

SAR EVALUATION REPORT

**FCC 47 CFR § 2.1093
IEEE Std. 1528-2013**

**For
Owly 1**

FCC ID: 2BUZKSL01

Model Name: SL01

**Report Number: 4792100569-1-SAR-1
Issue Date: March 19, 2026**

Prepared for

**SafeOwl, Inc.
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Prepared by

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Revision History

Rev.	Date	Revisions	Revised By
V1.0	March 19, 2026	Initial Issue	\

Note:

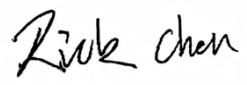
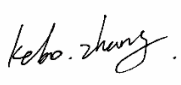
- 1) This test report is only published to and used by the applicant.
- 2) The measurement result for the sample received is <Pass> according to < IEEE Std. 1528>when <Simple Acceptance> decision rule is applied.

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1. Attestation of Test Results

Applicant Name	SafeOwl, Inc.		
Address	8350 N.Central Expwy #1150 Dallas,TX 75206		
Manufacturer	SafeOwl, Inc.		
Address	8350 N.Central Expwy #1150 Dallas,TX 75206		
EUT Name	Owly 1		
Model	SL01		
Brand	/		
Sample Status	Normal		
Sample ID	9427878		
Sample Received Date	February 13, 2026		
Date of Tested	February 13, 2026 ~ March 19, 2026		
Applicable Standards	FCC 47 CFR § 2.1093 IEEE Std. 1528-2013 KDB publications		
SAR Limits (W/Kg)			
Exposure Category	Peak spatial-average (1g of tissue)	Extremities (hands, wrists, ankles, etc.) (10g of tissue)	
General population / Uncontrolled exposure	1.6	4	
Occupational / Controlled exposure	8	20	
The Highest Reported SAR (W/kg)			
RF Exposure Conditions	Equipment Class		
	PCB	DTS	DSS
Next to the Mouth 1g (10mm)	1.238	0.157	0.010
Extremity 10g(0mm)	1.346	0.265	0.019
Simultaneous Transmission (1-g)	1.395		
Simultaneous Transmission (10-g)	1.611		
Test Results	Pass		
Prepared By:  Rick Chen Laboratory Engineer Associate	Reviewed By:  Kebo Zhang Senior Project Engineer	Approved By:  Stephen Guo Laboratory Manager	

2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with IEEE Std.1528-2013, the following FCC Published RF exposure KDB procedures:

- 248227 D01 802.11 Wi-Fi SAR v02
- 447498 D01 General RF Exposure Guidance v06
- 690783 D01 SAR Listings on Grants v01
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01
- 865664 D02 RF Exposure Reporting v01
- 941225 D05 SAR for LTE Devices v02

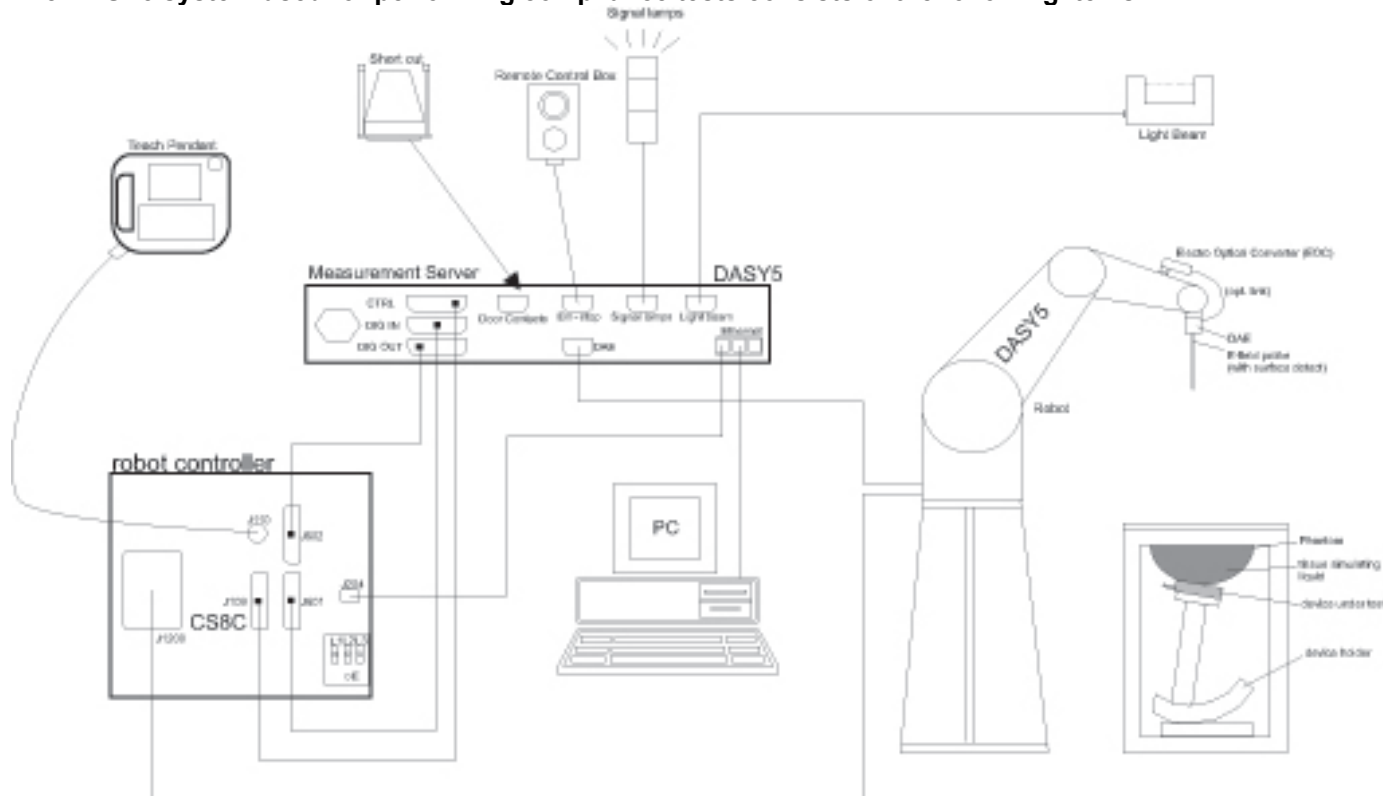
3. Facilities and Accreditation

Test Location	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Address	Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China
Accreditation Certificate	A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules ISED (Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046. VCCI (Registration No.: C-20202, G-20240, R-20248 and T-20202) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch has been assessed and proved to be in compliance with VCCI, the membership No. is 3793. Facility Name: Chamber E, the VCCI registration No. is G-20240 and R-20248 Shielding Room F, the VCCI registration No. is C-20202 and T-20202
Description	All measurement facilities use to collect the measurement data are located at Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China

4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

The DASY5 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 Win7 and the DASY52 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.

4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are 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. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in Db) is specified in the standards for compliance testing. For example, a 2 Db range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 Db is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 v01r04 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 $\pm$ 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2)$ mm $\pm$ 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° $\pm$ 1°	20° $\pm$ 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 $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 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 extracted from KDB 865664 D01 v01r04 SAR Measurement 100 MHz to 6 GHz

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		$\geq 30 \text{ mm}$	$3 - 4 \text{ GHz}: \geq 28 \text{ mm}$ $4 - 5 \text{ GHz}: \geq 25 \text{ mm}$ $5 - 6 \text{ GHz}: \geq 22 \text{ mm}$

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement 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. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan (FCC only)

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be greater than the step size in Z-direction.

4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations and is traceable to recognized national standards.

Name of equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
ENA Network Analyzer	Keysight	E5080A	MY55100583	2026.11.09
Dielectric Probe kit	SPEAG	SM DAK 040 SA	1155	2028.02.26
DC power supply	Keysight	E36103A	MY55350020	2026.11.09
Signal Generator	Rohde & Schwarz	SME06	837633\001	2026.12.25
BI-Directional Coupler	KRYTAR	1850	54733	2026.11.09
Peak and Average Power Sensor	Keysight	E9325A	MY62220002	2026.11.09
Peak and Average Power Sensor	Keysight	E9325A	MY62220003	2026.11.09
Dual Channel PK Power Meter	Keysight	N1912A	MY55416024	2026.11.09
Amplifier	CORAD TECHNOLOGY LTD	AMF-4D-00400600-50-30P	1983561	NCR
Dosimetric E-Field Probe	SPEAG	EX3DV4	7383	2026.03.13
Data Acquisition Electronic	SPEAG	DAE4	1739	2026.09.07
Dipole Kit 750 MHz	SPEAG	D750V3	1153	2027.12.25
Dipole Kit 835 MHz	SPEAG	D835V2	4d206	2027.12.23
Dipole Kit 1800 MHz	SPEAG	D1800V2	2d212	2027.12.25
Dipole Kit 1900 MHz	SPEAG	D1900V2	5d212	2027.12.24
Dipole Kit 2450 MHz	SPEAG	D2450V2	977	2027.12.25
Software	SPEAG	DASY8	N/A	NCR
Twin Phantom	SPEAG	SAM 8.0	2100	NCR
Thermometer	/	GX-138	150709653	2026.09.15
Thermometer	VICTOR	ITHX-SD-5	18470005	2026.09.11

Note:

1) Per KDB865664D01 v01r04 requirements for dipole calibration, the test laboratory has adopted three-year extended calibration interval. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.

- There is no physical damage on the dipole;
- System check with specific dipole is within 10% of calibrated value;
- The most recent return-loss result, measured at least annually, deviates by no more than 20% from the previous measurement.
- The most recent measurement of the real or imaginary parts of the impedance, measured at least annually is within 5Ω from the previous measurement.

2) Network analyzer probe calibration against air, distilled water and a shorting block performed before measuring liquid parameters.

5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, 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. Therefore, the measurement uncertainty is not required.

6. Device Under Test (DUT) Information

6.1. DUT Description

The DUT is a Owly 1 with LTE/IEEE 802.11b/g/n and Bluetooth radio.	
Dimension	Overall (Length x Width x Height): 246.8 mm x 42 mm x 14.95 mm

6.2. Wireless Technology

Wireless technologies	Frequency bands	Operating mode
LTE	FDD Band2 FDD Band4 FDD Band5 FDD Band12 FDD Band13 FDD Band25 FDD Band66 FDD Band71	QPSK 16QAM ☒ Rel. 10 Does not support Carrier Aggregation (CA) ☐ Rel. 10 Carrier Aggregation (Downlink only) ☐ Rel. 11 Carrier Aggregation (2 Uplink and 2 Downlinks)
Wi-Fi	2.4GHz	☒ 802.11b ☒ 802.11g ☒ 802.11n (HT20) ☐ 802.11n (HT40) ☐ 802.11ax (HE20) ☐ 802.11ax (HE40)
BT/BLE	2.4GHz	V4.2

7. Test Configuration

7.1. LTE Test Configuration

Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The R&S CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

0) Spectrum Plots for RB configurations

A properly configured base station simulator was used for LTE output power measurements and SAR testing. Therefore, spectrum plots for RB configurations were not required to be included in this report.

0) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3-6.2.5 under Table 6.2.3-1.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

0) A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by using Network Signaling Value of "NS=01" on the base station simulator.

4) SAR test requirements

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

ii) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in i) are applied to measure the SAR for QPSK with 50% RB allocation.

iii) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in i) and ii) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

iv) Higher order modulations

For each modulation besides QPSK e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ Db higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

B) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ Db higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

According to Figure 4.2-1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below. The count of Uplink subframes are according to Table 4.2-2:

$$\text{Duty cycle} = (30720T_s \cdot \text{Ups} + \text{Uplink Component} \cdot \text{Specials}) / (30720T_s)$$

About the uplink component of Special subframes, we can figure out by Table 4.2-1:

$$\text{Uplink Component} = \text{UpPTS}$$

In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

$$\text{Duty cycle} = [(30720T_s \cdot \text{Ups}) + \text{UpPTS} \cdot \text{Specials}] / (30720T_s)$$

And we can get different Duty cycles under different configurations:

Uplink-downlink configuration	Subframe number			Configuration of special subframe							
				Normal cyclic prefix in downlink				Extended cyclic prefix in downlink			
				Normal cyclic prefix in uplink		Extended cyclic prefix in uplink		Normal cyclic prefix in uplink		Extended cyclic prefix in uplink	
	D	S	U	configuration 0-4	configuration 5-9	configuration 0-4	configuration 5-9	configuration 0-3	configuration 4-7	configuration 0-3	configuration on
0	2	2	6	61.43%	62.85%	61.67%	63.33%	61.43%	62.85%	61.67%	63.33%
1	4	2	4	41.43%	42.85%	41.67%	43.33%	41.43%	42.85%	41.67%	43.33%
2	6	2	2	21.43%	22.85%	21.67%	23.33%	21.43%	22.85%	21.67%	23.33%
3	6	1	3	30.71%	31.43%	30.83%	31.67%	30.71%	31.43%	30.83%	31.67%
4	7	1	2	20.71%	21.43%	20.83%	21.67%	20.71%	21.43%	20.83%	21.67%
5	8	1	1	10.71%	11.43%	10.83%	11.67%	10.71%	11.43%	10.83%	11.67%
6	3	2	5	51.43%	52.85%	51.67%	53.33%	51.43%	52.85%	51.67%	53.33%

For TDD LTE, SAR should be tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7 for Frame structure type 2.

Maximum Output Power for LTE

According to April 2015 TCB workshop, SAR test exclusion can be applied for testing overlapping LTE bands as follows:

- a) The maximum output power for the smaller band must be less than or equal to that of the larger band.
- b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.

LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz)

7.2. Wi-Fi Test Configuration

For Wi-Fi SAR testing, a communication link is set up with the testing software for Wi-Fi mode test. During the test, at each test frequency channel, the EUT is operated at the RF continuous emission mode. The test procedures in KDB 248227D01 are applied.

7.2.1. Initial Test Position Procedure

For exposure condition with multiple test position, such as handsets operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all position in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is $\leq 0.4\text{W/kg}$, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR position until the reported SAR result is $\leq 0.8\text{W/kg}$ or all test position are measured. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is $> 0.8\text{ W/kg}$, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is $\leq 1.2\text{ W/kg}$ or all required channels are tested.

7.2.2. 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 (see section 5.3.2 of KDB 248227D01). SAR test reduction of subsequent highest output test channels is based on the 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 $> 0.8\text{ W/kg}$, SAR measurement is required for the subsequent next highest measured output power channel(s) in the initial test configuration until the reported SAR is $\leq 1.2\text{ W/kg}$ or all required channels are tested.

7.2.3. Sub Test Configuration Procedure

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units.

When the highest reported SAR for the initial test configuration, according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is $\leq 1.2\text{ W/kg}$, SAR is not required for that subsequent test configuration.

7.2.4. 2.4GHz Wi-Fi SAR Test 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 (section 3.1 of KDB 248227D01) for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in 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) 2.4GHz 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 KDB 248227D01). 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.

7.2.5. 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.

7.2.6. 2.4GHz BT/BLE SAR Test Requirements

2.4GHz BT operating modes are tested independently according to the service requirements in each frequency band for each antenna. DH5 / 3DH5 / 1M SISO modes are tested on the maximum average output power mode.

7.2.7. Repeated measurements

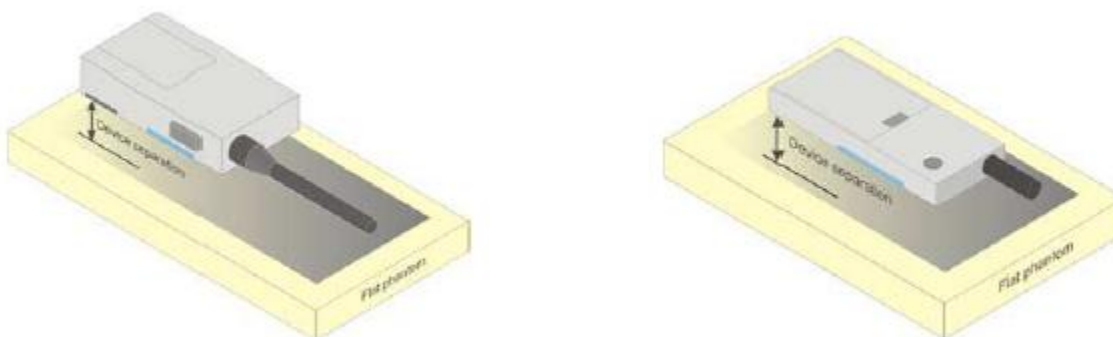
Repeated measurements are required only when the measured SAR is ≥ 0.80 W/kg.¹⁸ If the measured SAR value of the initial repeated measurement is < 1.45 W/kg with $\leq 20\%$ variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. A second repeated measurement is required only if the measured result for the initial repeated measurement is within 10% of the SAR limit and vary by more than 20%, which are often related to device and measurement setup difficulties. The following procedures are applied to determine if repeated measurements are required. The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.¹⁹ The repeated measurement results must be clearly identified in the SAR report. All measured SAR, including the repeated results, must be considered to determine compliance and for reporting according to KDB Publication 690783.

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

8. Description of Test Position

8.1. Next to the Mouth Exposure Condition

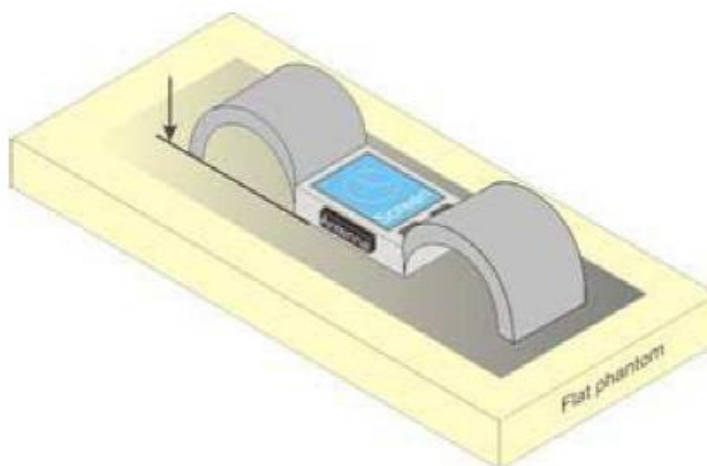
Transmitters that are built-in within a wrist watch or similar wrist-worn devices typically operate in speaker mode for voice communication, with the device worn on the wrist and positioned next to the mouth. When SAR evaluation is required, next to the mouth use is evaluated with the front of the device positioned at 10 mm from a flat phantom filled with head tissue-equivalent medium. The wrist bands should be strapped together to represent normal use conditions.



8.2. Extremity Exposure Condition

A limb-worn device is a unit whose intended use includes being strapped to the arm or leg of the user while transmitting (except in idle mode). The strap shall be opened so that it is divided into two parts as shown in the following. The device shall be positioned directly against the phantom surface with the strap straightened as much as possible and the back of the device towards the phantom. If the strap cannot normally be opened to allow placing in direct contact with the phantom surface, it may be necessary to break the strap of the device but ensuring to not damage the antenna.

The wrist bands should be strapped together to represent normal use conditions. SAR for wrist exposure is evaluated with the back of the device positioned in direct contact against a flat phantom filled with body tissue-equivalent medium. The wrist bands should be unstrapped and touching the phantom. The space introduced by the watch or wrist bands and the phantom must be representative of actual use conditions; otherwise, if applicable, the neck or a curved head region of the SAM phantom may be used, provided the device positioning and SAR probe access issues have been addressed through a KDB inquiry. When other device positioning and SAR measurement considerations are necessary, a KDB inquiry is also required for the test results to be acceptable; for example, devices with rigid wrist bands or electronic circuitry and/or antenna(s) incorporated in the wrist bands. These test configurations are applicable only to devices that are worn on the wrist and cannot support other use conditions; therefore, the operating restrictions must be fully demonstrated in both the test reports and user manuals.



9. Conducted Output Power Measurement and tune-up tolerance

9.1. LTE Band 2

Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				18607	18900	19193	
				Freq. (MHz)			
				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.49	22.47	22.53	24.0
		1	2	22.62	22.53	22.66	
		1	5	22.69	22.80	22.55	
		3	0	22.28	22.33	22.63	24.0
		3	1	22.52	22.64	22.77	
		3	3	22.44	22.76	22.69	
		6	0	21.19	21.32	21.82	23.0
	16QAM	1	0	21.52	21.47	21.50	23.0
		1	2	21.36	21.53	21.54	
		1	5	21.40	21.39	21.68	
		3	0	21.34	21.29	22.00	23.0
		3	1	21.12	20.77	22.14	
		3	3	21.35	21.52	21.73	
		6	0	20.54	20.67	20.71	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				18615	18900	19185	
				Freq. (MHz)			
				1851.5	1880	1908.5	
3	QPSK	1	0	22.36	22.36	22.59	24.0
		1	8	22.41	22.58	22.65	
		1	14	22.41	22.66	22.59	
		8	0	21.42	21.50	21.71	23.0
		8	4	21.31	21.48	21.70	
		8	7	21.25	21.45	21.63	
		15	0	21.38	21.63	21.52	23.0
	16QAM	1	0	21.39	21.40	21.97	23.0
		1	8	21.09	20.77	22.05	
		1	14	21.25	21.60	21.70	
		8	0	20.65	20.72	20.88	22.0
		8	4	20.29	20.54	20.92	
		8	7	20.47	20.51	20.86	
		15	0	20.35	20.53	20.70	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				18625	18900	19175	
				Freq. (MHz)			
				1852.5	1880	1907.5	
5	QPSK	1	0	22.51	22.41	22.77	24.0
		1	12	22.58	22.56	22.90	
		1	24	22.42	22.58	22.59	

		12	0	21.34	21.40	21.63	23.0
		12	6	21.49	21.43	21.58	
		12	13	21.30	21.41	21.56	
		25	0	21.29	21.48	21.67	23.0
	16QAM	1	0	21.23	21.57	21.90	23.0
		1	12	21.23	20.78	21.98	
		1	24	21.48	21.68	21.72	
		12	0	20.52	20.45	20.79	22.0
12		6	20.37	20.66	20.88		
12		13	20.59	20.74	20.86		
25	0	20.50	20.78	20.69	22.0		
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				18650	18900	19150	
				Freq. (MHz)			
				1855	1880	1905	
10	QPSK	1	0	22.39	22.47	22.57	24.0
		1	24	22.33	22.46	22.86	
		1	49	22.70	22.70	22.67	
		25	0	21.23	21.36	21.58	23.0
		25	12	21.39	21.48	21.70	
		25	25	21.30	21.51	21.47	
		50	0	21.34	21.67	21.49	23.0
	16QAM	1	0	21.18	21.36	22.01	23.0
		1	24	21.12	20.76	22.05	
		1	49	21.35	21.55	21.93	
		25	0	20.57	20.70	20.71	22.0
		25	12	20.36	20.60	20.89	
		25	25	20.60	20.57	20.64	
		50	0	20.48	20.66	20.83	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				18675	18900	19125	
				Freq. (MHz)			
				1857.5	1880	1902.5	
15	QPSK	1	0	22.33	22.38	22.61	24.0
		1	38	22.42	22.69	22.82	
		1	74	22.53	22.55	22.50	
		36	0	21.36	21.41	21.71	23.0
		36	18	21.51	21.67	21.58	
		36	37	21.34	21.47	21.41	
		75	0	21.36	21.68	21.65	23.0
	16QAM	1	0	21.21	21.58	21.75	23.0
		1	38	21.19	20.91	21.99	
		1	74	21.34	21.61	21.96	
		36	0	20.59	20.73	20.65	22.0
		36	18	20.55	20.50	20.91	
		36	37	20.37	20.56	20.79	

		75	0	20.36	20.74	20.82	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				18700	18900	19100	
				Freq. (MHz)			
				1860	1880	1900	
20	QPSK	1	0	22.40	22.48	22.63	24.0
		1	49	22.48	22.59	22.76	
		1	99	22.55	22.66	22.57	
		50	0	21.28	21.45	21.68	23.0
		50	25	21.41	21.55	21.63	
		50	50	21.32	21.55	21.53	
		100	0	21.40	21.54	21.57	23.0
	16QAM	1	0	21.33	21.44	21.89	23.0
		1	49	21.10	20.90	22.03	
		1	99	21.39	21.59	21.83	
		50	0	20.51	20.58	20.76	22.0
		50	25	20.41	20.57	20.78	
		50	50	20.49	20.65	20.74	
		100	0	20.41	20.67	20.72	22.0

9.2. LTE Band 4

Bandwidth	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				19957	20175	20393	
				Freq. (MHz)			
				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	22.69	22.87	22.75	24.0
		1	2	22.84	22.96	22.72	
		1	5	23.04	22.89	22.86	
		3	0	22.63	22.60	22.90	24.0
		3	1	22.96	22.88	22.69	
		3	3	22.98	22.69	22.74	
		6	0	21.66	21.66	21.56	23.0
	16QAM	1	0	21.73	21.61	21.54	23.0
		1	2	21.70	21.57	21.79	
		1	5	21.74	21.64	21.56	
		3	0	21.66	21.84	22.10	23.0
		3	1	21.12	21.39	22.25	
		3	3	21.82	21.79	22.09	
		6	0	20.83	20.71	20.90	22.0
Bandwidth	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				19965	20175	20385	
				Freq. (MHz)			
				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.80	22.85	22.76	24.0
		1	8	22.86	22.74	22.96	
		1	14	22.95	22.88	22.83	
		8	0	21.58	21.58	21.53	23.0
		8	4	21.64	21.72	21.78	
		8	7	21.66	21.48	21.66	
		15	0	21.65	21.83	21.57	23.0
	16QAM	1	0	21.58	21.72	21.88	23.0
		1	8	21.33	21.41	22.25	
		1	14	21.71	21.97	22.17	
		8	0	20.59	20.72	20.73	22.0
		8	4	20.67	20.66	20.93	
		8	7	20.70	21.02	20.95	
		15	0	20.88	20.65	21.00	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				19975	20175	20375	
				Freq. (MHz)			
				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.84	22.82	22.88	24.0
		1	12	22.69	23.03	22.68	
		1	24	22.99	22.74	22.72	
		12	0	21.47	21.74	21.70	23.0
		12	6	21.66	21.69	21.61	

	16QAM	12	13	21.76	21.54	21.59	23.0
		25	0	21.68	21.67	21.52	
		1	0	21.63	21.64	21.87	23.0
		1	12	21.29	21.37	22.31	
		1	24	21.73	21.73	22.01	
		12	0	20.65	20.87	20.67	22.0
		12	6	20.71	20.77	21.01	
		12	13	20.80	21.00	21.03	
		25	0	20.75	20.67	21.02	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				20000	20175	20350	
				Freq. (MHz)			
				1715	1732.5	1750	
10	QPSK	1	0	22.67	22.72	22.75	24.0
		1	24	22.71	22.86	22.89	
		1	49	22.88	22.71	22.84	
		25	0	21.46	21.56	21.74	23.0
		25	12	21.49	21.55	21.62	
		25	25	21.57	21.46	21.81	
		50	0	21.70	21.81	21.65	23.0
	16QAM	1	0	21.54	21.83	21.87	23.0
		1	24	21.14	21.51	22.15	
		1	49	21.92	21.79	22.21	
		25	0	20.82	20.88	20.88	22.0
		25	12	20.68	20.80	20.91	
		25	25	20.73	20.76	20.77	
		50	0	20.92	20.83	20.77	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				20025	20175	20325	
				Freq. (MHz)			
				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.82	22.88	22.89	24.0
		1	38	22.71	22.83	22.75	
		1	74	23.00	22.84	22.87	
		36	0	21.43	21.79	21.65	23.0
		36	18	21.50	21.60	21.50	
		36	37	21.66	21.41	21.81	
		75	0	21.62	21.53	21.61	23.0
	16QAM	1	0	21.79	21.67	21.88	23.0
		1	38	21.23	21.41	22.30	
		1	74	21.78	21.76	22.22	
		36	0	20.61	21.00	20.80	22.0
		36	18	20.94	20.85	20.88	
		36	37	20.73	20.84	20.95	
		75	0	20.66	20.77	21.03	22.0
	Modulation	RB size	RB offset	Channel No.			

Bandwidth (MHz)				20050	20175	20300	Tune-up Limit (dBm)
				Freq. (MHz)			
				1720	1732.5	1745	
20	QPSK	1	0	22.69	22.74	22.79	24.0
		1	49	22.83	22.89	22.82	
		1	99	22.90	22.83	22.85	
		50	0	21.54	21.69	21.63	23.0
		50	25	21.64	21.67	21.63	
		50	50	21.61	21.55	21.73	
		100	0	21.61	21.68	21.67	23.0
	16QAM	1	0	21.66	21.72	22.01	23.0
		1	49	21.27	21.36	22.19	
		1	99	21.86	21.86	22.12	
		50	0	20.70	20.87	20.78	22.0
		50	25	20.80	20.78	20.89	
		50	50	20.83	20.87	20.92	
		100	0	20.80	20.71	20.90	22.0

9.3. LTE Band 5

Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				20407	20525	20643	
				Freq. (MHz)			
				824.7	836.5	848.3	
1.4	QPSK	1	0	23.21	22.96	23.02	24.0
		1	2	23.50	23.26	23.07	
		1	5	23.20	22.97	22.78	
		3	0	23.05	23.06	22.86	24.0
		3	1	23.52	23.36	23.07	
		3	3	23.17	22.79	22.85	
		6	0	22.39	22.31	21.79	23.0
	16QAM	1	0	22.29	22.28	21.79	23.0
		1	2	22.35	22.09	22.15	
		1	5	22.12	22.06	22.44	
		3	0	22.10	22.19	21.72	23.0
		3	1	22.13	22.05	22.10	
		3	3	22.06	22.15	22.33	
		6	0	21.39	21.12	20.88	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				20415	20525	20635	
				Freq. (MHz)			
				825.5	836.5	847.5	
3	QPSK	1	0	22.97	22.93	22.87	24.0
		1	8	23.38	23.32	23.26	
		1	14	23.19	22.96	23.01	
		8	0	22.36	22.22	21.94	23.0
		8	4	22.18	22.25	22.21	
		8	7	22.18	22.14	22.33	
		15	0	22.16	21.97	21.96	23.0
	16QAM	1	0	22.35	22.25	22.20	23.0
		1	8	23.16	22.99	23.09	
		1	14	22.19	21.98	22.25	
		8	0	21.53	21.22	20.94	22.0
		8	4	21.36	21.46	21.04	
		8	7	21.29	21.25	21.53	
		15	0	21.47	21.62	21.25	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				20425	20525	20625	
				Freq. (MHz)			
				826.5	836.5	846.5	
5	QPSK	1	0	23.19	23.07	23.11	24.0
		1	12	23.56	23.29	23.34	
		1	24	23.12	23.01	22.83	
		12	0	22.35	22.30	21.75	23.0
		12	6	22.16	22.10	22.29	

		12	13	22.28	22.11	22.37	23.0
		25	0	22.05	22.13	21.94	
	16QAM	1	0	22.25	22.23	22.23	23.0
		1	12	23.14	23.11	22.93	
		1	24	22.27	21.95	22.47	
		12	0	21.31	21.26	20.90	22.0
		12	6	21.21	21.57	20.89	
		12	13	21.26	21.10	21.58	
		25	0	21.39	21.43	21.30	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				20450	20525	20600	
				Freq. (MHz)			
				829	836.5	844	
10	QPSK	1	0	23.09	23.00	22.98	24.0
		1	24	23.43	23.30	23.19	
		1	49	23.08	22.94	22.88	
		25	0	22.25	22.22	21.87	23.0
		25	12	22.25	22.16	22.16	
		25	25	22.17	22.12	22.35	
		50	0	22.10	22.06	21.98	23.0
	16QAM	1	0	22.20	22.21	22.21	23.0
		1	24	23.09	23.11	23.00	
		1	49	22.13	22.06	22.34	
		25	0	21.42	21.15	20.96	22.0
		25	12	21.27	21.46	20.98	
		25	25	21.41	21.19	21.50	
		50	0	21.33	21.51	21.15	22.0

9.4. LTE Band 12

Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				23017	23095	23173	
				Freq. (MHz)			
				699.7	707.5	715.3	
1.4	QPSK	1	0	22.87	22.65	22.91	24.0
		1	2	22.82	22.91	23.05	
		1	5	22.88	22.76	22.93	
		3	0	22.74	22.65	22.70	24.0
		3	1	22.81	22.89	22.90	
		3	3	22.88	22.70	22.92	
		6	0	21.78	21.82	22.14	23.0
	16QAM	1	0	21.56	21.81	22.04	23.0
		1	2	21.92	22.03	21.83	
		1	5	21.94	22.12	21.81	
		3	0	21.58	22.03	22.18	23.0
		3	1	22.11	21.95	22.01	
		3	3	21.92	22.00	22.06	
		6	0	20.84	21.26	20.92	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				23025	23095	23165	
				Freq. (MHz)			
				700.5	707.5	714.5	
3	QPSK	1	0	22.96	22.83	22.78	24.0
		1	8	22.85	23.02	22.96	
		1	14	22.89	22.84	22.90	
		8	0	21.61	21.81	21.92	23.0
		8	4	21.96	22.02	21.83	
		8	7	21.92	22.10	21.89	
		15	0	22.01	22.01	21.81	23.0
	16QAM	1	0	22.66	21.97	22.06	23.0
		1	8	22.56	23.08	22.84	
		1	14	22.49	21.87	22.09	
		8	0	20.93	21.47	20.74	22.0
		8	4	21.21	20.71	20.96	
		8	7	21.29	21.08	20.98	
		15	0	21.13	20.82	20.86	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				23035	23095	23155	
				Freq. (MHz)			
				701.5	707.5	713.5	
5	QPSK	1	0	22.71	22.82	22.85	24.0
		1	12	22.94	22.98	22.87	
		1	24	22.85	22.75	22.87	
		12	0	21.66	21.93	21.90	23.0
		12	6	22.06	22.05	21.89	

		12	13	21.85	22.03	21.94	23.0
		25	0	21.98	21.92	21.99	
	16QAM	1	0	22.56	21.98	22.03	23.0
		1	12	22.65	23.05	22.80	
		1	24	22.57	22.10	21.88	
		12	0	20.99	21.42	20.92	22.0
		12	6	21.16	20.86	20.88	
		12	13	21.38	20.94	21.11	
		25	0	21.11	20.97	20.79	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				23060	23095	23130	
				Freq. (MHz)			
				704	707.5	711	
10	QPSK	1	0	22.82	22.72	22.82	24.0
		1	24	22.92	23.01	23.01	
		1	49	22.84	22.82	22.78	
		25	0	21.69	21.94	22.05	23.0
		25	12	22.01	21.90	21.89	
		25	25	21.84	22.04	21.96	
		50	0	22.05	21.88	21.87	23.0
	16QAM	1	0	22.52	22.02	21.96	23.0
		1	24	22.65	22.93	22.86	
		1	49	22.54	21.96	21.97	
		25	0	20.89	21.37	20.81	22.0
		25	12	21.12	20.75	20.82	
		25	25	21.43	20.97	21.00	
		50	0	21.00	20.89	20.93	22.0

9.5. LTE Band 13

Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				23205	23230	23255	
				Freq. (MHz)			
				779.5	782	784.5	
5	QPSK	1	0	22.70	22.73	22.90	24.0
		1	12	22.87	23.14	23.16	
		1	24	23.28	23.28	23.13	
		12	0	21.82	21.94	21.98	23.0
		12	6	21.88	22.15	22.05	
		12	13	21.99	21.96	22.14	
		25	0	22.15	21.92	21.98	23.0
	16QAM	1	0	21.84	21.88	21.87	23.0
		1	12	22.83	22.85	22.92	
		1	24	21.97	22.13	22.07	
		12	0	20.99	20.95	21.03	22.0
		12	6	21.17	21.33	21.23	
		12	13	21.33	21.33	21.44	
		25	0	21.38	21.41	21.29	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				N/A	23230	N/A	
				Freq. (MHz)			
				N/A	782	N/A	
10	QPSK	1	0	N/A	22.81	N/A	24.0
		1	24	N/A	23.02	N/A	
		1	49	N/A	23.20	N/A	
		25	0	N/A	21.94	N/A	23.0
		25	12	N/A	22.02	N/A	
		25	25	N/A	22.09	N/A	
		50	0	N/A	22.02	N/A	23.0
	16QAM	1	0	N/A	21.81	N/A	23.0
		1	24	N/A	22.84	N/A	
		1	49	N/A	22.03	N/A	
		25	0	N/A	21.09	N/A	22.0
		25	12	N/A	21.32	N/A	
		25	25	N/A	21.33	N/A	
		50	0	N/A	21.31	N/A	22.0

9.6. LTE Band 25

Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				26047	26365	26683	
				Freq. (MHz)			
				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	22.56	22.57	22.85	23.5
		1	2	22.74	22.76	23.07	
		1	5	22.62	22.79	22.55	
		3	0	22.55	22.73	22.77	23.5
		3	1	22.63	22.83	22.83	
		3	3	22.61	22.74	22.82	
		6	0	22.56	21.76	21.53	23.5
	16QAM	1	0	22.54	21.46	21.59	23.5
		1	2	22.52	21.82	21.74	
		1	5	22.54	21.62	21.62	
		3	0	22.48	21.44	21.81	23.5
		3	1	22.70	21.10	22.03	
		3	3	22.76	21.61	21.82	
		6	0	22.67	20.81	20.88	23.5
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				26055	26365	26675	
				Freq. (MHz)			
				1851.5	1882.5	1913.5	
3	QPSK	1	0	22.67	22.52	22.88	23.5
		1	8	22.73	22.66	22.86	
		1	14	22.71	22.78	22.67	
		8	0	22.59	21.74	21.57	23.5
		8	4	22.68	21.74	21.69	
		8	7	22.57	21.91	21.48	
		15	0	22.60	21.52	21.56	23.5
	16QAM	1	0	22.68	21.65	22.04	23.5
		1	8	22.44	21.15	21.98	
		1	14	22.77	21.50	21.96	
		8	0	22.54	20.69	20.90	23.5
		8	4	22.85	20.84	20.83	
		8	7	22.78	21.03	20.69	
		15	0	22.66	20.86	20.68	23.5
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				26065	26365	26665	
				Freq. (MHz)			
				1852.5	1882.5	1912.5	
5	QPSK	1	0	22.64	22.60	22.74	23.5
		1	12	22.71	22.58	22.99	
		1	24	22.75	22.74	22.57	
		12	0	22.70	21.72	21.59	23.5
		12	6	22.45	21.56	21.52	

		12	13	22.69	21.78	21.69	23.5	
		25	0	22.68	21.56	21.58		
		16QAM	1	0	22.76	21.65		22.01
			1	12	22.72	21.12		22.18
	1		24	22.78	21.40	21.77		
	12		0	22.72	20.63	20.64	23.5	
	12		6	22.65	20.71	20.65		
	12	13	22.70	20.87	20.74			
	25	0	22.68	20.57	20.64	23.5		
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)	
				26090	26365	26640		
				Freq. (MHz)				
				1855	1882.5	1910		
10	QPSK	1	0	22.57	22.62	22.71	23.5	
		1	24	22.49	22.76	23.09		
		1	49	22.79	22.70	22.67		
		25	0	22.52	21.69	21.63	23.5	
		25	12	22.52	21.59	21.73		
		25	25	22.61	21.91	21.61		
		50	0	22.66	21.61	21.79	23.5	
	16QAM	1	0	22.62	21.48	22.05	23.5	
		1	24	22.57	21.28	21.98		
		1	49	22.70	21.55	21.94		
		25	0	22.74	20.71	20.86	23.5	
		25	12	22.63	20.88	20.74		
		25	25	22.66	20.78	20.67		
		50	0	22.65	20.59	20.68	23.5	
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)	
				26115	26365	26615		
				Freq. (MHz)				
				1857.5	1882.5	1907.5		
15	QPSK	1	0	22.55	22.52	22.65	23.5	
		1	38	22.64	22.71	22.97		
		1	74	22.53	22.88	22.54		
		36	0	22.48	21.79	21.57	23.5	
		36	18	22.45	21.57	21.61		
		36	37	22.63	21.78	21.47		
		75	0	22.52	21.63	21.51	23.5	
	16QAM	1	0	22.48	21.36	22.07	23.5	
		1	38	22.71	21.05	22.24		
		1	74	22.76	21.34	21.77		
		36	0	22.50	20.60	20.68	23.5	
		36	18	22.71	20.85	20.82		
		36	37	22.83	20.97	20.71		
		75	0	22.66	20.86	20.78	23.5	
	Modulation	RB size	RB offset	Channel No.				

Bandwidth (MHz)				26140	26365	26590	Tune-up Limit (dBm)
				Freq. (MHz)			
				1860	1882.5	1905	
20	QPSK	1	0	22.56	22.63	22.75	23.5
		1	49	22.62	22.71	22.95	
		1	99	22.66	22.85	22.68	
		50	0	22.63	21.68	21.64	23.5
		50	25	22.59	21.61	21.64	
		50	50	22.67	21.81	21.59	
		100	0	22.67	21.52	21.66	23.5
	16QAM	1	0	22.61	21.51	21.94	23.5
		1	49	22.57	21.18	22.12	
		1	99	22.63	21.46	21.82	
		50	0	22.63	20.71	20.75	23.5
		50	25	22.73	20.85	20.79	
		50	50	22.69	20.88	20.75	
		100	0	22.65	20.72	20.73	23.5

9.7. LTE Band 66

Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				131979	132322	132665	
				Freq. (MHz)			
				1710.7	1745	1779.3	
1.4	QPSK	1	0	22.67	22.69	22.60	24.0
		1	2	22.74	22.84	22.91	
		1	5	22.62	22.57	22.53	
		3	0	22.54	22.63	22.75	24.0
		3	1	22.79	22.89	22.82	
		3	3	22.81	22.83	22.45	
		6	0	21.33	21.45	21.71	23.0
	16QAM	1	0	21.53	21.43	21.70	23.0
		1	2	21.58	21.52	21.55	
		1	5	21.41	21.64	21.52	
		3	0	21.32	21.01	22.02	23.0
		3	1	21.29	21.08	22.19	
		3	3	21.68	21.09	21.92	
		6	0	20.50	20.73	20.91	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				131987	132322	132657	
				Freq. (MHz)			
				1711.5	1745	1778.5	
3	QPSK	1	0	22.56	22.70	22.82	24.0
		1	8	22.62	22.68	22.88	
		1	14	22.65	22.83	22.55	
		8	0	21.50	21.56	21.79	23.0
		8	4	21.58	21.43	21.61	
		8	7	21.58	21.62	21.44	
		15	0	21.42	21.50	21.45	23.0
	16QAM	1	0	21.46	21.09	22.01	23.0
		1	8	21.38	20.82	22.10	
		1	14	21.56	21.23	21.79	
		8	0	20.56	20.61	20.87	22.0
		8	4	20.54	20.53	20.73	
		8	7	20.68	20.78	20.84	
		15	0	20.73	20.65	20.69	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				131997	132322	132647	
				Freq. (MHz)			
				1712.5	1745	1777.5	
5	QPSK	1	0	22.42	22.50	22.72	24.0
		1	12	22.79	22.62	23.02	
		1	24	22.83	22.62	22.46	
		12	0	21.46	21.63	21.72	23.0
		12	6	21.46	21.38	21.51	

		12	13	21.64	21.46	21.44	23.0
		25	0	21.57	21.46	21.71	
		16QAM	1	0	21.27	20.95	
	1		12	21.48	20.97	22.24	
	1		24	21.60	21.16	21.85	
	12		0	20.72	20.58	20.94	22.0
	12		6	20.55	20.69	20.89	
	12		13	20.90	20.62	20.62	
	25	0	20.62	20.56	20.81	22.0	
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				132022	132322	132622	
				Freq. (MHz)			
				1715	1745	1775	
10	QPSK	1	0	22.59	22.72	22.80	24.0
		1	24	22.68	22.79	23.03	
		1	49	22.68	22.60	22.62	
		25	0	21.37	21.66	21.81	23.0
		25	12	21.66	21.50	21.51	
		25	25	21.61	21.64	21.45	
		50	0	21.53	21.46	21.63	23.0
	16QAM	1	0	21.51	20.79	21.84	23.0
		1	24	21.22	20.85	22.19	
		1	49	21.73	21.14	21.67	
		25	0	20.69	20.52	20.77	22.0
		25	12	20.46	20.46	20.70	
		25	25	20.89	20.66	20.76	
		50	0	20.74	20.74	20.76	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				132047	132322	132597	
				Freq. (MHz)			
				1717.5	1745	1772.5	
15	QPSK	1	0	22.45	22.70	22.66	24.0
		1	38	22.77	22.68	23.04	
		1	74	22.75	22.81	22.49	
		36	0	21.27	21.49	21.79	23.0
		36	18	21.66	21.47	21.50	
		36	37	21.63	21.65	21.61	
		75	0	21.38	21.40	21.59	23.0
	16QAM	1	0	21.39	20.96	22.03	23.0
		1	38	21.24	21.00	22.19	
		1	74	21.46	20.97	21.91	
		36	0	20.79	20.77	20.87	22.0
		36	18	20.56	20.70	20.73	
		36	37	20.91	20.74	20.68	
		75	0	20.55	20.64	20.61	22.0
	Modulation	RB size	RB offset	Channel No.			

Bandwidth (MHz)				132072	132322	132572	Tune-up Limit (dBm)
				Freq. (MHz)			
				1720	1745	1770	
20	QPSK	1	0	22.53	22.65	22.68	24.0
		1	49	22.70	22.76	22.92	
		1	99	22.71	22.72	22.56	
		50	0	21.39	21.51	21.67	23.0
		50	25	21.57	21.47	21.57	
		50	50	21.50	21.53	21.55	
		100	0	21.49	21.53	21.60	23.0
	16QAM	1	0	21.39	20.94	21.93	23.0
		1	49	21.37	20.96	22.15	
		1	99	21.61	21.09	21.81	
		50	0	20.67	20.63	20.81	22.0
		50	25	20.59	20.61	20.83	
		50	50	20.79	20.71	20.69	
		100	0	20.66	20.65	20.76	22.0

9.8. LTE Band 71

Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				133147	133297	133447	
				Freq. (MHz)			
				665.5	680.5	695.5	
5	QPSK	1	0	23.00	23.40	23.10	24.0
		1	12	23.21	23.04	23.25	
		1	24	23.28	23.10	23.19	
		12	0	22.05	22.06	22.03	23.0
		12	6	21.96	22.18	21.95	
		12	13	22.24	21.71	22.12	
		25	0	21.87	22.15	21.82	23.0
	16QAM	1	0	22.05	21.71	22.44	23.0
		1	12	22.31	22.05	22.12	
		1	24	22.30	21.81	22.32	
		12	0	21.31	20.97	21.41	22.0
		12	6	21.15	21.01	21.27	
		12	13	21.17	21.15	21.15	
		25	0	20.93	20.98	21.30	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				133172	133297	133422	
				Freq. (MHz)			
				668	680.5	693	
10	QPSK	1	0	22.80	23.10	22.95	24.0
		1	24	23.40	23.15	23.15	
		1	49	23.19	23.13	23.18	
		25	0	22.05	21.96	21.87	23.0
		25	12	21.97	21.96	21.94	
		25	25	21.98	21.94	22.12	
		50	0	22.07	22.11	21.92	23.0
	16QAM	1	0	22.02	21.77	22.29	23.0
		1	24	22.27	22.23	21.94	
		1	49	22.23	21.86	22.35	
		25	0	21.20	21.19	21.25	22.0
		25	12	21.08	21.02	21.39	
		25	25	21.04	21.43	21.15	
		50	0	20.96	20.94	21.19	22.0
Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.			Tune-up Limit (dBm)
				133197	133297	133397	
				Freq. (MHz)			
				670.5	680.5	690.5	
15	QPSK	1	0	22.85	23.38	23.12	24.0
		1	38	23.42	23.07	23.06	
		1	74	23.31	23.27	22.98	
		36	0	22.01	21.88	21.80	23.0
		36	18	22.08	22.02	21.86	

		36	37	22.18	21.71	22.04	23.0
		75	0	22.00	21.95	21.87	
	16QAM	1	0	22.02	21.73	22.41	23.0
		1	38	22.22	22.01	21.93	
		1	74	22.32	21.72	22.32	
		36	0	21.26	21.19	21.27	22.0
		36	18	21.21	20.99	21.43	
		36	37	21.11	21.16	21.15	
		75	0	21.01	21.01	21.21	22.0
		Bandwidth (MHz)	Modulation	RB size	RB offset	Channel No.	
133222	133322					133372	
Freq. (MHz)							
673	683					688	
20	QPSK	1	0	22.88	23.25	23.01	24.0
		1	49	23.28	23.19	23.16	
		1	99	23.17	23.25	23.09	
		50	0	21.97	22.02	21.95	23.0
		50	25	21.97	22.05	22.01	
		50	50	22.12	21.85	22.11	
		100	0	21.98	22.03	21.83	23.0
	16QAM	1	0	21.95	21.74	22.34	23.0
		1	49	22.37	22.11	22.02	
		1	99	22.19	21.79	22.27	
		50	0	21.23	21.12	21.37	22.0
		50	25	21.10	20.99	21.28	
		50	50	21.07	21.30	21.30	
		100	0	21.05	21.04	21.28	22.0

9.9. Power measurement result of 2.4GHz Wi-Fi

Mode	Freq(MHz)	AV Output Power (dBm)	Tune-up Limit (dBm)
802.11b	2412	16.73	17.00
	2417	16.85	17.00
	2422	17.41	18.00
	2427	17.61	18.00
	2432	17.83	18.00
	2437	18.33	18.50
	2442	16.34	17.00
	2447	16.70	17.00
	2452	16.38	17.00
	2457	16.52	17.00
	2462	16.71	17.00
802.11g	2412	12.20	13.00
	2417	12.34	13.00
	2422	13.03	14.00
	2427	13.36	14.00
	2432	13.23	14.00
	2437	13.41	14.00
	2442	11.65	12.00
	2447	11.95	12.00
	2452	11.54	12.00
	2457	11.79	12.00
	2462	11.96	12.00
802.11n 20M	2412	11.36	12.00
	2417	11.56	12.00
	2422	12.09	13.00
	2427	12.48	13.00
	2432	12.48	13.00
	2437	12.57	13.00
	2442	10.78	11.00
	2447	11.15	12.00
	2452	10.73	11.00
	2457	10.94	11.00
	2462	10.88	11.00

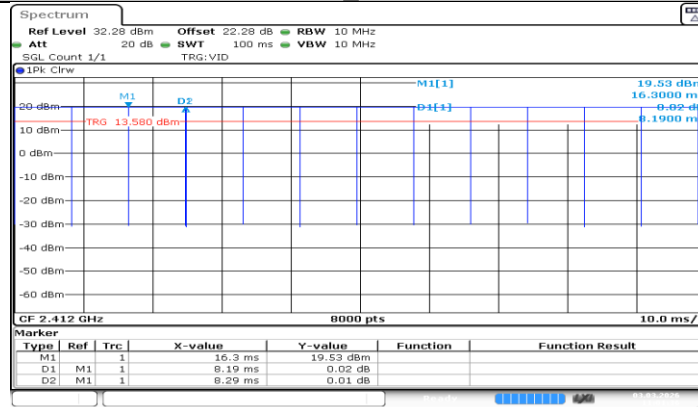
9.10. Power measurement result Bluetooth

Mode	Frequency (MHz)	AV Power (dBm)	Tune-up Limit (dBm)
DH5	2402	5.26	6.00
	2441	5.19	6.00
	2480	5.54	6.00
3DH5	2402	3.78	4.00
	2441	3.46	4.00
	2480	3.81	4.00
BLE_1M	2402	-2.81	-2.00
	2440	-2.65	-2.00
	2480	-2.11	-2.00

9.11. Duty Cycle

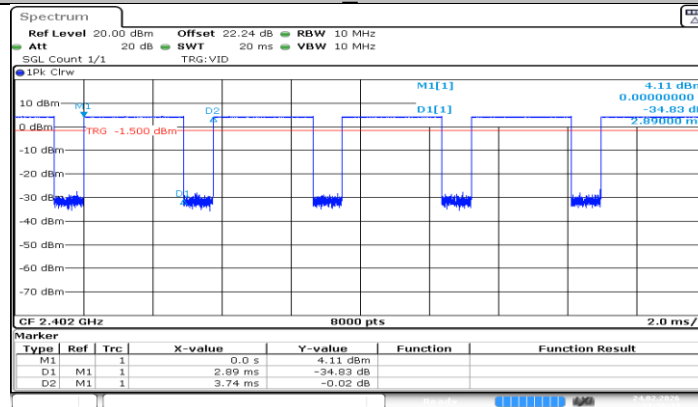
Test Mode	On Time (msec)	Period	Duty Cycle	Duty Cycle
11B	8.19	8.29	0.9879	98.79
DH5	2.89	3.74	0.7727	77.27

802.11b 2412MHz



Date: 3.MAR.2026 11:01:36

BT DH5 2402MHz



Date: 24.FEB.2026 13:36:44

10. Antenna Location

Note:

Refer to the "4792100569-1-SAR-1_Appendix A Photo" for the antenna location diagram.

11. Dielectric Property Measurements & System Check

11.1. Dielectric Property Measurements

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 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

Tissue Dielectric Parameters

FCC KDB 865664 D01 v01r04 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head		Body	
	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5000	36.2	4.45	49.3	5.07
5100	36.1	4.55	49.1	5.18
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5400	35.8	4.86	48.7	5.53
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5700	35.4	5.17	48.3	5.88
5800	35.3	5.27	48.2	6.00

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013 Dielectric Property Measurements Results:

Liquid	Freq.	Liquid Parameters				Deviation(%)		Limit (%)	Temp. (°C)	Test Date
		Measured		Target						
		ϵ_r	σ	ϵ_r	σ	ϵ_r	σ			
Head 750	695	42.700	0.912	42.23	0.89	1.11	2.47	±5	21.1	February 26, 2026
	750	42.100	0.915	41.90	0.89	0.48	2.81			
	790	41.500	0.923	41.73	0.90	-0.55	2.56			
Head 835	805	42.800	0.865	41.66	0.90	2.74	-3.89	±5	21.0	February 27, 2026
	835	42.400	0.894	41.50	0.90	2.17	-0.67			
	905	41.400	0.955	41.41	0.99	-0.02	-3.54			
Head 1800	1720	41.000	1.320	40.13	1.35	2.17	-2.22	±5	21.3	February 28, 2026
	1800	40.300	1.400	40.00	1.40	0.75	0.00			
	1890	39.900	1.450	40.03	1.39	-0.32	4.32			
Head 1900	1850	41.600	1.400	40.00	1.40	4.00	0.00	±5	21.9	March 2, 2026
	1900	41.400	1.410	40.00	1.40	3.50	0.71			
	1920	41.300	1.430	40.00	1.40	3.25	2.14			
Head 2450	2400	40.500	1.820	39.29	1.76	3.08	3.41	±5	21.5	March 3, 2026
	2450	40.600	1.880	39.20	1.80	3.57	4.44			
	2480	40.400	1.910	39.16	1.83	3.17	4.37			

11.2. System Check

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are re-measured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

System Performance Check Measurement Conditions:

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ± 0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- 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.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10mm (above 1GHz) and 15mm (below 1GHz) from dipole center to the simulating liquid surface.
- For area scan, standard grid spacing for head measurements is 15 mm in x- and y- dimension (≤ 2 GHz), 12 mm in x- and y-dimension (2-4 GHz) and 10mm in x- and y- dimension (4-6GHz).
- For zoom scan, $\Delta x_{\text{zoom}}, \Delta y_{\text{zoom}} \leq 2$ GHz - ≤ 8 mm, 2-4GHz - ≤ 5 mm and 4-6 GHz - ≤ 4 mm; $\Delta z_{\text{zoom}} \leq 3$ GHz - ≤ 5 mm, 3-4 GHz - ≤ 4 mm and 4-6GHz - ≤ 2 mm.
- Distance between probe sensors and phantom surface was set to 3 mm except for 5 GHz band. For 5GHz band, Distance between probe sensors and phantom surface was set to 2.5 mm
- The dipole input power (forward power) was set to 100 Mw or 250 Mw depend on the certificate of the dipoles.
- The results are normalized to 1 W input power.

System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

T.S. Liquid		Measured Results		Target (Ref. value)	Delta (%)	Limit (%)	Temp. (°C)	Test Date
		Result of 0.1W input power (W/Kg)	Normalize to 1W (W/Kg)					
Head 750	1-g	0.851	8.51	8.44	0.829384	±10	21.1	February 26, 2026
	10-g	0.581	5.81	5.55	4.684685			
Head 835	1-g	1.010	10.10	9.66	4.554865	±10	21.0	February 27, 2026
	10-g	0.679	6.79	6.29	7.949126			
Head 1800	1-g	3.780	37.80	39.10	-3.32481	±10	21.3	February 28, 2026
	10-g	2.130	21.30	20.60	3.398058			
Head 1900	1-g	3.810	38.10	39.50	-3.5443	±10	21.9	March 2, 2026
	10-g	2.030	20.30	20.60	-1.45631			
Head 2450	1-g	5.260	52.60	52.80	-0.37879	±10	21.5	March 3, 2026
	10-g	2.450	24.50	24.40	0.409836			

12. Measured and Reported (Scaled) SAR Results

General Notes:

- 1) As per KDB447498 D01, all SAR measurement results are scaled to the maximum tune-up tolerance limit to demonstrate SAR compliance.
- 2) As per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - $\leq 0.8 \text{ W/kg}$ for 1-g or 2.0 W/kg for 10-g respectively, when the transmission band is $\leq 100 \text{ MHz}$.
 - $\leq 0.6 \text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4 \text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200 \text{ MHz}$.When the maximum output power variation across the required test channels is $> \frac{1}{2} \text{ Db}$, instead of the middle channel, the highest output power channel must be used.
- 3) As per KDB865664 D01 for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8 \text{ W/Kg}$; if the deviation among the repeated measurement is $\leq 20\%$, and the measured SAR $< 1.45 \text{ W/Kg}$, only one repeated measurement is required.
- 4) As per KDB865664 D02, SAR plot is only required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination; Plots are also required when the measured SAR is $> 1.5 \text{ W/kg}$, or $> 7.0 \text{ W/kg}$ for occupational exposure. The published RF exposure KDB procedures may require additional plots; for example, to support SAR to peak location separation ratio test exclusion and/or volume scan post-processing (Refer to appendix B for detailed SAR plots).
- 5) Additional SAR tests in simultaneous transmission fixed power reduction scenario are also tested in some frequency bands and required test positions for the SAR worst case, which are only used to ensure simultaneous transmission SAR test exclusion. The standalone SAR compliance still uses the SAR results tested at the maximum output power level.

12.1. SAR Test Results of LTE B2

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured		Pwr. Drift	Scaled 1-g (W/kg)
					Tune-up Limit	Meas.	1-g (W/Kg)			
Next to the mouth	20M QPSK 1RB#49	Front Surface	10	19100/1900	24.0	22.76	0.912	-0.05		1.213
Next to the mouth	20M QPSK 1RB#99	Front Surface	10	18700/1860	24.0	22.55	0.885	0.01		1.236
Next to the mouth	20M QPSK 1RB#99	Front Surface	10	18900/1880	24.0	22.66	0.900	-0.03		1.225
Next to the mouth	20M QPSK 50RB#0	Front Surface	10	19100/1900	23.0	21.68	0.751	0.18		1.018
Next to the mouth	20M QPSK 100RB#0	Front Surface	10	19100/1900	23.0	21.57	0.731	0.00		1.016
Worst mode retest										
Next to the mouth	20M QPSK 1RB#49	Front Surface	10	19100/1900	24.0	22.76	0.907	0.06		1.207

Note:

- 1) Due to $0.912/0.907 = 1.006 < 1.20$, and SAR value of original and repeated measurement is ≤ 1.45 W/kg, so only one repeated measurement is required.

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured		Pwr. Drift	Scaled 10-g (W/kg)
					Tune-up Limit	Meas.	10-g (W/Kg)			
Extremity	20M QPSK 1RB#49	Back Surface	0	19100/1900	24.0	22.76	0.951	0.07		1.265
Extremity	20M QPSK 1RB#99	Back Surface	0	18700/1860	24.0	22.55	0.896	0.03		1.251
Extremity	20M QPSK 1RB#99	Back Surface	0	18900/1880	24.0	22.66	0.900	-0.01		1.225
Extremity	20M QPSK 50RB#0	Back Surface	0	19100/1900	23.0	21.68	0.754	0.03		1.022
Extremity	20M QPSK 100RB#0	Back Surface	0	19100/1900	23.0	21.57	0.786	0.01		1.093

12.2. SAR Test Results of LTE B5

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 1-g (W/Kg)	Pwr. Drift	Scaled 1-g (W/kg)
					Tune-up Limit	Meas.			
Next to the mouth	10M QPSK 1RB#24	Front Surface	10	20450/829	24.0	23.43	0.158	-0.04	0.180

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 10-g (W/Kg)	Pwr. Drift	Scaled 10-g (W/kg)
					Tune-up Limit	Meas.			
Extremity	10M QPSK 1RB#24	Back Surface	0	20450/829	24.0	23.43	0.174	-0.06	0.198

12.3. SAR Test Results of LTE B12

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured		Pwr. Drift	Scaled 1-g(W/kg)
					Tune-up Limit	Meas.	1-g (W/Kg)	10-g (W/Kg)		
Next to the mouth	10M QPSK 1RB#24	Front Surface	10	23095/707.5	24.0	23.01	0.190	-0.14	0.239	

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured		Pwr. Drift	Scaled 10-g(W/kg)
					Tune-up Limit	Meas.	10-g (W/Kg)	1-g (W/Kg)		
Extremity	10M QPSK 1RB#24	Back Surface	0	23095/707.5	24.0	23.01	0.258	-0.12	0.324	

12.4. SAR Test Results of LTE B13

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured		Pwr. Drift	Scaled 1-g(W/kg)
					Tune-up Limit	Meas.	1-g (W/Kg)			
Next to the mouth	10M QPSK 1RB#49	Front Surface	10	23230/782	24.0	23.20	0.352		0.02	0.423

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured		Pwr. Drift	Scaled 10-g(W/kg)
					Tune-up Limit	Meas.	10-g (W/Kg)			
Extremity	10M QPSK 1RB#49	Back Surface	0	23230/782	24.0	23.20	0.290		-0.03	0.349

12.5. SAR Test Results of LTE B25

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 1-g (W/Kg)	Pwr. Drift	Scaled 1-g (W/kg)
					Tune-up Limit	Meas.			
Next to the mouth	20M QPSK 1RB#49	Front Surface	10	26590/1905	23.5	22.95	0.921	-0.06	1.045
Next to the mouth	20M QPSK 1RB#99	Front Surface	10	26140/1860	23.5	22.66	1.020	0.05	1.238
Next to the mouth	20M QPSK 1RB#99	Front Surface	10	26365/1882.5	23.5	22.85	1.000	0.10	1.161
Next to the mouth	20M QPSK 50RB50	Front Surface	10	26140/1860	23.5	22.67	0.986	0.01	1.194
Next to the mouth	20M QPSK 100RB#0	Front Surface	10	26140/1860	23.5	22.67	0.991	-0.05	1.200
Worst mode retest									
Next to the mouth	20M QPSK 1RB#99	Front Surface	10	26140/1860	23.5	22.66	1.000	0.16	1.213

Note:

- 2) Due to $1.020/1.000 = 1.02 < 1.20$, and SAR value of original and repeated measurement is ≤ 1.45 W/kg, so only one repeated measurement is required.

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 10-g (W/Kg)	Pwr. Drift	Scaled 10-g (W/kg)
					Tune-up Limit	Meas.			
Extremity	20M QPSK 1RB#49	Back Surface	0	26590/1905	23.5	22.95	0.896	0.03	1.017
Extremity	20M QPSK 50RB50	Back Surface	0	26140/1860	23.5	22.67	1.030	-0.01	1.247
Extremity	20M QPSK 1RB#99	Back Surface	0	26365/1882.5	23.5	22.85	0.962	-0.03	1.117

12.6. SAR Test Results of LTE B66

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 1-g (W/Kg)	Pwr. Drift	Scaled 1-g (W/kg)
					Tune-up Limit	Meas.			
Next to the mouth	20M QPSK 1RB#49	Front Surface	10	132572/1770	24.0	22.92	0.874	0.01	1.121
Next to the mouth	20M QPSK 1RB#99	Front Surface	10	132072/1720	24.0	22.71	0.554	-0.07	0.746
Next to the mouth	20M QPSK 1RB#49	Front Surface	10	132322/1745	24.0	22.76	0.698	0.01	0.929
Next to the mouth	20M QPSK 50RB#0	Front Surface	10	132572/1770	24.0	21.67	0.689	0.02	1.178
Next to the mouth	20M QPSK 100RB#0	Front Surface	10	132572/1770	24.0	21.60	0.677	0.17	1.176
Worst mode retest									
Next to the mouth	20M QPSK 1RB#49	Front Surface	10	132572/1770	24.0	22.92	0.858	0.01	1.100

Note:

- 1) Due to $0.874/0.858 = 1.02 < 1.20$, and SAR value of original and repeated measurement is ≤ 1.45 W/kg, so only one repeated measurement is required.

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 10-g (W/Kg)	Pwr. Drift	Scaled 10-g (W/kg)
					Tune-up Limit	Meas.			
Extremity	20M QPSK 1RB#49	Back Surface	0	132572/1770	24.0	22.92	1.050	0.20	1.346
Extremity	20M QPSK 1RB#99	Back Surface	0	132072/1720	24.0	22.71	0.526	-0.05	0.708
Extremity	20M QPSK 1RB#49	Back Surface	0	132322/1745	24.0	22.76	0.810	0.04	1.078

12.7. SAR Test Results of LTE B71

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 1-g (W/Kg)	Pwr. Drift	Scaled 1-g(W/kg)
					Tune-up Limit	Meas.			
Next to the mouth	20M QPSK 1RB#49	Front Surface	10	133222/673	24.0	23.28	0.095	0.03	0.112

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		Measured 10-g (W/Kg)	Pwr. Drift	Scaled 10-g(W/kg)
					Tune-up Limit	Meas.			
Extremity	20M QPSK 1RB#49	Back Surface	0	133222/673	24.0	23.28	0.124	-0.12	0.146

12.8. SAR Test Results of 2.4G Wi-Fi

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		DC. (%)	Measured	Pwr. Drift	Scaled 1-g(W/kg)
					Tune-up	Meas.		1-g (W/Kg)		
Next to the mouth	802.11 b	Front Surface	10	2437	18.5	18.33	98.79	0.149	0.14	0.157

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		DC. (%)	Measured	Pwr. Drift	Scaled 10-g(W/kg)
					Tune-up	Meas.		10-g (W/Kg)		
Extremity	802.11 b	Back Surface	0	2437	18.5	18.33	98.79	0.252	-0.04	0.265

12.9. SAR Test Results of BT

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		DC. (%)	Measured	Pwr. Drift	Scaled 1-g(W/kg)
					Tune-up	Meas.		1-g (W/Kg)		
Next to the mouth	DH5	Front Surface	10	2480	6.0	5.54	77.27	0.007	0.06	0.010

RF Exposure Condition	Test Mode	Test Position	Dist. (mm)	Channel/Freq.	Pwr. (dBm)		DC. (%)	Measured	Pwr. Drift	Scaled 10-g(W/kg)
					Tune-up	Meas.		10-g (W/Kg)		
Extremity	DH5	Back Surface	0	2480	6.0	5.54	77.27	0.013	0.09	0.019

13. Simultaneous Transmission SAR Analysis

Simultaneous transmission possibilities		
NO	Simultaneous TX Combination	Next to the mouth
1	WWAN+2.4GHz WiFi	Y
2	WWAN+BT	Y

Simultaneous transmission possibilities		
NO	Simultaneous TX Combination	Extremity
1	WWAN+2.4GHz WiFi	Y
2	WWAN+BT	Y

13.1. Simultaneous Transmission SAR Summation

Simultaneous Transmission	Test Position (Next to the mouth)	Summed 1g SARmax (1-g W/kg)						
		LTE Band 2	LTE Band 5	LTE Band 12	LTE Band 13	LTE Band 25	LTE Band 66	LTE Band 71
WWAN+2.4G WiFi	Front Surface	1.393	0.337	0.396	0.580	1.395	1.335	0.269
WWAN+BT	Front Surface	1.246	0.190	0.249	0.433	1.248	1.188	0.122

Simultaneous Transmission	Test Position (Extremity)	Summed 10g SARmax (10-g W/kg)						
		LTE Band 2	LTE Band 5	LTE Band 12	LTE Band 13	LTE Band 25	LTE Band 66	LTE Band 71
WWAN+2.4G WiFi	Back Surface	1.530	0.463	0.589	0.614	1.512	1.611	0.411
WWAN+BT	Back Surface	1.284	0.217	0.343	0.368	1.266	1.365	0.165

Appendixes

Refer to separated files for the following appendixes.

4792100569-1-SAR-1_App A Photo

4792100569-1-SAR-1_App B System Check Plots

4792100569-1-SAR-1_App C Highest Test Plots

4792100569-1-SAR-1_App D Cal. Certificates

-----End of Report-----