



TEST REPORT FOR SAR TESTING

Report No.: 20247010317

Applicant: Snap Inc.

Name of The Sample: Spectacles

Model/ Type: 5

FCC ID: 2AIRN-005

Test Category: Entrusted Inspection

Jiangsu Electronic Information Product Quality Supervision & Inspection Institute
(Jiangsu Information Security Evaluation Center)

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TEST REPORT FOR SAR TESTING

General information:

Applicant	Snap Inc.
Address	2772 Donald Douglas Loop North, Santa Monica, CA 90405, USA
Manufacturer	Snap Inc.
Address	2772 Donald Douglas Loop North, Santa Monica, CA 90405, USA
Factory	Quanta Computer Inc.
Address	No. 178, Wen Hwa 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan
Name of the sample	Spectacles
Trade Mark	/
Model/Type	5
Sample Quantity	1
Production Date / Lot No	/
Date of receipt	March 1, 2024

Sample acquisition mode:

☒ Client delivering sample	
☐ Sampling	
Sampling Location	/
Sampling Base	/
Date of test	March 1, 2024 ~ April 10, 2024
Test result	Pass
Tested by	Lu Yanan
Checked by	Lu Ling
Approved by(Name+Signature):	Chen Jisheng
Date of issue	October 21, 2024

Note:

General sample information:

Composition and state of sample.....:/

Main function description.....: The EUT is a Spectacles which supports WIFI and Bluetooth function. (The information of this part in the report is provided by the applicant, who is responsible for its authenticity.)

Additional information.....:/

Test standard:

47CFR § 2.1093: Radio frequency Radiation Exposure Evaluation: Portable Device

IEC/IEEE 62209-1528:2020: Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)

IEEE Std 1528:2013: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques

KDB447498 D04 Interim General RF Exposure Guidance v01

KDB248227 D01 802.11 Wi-Fi SAR v02r02

KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04

KDB865664 D02 RF Exposure Reporting v01r02

KDB690783 D01 SAR Listings on Grants v01r03

Test instructions and laboratory information:

Received 1 set/pcs samples for testing, actual test 1 set/pcs. Please find corresponding test group and sample number in the test result.

Name	Model/Type	Number	S/N	OA code	Code in this report
Spectacles	5	1	/	/	1#

Name.....: Jiangsu Electronic Information Product Quality Supervision & Inspection Institute (Jiangsu Information Security Evaluation Center)

Testing location/ address: Floor 1. Building D2, No.999 of Gao Lang Dong Road, Economic Development District

Telephone: +86 0510 85105775 Fax : +86 0510 85104572

The test facility is recognized, certified, or accredited by these organizations.....:

FCC Accredited Lab

Designation Number: CN0138

IC Registration Lab

CAB identifier.: CN0172

Additional Information.....: None

Note:

1.JEPSI is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).

2.JEPSI is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

Test Entrustment Letter standard is only the verdict standard in the test basis (when applicable).

The data of test item in the report is provided by the applicant, who is responsible for its authenticity. (when applicable).

Possible test case verdicts:

- test case does not apply to the test object.....: N/A
- test object does meet the requirement.....: P (Pass)
- test object does not meet the requirement....: F (Fail)

STATEMENT:

1. This test report is invalid if it is without special inspection seal of the test laboratory.
2. This test report is invalid if altered or without signatures from compilation and audit or not signed by the authorized signature.
3. This test report shall not be reproduced, except in full, without the written consent of Jiangsu Electronic Information Product Quality Supervision and Inspection Institute(Jiangsu Information Security Evaluation Center).
4. The information about the samples in the report is provided by the applicant, who is responsible for its authenticity. The test results are only responsible for the tested samples.
5. The agency does not bear legal liability to the data provided by the applicant.
6. If you have any question, please bring them to our attention within 15 days from the date of report receipt. (Please lodge them to the assignment department if the task is consigned by the government.)

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Revision History

Report No.	Version	Description	Issued Date
20247010317	Rev. 01	Initial issue of report	September 20, 2024

SAR Summary

Highest Standalone SAR Summary

Exposure Position	Frequency Band (MHz)	Highest Reported 1g-SAR(W/kg)
Body-supported (0mm Gap)	2400-2483.5	0.712
Body-supported (0mm Gap)	5150-5250	0.539
Body-supported (0mm Gap)	5250-5350	0.694
Body-supported (0mm Gap)	5470-5725	0.575
Body-supported (0mm Gap)	5725-5850	0.418

Test Result

1 General Information

1.1 Details of EUT

Technical Parameter	Detail
Kind of EUT	Spectacles
Type identification	5
Hardware Version	EVT-1
Software Version	v5.0043.0157-PERF
Operation Frequency	BLE: 2402 ~ 2480MHz BT: 2400MHz ~ 2483.5MHz 2.4G WIFI: 2412MHz ~ 2462MHz 5G WIFI: 5150 ~ 5250MHz, 5250 ~ 5350MHz, 5470 ~ 5725MHz, 5725 ~ 5850MHz
Support Standards	BLE: IEEE 802.15.1 BT: Bluetooth 5.2 (BR+EDR) 2.4G WIFI: IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20), IEEE 802.11n(HT40), IEEE 802.11ax(HE20), IEEE802.11ax(HE40) 5G WIFI: 802.11a, 802.11n(HT20), 802.11n(HT40), 802.11ac(VHT20), 802.11ac(VHT40), 802.11ac(VHT80), 802.11ax(HE20), 802.11ax(HE40) , 802.11ax(HE80), 802.11ax(HE160)
Modulation Type	BLE: GFSK BT: GFSK, $\pi/4$ DQPSK, 8DPSK 2.4G WIFI: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n(HT20): OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n(HT40): OFDM (64-QAM, 16-QAM, QPSK, BPSK) EEE 802.11ax(HE20): OFDMA (64-QAM, 16-QAM,QPSK, BPSK ,1024QAM) IEEE 802.11ax(HE40): OFDMA (64-QAM, 16-QAM, QPSK, BPSK ,1024QAM 5G WIFI: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) OFDMA (BPSK, QPSK, 16QAM, 64QAM,256QAM,1024QAM)
Antenna	PCB antenna
Power Supply	DC 9V
Operating Voltage	9V DC

Remark: The information in this section is provided by the applicant or manufacturer, JEPSi is not liable to the accuracy, suitability, reliability or/and integrity of the information.

2 Measurement Uncertainty

Source of Uncertainty	Uncertainty ± %	Probability Distribution	Div.	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)	vi or veff
Measurement system								
Probe calibration	6.7	N	1	1	1	6.7	6.7	∞
Axial isotropy	4.7	R	1.732	0.71	0.71	1.9	1.9	∞
Hemispherical isotropy	9.6	R	1.732	0.71	0.71	3.9	3.9	∞
Boundary effect	1.9	R	1.732	1	1	1.1	1.1	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
Detection limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation response	2.4	R	1.732	1	1	1.4	1.4	∞
Readout electronics	1.0	N	1	1	1	1.0	1.0	∞
Response time	0.8	R	1.732	1	1	0.5	0.5	∞
Integration time	2.2	R	1.732	1	1	1.3	1.3	∞
RF ambient conditions-noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF ambient conditions-reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe positioner mechanical tolerance	0.4	R	1.732	1	1	0.2	0.2	∞
Probe positioning with respect to phantom shell	2.9	R	1.732	1	1	1.7	1.7	∞
Post-processing	2.0	R	1.732	1	1	1.2	1.2	∞
Test sample related								
Test sample positioning	3.0	N	1	1	1	3.0	3.0	11
Device holder uncertainty	3.6	N	1	1	1	3.6	3.6	7
SAR drift measurement	5.0	R	1.732	1	1	2.9	2.9	∞
SAR scaling	0.0	R	1.732	1	1	0.0	0.0	∞
Phantom and set-up								
Phantom uncertainty	4.0	R	1.732	1	1	2.3	2.3	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	1.9	N	1	1	0.84	1.9	1.6	∞
Liquid conductivity (temperature uncertainty)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Liquid conductivity (measured)	5.0	N	1	0.78	0.71	3.9	3.6	5
Liquid permittivity (temperature uncertainty)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Liquid permittivity (measured)	5.0	N	1	0.23	0.26	1.2	1.3	5
Combined standard uncertainty		RSS				12.0	11.9	
Expanded uncertainty (95% confidence interval)		k = 2				24.0	23.8	

3 Tissue Dielectric Parameter Measurements

3.1 Target for Tissue Dielectric Parameter

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 24 hours of use; or earlier if the dielectric parameters can become out of tolerance.

Recommended Dielectric Performance of Tissue

Ingredients (% by weight)	Frequency (MHz)											
	450		835		915		1900		2450		2600	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.46	52.4	41.05	56.0	54.9	40.4	62.7	73.2	55.24	64.49
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04	0.5	0.024
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0	0.0	0.0
Triton x-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0	44.45	32.25
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.2	52.5	39.0	52.5
Conductivity (s/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.80	1.78	1.96	2.16

Frequency: 5200/5400/5600/5800MHz	
Ingredients	(% by weight)
Water	78
Mineral oil	11
Emulsifiers	9
Additives and Salt	2

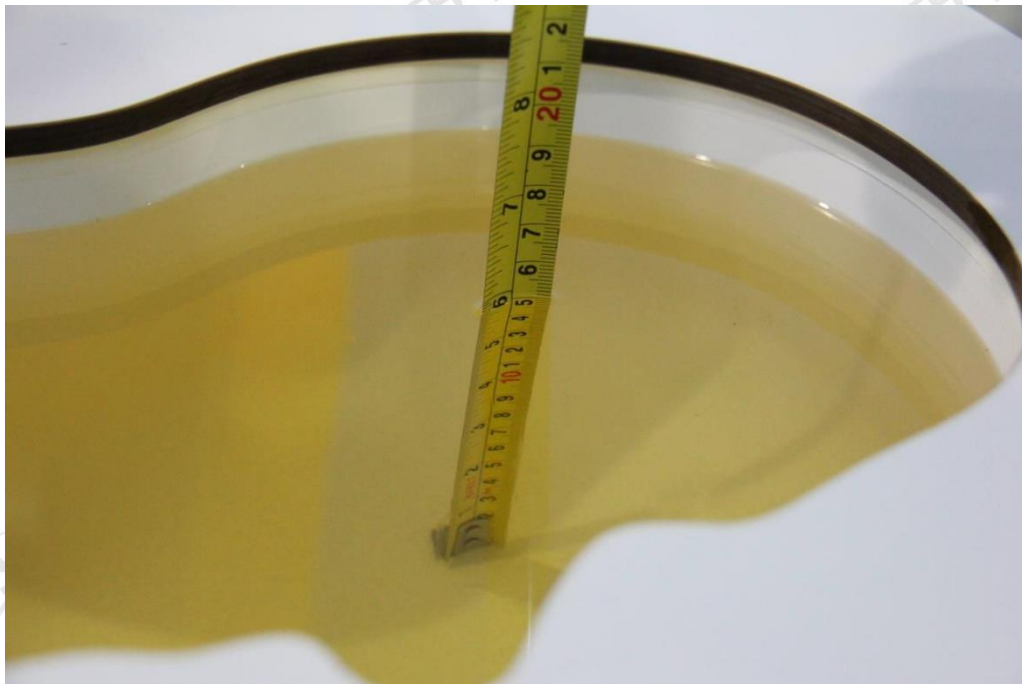
Target Tissue Dielectric Parameters

Frequency (MHz)	Head Tissue	
	ϵ_r	$\sigma(\text{S/m})$
835	41.50	0.92
1750	40.08	1.37
1950	40.00	1.40
2100	39.82	1.49
2300	39.47	1.67
2450	39.20	1.80
2600	39.01	1.96
5250	35.93	4.71
5600	35.53	5.07
5750	35.36	5.22

3.2 Verification results

Frequency (MHz)	Test Date	Temp °C	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			ϵ_r	$\sigma(\text{s/m})$	ϵ_r	$\sigma(\text{s/m})$	Dev $\epsilon_r(\%)$	Dev $\sigma(\%)$
2450	3/7/2024	20.1	38.96	1.81	39.20	1.80	-0.61	0.56
5250	3/20/2024	20.6	35.67	4.73	35.93	4.71	-0.72	0.42
5750	3/20/2024	20.6	34.2	5.37	35.36	5.22	-3.28	2.87

Note: The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.



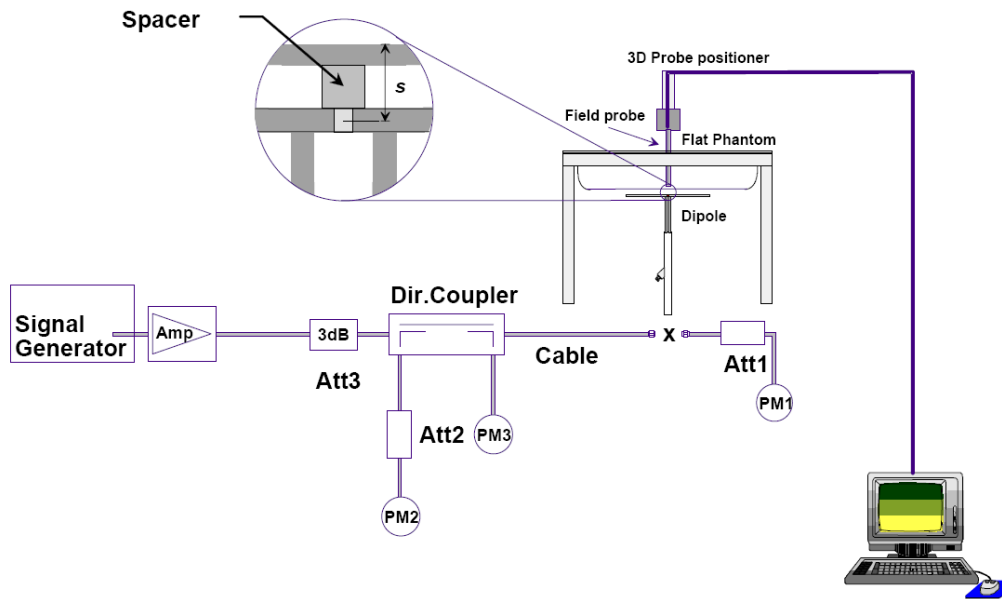
4 System Verification

4.1 System Performance Check

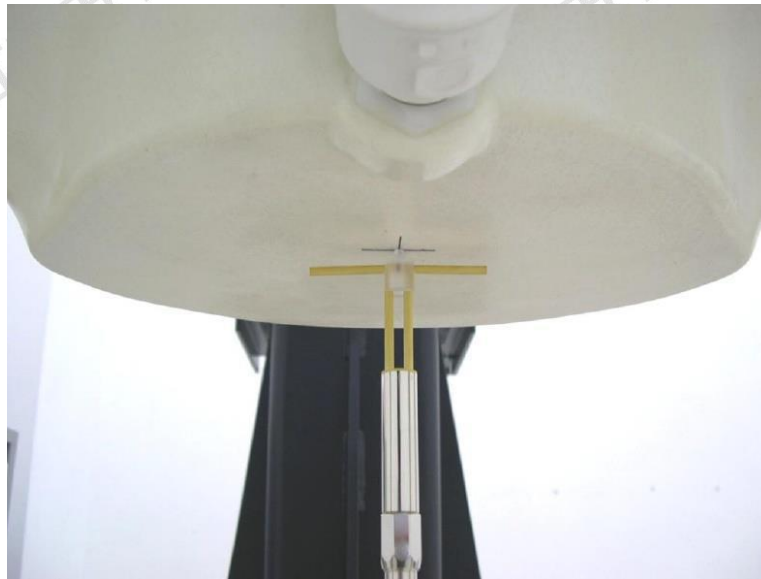
The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured using the dielectric probe kit and the network analyzer. A system check measurement for every day was made following the determination of the dielectric parameters of the Tissue simulates, using the dipole validation kit. The dipole antenna was placed under the flat section of the twin SAM phantom.

System check is performed regularly on all frequency bands where tests are performed with the DASY system.

System Performance Check setup



Dipole Setup



Target Tissue Dielectric Parameters

Frequency (MHz)	Head Tissue	
	Target SAR _{1g}	Target SAR _{10g}
835	9.76	6.40
1750	28.0	19.08
1950	41.6	21.28
2100	44.0	21.76
2300	49.6	23.48
2450	52.8	24.36
2600	56.4	25.20
5250	78.1	22.30
5600	81.1	22.90
5750	77.4	21.80

4.2 System Performance Check Result

Frequency (MHz)	Test Date	Temp °C	250mW Measured SAR _{1g}	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Limit (±10%)
2450	3/7/2024	20.1	11.40	45.6	52.8	-0.14
5250	3/20/2024	20.6	17.97	72.0	78.1	-0.08
5750	3/20/2024	20.6	17.65	70.6	77.4	-0.09

Note : Target Values used derive from the calibration certificate Data Storage and Evaluation.

5 Measurement Procedures

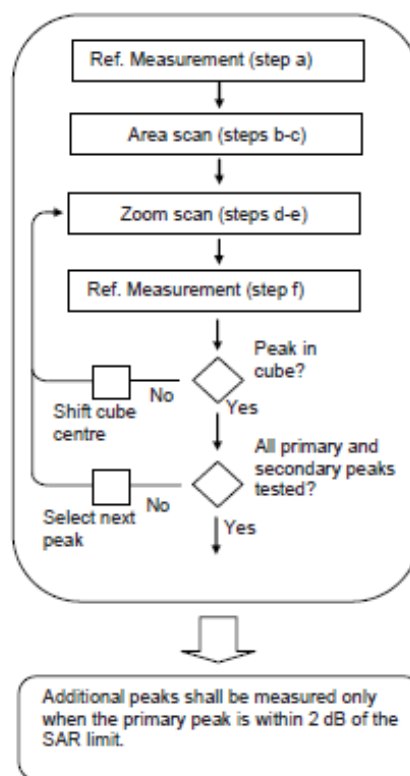
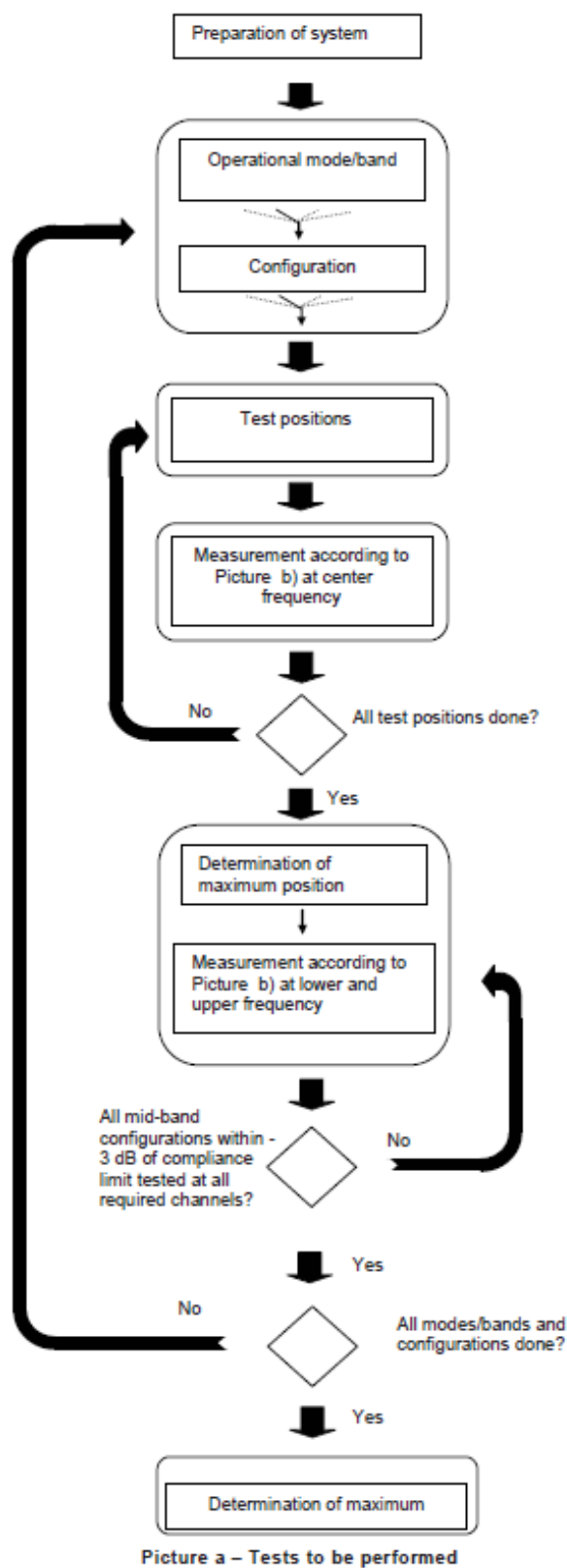
5.1 RF exposure Limit

Human Exposure	Uncontrolled Environment General Population
Spatial Peak SAR* (Brain/Body)	1.60 mW/g
Spatial Average SAR** (Whole Body)	0.08 mW/g
Spatial Peak SAR*** (Limbs)	4.00 mW/g

Note:

1. The limit applied in this test report is shown in bold letter;
2. * 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;
- 3.** The Spatial Average value of the SAR averaged over the whole body;
- 4.*** 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;

5.2 Block Diagram of Test Setup



Picture b – General procedure

5.3 Test Conditions and Test Method

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2003. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

			$\leq 3\text{ GHz}$	$> 3\text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			$5\text{ mm} \pm 1\text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2)\text{ mm} \pm 0.5\text{ mm}$
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: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$			$\leq 2\text{ GHz}: \leq 15\text{ mm}$ $2 - 3\text{ GHz}: \leq 12\text{ mm}$	$3 - 4\text{ GHz}: \leq 12\text{ mm}$ $4 - 6\text{ GHz}: \leq 10\text{ mm}$
			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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			$\leq 2\text{ GHz}: \leq 8\text{ mm}$ $2 - 3\text{ GHz}: \leq 5\text{ mm}^*$	$3 - 4\text{ GHz}: \leq 5\text{ mm}^*$ $4 - 6\text{ GHz}: \leq 4\text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		$\leq 5\text{ mm}$	$3 - 4\text{ GHz}: \leq 4\text{ mm}$ $4 - 5\text{ GHz}: \leq 3\text{ mm}$ $5 - 6\text{ GHz}: \leq 2\text{ mm}$
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	$\leq 4\text{ mm}$	$3 - 4\text{ GHz}: \leq 3\text{ mm}$ $4 - 5\text{ GHz}: \leq 2.5\text{ mm}$ $5 - 6\text{ GHz}: \leq 2\text{ mm}$
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)\text{ mm}$	
Minimum zoom scan volume	x, y, z		$\geq 30\text{ mm}$	$3 - 4\text{ GHz}: \geq 28\text{ mm}$ $4 - 5\text{ GHz}: \geq 25\text{ mm}$ $5 - 6\text{ GHz}: \geq 22\text{ mm}$
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.				
* When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB Publication 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.				

5.4 Bluetooth & Wi-Fi Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. 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 that the results are consistent and reliable. Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a 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. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

5.5 Power Drift

To control the output power stability during the SAR test, DASY5 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position.

This ensures that the power drift during one measurement is within 5%.

6 Conducted RF Output Power

BLE

Test Mode	Antenna	Frequency[MHz]	Conducted Power[dBm]
BLE_1M	Ant1	2402	5.16
BLE_1M	Ant1	2440	4.66
BLE_1M	Ant1	2480	3.74
BLE_2M	Ant1	2402	5.24
BLE_2M	Ant1	2440	4.74
BLE_2M	Ant1	2480	4.40

BT

Test Mode	Antenna	Frequency [MHz]	Conducted Power[dBm]
DH5	Ant1	2402	8.19
DH5	Ant1	2441	7.76
DH5	Ant1	2480	7.01
2DH5	Ant1	2402	7.52
2DH5	Ant1	2441	6.96
2DH5	Ant1	2480	6.13
3DH5	Ant1	2402	7.70
3DH5	Ant1	2441	7.21
3DH5	Ant1	2480	6.42

2.4G WIFI

Test Mode	Antenna	Frequency [MHz]	Average power [dBm]	DC Factor [dBm]	Result [dBm]
11B	Ant1	2412	9.88	0.00	9.88
11B	Ant1	2437	10.17	0.00	10.17
11B	Ant1	2462	10.65	0.00	10.65
11G	Ant1	2412	9.90	0.02	9.92
11G	Ant1	2437	10.05	0.04	10.09
11G	Ant1	2462	10.35	0.04	10.39
11N20SISO	Ant1	2412	9.73	0.00	9.73
11N20SISO	Ant1	2437	10.20	0.00	10.20
11N20SISO	Ant1	2462	10.18	0.02	10.20
11N40SISO	Ant1	2422	10.07	0.00	10.07
11N40SISO	Ant1	2437	10.31	0.00	10.31
11N40SISO	Ant1	2452	9.64	0.02	9.66
11AC20SISO	Ant1	2412	9.84	0.00	9.84
11AC20SISO	Ant1	2437	9.86	0.02	9.88
11AC20SISO	Ant1	2462	10.11	0.01	10.12
11AC40SISO	Ant1	2422	10.13	0.01	10.14
11AC40SISO	Ant1	2437	10.30	0.00	10.30
11AC40SISO	Ant1	2452	9.56	0.02	9.58
11AX20SISO	Ant1	2412	9.84	0.00	9.84

Test Mode	Antenna	Frequency [MHz]	Average power [dBm]	DC Factor [dBm]	Result [dBm]
11AX20SISO	Ant1	2437	10.05	0.02	10.07
11AX20SISO	Ant1	2462	10.16	0.00	10.16
11AX40SISO	Ant1	2422	9.97	0.02	9.99
11AX40SISO	Ant1	2437	10.09	0.02	10.11
11AX40SISO	Ant1	2452	9.52	0.02	9.54

Test Mode	Antenna	Frequency [MHz]	Ru Size	Average power [dBm]	DC Factor [dBm]	Result [dBm]
11AX20SISO	Ant1	2412	26Tone	-1.80	0.02	-1.78
11AX20SISO	Ant1	2412	52Tone	-1.70	0.02	-1.68
11AX20SISO	Ant1	2412	106Tone	-1.74	0.02	-1.72
11AX20SISO	Ant1	2412	242Tone	-1.58	0.02	-1.56
11AX20SISO	Ant1	2437	26Tone	10.71	0.02	10.73
11AX20SISO	Ant1	2437	52Tone	10.48	0.03	10.51
11AX20SISO	Ant1	2437	106Tone	10.49	0.02	10.51
11AX20SISO	Ant1	2437	242Tone	4.82	0.02	4.84
11AX20SISO	Ant1	2462	26Tone	1.05	0.01	1.06
11AX20SISO	Ant1	2462	52Tone	1.10	0.02	1.12
11AX20SISO	Ant1	2462	106Tone	-0.86	0.03	-0.83
11AX20SISO	Ant1	2462	242Tone	-0.80	0.00	-0.80
11AX40SISO	Ant1	2422	26Tone	9.87	0.02	9.89
11AX40SISO	Ant1	2422	52Tone	9.66	0.02	9.68
11AX40SISO	Ant1	2422	106Tone	9.96	0.02	9.98
11AX40SISO	Ant1	2422	484Tone	-1.16	0.00	-1.16
11AX40SISO	Ant1	2437	26Tone	10.58	0.03	10.61
11AX40SISO	Ant1	2437	52Tone	10.68	0.03	10.71
11AX40SISO	Ant1	2437	106Tone	11.00	0.02	11.02
11AX40SISO	Ant1	2437	484Tone	4.99	0.00	4.99
11AX40SISO	Ant1	2452	26Tone	9.89	0.02	9.91
11AX40SISO	Ant1	2452	52Tone	9.69	0.02	9.71
11AX40SISO	Ant1	2452	106Tone	9.68	0.02	9.70
11AX40SISO	Ant1	2452	484Tone	4.67	0.00	4.67

5G WIFI

Test Mode	Antenna	Frequency [MHz]	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]
11A	Ant1	5180	10.45	0.04	10.49
11A	Ant1	5200	9.88	0.04	9.92
11A	Ant1	5240	10.20	0.04	10.24
11A	Ant1	5260	9.71	0.04	9.75
11A	Ant1	5280	9.91	0.04	9.95
11A	Ant1	5320	9.67	0.04	9.71
11A	Ant1	5500	9.76	0.04	9.80
11A	Ant1	5580	10.62	0.04	10.66
11A	Ant1	5700	10.25	0.06	10.31
11A	Ant1	5720_UNII-2C	9.19	0.02	9.21
11A	Ant1	5720_UNII-3	2.87	0.02	2.89
11A	Ant1	5745	10.28	0.04	10.32
11A	Ant1	5785	9.63	0.06	9.69
11A	Ant1	5825	9.50	0.02	9.52
11N20SISO	Ant1	5180	10.33	0.02	10.35
11N20SISO	Ant1	5200	9.81	0.02	9.83
11N20SISO	Ant1	5240	10.15	0.00	10.15
11N20SISO	Ant1	5260	9.68	0.02	9.70
11N20SISO	Ant1	5280	9.86	0.02	9.88
11N20SISO	Ant1	5320	9.58	0.02	9.60
11N20SISO	Ant1	5500	9.67	0.00	9.67
11N20SISO	Ant1	5580	10.51	0.00	10.51
11N20SISO	Ant1	5700	10.06	0.00	10.06
11N20SISO	Ant1	5720_UNII-2C	9.14	0.01	9.15
11N20SISO	Ant1	5720_UNII-3	3.56	0.01	3.57
11N20SISO	Ant1	5745	10.26	0.00	10.26
11N20SISO	Ant1	5785	9.60	0.00	9.60
11N20SISO	Ant1	5825	9.40	0.00	9.40
11N40SISO	Ant1	5190	10.34	0.00	10.34
11N40SISO	Ant1	5230	9.56	0.00	9.56
11N40SISO	Ant1	5270	9.90	0.02	9.92
11N40SISO	Ant1	5310	9.72	0.01	9.73
11N40SISO	Ant1	5510	9.77	0.02	9.79
11N40SISO	Ant1	5550	9.83	0.00	9.83
11N40SISO	Ant1	5670	9.86	0.00	9.86
11N40SISO	Ant1	5710_UNII-2C	10.28	0.00	10.28
11N40SISO	Ant1	5710_UNII-3	-0.56	0.00	-0.56
11N40SISO	Ant1	5755	10.18	0.02	10.20
11N40SISO	Ant1	5795	9.96	0.00	9.96
11AC20SISO	Ant1	5180	10.33	0.00	10.33
11AC20SISO	Ant1	5200	9.82	0.02	9.84
11AC20SISO	Ant1	5240	10.12	0.00	10.12
11AC20SISO	Ant1	5260	9.62	0.02	9.64

Test Mode	Antenna	Frequency [MHz]	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]
11AC20SISO	Ant1	5280	9.79	0.01	9.80
11AC20SISO	Ant1	5320	9.56	0.02	9.58
11AC20SISO	Ant1	5500	9.71	0.02	9.73
11AC20SISO	Ant1	5580	10.51	0.00	10.51
11AC20SISO	Ant1	5700	10.10	0.00	10.10
11AC20SISO	Ant1	5720_UNII-2C	9.12	0.00	9.12
11AC20SISO	Ant1	5720_UNII-3	3.27	0.00	3.27
11AC20SISO	Ant1	5745	10.25	0.00	10.25
11AC20SISO	Ant1	5785	9.55	0.00	9.55
11AC20SISO	Ant1	5825	9.34	0.02	9.36
11AC40SISO	Ant1	5190	10.32	0.00	10.32
11AC40SISO	Ant1	5230	9.78	0.00	9.78
11AC40SISO	Ant1	5270	9.99	0.01	10.00
11AC40SISO	Ant1	5310	9.72	0.00	9.72
11AC40SISO	Ant1	5510	9.77	0.00	9.77
11AC40SISO	Ant1	5550	9.84	0.00	9.84
11AC40SISO	Ant1	5670	9.88	0.01	9.89
11AC40SISO	Ant1	5710_UNII-2C	10.28	0.00	10.28
11AC40SISO	Ant1	5710_UNII-3	-0.57	0.00	-0.57
11AC40SISO	Ant1	5755	10.25	0.02	10.27
11AC40SISO	Ant1	5795	10.03	0.00	10.03
11AC80SISO	Ant1	5210	9.94	0.00	9.94
11AC80SISO	Ant1	5290	9.94	0.00	9.94
11AC80SISO	Ant1	5530	9.47	0.02	9.49
11AC80SISO	Ant1	5610	10.55	0.00	10.55
11AC80SISO	Ant1	5690_UNII-2C	10.32	0.02	10.34
11AC80SISO	Ant1	5775	9.96	0.01	9.97
11AX20SISO	Ant1	5180	10.28	0.00	10.28
11AX20SISO	Ant1	5200	9.77	0.00	9.77
11AX20SISO	Ant1	5240	9.99	0.00	9.99
11AX20SISO	Ant1	5260	9.60	0.00	9.60
11AX20SISO	Ant1	5280	9.67	0.00	9.67
11AX20SISO	Ant1	5320	9.45	0.01	9.46
11AX20SISO	Ant1	5500	9.68	0.00	9.68
11AX20SISO	Ant1	5580	10.33	0.00	10.33
11AX20SISO	Ant1	5700	9.98	0.00	9.98
11AX20SISO	Ant1	5720_UNII-2C	8.92	0.02	8.94
11AX20SISO	Ant1	5720_UNII-3	3.61	0.02	3.63
11AX20SISO	Ant1	5745	10.22	0.00	10.22
11AX20SISO	Ant1	5785	9.56	0.00	9.56
11AX20SISO	Ant1	5825	9.34	0.00	9.34
11AX40SISO	Ant1	5190	10.04	0.02	10.06
11AX40SISO	Ant1	5230	9.49	0.02	9.51
11AX40SISO	Ant1	5270	9.69	0.02	9.71

Test Mode	Antenna	Frequency [MHz]	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]
11AX40SISO	Ant1	5310	9.49	0.02	9.51
11AX40SISO	Ant1	5510	9.93	0.02	9.95
11AX40SISO	Ant1	5550	9.55	0.01	9.56
11AX40SISO	Ant1	5670	9.73	0.00	9.73
11AX40SISO	Ant1	5710_UNII-2C	9.99	0.02	10.01
11AX40SISO	Ant1	5710_UNII-3	-0.42	0.02	-0.40
11AX40SISO	Ant1	5755	9.91	0.02	9.93
11AX40SISO	Ant1	5795	9.72	0.00	9.72
11AX80SISO	Ant1	5210	9.87	0.02	9.89
11AX80SISO	Ant1	5290	9.87	0.02	9.89
11AX80SISO	Ant1	5530	9.78	0.01	9.79
11AX80SISO	Ant1	5610	10.50	0.02	10.52
11AX80SISO	Ant1	5690_UNII-2C	10.22	0.02	10.24
11AX80SISO	Ant1	5690_UNII-3	-3.66	0.02	-3.64
11AX80SISO	Ant1	5775	9.84	0.00	9.84
11AX160SISO	Ant1	5250_UNII-1	7.58	0.00	7.58
11AX160SISO	Ant1	5250_UNII-2A	7.10	0.00	7.10
11AX160SISO	Ant1	5570	10.40	0.00	10.40

Test Mode	Antenna	Frequency [MHz]	Ru Size	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]
11AX20SISO	Ant1	5180	26Tone	10.80	0.00	10.80
11AX20SISO	Ant1	5180	52Tone	10.64	0.01	10.65
11AX20SISO	Ant1	5180	106Tone	10.71	0.02	10.73
11AX20SISO	Ant1	5180	242Tone	5.53	0.00	5.53
11AX20SISO	Ant1	5200	26Tone	10.05	0.00	10.05
11AX20SISO	Ant1	5200	52Tone	10.02	0.02	10.04
11AX20SISO	Ant1	5200	106Tone	10.09	0.01	10.10
11AX20SISO	Ant1	5200	242Tone	5.02	0.00	5.02
11AX20SISO	Ant1	5240	26Tone	10.47	0.02	10.49
11AX20SISO	Ant1	5240	52Tone	10.35	0.00	10.35
11AX20SISO	Ant1	5240	106Tone	10.44	0.00	10.44
11AX20SISO	Ant1	5240	242Tone	5.30	0.01	5.31
11AX20SISO	Ant1	5260	26Tone	9.95	0.02	9.97
11AX20SISO	Ant1	5260	52Tone	9.88	0.02	9.90
11AX20SISO	Ant1	5260	106Tone	9.93	0.00	9.93
11AX20SISO	Ant1	5260	242Tone	4.85	0.00	4.85
11AX20SISO	Ant1	5280	26Tone	9.79	0.00	9.79
11AX20SISO	Ant1	5280	52Tone	9.79	0.02	9.81
11AX20SISO	Ant1	5280	106Tone	9.93	0.02	9.95
11AX20SISO	Ant1	5280	242Tone	5.00	0.02	5.02
11AX20SISO	Ant1	5320	26Tone	9.71	0.02	9.73
11AX20SISO	Ant1	5320	52Tone	9.62	0.02	9.64
11AX20SISO	Ant1	5320	106Tone	9.72	0.01	9.73

Test Mode	Antenna	Frequency [MHz]	Ru Size	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]
11AX20SISO	Ant1	5320	242Tone	4.77	0.02	4.79
11AX20SISO	Ant1	5500	26Tone	9.78	0.00	9.78
11AX20SISO	Ant1	5500	52Tone	9.75	0.01	9.76
11AX20SISO	Ant1	5500	106Tone	9.85	0.02	9.87
11AX20SISO	Ant1	5500	242Tone	4.98	0.01	4.99
11AX20SISO	Ant1	5580	26Tone	10.51	0.02	10.53
11AX20SISO	Ant1	5580	52Tone	10.49	0.00	10.49
11AX20SISO	Ant1	5580	106Tone	10.61	0.02	10.63
11AX20SISO	Ant1	5580	242Tone	5.26	0.00	5.26
11AX20SISO	Ant1	5700	26Tone	10.16	0.00	10.16
11AX20SISO	Ant1	5700	52Tone	10.03	0.00	10.03
11AX20SISO	Ant1	5700	106Tone	10.18	0.03	10.21
11AX20SISO	Ant1	5700	242Tone	4.64	0.00	4.64
11AX20SISO	Ant1	5720_UNII-2C	26Tone	10.35	0.00	10.35
11AX20SISO	Ant1	5720_UNII-2C	52Tone	10.35	0.02	10.37
11AX20SISO	Ant1	5720_UNII-2C	106Tone	10.49	0.02	10.51
11AX20SISO	Ant1	5720_UNII-2C	242Tone	4.05	0.00	4.05
11AX20SISO	Ant1	5720_UNII-3	26Tone	-17.74	0.00	-17.74
11AX20SISO	Ant1	5720_UNII-3	52Tone	-17.38	0.02	-17.36
11AX20SISO	Ant1	5720_UNII-3	106Tone	-16.36	0.02	-16.34
11AX20SISO	Ant1	5720_UNII-3	242Tone	-1.38	0.00	-1.38
11AX20SISO	Ant1	5745	26Tone	10.46	0.00	10.46
11AX20SISO	Ant1	5745	52Tone	10.38	0.00	10.38
11AX20SISO	Ant1	5745	106Tone	10.48	0.02	10.50
11AX20SISO	Ant1	5745	242Tone	5.33	0.00	5.33
11AX20SISO	Ant1	5785	26Tone	9.87	0.00	9.87
11AX20SISO	Ant1	5785	52Tone	9.79	0.02	9.81
11AX20SISO	Ant1	5785	106Tone	9.85	0.01	9.86
11AX20SISO	Ant1	5785	242Tone	4.84	0.02	4.86
11AX20SISO	Ant1	5825	26Tone	9.71	0.02	9.73
11AX20SISO	Ant1	5825	52Tone	9.57	0.01	9.58
11AX20SISO	Ant1	5825	106Tone	9.65	0.00	9.65
11AX20SISO	Ant1	5825	242Tone	4.62	0.02	4.64
11AX40SISO	Ant1	5190	26Tone	9.59	0.01	9.60
11AX40SISO	Ant1	5190	52Tone	9.76	0.00	9.76
11AX40SISO	Ant1	5190	106Tone	9.61	0.00	9.61
11AX40SISO	Ant1	5190	484Tone	4.66	0.00	4.66
11AX40SISO	Ant1	5230	26Tone	9.52	0.01	9.53
11AX40SISO	Ant1	5230	52Tone	9.66	0.02	9.68
11AX40SISO	Ant1	5230	106Tone	9.80	0.01	9.81
11AX40SISO	Ant1	5230	484Tone	4.64	0.02	4.66
11AX40SISO	Ant1	5270	26Tone	9.47	0.02	9.49
11AX40SISO	Ant1	5270	52Tone	9.66	0.00	9.66
11AX40SISO	Ant1	5270	106Tone	9.70	0.01	9.71

Test Mode	Antenna	Frequency [MHz]	Ru Size	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]
11AX40SISO	Ant1	5270	484Tone	4.90	0.00	4.90
11AX40SISO	Ant1	5310	26Tone	9.17	0.00	9.17
11AX40SISO	Ant1	5310	52Tone	9.30	0.00	9.30
11AX40SISO	Ant1	5310	106Tone	9.52	0.00	9.52
11AX40SISO	Ant1	5310	484Tone	4.70	0.00	4.70
11AX40SISO	Ant1	5510	26Tone	9.46	0.01	9.47
11AX40SISO	Ant1	5510	52Tone	9.65	0.02	9.67
11AX40SISO	Ant1	5510	106Tone	9.83	0.02	9.85
11AX40SISO	Ant1	5510	484Tone	5.11	0.01	5.12
11AX40SISO	Ant1	5550	26Tone	9.40	0.02	9.42
11AX40SISO	Ant1	5550	52Tone	9.53	0.02	9.55
11AX40SISO	Ant1	5550	106Tone	9.59	0.00	9.59
11AX40SISO	Ant1	5550	484Tone	4.71	0.02	4.73
11AX40SISO	Ant1	5670	26Tone	9.56	0.03	9.59
11AX40SISO	Ant1	5670	52Tone	9.74	0.01	9.75
11AX40SISO	Ant1	5670	106Tone	9.86	0.00	9.86
11AX40SISO	Ant1	5670	484Tone	4.82	0.00	4.82
11AX40SISO	Ant1	5710_UNII-2C	26Tone	9.97	0.00	9.97
11AX40SISO	Ant1	5710_UNII-2C	52Tone	9.99	0.01	10.00
11AX40SISO	Ant1	5710_UNII-2C	106Tone	10.17	0.00	10.17
11AX40SISO	Ant1	5710_UNII-2C	484Tone	4.51	0.00	4.51
11AX40SISO	Ant1	5710_UNII-3	26Tone	-22.34	0.00	-22.34
11AX40SISO	Ant1	5710_UNII-3	52Tone	-17.94	0.01	-17.93
11AX40SISO	Ant1	5710_UNII-3	106Tone	-20.05	0.00	-20.05
11AX40SISO	Ant1	5710_UNII-3	484Tone	-5.49	0.00	-5.49
11AX40SISO	Ant1	5755	26Tone	9.77	0.02	9.79
11AX40SISO	Ant1	5755	52Tone	9.98	0.02	10.00
11AX40SISO	Ant1	5755	106Tone	10.00	0.00	10.00
11AX40SISO	Ant1	5755	484Tone	5.15	0.00	5.15
11AX40SISO	Ant1	5795	26Tone	9.61	0.00	9.61
11AX40SISO	Ant1	5795	52Tone	9.76	0.00	9.76
11AX40SISO	Ant1	5795	106Tone	9.89	0.01	9.90
11AX40SISO	Ant1	5795	484Tone	4.86	0.02	4.88
11AX80SISO	Ant1	5210	26Tone	10.42	0.01	10.43
11AX80SISO	Ant1	5210	52Tone	10.28	0.00	10.28
11AX80SISO	Ant1	5210	106Tone	10.19	0.02	10.21
11AX80SISO	Ant1	5210	996Tone	5.04	0.00	5.04
11AX80SISO	Ant1	5290	26Tone	9.67	0.00	9.67
11AX80SISO	Ant1	5290	52Tone	9.78	0.00	9.78
11AX80SISO	Ant1	5290	106Tone	9.77	0.01	9.78
11AX80SISO	Ant1	5290	996Tone	5.11	0.02	5.13
11AX80SISO	Ant1	5530	26Tone	9.26	0.00	9.26
11AX80SISO	Ant1	5530	52Tone	9.48	0.01	9.49
11AX80SISO	Ant1	5530	106Tone	9.57	0.02	9.59

Test Mode	Antenna	Frequency [MHz]	Ru Size	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]
11AX80SISO	Ant1	5530	996Tone	4.99	0.00	4.99
11AX80SISO	Ant1	5610	26Tone	9.90	0.00	9.90
11AX80SISO	Ant1	5610	52Tone	10.55	0.02	10.57
11AX80SISO	Ant1	5610	106Tone	10.33	0.02	10.35
11AX80SISO	Ant1	5610	996Tone	5.54	0.02	5.56
11AX80SISO	Ant1	5690_UNII-2C	26Tone	10.47	0.02	10.49
11AX80SISO	Ant1	5690_UNII-2C	52Tone	10.39	0.00	10.39
11AX80SISO	Ant1	5690_UNII-2C	106Tone	10.23	0.00	10.23
11AX80SISO	Ant1	5690_UNII-2C	996Tone	5.34	0.02	5.36
11AX80SISO	Ant1	5690_UNII-3	26Tone	-29.17	0.02	-29.15
11AX80SISO	Ant1	5690_UNII-3	52Tone	-25.32	0.00	-25.32
11AX80SISO	Ant1	5690_UNII-3	106Tone	-21.31	0.00	-21.31
11AX80SISO	Ant1	5690_UNII-3	996Tone	-8.23	0.02	-8.21
11AX80SISO	Ant1	5775	26Tone	9.58	0.00	9.58
11AX80SISO	Ant1	5775	52Tone	10.00	0.02	10.02
11AX80SISO	Ant1	5775	106Tone	9.98	0.00	9.98
11AX80SISO	Ant1	5775	996Tone	4.97	0.01	4.98
11AX160SISO	Ant1	5250_UNII-1	26Tone	10.86	0.02	10.88
11AX160SISO	Ant1	5250_UNII-1	52Tone	10.84	0.00	10.84
11AX160SISO	Ant1	5250_UNII-1	106Tone	10.85	0.01	10.86
11AX160SISO	Ant1	5250_UNII-1	2*996Tone	2.81	0.02	2.83
11AX160SISO	Ant1	5250_UNII-2A	26Tone	-15.03	0.02	-15.01
11AX160SISO	Ant1	5250_UNII-2A	52Tone	-17.98	0.00	-17.98
11AX160SISO	Ant1	5250_UNII-2A	106Tone	-16.22	0.01	-16.21
11AX160SISO	Ant1	5250_UNII-2A	2*996Tone	2.43	0.02	2.45
11AX160SISO	Ant1	5570	26Tone	9.29	0.00	9.29
11AX160SISO	Ant1	5570	52Tone	9.71	0.00	9.71
11AX160SISO	Ant1	5570	106Tone	9.51	0.01	9.52
11AX160SISO	Ant1	5570	2*996Tone	5.56	0.02	5.58

7 SAR Test Results

BLE

Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured Power (dBm)	Measure SAR(10g) (W/kg)	Measure SAR(1g) (W/kg)	Power drift	Sacling Factor	Report SAR(1g) (W/kg)
Back Side	0	1M	61.90%	Full Power	2402	6	5.75	0.0414	0.0923	0.67	1.71	0.158
Front Side	0	1M	61.90%	Full Power	2402	6	5.75	0.0294	0.0664	0.58	1.71	0.114
Left Edge	0	1M	61.90%	Full Power	2402	6	5.75	0.00822	0.0179	1.9	1.71	0.031
Right Edge	0	1M	61.90%	Full Power	2402	6	5.75	0.0248	0.0584	0.14	1.71	0.100
Top Edge	0	1M	61.90%	Full Power	2402	6	5.75	0.00931	0.032	2.46	1.71	0.055
Back Side	0	1M	61.90%	Full Power	2440	6	4.93	0.0317	0.072	0.47	2.07	0.149
Back Side	0	1M	61.90%	Full Power	2480	6	3.09	0.0341	0.0748	0.38	3.16	0.236

BT

Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured Power (dBm)	Measure SAR(10g) (W/kg)	Measure SAR(1g) (W/kg)	Power drift	Sacling Factor	Report SAR(1g) (W/kg)
Back Side	0	2DH5	77.01%	Full Power	2402	8	7.21	0.0527	0.122	-0.04	1.56	0.190
Front Side	0	2DH5	77.01%	Full Power	2402	8	7.21	0.0486	0.107	-0.07	1.56	0.167
Left Edge	0	2DH5	77.01%	Full Power	2402	8	7.21	0.0168	0.0363	0.71	1.56	0.057
Right Edge	0	2DH5	77.01%	Full Power	2402	8	7.21	0.0457	0.108	0.68	1.56	0.168
Top Edge	0	2DH5	77.01%	Full Power	2402	8	7.21	0.00896	0.0295	0.9	1.56	0.046
Back Side	0	2DH5	77.01%	Full Power	2441	8	7.01	0.0415	0.0928	0.34	1.63	0.151
Back Side	0	2DH5	77.01%	Full Power	2480	8	5.52	0.032	0.0727	0.96	2.30	0.167

2.4G WIFI

Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured Power (dBm)	Measure SAR(10g) (W/kg)	Measure SAR(1g) (W/kg)	Power drift	Sacling Factor	Report SAR(1g) (W/kg)
Back Side	0	11B	100.00%	Full Power	2462	11	10.65	0.169	0.387	-0.37	1.08	0.419
Front Side	0	11B	100.00%	Full Power	2462	11	10.65	0.159	0.371	0.35	1.08	0.402
Left Edge	0	11B	100.00%	Full Power	2462	11	10.65	0.0375	0.0811	0	1.08	0.088
Right Edge	0	11B	100.00%	Full Power	2462	11	10.65	0.0986	0.234	0.18	1.08	0.254
Top Edge	0	11B	100.00%	Full Power	2462	11	10.65	0.0286	0.0759	1.12	1.08	0.082
Back Side	0	11B	100.00%	Full Power	2412	11	9.88	0.149	0.345	-0.16	1.29	0.446
Back Side	0	11B	100.00%	Full Power	2437	11	10.17	0.155	0.357	0.29	1.21	0.432
Back Side	0	11AX40	99.41%	52Tone	2437	12	11.02	0.249	0.565	0.19	1.26	0.712
Front Side	0	11AX40	99.41%	52Tone	2437	12	11.02	0.216	0.495	0.2	1.26	0.624
Left Edge	0	11AX40	99.41%	52Tone	2437	12	11.02	0.0558	0.114	0.14	1.26	0.144
Right Edge	0	11AX40	99.41%	52Tone	2437	12	11.02	0.165	0.393	0.08	1.26	0.495
Top Edge	0	11AX40	99.41%	52Tone	2437	12	11.02	0.0571	0.152	-0.21	1.26	0.192
Back Side	0	11AX40	99.61%	52Tone	2422	11	9.68	0.208	0.464	0.01	1.36	0.631
Back Side	0	11AX40	99.61%	52Tone	2452	11	9.71	0.211	0.474	-0.06	1.35	0.640

5G WIFI

Band	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch/Freq. (MHz)	Tune-up (dBm)	Measured Power (dBm)	Measure SAR(10g) (W/kg)	Measure SAR(1g) (W/kg)	Power drift	Sacling Factor	Report SAR(1g) (W/kg)
Band 1	Back Side	0	11A	99.05%	Full Power	5180	11	10.49	0.162	0.475	0.43	1.14	0.539
	Front Side	0	11A	99.05%	Full Power	5180	11	10.49	0.0918	0.307	5.36	1.14	0.349
	Left Edge	0	11A	99.05%	Full Power	5180	11	10.49	0.0254	0.0771	0.76	1.14	0.088
	Right Edge	0	11A	99.05%	Full Power	5180	11	10.49	0.0656	0.181	0.38	1.14	0.206
	Top Edge	0	11A	99.05%	Full Power	5180	11	10.49	0.0951	0.311	0.07	1.14	0.353
	Back Side	0	11AC 160	99.61%	26Tone	5250	11	10.86	0.131	0.485	0.58	1.04	0.503
	Front Side	0	11AX 160	99.61%	26Tone	5250	11	10.86	0.170	0.456	0.27	1.04	0.473
	Left Edge	0	11AX 160	99.61%	26Tone	5250	11	10.86	0.0804	0.274	9.78	1.04	0.284
	Right Edge	0	11AX 160	99.61%	26Tone	5250	11	10.86	0.0259	0.078	2.1	1.04	0.081
	Top Edge	0	11AX 160	99.61%	26Tone	5250	11	10.86	0.0724	0.207	0.39	1.04	0.215
Band 2A	Back Side	0	11AC 40	99.82%	Full Power	5270	11	10.0	0.151	0.55	0.17	1.26	0.694
	Front Side	0	11AC 40	99.82%	Full Power	5270	11	10.0	0.119	0.318	0.34	1.26	0.401
	Left Edge	0	11AC 40	99.82%	Full Power	5270	11	10.0	0.0908	0.31	4.05	1.26	0.391
	Right Edge	0	11AC 40	99.82%	Full Power	5270	11	10.0	0.0242	0.0779	0.71	1.26	0.098
	Top Edge	0	11AC 40	99.82%	Full Power	5270	11	10.0	0.0714	0.193	0.04	1.26	0.243
	Back Side	0	11AX 20	99.61%	26Tone	5260	11	9.97	0.129	0.477	0.03	1.27	0.607
	Front Side	0	11AX 20	99.61%	26Tone	5260	11	9.97	0.138	0.368	0.13	1.27	0.468
	Left Edge	0	11AX 20	99.61%	26Tone	5260	11	9.97	0.072	0.255	1.69	1.27	0.325
	Right Edge	0	11AX 20	99.61%	26Tone	5260	11	9.97	0.019	0.061	1.37	1.27	0.078
	Top Edge	0	11AX 20	99.61%	26Tone	5260	11	9.97	0.059	0.162	0.59	1.27	0.206
Band 2C	Back Side	0	11A	99.05%	Full Power	5580	11	10.66	0.133	0.527	-0.03	1.09	0.575

Band	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch/Freq. (MHz)	Tune-up (dBm)	Measured Power (dBm)	Measure SAR(10g) (W/kg)	Measure SAR(1g) (W/kg)	Power drift	Saciling Factor	Report SAR(1g) (W/kg)
	Front Side	0	11A	99.05%	Full Power	5580	11	10.66	0.097	0.407	0.54	1.09	0.444
	Left Edge	0	11A	99.05%	Full Power	5580	11	10.66	0.122	0.346	-0.08	1.09	0.378
	Right Edge	0	11A	99.05%	Full Power	5580	11	10.66	0.071	0.246	1.34	1.09	0.269
	Top Edge	0	11A	99.05%	Full Power	5580	11	10.66	0.022	0.0747	1.93	1.09	0.082
	Back Side	0	11AX 20	100.00 %	106Tone	5580	11	10.24	0.125	0.403	-0.06	1.20	0.482
	Front Side	0	11AX 20	100.00 %	106Tone	5580	11	10.63	0.141	0.450	0.20	1.09	0.489
	Left Edge	0	11AX 20	100.00 %	106Tone	5580	11	10.63	0.069	0.229	5.32	1.09	0.249
	Right Edge	0	11AX 20	100.00 %	106Tone	5580	11	10.63	0.031	0.113	1.82	1.09	0.123
	Top Edge	0	11AX 20	100.00 %	106Tone	5580	11	10.63	0.074	0.219	0.27	1.09	0.238
Band 3	Back Side	0	11A	99.05%	Full Power	5745	11	10.32	0.096	0.354	0.80	1.18	0.418
	Front Side	0	11A	99.05%	Full Power	5745	11	10.32	0.024	0.11	4.74	1.18	0.130
	Left Edge	0	11A	99.05%	Full Power	5745	11	10.32	0.031	0.125	2.14	1.18	0.148
	Right Edge	0	11A	99.05%	Full Power	5745	11	10.32	0.044	0.152	0.90	1.18	0.179
	Top Edge	0	11A	99.05%	Full Power	5745	11	10.32	0.042	0.158	1.79	1.18	0.187
	Back Side	0	11AX 20	99.85%	106Tone	5745	11	10.5	0.122	0.472	0.01	1.12	0.530
	Front Side	0	11AX 20	99.85%	106Tone	5745	11	10.5	0.138	0.368	0.13	1.12	0.414
	Left Edge	0	11AX 20	99.85%	106Tone	5745	11	10.5	0.072	0.255	11.69	1.12	0.287
	Right Edge	0	11AX 20	99.85%	106Tone	5745	11	10.5	0.019	0.0612	1.37	1.12	0.069
	Top Edge	0	11AX 20	99.85%	106Tone	5745	11	10.5	0.059	0.162	0.59	1.12	0.182

8 Simultaneous Transmissions Analysis

8.1 Simultaneous transmission mode

No.	Transmitter Combinations	Scenario Supported or not	Supported for Mobile Hotspot or not
1	BT/BLE + WIFI 2.4G	Yes	No hotspot
2	BT/BLE + WIFI 5G	Yes	No hotspot

8.2 Simultaneous transmission for head

Mode: BLE/BT and 2.4GWIFI

Test Position		Back Side	Front Side	Left Edge	Right Edge	Top Edge
Head MAX 1-g SAR(W/Kg)	BE	0.236	0.144	0.031	0.100	0.055
	BT	0.190	0.167	0.057	0.168	0.046
	2.4G WIFI	0.712	0.624	0.144	0.495	0.192
Simultaneous Σ 1-g SAR(W/Kg)		0.948	0.791	0.201	0.663	0.247

Mode: BLE/BT and 5GWIFI

Test Position		Back Side	Front Side	Left Edge	Right Edge	Top Edge
Head MAX 1-g SAR(W/Kg)	BE	0.236	0.144	0.031	0.100	0.055
	BT	0.190	0.167	0.057	0.168	0.046
	5G WIFI	0.694	0.473	0.391	0.269	0.353
Simultaneous Σ 1-g SAR(W/Kg)		0.930	0.640	0.448	0.437	0.408

Conclusion: As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

8.3 Simultaneous transmission for body

Not supported.

Instruments and Equipment

No	Name	Model/Type	Serial No.	Validity of calibration
1	Dipole Antenna	D5GHzV2	1135	4/13/2027
2	Dipole Antenna	D2450V2	897	4/12/2027
3	Power Amplifier	ZHL-42W	QA1233002	2/24/2025
4	Power Meter	E4416A	MY52300018	2/25/2025
5	Power Sensor (probe)	E9327A	MY44421999	2/25/2025
6	Signal Generator	N5171B	MY61252644	12/13/2024
7	DC Power Supply	MP3030D	2022090936	2/24/2025
8	Signal Collector	DAE4	1346	1/14/2026
9	Network Analyzer	E5071C	MY46215172	1/9/2025
10	E-Field Probe	EX3DV4	3880	5/5/2025
11	Wireless Communication Tester	CMW500	168135	11/13/2024
Note	Software version of DASY5: 52.8.2.969			

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