TEST REPORT

Applicant Name:	SHENZHEN ZEYUTONG ELECTRONICS CO.,LTD
Address:	Room 205, Building 1, Geya Technology Building, Mashantou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Report Number:	2504Z84676E-SA
FCC ID:	2BSRR-W320PU

Test Standard (s)

FCC 47 CFR part 2.1093

Sample Description

Product Type:	Smart HD Baby Monitor Panel unit
Model No.:	ZVM320(PU), ZVM220(PU), ZVM221(PU), ZVM721(PU), ZVM420(PU), ZVM421(PU), ZVM520(PU), ZVM521(PU), ZVM620(PU), ZVM621(PU), GVM120(PU), GVM121(PU), GVM220(PU), GVM221(PU), GVM320(PU), GVM321(PU), GVM420(PU), GVM421(PU), GVM520(PU), GVM521(PU), W320(PU)
Trade Mark:	WALOLWA
Date Received:	2026-01-10
Issue Date:	2026-01-20

Test Result:	The EUT complied with the standards above.

Prepared and Checked By:

Jack Yang

SAR Engineer

Approved By:

Lance Li

SAR Engineer

Note: This report must not be used by the customer to claim product certification, approval, or endorsement by A2LA, or any agency of the Federal Government. The information marked "#" is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included but no need marked.
This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

<table>
<tr><th colspan="2">Mode</th><th>Max. Reported SAR Level(s) (W/kg)</th><th>Limit (W/kg)</th></tr>
<tr><td>SRD 2.4G</td><td>1g Body SAR</td><td>0.26</td><td>1.6</td></tr>
<tr><td rowspan="4">Applicable Standards</td><td colspan="3">FCC 47 CFR part 2.1093
Radiation exposure evaluation: portable devices</td></tr>
<tr><td colspan="3">RF Exposure Procedures: TCB Workshop April 2019</td></tr>
<tr><td colspan="3">IEEE 1528:2013
IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques</td></tr>
<tr><td colspan="3">KDB procedures
KDB 447498 D01 General RF Exposure Guidance v06
KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02 RF Exposure Reporting v01r02</td></tr>
<tr><td colspan="4">Note: This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in FCC 47 CFR part 2.1093 and has been tested in accordance with the measurement procedures specified in IEEE 1528-2013 and RF exposure KDB procedures.
The results and statements contained in this report pertain only to the device(s) evaluated.
Unless otherwise stated there are no any additions to, deviations, or exclusions from the method.</td></tr>
</table>

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2504Z84676E-SA	Original Report	2026-01-20

EUT DESCRIPTION

This report has been prepared on behalf of **SHENZHEN ZEYUTONG ELECTRONICS CO.,LTD** and their product: **Smart HD Baby Monitor Panel unit**, Model: **ZVM320(PU),**FCC ID: **2BSRR-W320PU** or the EUT (Equipment under Test) as referred to in the rest of this report.

Note: The Multiple models are electrically identical with the test model except for model name and sales channels. Please refer to DOS letter for details. The applicant provided model “ZVM320(PU)” for testing.

Technical Specification

Device Type:	Portable
Exposure Category:	Population / Uncontrolled
Antenna Type(s):	Internal antenna
Operation Modes:	GFSK
Operation Frequency:	2.4G:2402-2476MHz
Rated Input Voltage:	DC3.7V from Rechargeable Battery
Dimensions (L*W*H):	124mm (L) *72mm (W) *24mm (H)(All models have the same size)
Serial Number:	3CHA-2
Normal Operation:	Body

REFERENCE, STANDARDS, AND GUILDELINES

FCC:

The Report and Order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g as recommended by the ANSI/IEEE standard C95.1-1992 [6] for an uncontrolled environment (Paragraph 65). According to the Supplement C of OET Bulletin 65 “Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under “worst-case” conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in North America is 1.6 mW/g average over 1 gram of tissue mass.

SAR Limits

FCC Limit

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	**1.6**	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

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

Occupational/Controlled Environments are defined as locations where there is exposure that maybe incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg for 1g SAR applied to the EUT.

FACILITIES

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

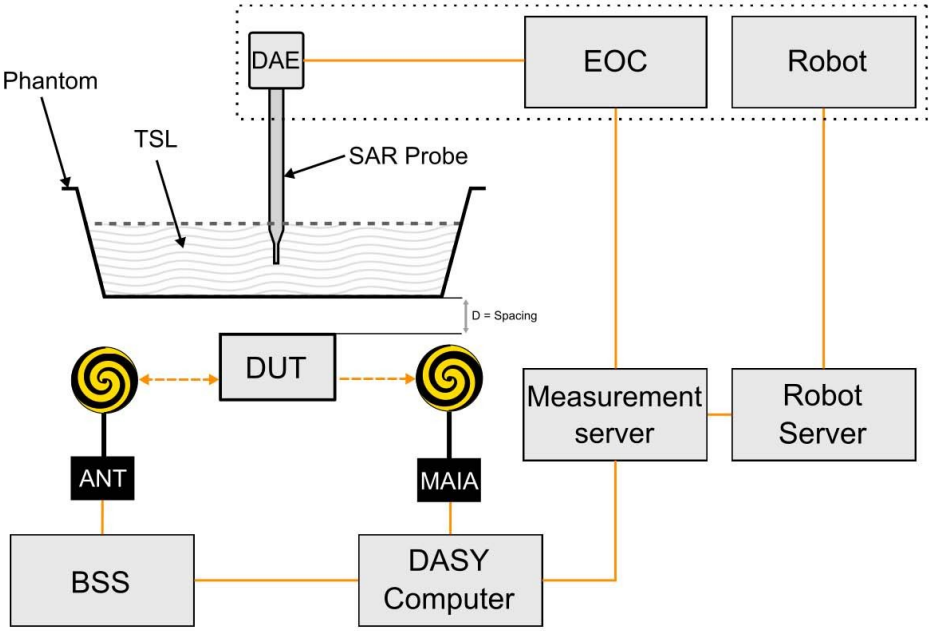
Accredited by American Association for Laboratory Accreditation (A2LA).The Certificate Number is 4297.01.

DESCRIPTION OF TEST SYSTEM

These measurements were performed with the automated near-field scanning system DASY8 from Schmid & Partner Engineering AG (SPEAG) which is the Fifth generation of the system shown in the figure hereinafter:

DASY8 System Description

The DASY8 system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot (Staubli TX=RX family) 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 application, 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 Win11 PRO 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.

DASY8 Measurement Server

The safeguarding equipment is connected to the DOOR CONTACTS connector of the DASY8 Measurement Server according to the diagram below. The two wire safety chains must be fully closed through all safety equipment and the DOOR CONTACTS connector on the Measurement Server to enable operation of the DASY8 system.

Data Acquisition Electronics

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16-bit AD-converter, and a command decoder with a control logic unit. Transmission to the DASY8 Measurement Server is accomplished through an optical downlink for data and status information and an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts used for mechanical surface detection and probe collision detection.

The input impedance of both DAEs is 200MΩ; the inputs are symmetric and floating. Common mode rejection is above 80 dB.

EX3DV4 E-Field Probes

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 μW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μW/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
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%.
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI

SAM Twin Phantom

The SAM-Twin (Specific Anthropomorphic Mannequin) phantom has a fiberglass shell with a thickness of 2 mm, except in the ear region where the thickness is increased to 6 mm. The size of the phantom, including the top plate is 1.0×0.5m (1 full DASY8 platform slot). The filling volume is approximately 25 L. The phantom has three measurement areas, also called phantom sections, Left Head, Right Head, and Flat:

Left Head, Right Head to test exposure on the head. Please note that if the location of the peak is located in the upper part of the chin, the Chin20 phantoms should be used.

Flat to test exposure of small body-worn/hand-held devices (smartphones. . .). For larger devices (tablets, laptops) or measurements at low frequencies, the ELI phantom must be used.

Calibration Frequency Points for EX3DV4 E-Field Probes SN: 7896 Calibrated: 2025/12/11

Calibration Frequency Point (MHz)	Frequency Range (MHz)		Conversion Factor		
	From	To	X	Y	Z
750 Head	650	850	9.40	9.40	9.40
900 Head	850	1000	9.00	9.00	9.00
1750 Head	1650	1850	7.89	7.89	7.89
1900 Head	1850	2000	7.55	7.55	7.55
2300 Head	2200	2400	7.40	7.40	7.40
2450 Head	2400	2550	7.15	7.15	7.15
2600 Head	2550	2700	7.00	7.00	7.00
5250 Head	5140	5360	5.11	5.11	5.11
5600 Head	5490	5700	4.51	4.51	4.51
5800 Head	5700	5860	4.61	4.61	4.61

SAR Scan Procedures

Step 1: Power Reference Measurement

Power reference measurements are performed during Area Scans and Zoom Scans if they have been enabled in the Application Preferences. The power reference measurements are anchored to the peak location found by the Fast Scan if available, else to the grid anchor point.

Step 2: Area Scan

Area Scans are used to determine the peak location of the measured field before doing a finer measurement around the hotspot.

Peak location can be found accurately even on coarse grids using the advanced interpolation routines implemented in DASY8. Area Scans measure a two dimensional volume covering the full device under test area. DASY8 uses Fast Averaged SAR algorithm to compute the 1 g and 10 g of simulated tissue from the Area Scan.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 mm ± 1 mm	$\frac{1}{2}\cdot\delta\cdot\ln(2)$ mm ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 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 ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan (Cube Scan Averaging)

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.

Zoom scans measure a three dimensional volume (cube). The bottom face of the cube is centered on the maximum of the preceding Area Scan in the same measurement group.

For maxima at border of the phantom, Auto extend zoom scan when maxima on bou dary feature can be enabled in Application Preferences ≫ Scan Settings with Administrator access level.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

<table>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}</td><td>≤ 2 GHz: ≤ 8 mm
2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm
4 – 5 GHz: ≤ 3 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm
4 – 5 GHz: ≤ 2.5 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm
4 – 5 GHz: ≥ 25 mm
5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">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 reported SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 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.</td></tr>
</table>

Step 4: Power Monitoring Scan

Power monitoring scans are used to monitor the power drift of the device under test. The local SAR strength is measured at a reference position at the beginning and at the end of the scan. The power drift is computed using the formula:

$$P_{drift}[dB] = 10 \cdot \log_{10} (SAR_{beginning}/SAR_{end})$$

Power monitoring scans are available for fully integrated in Area and Zoom Scans. They can be enabled in Application Preferences ≫ Scan Settings.

For Area Scans, the reference point is defined as the maximum location of the preceding Fast Scan. A Fast Scan will be automatically performed if none has been performed and power monitoring is enabled. For Zoom Scans, it is defined at the first point of the measured grid.

Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE1528:2013

Recommended Tissue Dielectric Parameters for Head liquid

Table A.3 – Dielectric properties of the head tissue-equivalent liquid

Frequency MHz	Relative permittivity ε_r	Conductivity (σ) S/m
300	45,3	0,87
450	43,5	0,87
750	*41,9*	*0,89*
835	41,5	0,90
900	41,5	0,97
1 450	40,5	1,20
1 500	*40,4*	*1,23*
1 640	*40,2*	*1,31*
1 750	*40,1*	*1,37*
1 800	40,0	1,40
1 900	40,0	1,40
2 000	40,0	1,40
2 100	*39,8*	*1,49*
2 300	*39,5*	*1,67*
2 450	39,2	1,80
2 600	*39,0*	*1,96*
3 000	38,5	2,40
3 500	*37,9*	*2,91*
4 000	*37,4*	*3,43*
4 500	*36,8*	*3,94*
5 000	*36,2*	*4,45*
5 200	*36,0*	*4,66*
5 400	*35,8*	*4,86*
5 600	*35,5*	*5,07*
5 800	*35,3*	*5,27*
6 000	*35,1*	*5,48*

NOTE For convenience, permittivity and conductivity values at those frequencies which are not part of the original data provided by Drossos et al. [33] or the extension to 5 800 MHz are provided (i.e. the values shown *in italics*). These values were linearly interpolated between the values in this table that are immediately above and below these values, except the values at 6 000 MHz that were linearly extrapolated from the values at 3 000 MHz and 5 800 MHz.

EQUIPMENT LIST AND CALIBRATION

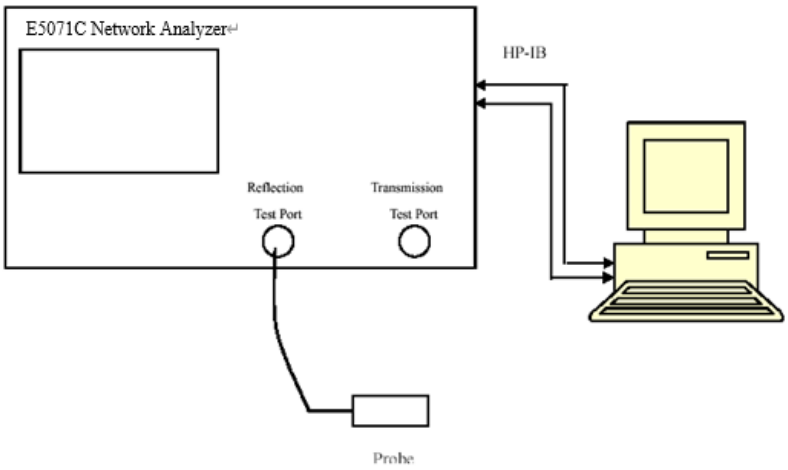
Equipment's List & Calibration Information

Equipment	Model	S/N	Calibration Date	Calibration Due Date
DASY8 Test Software	V16.2.4.2524	N/A	NCR	NCR
DASY8 Measurement Server	V6.0.100	N/A	NCR	NCR
Data Acquisition Electronics	DAE4	1724	2025/03/14	2026/03/13
E-Field Probe	EX3DV4	7896	2025/12/11	2026/12/10
Mounting Device	MD4HHTV5	SD 000 H01 KA	NCR	NCR
SAM Twin Phantom	SAM-Twin V8.0	2124	NCR	NCR
Dipole,2450MHz	D2450V2	751	2023/9/26	2026/9/25
Simulated Tissue Liquid Head(500-9500MHz)	HBBL600-10000V6	220406-1	Each Time	/
Network Analyzer	E5071B	MY42403851	2025/9/18	2026/9/17
Dielectric Assessment Kit	DAK-3.5	1320	NCR	NCR
Signal Generator	N5183A	MY47420360	2025/8/28	2026/8/27
Power Sensor	E9301A	MY55270006	2025/9/17	2026/9/16
Linear Power Amplifier (1 – 6GHz)	AS0860-40/45	1060913	2025/9/17	2026/9/16
Directional Coupler	4226-20	3315	2025/9/18	2026/9/17
6dB Attenuator	WA59-6-33	A329	NCR	NCR
Spectrum Analyzer	FSV40	101949	2025/9/17	2026/9/16
Thermometer	DTM3000	N/A	2025/9/18	2026/9/17
Temperature & Humidity Meter	JB913R	GZ-WS004	2025/9/18	2026/9/17

NCR: No Calibration Required.

SAR MEASUREMENT SYSTEM VERIFICATION

Liquid Verification



Liquid Verification Setup Block Diagram

Liquid Verification Results

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ (S/m)	$\Delta\varepsilon_r$	$\Delta\sigma$ (S/m)	
2402	Simulated Tissue Liquid Head	39.86	1.78	39.29	1.76	1.45	1.14	±5
2440	Simulated Tissue Liquid Head	39.52	1.80	39.22	1.79	0.76	0.56	±5
2450	Simulated Tissue Liquid Head	39.41	1.81	39.20	1.80	0.54	0.56	±5
2476	Simulated Tissue Liquid Head	39.25	1.83	39.15	1.82	0.26	0.55	±5

**Liquid Verification above was performed on 2026/01/16*

System Accuracy Verification

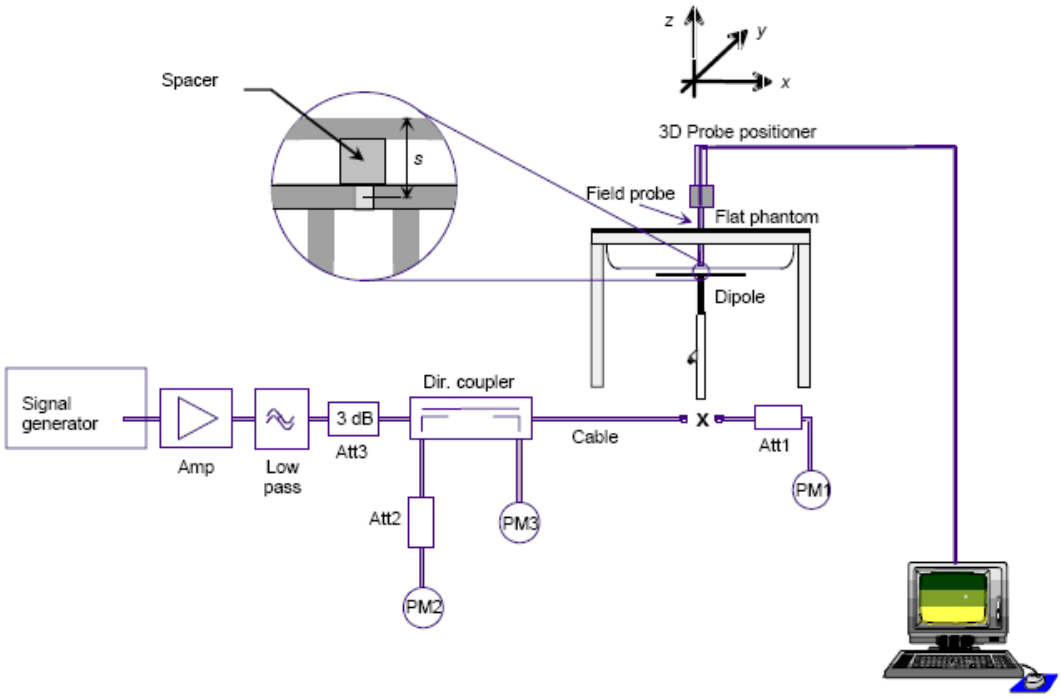
Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ±10%. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

The spacing distance*s* in the **System Verification Setup Block Diagram** is given by the following:

a) s = 15 mm ± 0,2 mm for 300 MHz ≤ f ≤ 1 000 MHz;

b) s = 10 mm ± 0,2 mm for 1 000 MHz < f ≤ 6 000 MHz;

System Verification Setup Block Diagram



System Accuracy Check Results

Date	Frequency Band (MHz)	Liquid Type	Input Power (mW)	Measured SAR (W/kg)		Normalized to 1W (W/kg)	Target Value (W/Kg)	Delta (%)	Tolerance (%)
2026/01/16	2450	Head	100	1g	5.04	50.4	53.1	-5.085	±10

Note:
All the SAR values are normalized to 1Watt forward power.

SAR SYSTEM VALIDATION DATA

Please Refer to the Attachment of System Check.

EUT TEST STRATEGY AND METHODOLOGY

Test positions for body-worn and other configurations

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only the accessory that dictates the closest spacing to the body must be tested.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm. In these cases, the device may use body-worn accessories that provide a separation distance greater than that tested for the device provided however that the accessory contains no metallic components.

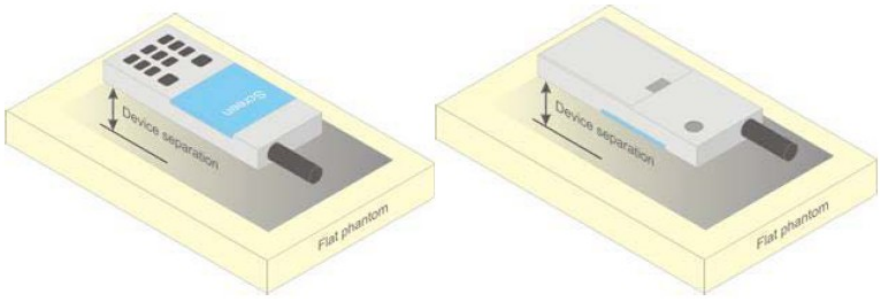


Figure 5 – Test positions for body-worn devices

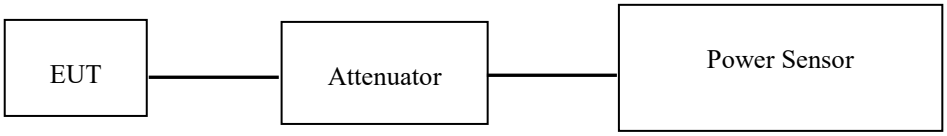
Test Distance for SAR Evaluation

In this case the EUT (Equipment Under Test) is set 0mm away from the phantom, the test distance is 0mm for body.

CONDUCTED OUTPUT POWER MEASUREMENT

Test Procedure

The RF output of the transmitter was connected to the input port of the Power Sensor through Attenuator .



SRD

Maximum Target Output Power

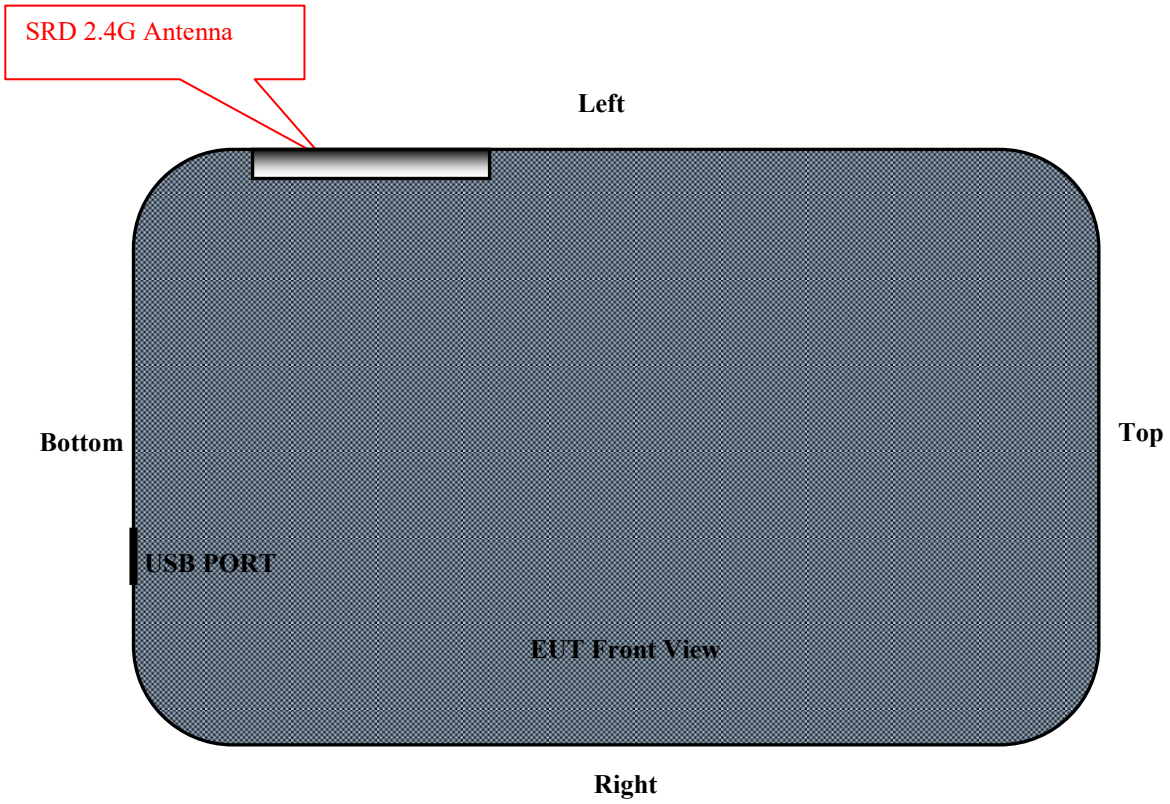
Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
SRD 2.4G	19.0	19.0	19.0

SRD: 2.4G

Mode	Channel frequency (MHz)	Peak Output Power (dBm)
GFSK	2402	18.24
	2440	18.21
	2476	18.26

STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

Antennas Location:



Antenna Distance To Edge (TRX)

Antenna Distance To Edge(mm)						
Antenna	**Front**	**Back**	**Left**	**Right**	**Top**	**Bottom**
SRD 2.4G	15	7	< 5	64	88	15

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed dosimetry evaluation.

Test Results:

Temperature:	23.5-24.0 ℃
Relative Humidity:	46-58 %
ATM Pressure:	101.5 kPa
Test Date:	2026/01/16

Testing was performed by Devon Liang, Jack Yang, Ryse Chai.

SRD 2.4G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Front (0mm)	2402	GFSK	/	/	/	/	/	/
	2440	GFSK	18.21	19.0	1.199	0.072	0.09	
	2476	GFSK	/	/	/	/	/	/
Body Back (0mm)	2402	GFSK	/	/	/	/	/	/
	2440	GFSK	18.21	19.0	1.199	0.149	0.18	
	2476	GFSK	/	/	/	/	/	/
Body Left (0mm)	2402	GFSK	/	/	/	/	/	/
	2440	GFSK	18.21	19.0	1.199	0.213	**0.26**	1#
	2476	GFSK	/	/	/	/	/	/
Body Right (0mm)	2402	GFSK	/	/	/	/	/	/
	2440	GFSK	18.21	19.0	1.199	0.018	0.02	
	2476	GFSK	/	/	/	/	/	/
Body Top (0mm)	2402	GFSK	/	/	/	/	/	/
	2440	GFSK	18.21	19.0	1.199	0.009	0.01	
	2476	GFSK	/	/	/	/	/	/
Body Bottom (0mm)	2402	GFSK	/	/	/	/	/	/
	2440	GFSK	18.21	19.0	1.199	0.077	0.09	
	2476	GFSK						

Note:
1. When the SAR value is less than half of the limit, testing for low and high channel is optional.
2. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

SAR DUT HOLDER PERTURBATIONS

In accordance with TCB workshop October 2016:

1) SAR perturbation due to test device holders, depending on antenna locations, buttons locations on phones or device, form factor (e.g. dongles etc.), the measured SAR could be influenced by the relative positions of the test device and its holder

2) SAR measurement standards have included protocols to evaluate this with a flat phantom, with and without the device holder

3) When the highest reported SAR of an antenna is > 1.2 W/kg, holder perturbation verification is required for each antenna, using the highest SAR configuration among all applicable frequency bands in the same exact device and holder positions used for head and body SAR measurements; i.e. same device/button locations in the holder

Per IEEE 1528: 2013/Annex E/E.4.1.1: Device holder perturbation tolerance for a specific test device: Type B When it is unknown if a device holder perturbs the fields of a test device, the SAR uncertainty shall be assessed with a flat phantom (see Clause 5) by comparing the SAR with and without the device holder according to the following tests:

The SAR tolerance for device holder disturbance is computed using Equation (E.21) and entered in the corresponding row of the appropriate uncertainty table with an assumed rectangular probability distribution and *vi* = ∞ degrees of freedom:

$$SAR_{\text{tolerance}}[\%] = 100 \times \left(\frac{SAR_{\text{w/ holder}} - SAR_{\text{w/o holder}}}{SAR_{\text{w/o holder}}} \right) \qquad \text{(E.21)}$$

The Highest Measured SAR Configuration among all applicable Frequency Band

Body

Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		The Device holder perturbation uncertainty
			With holder	Without holder	
/	/	/	/	/	/

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

Simultaneous Transmission:

None

SAR Plots

Please Refer to the Attachment of SAR Plots.

APPENDIX A MEASUREMENT UNCERTAINTY

The uncertainty budget has been determined for the measurement system and is given in the following Table.

Measurement uncertainty evaluation for IEEE 1528-2013 SAR test

Source of uncertainty	Tolerance/ Uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard Uncertainty ± %, (1 g)	Standard Uncertainty ± %, (10 g)
Measurement system							
Probe calibration	7.5	N	1	1	1	7.5	7.5
Axial Isotropy	4.7	R	√3	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	√3	0	0	0.0	0.0
Boundary effect	1.0	R	√3	1	1	0.6	0.6
Linearity	4.7	R	√3	1	1	2.7	2.7
Detection limits	1.0	R	√3	1	1	0.6	0.6
Modulation response	4.0	R	√3	1	1	2.3	2.3
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	√3	1	1	0.0	0.0
Integration time	0.0	R	√3	1	1	0.0	0.0
RF ambientconditions – noise	1.0	R	√3	1	1	0.6	0.6
RF ambient conditions–reflections	1.0	R	√3	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	√3	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	√3	1	1	3.9	3.9
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	3.9	R	√3	1	1	2.3	2.3
Test sample related							
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Device holder uncertainty	6.3	N	1	1	1	6.3	6.3
Drift of output power	5.0	R	√3	1	1	2.9	2.9
SAR scaling	2.0	R	√3	1	1	1.2	1.2
Phantom and tissue parameters							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	√3	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 measurement	5.5	N	1	0.78	0.71	4.3	3.9
Liquid permittivity measurement	2.9	N	1	0.23	0.26	0.7	0.8
Liquid conductivity—temperature uncertainty	1.7	R	√3	0.78	0.71	0.8	0.7
Liquid permittivity—temperature uncertainty	2.7	R	√3	0.23	0.26	0.4	0.4
Combined standard uncertainty		RSS				12.2	12.0
Expanded uncertainty 95 % confidence interval)						24.3	23.9

APPENDIX B EUT TEST POSITION PHOTOS

Please Refer to the Attachment.

APPENDIX C CALIBRATION CERTIFICATES

Please Refer to the Attachment.

APPENDIX D RETURN LOSS&IMPEDANCE MEASUREMENT

Please Refer to the Attachment.

******* END OF REPORT *******