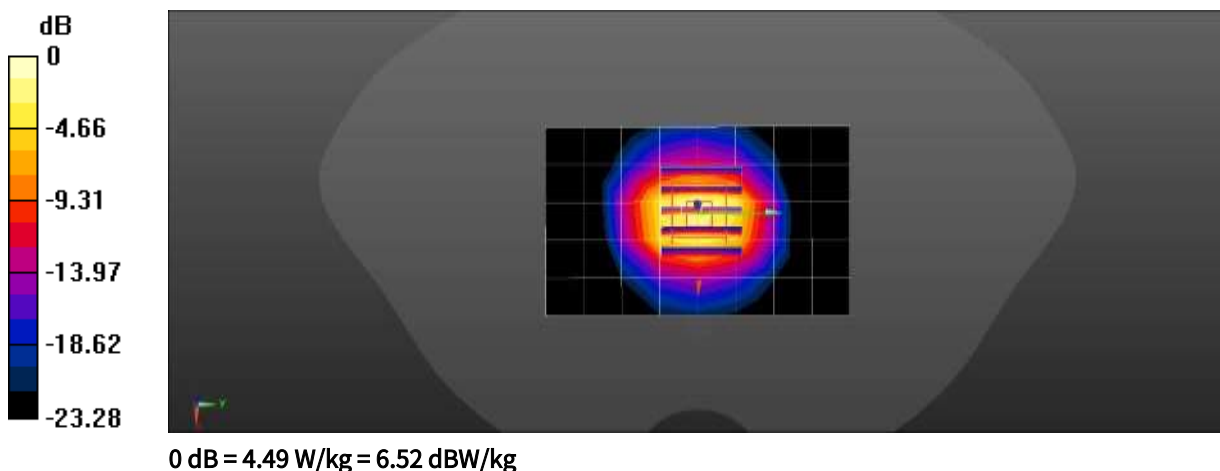
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(6.86, 7.61, 7.57) @ 2450 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

2450MHz Head Verification/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 3.09 W/kg

2450MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 53.20 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 5.47 W/kg
SAR(1 g) = 2.69 W/kg; SAR(10 g) = 1.24 W/kg
 Smallest distance from peaks to all points 3 dB below = 9.6 mm
 Ratio of SAR at M2 to SAR at M1 = 49%

Maximum value of SAR (measured) = 4.49 W/kg



Test Laboratory: HCT CO., LTD
Input Power: 0.05 W
Liquid Temperature: 22.5 °C
Test Date: 06/19/2025

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5250$ MHz; $\sigma = 4.784$ S/m; $\epsilon_r = 35.249$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

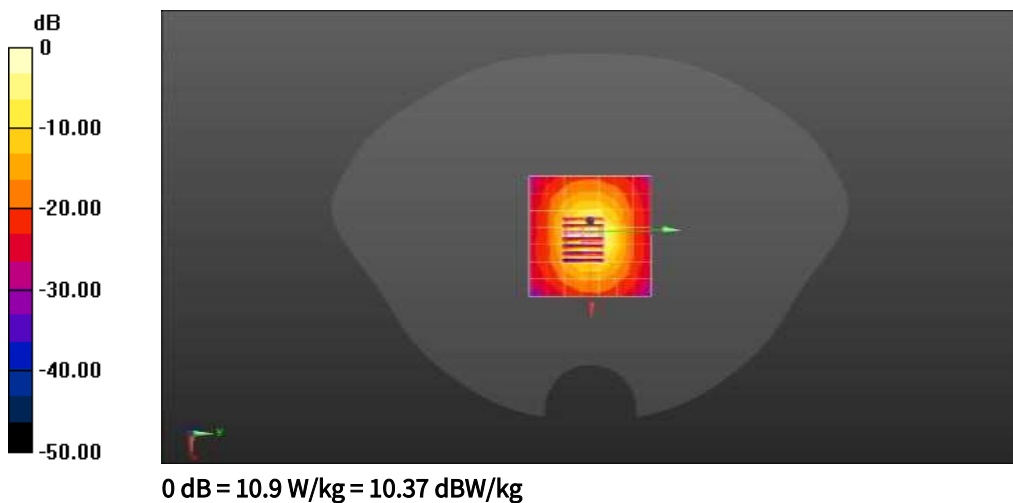
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(5.33, 5.91, 5.88) @ 5250 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5250MHz Head Verification/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 6.37 W/kg

5250MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 50.65 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 20.1 W/kg
SAR(1 g) = 4.21 W/kg; SAR(10 g) = 1.1 W/kg
 Smallest distance from peaks to all points 3 dB below = 7.2 mm
 Ratio of SAR at M2 to SAR at M1 = 59.6%

Maximum value of SAR (measured) = 10.9 W/kg



Test Laboratory: HCT CO., LTD
Input Power: 0.05 W
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025

Measurement Report for Device, , , CW, Channel 0 (5250.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	,		CW, 0--	5250.000, 0	6.03	4.78	35.2

Hardware Setup

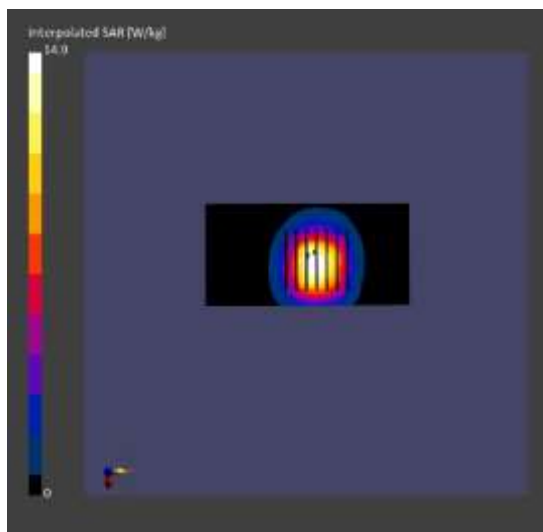
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.47	4.06
psSAR10g [W/Kg]	1.20	1.30
Power Drift [dB]	0.01	0.02
M2/M1 [%]		64.9
Dist 3dB Peak [mm]		8.1



Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temperature: 22.5 °C
 Test Date: 06/19/2025

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5600$ MHz; $\sigma = 5.145$ S/m; $\epsilon_r = 34.777$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

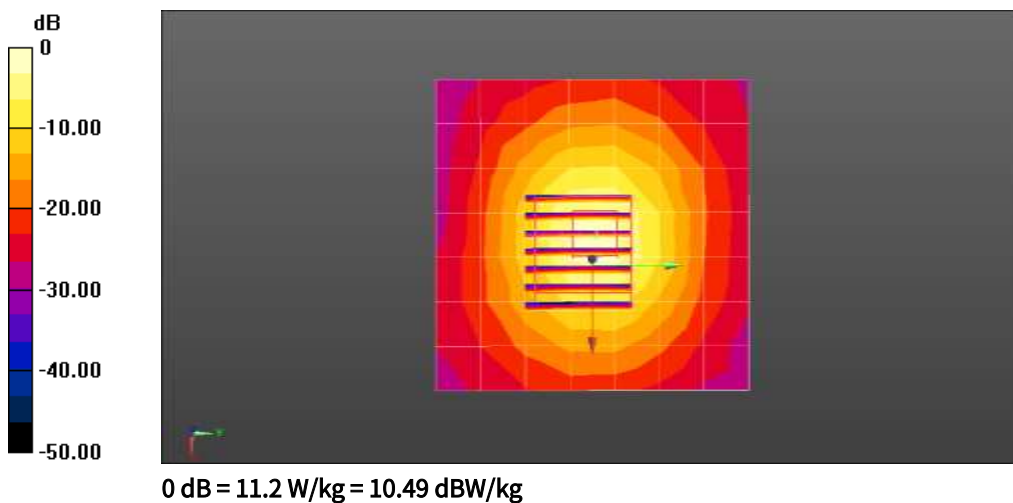
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(4.89, 5.42, 5.39) @ 5600 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5600MHz Head Verification/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 7.23 W/kg

5600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 48.38 V/m; Power Drift = -0.05 dB
 Peak SAR (extrapolated) = 22.3 W/kg
SAR(1 g) = 4.22 W/kg; SAR(10 g) = 1.1 W/kg
 Smallest distance from peaks to all points 3 dB below = 7.5 mm
 Ratio of SAR at M2 to SAR at M1 = 56.7%

Maximum value of SAR (measured) = 11.2 W/kg



Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temperature: 21.4 °C
 Test Date: 06/20/2025

Measurement Report for Device, , , CW, Channel 0 (5600.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid			CW, 0--	5600.000, 0	5.54	5.14	34.8

Hardware Setup

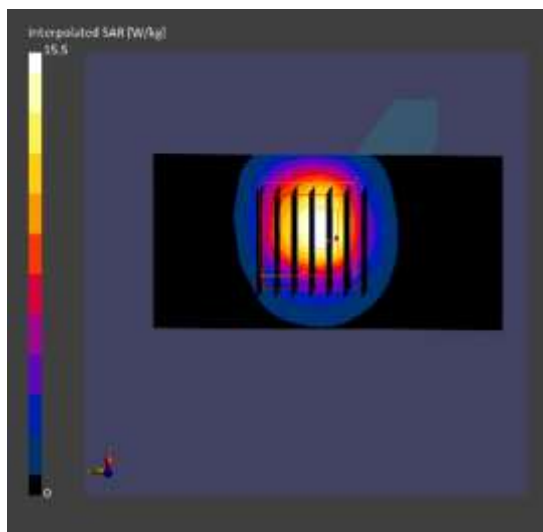
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.39	3.91
psSAR10g [W/Kg]	1.15	1.24
Power Drift [dB]	0.03	0.01
M2/M1 [%]		61.8
Dist 3dB Peak [mm]		8.6



Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temperature: 22.5 °C
 Test Date: 06/19/2025

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5750$ MHz; $\sigma = 5.369$ S/m; $\epsilon_r = 34.686$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

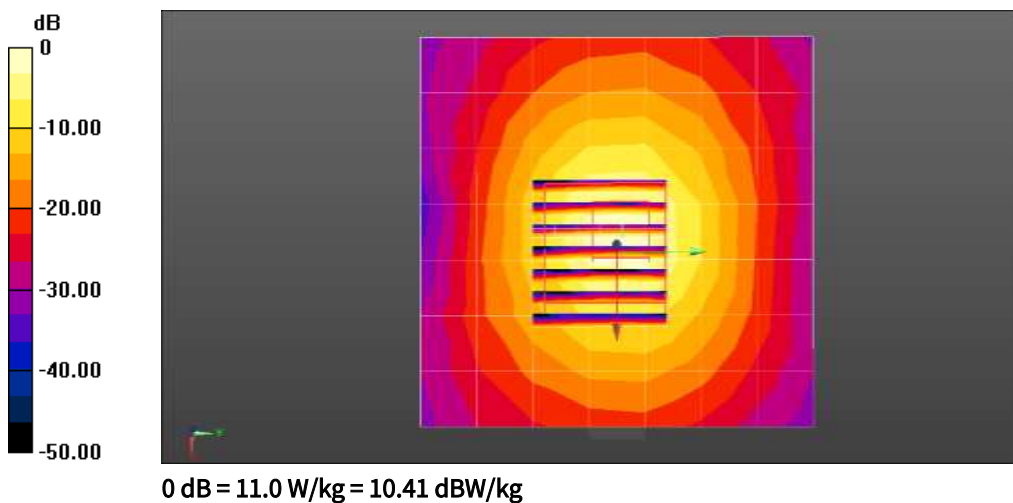
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(4.86, 5.39, 5.36) @ 5750 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5750MHz Head Verification/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 6.74 W/kg

5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 47.11 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 22.5 W/kg
SAR(1 g) = 4.11 W/kg; SAR(10 g) = 1.08 W/kg
 Smallest distance from peaks to all points 3 dB below = 7.4 mm
 Ratio of SAR at M2 to SAR at M1 = 55.5%

Maximum value of SAR (measured) = 11.0 W/kg



Test Laboratory: HCT CO., LTD
Input Power: 0.05 W
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025

Measurement Report for Device, , , CW, Channel 0 (5750.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	,		CW, 0--	5750.000, 0	5.46	5.36	34.7

Hardware Setup

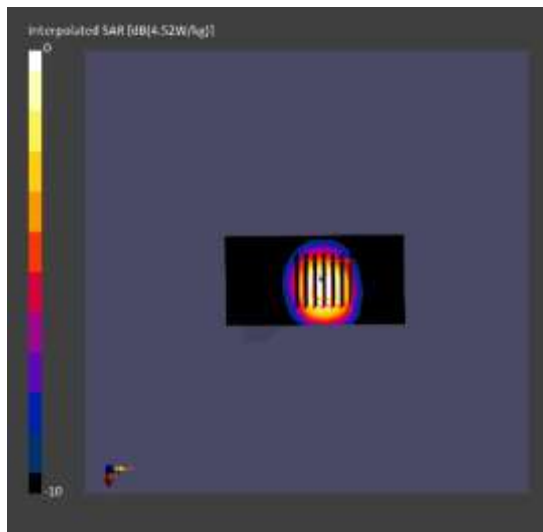
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.31	3.80
psSAR10g [W/Kg]	1.13	1.23
Power Drift [dB]	0.04	0.02
M2/M1 [%]		60.9
Dist 3dB Peak [mm]		8.6



Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temperature: 22.5 °C
 Test Date: 06/19/2025

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 5800$ MHz; $\sigma = 5.291$ S/m; $\epsilon_r = 34.691$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

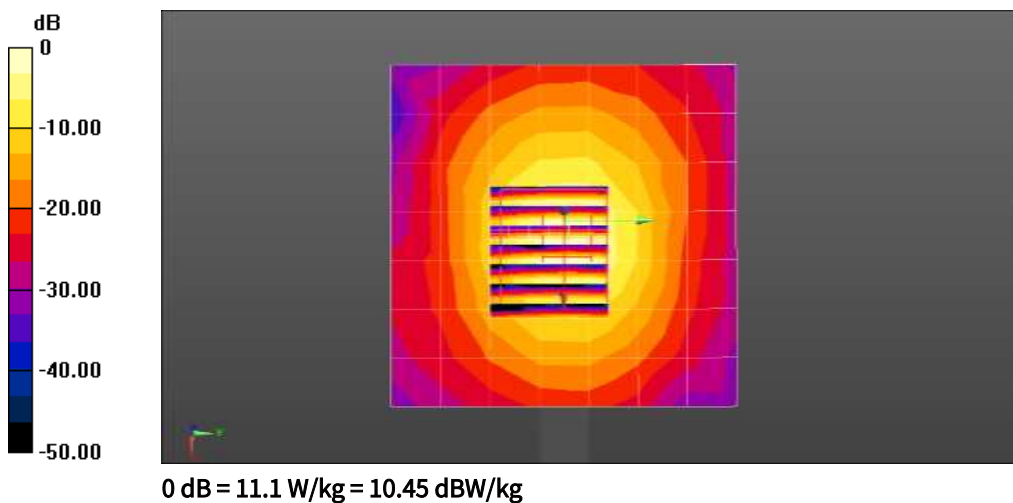
DASY5 Configuration:

- Probe: EX3DV4 - SN7680; ConvF(4.87, 5.4, 5.37) @ 5800 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5800MHz Head Verification/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 7.19 W/kg

5800MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 47.89 V/m; Power Drift = -0.00 dB
 Peak SAR (extrapolated) = 22.5 W/kg
SAR(1 g) = 4.18 W/kg; SAR(10 g) = 1.1 W/kg
 Smallest distance from peaks to all points 3 dB below = 7.4 mm
 Ratio of SAR at M2 to SAR at M1 = 56%

Maximum value of SAR (measured) = 11.1 W/kg



Test Laboratory: HCT CO., LTD
Input Power: 0.05 W
Liquid Temperature: 21.4 °C
Test Date: 06/20/2025

Measurement Report for Device, , , CW, Channel 0 (5800.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	,		CW, 0--	5800.000, 0	5.5	5.29	34.7

Hardware Setup

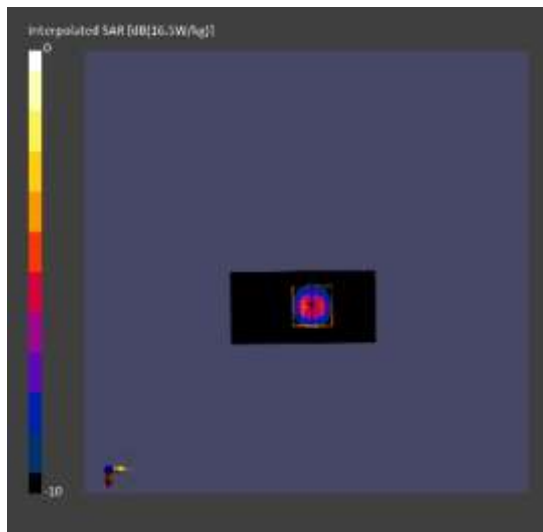
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7681, 2024-11-22	DAE4ip Sn1866, 2025-05-22

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.56	3.99
psSAR10g [W/Kg]	1.15	1.29
Power Drift [dB]	0.03	0.01
M2/M1 [%]		60.8
Dist 3dB Peak [mm]		8.7



Appendix D. – SAR Tissue Characterization

The brain and muscle mixtures consist of a viscous gel using hydrox-ethyl cellulose (HEC) gelling agent and saline solution (see Table 3.1). Preservation with a bactericide is added and visual inspection is made to make sure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. The mixture characterizations used for the brain and muscle tissue simulating liquids are according to the data by C. Gabriel and G. Harts grove.

Ingredients (% by weight)	Frequency (MHz)									
	750		835		1 900		2 450 – 2 700		3500 - 5 800	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	41.1	51.7	40.45	53.06	54.9	70.17	71.88	73.2	65.52	78.66
Salt (NaCl)	1.4	0.9	1.45	0.94	0.18	0.39	0.16	0.1	0.0	0.0
Sugar	57.0	47.2	57.0	44.9	0.0	0	0.0	0.0	0.0	0.0
HEC	0.2	0	1.0	1.0	0.0	0	0.0	0.0	0.0	0.0
Bactericide	0.2	0.1	0.1	0.1	0.0	0	0.0	0.0	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	19.97	0.0	17.24	10.67
DGBE	0.0	0.0	0.0	0.0	44.92	29.44	7.99	26.7	0.0	0.0
Diethylene glycol hexyl ether	-	-	-	-	-	-	-	-	-	-

Salt:	99 % Pure Sodium Chloride	Sugar:	98 % Pure Sucrose
Water:	De-ionized, 16M resistivity	HEC:	Hydroxyethyl Cellulose
DGBE:	99 % Di (ethylene glycol) butyl ether, [2-(2-butoxyethoxy) ethanol]		
Triton X-100(ultra-pure):	Polyethylene glycol mono [4-(1,1,3,3-tetramethylbutyl) phenyl] ether		

Composition of the Tissue Equivalent Matter

Appendix E. – SAR System Validation

Per FCC KDB 865664 D02v01r02, SAR system validation status should be document to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in IEEE 1528-2013 and FCC KDB 865664 D01v01r04. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

SAR System No.	Probe	Probe Type	Probe Calibration Point		Dipole	Date	Dielectric Parameters		CW Validation			Modulation Validation		
							Measured Permittivity	Measured Conductivity	Sensitivity	Probe Linearity	Probe Isotropy	MOD. Type	Duty Factor	PAR
12	7680	EX3DV4	Head	2450	1049	2025-04-03	39.3	1.81	PASS	PASS	PASS	OFDM	N/A	PASS
12	7680	EX3DV4	Head	2450	1049	2025-04-03	39.3	1.81	PASS	PASS	PASS	OFDM	N/A	PASS
12	7680	EX3DV4	Head	5250	1107	2025-05-16	35.9	4.71	PASS	PASS	PASS	OFDM	N/A	PASS
12	7680	EX3DV4	Head	5600	1107	2025-05-16	35.5	5.07	PASS	PASS	PASS	OFDM	N/A	PASS
12	7680	EX3DV4	Head	5600	1107	2025-05-16	35.4	5.22	PASS	PASS	PASS	OFDM	N/A	PASS
12	7680	EX3DV4	Head	5750	1107	2025-05-16	35.3	5.27	PASS	PASS	PASS	OFDM	N/A	PASS
12	7680	EX3DV4	Head	5800	1107	2025-05-16	35.9	4.71	PASS	PASS	PASS	OFDM	N/A	PASS
13	7681	EX3DV4	Head	5250	1107	2024-12-22	35.5	5.07	PASS	PASS	PASS	OFDM	N/A	PASS
13	7681	EX3DV4	Head	5600	1107	2024-12-22	35.4	5.22	PASS	PASS	PASS	OFDM	N/A	PASS
13	7681	EX3DV4	Head	5750	1107	2024-12-22	35.3	5.27	PASS	PASS	PASS	OFDM	N/A	PASS
13	7681	EX3DV4	Head	5800	1107	2024-12-22	35.9	4.71	PASS	PASS	PASS	OFDM	N/A	PASS

SAR System Validation Summary

Note;

All measurement were performed using probes calibrated for CW signal only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04. SAR system were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to KDB 865664 D01v01r04.