

FCC SAR Test Report

Applicant: Launch Tech Co., Ltd.

EUT Description: Automotive Diagnostic Tool

Model: OADD-PO1006A, X-431 PRO5 V2, X-431 PRO3S+ V2, X-431 PRO3 V+ ELITE V2, X-431 PRO3 ACE V2, X-431 PRO3 APEX V2, IMMO PRO3 MAX, X-431 PRO3(PRO3S+ ELITE V2), X-431 PRO3(PRO3S+ V6), X-431 V+ SmartLink HD V2, X-431 PRO3S+ SmartLink HD V2, X-431 PRO3 BT V2, X-431 PRO3 ELITE(K) V2

Test Model: OADD-PO1006A

Brand: LAUNCH

FCC ID: XUJOADDPO1006A

Standards: FCC 47CFR §2.1093

Date of Receipt: 2026/07/31

Date of Test: 2025/09/14 to 2026/09/16

Date of Issue: 2026/09/21

TOWE tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. Without written approval of TOWE, the test report shall not be reproduced except in full.


Jim Huang
Approved By:



Jack Li
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2026/09/21	Original	Jack Li

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1 Summary of Test Results

Band	Highest SAR(W/kg)
	Body 1g
WIFI 2.4G	1.10
WIFI 5G	1.17
BT	0.21
Simultaneous Transmission SAR	1.56
SAR Limited	1.6

2 Guidance Applied

FCC 47CFR §2.1093
ANSI/IEEE C95.1-1992
IEC/IEEE 62209-1528:2020
FCC KDB 248227 D01 SAR Guidance for IEEE 802.11 Wi-Fi SAR v02r02
FCC KDB 648474 D04 Handset SAR v01r03
FCC KDB 447498 D01 General RF Exposure Guidance v06
FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
FCC KDB 865664 D02 RF Exposure Reporting v01r02
FCC KDB 616217 D04 SAR for laptop and tablets v01r02

3 Lab Information

3.1 Testing Location

These measurement tests were conducted at the Sushi TOWE Wireless Testing (Shenzhen) Co., Ltd. facility located at F 401 and F 101, Building E, Hongwei Industrial Zone, No. 6, Liuxian 3rd Road, Zone 70, Xingdong Community, Xin'an Street, Bao'an District, Shenzhen, People's Republic of China. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014
Tel.: +86-755-27212361
Contact Email: info@towewireless.com

3.2 Test Facility / Accreditations

A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

FCC Designation No.: CN1353

Sushi TOWE Wireless Testing (Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory.
Test Firm Registration Number: 684095
Designation Number: CN1353.

ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing (Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.
CAB identifier: CN0152
Company Number: 31000

3.3 Ambient Condition

Temperature: 18°C~25°C
Relative Humidity: 30%~75%

4 Client Information

4.1 Applicant

Applicant:	Launch Tech Co., Ltd.
Address:	No.4012, Launch Industrial Park, North Wuhe Rd, Bantian Street, Longgang District, Shenzhen, Guangdong, 518129, China

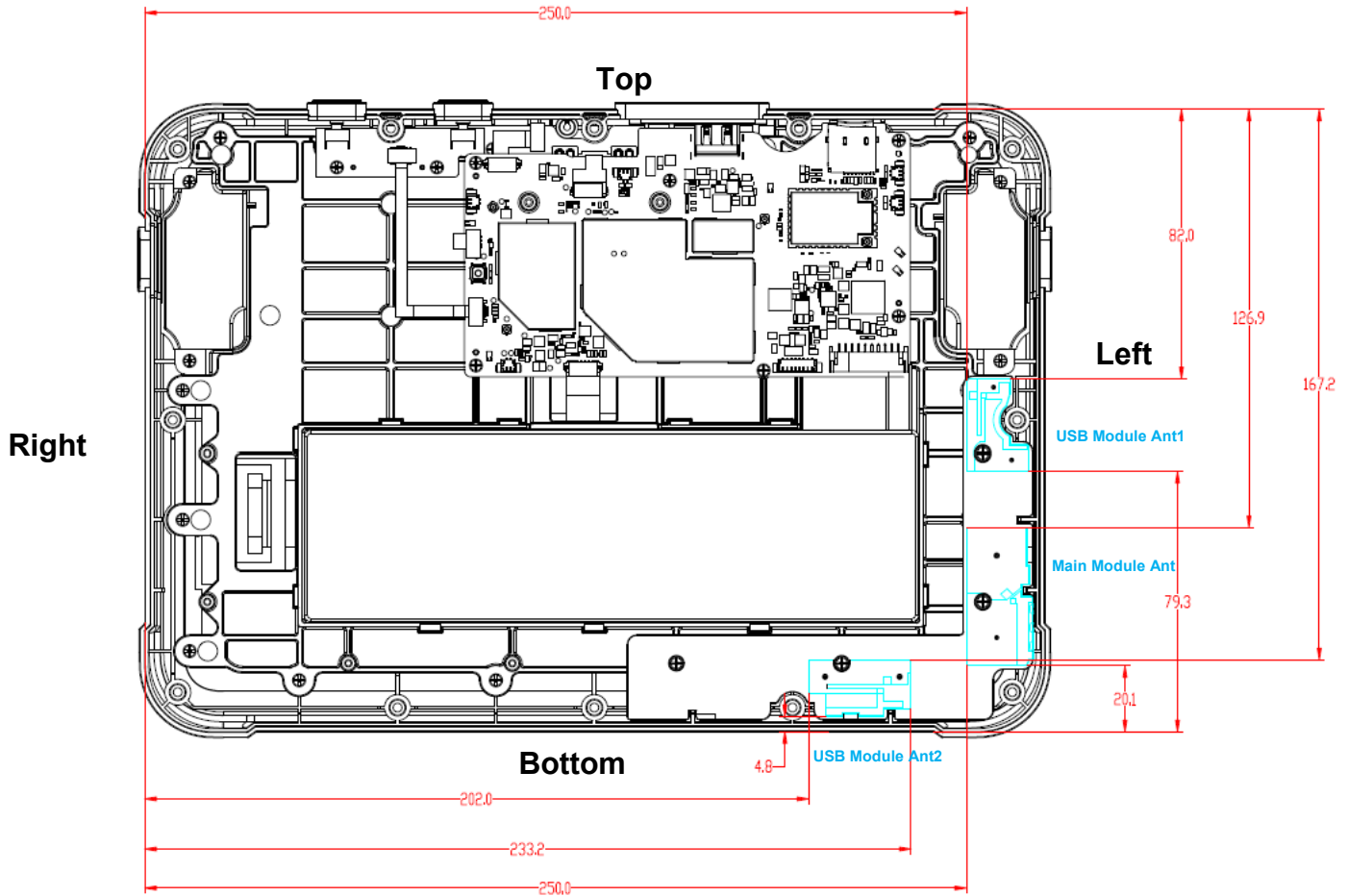
4.2 Manufacturer

Manufacturer:	Launch Tech Co., Ltd.
Address:	No.4012, Launch Industrial Park, North Wuhe Rd, Bantian Street, Longgang District, Shenzhen, Guangdong, 518129, China

5 Product Information

EUT Description	Automotive Diagnostic Tool	
Model:	OADD-PO1006A, X-431 PRO5 V2, X-431 PRO3S+ V2, X-431 PRO3 V+ ELITE V2, X-431 PRO3 ACE V2, X-431 PRO3 APEX V2, IMMO PRO3 MAX, X-431 PRO3(PRO3S+ ELITE V2), X-431 PRO3(PRO3S+ V6), X-431 V+ SmartLink HD V2, X-431 PRO3S+ SmartLink HD V2, X-431 PRO3 BT V2, X-431 PRO3 ELITE(K) V2	
Test Model:	OADD-PO1006A	
SN.	011Y390112659110077	
Device Capabilities:		
Band	Frequency Range (MHz)	Modulation Type
Wi-Fi 2.4G	2400~2483.5	Main Module: 802.11b/g/n USB Module: 202.11b/g/n/ax
Wi-Fi 5G	5150~5250	Main Module: 802.11a/n/ac USB Module: 802.11a/n/ac/ax
	5250~5350	
	5470~5725	
	5725~5850	
Bluetooth	2400~2483.5	GFSK, π/4DQPSK, 8DPSK
Antenna Type	☐ External, ☒ Integrated	
Remark: 1, The above EUT's information was declared by applicant, please refer to the specifications or user's manual for more detailed description. 2, Reference applicant Model Confirmation Letter: All these models are identical in the same PCB, layout, electrical circuit and enclosure. The difference is the color and shape of the plastic sleeve, and the color of the plastic casing. According to the difference description above, only the OADD-PO1006A model is tested, and other models share the same test data of OADD-PO1006A.		

5.1 Antenna Locations (Back View)



Note:

- 1) Per KDB 616217, the diagonal length is > 200mm, the device is considered a “tablet” device and needed to test 0mm 1-g body SAR.
- 2) Main Module: WIFI 2.4G, WIFI 5G, BT
- 3) USB Module: WIFI 2.4G, WIFI 5G.

5.2 EUT side for SAR Testing

Stand-alone SAR test evaluation

1) Per FCC KDB 447498 D01, the 1g and 10g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

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

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

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

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

1) Standalone SAR exclusion calculation (Antenna to adjacent sides < 50 mm)

Band	Exposure Condition	f (GHz)	Pmax	Pmax	separation distance(mm)					Calculated Value					SAR Test (Yes or No)				
			(dBm)	(mw)	Back side	Right side	Left side	Top side	Bottom side	Back side	Right side	Left side	Top side	Bottom side	Back side	Right side	Left side	Top side	Bottom side
Main Module WIFI 2.4G	Body 0mm	2.4835	11.50	14.13	5	250	5	126.9	20.1	4.452	>50mm	4.452	>50mm	1.107	Yes	>50mm	Yes	>50mm	Yes
USB Module WIFI 2.4G Ant 1	Body 0mm	2.4835	15.00	31.62	5	250	5	82	79.3	9.967	>50mm	9.967	>50mm	>50mm	Yes	>50mm	Yes	>50mm	>50mm
USB Module WIFI 2.4G Ant 2	Body 0mm	2.4835	15.00	31.62	5	202	37.2	167.2	5	9.967	>50mm	1.340	>50mm	9.967	Yes	>50mm	Yes	>50mm	Yes
USB Module WIFI 2.4G MIMO	Body 0mm	2.4835	14.50	28.18	5	202	5	82	5	8.883	>50mm	8.883	>50mm	8.883	Yes	>50mm	Yes	>50mm	Yes
Main Module WIFI 5G	Body 0mm	5.850	10.00	10.00	5	250	5	126.9	20.1	4.837	>50mm	4.837	>50mm	1.203	Yes	>50mm	Yes	>50mm	Yes
USB Module WIFI 5G Ant 1	Body 0mm	5.850	15.00	31.62	5	250	5	82	79.3	15.297	>50mm	15.297	>50mm	>50mm	Yes	>50mm	Yes	>50mm	>50mm
USB Module WIFI 5G Ant 2	Body 0mm	5.850	15.00	31.62	5	202	37.2	167.2	5	15.297	>50mm	2.056	>50mm	15.297	Yes	>50mm	Yes	>50mm	Yes
USB Module WIFI 5G MIMO	Body 0mm	5.850	15.50	35.48	5	202	5	82	5	17.164	>50mm	17.164	>50mm	17.164	Yes	>50mm	Yes	>50mm	Yes
Main Module BT	Body 0mm	2.4835	5.50	3.55	5	250	5	126.9	20.1	1.118	>50mm	1.118	>50mm	0.278	Yes	>50mm	Yes	>50mm	Yes

2) Standalone SAR exclusion calculation (Antenna to adjacent sides > 50 mm)

Band	Exposure Condition	f (GHz)	Pmax	Pmax	separation distance(mm)					Calculated Value					SAR Test (Yes or No)				
			(dBm)	(mw)	Back side	Right side	Left side	Top side	Bottom side	Back side	Right side	Left side	Top side	Bottom side	Back side	Right side	Left side	Top side	Bottom side
Main Module WIFI 2.4G	Body 0mm	2.4835	11.50	14.13	5	250	5	126.9	20.1	<50mm	2095.83	<50mm	864.83	<50mm	<50mm	No	<50mm	No	<50mm
USB Module WIFI 2.4G Ant 1	Body 0mm	2.4835	15.00	31.62	5	250	5	82	79.3	<50mm	2095.83	<50mm	415.83	388.83	<50mm	No	<50mm	No	No
USB Module WIFI 2.4G Ant 2	Body 0mm	2.4835	15.00	31.62	5	202	37.2	167.2	5	<50mm	1615.83	<50mm	1267.83	<50mm	<50mm	No	<50mm	No	<50mm
USB Module WIFI 2.4G MIMO	Body 0mm	2.4835	14.50	28.18	5	202	5	82	5	<50mm	1615.83	<50mm	415.83	<50mm	<50mm	No	<50mm	No	<50mm
Main Module WIFI 5G	Body 0mm	5.85	10.00	10.00	5	250	5	126.9	20.1	<50mm	2062.29	<50mm	831.29	<50mm	<50mm	No	<50mm	No	<50mm
USB Module WIFI 5G Ant 1	Body 0mm	5.85	15.00	31.62	5	250	5	82	79.3	<50mm	2062.29	<50mm	382.29	355.29	<50mm	No	<50mm	No	No
USB Module WIFI 5G Ant 2	Body 0mm	5.85	15.00	31.62	5	202	37.2	167.2	5	<50mm	1582.29	<50mm	1234.29	<50mm	<50mm	No	<50mm	No	<50mm
USB Module WIFI 5G MIMO	Body 0mm	5.85	15.50	35.48	5	202	5	82	5	<50mm	1582.29	<50mm	382.29	<50mm	<50mm	No	<50mm	No	<50mm
Main Module BT	Body 0mm	2.4835	5.50	3.55	5	250	5	126.9	20.1	<50mm	2095.83	<50mm	864.83	<50mm	<50mm	No	<50mm	No	<50mm

According to the table above, the standalone test configurations required for this device are as below:

Test configurations	Front side	Back side	Right side	Left side	Top side	Bottom side
Main Module WIFI 2.4G	No	Yes	No	Yes	No	Yes
USB Module WIFI 2.4G Ant 1	No	Yes	No	Yes	No	No
USB Module WIFI 2.4G Ant 2	No	Yes	No	Yes	No	Yes
USB Module WIFI 2.4G MIMO	No	Yes	No	Yes	No	Yes
Main Module WIFI 5G	No	Yes	No	Yes	No	Yes
USB Module WIFI 5G Ant 1	No	Yes	No	Yes	No	No
USB Module WIFI 5G Ant 2	No	Yes	No	Yes	No	Yes
USB Module WIFI 5G MIMO	No	Yes	No	Yes	No	Yes
Main Module BT	No	Yes	No	Yes	No	Yes

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

1) $(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot [\sqrt{f(\text{GHz})} / x]$ W/kg for test separation distances ≤ 50 mm, where $x = 7.5$ for 1-g SAR and $x = 18.75$ for 10-g SAR.

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

2) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distance is > 50 mm.

Mode	Position	Pmax (dBm)	Pmax (mw)	test separation distance(mm)					f(GHz)	X	Estimated SAR(W/Kg)				
				Back side	Right side	Left side	Top side	Bottom side			Back side	Right side	Left side	Top side	Bottom side
Main Module WIFI 2.4G	Body 0mm	11.50	14.13	5	250	5	130.7	20.1	2.4835	7.5	measure	0.400	measure	0.400	measure
USB Module WIFI 2.4G Ant 1	Body 0mm	15.00	31.62	5	250	5	85.8	79.3	2.4835	7.5	measure	0.400	measure	0.400	0.400
USB Module WIFI 2.4G Ant 2	Body 0mm	15.00	31.62	5	202	37.2	171	5	2.4835	7.5	measure	0.400	measure	0.400	measure
USB Module WIFI 2.4G MIMO	Body 0mm	14.50	28.18	5	202	5	85.8	5	2.4835	7.5	measure	0.400	measure	0.400	measure
Main Module WIFI 5G	Body 0mm	10.00	10.00	5	250	5	130.7	20.1	5.850	7.5	measure	0.400	measure	0.400	measure
USB Module WIFI 5G Ant 1	Body 0mm	15.00	31.62	5	250	5	85.8	79.3	5.850	7.5	measure	0.400	measure	0.400	0.400
USB Module WIFI 5G Ant 2	Body 0mm	15.00	31.62	5	202	37.2	171	5	5.850	7.5	measure	0.400	measure	0.400	measure
USB Module WIFI 5G MIMO	Body 0mm	15.50	35.48	5	202	5	85.8	5	5.850	7.5	measure	0.400	measure	0.400	measure
Main Module BT	Body 0mm	5.50	3.55	5	250	5	130.7	20.1	2.4835	7.5	measure	0.400	measure	0.400	measure

Table 1: Estimated SAR calculation for the device.

Note:

1) * - maximum possible output power declared by manufacturer

6 RF Exposure Limits

Human Exposure	Uncontrolled Environment General Population (W/kg) or (mW/g)	Controlled Environment Occupational (W/kg) or (mW/g)
Spatial Peak SAR¹ (Brain/Trunk)	1.6	8.0
Spatial Average SAR² (Whole Body)	0.08	0.4
Spatial Peak SAR³ (Hands/Feet/Ankle/Wrist)	4.0	20.0

Note:

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

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

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

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. The 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.

7 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

7.1 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

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

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

Where:

σ is the conductivity of the tissue material (S/m)

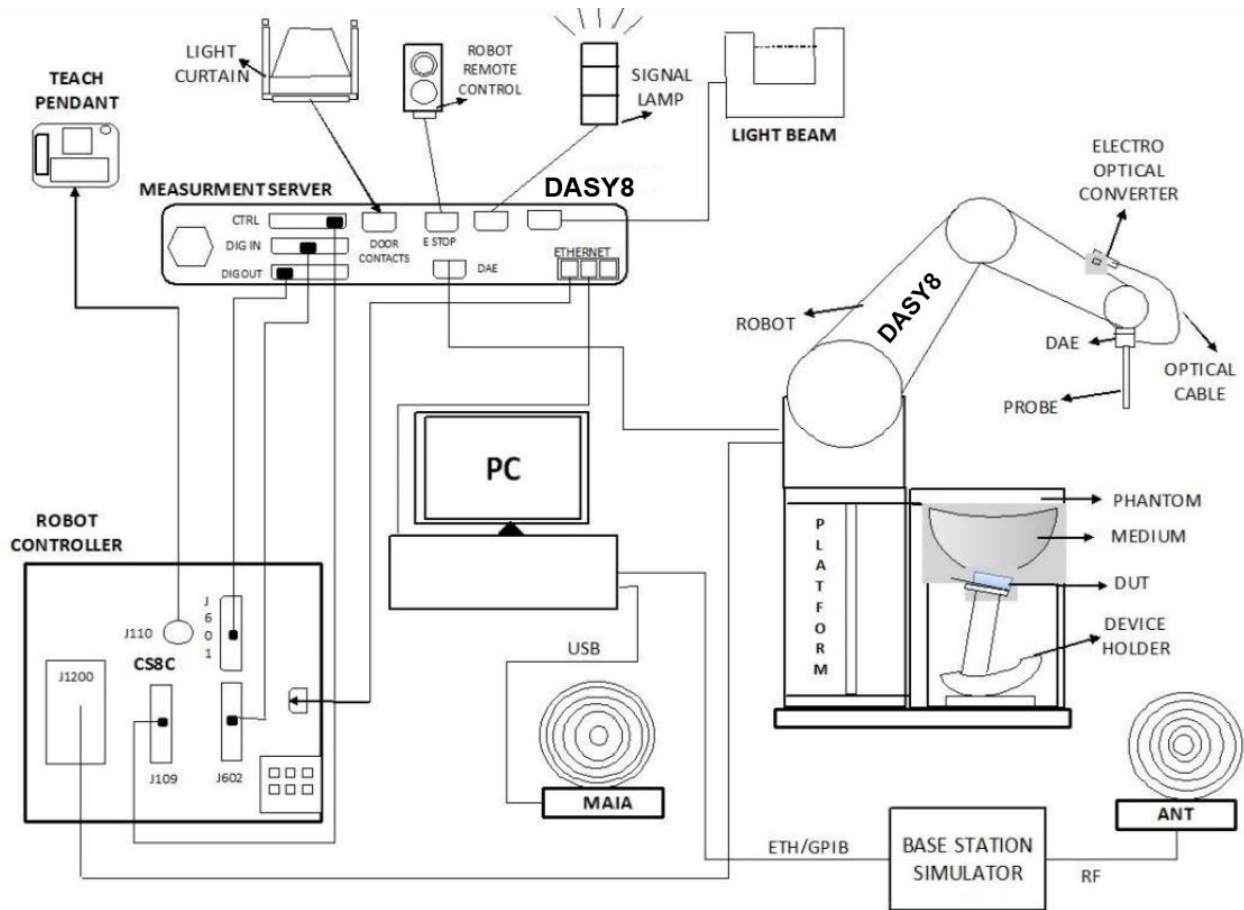
ρ is the mass density of the tissue material (kg/m³)

E is the RMS electrical field strength (V/m)

8 SAR Measurements System

8.1 The SAR Measurement Set-up

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Windows 11 and the DASY8 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.2 E-Field Probe

	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm

8.3 Data Acquisition Electronics (DAE)

	The data acquisition electronics (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 measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.
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8.4 Phantom

SAM Twin Phantom:

Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	Approx. 25 liters	
Wooden Support	SPEAG standard phantom table	

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

ELI Phantom:

Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	
Wooden Support	SPEAG standard phantom table	
The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.		

8.5 Device Holder

The SAR measured in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5mm distance, a positioning uncertainty of $\pm 0.5\text{mm}$ would produce uncertainty in the SAR of $\pm 20\%$. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions at which the devices must be measured are defined by the standards. The DASY8 device holder along with the associated adaptors / options is designed to accommodate different types & sizes (laptops, tablets, phones) of test devices and yet provide accurate and repeatable positioning as described in the test standards.

The device holder is available in two configurations (see Figure 3.13.1): for hand held transmitters (mobile phones) - MD4HHTV5 - Mounting Device for Hand-Held Transmitters and for Body-Worn transmitters - MD4LAP5 - Mounting Device for laptops and other body worn transmitters.



(a) MD4HHTV5



(b) MD4LAPV5

Figure 3.13.1: Mounting Device for Hand-Held Devices and Laptop / Body-Worn Devices

8.6 Measurement procedure

8.6.1 Power reference measurement

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

8.6.2 Area scan

Measurement procedures for evaluating SAR from wireless handsets typically start with a coarse measurement grid to determine the approximate location of the local peak SAR values. This is known as the area-scan procedure. In addition, identify the positions of any local maxima with SAR values within 2 dB of the maximum value, and that will not be within the zoom scan of other peaks. Additional zoom scans shall be measured for such peaks only when the primary peak is within 2 dB of the SAR compliance limit.

Area scan parameters SAR measurement as below:

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the measured points (geometric centre of the sensors) and the inner phantom surface (z_{M1} in Figure 20 in mm)	5 ± 1	$\delta \ln(2)/2 \pm 0,5^a$
Maximum spacing between adjacent measured points in mm (see O.8.3.1) ^b	20, or half of the corresponding zoom scan length, whichever is smaller	$60/f$, or half of the corresponding zoom scan length, whichever is smaller
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20) ^c	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space. ^b See Clause O.8 on how Δx and Δy may be selected for individual area scan requirements. ^c The probe angle relative to the phantom surface normal is restricted due to the degradation in the measurement accuracy in fields with steep spatial gradients. The measurement accuracy decreases with increasing probe angle and increasing frequency. This is the reason for the tighter probe angle restriction at frequencies above 3 GHz.		

8.6.3 Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan parameters SAR measurement as below:

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the closest measured points and the phantom surface (z_{M1} in Figure 20 and Table 3, in mm)	5	$\delta \ln(2)/2^a$
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20)	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Maximum spacing between measured points in the x - and y -directions (Δx and Δy , in mm)	8	$24/f^b$
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	5	$10/(f - 1)$
For graded grids: Maximum spacing between the two closest measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	4	$12/f$
For graded grids: Maximum incremental increase in the spacing between measured points in the direction normal to the phantom shell ($R_z = \Delta z_2/\Delta z_1$ in Figure 20)	1,5	1,5
Minimum edge length of the zoom scan volume in the x - and y -directions (L_z in O.8.3.2, in mm)	30	22
Minimum edge length of the zoom scan volume in the direction normal to the phantom shell (L_h in O.8.3.2 in mm)	30	22
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space.		
^b This is the maximum spacing allowed, which might not work for all circumstances.		

8.6.4 Power Drift Measurement

The Power Drift Measurement job measures the field at the same location as the most recent power reference measurement job within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. Several drift measurements are possible for one reference measurement. This allows a user to monitor the power drift of the device under test that must remain within a maximum variation of $\pm 5\%$. Detail power drift measurement refer to appendix B.

9 Test Equipment list

Manufacturer	Equipment Name	Model	Serial Number	Calibration Date	Due Date of calibration
SPEAG	ELI	ELI V8.0	2227	NCR	NCR
SPEAG	E-Field Probe	EX3DV4	7812	2026/01/19	2027/01/18
SPEAG	Data Acquisition Electronics	DAE4	1847	2026/03/17	2027/03/16
SPEAG	System Validation Kits	D2450V2	1099	2026/02/05	2029/02/04
SPEAG	System Validation Kits	D5GHzV2	1371	2026/02/09	2029/02/08
SPEAG	Dielectric parameter probes	DAK3.5	1341	2026/07/06	2027/07/05
Agilent	Network Analyzer	E5071B	MY42302220	2026/03/05	2027/03/04
Talent Microwave	Directional Coupler	TC-05180-10S	220420003	NCR	NCR
R&S	Signal Generator	SMR20	100648	2026/03/05	2027/03/04
QiJi	Preamplifier	YX28982301	TOWE-EQ-SR-021	NCR	NCR
R&S	Power Sensor	NRP-Z21	101651	2026/03/05	2027/03/04
R&S	Power Sensor	NRP-Z21	104189	2026/03/05	2027/03/04
HiSiDiKe	Thermometer	TP300	TOWE-EQ-SR-023	2026/03/09	2027/03/08
BingYu	Temperature and Humidity Indicator	HTC-1	TOWE-EQ-SR-025	2026/06/01	2027/05/31

Note:

1. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged or repaired during the interval.
2. The justification data of dipole can be found in Appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

10 SAR measurement variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 or 2 W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 or 2 W/kg (1-g or 10-g respectively), 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 or 3.6 W/kg ($\sim 10\%$ from the 1-g or 10-g respective SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

11 Description of Test Position

11.1 Body exposure conditions

The overall diagonal dimension of the display section of a tablet is > 20 cm, Per FCC KDB 616217, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. SAR evaluation for the front surface of tablet display screens is generally not necessary. The SAR Exclusion Threshold in KDB 447498 D01 can be applied to determine SAR test exclusion for adjacent edge configurations. 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.

12 System Verification

12.1 Tissue Verification

The Conductivity (σ) and Permittivity (ρ) are listed in bellow table. The temperature variation of the Tissue Simulate Liquids was $22\pm 2^{\circ}\text{C}$, the liquid depth of the ear reference point or the flat phantom was at least 15 cm (which is shown in Figure 12-1).

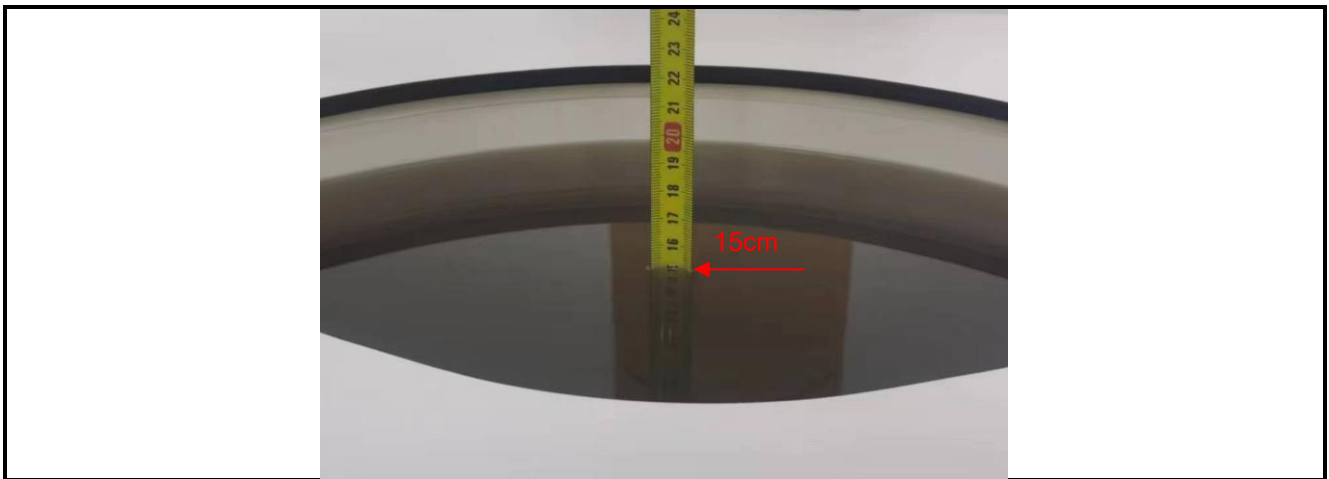


Figure 12-1 Liquid depth in the Flat Phantom

Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Target Tissue		Measured Tissue		Deviation (Limit $\pm 5\%$)		Date
			Permittivity ϵ_r	Conductivity $\sigma(\text{S/m})$	Permittivity ϵ_r	Conductivity $\sigma(\text{S/m})$	$\Delta\epsilon_r$	$\Delta\sigma$	
2450	Head	21.9	39.20	1.80	40.100	1.820	2.30%	1.11%	2026/09/14
5300	Head	21.7	35.90	4.76	36.500	4.870	1.67%	2.31%	2026/09/16
5600	Head	21.7	35.50	5.07	35.600	5.230	0.28%	3.16%	2026/09/16
5800	Head	21.7	35.30	5.27	35.500	5.410	0.57%	2.66%	2026/09/16

Table 2: Measurement Tissue Parameters

12.2 SAR System Check

Prior to SAR assessment, a SAR system Check measurement was performed to see if the measured SAR was within $\pm 10\%$ from the target SAR values. The System Performance Check Setup in Figure 12-3.

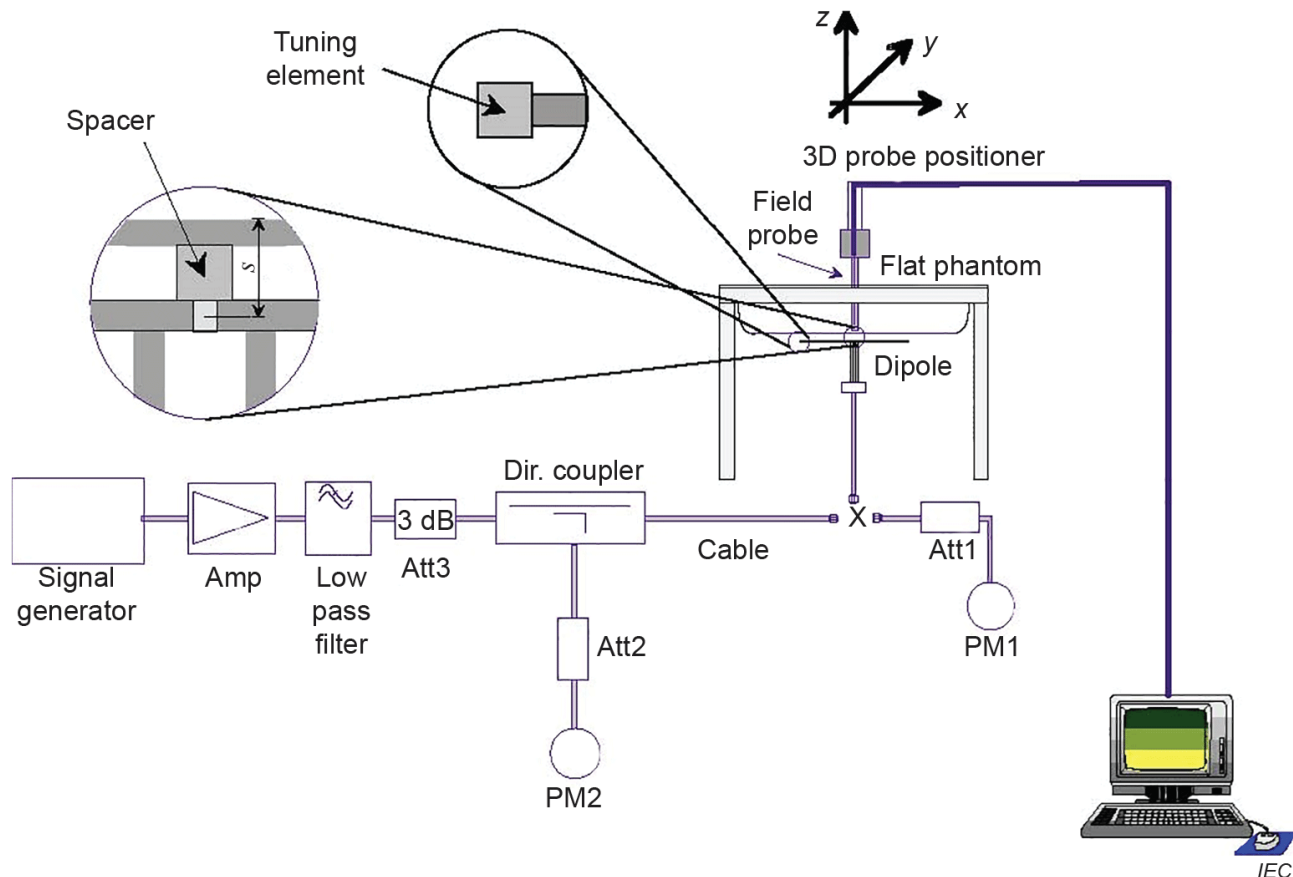


Figure 12-3 System Performance Check Setup

12.2.1 System Check Result

Frequency (MHz)	Tissue Type	Dipole	S/N	Target SAR (1W)		Measured SAR (100mW)		Measured SAR (normalized to 1W)		Deviation (Limit $\pm 10\%$)		Date
				1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	$\Delta 1g$	$\Delta 10g$	
2450	Head	D2450V2	1099	52.70	24.70	5.12	2.51	51.20	25.10	-2.85%	1.62%	2026/09/14
5300	Head	D5GHzV2	1371	79.50	22.50	7.63	2.38	76.30	23.80	-4.03%	5.78%	2026/09/16
5600	Head	D5GHzV2	1371	82.10	23.10	7.77	2.49	77.70	24.90	-5.36%	7.79%	2026/09/16
5800	Head	D5GHzV2	1371	78.60	22.10	8.00	2.32	80.00	23.20	1.78%	4.98%	2026/09/16

Table 3: SAR System Check Result

12.2.2 Detailed System Check Result

Please see Appendix A

13 SAR General Measurement Procedures

13.1 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 D01 for more details.

A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

For WiFi SAR testing, a communication link is set up with some command for WiFi mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Per KDB248227 D01, 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 must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

13.1.1 Initial Test Position Procedure

DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures. The initial test position procedure is described in the following:

1. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other (remaining) test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band. SAR is also not required for that exposure configuration in the subsequent test configuration(s).
2. When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest extrapolated or estimated 1-g SAR conditions determined by area scans or next closest/smallest test separation distance and maximum RF coupling test positions based on manufacturer justification, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions (left, right, touch, tilt or subsequent surfaces and edges) are tested.
3. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested. a) Additional power measurements may be required for this step, which should be limited to those necessary for identifying the subsequent highest output power channels.

13.1.2 Initial Test Configuration Procedure

An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. SAR is measured using the highest measured maximum output power channel. For configurations with the same specified or measured maximum output power, additional transmission mode and test channel selection procedures are required. SAR test reduction for subsequent highest output test channels is determined according to reported SAR of the initial test configuration.

For next to the ear, hotspot mode and UMC mini-tablet exposure configurations where multiple test positions are required, the initial test position procedure is applied to minimize the number of test positions required for SAR measurement using the initial test configuration transmission mode. For fixed exposure conditions that do not have multiple SAR test positions, SAR is measured in the transmission mode determined by the initial test configuration.

When the reported SAR of the initial test configuration is > 0.8 W/kg, SAR measurement is required for subsequent next highest measured output power channel(s) in the initial test configuration until reported SAR is ≤ 1.2 W/kg or all required channels are tested.

13.1.3 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.

13.1.4 2.4 GHz SAR Procedures

Separate SAR procedures are applied to DSSS and OFDM configurations in the 2.4 GHz band to simplify DSSS test requirements. For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions.

A) 802.11b DSSS SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either a 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 exposure configuration 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.

B) 2.4 GHz 802.11g/n OFDM SAR Test Exclusion Requirements

When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied (section 5.3 of of KDB248227 D01). SAR is not required for the following 2.4 GHz OFDM conditions.

1. When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
2. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

C) SAR Test Requirements for OFDM configurations

When SAR measurement is required for 802.11 g/n OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. In applying the initial test configuration and subsequent test configuration procedures, the 802.11 transmission configuration with the highest specified maximum output power and the channel within a test configuration with the highest measured maximum output power should be clearly distinguished to apply the procedures.

13.1.5 5 GHz SAR Procedures

13.1.5.1 U-NII-1 and U-NII-2A Bands

For devices that operate in only one of the U-NII-1 and U-NII-2A bands, the normally required SAR procedures for OFDM configurations are applied. For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following:

- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, both bands are tested independently for SAR.
- 2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, both bands are tested independently for SAR.
- 3) The two U-NII bands may be aggregated to support a 160 MHz channel on channel number 50. Without additional testing, the maximum output power for this is limited to the lower of the maximum output power certified for the two bands. When SAR measurement is required for at least one of the bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is > 1.2 W/kg, SAR is required for the 160 MHz channel. This procedure does not apply to an aggregated band with maximum output higher than the standalone band(s); the aggregated band must be tested independently for SAR. SAR is not required when the 160 MHz channel is operating at a reduced maximum power and also qualifies for SAR test exclusion.

13.1.5.2 U-NII-2C and U-NII-3 Bands

The frequency range covered by these bands is 380 MHz (5.47 – 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, all channels that operate at 5.60 – 5.65 GHz must be included to apply the SAR test reduction and measurement procedures.

When the same transmitter and antenna(s) are used for U-NII-2C band and U-NII-3 band or 5.8 GHz band of §15.247, the bands may be aggregated to enable additional channels with 20, 40 or 80 MHz bandwidth to span across the band gap, as illustrated in Appendix B. The maximum output power for the additional band gap channels is limited to the lower of those certified for the bands. Unless band gap channels are permanently disabled, they must be considered for SAR testing. The frequency range covered by these bands is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65 GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels. When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

13.1.6 OFDM Transmission Mode and SAR Test Channel Selection

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. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac 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.

13.1.7 MIMO SAR Considerations

Per KDB 248227 D01, the simultaneous SAR provisions in KDB 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is < 1.6 W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

14 Conducted Power

Main Module:

Test Mode	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)	SAR Test
11b	2412	11.21	11.5	Yes
	2437	11.20	11.5	Yes
	2462	11.18	11.5	Yes
11g	2412	No Required	11.0	No
	2437		11.0	No
	2462		11.0	No
11n 20M	2412	No Required	11.0	No
	2437		11.0	No
	2462		11.0	No
11n 40M	2422	No Required	11.0	No
	2437		11.0	No
	2452		11.0	No

Test Mode	Band	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)	SAR Test
11a	U-NII-1	5180	No Required	10.0	No
		5200		10.0	No
		5240		10.0	No
	U-NII-2A	5260	8.98	10.0	Yes
		5280	9.24	10.0	Yes
		5320	9.30	10.0	Yes
	U-NII-2C	5500	9.01	9.5	Yes
		5580	8.27	9.5	Yes
		5700	9.02	9.5	Yes
	U-NII-3	5745	9.30	10.0	Yes
		5785	9.31	10.0	Yes
		5825	8.93	10.0	Yes
11n 20M	U-NII-1	5180	No Required	9.0	No
		5200		9.0	No
		5240		9.0	No
	U-NII-2A	5260		9.0	No
		5280		9.0	No
		5320		9.0	No
	U-NII-2C	5500		8.5	No
		5580		8.5	No
		5700		8.5	No
	U-NII-3	5745		8.5	No
		5785		8.5	No
		5825		8.5	No
11n 40M	U-NII-1	5190	No Required	9.0	No
		5230		9.0	No
	U-NII-2A	5270		9.0	No
		5310		9.0	No
	U-NII-2C	5510		8.5	No
		5550		8.5	No
		5670		8.5	No
	U-NII-3	5755		8.5	No
				8.5	No

		5795		8.5	No
11ac 20M	U-NII-1	5180	No Required	9.0	No
		5200		9.0	No
		5240		9.0	No
		5260		9.0	No
	U-NII-2A	5280		9.0	No
		5320		9.0	No
		5500		8.5	No
	U-NII-2C	5580		8.5	No
		5700		8.5	No
		5745		8.5	No
	U-NII-3	5785		8.5	No
		5825		8.5	No
11ac 40M	U-NII-1	5190	No Required	9.0	No
		5230		9.0	No
	U-NII-2A	5270		9.0	No
		5310		9.0	No
		5510		8.5	No
	U-NII-2C	5550		8.5	No
		5670		8.5	No
		5755		8.5	No
	U-NII-3	5795		8.5	No
11ac 80M	U-NII-1	5210	No Required	9.0	No
	U-NII-2A	5290		9.0	No
	U-NII-2C	5530		8.5	No
		5610		8.5	No
	U-NII-3	5775		8.5	No

Test Mode	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)
DH5	2402	3.95	5.5
	2441	4.98	5.5
	2480	4.34	5.5
2DH5	2402	0.54	1.5
	2441	1.28	1.5
	2480	1.21	1.5
3DH5	2402	0.42	2.0
	2441	1.70	2.0
	2480	1.11	2.0
Test Mode	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)
BLE_1M	2402	2.32	3.5
	2440	3.24	3.5
	2480	2.63	3.5
BLE_2M	2404	1.65	3.0
	2440	2.68	3.0
	2478	2.37	3.0

USB Module:

Test Mode	Antenna	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)	SAR Test
11b	Ant1	2412	14.18	15.0	Yes
		2437	14.24	15.0	Yes
		2462	14.50	15.0	Yes
11g	Ant1	2412	No Required	15.0	No
		2437		15.0	No
		2462		15.0	No
11n 20M	Ant1	2412	No Required	11.5	No
		2437		11.5	No
		2462		11.5	No
11n 40M	Ant1	2422	No Required	10.5	No
		2437		10.5	No
		2452		10.5	No
11ax 20M	Ant1	2412	No Required	11.5	No
		2437		11.5	No
		2462		11.5	No
11ax 40M	Ant1	2422	No Required	10.5	No
		2437		10.5	No
		2452		10.5	No
Test Mode	Antenna	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)	SAR Test
11b	Ant2	2412	14.05	15.0	Yes
		2437	14.32	15.0	Yes
		2462	14.84	15.0	Yes
11g	Ant2	2412	No Required	15.0	No
		2437		15.0	No
		2462		15.0	No
11n 20M	Ant2	2412	No Required	11.5	No
		2437		11.5	No
		2462		11.5	No
11n 40M	Ant2	2422	No Required	10.5	No
		2437		10.5	No
		2452		10.5	No
11ax 20M	Ant2	2412	No Required	11.5	No
		2437		11.5	No
		2462		11.5	No
11ax 40M	Ant2	2422	No Required	10.5	No
		2437		10.5	No
		2452		10.5	No
Test Mode	Antenna	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)	SAR Test
11n 20M	MIMO	2412	13.52	14.5	Yes
		2437	13.85	14.5	Yes
		2462	14.07	14.5	Yes
11n 40M	MIMO	2422	No Required	13.5	No
		2437		13.5	No
		2452		13.5	No
11ax 20M	MIMO	2412	No Required	14.5	No
		2437		14.5	No
		2462		14.5	No
11ax 40M	MIMO	2422	No Required	13.5	No
		2437		13.5	No
		2452		13.5	No

WIFI 5G			Ant1			Ant2			MIMO		
Test Mode	Band	Freq (MHz)	Average Power[dBm]	Tune-up (dBm)	SAR Test	Average Power[dBm]	Tune-up (dBm)	SAR Test	Average Power[dBm]	Tune-up (dBm)	SAR Test
11a	U-NII-1	5180	No Required	15.0	No	No Required	15.0	No	-	-	-
		5200		15.0	No		15.0	No	-	-	-
		5240		15.0	No		15.0	No	-	-	-
	U-NII-2A	5260	14.82	15.0	Yes	14.14	15.0	Yes	-	-	-
		5280	14.36	15.0	Yes	14.76	15.0	Yes	-	-	-
		5320	14.48	15.0	Yes	14.90	15.0	Yes	-	-	-
	U-NII-2C	5500	11.81	12.5	Yes	11.76	13.0	Yes	-	-	-
		5580	11.40	12.5	Yes	11.72	13.0	Yes	-	-	-
		5700	11.80	12.5	Yes	12.57	13.0	Yes	-	-	-
	U-NII-3	5745	12.54	13.0	Yes	12.58	13.0	Yes	-	-	-
		5785	11.40	12.0	Yes	11.30	12.0	Yes	-	-	-
		5825	11.36	12.0	Yes	11.41	12.0	Yes	-	-	-
11n 20M	U-NII-1	5180	No Required	12.5	No	No Required	12.5	No	No Required	15.5	No
		5200		12.5	No		12.5	No		15.5	No
		5240		12.5	No		12.5	No		15.5	No
	U-NII-2A	5260		12.5	No		12.5	No	14.19	15.5	Yes
		5280		12.5	No		12.5	No	14.63	15.5	Yes
		5320		12.5	No		12.5	No	14.76	15.5	Yes
	U-NII-2C	5500		8.0	No		9.0	No	10.61	11.5	Yes
		5580		8.0	No		9.0	No	10.92	11.5	Yes
		5700		8.0	No		9.0	No	10.75	11.5	Yes
	U-NII-3	5745		7.0	No		8.5	No	10.39	11.5	Yes
		5785		9.0	No		7.5	No	10.58	11.5	Yes
		5825		7.0	No		8.5	No	10.11	11.5	Yes
11n 40M	U-NII-1	5190	No Required	11.5	No	No Required	11.5	No	No Required	14.5	No
		5230		11.5	No		11.5	No		14.5	No
	U-NII-2A	5270		11.5	No		11.5	No		14.5	No
		5310		11.5	No		11.5	No		14.5	No
	U-NII-2C	5510		8.5	No		7.0	No		11.0	No
		5550		8.5	No		8.5	No		11.0	No
		5670		8.5	No		8.5	No		11.0	No
	U-NII-3	5755		8.5	No		8.0	No		11.0	No
		5795		8.5	No		8.0	No		11.0	No
11ac 20M	U-NII-1	5180	No Required	12.5	No	No Required	12.5	No	No Required	15.5	No
		5200		12.5	No		12.5	No		15.5	No
		5240		12.5	No		12.5	No		15.5	No
	U-NII-2A	5260		12.5	No		12.5	No		15.5	No
		5280		12.5	No		12.5	No		15.5	No
		5320		12.5	No		12.5	No		15.5	No
	U-NII-2C	5500		8.0	No		8.5	No		11.0	No
		5580		8.0	No		8.5	No		11.0	No
		5700		8.5	No		8.5	No		11.0	No
	U-NII-3	5745		9.5	No		7.0	No		11.0	No
		5785		9.5	No		7.0	No		11.0	No
		5825		9.5	No		7.0	No		11.0	No
	U-NII-2A	5270		11.5	No		11.5	No		14.5	No
		5270		11.5	No		11.5	No		14.5	No
11ac 40M	U-NII-1	5190	No Required	11.5	No	No Required	11.5	No	No Required	14.5	No
		5230		11.5	No		11.5	No		14.5	No
	U-NII-2A	5270		11.5	No		11.5	No		14.5	No

	U-NII-2C	5310		11.5	No		11.5	No		14.5	No
		5510		9.0	No		7.0	No		11.0	No
		5550		9.0	No		8.5	No		11.0	No
		5670		8.0	No		8.5	No		11.0	No
	U-NII-3	5755		8.5	No		8.0	No		11.0	No
		5795		8.5	No		8.0	No		11.0	No
11ac 80M	U-NII-1	5210	No Required	10.5	No	No Required	10.5	No	No Required	13.5	No
	U-NII-2A	5290		10.5	No		10.5	No		13.5	No
	U-NII-2C	5530		9.5	No		7.5	No		13.5	No
		5610		9.5	No		7.5	No		13.5	No
	U-NII-3	5775		9.5	No		7.5	No		13.5	No
11ax 20M	U-NII-1	5180	No Required	12.5	No	No Required	12.5	No	No Required	15.5	No
		5200		12.5	No		12.5	No		15.5	No
		5240		12.5	No		12.5	No		15.5	No
	U-NII-2A	5260		12.5	No		12.5	No		15.5	No
		5280		12.5	No		12.5	No		15.5	No
		5320		12.5	No		12.5	No		15.5	No
	U-NII-2C	5500		7.0	No		8.5	No		11.0	No
		5580		7.0	No		8.5	No		11.0	No
		5700		9.0	No		8.5	No		11.0	No
	U-NII-3	5745		7.0	No		8.0	No		11.0	No
		5785		8.0	No		8.0	No		11.0	No
		5825		7.0	No		8.0	No		11.0	No
11ax 40M	U-NII-1	5190	No Required	11.5	No	No Required	11.5	No	No Required	14.5	No
		5230		11.5	No		11.5	No		14.5	No
	U-NII-2A	5270		11.5	No		11.5	No		14.5	No
		5310		11.5	No		11.5	No		14.5	No
	U-NII-2C	5510		8.0	No		9.0	No		11.0	No
		5550		8.0	No		9.0	No		11.0	No
		5670		8.0	No		9.0	No		11.0	No
	U-NII-3	5755		9.0	No		7.0	No		11.0	No
		5795		9.0	No		7.0	No		11.0	No
11ax 80M	U-NII-1	5210	No Required	10.5	No	No Required	10.5	No	No Required	13.5	No
	U-NII-2A	5290		10.5	No		10.5	No		13.5	No
	U-NII-2C	5530		9.0	No		8.5	No		11.0	No
		5610		9.0	No		8.5	No		11.0	No
	U-NII-3	5775		9.0	No		8.5	No		11.0	No

15 SAR Data Summary

General Notes:

- 1) The Highest Reported SAR Plot refer to Appendix B.
- 2) Per KDB 447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1g or 10g SAR for the mid-band or highest output power channel is:
 - $\leq 0.8\text{W/kg}$ for 1g or 2.0W/kg for 10g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1g or 10g respectively, when the transmission band is between 100 MHz and 200MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1g or 10g respectively, when the transmission band is $\geq 200\text{MHz}$.

For WIFI 5G:

- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. As the highest reported SAR for a test configuration is $\leq 1.2\text{ W/kg}$, SAR is not required for U-NII-1 band for that configuration.

15.1 SAR Measurement Result of WIFI 2.4G

Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1-g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
Back side	0	802.11b	1/2412	0.352	99.52%	1.005	11.21	11.50	1.069	0.378
Left side	0	802.11b	1/2412	0.940	99.52%	1.005	11.21	11.50	1.069	1.010
Bottom side	0	802.11b	1/2412	0.015	99.52%	1.005	11.21	11.50	1.069	0.016
Left side	0	802.11b	6/2437	1.020	99.52%	1.005	11.20	11.50	1.072	1.098
Left side Repeat	0	802.11b	6/2437	0.980	99.52%	1.005	11.20	11.50	1.072	1.055
Left side	0	802.11b	11/2462	1.010	99.52%	1.005	11.18	11.50	1.076	1.093

Table 4: SAR of WIFI 2.4G(Main Module).

Test Position	Channel/ Frequency	Measured SAR (1g)	1 st Repeated	Ratio	2 nd Repeated	3 rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Left side	6/2437	1.020	0.980	1.041	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

ANT1 Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1-g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
Back side	0	802.11b	11/2462	0.176	99.88%	1.001	14.50	15.00	1.122	0.198
Left side	0	802.11b	11/2462	0.150	99.88%	1.001	14.50	15.00	1.122	0.168
Back side	0	802.11b	1/2412	0.347	99.88%	1.001	14.18	15.00	1.208	0.420
Back side	0	802.11b	6/2437	0.217	99.88%	1.001	14.24	15.00	1.191	0.259
ANT2 Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1-g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
Back side	0	802.11b	11/2462	0.207	99.75%	1.003	14.84	15.00	1.038	0.215
Left side	0	802.11b	11/2462	0.119	99.75%	1.003	14.84	15.00	1.038	0.124
Bottom side	0	802.11b	11/2462	0.122	99.75%	1.003	14.84	15.00	1.038	0.127
Back side	0	802.11b	1/2412	0.387	99.75%	1.003	14.05	15.00	1.245	0.483
Back side	0	802.11b	6/2437	0.220	99.75%	1.003	14.32	15.00	1.169	0.258
MIMO Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1-g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
Back side	0	802.11n 20M	11/2462	0.120	98.29%	1.017	14.07	14.50	1.104	0.135
Left side	0	802.11n 20M	11/2462	0.084	98.29%	1.017	14.07	14.50	1.104	0.094
Bottom side	0	802.11n 20M	11/2462	0.068	98.29%	1.017	14.07	14.50	1.104	0.076
Back side	0	802.11n 20M	1/2412	0.179	98.29%	1.017	13.52	14.50	1.253	0.228
Back side	0	802.11n 20M	6/2437	0.108	98.29%	1.017	13.85	14.50	1.161	0.128

Table 5: SAR of WIFI 2.4G(USB Module).

15.2 SAR Measurement Result of WIFI 5G

Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
U-NII-2A										
Back side	0	802.11a	64/5320	0.298	96.53%	1.036	9.30	10.0	1.175	0.363
Left side	0	802.11a	64/5320	0.962	96.53%	1.036	9.30	10.0	1.175	1.171
Left side Repeat	0	802.11a	64/5320	0.956	96.53%	1.036	9.30	10.0	1.175	1.164
Bottom side	0	802.11a	64/5320	0.139	96.53%	1.036	9.30	10.0	1.175	0.169
Left side	0	802.11a	52/5260	0.891	96.53%	1.036	8.98	10.0	1.265	1.167
Left side	0	802.11a	56/5280	0.835	96.53%	1.036	9.24	10.0	1.191	1.030
U-NII-2C										
Back side	0	802.11a	140/5700	0.218	96.53%	1.036	9.02	9.5	1.117	0.252
Left side	0	802.11a	140/5700	0.946	96.53%	1.036	9.02	9.5	1.117	1.095
Bottom side	0	802.11a	140/5700	0.054	96.53%	1.036	9.02	9.5	1.117	0.062
Left side	0	802.11a	100/5500	0.858	96.53%	1.036	9.01	9.5	1.119	0.995
Left side	0	802.11a	116/5580	0.792	96.53%	1.036	8.27	9.5	1.327	1.089
U-NII-3										
Back side	0	802.11a	157/5785	0.174	96.53%	1.036	9.31	10.0	1.172	0.211
Left side	0	802.11a	157/5785	0.807	96.53%	1.036	9.31	10.0	1.172	0.980
Bottom side	0	802.11a	157/5785	0.057	96.53%	1.036	9.31	10.0	1.172	0.069
Left side	0	802.11a	149/5745	0.850	96.53%	1.036	9.30	10.0	1.175	1.035
Left side	0	802.11a	165/5825	0.753	96.53%	1.036	8.93	10.0	1.279	0.998

Table 6: SAR of WIFI 5G(Main Module).

Test Position	Channel/ Frequency	Measured SAR (1g)	1 st Repeated	Ratio	2 nd Repeated	3 rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Left side	64/5320	0.962	0.956	1.006	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

ANT1 Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
U-NII-2A										
Back side	0	802.11a	52/5260	0.413	98.55%	1.015	14.82	15.0	1.042	0.437
Left side	0	802.11a	52/5260	0.139	98.55%	1.015	14.82	15.0	1.042	0.147
Back side	0	802.11a	56/5280	0.440	98.55%	1.015	14.36	15.0	1.159	0.518
Back side	0	802.11a	64/5320	0.684	98.55%	1.015	14.48	15.0	1.127	0.783
U-NII-2C										
Back side	0	802.11a	100/5500	0.972	98.55%	1.015	11.81	12.5	1.172	1.156
Left side	0	802.11a	100/5500	0.150	98.55%	1.015	11.81	12.5	1.172	0.178
Back side	0	802.11a	116/5580	0.710	98.55%	1.015	11.40	12.5	1.288	0.928
Back side	0	802.11a	140/5700	0.567	98.55%	1.015	11.80	12.5	1.175	0.676
U-NII-3										
Back side	0	802.11a	149/5745	1.030	98.55%	1.015	12.54	13.0	1.112	1.162
Back side Repeat	0	802.11a	149/5745	0.994	98.55%	1.015	12.54	13.0	1.112	1.122
Left side	0	802.11a	149/5745	0.345	98.55%	1.015	12.54	13.0	1.112	0.389
Back side	0	802.11a	157/5785	0.896	98.55%	1.015	11.40	12.0	1.148	1.044
Back side	0	802.11a	165/5825	0.961	98.55%	1.015	11.36	12.0	1.159	1.130
ANT2 Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
U-NII-2A										
Back side	0	802.11a	64/5320	0.545	98.55%	1.015	14.90	15.0	1.023	0.566
Left side	0	802.11a	64/5320	0.106	98.55%	1.015	14.90	15.0	1.023	0.110
Bottom side	0	802.11a	64/5320	0.801	98.55%	1.015	14.90	15.0	1.023	0.832
Bottom side	0	802.11a	52/5260	0.759	98.55%	1.015	14.14	15.0	1.219	0.939
Bottom side	0	802.11a	56/5280	0.897	98.55%	1.015	14.76	15.0	1.057	0.962
Bottom side Repeat	0	802.11a	56/5280	0.868	98.55%	1.015	14.76	15.0	1.057	0.931
U-NII-2C										
Back side	0	802.11a	140/5700	0.565	98.55%	1.015	12.57	13.0	1.104	0.633
Left side	0	802.11a	140/5700	0.253	98.55%	1.015	12.57	13.0	1.104	0.284
Bottom side	0	802.11a	140/5700	0.723	98.55%	1.015	12.57	13.0	1.104	0.810
Bottom side	0	802.11a	100/5500	0.842	98.55%	1.015	11.76	13.0	1.330	1.137
Bottom side	0	802.11a	116/5580	0.706	98.55%	1.015	11.72	13.0	1.343	0.962
U-NII-3										
Back side	0	802.11a	149/5745	0.581	98.55%	1.015	12.58	13.0	1.102	0.650
Left side	0	802.11a	149/5745	0.150	98.55%	1.015	12.58	13.0	1.102	0.168
Bottom side	0	802.11a	149/5745	0.583	98.55%	1.015	12.58	13.0	1.102	0.652
Bottom side	0	802.11a	157/5785	0.539	98.55%	1.015	11.30	12.0	1.175	0.643
Bottom side	0	802.11a	165/5825	0.625	98.55%	1.015	11.41	12.0	1.146	0.727
MIMO Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
U-NII-2A										
Back side	0	802.11n 20M	64/5320	0.286	98.55%	1.015	14.76	15.5	1.186	0.344
Left side	0	802.11n 20M	64/5320	0.077	98.55%	1.015	14.76	15.5	1.186	0.093
Bottom side	0	802.11n 20M	64/5320	0.292	98.55%	1.015	14.76	15.5	1.186	0.351
Bottom side	0	802.11n 20M	52/5260	0.267	98.55%	1.015	14.19	15.5	1.352	0.366
Bottom side	0	802.11n 20M	56/5280	0.465	98.55%	1.015	14.63	15.5	1.222	0.577
U-NII-2C										
Back side	0	802.11n 20M	116/5580	0.211	98.55%	1.015	10.92	11.5	1.143	0.245
Left side	0	802.11n 20M	116/5580	0.172	98.55%	1.015	10.92	11.5	1.143	0.200
Bottom side	0	802.11n 20M	116/5580	0.264	98.55%	1.015	10.92	11.5	1.143	0.306
Bottom side	0	802.11n 20M	100/5500	0.310	98.55%	1.015	10.61	11.5	1.227	0.386
Bottom side	0	802.11n 20M	140/5700	0.224	98.55%	1.015	10.75	11.5	1.189	0.270
U-NII-3										
Back side	0	802.11n 20M	157/5785	0.251	98.55%	1.015	10.58	11.5	1.236	0.315
Left side	0	802.11n 20M	157/5785	0.245	98.55%	1.015	10.58	11.5	1.236	0.307
Bottom side	0	802.11n 20M	157/5785	0.268	98.55%	1.015	10.58	11.5	1.236	0.336
Bottom side	0	802.11n 20M	149/5745	0.202	98.55%	1.015	10.39	11.5	1.291	0.265
Bottom side	0	802.11n 20M	165/5825	0.277	98.55%	1.015	10.11	11.5	1.377	0.387

Table 7: SAR of WIFI 5G(USB Module).

Test Position	Channel/ Frequency	Measured SAR (1g)	1 st Repeated	Ratio	2 nd Repeated	3 rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Back side Ant1	149/5745	1.030	0.994	1.036	N/A	N/A
Bottom side Ant2	56/5280	0.897	0.868	1.033	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

15.3 SAR Measurement Result of BT

Test Results										
Test position	Distance (mm)	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)
Back side	0	DH5	39/2441	0.065	76.60%	1.305	4.98	5.50	1.127	0.096
Left side	0	DH5	39/2441	0.111	76.60%	1.305	4.98	5.50	1.127	0.163
Bottom side	0	DH5	39/2441	0.003	76.60%	1.305	4.98	5.50	1.127	0.004
Left side	0	DH5	0/2402	0.113	76.60%	1.305	3.95	5.50	1.429	0.211
Left side	0	DH5	78/2480	0.098	76.60%	1.305	4.34	5.50	1.306	0.167

Table 8: SAR of BT(Main Module).

16 Simultaneous Transmission Analysis

The Simultaneous Transmission Possibilities of this device are as below:

NO.	Simultaneous Tx Combination	Body
1	Main Module: WIFI 2.4GHz + WIFI 5GHz	N
2	Main Module: WIFI 2.4/5GHz + BT	N
3	USB Module: WIFI 2.4GHz + WIFI 5GHz	N
4	Main Module: WIFI 2.4/5GHz/BT + USB Module: WIFI 2.4/5GHz	Y

Test position	SARmax (W/kg)									Summed SAR
	Main Module			USB Module						
	WiFi 2.4G	WiFi 5G	BT	WiFi 2.4G (Ant1)	WiFi 2.4G (Ant2)	WiFi 2.4G (MIMO)	WiFi 5G (Ant1)	WiFi 5G (Ant2)	WiFi 5G (MIMO)	
	1	2	3	4	5	6	7	8	9	Max(1/2/3)+ Max(4/5/6/7/8/9)
Back side	0.378	0.363	0.096	0.420	0.483	0.228	1.162	0.650	0.344	1.540
Left side	1.098	1.171	0.211	0.168	0.124	0.094	0.389	0.284	0.307	1.560
Right side	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.800
Top side	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.800
Bottom side	0.016	0.169	0.004	0.400	0.127	0.076	0.400	1.137	0.577	1.306

17 Measurement Uncertainty

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

18 Calibration Certificate

Please see the Appendix C

19 Test Setup Photos

Please see the Appendix D

Appendix A: System Check Plots

Appendix B: SAR Test Plots

Appendix C: Calibration certificate

Appendix D: Test Setup Photos

--- The End ---
