## Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 76.02 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 28.5 W/kg

SAR(1 g) = 8.24 W/kg; SAR(10 g) = 2.35 W/kg

Smallest distance from peaks to all points 3 dB below = 6.8 mm

Ratio of SAR at M2 to SAR at M1 = 70.8%

Maximum value of SAR (measured) = 18.8 W/kg

### Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5500 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 75.86 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 32.2 W/kg

SAR(1 g) = 8.56 W/kg; SAR(10 g) = 2.42 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 67.3%

Maximum value of SAR (measured) = 20.1 W/kg

## Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 76.37 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 30.3 W/kg

SAR(1 g) = 8.38 W/kg; SAR(10 g) = 2.38 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 68.5%

Maximum value of SAR (measured) = 19.6 W/kg

#### Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 73.46 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 30.9 W/kg

SAR(1 g) = 8.07 W/kg; SAR(10 g) = 2.28 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 66.6%

Maximum value of SAR (measured) = 19.3 W/kg

#### Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 74.09 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 31.5 W/kg

SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.32 W/kg

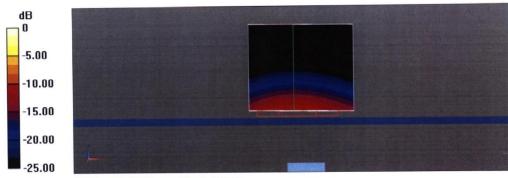
Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 66.5%

Maximum value of SAR (measured) = 19.6 W/kg

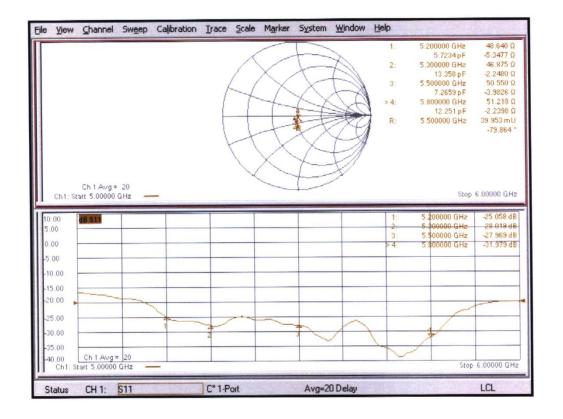
Certificate No: D5GHzV2-1060\_Jun23

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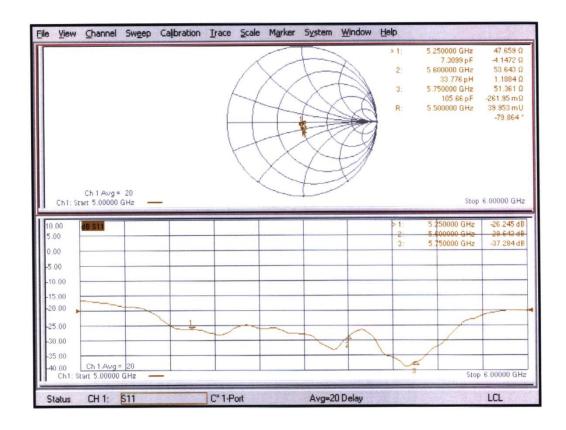


0 dB = 20.1 W/kg = 13.03 dBW/kg

# Impedance Measurement Plot for Head TSL (5200, 5300, 5500, 5800 MHz)



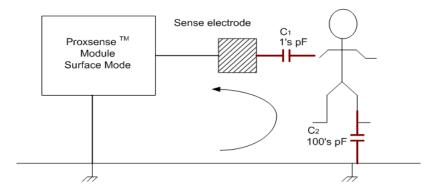
## Impedance Measurement Plot for Head TSL (5250, 5600, 5750 MHz)



## **ANNEX I Sensor Triggering Data Summary**

## **SAR-Sensor mechanism and algorithms**

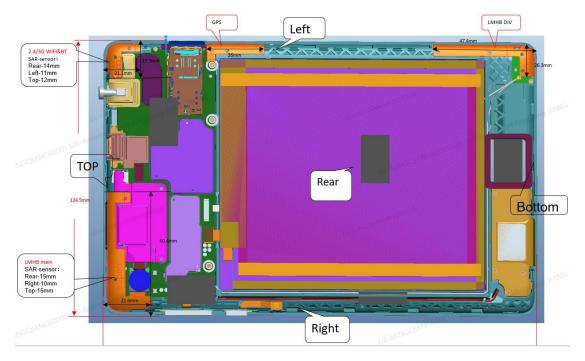
Circuitry measures capacitance of sense electrode (attached to the IC sense pin) relative to ground (Cx). Measurement occurs by continual charging of Cx, discharging into internal reference capacitor (Cs), until trip voltage is reached. Quantity of consecutive charges for Cs to reach trip voltage is counted, and referred to as the current sample. User interaction determined from the current sample deviations from the baseline (long term average or LTA). Use PCB pads to sense a touch or proximity event.



### How Proximity(SAR) Sensor works

Proximity(SAR) Sensor using for reducing RF conductive power when testing Body SAR with 0mm. When user hand or other parts of body close to the antenna within the sensor trigger distance, RF output power will be reduced, the device working with low power, otherwise the device working with normal power.

#### **Sensor location:**



SAR sensor0: LMHB main SAR sensor1: 2.4/5G WIFI

PS: The FPC antenna is the SAR-sensor.

ANT	AT&T Band
LMHB Main	WCDMA B2/4/5, LTE B2/4/5/7/12/14/17/25/26/30/41/66 TRX B29 PRX
LMHB DIV	WCDMA B2/4/5, LTE B2/4/5/7/12/14/17/25/26/29/30/41/66 DRX
2.4/5G WIFI&BT	WIFI 2.4/5G&BT TRX
GPS	GPS RX

#### The distance of the Sensor:

NT Num.		Distance	Remark
INT INGIII.		(mm)	Itemark
Main	Rear	15	
ANT	Тор	15	sensor0
AINI	Right	10	
WIFI	Rear	14	
ANT	Тор	12	sensor1
AINI	Left	11	

Per FCC KDB Publication 616217 D04v01r02, this device was tested by the manufacturer to determine the proximity sensor triggering distances for some positions. The measured output power within  $\pm 5$ mm of the triggering points (or until touching the phantom) is included for front, rear and each applicable edge.

To ensure all production units are compliant it is necessary to test SAR at a distance 1mm less than the smallest distance from the device and SAR phantom (determined from these triggering tests according to the KDB 616217 D04v01r02) with the device at maximum output power without power reduction. These SAR tests are included in addition to the SAR tests for the device touching the SAR phantom, with reduced power.

#### MAIN Ant:

#### Rear

Moving device toward the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 20 19 18 17 16 15 14 13 12 11 10												
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near	

### Moving device away from the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 10 11 12 13 14 15 16 17 18 19 20												
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far	

## Top Edge

Moving device toward the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 20 19 18 17 16 15 14 13 12 11 10												
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near	

## Moving device away from the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 10 11 12 13 14 15 16 17 18 19 20												
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far	

## **Right Edge**

Moving device toward the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 15 14 13 12 11 10 9 8 7 6 5												
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near	

### Moving device away from the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 5 6 7 8 9 10 11 12 13 14 15												
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far	

#### WIFI Ant:

#### Rear

Moving device toward the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 19 18 17 16 15 14 13 12 11 10 9												
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near	

### Moving device away from the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 9 10 11 12 13 14 15 16 17 18 19												
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far	

## Top Edge

Moving device toward the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 17 16 15 14 13 12 11 10 9 8 7												
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near	

## Moving device away from the phantom:

	sensor near or far(KDB 616217 6.2.6)											
Distance [mm] 7 8 9 10 11 12 13 14 15 16 17												
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far	

#### Left Edge

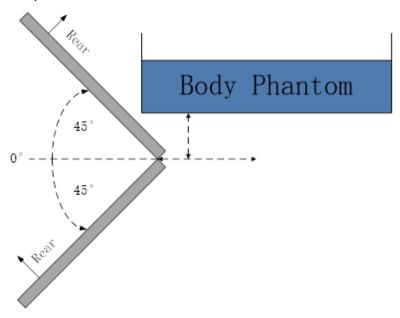
Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	16	15	14	13	12	11	10	9	8	7	6
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

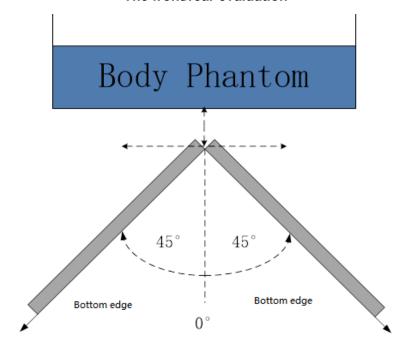
### Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	6	7	8	9	10	11	12	13	14	15	16
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

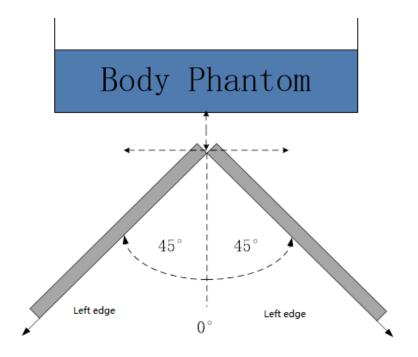
Per FCC KDB Publication 616217 D04v01r02, the influence of table tilt angles to proximity sensor triggering is determined by positioning each edge that contains a transmitting antenna, perpendicular to the flat phantom, at the smallest sensor triggering test distance by rotating the device around the edge next to the phantom in  $\leq 10^{\circ}$  increments until the tablet is  $\pm 45^{\circ}$  or more from the vertical position at  $0^{\circ}$ .



The front/rear evaluation



The top edge evaluation



The Left edge evaluation

Based on the above evaluation, we come to the conclusion that the sensor triggering is not released and normal maximum output power is not restored within the  $\pm 45^{\circ}$  range at the smallest sensor triggering test distance declared by manufacturer.

## **ANNEX J Accreditation Certificate**



# **Accredited Laboratory**

A2LA has accredited

### TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

#### **Electrical Testing**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 26th day of June 2023.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 7049.01 Valid to July 31, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.